
W 60
Inc. 350

Kneeshaw

Peg Book Bench Levels
Barrett to Marina 12-22-13

	+	-	H.E	B.M. Elev
1:			U.S. 1533.598 =	87.475
	0.296		33.894	
TP		0.749		33.145
	1.796		34.941	
TP		0.243		34.698
	0.488		35.186	
TP		12.409		22.777
	1.454		24.231	
TP		12.711		11.520
	2.951		14.471	
TP		4.335		10.136
	4.609		14.745	
TP		5.270		09.475
	9.388		18.863	
TP		8.335		10.527
	4.177		14.705	
TP		4.075		10.627
	5.210		15.837	
TP		4.795		10.837

	+	-	HI	Elev
	4.086		16.925	1510.839
TP		5.150		11.775
	5.464		17.239	
TP		5.242		1511.997
	5.050		1517.047	
TP		4.207		1512.840
	5.081		1517.921	
T.P.		6.154		1511.767
	7.264		1519.131	
TP		4.550		1514.581
	4.531		1519.012	
TP		4.680		1514.332
	5.219		1519.551	
TP		4.644		1514.907
	4.984		1519.891	
BM 1		1.842		1518.049
TP		4.470		1515.421
	5.003		1520.424	
TP		4.582		1515.842
	4.911		1520.293	

	+	-	H.I.	Elv
TP		5.082		1515.201
	5.944		1521.146	
2 BM	Stump	1.494		1519.652
TP		2.590		1518.555
	3.624		1522.178	
TP		3.946		1518.233
	4.450		1522.683	
TP		4.881		1517.802
	4.935		1522.737	
TP		4.672		1518.065
	5.985		1524.050	
TP		3.464		1520.586
	3.340		1523.426	
TP		4.643		1519.283
	4.910		1524.193	
TP		5.084		1519.109
	5.403		1524.512	
3 BM	Sandstone	2.970		1521.542
TP		1.360		1523.152

	+	-	H.I.	Elev
	5.345		1528.497	
B.M.4	Headgate	4.630		1523.867
T.P.		4.728		1523.769
	2.488		1526.257	
T.P.		4.120		1522.137
	6.200		1528.337	
T.P. 5 B.M.		1.186		1528.152
	4.191		1532.343	
T.P.		3.788		1529.555
	10.030		1539.585	
T.P.		11.582		1528.003
	5.333		1533.336	
T.P.		1.747		1531.589
	3.464		1535.053	
T.P.		2.300		1532.753
	4.030		1536.783	
T.P.		4.060		1532.723
	12.973		1545.696	
T.P.		2.952		1542.744
	5.758		1548.502	

	+	-	H.I.	Elev
B.M. TP.7	Rock	4.790		1543.712
	4.474		1548.186	
T.P.		7.484		1540.702
	7.049		1547.751	
B.M.8	Rock	3.924		1543.827
B.M. T.P.		6.840		1540.911
	4.352		1545.263	
T.P.		4.607		1540.656
	5.439		1546.095	
T.P.		4.239		1541.856
	6.081		1547.937	
T.P.		3.435		1544.502
	5.624		1550.126	
T.P.		2.963		1547.163
	10.061		1557.224	
B.M.	Rock 9	3.224		1554.000
T.P.		4.440		1552.784
	4.990		1557.774	
		2.842		1554.932

	+	−	HI	Elev
	4.175		1559.107	
TP		5.419		1553.688
	8.405		1562.093	
TP		1.360		1560.733
	12.079		1572.812	
B.M.	True 10	3.284		1569.528
TP		0.664	1578.930	1572.148
	6.782		1578.930	
TP		2.100		1576.830
	6.987		1583.817	
TP		3.586		1580.232
	3.914		1584.146	
TP.		7.918		1576.228
	7.770		1583.998	
TP.		3.300		1580.698
	4.628		1585.326	
TP.		4.925		1580.401
	3.044		1583.445	
Live Oak N. B.M.	//	0.842		1582.603
TP.		5.954		1577.491

	+	−	HI	Elev.
	3.425		1580.916	
TP		6.018		1575.898
	5.409		1581.307	
TP.		2.623		1578.684
	7.840		1586.524	
TP.		4.000		1582.524
	3.938		1586.462	
TP.		3.680		1582.782
	6.050		1588.832	
B.M.12		2.129		1586.703
	3.141		1589.844	
TP		5.368	~~1591.3~~	1584.476
	6.910		1591.386	
TP		3.780		1587.606
	8.172		1595.778	
TP		10.806		1584.972
	5.279		1590.251	
TP		4.592		1585.659
	4.855		1590.514	
BM13	Rock	0.970		1589.544

Sta	+	HI	−	Elev	
TP			3.779	1586.735	
	6.665	1593.400			
TP			3.184	1590.216	
	6.560	1596.776			
TP			3.436	1593.340	
	5.250	1598.590			
#14 B.M.			1.122	1597.468	
TP			3.758	1594.832	
	5.558	1600.390			
TP			3.832	1596.558	
	4.750	1601.308			
TP			4.022	1597.286	
	5.204	1602.490			
TP			3.005	1599.485	
	5.807	1605.292			
TP			3.508	1601.784	
	5.944	1607.728			
TP			2.900	1604.828	
	5.710	1610.538			
No 15 BM.			1.974	1608.564	Rock. N. Road below Salagan

Sta.	+ S	H.I	− S	Elev.	
TP			4.270	1606.268	
	7.062	1613.330			
TP			3.923	1609.407	
	6.100	1615.507			
TP			3.150	1612.357	
	6.195	1618.552			
TP			3.502	1615.050	
	3.541	1618.591			
TP			2.845	1615.746	
	5.460	1621.206			
TP			1.456	1619.750	
	11.086	1630.836			
TP			2.110	1628.726	T.B.M.
	3.808	1632.534			
TP			1.469	1631.065	
	6.721	1637.786			
BM 16			4.625	1633.161	Rock
TP			3.363	1634.123	
	6.835	1641.258			
TP			3.789	1637.469	
	7.750	1645.219			

Sta	+ S	H.I.	- S	Elev
TP			4.180	1641.039
	5.180	1646.219		
TP			0.968	1645.251
	11.000	1656.251		
TP			0.445	1655806
	8.106	1663.912		
TP			1.610	1662.302
	8.595	1670.897		
TP			3.745	1667.152
	3.575	1670727		
TP			3.552	1667.175
	5.903	1673.078		
BM 17	oak tree		2.430	1670.648
	0.000	1670.648		
TP			12.462	1658.186
	0.132	1658.318		
TP			5.062	1653.256
	2.950	1656.206		
TP			6.988	1649.218
	5.588	1654.806		

Sta	+ S	HI	- S	Elev
TP			6.750	1648.056
	8.302	1656.358		
TP			2.782	1653.576
	4.665	1658.241		
TP			3.538	1654.703
	6.840	1661.543		
TP			3.503	1658.040
	11.670	1669.710		
TP			0.730	1668.980
	10.905	1679.885		
BM 18	oak tree		0.558	1679.327
	3.168	1682.495		
TP			7.380	1675.115
	4.007	1679.122		
T.B.M.			0.840	1678.282
	4.205	1682.487		
TP			4.178	1678.309
	6.494	1684.803		
TP			4.100	1680.703
	6.226	1686.929		

Sta	+S	HI	-S	Elev
TP			4.875	1682.034
	5.977	1688.011		
B.M. 19			0.234	1687.777
TP			3.196	1684.815
	1.322	1686.137		
TP			3.815	1682.322
	6.870	1689.192		
TP			2.970	1686.222
	5.240	1691.462		
TP			4.548	1686.914
	10.803	1697.717		
TP			1.930	1695.787
	3.138	1700.925		
B.M. 20	Oak Tree		5.880	1695.045
	0.130	1695.175		
TP			12.822	1682.353
	2.235	1684.588		
TP			5.675	1678.913
	9.775	1688.688		
TP			5.300	1677.588

Sta	+S	HI	-S	Elev.
	5.455	1683.043		
B.M. 21	on Rock in creek bottom		0.512	1682.531
	11.010	1693.541		
TP			2.634	1690.907
	3.644	1696.551		
TP			3.240	1693.311
	5.875	1699.186		
TP			0.846	1698.340
	3.910	1702.250		
TP			12.198	1690.052
	3.844	1693.896		
B.M. 22	Rock in River bottom		2.682	1691.214
	3.475	1694.689		
TP			1.290	1693.399
	3.300	1696.699		
TP			2.984	1693.715
	4.672	1698.387		
TP			2.990	1695.397
	7.926	1705.323		
TP			5.406	1699.917

Sta	+S	HI	-S	Elev
	4.060	1701.927		
TP			4.371	1697.600
	4.863	1702.463		
BM 23	Rock in Creek		1.606	1700.857
TP			0.740	1701.723
	11.895	1713.618		
TP			1.422	1712.196
	4.743	1716.939		
A			4.628	1712.311
	12.404	1724.715		
TP			2.093	1722.622
	11.525	1734.147		
BM 24	Flat Rock		1.483	1732.664
	12.588	1745.252		
TP			1.100	1744.152
	12.836	1756.988		
TP			0.232	1756.756
	12.790	1769.546		
TP			0.493	1769.053
	12.565	1781.618		

Sta	+S	HI	-S	Elev
BM 25	Big Rock N side of Creek		0.450	1781.168
	11.840	1793.008		
TP			0.372	1792.636
	7.100	1799.736		
TP			3.660	1796.076
	11.592	1807.668		
TP			0.456	1807.212
	12.710	1819.922		
TP			2.600	1817.322
	8.164	1825.486		
TP			12.060	1813.426
	2.603	1816.029		
TP			12.965	1803.064
	0.198	1803.262		
TP			12.795	1790.467
	0.500	1790.967		
BM 26			4.650	1786.317 2473 74
	9.032	1781.935		
TP			4.260	1786.193
	4.812	1781.383		

Sta	-S	HI	+S	Elevat.
TP			2,122	1783.505
	6.820	1776.623		
TP			7.675	1784.948
	1.530	1782.768		
TP			9.000	1791.768
	3.295	1788.473		
TP			3.607	1792.080
	1.801	1790.279		
TP			5.480	1795.759
	4.226	1791.533		
TP			11.489	1803.022
	0.446	1802.576		
TP			9.696	1812.272
	0.492	1811.780		
TP			10.515	1822.295
BM 27	0.892	1821.403	Rock N side of creek 15' ±	
		3.391 +12		
TP			8.802	1830.205
	2.630	1827.575		
TP			2.828	1830.403
	3.032	1827.371		

Sta	-S	HI	+S	Elev.
TP			9.510	1837.881
	3.922	1833.959		
TP			12.582	1846.541
BM 28	6.421	1840.120	Rock 20 ft ± N side of creek	
		1.53 7		
TP			0.374	1846.167
	12.525	1858.692		
TP			0.268	1858.424
	12.828	1871.252		
TP			0.422	1870.830
	12.088	1882.918		
TP			3.210	1879.708
	12.794	1892.502		
TP			0.770	1891.732
	11.166	1902.898		
TBM			0.000	1902.898
	12.784	1915.682		
TP			1.734	1914.948
	7.950	1922.898		
TP			0.300	1922.598
	10.412	1933.010		

Sta	+S	H.I	-S	Elevat
TP			1.270	1931.740
	7.740	1941.480		
TP			1.016	1940.464
	11.982	1952.446		
TP			0.030	1952.416
	11.182	1963.598		
29# BM			0.277	1963.321
	4.532	1967.853		
TP			0.972	1966.881
	12.170	1979.051		
TP			0.675	1978.376
	12.492	1990.868		
TP			0.780	1990.088
	12.688	2002.756		
TP			0.430	2002.326
	12.824	2015.150		
TBM			0.404	2014.746
	9.534	2024.280		
TP			1.680	2022.600
	11.973	2034.573		

Sta	+S	H.I	-S	Elev
TP			0.153	2034.420
	12.153	2046.573		
TP			1.587	2044.986
	11.850	2056.836		
TP			0.148	2056.688
	12.882	2069.570		
TP			0.435	2069.135
	12.630	2081.765		
TP			2.404	2079.361
	12.162	2091.523		
TP			0.116	2091.407
	12.810	2104.217		
TP			0.018	2104.199
	11.617	2115.816		
TP			1.748	2114.148
	12.700	2126.848		
TP			0.672	2126.176
	11.782	2137.958		
TP			0.090	2137.868
	11.230	2149.098		

Sta	+S	HI	-S	Elev
TP			0.799	2148.305
	11.343	2159.648		
TP			0.555	2159.093
	12.084	2171.177		
TP			2.170	2169.007
	12.562	2181.569		
TP			0.443	2181.126
	12.932	2194.058		
TP			0.221	2193.837
	12.745	2206.582		
TP			0.015	2206.567
	12.943	2219.510		
TP			1.026	2218.484
	12.689	2231.173		
TP			2.968	2228.205
	12.960	2241.165		
TP			2.515	2238.650
	11.909	2250.559		
			0.000	2250.559

Sta	+S	HI	-S	Elev
	13.050	2263.609		
TP			0.391	2263.218
	11.867	2275.085		
TP			0.752	2274.333
	12.866	2287.199		
TP			0.264	2286.935
	12.944	2299.879		
TP			1.200	2298.679
	12.589	2311.268		
TP			0.720	2310.548
	12.314	2322.862		
			0.955	2321.907
	12.230	2334.137		
			0.102	2334.035
	12.410	2346.445		
			0.120	2346.325
	12.315	2358.640		
			0.169	2358.471
	12.235	2370.706		
			1.760	2368.946

Sta	+S	HI	-S	Elev
	11.595	2390.544		
TP			0660	2379.884
	12.804	2392.688		
TP			3.722	2388.966
	11.812	2400.778		
TP			0.788	2399.990
	13.050	2413.040		
TP			2.330	2410.710
	10.822	2421.532		
TP			4.318	2417.214
	12.864	2430.078		
TP			6.320	2423.758
	5.162	2428.920		
TP			0.780	2428.140
	12.888	2441.028		
TP			0.353	2440.675
	11.850	2452.525		
TP			0.875	2451.650
	12.993	2464.643		
			0.190	2464.453

Sta	+S	H.I	-S	Elev.	
	13.010	2477.463			
TP			0.052	2477.411	
	10.909	2488.320			
TP			2.024	2486.296	
	12.727	2499.023			
TP			0.428	2498.595	
	12.508	2511.103			
TP			0.756	2510.347	
	12.684	2523.031			
TP			1.624	2521.407	
	12.798	2534.205			
TP			0.572	2533.633	
	12.627	2546.260			
TP			0.758	2545.502	
	12.187	2557.689			
TP			1.038	2556.651	
	11.200	2567.851			
TP			0.066	2567.785	
	12.532	2580.317			
TP			0.228	2580.089	TBM

Sta	+S	HI	-S	Elev
	12400	2592.459		
T.P.			0286	2592.203
	12.182	2604.386		
T.P.			0.083	2604.303
	12.775	2617.078		
T.P.			0577	2616.501
	13.008	2629.509		
T.P.			0388	2629.121
	12.720	2641.841		
T.P.	/		0.502	2641.339
	12.540	2653.879		
T.P.			0.963	2652.916
	12.770	2665.686		
T.P.			0800	2664.886
	12.262	2677.148		
T.P.			0285	2676.863
	12.265	2689.178		
T.P.			0.161	2689.017
	12.990	2702.007		
T.P.			0544	2701.463

Sta	+S	HI	-S	Elev
	12.985	2774.448		
T.P.			0.414	2774.034
	9.543	2723.577		
T.P.			0.235	2723.342
	10.015	2733.357		
T.P.			0.287	2733.070
	12.789	2745.859		
T.P.			0.430	2745.429
	12.580	2758.009		
B.M.			3.325	2754.684
T.P.			2.198	2755.811
	3.863	2759.674		
T.P.			0.121	2759.553
	12.810	2772.363		
T.P.			3.604	2768.759
	12.779	2781.538		
T.P.			0.110	2781.428
	7.760	2789.188		
T.P.			10.761	2778.427

Sta	+S	H.I.	−S	Elev.
	6.827	2785.254		
TP			3.120	2782.134
	11.618	2793.752		
TP			2.224	2791.528
	13.050	2804.578		
TP			3.226	2801.352
	12.449	2813.801		
TP			1.788	2812.013
	13.049	2825.062		
TP			1.280	2823.782
	10.730	2834.512		
TP			0.725	2833.787
	11.590	2845.377		
TP			3.550	2841.827
	12.990	2854.817		
TP			0.055	2854.762
	12.009	2866.771		
TP			3.195	2863.586
	12.504	2876.090		
TP			0.440	2875.650

Sta	+S	H.I.	−S.	Elev.
	13046	2888.696		
TP			0.696	2888.000
	12445	2900.445		
TP			0.712	2899.733
	12302	2912.025		
TP			0.630	2911.405
	12328	2923.733		
TP			0.267	2923.466
	12320	2935.996		
TP			0.515	2935.481
	12775	2948.356		
TP			0.059	2948.297
	12860	2961.157		
TP			0.021	2961.136
	12721	2973.837		
TP			0.890	2972.947
	12879	2985.346		
TP			0.068	2985.278
	12950	2997.328		
TP			0.412	2996.916
	13010	3010.926		

Sta	+S	HI.	−S	Elev.
TP			0040	3010.886
	12568	3023.454		
TP			0470	3022.984
	12950	3035.934		
TP			0.287	3035.647
	5523	3041.170		
B.M.	N end	dam	2.880	3038.290
	5652	3043.942		
TP			7030	3036.912
	4140	3041.052		
TP			12998	3028.054
	1092	3029.146		
TP			12.960	3016.186
	4543	3020.729		
TP			11.932	3008.797
	10.060	3018.857		
TP			4.968	3013.889
	4998	3018.887		
TP			5.807	3013.080
	10500	3023.580		
U.S.G.S.	3010.00		9.810	3013.770

Click Lunch 1533.598

Barrett to Hansen. 1-14, -14

B.M.	0.717	1534.315		1533.598
TP			12449	1521.866
	0503	1522.369		
TP			9129	1513.240
	2920	1516.160		
TP			10.853	1505.307
	1440	1506.747		
TP			11.293	1495.454
	4389	1499.843		
TP			0619	1499.224
	10.110	1509.334		
TP			5637	1503.697
	12309	1514.006		
TP			4592	1509.414
	7483	1516.897		
TP			4.710	1512.187
	1880	1513.987		
TP			4.912	1509.075
	4551	1514.526		
TP	11.024	1520.767	4.780 10.346	1509.7443 1510.422
	55.246		78.422	

Sta	+S	H.I.	-S	Elev
	4968	1515.390		
TP			5.133	1510.257
	4.402	1514.659		
TP			4.030	1510.629
	5.125	1515.754		
TP			4.915	1510.839
	6.015	1516.854		
TP			3.850	1512.974
	4.261	1517.236		
TP			5.302	1511.933
	5.170	1517.103		
TP			4.103	1513.000
	4.831	1517.831		
TP			5.202	1512.629
	5.436	1518.065		
TP			2.624	1515.441
	4.041	1519.482		
TP			6.760	1512.722
	7.392	1520.094		
TP			5.912	1514.182 ✓
	51.621		47.861	

Sta	+S	H.I.	-S	Elev
	0.800	1519.982		
BM1			1.952	1518.030
TP			4.004	1515.978
	4.066	1520.044		
TP			4.142	1515.902
	4.870	1520.772		15
TP			5.039	1515.733
	4.788	1520.521		
BM2			0.900	1519.621
	2.350	1521.971		
TP			4.835	1517.136
	5.669	1522.805		
TP			5.550	1517.255
	5.562	1522.817		
TP			4.970	1517.847
	5.232	1523.079		
TP			4.059	1519.020
	4.210	1523.230		
TP			2.709	1520.521
	4.263	1524.784		
	42.547		36.208	✓

Sta	+S	HI	-S	Elev.
TP	4.263		5.723	1519.061
	5.154	1524.245		
TP			5.222	1519.023
	5.210	1524.233		
BM 3			2.720	1521.513
	6.854	1528.367		
TP			4.603	1523.764
	5.243	1528.007		
BM 4			5.170	1522.837
	4.310	1528.147		
TP			4.132	1524.015
	3.716	1527.731		
TP			3.026	1524.711
	4.684	1529.395		
BM 5			1.230	1528.165
TP			4.006	1525.389
	3.365	1528.704		
TP			2.524	1526.180
	42.779		38.350	
	4.429	1532.208		
BM 6			1.824	1530.384

Sta	+S	HI	-S	Elev.
BM 7 TP	6.028		1.644	1530.564
	3.479	1534.043		
TP			3.840	1530.203
	5.615	1535.818		
TP			0.900	1534.918
	10.430	1545.348		
TP			3.704	1541.644
	5.820	1547.464		
BM 7½ TP			4.790	1542.674
	2.103	1544.777		
BM 8 TP			1.979	1542.798
	2.631	1545.429		
TP			6.116	1539.313
	4.960	1544.273		
TP			3.485	1540.788
	4.582	1545.671		
TP			3.681	1541.990
	6.422	1548.412		
TP	52.371			
	32.442		2.303	1546.109
	19.929		32.442	26180
				19929

Sta	+S	HI	-S	Elev
	8.305	1554.414		
B.M.9			1.464	1552.950
T.P.			2.682	1551.732
	4.964	1556.696		
T.P.			2.190	1554.506
	2.900	1557.406		
T.P.			4.375	1553.031
	5.910	1558.941		
T.P.			0.130	1558.811
	11.067	1569.878		
T.P. B.M.10.			1.372	1568.526
	7.414	1575.940		
T.P.			3.542	1572.398
	6.040	1578.438		
T.P.			1.100	1577.338
	5.527	1582.865		
T.B.M.			2.644	1580.221
	3.300	1583.521		
T.P.	58.447 40.663 34.784		2.428 20.663	1580.893 1546.109 34.784 ✓

Sta	+S	HI	-S	Elev	
	3.683	84.576			
T.P.			11.310	1573.266	
	6.950	1580.546			
T.P.			0.290	1579.926	
	3.245	1583.171			
T.P.			2.460	1580.711	
	3.040	1583.751			
B.M.11			2.165	1581.586	.017
T.P.			6.080	1577.671	
	3.755	1581.426			
T.P.			6.028	1575.398	
	8.108	1583.506			
T.P.			3.615	1579.891	
	7.805	1587.696			
T.P.			5.731	1581.965	
	3.675	1585.640			
T.P.			3.270	1582.370	
	5.804	1588.174			
B.M.12			2.528	1585.646	
T.P.			2.127	1586.047	

Sta	+S	H.I	-S	Elev
	5375	1591.422		
T.P.			1.926	1589.496
	3.952	1593.448		
T.P.			9.330	1584.118
	5.070	1589.188		
T.P.			4.164	1585.024
	5150	1590.904		
B.M.13			(1.678)	1588.526
T.P.			3.244	1586.960
	6.344	1593.304		
T.P.			2.400	1590.904
	5633	1596.537		
T.P.			3.401	1593.135
	4.783	1597.918		
B.M.14			(1.402)	1596.516
	1.330	1597.846		
T.P.			3.990	1593.856
	5553	1599.409		
T.P.			3.755	1595.654

Sta	+S	HI	-S	Elev
	3.675	1599.329		
T.P.			2.825	1596.504
	5.135	1601.639		
T.P.			2.772	1598.867
	6.200	1605.067		
T.P.			3.880	1601.187
	5.440	1606.627		
T.P.			2.755	1603.872
	5.575	1609.447		
B.M.15			(1.893)	1607.554
T.P.			3.955	1605.492
	5.970	1611.472		
T.P.			2.927	1608.545
	5393	1613.938		
T.P.			2.920	1611.018
	6.255	1617.273		
T.P.			4.055	1613.218
	5.064	1618.282		
			3.127	1615.155

Sta	+S	HI	-S	Elev
	7.464	1622.619		
BM 15½			3.895	1618.724
	12.320	1631.044		
T.P.			3.569	1627.475
	12.225	1639.800		
B.M.16			7.722	1632.078
	7.540	1639.618		
T.P.			4.110	1635.508
	5.725	1641.233		
T.P.			1.142	1640.091
	11.165	1651.256		
T.P.			0.615	1650.641
	11.825	1662.466		
T.P.			0.500	1661.966
	8.446	1670.412		
T.P.			0.460	1669.952
	6.715	1676.667		
T.P.			6.853	1669.814
	2.350	1672.164		
BM 17			2.644	1669.520

Sta	+S	HI	-S	Elev
T.P.			2.096	1670.068
	4.970	1675.058		
T.P.			1.842	1673.196
	8.135	1681.331		
T.P.			0.904	1680.427
	5.898	1686.325		
T.P.			12.026	1674.299
	4.790	1679.089		
B.M. A			0.898	1678.191
	2.914	1681.105		
T.P.			6.270	1674.835
	3.455	1678.290		
T.P.			1.126	1677.164
	4.690	1681.854		
T.P.			4.065	1677.789
	6.160	1683.949		
T.P.			3.408	1680.541
	4.725	1685.266		
			4.550	1680.716

Sta	+S	H.I	-S	Elev
S1	6.570	1687.286		
BM19			0.583	1686.701
T.P.	6.415		6.415	1680.871
	5.478	1686.349		
T.P.			2.468	1683.881
	7.460	1691.341		
T.P.			2.115	1689.226
	9.900	1698.126		
T.P.			6.430	1691.696
	4.468	1695.564		
T.P. BM20			1.800	1694.064
	0.857	1694.921		
T.P.			12.550	1682.371
	2.775	1685.246		
T.P.			7.696	1677.550
	3.370	1680.920		
T.P.			3.102	1677.818
	3.142	1681.160		
BM21			0.089	1681.571

Sta	+S	H.I	-S	Elev
	10.806	1692.377		
T.P.			1.624	1690.753
	4.728	1695.481		
T.P.			2.968	1692.513
	3.607	1696.120		
T.P.			1.570	1694.550
	6.730	1701.280		
T.P.			10.348	1690.932
	9.410	1700.342		
BM22			10.080	1690.262
T.P.			5.976	1694.366
	4.850	1699.216		
T.P.			1.572	1697.644
	3.940	1701.584		
T.P.			4.699	1696.885
	4.879	1701.764		
BM23			1.578	1699.886
	11.095	1710.981		
			0.350	1710.631

Sta	+S	HI	-S	Elev
	12868	1723.499		
TP			0.830	1722.669
	12.310	1734.979		
TP			1.740	1733.239
	11.460	1744.699		
BM24			12.867	1731.832
TP			0.482	1744.217
	12.510	1756.727		
TP			0.333	1756.394
	12.788	1769.192		
TP			1.992	1767.200
	12.680	1779.880		
TP			0.803	1779.077
	7.376	1786.453		
BM25	New		2.099	1784.354
TP			1.600	1784.853
	12.078	1796.931		
TP			0.850	1796.081
	12.958	1809.039		
TP			0.619	1808.420

Sta	+S	HI	-S	Elev
	11.890	1820.310		
TP			0.414	1819.896
	12.380	1832.276		
TP			3.920	1828.356
	2.935	1831.291		
TP			10.862	1820.429
	2.235	1822.661		
TP			12.047	1810.617
	0.698	1811.315		
TP			12.150	1799.165
	0.335	1799.500		
TP			12.983	1786.517
	0.185	1786.702		
BM26			1.459	1785.243
TP			9.193	1777.609
	5.404	1783.013		
TP			9.150	1773.863
	6.970	1780.833		
TP			0.730	1780.103

Sta.	+S	HI	-S	Elev.
	9.000	1789.103		
TP			1.940	1787.163
	13.000	1800.163		
TP			3.625	1796.538
	11.980	1808.518		
TP			2.309	1806.209
	6.748	1812.957		
TP			0.316	1812.641
	11.075	1823.716		
BM27			3.325	1820.391
	7.843	1829.234		
TP			2.982	1826.252
	3.020	1829.272		
TP			2.270	1827.002
	10.224	1837.226		
TP			3.869	1833.357
	6.640	1839.997		
BM28			1.884	1838.113

Sta	BS	HI	FS	Elev
	3.00	84.59		81.59
79+23 75 △			5.86	78.73
			6.2	78.4
79			6.4	78.2
TP	3.87	82.64	5.82	78.77
+50			3.8	78.8
78			4.2	78.4
+39 90 △			5.85	76.79
			5.7	76.9
77			4.7	77.9
+50			4.7	77.9
76			5.1	77.5
+50			5.6	77.0
75			6.5	76.1
+70			5.2	77.4
+65			6.4	76.2
+55			4.8	77.8
+47			5.2	79.4
∠22 45 △	2.38	83.55	1.47	81.17
			7.2	76.3 ✓

BM #11 1581.594
Hub
Ext 4'

Hub
Ext. 2'

Hub
Ext. 24'

Sta.	BS	HI	FS	Elev.
74		83.55	2.0	81.5
+90			4.9	78.6
+63			7.3	76.2
+50			6.4	77.1
73			7.6	75.9
+50			7.4	76.1
+02			8.8	74.7
72			9.8	73.7
+98			8.7	74.8
+50			8.3	75.2
+30			10.3	73.2
+20			8.1	75.4
71			8.0	75.5
+72.50			10.26	73.29 ✓

HUB

	BS	HI	FS	
	10.25	110.25		100
	12.95	122.35	0.85	109.40
			1.20	121.15
	10.70	110.70		
	11.35	121.20	0.95	109.85
	12.4	112.4		100
0+50			9.5	102.9
1			7.2	105.2
+50			~~3.9~~	
~~2~~	9.6	118.1	3.9	108.5
2+50		~~8.5~~	8.5	109.6
3			5.7	112.4
+50			1.8	116.3
	6.3	123.1	1.3	116.8
		~~5.5~~		

1100) 600 (.5

10.70
4.50
6.20
2.2
4.9

103
66
37

475

) 2100 (4.
1900
2000

4.5
3
13.5

12120 H.I.
1135 (300)
~~107.70~~
7.70
7.2
5.5

9.9

112.4
102.2

Grade

102.25

104.5

5.9

50	2.3
100	4.5
+50	6.8
200	9.0
+50	11.3
300	13.5
+50	15.8
400	18.0
+50	20.2

123.1
118
5.1

+	−	+	+
.6	~~1.9~~	.5	.5
.8		.5	
3.0		.5	1.7 at 9+50 raised .5
3.6			
4.4 for 50'		.7	
4.1 do.		.4	
		.8	

.5 grade 4' higher
.5
.5 " 4' "
.5

	BS	HI	FS	Elev
	3.2	33.60		
12+50			5.5	28.1

42.80
1.50
41.30
28.1
13.2
grade ch A28

A 1530.40

12+50 = A 15+85

A28
15-85
12.15

12.15) 13.20 (1.08
1215
10500
9720
0
.08
9720

PHOTOGRAPHS OF CONDUIT LINE ON COTTONWOOD.

FROM STATION-290-WEST.

KODAK

EASTMAN 3A SPECIAL MODEL A

TAKEN BY J. C. Kneehaw

MAY-30-1914

TIME	LIGHT	ROLL No	No FILM	STOP	LENGTH OF EXP.	DIRECTION LOOKING	STATION	REMARKS
9:25AM	Hazy SUNB.	1	1	45	.3	NE	28447[35]	
9:30	B SUN	1	2	45	3	E	283	
9:40	B	1	3	45	3	NW	279 to 277+20	
10:00	B	1	4	45	3	W	275 to 274+30	
10:10	B	1	5	45	3	NE	270 To 272	
10:20	B shade	1	6	45	½	SW	265 to 264	
10:30	B	1	7	45	.3	E	260 To 261	
10:35	B	1	8	45	3	W	255 To 254	
10:40	B shade	1	9	45	.3	W	251+50 to 250	
10:45	B	1	10	45	½	W	247 to 246	
11:00	B	2	11-1	45	3	E	241 To 242	
11:10	B	2	12-2	45	3	E	233+69 To 235	
11:15	B	2	13-3	45	3	E	227 To 229	
11:25	B shade	2	14-4	45	½	E	224 To 225	
11:30	B shade	2 X	15-X5	45 X	1½ X	NE	219 To 220	
11:35	B	2	16-6	45	3	E	213 To 214	

June 1. 1914.

Time	light	Roll no.	No Film	Stop	Length Exp	Direction	Station
A.M. 8:05	B shade	2	17-7	45	¾	NE	210
8:10	B shade	2	18-8	45	½	E	205
8:15	B	2	19-9	45	.3	E	200
8:20	B	2	20-10	45	.3	E	195
8:45	B shade	3	21-1	45	½	SE	190
9:55	B	3	22-2	45	.3	SE	185
9:00	B	3	23-3	45	.3	E	180
9:10	B	3	24-4	45	.3	E	175
9:15	B shade	3	25-5	45	½	NE	170
9:20	B shade	3	26-6	45	½	E	167
9:25	B	3	27-7	45	.3	W	166
9:30	B	3	28-8	45	.3	E	164
9:35	B	3	29-9	45	.3	E	163
9:35	B	3	30-10	45	.3	W	163

Kodak: Eastman 4A Folding

June 1 1914 J. C. Kneehaw

9:45	B	4	31-1	64	½	W	162
9:50	B	4	32-2	64	½	E	161+50
9:55	B	4	33-3	64	½	SE	161
10:06	B	4	34-4	64	½	SE	160

3A special (Buccaneer
June 10

Time	light	Roll no	No. Film	Stop	Exp	Direction	Sta
10:05	B	4	35-5	64	1/2	SW	159+63
10:10	B	4	36-6	64	1/2	SW	158+59
10:25	B	5	37-1	64	1/2	NE	157+47
10:30	B	5	38-2	64	1/2	E	156+48
10:40	B shade	5	39-3	64	3/4	SE	155+24
10:45	B	5	40-4	64	1/2	SE	153+50
10:50	B	5	41-5	64	1/2	E	150
1055	B	5	42-6	64	1/2	E	148+50
P.M. 2:00	B	6	43-1	64	1/2	E	146+66
2:10	B	6	44-2	64	3/4	E	144
2:20	B	6	45-3	64	1/2	E	143
2:30	B	6	46-4	64	1/2	W	141+21
2:35	B shade	6	47-5	64	3/4	NE	139+30
2:40	B	6	48-6	64	1/2	SE	107+40
2:45	B	7	49-1	64	1/2	SE	133+65
2:50	B shade	7	50-2	64	3/4	E	131
2:55	B	7	51-3	64	1/2	NE	129+80
3:00	B	7	52-4	64	1/2	SE	127+50
3:05	B	7	53-5	64	1/2	E	125+20
3:10	B	7	54-6	64	1/2	E	123

Time	light	Roll no	No. Film	Stop	Exp	Direction	Sta	
AM 9:15	B	8	55-1	45	3	NE	121	
9:20	B	8	56-2	45	3	E	119	
9:25	B	8	57-3	45	3	E	116+93	
9:30	B	8	58-4	45	3	E	115	
9:35	B	8	59-5	45	3	SE	112+20	
9:40	B	8	60-6	45	3	SE	109+50	
9:45	B	8	61-7	45	3	SE	107+65	
9:50	B	8	62-8	45	3	E	103+80	
9:55	B	8	63-9	45	3	E	101	
10:00	B	8	64-10	45	3	NE	97+25	Past arrolled enough
10:10	B	9	65-1	45	3	E	95+40	
10:15	B	9	66-2	46	3	NE	91	
10-20	B shade	9	67-3	45	3	NE	87+25	
10-25	B	9	68-4	45	5	E	84+50	
10-30	B	9	69-5	45	3	E	80+75	
10:35	B	9	70-6	45	3	N	77+39	
10-40	B	9	71-7	45	3	SE	74+22	
10:45	B	9	72-8	45	3	NE	71	
10:50	B	9	73-9	45	3	SE	66+50	
10:55	B	9	74-10	45	3	S	59+16	

6-10 Knieskern

11:05	B	10	75-1	45	3	SE	55+22
11:10	B	10	76-2	46	3	SE	52+55
PM 12:30	shade B	10	77-3	48	5	NE	50+94
12:35	B	10	78-4	45	.3	SE	49
12:40	B	10	79-5	45	.3	NE	46
12:45	shade B	10	80-6	45	.5	E	44+30
12:50	B	10	81-7	45	.3	SE	42+50
12:55	B	10	82-8	45	.3	E	41
1:00	B	10	83-9	45	.3	NW	40+11 to 39
1:05	B	10	84-10	45	.3	NE	38
1:10	B	11	85-1	45	.3	NE	36
1:15	B	11	86-2	45	.3	NE	34
1:20	B	11	87-3	45	.3	NE	30+98
1:25	B	11	89-4	45	.3	SE	28+50
1:30	B	11	89-5	45	.3	SE	27+26
1:35	shade B	11	90-6	45	.5	E	26
1:40	B	11	91-7	45	.3	E	24+80
1:45	B	11	92-8	45	.3	SE	22
1:50	B	11	93-9	45	.3	SE	20+63
1:50	B	11	94-10	45	.3	NW	20+63

1:55	B	12	95-1	45	.3	NE	24
2:00	B	12	96-2	45	.3	E	16+33
2:05	B	12	97-3	45	.3	E	13+99
2:10	B	12	98-4	45	.3	E	12
2:15	B	12	99-5	45	.3	E	10+42
2:20	B	12	100-6	45	.3	SE	8+22
2:25	B	12	101-7	45	.3	SE	6+50
2:30	B	12	102-8	45	.3	E	3+50
2:35	B	12	103-9	45	.3	E	1+10
2:40	B	12	104-10	45	.3	W	-2+26
6-14-14 11 AM	B	13	105-1	46	.3	E	284+50
11:05	B	13	106-2	45	.5	E	286
11:10	B	13	107-3	45	.3	E	288+25
11:15	B	13	108-4	45	.3	E	289+50
11:20	B	10	109-5	45	.3	E	292
11:25	B	13	110-6	45	.3	E	293+50
11:30	B	13	111-7	45	.3	E	294+75
11:36	B	13	112-8	45	.3	SE	296+63
11:40	B	13	113-9	46	.3	S	297+25
11:45	B	13	114-10	46	.3	E	298+68

NR Sub 58 Contour levels
6/30/14

59.46 Ele. last Hub set by Kreeshaw.

9.42
68.88 HI.
8.99
59.89 Ele RR T.
7.61
67.50 HI
10.22
57.28 Ele. BP
12.65
69.93 HI.
5.08
64.91 Δ R. Ele
.9
65.81 HI.
3.85
61.93 Ele of Rock
1.45
63.38 HI.
11.25
52.13 Ele.
3.87
56.00 HI.
5.11
50.89 Ele
12.50
63.39 HI
4.01
59.38 Ele.
3.18

63.39 HI.
5.18
58.21 AL
3.37
61.58 HI.
4.51
57.07 AL
1.00
58.07 HI.
2.41
55.66 TP.
2.88
63.54 HI.
10.10
53.44 TP.
2.01
55.45 HI
3.27
52.18 TP.
2.36
54.74 HI
3.80
50.94 Pog
10.75
61.69 HI
8.65
53.04 Rock

(on Rock)
53.04
8.23
61.27 HI.
.91
Pog
60.36 BM
11.91
72.27 HI
7.28
70.99 HI
6.16
77.15 HI.
10.84
66.29 TP
4.04
70.33 HI.
4.54
65.79 HI
1.84
63.95 TP.
10.91
79.40 HI.
6.50
72.90
3.49
75.91 ΔR
9.20
70.20 ΔR
10.16
69.24 TP.
4.20
73.44 HI

	HI		
5.94	79.23		73.29
4.26	76.77	6.72	72.51
2.26	72.22	6.81	69.96
	72.154	3.61	68.61
2.75	71.28		
3.94	68.63	6.59	64.69
6.48	72.08	3.33	65.60
1.90	62.40	4.58	60.50
9.15	61.08	10.47	51.93
		7.79	53.29
10.95	63.92		
7.49	63.57	7.84	56.08
T.P.		5.28	58.29
9.12	67.79		58.67
7.73	72.30	3.22	64.57
2.44	70.05	4.69	67.61
2.58	67.97	4.66	65.39
3.58	63.43	8.12	59.85
9.29	64.99	7.73	55.70
12.82	71.39	6.43	58.56

Hub 70+72.50

BM 10 68.527

5297

Mark on rock

+17 = 4.1

1 =

H1

	71.38	12.25	3
2.64	61.77	12.25	59.13
4.87	61.87	4.77	57.00
8.53	62.76	7.64	54.23
		1.62	61.14
5.01	64.41	3.36	59.40
4.33	56.65	12.09	52.32
6.24	62.21	0.68	55.97
9.29	59.36	12.14	50.07
2.41	51.28	10.49	48.87
5.98	53.46	3.80	47.48
1.41	42.05	12.82	40.64
		12.60	29.45

Hob in Rock 157+47

Rod at 161+14 90

1st First Hub 166+01

A 31+30

R 16

210 | 11.20 | 53
1050
700

53
26
106
132 5

55
13
42
46

55
26
29
33