

NM OIL CONSERVATION

ARTESIA DISTRICT

JUN 29 2015

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PathFinder – a Schlumberger company Survey Report

CHEVRON U.S.A INC.
WHITE CITY 21 25 27 FED COM #6H
HAY HOLLOW; BONE SPRING, N
API#: 30-015-42976 Rig: Nabors M51
PathFinder Office Supervisor: Qun Xu
PathFinder Field Engineers: T.Cramer

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Tie-in Date: 04/26/2015
Date Completed: 05/12/2015

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT:32.6325295 N LON:104.11485551 W
GRID Reference: NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 542268.0000 Y: 403417.0000
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.50° EAST TO GRID
Vertical Section Plane: 358.91
Survey Vert. Reference: 22.00' Rotary Table To Ground
Altitude: 3127.00' Ground To MSL

Survey Calculations by RX4 using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)	TEMP (F)
ORIGIN OF WELL AT SURFACE.											
0.00	0.00	0.00	0.00	-22.00	0.00	0.00	0.00	0.00@	0.00	0.00	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.											
430.00	0.88	160.41	429.98	407.98	-3.13	3.11 S	1.11 E	3.30@	160.41	0.20	82.95
619.00	0.97	163.48	618.96	596.96	-6.05	6.01 S	2.05 E	6.35@	161.18	0.05	97.41
803.00	1.06	160.84	802.93	780.93	-9.17	9.11 S	3.05 E	9.61@	161.49	0.06	111.87
989.00	1.14	162.72	988.90	966.90	-12.58	12.50 S	4.16 E	13.18@	161.58	0.05	119.09
1179.00	1.14	170.30	1178.86	1156.86	-16.27	16.17 S	5.04 E	16.94@	162.68	0.08	122.71
1370.00	1.23	184.69	1369.82	1347.82	-20.18	20.09 S	5.20 E	20.75@	165.50	0.16	111.87
1560.00	1.85	170.97	1559.75	1537.75	-25.25	25.15 S	5.51 E	25.75@	167.64	0.38	104.64
1656.00	0.18	269.81	1655.73	1633.73	-26.78	26.68 S	5.60 E	27.26@	168.14	1.96	108.25
1847.00	0.26	23.58	1846.73	1824.73	-26.38	26.28 S	5.48 E	26.85@	168.23	0.19	108.25
2037.00	0.35	42.69	2036.73	2014.73	-25.57	25.46 S	6.04 E	26.17@	166.65	0.07	111.87
2233.00	0.26	31.01	2232.73	2210.73	-24.76	24.64 S	6.68 E	25.53@	164.84	0.06	82.95
2424.00	0.26	46.88	2423.72	2401.72	-24.11	23.97 S	7.22 E	25.04@	163.25	0.04	90.18
2615.00	0.26	76.22	2614.72	2592.72	-23.72	23.57 S	7.95 E	24.88@	161.35	0.07	93.80
2806.00	0.09	357.16	2805.72	2783.72	-23.48	23.32 S	8.37 E	24.78@	160.26	0.13	97.41
2996.00	0.18	335.16	2995.72	2973.72	-23.05	22.90 S	8.24 E	24.34@	160.22	0.05	101.02
3187.00	0.18	329.96	3186.72	3164.72	-22.52	22.37 S	7.96 E	23.74@	160.41	0.01	104.64
3377.00	0.09	344.49	3376.72	3354.72	-22.11	21.97 S	7.77 E	23.30@	160.52	0.05	104.64
3568.00	0.09	198.10	3567.72	3545.72	-22.11	21.97 S	7.68 E	23.27@	160.72	0.09	108.25
3758.00	0.09	257.84	3757.72	3735.72	-22.28	22.14 S	7.49 E	23.37@	161.31	0.05	108.25
3949.00	0.18	219.34	3948.72	3926.72	-22.53	22.40 S	7.15 E	23.52@	162.29	0.06	108.25
4139.00	0.26	234.74	4138.72	4116.72	-23.00	22.88 S	6.61 E	23.82@	163.88	0.05	108.25
4330.00	0.26	228.11	4329.71	4307.71	-23.53	23.42 S	5.94 E	24.16@	165.78	0.02	111.87
4521.00	0.18	236.60	4520.71	4498.71	-23.97	23.88 S	5.36 E	24.47@	167.34	0.05	111.87

30-015-42976

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(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)		
4711.00	0.26	235.86	4710.71	4688.71	-24.37	24.28 S	4.76 E	24.74@	168.91	0.04	111.87
4902.00	0.09	327.37	4901.71	4879.71	-24.48	24.40 S	4.32 E	24.78@	169.96	0.14	111.87
4997.00	0.09	48.91	4996.71	4974.71	-24.37	24.29 S	4.33 E	24.67@	169.88	0.12	111.87
5093.00	2.64	168.95	5092.68	5070.68	-26.50	26.41 S	4.81 E	26.84@	169.67	2.80	111.87
5188.00	5.80	170.17	5187.41	5165.41	-33.40	33.29 S	6.05 E	33.83@	169.69	3.33	111.87
5283.00	5.80	170.48	5281.92	5259.92	-42.89	42.75 S	7.67 E	43.43@	169.83	0.03	115.48
5378.00	5.72	172.92	5376.44	5354.44	-52.35	52.18 S	9.04 E	52.96@	170.17	0.27	115.48
5474.00	5.54	173.31	5471.98	5449.98	-61.72	61.53 S	10.17 E	62.37@	170.61	0.19	111.87
5569.00	5.36	174.69	5566.55	5544.55	-70.70	70.51 S	11.12 E	71.38@	171.04	0.23	115.48
5664.00	5.36	175.21	5661.13	5639.13	-79.56	79.35 S	11.90 E	80.23@	171.47	0.05	115.48
5760.00	5.01	172.89	5756.74	5734.74	-88.20	87.97 S	12.79 E	88.90@	171.73	0.42	115.48
5855.00	4.31	175.14	5851.43	5829.43	-95.89	95.65 S	13.61 E	96.61@	171.90	0.76	119.09
5951.00	3.78	172.47	5947.19	5925.19	-102.63	102.38 S	14.33 E	103.38@	172.03	0.59	119.09
6046.00	4.66	179.93	6041.93	6019.93	-109.60	109.34 S	14.74 E	110.33@	172.32	1.09	119.09
6141.00	4.04	176.24	6136.66	6114.66	-116.80	116.54 S	14.97 E	117.50@	172.68	0.72	119.09
6237.00	3.34	182.08	6232.46	6210.46	-122.97	122.71 S	15.09 E	123.63@	172.99	0.83	119.09
6332.00	4.31	179.52	6327.24	6305.24	-129.31	129.04 S	15.02 E	129.92@	173.36	1.04	119.09
6427.00	3.08	181.35	6422.04	6400.04	-135.43	135.17 S	14.99 E	135.99@	173.67	1.30	115.48
6522.00	3.52	181.36	6516.89	6494.89	-140.89	140.63 S	14.86 E	141.42@	173.97	0.46	119.09
6618.00	3.08	173.06	6612.73	6590.73	-146.40	146.14 S	15.10 E	146.92@	174.10	0.68	119.09
6713.00	2.90	174.59	6707.60	6685.60	-151.34	151.07 S	15.64 E	151.87@	174.09	0.21	122.71
6808.00	2.37	174.16	6802.50	6780.50	-155.69	155.41 S	16.06 E	156.24@	174.10	0.56	122.71
6903.00	0.79	209.66	6897.46	6875.46	-158.21	157.94 S	15.94 E	158.74@	174.24	1.88	126.32
6990.00	0.70	222.08	6984.45	6962.45	-159.11	158.85 S	15.28 E	159.58@	174.50	0.21	111.87
7022.00	1.93	336.49	7016.45	6994.45	-158.76	158.50 S	14.94 E	159.20@	174.62	7.22	111.87
7054.00	5.28	344.72	7048.38	7026.38	-156.83	156.59 S	14.34 E	157.24@	174.77	10.57	115.48
7086.00	9.15	355.36	7080.12	7058.12	-152.86	152.63 S	13.74 E	153.25@	174.86	12.74	115.48
7117.00	13.19	356.56	7110.53	7088.53	-146.87	146.64 S	13.33 E	147.24@	174.81	13.05	115.48

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(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)		
7149.00	17.41	355.53	7141.39	7119.39	-138.44	138.22 S	12.74 E	138.80@	174.73	13.21	115.48
7181.00	20.49	355.36	7171.65	7149.65	-128.06	127.86 S	11.91 E	128.41@	174.68	9.63	119.09
7213.00	24.36	355.84	7201.22	7179.22	-115.88	115.69 S	10.98 E	116.21@	174.58	12.11	119.09
7245.00	27.44	356.25	7230.01	7208.01	-101.92	101.75 S	10.02 E	102.24@	174.38	9.64	119.09
7276.00	30.25	356.99	7257.16	7235.16	-86.98	86.82 S	9.14 E	87.30@	173.99	9.14	119.09
7308.00	33.50	357.01	7284.33	7262.33	-70.09	69.95 S	8.26 E	70.43@	173.27	10.16	119.09
7340.00	37.02	357.00	7310.45	7288.45	-51.63	51.50 S	7.29 E	52.02@	171.94	11.00	119.09
7372.00	40.45	356.78	7335.41	7313.41	-31.62	31.51 S	6.20 E	32.12@	168.86	10.73	119.09
7404.00	43.88	356.53	7359.13	7337.13	-10.16	10.07 S	4.95 E	11.22@	153.83	10.73	119.09
7435.00	47.22	356.63	7380.83	7358.83	11.94	12.02 N	3.63 E	12.55@	16.81	10.78	122.71
7467.00	50.56	357.09	7401.87	7379.87	36.04	36.09 N	2.31 E	36.16@	3.66	10.49	122.71
7499.00	54.08	357.45	7421.43	7399.43	61.35	61.38 N	1.11 E	61.39@	1.03	11.04	122.71
7531.00	57.68	358.17	7439.37	7417.37	87.83	87.85 N	0.10 E	87.85@	0.06	11.40	122.71
7562.00	61.11	358.97	7455.15	7433.15	114.51	114.52 N	0.56 W	114.52@	359.72	11.29	122.71
7594.00	64.90	359.28	7469.68	7447.68	143.01	143.02 N	1.00 W	143.02@	359.60	11.88	122.71
7626.00	67.97	359.67	7482.47	7460.47	172.34	172.35 N	1.27 W	172.35@	359.58	9.66	122.71
7657.00	70.52	358.76	7493.45	7471.45	201.33	201.33 N	1.66 W	201.34@	359.53	8.67	122.71
7689.00	73.51	357.33	7503.33	7481.33	231.75	231.74 N	2.71 W	231.76@	359.33	10.27	122.71
7721.00	77.12	357.03	7511.44	7489.44	262.69	262.66 N	4.23 W	262.69@	359.08	11.32	122.71
7753.00	81.60	357.77	7517.35	7495.35	294.12	294.07 N	5.65 W	294.12@	358.90	14.18	126.32
7784.00	85.30	358.43	7520.89	7498.89	324.91	324.84 N	6.67 W	324.91@	358.82	12.12	122.71
7816.00	89.60	358.99	7522.31	7500.31	356.87	356.79 N	7.39 W	356.87@	358.81	13.55	126.32
7848.00	91.80	359.55	7521.92	7499.92	388.86	388.79 N	7.80 W	388.86@	358.85	7.09	126.32
7935.00	94.09	359.38	7517.45	7495.45	475.74	475.66 N	8.61 W	475.74@	358.96	2.64	122.71
8030.00	92.95	359.65	7511.62	7489.62	570.55	570.48 N	9.41 W	570.56@	359.05	1.23	126.32
8126.00	91.71	359.53	7507.71	7485.71	666.47	666.39 N	10.10 W	666.47@	359.13	1.30	126.32
8221.00	88.20	359.44	7507.79	7485.79	761.45	761.38 N	10.96 W	761.45@	359.18	3.70	126.32
8317.00	90.40	359.47	7508.96	7486.96	857.43	857.36 N	11.87 W	857.44@	359.21	2.29	129.94

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(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)	(dg/100ft)	(F)
8412.00	88.81	359.42	7509.62	7487.62	952.42	952.35 N	12.79 W	952.43@	359.23	1.67	126.32
8507.00	91.54	359.27	7509.33	7487.33	1047.41	1047.33 N	13.87 W	1047.42@	359.24	2.88	129.94
8602.00	90.75	359.74	7507.43	7485.43	1142.38	1142.31 N	14.69 W	1142.40@	359.26	0.97	129.94
8697.00	92.07	359.70	7505.09	7483.09	1237.34	1237.28 N	15.16 W	1237.37@	359.30	1.39	133.55
8792.00	91.63	359.37	7502.02	7480.02	1332.29	1332.22 N	15.93 W	1332.32@	359.31	0.58	129.94
8888.00	89.60	359.37	7500.99	7478.99	1428.27	1428.21 N	16.98 W	1428.31@	359.32	2.11	129.94
8983.00	89.78	359.08	7501.51	7479.51	1523.27	1523.20 N	18.27 W	1523.31@	359.31	0.36	133.55
9079.00	88.11	358.47	7503.27	7481.27	1619.25	1619.16 N	20.32 W	1619.28@	359.28	1.85	133.55
9174.00	88.81	358.40	7505.83	7483.83	1714.21	1714.09 N	22.92 W	1714.24@	359.23	0.74	137.17
9269.00	88.20	358.00	7508.31	7486.31	1809.17	1809.01 N	25.90 W	1809.19@	359.18	0.77	137.17
9365.00	90.13	358.05	7509.70	7487.70	1905.14	1904.93 N	29.21 W	1905.16@	359.12	2.01	137.17
9460.00	89.78	358.86	7509.78	7487.78	2000.14	1999.90 N	31.77 W	2000.15@	359.09	0.93	137.17
9555.00	89.87	358.92	7510.07	7488.07	2095.14	2094.88 N	33.61 W	2095.15@	359.08	0.11	137.17
9651.00	89.60	359.27	7510.51	7488.51	2191.14	2190.87 N	35.12 W	2191.15@	359.08	0.46	140.78
9746.00	89.34	359.84	7511.39	7489.39	2286.13	2285.86 N	35.86 W	2286.14@	359.10	0.66	140.78
9841.00	89.78	359.40	7512.12	7490.12	2381.12	2380.85 N	36.49 W	2381.13@	359.12	0.65	140.78
9936.00	92.51	359.17	7510.22	7488.22	2476.09	2475.82 N	37.68 W	2476.10@	359.13	2.88	144.39
10031.00	92.51	358.56	7506.06	7484.06	2571.00	2570.71 N	39.56 W	2571.01@	359.12	0.64	144.39
10127.00	93.21	358.81	7501.27	7479.27	2666.87	2666.56 N	41.76 W	2666.89@	359.10	0.77	140.78
10222.00	91.80	359.17	7497.12	7475.12	2761.78	2761.45 N	43.43 W	2761.80@	359.10	1.53	140.78
10317.00	90.31	359.47	7495.37	7473.37	2856.76	2856.43 N	44.56 W	2856.78@	359.11	1.60	140.78
10412.00	89.87	359.12	7495.22	7473.22	2951.76	2951.42 N	45.73 W	2951.78@	359.11	0.59	144.39
10508.00	90.22	359.67	7495.15	7473.15	3047.75	3047.42 N	46.74 W	3047.77@	359.12	0.68	144.39
10603.00	90.48	359.74	7494.57	7472.57	3142.74	3142.41 N	47.23 W	3142.77@	359.14	0.28	144.39
10699.00	91.28	359.88	7493.09	7471.09	3238.72	3238.40 N	47.55 W	3238.75@	359.16	0.85	144.39
10794.00	92.59	359.45	7489.89	7467.89	3333.65	3333.34 N	48.10 W	3333.69@	359.17	1.45	144.39
10889.00	95.06	358.89	7483.55	7461.55	3428.43	3428.11 N	49.47 W	3428.47@	359.17	2.66	148.01
10985.00	94.79	359.19	7475.31	7453.31	3524.08	3523.74 N	51.08 W	3524.11@	359.17	0.42	144.39

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(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)	(dg/100ft)	(F)
11080.00	92.33	359.08	7469.41	7447.41	3618.89	3618.54 N	52.51 W	3618.92@	359.17	2.59	144.39
11176.00	90.57	358.49	7466.98	7444.98	3714.85	3714.49 N	54.54 W	3714.89@	359.16	1.93	144.39
11271.00	90.75	357.92	7465.88	7443.88	3809.84	3809.43 N	57.52 W	3809.87@	359.13	0.63	144.39
11366.00	90.57	358.50	7464.79	7442.79	3904.82	3904.38 N	60.49 W	3904.85@	359.11	0.64	144.39
11461.00	91.36	358.89	7463.19	7441.19	3999.81	3999.34 N	62.65 W	3999.83@	359.10	0.93	148.01
11557.00	90.57	358.27	7461.57	7439.57	4095.79	4095.30 N	65.03 W	4095.81@	359.09	1.05	144.39
11652.00	90.31	357.96	7460.84	7438.84	4190.78	4190.24 N	68.15 W	4190.80@	359.07	0.43	148.01
11747.00	89.16	357.86	7461.28	7439.28	4285.76	4285.18 N	71.62 W	4285.78@	359.04	1.22	148.01
11842.00	89.96	357.93	7462.01	7440.01	4380.75	4380.11 N	75.11 W	4380.75@	359.02	0.85	148.01
11938.00	90.40	358.47	7461.71	7439.71	4476.74	4476.06 N	78.12 W	4476.74@	359.00	0.72	148.01
12033.00	90.13	358.65	7461.27	7439.27	4571.73	4571.03 N	80.51 W	4571.74@	358.99	0.34	148.01
12128.00	89.87	359.34	7461.27	7439.27	4666.73	4666.01 N	82.18 W	4666.74@	358.99	0.78	148.01
12223.00	92.15	359.60	7459.60	7437.60	4761.71	4760.99 N	83.05 W	4761.71@	359.00	2.42	148.01
STRAIGHT LINE PROJECTION TO BIT AT 12275'MD											
12275.00	92.15	359.60	7457.65	7435.65	4813.67	4812.95 N	83.42 W	4813.67@	359.01	0.00	0.00

MD	TVD	INC	AZI	SECT	RCN	RCE	DLS
feet	feet	deg	deg	feet	feet	feet	deg/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	-999.25
430.00	429.98	0.88	160.41	-3.13	-3.11	1.11	0.20
619.00	618.96	0.97	163.48	-6.05	-6.01	2.05	0.05
803.00	802.93	1.06	160.84	-9.17	-9.11	3.05	0.06
989.00	988.90	1.14	162.72	-12.58	-12.50	4.16	0.05
1179.00	1178.86	1.14	170.30	-16.27	-16.17	5.04	0.08
1370.00	1369.82	1.23	184.69	-20.18	-20.09	5.20	0.16
1560.00	1559.75	1.85	170.97	-25.25	-25.15	5.51	0.38
1656.00	1655.73	0.18	269.81	-26.78	-26.68	5.60	1.96
1847.00	1846.73	0.26	23.58	-26.38	-26.28	5.48	0.19
2037.00	2036.73	0.35	42.69	-25.57	-25.46	6.04	0.07
2233.00	2232.73	0.26	31.01	-24.76	-24.64	6.68	0.06
2424.00	2423.72	0.26	46.88	-24.11	-23.97	7.22	0.04
2615.00	2614.72	0.26	76.22	-23.72	-23.57	7.95	0.07
2806.00	2805.72	0.09	357.16	-23.48	-23.32	8.37	0.13
2996.00	2995.72	0.18	335.16	-23.05	-22.90	8.24	0.05
3187.00	3186.72	0.18	329.96	-22.52	-22.37	7.96	0.01
3377.00	3376.72	0.09	344.49	-22.11	-21.97	7.77	0.05
3568.00	3567.72	0.09	198.10	-22.11	-21.97	7.68	0.09
3758.00	3757.72	0.09	257.84	-22.28	-22.14	7.49	0.05
3949.00	3948.72	0.18	219.34	-22.53	-22.40	7.15	0.06
4139.00	4138.72	0.26	234.74	-23.00	-22.88	6.61	0.05
4330.00	4329.71	0.26	228.11	-23.53	-23.42	5.94	0.02
4521.00	4520.71	0.18	236.60	-23.97	-23.88	5.36	0.05
4711.00	4710.71	0.26	235.86	-24.37	-24.28	4.76	0.04
4902.00	4901.71	0.09	327.37	-24.48	-24.40	4.32	0.14
4997.00	4996.71	0.09	48.91	-24.37	-24.29	4.33	0.12
5093.00	5092.68	2.64	168.95	-26.50	-26.41	4.81	2.80
5188.00	5187.41	5.80	170.17	-33.40	-33.29	6.05	3.33
5283.00	5281.92	5.80	170.48	-42.89	-42.75	7.67	0.03
5378.00	5376.44	5.72	172.92	-52.35	-52.18	9.04	0.27
5474.00	5471.98	5.54	173.31	-61.72	-61.53	10.17	0.19
5569.00	5566.55	5.36	174.69	-70.70	-70.51	11.12	0.23
5664.00	5661.13	5.36	175.21	-79.56	-79.35	11.90	0.05
5760.00	5756.74	5.01	172.89	-88.20	-87.97	12.79	0.42
5855.00	5851.43	4.31	175.14	-95.89	-95.65	13.61	0.76
5951.00	5947.19	3.78	172.47	-102.63	-102.38	14.33	0.59
6046.00	6041.93	4.66	179.93	-109.60	-109.34	14.74	1.09
6141.00	6136.66	4.04	176.24	-116.80	-116.54	14.97	0.72
6237.00	6232.46	3.34	182.08	-122.97	-122.71	15.09	0.83
6332.00	6327.24	4.31	179.52	-129.31	-129.04	15.02	1.04
6427.00	6422.04	3.08	181.35	-135.43	-135.17	14.99	1.30

6522.00	6516.89	3.52	181.36	-140.89	-140.63	14.86	0.46
6618.00	6612.73	3.08	173.06	-146.40	-146.14	15.10	0.68
6713.00	6707.60	2.90	174.59	-151.34	-151.07	15.64	0.21
6808.00	6802.50	2.37	174.16	-155.69	-155.41	16.06	0.56
6903.00	6897.46	0.79	209.66	-158.21	-157.94	15.94	1.88
6990.00	6984.45	0.70	222.08	-159.11	-158.85	15.28	0.21
7022.00	7016.45	1.93	336.49	-158.76	-158.50	14.94	7.22
7054.00	7048.38	5.28	344.72	-156.83	-156.59	14.34	10.57
7086.00	7080.12	9.15	355.36	-152.86	-152.63	13.74	12.74
7117.00	7110.53	13.19	356.56	-146.87	-146.64	13.33	13.05
7149.00	7141.39	17.41	355.53	-138.44	-138.22	12.74	13.21
7181.00	7171.65	20.49	355.36	-128.06	-127.86	11.91	9.63
7213.00	7201.22	24.36	355.84	-115.88	-115.69	10.98	12.11
7245.00	7230.01	27.44	356.25	-101.92	-101.75	10.02	9.64
7276.00	7257.16	30.25	356.99	-86.98	-86.82	9.14	9.14
7308.00	7284.33	33.50	357.01	-70.09	-69.95	8.26	10.16
7340.00	7310.45	37.02	357.00	-51.63	-51.50	7.29	11.00
7372.00	7335.41	40.45	356.78	-31.62	-31.51	6.20	10.73
7404.00	7359.13	43.88	356.53	-10.16	-10.07	4.95	10.73
7435.00	7380.83	47.22	356.63	11.94	12.02	3.63	10.78
7467.00	7401.87	50.56	357.09	36.04	36.09	2.31	10.49
7499.00	7421.43	54.08	357.45	61.35	61.38	1.11	11.04
7531.00	7439.37	57.68	358.17	87.83	87.85	0.10	11.40
7562.00	7455.15	61.11	358.97	114.51	114.52	-0.56	11.29
7594.00	7469.68	64.90	359.28	143.01	143.02	-1.00	11.88
7626.00	7482.47	67.97	359.67	172.34	172.35	-1.27	9.66
7657.00	7493.45	70.52	358.76	201.33	201.33	-1.66	8.67
7689.00	7503.33	73.51	357.33	231.75	231.74	-2.71	10.27
7721.00	7511.44	77.12	357.03	262.69	262.66	-4.23	11.32
7753.00	7517.35	81.60	357.77	294.12	294.07	-5.65	14.18
7784.00	7520.89	85.30	358.43	324.91	324.84	-6.67	12.12
7816.00	7522.31	89.60	358.99	356.87	356.79	-7.39	13.55
7848.00	7521.92	91.80	359.55	388.86	388.79	-7.80	7.09
7935.00	7517.45	94.09	359.38	475.74	475.66	-8.61	2.64
8030.00	7511.62	92.95	359.65	570.55	570.48	-9.41	1.23
8126.00	7507.71	91.71	359.53	666.47	666.39	-10.10	1.30
8221.00	7507.79	88.20	359.44	761.45	761.38	-10.96	3.70
8317.00	7508.96	90.40	359.47	857.43	857.36	-11.87	2.29
8412.00	7509.62	88.81	359.42	952.42	952.35	-12.79	1.67
8507.00	7509.33	91.54	359.27	1047.41	1047.33	-13.87	2.88
8602.00	7507.43	90.75	359.74	1142.38	1142.31	-14.69	0.97
8697.00	7505.09	92.07	359.70	1237.34	1237.28	-15.16	1.39
8792.00	7502.02	91.63	359.37	1332.29	1332.22	-15.93	0.58
8888.00	7500.99	89.60	359.37	1428.27	1428.21	-16.98	2.11

8983.00	7501.51	89.78	359.08	1523.27	1523.20	-18.27	0.36
9079.00	7503.27	88.11	358.47	1619.25	1619.16	-20.32	1.85
9174.00	7505.83	88.81	358.40	1714.21	1714.09	-22.92	0.74
9269.00	7508.31	88.20	358.00	1809.17	1809.01	-25.90	0.77
9365.00	7509.70	90.13	358.05	1905.14	1904.93	-29.21	2.01
9460.00	7509.78	89.78	358.86	2000.14	1999.90	-31.77	0.93
9555.00	7510.07	89.87	358.92	2095.14	2094.88	-33.61	0.11
9651.00	7510.51	89.60	359.27	2191.14	2190.87	-35.12	0.46
9746.00	7511.39	89.34	359.84	2286.13	2285.86	-35.86	0.66
9841.00	7512.12	89.78	359.40	2381.12	2380.85	-36.49	0.65
9936.00	7510.22	92.51	359.17	2476.09	2475.82	-37.68	2.88
10031.00	7506.06	92.51	358.56	2571.00	2570.71	-39.56	0.64
10127.00	7501.27	93.21	358.81	2666.87	2666.56	-41.76	0.77
10222.00	7497.12	91.80	359.17	2761.78	2761.45	-43.43	1.53
10317.00	7495.37	90.31	359.47	2856.76	2856.43	-44.56	1.60
10412.00	7495.22	89.87	359.12	2951.76	2951.42	-45.73	0.59
10508.00	7495.15	90.22	359.67	3047.75	3047.42	-46.74	0.68
10603.00	7494.57	90.48	359.74	3142.74	3142.41	-47.23	0.28
10699.00	7493.09	91.28	359.88	3238.72	3238.40	-47.55	0.85
10794.00	7489.89	92.59	359.45	3333.65	3333.34	-48.10	1.45
10889.00	7483.55	95.06	358.89	3428.43	3428.11	-49.47	2.66
10985.00	7475.31	94.79	359.19	3524.08	3523.74	-51.08	0.42
11080.00	7469.41	92.33	359.08	3618.89	3618.54	-52.51	2.59
11176.00	7466.98	90.57	358.49	3714.85	3714.49	-54.54	1.93
11271.00	7465.88	90.75	357.92	3809.84	3809.43	-57.52	0.63
11366.00	7464.79	90.57	358.50	3904.82	3904.38	-60.49	0.64
11461.00	7463.19	91.36	358.89	3999.81	3999.34	-62.65	0.93
11557.00	7461.57	90.57	358.27	4095.79	4095.30	-65.03	1.05
11652.00	7460.84	90.31	357.96	4190.78	4190.24	-68.15	0.43
11747.00	7461.28	89.16	357.86	4285.76	4285.18	-71.62	1.22
11842.00	7462.01	89.96	357.93	4380.75	4380.11	-75.11	0.85
11938.00	7461.71	90.40	358.47	4476.74	4476.06	-78.12	0.72
12033.00	7461.27	90.13	358.65	4571.73	4571.03	-80.51	0.34
12128.00	7461.27	89.87	359.34	4666.73	4666.01	-82.18	0.78
12223.00	7459.60	92.15	359.60	4761.71	4760.99	-83.05	2.42
12275.00	7457.65	92.15	359.60	4813.67	4812.95	-83.42	-999.25