

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

NEW OIL CONSERVATION

ARTESIA DISTRICT

MAR 05 2017

RECEIVED

Form C-102

Revised October 12, 2005

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AS DRILLED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

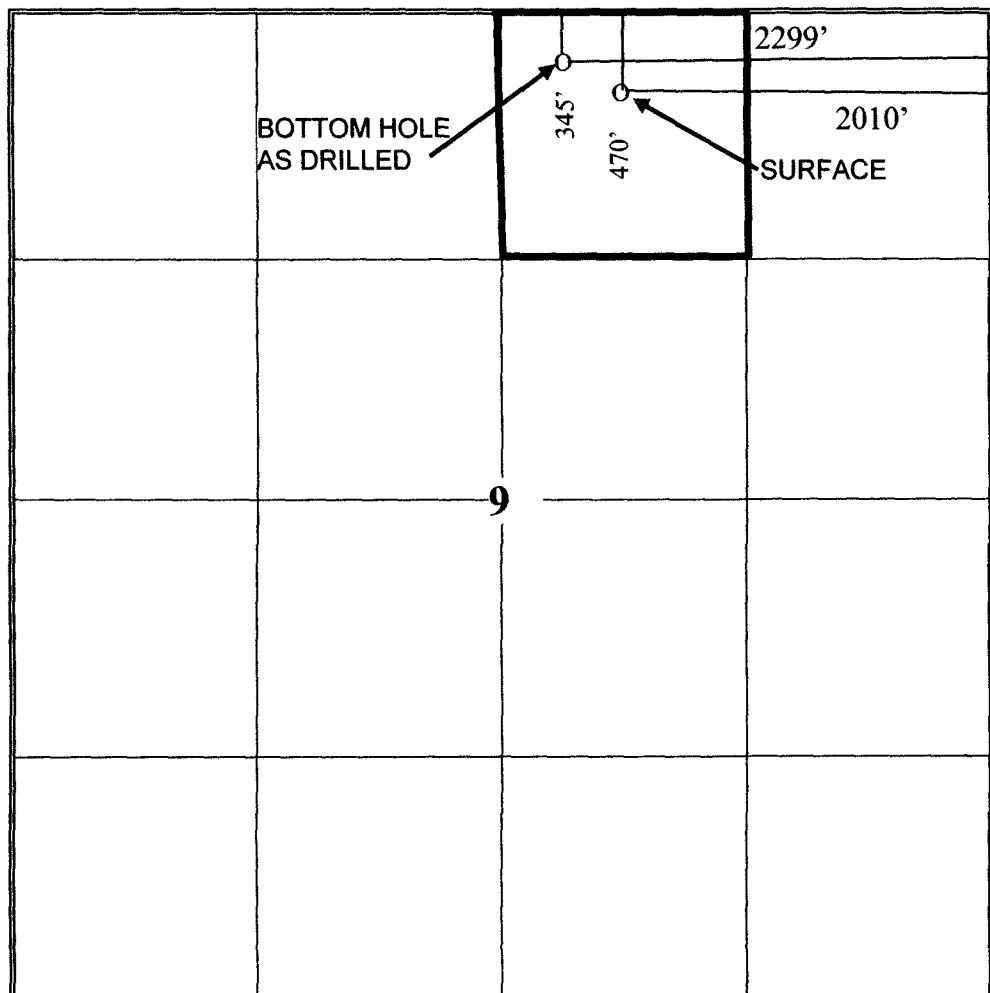
¹ API Number 30-015-43278	Pool Code 51120	³ Pool Name Red Lake, Glorieta-Yeso
⁴ Property Code 309008	⁵ Property Name HAWK 9 B FEDERAL	⁶ Well Number 18
⁷ OGRID No. 277558	⁸ Operator Name LIME ROCK RESOURCES II-A, L.P.	⁹ Elevation 3531' GL

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	9	18-S	27-E		470	NORTH	2010	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	9	18-S	27-E		345	NORTH	2299	EAST	EDDY
¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <u>Mike Pippin</u> Date: <u>3/3/17</u> Printed Name: <u>Mike Pippin</u>
	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 8/2/14 Date of Survey Signature and Seal of Professional Surveyor: Filmon F. Jaramillo 12797 Certificat Number



SURVEY CALCULATION PROGRAM

7/1/2001

1.00
2.00

File:

OPERATOR:	Lime Rock Resources	Current Target Information	VS Referenced to Offset from Surface
WELL:	Hawk 9B Federal #18	TARGET KBTVD:	5200.00
LOCATION:	Eddy Co. NM	TARGET INCL:	16.88
RIG:	United Rig #33	TARGET AZM:	293.57
JOB NUMBER:	TX-17-007		(Enter 0° N and 0° E for Surface)
SURVEY COMPANY	DIRECTIONAL COMPANY	PROPOSED DIRECTION:	293.57
Kingsley Directional	Accel Directional	COMMENTS:	Dec / Total Corr.(+/-): 7.36
Directional Drillers	COORDINATORS		
Allen Hightower	Chris Shipp		

Line Rock Resources						Hawk 9B Federal #18								Target Calculations			
SVY	MD	INC	TRUE AZM	TEMP °F	API Gamma	Course Length	TVD	N-S	E-W	Surface Vert Sect	CLOSURE DIST	DLS/ 100'	BUR/ 100'	TVD AT 0' V. SEC.	ABOVE (+) BELOW (-)	RIGHT(+) LEFT(-)	
TIE IN	0	0.0	0.0			N/A	0.00	0.00	0.00		0.00	0.00	N/A	N/A			
1	476	0.7	209.7			476	475.99	-2.53	-1.44	0.31	2.91	209.70	0.15	0.15	474.96	4725.04	-2.91
2	508	0.9	236.1			32	507.99	-2.84	-1.75	0.47	3.33	211.62	1.29	0.63	506.45	4693.55	-3.32
3	540	2.6	285.7			32	539.97	-2.78	-2.65	1.32	3.84	223.67	6.66	5.31	535.62	4664.38	-3.63
4	572	3.8	284.9			32	571.92	-2.31	-4.38	3.09	4.95	242.17	3.75	3.75	561.74	4638.26	-3.89
5	603	5.5	285.6			31	602.82	-1.65	-6.80	5.57	7.00	256.39	5.49	5.48	584.44	4615.56	-4.25
6	635	6.5	288.9			32	634.64	-0.65	-9.99	8.90	10.01	266.29	3.30	3.13	605.31	4594.69	-4.61
7	667	6.7	285.4			32	666.43	0.43	-13.50	12.55	13.51	271.84	1.40	0.63	625.06	4574.94	-5.02
8	699	6.6	286.2			32	698.21	1.44	-17.07	16.22	17.13	274.83	0.43	-0.31	644.75	4555.25	-5.52
9	730	6.6	289.1			31	729.01	2.52	-20.46	19.77	20.62	277.03	1.08	0.00	663.87	4536.13	-5.89
10	763	6.9	296.2			33	761.78	4.02	-24.04	23.64	24.37	279.49	2.69	0.91	683.88	4516.12	-5.95
11	795	6.7	298.0			32	793.56	5.74	-27.41	27.42	28.00	281.84	0.91	-0.63	703.20	4496.80	-5.71
12	826	7.0	297.4			31	824.33	7.46	-30.68	31.11	31.58	283.67	0.99	0.97	721.82	4478.18	-5.45
13	859	8.2	294.9			33	857.04	9.38	-34.60	35.47	35.85	285.17	3.77	3.64	740.16	4459.84	-5.26
14	891	9.2	294.0			32	888.67	11.38	-39.01	40.31	40.64	286.26	3.15	3.13	755.85	4444.15	-5.19
15	923	10.6	292.0			32	920.20	13.52	-44.08	45.81	46.10	287.06	4.50	4.38	769.24	4430.76	-5.25
16	954	12.3	289.1			31	950.58	15.67	-49.84	51.95	52.25	287.46	5.79	5.48	779.38	4420.62	-5.58
17	986	14.2	288.5			32	981.73	18.03	-56.78	59.26	59.58	287.62	5.95	5.94	786.44	4413.56	-6.20
18	1,018	16.5	289.8			32	1012.58	20.82	-64.78	67.70	68.04	287.82	7.27	7.19	789.47	4410.53	-6.84
19	1,050	17.4	289.3			32	1043.19	23.94	-73.57	77.01	77.37	288.02	2.85	2.81	789.41	4410.59	-7.50
20	1,082	17.5	289.5			32	1073.72	27.13	-82.62	86.58	86.96	288.18	0.36	0.31	788.40	4411.60	-8.19
21	1,114	18.0	292.6			32	1104.20	30.63	-91.72	96.32	96.70	288.47	3.34	1.56	786.77	4413.23	-8.62
22	1,146	17.5	292.7			32	1134.67	34.39	-100.73	106.08	106.44	288.85	1.57	-1.56	785.10	4414.90	-8.78
23	1,177	17.7	292.2			31	1164.22	37.97	-109.39	115.45	115.79	289.14	0.81	0.65	783.76	4416.24	-8.96
24	1,209	17.6	293.1			32	1194.72	41.70	-118.35	125.15	125.48	289.41	0.91	-0.31	782.29	4417.71	-9.12
25	1,241	17.5	292.3			32	1225.23	45.43	-127.25	134.80	135.11	289.65	0.82	-0.31	781.00	4419.00	-9.26
26	1,273	17.7	292.1			32	1255.73	49.08	-136.21	144.47	144.78	289.82	0.65	0.62	779.63	4420.37	-9.49
27	1,306	17.2	297.5			33	1287.21	53.23	-145.18	154.35	154.63	290.13	5.13	-1.52	778.54	4421.46	-9.29
28	1,338	17.0	298.2			32	1317.80	57.62	-153.50	163.74	163.96	290.57	0.90	-0.62	778.20	4421.80	-8.59
29	1,369	16.8	296.8			31	1347.46	61.78	-161.49	172.73	172.91	290.94	1.46	-0.65	778.24	4421.76	-7.97
30	1,402	17.0	297.2			33	1379.03	66.14	-170.04	182.30	182.45	291.25	0.70	0.61	778.26	4421.74	-7.39
31	1,434	17.0	296.9			32	1409.64	70.39	-178.37	191.64	191.76	291.54	0.27	0.00	778.08	4421.92	-6.83
32	1,466	16.7	295.7			32	1440.26	74.50	-186.69	200.90	201.01	291.76	1.44	-0.94	778.18	4421.82	-6.38
33	1,498	16.9	295.9			32	1470.90	78.53	-195.02	210.15	210.23	291.93	0.65	0.62	778.35	4421.65	-6.02
34	1,530	16.8	295.2			32	1501.52	82.53	-203.38	219.42	219.49	292.09	0.71	-0.31	778.43	4421.57	-5.70
35	1,562	16.6	295.2			32	1532.17	86.44	-211.70	228.61	228.67	292.21	0.63	-0.62	778.79	4421.21	-5.44
36	1,593	16.0	295.6			31	1561.93	90.18	-219.56	237.30	237.36	292.33	1.97	-1.94	779.88	4420.12	-5.16
37	1,625	15.2	296.7			32	1592.75	93.97	-227.29	245.90	245.95	292.46	2.67	-2.50	782.38	4417.62	-4.78
38	1,658	13.6	294.4			33	1624.71	97.51	-234.69	254.10	254.14	292.56	5.15	-4.85	787.32	4412.68	-4.49
39	1,690	13.3	295.6			32	1655.83	100.66	-241.43	261.54	261.58	292.63	1.28	-0.94	793.92	4406.08	-4.30
40	1,722	11.8	297.1			32	1687.07	103.74	-247.67	268.49	268.51	292.73	4.80	-4.69	802.27	4397.73	-3.97
41	1,754	11.7	298.8			32	1718.40	106.79	-253.42	274.98	275.00	292.85	1.13	-0.31	812.19	4387.81	-3.47
42	1,785	10.8	297.8			31	1748.80	109.66	-258.75	281.01	281.02	292.97	2.97	-2.90	822.73	4377.27	-2.97
43	1,818	10.6	297.2			33	1781.23	112.49	-264.18	287.12	287.13	293.06	0.69	-0.61	835.01	4364.99	-2.55
44	1,850	9.3	299.4			32	1812.74	115.11	-269.05	292.63	292.64	293.16	4.23	-4.06	848.37	4351.63	-2.10
45	1,882	8.8	299.2			32	1844.35	117.57	-273.44	297.64	297.64	293.27	1.57	-1.56	863.47	4336.53	-1.60
46	1,914	7.1	292.8			32	1876.04	119.53	-277.40	302.05	302.06	293.31	5.98	-5.31	880.61	4319.39	-1.39
47	1,945	6.2	292.7			31	1906.83	120.92	-280.71	305.64	305.65	293.30	2.90	-2.90	899.57	4300.43	-1.44
48	1,977	4.6	288.6			32	1938.69	121.99	-283.52	308.65	308.65	293.28	5.14	-5.00	921.52	4278.48	-1.57
49	2,009	4.0	285.8			32	1970.60	122.71	-285.81	311.03	311.04	293.24	1.99	-1.88	945.58	4254.42	-1.84
50	2,041	3.6	289.7			32	2002.53	123.35	-287.83	313.14	313.15	293.20	1.49	-1.25	970.56	4229.44	-2.05
51	2,073	2.3	302.6			32	2034.48	124.03	-289.32	314.78	314.79	293.21	4.54	-4.06	997.12	4202.88	-2.02
52	2,105	2.2	294.1			32	2066.46	124.63	-290.42	316.03	316.03	293.23	1.09	-0.31	1024.98	4175.02	-1.92
53	2,136	1.5	266.9			31	2097.44	124.85	-291.37	316.98	316.99	293.20	3.56	-2.26	1052.81	4147.19	-2.09
54	2,168	2.0	236.9			32	2129.43	124.52	-292.25	317.67	317.68	293.08	3.21	1.56	1082.55	4117.45	-2.75
55	2,200	1.1	220.2			32	2161.42	123.98	-292.92	318.06	318.08	292.94	3.12	-2.81	1113.24	4086.76	-3.51
56	2,232	0.8	223.7			32	2193.41	123.59	-293.27	318.23	318.25	292.85	0.95	-0.94	1144.69	4055.31	-4.01



SURVEY CALCULATION PROGRAM

0201

1.00

File:

2.00

OPERATOR:	Lime Rock Resources	Current Target Information	VS Referenced to Offset from Surface
WELL:	Hawk 9B Federal #18	TARGET KBTVD:	5200.00
LOCATION:	Eddy Co. NM	TARGET INCL:	16.88
RIG:	United Rig #33	TARGET AZM:	293.57
JOB NUMBER:	TX-17-007		
SURVEY COMPANY	DIRECTIONAL COMPANY	PROPOSED DIRECTION:	293.57
Kingstey Directional	Accel Directional	COMMENTS:	
Directional Drillers	COORDINATORS		
Allen Hightower	Chris Shipp		

Lime Rock Resources						Hawk 9B Federal #18								Target Calculations				
SVY	MD	INC	TRUE	TEMP	API	Course	TVD	N-S	E-W	Surface		CLOSURE		DLS/	BUR/	TVD AT 0'	ABOVE (+)	RIGHT(+)
			AZM	*F	Gamma	Length				Vert Sect	DIST	DIR	100'	100'	V. SEC.	BELOW (-)	LEFT(-)	
57	2,264	0.9	247.8			32	2225.41	123.33	-293.66	318.48	318.51	292.78	1.15	0.31	1175.86	4024.14	-4.40	
58	2,295	0.2	146.4			31	2256.41	123.20	-293.86	318.60	318.63	292.75	3.10	-2.26	1206.45	3993.55	-4.61	
59	2,327	0.5	91.9			32	2288.41	123.14	-293.69	318.43	318.46	292.75	1.30	0.94	1239.03	3960.97	-4.58	
60	2,359	1.3	93.1			32	2320.40	123.12	-293.18	317.96	317.99	292.78	2.50	2.50	1272.57	3927.43	-4.41	
61	2,391	1.8	90.7			32	2352.39	123.09	-292.32	317.15	317.18	292.84	1.58	1.56	1307.21	3892.79	-4.08	
62	2,423	2.2	93.8			32	2384.37	123.05	-291.20	316.11	316.13	292.91	1.29	1.25	1342.62	3857.38	-3.68	
63	2,455	1.7	99.5			32	2416.35	122.93	-290.12	315.07	315.09	292.96	1.67	-1.56	1378.02	3821.98	-3.36	
64	2,487	0.6	83.5			32	2448.35	122.87	-289.49	314.47	314.48	293.00	3.55	-3.44	1412.01	3787.99	-3.16	
65	2,519	0.6	78.8			32	2480.34	122.92	-289.16	314.18	314.20	293.03	0.15	0.00	1444.94	3755.06	-2.98	
66	2,551	0.5	57.5			32	2512.34	123.03	-288.87	313.97	313.98	293.07	0.71	-0.31	1477.65	3722.35	-2.77	
67	2,581	0.4	51.3			30	2542.34	123.16	-288.68	313.85	313.86	293.11	0.37	-0.33	1508.05	3691.95	-2.57	
68	2,615	0.4	35.5			34	2576.34	123.33	-288.52	313.77	313.78	293.15	0.32	0.00	1542.31	3657.69	-2.34	
69	2,647	0.4	75.1			32	2608.34	123.45	-288.35	313.66	313.66	293.18	0.85	0.00	1574.68	3625.32	-2.17	
70	2,680	0.7	57.7			33	2641.34	123.59	-288.07	313.45	313.46	293.22	1.03	0.91	1608.35	3591.65	-1.93	
71	2,712	0.5	42.7			32	2673.34	123.80	-287.81	313.30	313.30	293.27	0.79	-0.63	1640.86	3559.14	-1.63	
72	2,744	0.6	56.8			32	2705.34	123.99	-287.57	313.16	313.16	293.32	0.52	0.31	1673.31	3526.69	-1.36	
73	2,808	0.4	29.0			64	2769.33	124.37	-287.18	312.96	312.96	293.42	0.48	-0.31	1737.98	3462.02	-0.86	
74	2,872	0.7	37.1			64	2833.33	124.88	-286.84	312.84	312.84	293.53	0.48	0.47	1802.35	3397.65	-0.26	
75	2,936	0.7	42.8			64	2897.33	125.48	-286.34	312.62	312.62	293.66	0.11	0.00	1867.07	3332.93	0.49	
76	2,968	0.5	55.4			32	2929.32	125.70	-286.09	312.49	312.49	293.72	0.75	-0.63	1899.52	3300.48	0.80	
77	3,028	0.8	45.5			60	2989.32	126.14	-285.57	312.19	312.19	293.83	0.53	0.50	1960.49	3239.51	1.41	
78	3,061	0.6	28.0			33	3022.32	126.46	-285.33	312.09	312.10	293.90	0.88	-0.61	1993.81	3206.19	1.79	
79	3,125	0.6	25.4			64	3086.31	127.06	-285.03	312.05	312.06	294.03	0.04	0.00	2057.93	3142.07	2.46	
80	3,190	0.9	32.6			65	3151.31	127.79	-284.61	311.96	311.98	294.18	0.48	0.46	2123.23	3076.77	3.31	
81	3,254	0.8	42.3			64	3215.30	128.55	-284.04	311.74	311.77	294.35	0.27	-0.16	2187.95	3012.05	4.23	
82	3,318	1.1	28.8			64	3279.29	129.42	-283.44	311.54	311.59	294.54	0.58	0.47	2252.60	2947.40	5.26	
83	3,382	0.7	97.3			64	3343.29	129.90	-282.76	311.11	311.17	294.68	1.67	-0.63	2318.01	2881.99	5.98	
84	3,446	0.9	122.4			64	3407.28	129.59	-281.94	310.24	310.30	294.68	0.62	0.31	2384.88	2815.12	6.01	
85	3,510	0.9	133.5			64	3471.27	128.97	-281.15	309.27	309.32	294.64	0.27	0.00	2452.07	2747.93	5.77	
86	3,574	0.8	117.3			64	3535.26	128.42	-280.39	308.35	308.40	294.61	0.40	-0.16	2519.09	2680.91	5.57	
87	3,639	1.0	118.4			65	3600.26	127.94	-279.49	307.33	307.38	294.60	0.31	0.31	2587.43	2612.57	5.49	
88	3,703	1.0	213.3			64	3664.25	127.21	-279.31	306.87	306.91	294.49	2.30	0.00	2652.95	2547.05	4.89	
89	3,767	1.2	233.5			64	3728.24	126.34	-280.15	307.30	307.32	294.27	0.68	0.31	2715.53	2484.47	3.76	
90	3,831	0.9	231.6			64	3792.23	125.63	-281.08	307.87	307.88	294.08	0.47	-0.47	2777.64	2422.36	2.74	
91	3,895	0.4	268.4			64	3856.22	125.31	-281.70	308.31	308.32	293.98	0.98	-0.78	2840.19	2359.81	2.20	
92	3,959	0.4	272.6			64	3920.22	125.32	-282.15	308.72	308.73	293.95	0.05	0.00	2902.83	2297.17	2.02	
93	4,023	0.2	271.6			64	3984.22	125.33	-282.48	309.03	309.04	293.93	0.31	-0.31	2965.80	2234.20	1.90	
94	4,087	0.6	285.3			64	4048.22	125.42	-282.92	309.47	309.47	293.91	0.64	0.63	3028.37	2171.63	1.81	
95	4,150	0.7	301.0			63	4111.22	125.71	-283.57	310.17	310.18	293.91	0.32	0.16	3089.03	2110.97	1.81	
96	4,213	0.8	310.2			63	4174.21	126.19	-284.23	310.98	310.98	293.94	0.25	0.16	3149.22	2050.62	1.99	
97	4,277	1.1	303.6			64	4238.20	126.82	-285.08	312.01	312.02	293.98	0.50	0.47	3209.96	1990.04	2.22	
98	4,341	0.9	295.2			64	4302.19	127.37	-286.05	313.12	313.13	294.00	0.39	-0.31	3270.30	1929.70	2.34	
99	4,405	1.2	310.7			64	4366.18	128.02	-287.01	314.26	314.27	294.04	0.64	0.47	3330.53	1869.47	2.56	
100	4,470	0.5	275.3			65	4431.17	128.49	-287.81	315.18	315.19	294.06	1.30	-1.08	3392.49	1807.51	2.67	
101	4,533	0.7	265.7			63	4494.17	128.49	-288.47	315.78	315.79	294.01	0.35	0.32	3453.50	1746.50	2.40	
102	4,597	0.2	154.4			64	4558.17	128.36	-288.81	316.04	316.05	293.96	1.24	-0.78	3516.64	1683.36	2.15	
103	4,661	1.5	152.8			64	4622.16	127.51	-288.38	315.31	315.31	293.85	2.03	2.03	3583.05	1616.95	1.54	
104	4,756	0.5	227.7			95	4717.15	126.13	-288.12	314.52	314.52	293.64	1.53	-1.05	3680.65	1519.35	0.38	
105	4,820	0.1	177.7			64	4781.15	125.89	-288.32	314.61	314.61	293.59	0.69	-0.63	3744.36	1455.64	0.07	
106	4,884	0.5	203.8			64	4845.15	125.57	-288.43	314.58	314.58	293.53	0.64	0.63	3808.43	1391.57	-0.26	
107	4,948	0.6	203.6			64	4909.14	125.01	-288.68	314.58	314.58	293.41	0.16	0.16	3872.42	1327.58	-0.87	
PTB	4,990	0.6	203.6			42	4951.14	124.61	-288.86	314.58	314.59	293.33	0.00	0.00	3914.42	1285.58	-1.31	

Allen Hightower 3-2-17
Robert Christ 3-2-17