

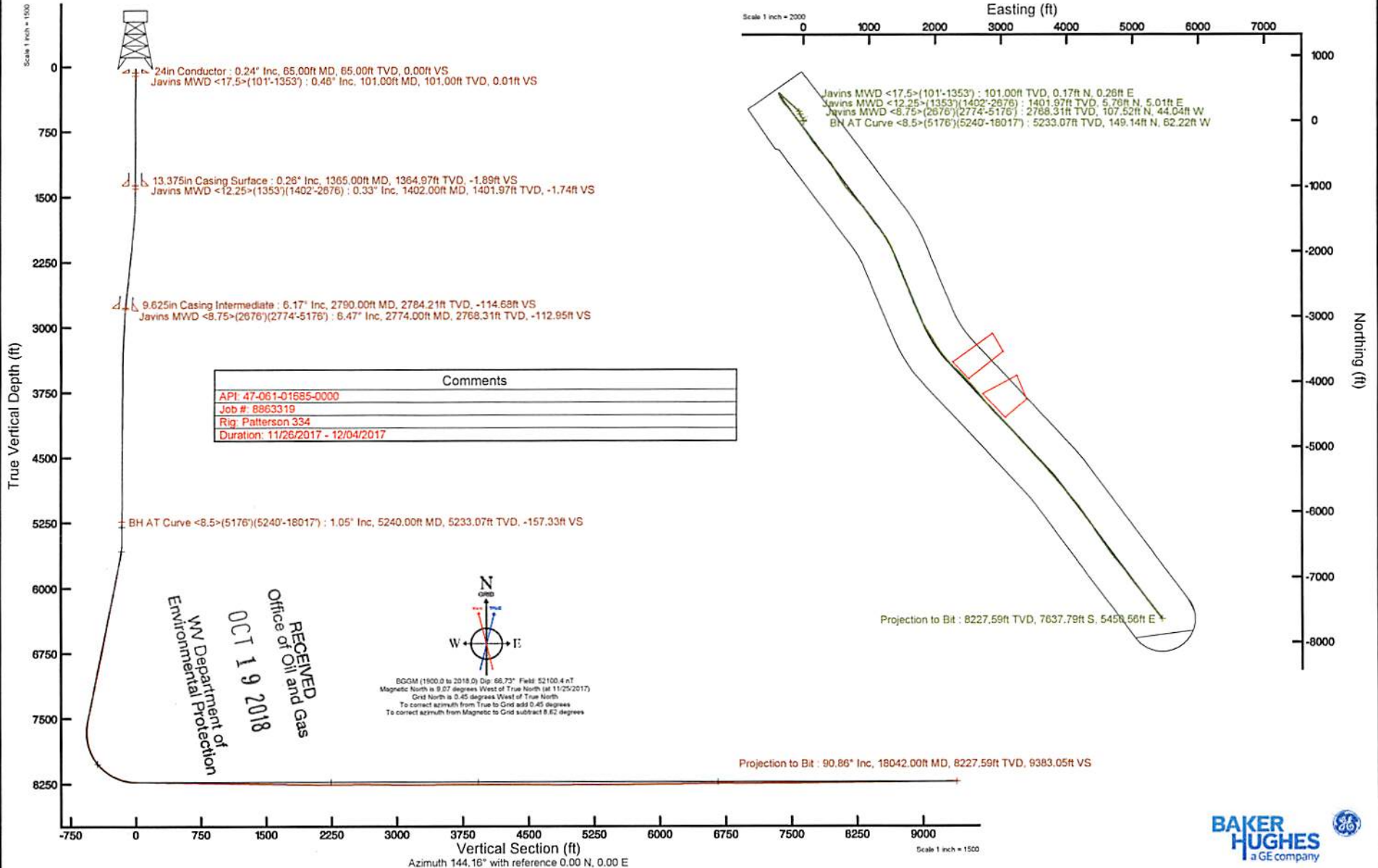
# NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV  
 Field: Monongalia  
 Facility: Coastal Pad

Slot: Slot 04  
 Well: Coastal 4H  
 Wellbore: Coastal 4H PWB



Plot reference wellbore is Coastal 4H PWB #04010	Grid System: NAD83 (Lambert West Virginia SP, Northern Zone 48791), US Feet
True vertical depths are referenced to Reference 334 (RVD)	* = Wellbore was transformed from a different geographic datum
Measured depths are referenced to Reference 334 (RVD)	North Reference: Grid North
Reference 334 (RVD) is Mean Sea Level (MSL)	Scale: True Distance
Mean Sea Level is Ground Level (SL) (SL 28.54) = 1625 feet	Depth are in feet
Coordinates are in feet referenced to MSL	Created by: RHP/ML on 11/11/2014
	Updated: 04/1/2016



Tie/Proj	Measured	Inclination	Azimuth	True	Northing	Easting	DLS	Vertical	Section	Closure	Course	Length	Course	Build Rate	Turn Rate
(ft)	(deg)	(deg)	(deg)	(ft)	(ft)	(ft)	(deg/100ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg/100ft)	(deg/100ft)	(deg/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25.00	0.00	56.81	25.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	0.00	0.00	0.00	227.24
101.00	0.46	56.81	101.00	101.00	0.17	0.26	0.61	0.01	0.01	0.31	76.00	0.61	0.00	0.00	0.00
132.00	0.30	54.52	132.00	132.00	0.28	0.43	0.52	0.02	0.02	0.51	31.00	0.51	-0.52	-7.39	106.96
160.00	0.29	84.47	160.00	160.00	0.33	0.56	0.55	0.06	0.06	0.65	28.00	0.04	-0.04	-106.96	150.62
189.00	0.50	40.79	189.00	189.00	0.43	0.71	1.22	0.06	0.06	0.83	29.00	0.72	0.00	-150.62	10.29
217.00	0.26	43.67	217.00	217.00	0.57	0.84	0.86	0.02	0.02	1.01	28.00	0.86	0.00	10.29	246.00
246.00	0.57	73.27	246.00	246.00	0.66	1.02	1.27	0.06	0.06	1.21	29.00	1.07	0.00	102.07	9.85
280.00	0.47	69.92	279.99	279.99	0.76	1.31	1.52	0.15	0.15	1.52	34.00	1.21	-0.29	9.85	113.23
311.00	0.65	34.82	310.99	310.99	0.95	1.53	1.22	0.13	0.13	1.80	31.00	0.58	0.00	113.23	19.90
373.00	0.54	1.06	372.99	372.99	1.48	1.84	1.25	-0.12	-0.12	2.36	31.00	-0.16	-0.16	-128.81	116.81
405.00	0.49	38.44	404.99	404.99	1.74	2.07	1.94	-0.36	-0.36	2.84	31.00	-0.16	-0.16	-27.26	16.90
447.00	0.44	29.99	445.99	445.99	1.94	2.27	2.07	-0.36	-0.36	3.03	31.00	-0.52	-0.52	-55.61	55.29
476.00	0.28	35.23	466.99	466.99	2.11	2.18	0.53	-0.43	-0.43	3.03	31.00	-0.52	-0.52	-55.61	16.90
498.00	0.27	17.99	497.99	497.99	2.24	2.24	0.27	-0.50	-0.50	3.17	31.00	-0.03	-0.03	-55.61	55.29
529.00	0.39	35.13	528.99	528.99	2.39	2.33	0.50	-0.58	-0.58	3.34	31.00	0.39	0.00	55.29	114.62
561.00	0.42	71.81	560.99	560.99	2.52	2.50	0.80	-0.58	-0.58	3.55	32.00	0.09	0.00	114.62	-107.65
592.00	0.61	38.44	591.98	591.98	2.69	2.71	1.12	-0.59	-0.59	3.82	31.00	0.61	0.00	-107.65	12.61
623.00	0.51	42.35	622.98	622.98	2.92	2.91	0.35	-0.66	-0.66	4.12	31.00	0.32	-0.19	8.42	94.55
655.00	0.33	35.28	654.98	654.98	3.22	3.27	1.52	-0.74	-0.74	4.74	31.00	-0.19	-0.19	-262.32	0.37
685.00	0.39	74.21	684.98	684.98	3.34	3.36	1.52	-0.74	-0.74	4.74	31.00	-0.19	-0.19	-262.32	0.37
716.00	0.33	35.28	715.98	715.98	3.34	3.36	1.52	-0.74	-0.74	4.74	31.00	-0.19	-0.19	-262.32	0.37
748.00	0.49	35.01	747.98	747.98	3.56	3.34	0.50	-0.94	-0.94	4.88	32.00	0.50	0.00	0.37	46.23
779.00	0.15	338.68	778.98	778.98	3.73	3.30	1.12	-1.09	-1.09	4.99	31.00	-1.10	-1.10	46.23	4.58
810.00	0.37	337.26	809.98	809.98	3.86	3.25	0.71	-1.23	-1.23	5.05	31.00	0.71	0.00	4.58	146.74
841.00	0.44	22.75	840.98	840.98	4.07	3.26	1.03	-1.39	-1.39	5.21	31.00	0.23	0.00	146.74	-54.39
872.00	0.11	5.89	871.98	871.98	4.20	3.31	1.08	-1.47	-1.47	5.35	31.00	-1.06	-1.06	-54.39	68.03
903.00	0.41	26.98	902.98	902.98	4.33	3.36	1.00	-1.54	-1.54	5.48	31.00	0.97	0.00	68.03	-126.03
934.00	0.12	347.91	933.98	933.98	4.46	3.40	1.05	-1.63	-1.63	5.61	31.00	-0.94	-0.94	-126.03	0.28
966.00	0.22	348.00	965.98	965.98	4.56	3.38	0.31	-1.71	-1.71	5.68	32.00	0.31	0.00	0.28	-13.42
997.00	0.21	343.84	996.98	996.98	4.67	3.36	0.06	-1.82	-1.82	5.75	31.00	-0.03	-0.03	-13.42	89.74
1028.00	0.11	1027.98	1027.98	1027.98	4.75	3.35	0.40	-1.89	-1.89	5.81	31.00	-0.32	-0.32	89.74	128.35
1059.00	0.34	1058.98	1058.98	1058.98	4.84	3.42	0.85	-1.92	-1.92	5.93	31.00	0.74	0.00	128.35	75.06
1090.00	0.27	1089.98	1089.98	1089.98	4.92	3.57	0.45	-1.90	-1.90	6.07	31.00	-0.23	-0.23	75.06	101.03
1121.00	0.32	1120.98	1120.98	1120.98	5.02	3.65	1.08	-1.94	-1.94	6.21	31.00	0.16	0.00	101.03	70.03
1152.00	0.12	1151.98	1151.98	1151.98	5.14	3.67	0.69	-2.01	-2.01	6.31	31.00	-0.65	-0.65	70.03	101.03
1184.00	0.47	1183.97	1183.97	1183.97	5.23	3.80	1.17	-2.01	-2.01	6.47	32.00	1.09	1.09	101.03	12.29
1215.00	0.41	1214.97	1214.97	1214.97	5.34	4.01	0.22	-1.98	-1.98	6.68	31.00	-0.19	-0.19	12.29	1246.00
1246.00	0.50	1245.97	1245.97	1245.97	5.45	4.23	0.29	-1.94	-1.94	6.90	31.00	0.29	0.00	1246.00	1713.83
1277.00	0.50	1276.97	1276.97	1276.97	5.62	4.43	0.74	-1.96	-1.96	7.16	31.00	0.00	0.00	1277.00	332.72
1308.00	0.22	1307.97	1307.97	1307.97	5.74	4.57	1.25	-1.97	-1.97	7.34	31.00	-0.90	-0.90	1308.00	331.13
1340.00	0.35	1339.97	1339.97	1339.97	5.78	4.72	0.49	-1.92	-1.92	7.47	32.00	0.41	0.00	1340.00	1681.89
1373.00	0.29	1352.97	1352.97	1352.97	5.81	4.79	0.47	-1.91	-1.91	7.53	13.00	-0.46	-0.46	20.08	1650.93
1402.00	0.33	1401.97	1401.97	1401.97	5.76	5.01	0.67	-1.74	-1.74	7.64	49.00	0.08	0.08	130.04	1619.95
1433.00	0.49	1432.97	1432.97	1432.97	5.59	5.14	0.68	-1.52	-1.52	7.59	31.00	0.52	0.52	63.29	1619.95
1464.00	0.26	1463.97	1463.97	1463.97	5.40	5.21	0.88	-1.33	-1.33	7.50	31.00	-0.74	-0.74	63.29	1557.96
1495.00	0.54	1494.97	1494.97	1494.97	5.19	5.23	0.90	-1.14	-1.14	7.37	31.00	0.90	0.00	1495.00	1525.97
1526.00	0.51	1525.97	1525.97	1525.97	5.09	5.12	2.92	-1.13	-1.13	7.22	31.00	-0.10	-0.10	383.65	1494.97
1558.00	0.94	1557.96	1557.96	1557.96	5.31	4.78	1.47	-1.50	-1.50	7.15	32.00	1.34	1.34	48.75	1473.83
1589.00	1.22	1588.96	1588.96	1588.96	5.77	4.45	1.97	-2.07	-2.07	7.29	31.00	0.90	0.90	94.81	1454.97
1620.00	1.66	1619.95	1619.95	1619.95	6.49	4.15	1.42	-2.83	-2.83	7.70	31.00	1.42	1.42	2.26	1443.83
1651.00	2.35	1650.93	1650.93	1650.93	7.45	3.66	2.34	-3.90	-3.90	8.30	31.00	2.23	2.23	-21.23	1428.83
1682.00	3.43	1681.89	1681.89	1681.89	8.81	3.49	3.49	-5.45	-5.45	9.28	31.00	3.48	3.48	3.29	1410.73
1714.00	3.62	332.72	1713.83	1713.83	10.55	1.97	0.67	-7.40	-7.40	10.73	32.00	0.59	0.59	4.97	1400.00

Company:	Baker Hughes, a GE Company	Long:	80° 12' 16.321" W	Mag Declination:	9.07 (deg) W	Mag Ref:	BGM	Customer/Operator:	Northeast Natural	Lat:	39° 42' 20.31" N	BT:	52100 (mT)	DIP:	66.73 (deg)	Mag Corr:	OFF	Well:	Coastal 4H	TAC:	-8.62 (deg)	VerSecAz:	144.16 (deg)	Rig Name:	Patterson 334	Mag Declination:	9.07 (deg) W	Ref North:	Grid	Date Range:	11/25/2017 - 12/4/2017	Rig E/W/Dat:	25.00 (ft) / GL	Wellbore:	Coastal 4H
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1745.00	4.31	338.12	1744.76	12.50	1.08	2.53	-9.50	12.55	31.00	2.23	17.42
1776.00	5.09	335.58	1775.65	14.83	0.08	2.60	-11.98	14.84	31.00	2.52	-8.19
1807.00	5.24	334.42	1806.53	17.36	-1.10	0.59	-14.72	17.40	31.00	0.48	-3.74
1838.00	5.42	336.63	1837.39	19.98	-2.29	0.88	-17.54	20.12	31.00	0.58	7.13
1870.00	5.61	338.13	1869.24	22.82	-3.47	0.75	-20.54	23.09	32.00	0.59	4.69
1901.00	6.04	336.13	1900.08	25.72	-4.70	1.53	-23.60	26.15	31.00	1.39	-6.45
1932.00	6.18	338.09	1930.91	28.76	-5.98	0.81	-26.82	29.38	31.00	0.45	6.32
1963.00	5.54	334.81	1961.74	31.66	-7.24	2.33	-29.91	32.48	31.00	-2.06	-10.58
1995.00	5.24	337.12	1993.60	34.41	-8.47	1.16	-32.85	35.43	32.00	-0.94	7.22
2026.00	5.12	332.41	2024.48	36.94	-9.66	1.42	-35.60	38.18	31.00	-0.39	-15.19
2057.00	5.19	331.37	2055.35	39.39	-10.97	0.38	-38.36	40.89	31.00	0.23	-3.35
2088.00	5.47	333.69	2086.22	41.95	-12.30	1.14	-41.21	43.71	31.00	0.90	7.48
2120.00	5.55	332.95	2118.07	44.69	-13.68	0.33	-44.24	46.74	32.00	0.25	-2.31
2151.00	6.00	330.03	2148.91	47.43	-15.17	1.73	-47.33	49.80	31.00	1.45	-9.42
2182.00	6.05	330.16	2179.74	50.25	-16.79	0.17	-50.57	52.98	31.00	0.16	0.42
2213.00	6.45	326.67	2210.56	53.13	-18.56	1.78	-53.93	56.27	31.00	1.29	-11.26
2244.00	6.58	329.05	2241.36	56.10	-20.43	0.97	-57.44	59.71	31.00	0.42	7.68
2276.00	6.20	329.94	2273.16	59.17	-22.24	1.23	-60.99	63.21	32.00	-1.19	2.78
2307.00	6.04	329.73	2303.98	62.03	-23.90	0.52	-64.28	66.47	31.00	-0.52	-0.68
2338.00	6.00	329.71	2334.81	64.84	-25.54	0.13	-67.51	69.68	31.00	-0.13	-0.06
2369.00	5.89	332.55	2365.64	67.65	-27.09	1.01	-70.70	72.87	31.00	-0.35	9.16
2400.00	5.47	334.85	2396.49	70.40	-28.45	1.54	-73.72	75.93	31.00	-1.35	7.42
2431.00	5.91	336.51	2427.34	73.20	-29.71	1.52	-76.74	79.00	31.00	1.42	5.35
2463.00	6.20	335.91	2459.16	76.29	-31.07	0.93	-80.04	82.37	32.00	0.91	-1.87
2494.00	6.61	334.78	2489.97	79.43	-32.52	1.38	-83.43	85.83	31.00	1.32	-3.65
2525.00	6.67	336.20	2520.76	82.69	-34.00	0.56	-86.94	89.41	31.00	0.19	4.58
2556.00	6.76	337.14	2551.55	86.02	-35.44	0.46	-90.48	93.03	31.00	0.29	3.03
2588.00	6.23	337.52	2583.34	89.36	-36.84	1.66	-94.01	96.65	32.00	-1.66	1.19
2619.00	6.25	339.88	2614.16	92.50	-38.06	0.83	-97.27	100.02	31.00	0.06	7.61
2650.00	5.84	339.99	2644.98	95.56	-39.18	1.32	-100.41	103.28	31.00	-1.32	0.35
2676.00	5.62	339.96	2670.85	98.00	-40.07	0.85	-102.91	105.88	26.00	-0.85	-0.12
2774.00	6.47	335.08	2768.31	107.52	-44.04	1.01	-112.95	116.19	98.00	0.87	-4.98
2805.00	5.89	334.73	2799.13	110.54	-45.45	1.87	-116.22	119.52	31.00	-1.87	-1.13
2836.00	4.68	337.22	2830.00	113.14	-46.62	3.97	-119.02	122.37	31.00	-3.90	8.03
2868.00	3.90	340.23	2861.91	115.37	-47.50	2.54	-121.34	124.77	32.00	-2.44	9.41
2899.00	3.50	342.46	2892.84	117.27	-48.14	1.37	-123.25	126.76	31.00	-1.29	7.19
2930.00	3.72	337.60	2923.78	119.10	-48.81	1.22	-125.13	128.71	31.00	0.71	-15.68
2961.00	3.72	340.49	2954.72	120.98	-49.53	0.60	-127.07	130.72	31.00	0.00	9.32
2992.00	3.48	337.00	2985.65	122.79	-50.23	1.05	-128.95	132.67	31.00	-0.77	-11.26
3024.00	3.44	340.46	3017.60	124.59	-50.93	0.66	-130.82	134.60	32.00	-0.12	10.81
3055.00	3.60	336.33	3048.54	126.36	-51.63	0.97	-132.66	136.50	31.00	0.52	-13.32
3086.00	3.68	336.44	3079.47	128.16	-52.42	0.26	-134.59	138.47	31.00	0.26	0.35
3117.00	3.34	339.42	3110.42	129.92	-53.14	1.24	-136.43	140.36	31.00	-1.10	9.61
3148.00	3.59	339.56	3141.36	131.67	-53.79	0.81	-138.24	142.24	31.00	0.81	0.45
3179.00	2.88	339.37	3172.31	133.31	-54.40	2.29	-139.92	143.98	31.00	-2.29	-0.61
3211.00	2.61	340.83	3204.27	134.75	-54.93	0.87	-141.40	145.52	32.00	-0.84	4.56
3242.00	2.72	341.71	3235.24	136.12	-55.39	0.38	-142.78	146.95	31.00	0.35	2.84
3273.00	2.21	336.17	3266.21	137.36	-55.86	1.81	-144.06	148.29	31.00	-1.65	-17.87
3304.00	1.56	341.99	3297.19	138.31	-56.23	2.18	-145.05	149.30	31.00	-2.10	18.77
3335.00	1.39	345.46	3328.18	139.07	-56.46	0.62	-145.80	150.10	31.00	-0.55	11.19
3367.00	1.39	345.07	3360.17	139.83	-56.66	0.03	-146.52	150.87	32.00	0.00	-1.22
3398.00	0.99	344.83	3391.17	140.45	-56.82	1.29	-147.13	151.51	31.00	-1.29	-0.77
3429.00	0.57	9.11	3422.17	140.86	-56.87	1.70	-147.49	151.90	31.00	-1.35	78.32
3460.00	0.48	33.33	3453.16	141.12	-56.77	0.77	-147.64	152.11	31.00	-0.29	78.13
3491.00	0.36	352.90	3484.16	141.32	-56.71	1.00	-147.77	152.28	31.00	-0.39	-130.42
3522.00	0.30	332.66	3515.16	141.49	-56.76	0.42	-147.94	152.45	31.00	-0.19	-65.29
3553.00	0.18	10.83	3546.16	141.61	-56.79	0.62	-148.05	152.58	31.00	-0.39	123.13
3585.00	0.47	268.92	3578.16	141.66	-56.91	1.68	-148.16	152.66	32.00	0.91	-318.47
3616.00	0.54	290.73	3609.16	141.71	-57.18	0.66	-148.36	152.81	31.00	0.23	70.35
3647.00	0.74	251.29	3640.16	141.70	-57.50	1.52	-148.54	152.92	31.00	0.65	-127.23
3678.00	0.53	271.10	3671.16	141.63	-57.84	0.97	-148.68	152.99	31.00	-0.68	63.90
3709.00	0.45	301.79	3702.16	141.70	-58.08	0.87	-148.88	153.14	31.00	-0.26	99.00
3740.00	0.50	295.00	3733.16	141.82	-58.31	0.24	-149.11	153.34	31.00	0.16	-21.90
3772.00	0.56	296.40	3765.15	141.95	-58.58	0.19	-149.37	153.56	32.00	0.19	4.37
3803.00	0.72	297.30	3796.15	142.11	-58.88	0.52	-149.68	153.82	31.00	0.52	2.90
3834.00	0.58	318.20	3827.15	142.31	-59.16	0.88	-150.01	154.12	31.00	-0.45	67.42
3865.00	0.25	294.76	3858.15	142.46	-59.33	1.18	-150.22	154.32	31.00	-1.06	-75.61
3897.00	0.32	324.40	3890.15	142.56	-59.44	0.50	-150.37	154.46	32.00	0.22	92.62
3928.00	0.18	352.21	3921.15	142.68	-59.50	0.59	-150.50	154.59	31.00	-0.45	89.71
3959.00	0.22	337.50	3952.15	142.78	-59.53	0.21	-150.60	154.70	31.00	0.13	-47.45
3990.00	0.30	302.57	3983.15	142.88	-59.62	0.56	-150.74	154.82	31.00	0.26	-112.68
4022.00	0.35	309.30	4015.15	142.99	-59.77	0.20	-150.91	154.98	32.00	0.16	21.03

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4054.00	293.11	143.10	143.20	60.22	0.07	151.35	155.35	31.00	0.48	-22.23
4084.00	290.84	407.15	143.20	60.22	0.07	151.35	155.35	31.00	0.03	-7.32
4115.00	288.17	4108.14	143.31	60.51	0.40	151.60	155.56	31.00	0.99	8.61
4146.00	292.50	4139.14	143.44	60.68	0.39	151.91	155.81	31.00	0.35	-13.97
4178.00	286.65	4171.14	143.58	61.27	0.35	152.27	156.11	32.00	0.25	-18.28
4209.00	295.98	4202.14	143.74	61.68	0.43	152.64	156.42	31.00	0.00	30.10
4240.00	307.74	4233.13	143.93	62.00	0.92	152.98	156.72	31.00	-0.81	37.94
4271.00	335.38	4264.13	144.12	62.17	0.93	153.23	156.96	31.00	-0.58	89.16
4303.00	359.10	4296.13	144.25	62.21	0.94	153.36	157.09	32.00	-0.91	74.12
4334.00	399.9	4327.13	144.33	62.17	0.63	153.40	157.15	31.00	0.52	131.90
4365.00	63.68	4358.13	144.41	62.08	0.37	153.41	157.18	31.00	-0.23	76.42
4396.00	120.79	4389.13	144.41	62.00	0.52	153.37	157.16	31.00	-0.23	184.23
4427.00	113.63	4420.13	144.36	61.89	0.65	153.27	157.07	31.00	0.65	-23.10
4458.00	109.95	4451.13	144.29	61.72	0.21	153.11	156.94	31.00	0.19	-11.87
4490.00	121.80	4483.13	144.19	61.51	0.39	152.90	156.76	32.00	0.28	37.03
4521.00	121.36	4514.13	144.08	61.34	0.68	152.72	156.60	31.00	-0.68	1.42
4552.00	128.68	4545.13	144.00	61.22	0.11	152.59	156.48	31.00	0.00	23.61
4584.00	259.22	4577.13	143.95	61.21	1.15	152.53	156.42	32.00	0.37	407.94
4615.00	296.10	4608.13	143.98	61.31	0.58	152.61	156.49	31.00	0.42	118.97
4647.00	303.74	4640.12	144.16	61.92	1.06	153.12	156.89	62.00	1.05	-20.32
4678.00	303.74	4701.12	144.32	62.32	1.17	153.48	157.20	31.00	-0.74	65.29
4709.00	324.58	4732.12	144.48	62.52	1.45	153.73	157.43	31.00	-1.35	67.23
4740.00	312.77	4764.12	144.62	62.40	0.40	153.91	157.60	32.00	0.34	-36.91
4771.00	15.16	4795.12	144.72	62.70	1.09	154.04	157.72	31.00	-0.74	201.26
4802.00	144.81	4826.12	144.81	62.56	0.43	154.02	157.75	31.00	1.16	178.90
4833.00	67.78	4857.12	144.94	62.27	0.68	153.96	157.75	31.00	0.61	-28.52
4864.00	145.12	4888.11	145.12	61.89	0.46	153.88	157.77	31.00	0.29	19.23
4895.00	145.11	4920.11	145.31	61.47	0.20	153.79	157.78	32.00	0.06	-12.97
4926.00	145.11	4951.11	145.52	61.11	0.52	153.75	157.83	31.00	-0.35	-27.55
4958.00	145.77	4982.11	145.77	60.83	0.65	153.79	157.96	31.00	0.26	-50.23
4989.00	145.09	5013.10	146.09	60.66	0.84	153.95	158.18	31.00	0.19	-69.13
5020.00	146.49	5045.10	146.49	60.56	0.38	154.22	158.52	32.00	0.19	-26.03
5052.00	146.90	5076.10	146.90	60.88	1.05	154.56	158.90	31.00	0.00	-78.87
5083.00	147.34	5107.09	147.34	60.79	1.28	155.03	159.39	31.00	0.90	-57.77
5114.00	147.82	5138.09	147.82	61.15	0.65	155.63	159.97	31.00	0.29	-27.06
5145.00	148.27	5169.08	148.27	61.50	0.78	156.21	160.52	31.00	-0.62	23.13
5176.00	149.14	5233.07	149.14	62.22	0.32	157.33	161.60	64.00	-0.15	-16.77
5207.00	149.75	5287.07	149.75	62.80	1.14	158.17	162.39	95.00	-1.06	155.48
5238.00	149.75	5328.07	149.75	62.80	1.14	158.17	162.39	95.00	-1.06	155.48
5269.00	150.99	5382.07	150.99	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5300.00	150.99	5423.07	150.99	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5331.00	151.83	5487.07	151.83	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5362.00	152.74	5551.04	152.74	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5393.00	153.65	5615.04	153.65	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5424.00	154.56	5679.04	154.56	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5455.00	155.47	5743.04	155.47	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5486.00	156.38	5807.04	156.38	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5517.00	157.29	5871.04	157.29	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5548.00	158.20	5935.04	158.20	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5579.00	159.11	6000.04	159.11	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5610.00	160.02	6064.04	160.02	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5641.00	160.93	6128.04	160.93	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5672.00	161.84	6192.04	161.84	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5703.00	162.75	6256.04	162.75	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5734.00	163.66	6320.04	163.66	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5765.00	164.57	6384.04	164.57	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5796.00	165.48	6448.04	165.48	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5827.00	166.39	6512.04	166.39	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5858.00	167.30	6576.04	167.30	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5889.00	168.21	6640.04	168.21	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5920.00	169.12	6704.04	169.12	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5951.00	170.03	6768.04	170.03	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
5982.00	170.94	6832.04	170.94	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6013.00	171.85	6896.04	171.85	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6044.00	172.76	6960.04	172.76	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6075.00	173.67	7024.04	173.67	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6106.00	174.58	7088.04	174.58	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6137.00	175.49	7152.04	175.49	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6168.00	176.40	7216.04	176.40	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6199.00	177.31	7280.04	177.31	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6230.00	178.22	7344.04	178.22	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6261.00	179.13	7408.04	179.13	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6292.00	180.04	7472.04	180.04	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6323.00	180.95	7536.04	180.95	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6354.00	181.86	7600.04	181.86	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6385.00	182.77	7664.04	182.77	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6416.00	183.68	7728.04	183.68	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6447.00	184.59	7792.04	184.59	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6478.00	185.50	7856.04	185.50	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6509.00	186.41	7920.04	186.41	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6540.00	187.32	7984.04	187.32	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6571.00	188.23	8048.04	188.23	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6602.00	189.14	8112.04	189.14	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6633.00	190.05	8176.04	190.05	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6664.00	190.96	8240.04	190.96	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6695.00	191.87	8304.04	191.87	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6726.00	192.78	8368.04	192.78	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6757.00	193.69	8432.04	193.69	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6788.00	194.60	8496.04	194.60	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6819.00	195.51	8560.04	195.51	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6850.00	196.42	8624.04	196.42	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6881.00	197.33	8688.04	197.33	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6912.00	198.24	8752.04	198.24	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6943.00	199.15	8816.04	199.15	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
6974.00	200.06	8880.04	200.06	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
7005.00	200.97	8944.04	200.97	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
7036.00	201.88	9008.04	201.88	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
7067.00	202.79	9072.04	202.79	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
7098.00	203.70	9136.04	203.70	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
7129.00	204.61	9200.04	204.61	62.79	0.07	158.15	162.37	95.00	-0.01	170.97
7160.00	205.52	9264.04	205.52							



8655.00	88.34	143.56	8229.39	83.07	-13.04	2.55	59.70	84.09	94.00	2.52	-0.36
8748.00	88.46	143.20	8231.98	157.68	42.41	0.41	152.66	163.28	93.00	0.13	-0.39
8842.00	88.34	148.07	8234.61	-235.22	95.43	5.18	246.56	253.84	94.00	-0.13	5.18
8937.00	89.32	145.67	8236.55	-314.75	147.34	2.73	341.43	347.53	95.00	1.03	-2.53
9032.00	89.32	140.80	8237.68	-390.83	204.18	5.13	436.38	440.95	95.00	0.00	-5.13
9127.00	89.35	139.00	8238.78	-463.49	265.36	1.89	531.11	534.08	95.00	0.03	-1.89
9222.00	88.98	137.86	8240.17	-534.55	328.39	1.26	625.62	627.37	95.00	-0.39	-1.20
9316.00	89.35	139.51	8241.54	-605.15	390.44	1.80	719.18	720.17	94.00	0.39	1.76
9411.00	89.35	147.80	8242.62	-681.59	446.69	8.73	814.08	814.92	95.00	0.00	8.73
9506.00	89.17	151.48	8243.84	-763.54	494.69	3.88	908.63	909.79	95.00	-0.19	3.87
9601.00	89.05	151.53	8245.32	-847.03	540.01	0.14	1002.83	1004.52	95.00	-0.13	0.05
9694.00	89.05	144.54	8246.86	-925.86	589.21	7.52	1095.55	1097.45	93.00	0.00	-7.52
9788.00	89.85	144.23	8247.76	-1002.28	643.94	0.91	1189.55	1191.31	94.00	0.85	-0.33
9882.00	89.11	139.32	8248.62	-1076.10	702.09	5.28	1283.43	1284.88	94.00	-0.79	-5.22
9977.00	88.71	139.39	8250.43	-1148.17	763.95	0.43	1378.08	1379.10	95.00	-0.42	0.07
10072.00	88.89	137.45	8252.42	-1219.21	826.99	2.05	1472.58	1473.22	95.00	0.19	-2.04
10167.00	89.23	139.85	8253.97	-1290.51	889.73	2.55	1567.12	1567.50	95.00	0.36	2.53
10262.00	88.95	144.77	8255.48	-1365.65	947.79	5.19	1662.03	1662.32	95.00	-0.29	5.18
10358.00	89.38	145.88	8256.88	-1444.59	1002.40	1.24	1758.00	1758.31	96.00	0.45	1.16
10452.00	89.51	144.60	8257.79	-1521.81	1055.99	1.37	1851.97	1852.31	94.00	0.14	-1.36
10547.00	89.63	140.33	8258.51	-1597.13	1113.85	4.50	1946.91	1947.17	95.00	0.13	-4.49
10642.00	89.66	142.76	8259.10	-1671.51	1172.93	2.56	2041.80	2041.99	95.00	0.03	2.56
10737.00	89.69	144.70	8259.63	-1748.10	1229.13	2.04	2136.79	2136.96	95.00	0.03	2.04
10832.00	89.91	148.54	8259.97	-1827.42	1281.38	4.05	2231.69	2231.90	95.00	0.23	4.04
10927.00	90.15	154.45	8259.92	-1910.86	1326.70	6.23	2325.87	2326.27	95.00	0.25	6.22
11021.00	90.34	157.84	8259.51	-1996.82	1364.71	3.61	2417.80	2418.62	94.00	0.20	3.61
11117.00	90.25	160.29	8259.02	-2086.47	1399.01	2.55	2510.56	2512.09	96.00	-0.09	2.55
11212.00	89.97	157.45	8258.84	-2175.08	1433.25	3.00	2602.44	2604.84	95.00	-0.29	-2.99
11307.00	89.75	158.46	8259.07	-2263.13	1468.91	1.09	2694.70	2698.05	95.00	-0.23	1.06
11402.00	89.48	156.98	8259.71	-2351.03	1504.92	1.58	2787.05	2791.44	95.00	-0.28	-1.56
11496.00	89.26	155.92	8260.74	-2437.20	1542.48	1.15	2878.89	2884.30	94.00	-0.23	-1.13
11591.00	89.29	159.35	8261.94	-2525.03	1578.62	3.61	2971.25	2977.89	95.00	0.03	3.61
11686.00	89.17	158.27	8263.22	-2613.60	1612.95	1.14	3063.15	3071.24	95.00	-0.13	-1.14
11781.00	90.09	158.94	8263.83	-2702.05	1647.61	1.20	3155.14	3164.76	95.00	0.97	0.71
11876.00	90.37	158.43	8263.45	-2790.55	1682.14	0.61	3247.11	3258.34	95.00	0.29	-0.54
11971.00	90.65	156.61	8262.61	-2878.32	1718.46	1.94	3339.53	3352.29	95.00	0.29	-1.92
12065.00	90.49	156.47	8261.67	-2964.55	1755.88	0.23	3431.34	3445.53	94.00	-0.17	-0.15
12161.00	89.94	156.61	8261.31	-3052.61	1794.10	0.59	3525.10	3540.80	96.00	-0.57	0.15
12256.00	90.18	150.54	8261.21	-3137.65	1836.36	6.39	3618.78	3635.52	95.00	0.25	-6.39
12350.00	90.06	147.30	8261.02	-3218.14	1884.88	3.45	3712.44	3729.50	94.00	-0.13	-3.45
12445.00	90.15	147.76	8260.84	-3298.29	1935.88	0.49	3807.28	3824.44	95.00	0.09	0.48
12541.00	90.00	152.42	8260.72	-3381.48	1983.73	4.86	3902.74	3920.41	96.00	-0.16	4.85
12635.00	90.31	148.00	8260.46	-3463.04	2030.42	4.71	3996.19	4014.38	94.00	0.33	-4.70
12729.00	90.06	143.21	8260.16	-3540.58	2083.51	5.10	4090.13	4108.13	94.00	-0.27	-5.10
12824.00	90.09	141.31	8260.03	-3615.70	2141.65	2.00	4185.08	4202.38	95.00	0.03	-2.00
12918.00	90.12	140.05	8259.86	-3688.42	2201.21	1.34	4278.90	4295.32	94.00	0.03	-1.34
13013.00	89.38	134.16	8260.28	-3757.99	2265.85	6.25	4373.14	4388.23	95.00	-0.78	-6.20
13108.00	89.66	131.70	8261.07	-3822.68	2335.40	2.61	4466.31	4479.62	95.00	0.29	-2.59
13202.00	89.38	135.87	8261.86	-3887.71	2403.24	4.45	4558.75	4570.54	94.00	-0.30	4.44
13296.00	89.29	136.83	8262.95	-3955.72	2468.12	1.03	4651.87	4662.55	94.00	-0.10	1.02
13391.00	89.48	137.13	8263.97	-4025.17	2532.93	0.37	4746.12	4755.81	95.00	0.20	0.32
13486.00	90.00	139.96	8264.40	-4096.37	2595.82	3.03	4840.65	4849.59	95.00	0.55	2.98
13580.00	90.06	140.69	8264.35	-4168.71	2655.83	0.78	4934.44	4942.83	94.00	0.06	0.78
13675.00	90.49	141.57	8263.90	-4242.68	2715.45	1.03	5029.31	5037.26	95.00	0.45	0.93
13771.00	90.65	141.58	8262.94	-4317.88	2775.11	0.17	5125.20	5132.77	96.00	0.17	0.01
13866.00	90.37	140.46	8262.10	-4391.73	2834.86	1.22	5220.06	5227.21	95.00	-0.29	-1.18
13960.00	89.91	136.56	8261.87	-4462.13	2897.12	4.18	5313.58	5320.14	94.00	-0.49	-4.15
14054.00	89.97	135.74	8261.96	-4529.91	2962.24	0.87	5406.66	5412.49	94.00	0.06	-0.87
14149.00	90.00	137.43	8261.99	-4598.92	3027.53	1.78	5500.83	5506.00	95.00	0.03	1.78
14243.00	90.06	135.12	8261.94	-4666.85	3092.50	2.46	5593.94	5598.48	94.00	0.06	-2.46
14338.00	90.37	136.20	8261.58	-4734.79	3158.90	1.18	5687.89	5691.82	95.00	0.33	1.14
14433.00	90.58	139.24	8260.80	-4805.06	3222.80	3.21	5782.28	5785.76	95.00	0.22	3.20
14528.00	90.74	138.33	8259.70	-4876.52	3285.39	0.97	5876.85	5879.99	95.00	0.17	-0.96
14623.00	90.37	136.71	8258.78	-4946.58	3349.54	1.75	5971.21	5973.95	95.00	-0.39	-1.71
14717.00	90.31	137.74	8258.22	-5015.58	3413.37	1.10	6064.52	6066.89	94.00	-0.06	1.10
14812.00	90.43	139.34	8257.61	-5086.77	3476.27	1.69	6159.05	6161.14	95.00	0.13	1.68
14906.00	90.68	135.67	8256.70	-5156.06	3539.76	3.91	6252.40	6254.19	94.00	0.27	-3.90
15001.00	90.71	136.21	8255.55	-5224.32	3605.81	0.57	6346.42	6347.87	95.00	0.03	0.57
15095.00	90.89	139.62	8254.23	-5294.07	3668.80	3.63	6439.84	6441.06	94.00	0.19	3.63
15190.00	90.52	140.84	8253.06	-5367.08	3729.57	1.34	6534.60	6535.69	95.00	-0.39	1.28
15285.00	90.68	138.74	8252.07	-5439.62	3790.89	2.22	6629.32	6630.26	95.00	0.17	-2.21
15379.00	90.40	138.94	8251.18	-5510.39	3852.76	0.37	6722.91	6723.70	94.00	-0.30	0.21

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15474.00	89.42	140.48	8251.33	-5582.85	3914.19	1.92	6817.62	6818.29	95.00	-1.03	1.62
15568.00	89.54	138.89	8252.19	-5654.52	3975.00	1.70	6911.32	6911.89	94.00	0.13	-1.69
15663.00	90.31	140.50	8252.31	-5726.97	4036.45	1.88	7006.03	7006.50	95.00	0.81	1.69
15759.00	90.25	141.24	8251.84	-5801.43	4097.03	0.77	7101.87	7102.27	96.00	-0.06	0.77
15853.00	90.12	141.61	8251.54	-5874.92	4155.64	0.42	7195.76	7196.11	94.00	-0.14	0.39
15948.00	90.15	145.99	8251.31	-5951.56	4211.74	4.61	7290.74	7291.08	95.00	0.03	4.61
16043.00	90.43	145.04	8250.83	-6029.87	4265.52	1.04	7385.71	7386.07	95.00	0.29	-1.00
16137.00	90.43	145.12	8250.13	-6106.94	4319.33	0.09	7479.69	7480.06	94.00	0.00	0.09
16233.00	90.43	146.93	8249.41	-6186.55	4372.97	1.89	7575.64	7576.03	96.00	0.00	1.89
16327.00	90.68	147.53	8248.50	-6265.58	4423.85	0.69	7669.50	7669.94	94.00	0.27	0.64
16422.00	90.83	144.65	8247.24	-6344.41	4476.84	3.04	7764.42	7764.90	95.00	0.16	-3.03
16517.00	90.62	144.94	8246.04	-6422.03	4531.60	0.38	7859.41	7859.89	95.00	-0.22	0.31
16612.00	90.65	145.06	8244.99	-6499.84	4586.09	0.13	7954.40	7954.88	95.00	0.03	0.13
16706.00	90.80	145.82	8243.80	-6577.25	4639.41	0.82	8048.36	8048.87	94.00	0.16	0.81
16802.00	90.74	142.41	8242.51	-6655.01	4695.67	3.55	8144.34	8144.84	96.00	-0.06	-3.55
16897.00	90.80	139.93	8241.23	-6729.00	4755.22	2.61	8239.20	8239.64	95.00	0.06	-2.61
16992.00	90.62	140.42	8240.06	-6801.96	4816.06	0.55	8333.96	8334.33	95.00	-0.19	0.52
17087.00	90.58	142.65	8239.06	-6876.33	4875.15	2.35	8428.85	8429.17	95.00	-0.04	2.35
17181.00	90.74	145.25	8237.98	-6952.32	4930.46	2.77	8522.83	8523.15	94.00	0.17	2.77
17277.00	90.58	144.61	8236.87	-7030.88	4985.61	0.69	8618.82	8619.14	96.00	-0.17	-0.67
17372.00	90.65	139.76	8235.85	-7105.91	5043.84	5.11	8713.73	8714.02	95.00	0.07	-5.11
17467.00	90.68	140.56	8234.75	-7178.85	5104.69	0.84	8808.49	8808.73	95.00	0.03	0.84
17562.00	90.77	143.71	8233.55	-7253.83	5162.99	3.32	8903.41	8903.62	95.00	0.09	3.32
17657.00	90.65	145.62	8232.37	-7331.32	5217.93	2.01	8998.39	8998.61	95.00	-0.13	2.01
17752.00	90.68	144.28	8231.27	-7409.08	5272.48	1.41	9093.38	9093.60	95.00	0.03	-1.41
17848.00	90.65	140.09	8230.15	-7484.90	5331.32	4.36	9189.29	9189.49	96.00	-0.03	-4.36
17943.00	90.74	140.98	8229.00	-7558.24	5391.70	0.94	9284.09	9284.25	95.00	0.09	0.94
18017.00	90.86	145.01	8227.97	-7617.31	5436.23	5.45	9358.06	9358.21	74.00	0.16	5.45
Proj 18042.00	90.86	145.01	8227.59	-7637.79	5450.56	0.00	9383.05	9383.20	25.00	0.00	0.00

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