



MWD SURVEY CERTIFICATION
Legacy Directional Drilling, LLC.

30-015-44108
CDU # 293H

State Of New Mexico
County Of Eddy

HOBBS OCD
NM OIL CONSERVATION
ARTESIA DISTRICT
MAR 07 2018
RECEIVED
MAR 20 2018
RECEIVED

I, Mark L. Miller certify that; I am employed by Legacy Directional Drilling, LLC.;
that I did on the day(s) of September 8, 2017 through September 25, 2017 conduct
or supervise the taking of a MWD survey from a depth of 881 feet to a depth of
18,120 feet; that the data is true, correct, complete and within the limitations of the
tool set forth by Legacy Directional Drilling, LLC.; that I am authorized and qualified to make this report;
that this survey was conducted at the request of Devon Energy Production Co. for the
Cotton Draw Unit 293H Well, A.P.I. No. 30-015-44108 in
Paduca/Bone Spring Field and that I have reviewed this report and find that
it conforms to the principles and procedures set forth by Legacy Directional Drilling, LLC.

Surveyor's Signature

MLWD Technical Director

Title



NM OIL CONSERVATION
ARTESIA DISTRICT

Directional Survey Report

MAR 20 2018

HOBBS OCD

MAR 07 2018

RECEIVED

Company Name: DEVON ENERGY

Well Name: COTTON DRAW UNIT 293H

Field: PADUCA / BONE SPRING

Rig ID: ICD 217

State/Prov: NM

County: EDDY

Location: EDDY COUNTY

API/UWI: 30015441080000

Survey Company: LEGACY DIRECTIONAL

Job Number: LF170038

Latitude: 32.1817204

Longitude: -103.7290275

Proposed Azimuth: 179.74

Declination: 6.68

Grid Reference: Grid

KB: 3538.6

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
Tien	0	0	0	0	0	0	0	0	0	0	90	0
1	132.70	0.40	295.70	132.70	0.20	-0.42	-0.20	0.30	132.70	0.46	295.70	-9999
2	196.70	0.40	201.70	196.70	0.09	-0.70	-0.09	0	64	0.71	277.33	-9999
3	226.70	0.40	351.70	226.70	0.10	-0.76	-0.10	0	30	0.76	277.28	-9999
4	257.70	0.30	261.70	257.70	0.19	-0.85	-0.20	1.61	31	0.87	282.70	-9999
5	318.70	0.30	254.70	318.70	0.13	-1.16	-0.13	0	61	1.17	276.22	-9999
6	415.70	0.10	55.70	415.70	0.11	-1.34	-0.11	0.41	97	1.34	274.59	-9999
7	446.70	0.60	88.70	446.69	0.13	-1.15	-0.13	1.67	31	1.16	276.25	-9999
8	511.70	1	138.70	511.69	-0.29	-0.44	0.29	1.18	65	0.53	236.35	-9999
9	637.60	0.90	121.70	637.57	-1.64	1.13	1.64	0.24	125.90	1.99	145.44	-9999
10	669.70	0.80	127.70	669.67	-1.91	1.52	1.91	0.42	32.10	2.44	141.45	-9999
11	699.70	1	133.70	699.66	-2.22	1.87	2.22	0.74	30	2.90	139.77	-9999
12	881	0.30	348.64	880.96	-2.84	2.92	2.86	0.69	181.30	4.08	134.19	99.10
13	974	0.40	317.34	973.95	-2.37	2.66	2.38	0.23	93	3.56	131.69	99.10
14	1066	0.23	329.62	1,065.95	-1.97	2.35	1.98	0.20	92	3.06	130.03	106.30
15	1159	0.33	307.15	1,158.95	-1.65	2.04	1.66	0.16	93	2.62	128.96	106.30
16	1250	0.34	316.12	1,249.95	-1.29	1.64	1.30	0.06	91	2.09	128.26	106.30
17	1343	0.18	347.82	1,342.95	-0.95	1.42	0.96	0.23	93	1.71	123.87	113.40
18	1437	0.06	334.11	1,436.95	-0.76	1.37	0.77	0.13	94	1.57	119.21	92
19	1530	0.19	279.28	1,529.95	-0.70	1.19	0.70	0.18	93	1.38	120.24	106.30
20	1624	0.32	165.02	1,623.95	-0.92	1.11	0.93	0.46	94	1.44	129.84	106.30
21	1718	0.38	233	1,717.95	-1.37	0.93	1.37	0.42	94	1.65	145.84	113.40
22	1813	0.32	268.31	1,812.95	-1.56	0.41	1.56	0.23	95	1.62	165.31	113.40
23	1908	0.30	263.36	1,907.94	-1.60	-0.10	1.60	0.04	95	1.60	183.67	113.40
24	2004	0.29	272.66	2,003.94	-1.62	-0.59	1.61	0.05	96	1.72	200.20	120.60
25	2099	0.43	258.20	2,098.94	-1.68	-1.18	1.67	0.17	95	2.05	215.19	120.60
26	2194	0.46	234.54	2,193.94	-1.97	-1.84	1.96	0.19	95	2.70	223.06	120.60
27	2289	0.44	235.08	2,288.94	-2.40	-2.45	2.39	0.02	95	3.43	225.59	127.70
28	2384	0.59	254.88	2,383.93	-2.74	-3.22	2.72	0.24	95	4.23	229.65	127.70
29	2479	0.51	248.59	2,478.93	-3.02	-4.09	3.00	0.11	95	5.09	233.55	127.70
30	2574	0.57	225.46	2,573.92	-3.51	-4.82	3.49	0.24	95	5.96	233.96	127.70
31	2669	0.14	218.84	2,668.92	-3.93	-5.23	3.91	0.45	95	6.54	233.09	134.90
32	2764	0.58	214.15	2,763.92	-4.42	-5.57	4.39	0.46	95	7.11	231.60	134.90
33	2859	0.73	204.75	2,858.91	-5.36	-6.10	5.34	0.19	95	8.12	228.65	120.60

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
34	2954	0.93	225.52	2,953.90	-6.45	-6.90	6.42	0.38	95	9.45	226.91	127.70
35	3049	1.05	257.33	3,048.89	-7.19	-8.30	7.15	0.58	95	10.98	229.11	106.30
36	3145	1.43	279.27	3,144.87	-7.19	-10.34	7.14	0.63	96	12.59	235.20	113.40
37	3240	2.03	292.64	3,239.82	-6.35	-13.06	6.29	0.76	95	14.52	244.09	113.40
38	3335	2.37	296.16	3,334.75	-4.83	-16.38	4.76	0.38	95	17.08	253.56	120.60
39	3429	3.13	290.02	3,428.65	-3.10	-20.53	3.00	0.87	94	20.77	261.42	120.60
40	3524	4.12	284.77	3,523.45	-1.34	-26.27	1.22	1.10	95	26.31	267.08	134.90
41	3619	4.77	283.15	3,618.17	0.43	-33.42	-0.58	0.70	95	33.42	270.74	127.70
42	3714	5.01	280.05	3,712.82	2.05	-41.35	-2.24	0.38	95	41.40	272.84	134.90
43	3810	4.85	270.22	3,808.47	2.80	-49.53	-3.02	0.89	96	49.61	273.23	134.90
44	3904	4.35	263.61	3,902.17	2.42	-57.05	-2.68	0.77	94	57.10	272.43	134.90
45	3999	3.87	273.41	3,996.92	2.21	-63.83	-2.50	0.89	95	63.87	271.98	134.90
46	4094	4.56	281.40	4,091.67	3.14	-70.73	-3.46	0.95	95	70.80	272.54	142
47	4190	5.17	288.38	4,187.32	5.26	-78.58	-5.62	0.88	96	78.76	273.83	142
48	4285	5.63	282.11	4,281.90	7.59	-87.20	-7.98	0.79	95	87.53	274.97	142
49	4312	5.66	280.65	4,308.77	8.11	-89.80	-8.52	0.54	27	90.17	275.16	142
50	4479	6.04	278.07	4,474.90	10.87	-106.59	-11.35	0.28	167	107.15	275.82	106.30
51	4575	7.16	268.91	4,570.26	11.46	-117.58	-12.00	1.60	96	118.13	275.57	113.40
52	4669	7.38	260.55	4,663.51	10.36	-129.39	-10.95	1.15	94	129.80	274.58	113.40
53	4763	7.05	260.73	4,756.77	8.44	-141.04	-9.08	0.35	94	141.29	273.42	113.40
54	4858	6.86	262.26	4,851.07	6.74	-152.41	-7.43	0.28	95	152.56	272.53	113.40
55	4953	7.47	260.03	4,945.33	4.90	-164.12	-5.65	0.71	95	164.19	271.71	113.40
56	5047	7.13	259.07	5,038.56	2.74	-175.86	-3.54	0.38	94	175.88	270.89	113.40
57	5142	6.96	257.25	5,132.85	0.35	-187.27	-1.20	0.30	95	187.27	270.11	113.40
58	5237	7.20	264.55	5,227.12	-1.48	-198.81	0.58	0.98	95	198.81	269.57	113.40
59	5332	6.96	265.47	5,321.40	-2.50	-210.47	1.55	0.28	95	210.49	269.32	120.60
60	5427	6.06	265.71	5,415.79	-3.33	-221.21	2.33	0.95	95	221.23	269.14	120.60
61	5522	6.53	267.05	5,510.21	-3.99	-231.61	2.94	0.52	95	231.64	269.01	120.60
62	5617	7.04	267.07	5,604.55	-4.56	-242.81	3.46	0.54	95	242.86	268.92	120.60
63	5713	6.70	267.08	5,699.86	-5.15	-254.28	3.99	0.35	96	254.33	268.84	120.60
64	5808	7.24	263.89	5,794.16	-6.07	-265.77	4.86	0.70	95	265.84	268.69	120.60
65	5903	7.12	263.66	5,888.41	-7.36	-277.57	6.10	0.13	95	277.67	268.48	120.60
66	5998	6.87	264.48	5,982.70	-8.55	-289.08	7.24	0.28	95	289.21	268.31	127.70
67	6093	7.31	263.84	6,076.98	-9.75	-300.74	8.38	0.47	95	300.90	268.14	127.70
68	6189	6.90	263.45	6,172.24	-11.06	-312.55	9.64	0.43	96	312.74	267.97	127.70
69	6284	7.55	261.93	6,266.48	-12.59	-324.39	11.12	0.71	95	324.64	267.78	127.70
70	6379	7.42	261.81	6,360.68	-14.34	-336.65	12.81	0.14	95	336.95	267.56	127.70
71	6474	7.33	261.19	6,454.89	-16.14	-348.71	14.56	0.13	95	349.08	267.35	127.70
72	6569	7.10	261.64	6,549.14	-17.92	-360.50	16.28	0.25	95	360.95	267.15	127.70
73	6664	7	262.25	6,643.42	-19.56	-372.05	17.87	0.13	95	372.56	266.99	127.70
74	6760	6.96	257.08	6,738.71	-21.64	-383.51	19.90	0.66	96	384.12	266.77	127.70
75	6855	6.98	259.10	6,833.01	-24.02	-394.79	22.23	0.26	95	395.52	266.52	127.70
76	6950	6.33	260.92	6,927.37	-25.94	-405.63	24.10	0.72	95	406.46	266.34	127.70
77	7045	6.39	265.28	7,021.78	-27.20	-416.07	25.31	0.51	95	416.96	266.26	127.70
78	7140	6.66	264.73	7,116.17	-28.14	-426.83	26.21	0.29	95	427.75	266.23	127.70

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
79	7235	7.44	265.69	7,210.45	-29.11	-438.44	27.12	0.83	95	439.41	266.20	127.40
80	7330	6.80	264.34	7,304.71	-30.13	-450.18	28.09	0.70	95	451.18	266.17	127.70
81	7425	7.04	270.16	7,399.02	-30.67	-461.59	28.57	0.78	95	462.61	266.20	127.70
82	7520	6.65	270.65	7,493.35	-30.59	-472.92	28.44	0.42	95	473.90	266.30	130.60
83	7615	6.92	269.72	7,587.68	-30.55	-484.14	28.36	0.31	95	485.10	266.39	130.60
84	7710	6.55	269.37	7,682.03	-30.64	-495.28	28.39	0.39	95	496.23	266.46	136.60
85	7805	6.02	268.27	7,776.45	-30.85	-505.68	28.56	0.57	95	506.62	266.51	136.60
86	7899	5.71	267.93	7,869.96	-31.17	-515.28	28.83	0.33	94	516.22	266.54	136.60
87	7994	4.39	266.79	7,964.59	-31.54	-523.63	29.17	1.39	95	524.58	266.55	136.60
88	8089	3.77	264.51	8,059.35	-32.05	-530.37	29.64	0.67	95	531.34	266.54	134.90
89	8184	3.24	260.31	8,154.17	-32.80	-536.13	30.36	0.62	95	537.13	266.50	134.90
90	8279	2.48	252.25	8,249.05	-33.88	-540.73	31.42	0.90	95	541.79	266.42	134.90
91	8374	2.03	245.04	8,343.98	-35.21	-544.21	32.74	0.56	95	545.35	266.30	134.90
92	8469	1.53	243.12	8,438.93	-36.50	-546.87	34.01	0.53	95	548.09	266.18	134.90
93	8563	0.92	244.59	8,532.91	-37.39	-548.67	34.90	0.65	94	549.94	266.10	134.90
94	8658	0.60	239.79	8,627.90	-37.96	-549.79	35.47	0.34	95	551.10	266.05	142
95	8752	0.80	213.27	8,721.90	-38.76	-550.57	36.26	0.40	94	551.94	265.97	142
96	8848	1.26	184.32	8,817.88	-40.37	-551.02	37.87	0.71	96	552.50	265.81	142
97	8943	1.17	190.30	8,912.86	-42.37	-551.27	39.87	0.16	95	552.90	265.81	142
98	9038	0.37	282.56	9,007.85	-43.26	-551.75	40.75	1.31	95	553.44	265.52	142
99	9133	0.14	28.45	9,102.85	-43.09	-551.99	40.58	0.45	95	553.67	265.54	142
100	9228	0.85	246.97	9,197.85	-43.26	-552.58	40.75	1.01	95	554.27	265.52	142
101	9323	1.54	223.91	9,292.83	-44.46	-554.12	41.94	0.87	95	555.90	265.41	142
102	9419	1.17	265.01	9,388.80	-45.47	-555.99	42.95	1.05	96	557.84	265.32	142
103	9513	0.98	245.96	9,482.79	-45.88	-557.68	43.35	0.43	94	559.56	265.30	142
104	9608	0.67	243.61	9,577.78	-46.46	-558.92	43.92	0.33	95	560.85	265.25	149.10
105	9703	0.84	301.52	9,672.77	-46.34	-560.01	43.80	0.79	95	561.92	265.27	149.10
106	9794	1.89	26.43	9,763.75	-44.65	-559.91	42.11	2.20	91	561.69	265.44	149.10
107	9899	1.64	355.32	9,868.70	-41.60	-559.26	39.06	0.93	105	560.81	265.75	142
108	9994	5.61	197.91	9,963.58	-44.67	-560.80	42.12	7.53	95	562.58	265.45	142
109	10090	16.68	191.66	10,057.62	-62.68	-565.04	60.12	11.58	96	568.51	263.67	142
110	10185	25.24	187.42	10,146.26	-96.19	-570.42	93.60	9.15	95	578.48	260.43	142
111	10280	34.36	187.29	10,228.61	-142.96	-576.46	140.34	9.60	95	593.92	256.07	145
112	10375	44.57	176.91	10,301.94	-203.06	-578.07	200.44	12.77	95	612.70	250.64	-9999
113	10470	52.60	170.86	10,364.76	-273.76	-570.26	271.17	9.70	95	632.56	244.36	153
114	10564	57.09	176.91	10,418.90	-350.11	-562.19	347.55	7.10	94	662.30	238.09	-9999
115	10659	67.60	181.03	10,462.95	-434.10	-560.83	431.55	11.71	95	709.20	232.26	153
116	10754	78.74	175.91	10,490.43	-524.82	-558.28	522.28	12.81	95	766.23	226.77	149.10
117	10849	84.02	168.51	10,504.68	-617.77	-545.52	615.29	9.50	95	824.16	221.45	153
118	10945	86.46	167.77	10,512.65	-711.39	-525.86	709.00	2.66	96	884.65	216.47	153
119	11040	86.55	168.60	10,518.44	-804.20	-506.45	801.90	0.88	95	950.39	212.20	160
120	11135	90.22	169.15	10,521.12	-897.37	-488.13	895.14	3.91	95	1,021.54	208.54	156.30
121	11230	91.74	169.78	10,519.49	-990.75	-470.76	988.60	1.73	95	1,096.90	205.42	160
122	11325	91.82	170.04	10,516.54	-1,084.23	-454.13	1,082.16	0.29	95	1,175.50	202.73	160
123	11420	88.99	169.83	10,515.87	-1,177.76	-437.53	1,175.76	2.99	95	1,256.40	200.38	160

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
124	11543	88.49	172.14	10,518.58	-1,299.20	-418.26	1,297.29	1.92	123	1,364.87	197.85	153
125	11637	86.58	172.85	10,522.62	-1,392.30	-405.99	1,390.45	2.17	94	1,450.29	196.26	160
126	11732	85.91	173.64	10,528.84	-1,486.44	-394.84	1,484.63	1.09	95	1,537.99	194.88	160
127	11827	85.62	174.13	10,535.86	-1,580.64	-384.75	1,578.88	0.60	95	1,626.80	193.68	160
128	11922	86.04	174.96	10,542.76	-1,674.96	-375.74	1,673.24	0.98	95	1,716.59	192.64	153
129	12018	86.35	175.56	10,549.13	-1,770.42	-367.83	1,768.73	0.70	96	1,808.23	191.74	153
130	12112	87.48	175.88	10,554.19	-1,864.02	-360.82	1,862.36	1.25	94	1,898.62	190.96	153
131	12206	90.25	175.66	10,556.05	-1,957.74	-353.89	1,956.11	2.96	94	1,989.47	190.25	-9999
132	12301	91.54	176.23	10,554.57	-2,052.49	-347.17	2,050.89	1.48	95	2,081.64	189.60	160
133	12396	91.09	175.57	10,552.39	-2,147.22	-340.38	2,145.65	0.84	95	2,174.03	189.01	160
134	12491	90.50	176.82	10,551.07	-2,242.00	-334.08	2,240.46	1.45	95	2,266.75	188.48	-9999
135	12585	91.65	176.06	10,549.31	-2,335.80	-328.25	2,334.28	1.47	94	2,358.75	188.00	-9999
136	12680	91.88	175.52	10,546.38	-2,430.49	-321.27	2,429.01	0.62	95	2,451.64	187.53	160
137	12776	90.20	174.05	10,544.64	-2,526.08	-312.55	2,524.63	2.33	96	2,545.34	187.05	167
138	12871	89.86	174.80	10,544.59	-2,620.63	-303.32	2,619.22	0.87	95	2,638.12	186.60	128
139	12966	89.58	176.04	10,545.05	-2,715.32	-295.74	2,713.95	1.34	95	2,731.38	186.22	167
140	13061	87.93	175.74	10,547.12	-2,810.05	-288.93	2,808.71	1.77	95	2,824.86	185.87	-9999
141	13156	88.63	176.38	10,549.97	-2,904.78	-282.40	2,903.47	1.00	95	2,918.48	185.55	-9999
142	13251	88.82	176.75	10,552.08	-2,999.59	-276.71	2,998.30	0.44	95	3,012.32	185.27	-9999
143	13345	91.91	176.97	10,551.49	-3,093.43	-271.57	3,092.17	3.30	94	3,105.33	185.02	167
144	13439	92.89	177.30	10,547.55	-3,187.23	-266.87	3,185.99	1.10	94	3,198.38	184.79	-9999
145	13534	92.89	176.66	10,542.76	-3,281.98	-261.87	3,280.75	0	95	3,292.41	184.56	176
146	13629	92.61	175.81	10,538.20	-3,376.66	-255.64	3,375.47	0.94	95	3,386.32	184.33	-9999
147	13724	91.88	175.23	10,534.48	-3,471.30	-248.23	3,470.13	0.98	95	3,480.16	184.09	176
148	13819	89.22	174.23	10,533.57	-3,565.88	-239.50	3,564.76	2.99	95	3,573.92	183.84	-9999
149	13915	88.20	174.20	10,535.73	-3,661.37	-229.83	3,660.29	1.06	96	3,668.57	183.59	176
150	14010	87.90	174.11	10,538.96	-3,755.82	-220.16	3,754.78	0.33	95	3,762.27	183.35	176
151	14105	88.52	174.56	10,541.93	-3,850.31	-210.79	3,849.31	0.81	95	3,856.07	183.13	-9999
152	14199	88.57	174.64	10,544.32	-3,943.86	-201.94	3,942.90	0.10	94	3,949.03	182.93	176
153	14294	89.19	176.08	10,546.17	-4,038.53	-194.26	4,037.60	1.65	95	4,043.20	182.75	176
154	14389	89.75	176.32	10,547.05	-4,133.31	-187.96	4,132.42	0.64	95	4,137.59	182.60	176
155	14485	92.10	177.91	10,545.50	-4,229.17	-183.13	4,228.30	2.96	96	4,233.13	182.48	176
156	14580	92.07	176.80	10,542.05	-4,324.00	-178.75	4,323.15	1.17	95	4,327.70	182.37	176
157	14675	91.62	176.16	10,538.99	-4,418.78	-172.92	4,417.95	0.82	95	4,422.16	182.24	176
158	14771	90.17	174.56	10,537.49	-4,514.44	-165.16	4,513.65	2.25	96	4,517.46	182.10	183
159	14866	90.28	173.75	10,537.11	-4,608.95	-155.48	4,608.20	0.86	95	4,611.57	181.93	183
160	14960	89.10	174.22	10,537.62	-4,702.43	-145.63	4,701.72	1.35	94	4,704.68	181.77	183
161	15056	89.22	174.33	10,539.03	-4,797.94	-136.06	4,797.27	0.17	96	4,799.87	181.62	-9999
162	15151	89.80	174.25	10,539.84	-4,892.46	-126.61	4,891.84	0.62	95	4,894.10	181.48	183
163	15246	91.68	174.89	10,538.62	-4,987.02	-117.62	4,986.44	2.09	95	4,988.41	181.35	183
164	15341	89.47	174.20	10,537.66	-5,081.58	-108.59	5,081.04	2.44	95	5,082.74	181.22	-9999
165	15436	90.78	174.76	10,537.46	-5,176.14	-99.45	5,175.64	1.50	95	5,177.09	181.10	-9999
166	15531	89.27	175.19	10,537.41	-5,270.77	-91.13	5,270.30	1.65	95	5,271.56	180.99	183
167	15626	90.14	177.26	10,537.90	-5,365.56	-84.87	5,365.12	2.36	95	5,366.23	180.91	183
168	15721	87.87	179.23	10,539.55	-5,460.49	-81.97	5,460.06	3.16	95	5,461.10	180.86	183

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
169	15816	88.60	180.52	10,542.48	-5,555.44	-81.76	5,555.01	1.56	95	5,556.04	180.84	183
170	15911	91.46	182.27	10,542.43	-5,650.40	-84.07	5,649.96	3.53	95	5,651.02	180.85	183
171	16005	90.14	181.06	10,541.12	-5,744.35	-86.80	5,743.89	1.90	94	5,745.00	180.87	183
172	16101	91.40	181.55	10,539.83	-5,840.31	-88.99	5,839.85	1.41	96	5,840.99	180.87	183
173	16196	89.47	180.59	10,539.11	-5,935.29	-90.76	5,934.81	2.27	95	5,935.98	180.88	183
174	16291	89.36	180.97	10,540.08	-6,030.27	-92.05	6,029.79	0.42	95	6,030.97	180.87	183
175	16386	88.96	180.63	10,541.47	-6,125.25	-93.38	6,124.76	0.55	95	6,125.96	180.87	-9999
176	16481	90.56	180.46	10,541.87	-6,220.24	-94.28	6,219.75	1.69	95	6,220.96	180.87	183
177	16576	91.46	180.25	10,540.19	-6,315.23	-94.87	6,314.73	0.97	95	6,315.94	180.86	183
178	16671	92.21	179.45	10,537.15	-6,410.18	-94.62	6,409.68	1.15	95	6,410.87	180.85	183
179	16767	92.41	178.72	10,533.28	-6,506.08	-93.09	6,505.59	0.79	96	6,506.75	180.82	190
180	16862	89.80	177.74	10,531.45	-6,601.01	-90.16	6,600.53	2.93	95	6,601.63	180.78	190
181	16957	88.91	177.72	10,532.52	-6,695.93	-86.40	6,695.47	0.94	95	6,696.49	180.74	190
182	17052	89.86	178.19	10,533.54	-6,790.86	-83.01	6,790.42	1.12	95	6,791.37	180.70	190
183	17146	90.50	178.88	10,533.24	-6,884.83	-80.60	6,884.39	1.00	94	6,885.30	180.67	190
184	17241	92.86	180.27	10,530.46	-6,979.78	-79.90	6,979.34	2.88	95	6,980.24	180.66	190
185	17336	93.23	180.41	10,525.41	-7,074.64	-80.46	7,074.20	0.42	95	7,075.10	180.65	190
186	17431	92.41	179.76	10,520.74	-7,169.53	-80.60	7,169.09	1.10	95	7,169.98	180.64	190
187	17526	89.97	179.35	10,518.76	-7,264.50	-79.86	7,264.06	2.60	95	7,264.93	180.63	190
188	17621	90.87	180.35	10,518.07	-7,359.49	-79.62	7,359.05	1.42	95	7,359.92	180.62	190
189	17716	91.74	181.36	10,515.90	-7,454.45	-81.03	7,454.01	1.40	95	7,454.89	180.62	190
190	17811	88.35	180.17	10,515.83	-7,549.43	-82.30	7,548.98	3.78	95	7,549.88	180.62	190
191	17907	91.15	181.51	10,516.25	-7,645.41	-83.71	7,644.95	3.23	96	7,645.86	180.63	190
192	18002	91.79	181.78	10,513.81	-7,740.33	-86.43	7,739.86	0.73	95	7,740.82	180.64	190
193	18062	90.31	182.46	10,512.71	-7,800.28	-88.65	7,799.80	2.71	60	7,800.79	180.65	190
PTB	18120	90.31	182.46	10,512.40	-7,858.23	-91.14	7,857.73	0	58	7,858.76	180.66	0