

CURRAGH RESOURCES INC.

005165

Inter-Office Memorandum

TO: Bill Dunn, Chief Engineer
Faro Office

FROM: Lee Pigage, Senior Geologist
Whitehorse Office

cc: Gregg Jilson, Vice-President, Exploration

RE: **Kerr Addison co-ordinates to CRI
Grum mine co-ordinates**

DATE: 02 12 1992

Kerr Addison underground drawings were used to generate a 3-dimensional AUTOCAD drawing of the Grum underground workings (GRUMPLAN.DWG). The drawing uses the Grum local mine grid as the co-ordinate system. Constants and equations for the conversion of co-ordinates from Kerr Addison grid to Grum local mine grid were calculated from survey control station VG4 which has co-ordinates in both grid systems.

Table I. VG4 Co-ordinates

Kerr Addison		Grum Local Mine	
Easting	Northing	Easting	Northing
9144.76	10373.98	3500.00	5000.00

Equations used for converting the co-ordinates are:

$$\begin{aligned}N_{CRI} &= N_o + (N_{KA} * \cos (X) + E_{KA} * \sin (X)) \\E_{CRI} &= E_o + (E_{KA} * \cos (X) - N_{KA} * \sin (X)) \\Elev_{CRI} &= Elev_{KA} - 10.61m\end{aligned}$$

$$\text{where } N_o = 4420.179$$

$$E_o = -10317.015$$

$$X = -46.200556^\circ (-0.80635 \text{ radians})$$

These equations have been incorporated into spreadsheet GRIDS.WR1. An

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additional spreadsheet GRCONTRL.WR1 has been created; this spreadsheet contains all the Kerr Addison underground survey control points listed with Kerr Addison, Grum local mine, and UTM co-ordinates.

A handwritten signature in cursive script, appearing to read "Lee Page". The signature is written in black ink on a white background.

Survey Point	KA Elev	KA North	KA East	CRI Elev	CRI North	CRI East	UTM Elev	UTM North	UTM East
3A RAIL	1,174.430	10,676.499	7,528.844	1,163.820	6,375.699	2,599.914	1,163.820	6,904,880.994	592,225.168
4 RAIL	1,179.184	10,676.466	7,528.080	1,168.574	6,376.228	2,599.362	1,168.574	6,904,880.940	592,224.406
75-001	1,279.816			1,269.206			1,269.206		
75-002	1,275.847			1,265.237			1,265.237		
75-003	1,270.769	10,255.185	7,551.746	1,260.159	6,067.563	2,311.675	1,260.159	6,904,460.675	592,259.615
75-004	1,267.642	10,268.791	7,526.725	1,257.032	6,095.039	2,304.178	1,257.032	6,904,473.582	592,234.242
75-005	1,264.091			1,253.481			1,253.481		
75-005 check	1,264.051	10,281.715	7,503.716	1,253.441	6,120.592	2,297.580	1,253.441	6,904,485.863	592,210.898
75-006	1,259.047	10,295.278	7,479.499	1,248.437	6,147.458	2,290.609	1,248.437	6,904,498.750	592,186.330
75-007	1,255.691	10,301.350	7,462.485	1,245.081	6,163.941	2,283.215	1,245.081	6,904,504.349	592,169.164
75-008	1,255.703	10,301.323	7,462.485	1,245.093	6,163.922	2,283.195	1,245.093	6,904,504.322	592,169.165
75-009	1,251.899	10,313.201	7,440.381	1,241.289	6,188.097	2,276.469	1,241.289	6,904,515.583	592,146.754
75-010	1,245.876	10,332.074	7,407.112	1,235.266	6,225.172	2,267.065	1,235.266	6,904,533.527	592,112.996
75-011	1,240.152	10,352.904	7,373.027	1,229.542	6,264.191	2,258.507	1,229.542	6,904,553.403	592,078.368
75-012	1,235.738	10,363.611	7,352.885	1,225.128	6,286.140	2,252.295	1,225.128	6,904,563.549	592,057.951
75-012 check	1,235.785	10,363.623	7,352.900	1,225.175	6,286.137	2,252.314	1,225.175	6,904,563.560	592,057.965
75-013	1,232.014	10,383.594	7,340.553	1,221.404	6,308.871	2,258.182	1,221.404	6,904,583.175	592,045.081
75-013 check	1,232.046	10,383.592	7,340.568	1,221.436	6,308.859	2,258.191	1,221.436	6,904,583.174	592,045.096
75-014	1,224.790	10,425.684	7,329.407	1,214.180	6,346.048	2,280.847	1,214.180	6,904,624.923	592,032.789
75-015	1,218.484	10,464.939	7,318.995	1,207.874	6,380.733	2,301.973	1,207.874	6,904,663.858	592,021.308
75-016	1,213.269	10,493.703	7,311.366	1,202.659	6,406.148	2,317.454	1,202.659	6,904,692.388	592,012.896
75-016 check	1,213.323	10,493.718	7,311.464	1,202.713	6,406.088	2,317.532	1,202.713	6,904,692.405	592,012.994
75-017	1,210.394	10,517.417	7,325.136	1,199.784	6,412.622	2,344.101	1,199.784	6,904,716.458	592,026.004
75-017 check	1,210.394	10,517.417	7,325.136	1,199.784	6,412.622	2,344.101	1,199.784	6,904,716.458	592,026.004
75-017 check	1,210.440	10,517.430	7,325.257	1,199.830	6,412.544	2,344.194	1,199.830	6,904,716.475	592,026.124
75-018	1,202.073	10,538.856	7,365.462	1,191.463	6,398.356	2,387.485	1,191.463	6,904,738.986	592,065.706
75-018 check	1,202.073	10,538.856	7,365.465	1,191.463	6,398.354	2,387.488	1,191.463	6,904,738.986	592,065.709
75-019	1,194.170	10,563.191	7,411.239	1,183.560	6,382.158	2,436.734	1,183.560	6,904,764.557	592,110.776
75-020	1,185.136	10,588.795	7,459.398	1,174.526	6,365.120	2,488.546	1,174.526	6,904,791.460	592,158.190
75-021	1,195.395	10,558.266	7,401.974	1,184.785	6,385.437	2,426.766	1,184.785	6,904,759.381	592,101.653
75-021 check	1,195.636	10,558.213	7,402.101	1,185.026	6,385.308	2,426.816	1,185.026	6,904,759.332	592,101.782
75-021 check	1,195.395	10,558.266	7,401.974	1,184.785	6,385.437	2,426.766	1,184.785	6,904,759.381	592,101.653

Survey Point	KA Elev	KA North	KA East	CRI Elev	CRI North	CRI East	UTM Elev	UTM North	UTM East
75-022	1,187.281	10,619.479	7,425.434	1,176.671	6,410.872	2,487.185	1,176.671	6,904,821.185	592,123.413
75-023	1,182.481	10,657.957	7,440.262	1,171.871	6,426.801	2,525.221	1,171.871	6,904,860.037	592,137.173
75-023check	1,182.455	10,657.956	7,440.260	1,171.845	6,426.802	2,525.218	1,171.845	6,904,860.036	592,137.170
75-024	1,178.613	10,684.773	7,459.441	1,168.003	6,431.519	2,557.850	1,168.003	6,904,887.356	592,155.598
75-024 check	1,178.789	10,684.703	7,459.683	1,168.179	6,431.296	2,557.967	1,168.179	6,904,887.293	592,155.842
75-024 check	1,178.582	10,684.778	7,459.434	1,167.972	6,431.527	2,557.849	1,167.972	6,904,887.361	592,155.591
75-025	1,177.644	10,693.201	7,470.624	1,167.034	6,429.281	2,571.673	1,167.034	6,904,896.083	592,166.540
75-026	1,175.059	10,703.579	7,486.693	1,164.449	6,424.866	2,590.286	1,164.449	6,904,906.894	592,182.310
75-026 check	1,174.963	10,703.588	7,486.676	1,164.353	6,424.884	2,590.280	1,164.353	6,904,906.902	592,182.294
75-027	1,172.395	10,707.267	7,506.816	1,161.785	6,412.895	2,606.875	1,161.785	6,904,911.131	592,202.315
75-027 check	1,172.299	10,707.289	7,506.796	1,161.689	6,412.924	2,606.877	1,161.689	6,904,911.152	592,202.294
75-028	1,166.914	10,685.142	7,541.637	1,156.304	6,372.448	2,615.007	1,156.304	6,904,889.981	592,237.713
75-028 check	1,166.806	10,685.184	7,541.636	1,156.196	6,372.478	2,615.037	1,156.196	6,904,890.023	592,237.711
75-028 check	1,166.915	10,685.020	7,541.638	1,156.305	6,372.363	2,614.920	1,156.305	6,904,889.859	592,237.717
75-029	1,164.317	10,672.414	7,558.610	1,153.707	6,351.388	2,617.568	1,153.707	6,904,877.730	592,255.021
75-030	1,162.692	10,669.681	7,570.976	1,152.082	6,340.571	2,624.154	1,152.082	6,904,875.338	592,267.451
75-031	1,160.389	10,676.949	7,584.627	1,149.779	6,335.749	2,638.849	1,149.779	6,904,882.975	592,280.891
75-031A	1,159.468	10,679.828	7,587.385	1,148.858	6,335.751	2,642.835	1,148.858	6,904,885.927	592,283.567
75-031A check	1,159.323	10,679.890	7,587.387	1,148.713	6,335.792	2,642.882	1,148.713	6,904,885.989	592,283.568
75-032	1,168.326	10,675.805	7,533.821	1,157.716	6,371.627	2,602.858	1,157.716	6,904,880.437	592,230.160
75-033	1,168.366	10,675.345	7,537.119	1,157.756	6,368.928	2,604.809	1,157.756	6,904,880.068	592,233.468
75-034	1,155.607	10,699.547	7,606.295	1,144.997	6,335.750	2,670.156	1,144.997	6,904,906.148	592,301.920
75-035 (RAISE)	1,178.046	10,676.437	7,529.287	1,167.436	6,375.337	2,600.176	1,167.436	6,904,880.944	592,225.613
75-036 (RAISE)	1,191.977	10,676.684	7,527.519	1,181.367	6,376.784	2,599.131	1,181.367	6,904,881.143	592,223.839
75-037	1,155.791	10,734.995	7,640.288	1,145.181	6,335.750	2,719.269	1,145.181	6,904,942.498	592,334.910
75-038	1,157.687	10,685.777	7,594.112	1,147.077	6,335.013	2,651.785	1,147.077	6,904,892.055	592,290.125
75-039	1,154.622	10,706.373	7,605.790	1,144.012	6,340.839	2,674.733	1,144.012	6,904,912.954	592,301.228
75-040	1,155.139	10,712.555	7,619.424	1,144.529	6,335.277	2,688.632	1,144.529	6,904,919.505	592,314.680
75-040 check	1,155.139	10,712.554	7,619.424	1,144.529	6,335.277	2,688.631	1,144.529	6,904,919.504	592,314.680
75-041	1,158.725	10,687.064	7,617.497	1,148.115	6,319.025	2,668.900	1,148.115	6,904,893.983	592,313.454
75-041 check (pref)	1,158.710	10,687.060	7,617.477	1,148.100	6,319.037	2,668.883	1,148.100	6,904,893.979	592,313.435
75-042	1,155.619	10,733.839	7,617.294	1,145.009	6,351.546	2,702.520	1,145.009	6,904,940.712	592,311.968

Survey Point	KA Elev	KA North	KA East	CRI Elev	CRI North	CRI East	UTM Elev	UTM North	UTM East
75-043	1,155.865	10,751.051	7,656.977	1,145.255	6,334.817	2,742.409	1,145.255	6,904,958.998	592,351.144
75-043 check	1,155.865	10,751.050	7,656.977	1,145.255	6,334.817	2,742.408	1,145.255	6,904,958.997	592,351.144
75-044	1,155.943	10,729.259	7,635.943	1,145.333	6,334.916	2,712.122	1,145.333	6,904,936.648	592,330.726
75-044 check	1,155.943	10,729.258	7,635.943	1,145.333	6,334.915	2,712.121	1,145.333	6,904,936.647	592,330.726
75-045	1,159.933	10,683.242	7,627.982	1,149.323	6,308.812	2,673.398	1,149.323	6,904,890.452	592,324.035
75-045 check (pref)	1,159.908	10,682.829	7,627.818	1,149.298	6,308.644	2,672.987	1,149.298	6,904,890.035	592,323.883
75-046	1,160.835	10,677.012	7,634.587	1,150.225	6,299.733	2,673.473	1,150.225	6,904,884.409	592,330.806
75-047	1,155.213	10,704.778	7,608.366	1,144.603	6,337.876	2,675.365	1,144.603	6,904,911.431	592,303.845
75-048	1,156.624	10,773.816	7,678.432	1,146.014	6,335.088	2,773.690	1,146.014	6,904,982.332	592,371.955
75-048 check	1,156.624	10,773.816	7,678.432	1,146.014	6,335.088	2,773.690	1,146.014	6,904,982.332	592,371.955
75-049	1,151.130	10,750.992	7,599.098	1,140.520	6,376.552	2,702.306	1,140.520	6,904,957.351	592,293.317
75-050	1,157.251	10,780.219	7,689.829	1,146.641	6,331.294	2,786.200	1,146.641	6,904,989.043	592,383.167
75-051	1,158.772	10,672.675	7,639.042	1,148.162	6,293.515	2,673.426	1,148.162	6,904,880.198	592,335.376
75-051 check (pref)	1,161.454	10,671.840	7,638.477	1,150.844	6,293.345	2,672.433	1,150.844	6,904,879.348	592,334.834
75-051 check		10,672.683	7,639.050		6,293.515	2,673.438		6,904,880.206	592,335.383
75-TP-HW	1,182.560	10,657.000	7,439.894	1,171.950	6,426.405	2,524.275	1,171.950	6,904,859.070	592,136.831
75-TP-HW check	1,182.748	10,656.942	7,440.091	1,172.138	6,426.222	2,524.370	1,172.138	6,904,859.018	592,137.029
76-001	1,154.088	10,800.702	7,679.304	1,143.478	6,353.068	2,793.699	1,143.478	6,905,009.219	592,372.089
76-002	1,158.457	10,780.449	7,701.675	1,147.847	6,322.903	2,794.565	1,147.847	6,904,989.598	592,394.996
76-004	1,158.528	10,771.455	7,710.977	1,147.918	6,309.964	2,794.511	1,147.918	6,904,980.867	592,404.537
76-007	1,142.276	10,796.166	7,560.351	1,131.666	6,435.785	2,708.093	1,131.666	6,905,001.422	592,253.363
76-008	1,167.224	10,647.709	7,664.714	1,156.614	6,257.706	2,673.175	1,156.614	6,904,855.958	592,361.711
76-008 check (pref)	1,167.182	10,645.904	7,663.170	1,156.572	6,257.571	2,670.804	1,156.572	6,904,854.113	592,360.218
76-009	1,136.032	10,814.438	7,532.844	1,125.422	6,468.285	2,702.243	1,125.422	6,905,018.923	592,225.379
76-009 check	1,136.018	10,814.442	7,532.852	1,125.408	6,468.282	2,702.251	1,125.408	6,905,018.927	592,225.387
76-010	1,160.661	10,748.449	7,735.758	1,150.051	6,276.155	2,795.058	1,150.051	6,904,958.561	592,429.928
76-011	1,142.903	10,854.171	7,634.075	1,132.293	6,422.720	2,800.986	1,132.293	6,905,061.400	592,325.431
76-011 check	1,142.903	10,854.165	7,634.086	1,132.293	6,422.708	2,800.990	1,132.293	6,905,061.394	592,325.442
76-012	1,140.963	10,823.022	7,559.785	1,130.353	6,454.781	2,727.085	1,130.353	6,905,028.239	592,252.061
76-013	1,141.664	10,863.135	7,624.861	1,131.054	6,435.575	2,801.079	1,131.054	6,905,070.103	592,315.979
76-013 check	1,141.639	10,863.123	7,624.878	1,131.029	6,435.554	2,801.082	1,131.029	6,905,070.092	592,315.997
76-014	1,139.698	10,879.345	7,634.270	1,129.088	6,440.003	2,819.291	1,129.088	6,905,086.558	592,324.935

Survey Point	KA Elev	KA North	KA East	CRI Elev	CRI North	CRI East	UTM Elev	UTM North	UTM East
76-015	1,131.470	10,834.691	7,510.165	1,120.860	6,498.672	2,701.164	1,120.860	6,905,038.536	592,202.164
76-016	1,138.504	10,890.965	7,628.549	1,127.894	6,452.175	2,823.718	1,127.894	6,905,098.010	592,318.900
76-017	1,128.630	10,852.116	7,493.397	1,118.020	6,522.835	2,702.135	1,118.020	6,905,055.486	592,184.932
76-017 check	1,128.667	10,852.128	7,493.416	1,118.057	6,522.829	2,702.157	1,118.057	6,905,055.498	592,184.951
76-018	1,140.957	10,868.523	7,604.395	1,130.347	6,454.076	2,790.802	1,130.347	6,905,074.925	592,295.383
76-019	1,132.811	10,915.881	7,603.418	1,122.201	6,487.559	2,824.308	1,122.201	6,905,122.215	592,293.107
76-020	1,121.620	10,878.390	7,466.003	1,111.010	6,560.792	2,702.138	1,111.010	6,905,080.985	592,156.841
76-020 check	1,121.658	10,878.404	7,466.029	1,111.048	6,560.783	2,702.166	1,111.048	6,905,081.000	592,156.866
76-021	1,170.627	10,631.219	7,679.719	1,160.017	6,235.463	2,671.659	1,160.017	6,904,839.895	592,377.155
76-021 check (pref)	1,170.576	10,628.902	7,677.492	1,159.966	6,235.467	2,668.445	1,159.966	6,904,837.518	592,374.994
76-022	1,119.760	10,896.610	7,463.218	1,109.150	6,575.413	2,713.361	1,109.150	6,905,099.113	592,153.558
76-023	1,128.715	10,934.370	7,583.075	1,118.105	6,515.039	2,823.572	1,118.105	6,905,140.130	592,272.274
76-024	1,173.646	10,631.116	7,701.558	1,163.036	6,219.629	2,686.700	1,163.036	6,904,840.391	592,398.978
76-024 check (pref)	1,173.561	10,627.956	7,699.317	1,162.951	6,219.059	2,682.868	1,162.951	6,904,837.172	592,396.826
76-025	1,116.650	10,905.044	7,438.965	1,106.040	6,598.755	2,702.662	1,106.040	6,905,106.874	592,129.094
76-026	1,120.905	10,928.705	7,490.839	1,110.295	6,577.691	2,755.644	1,110.295	6,905,131.938	592,180.274
76-027	1,120.919	10,955.503	7,516.705	1,110.309	6,577.570	2,792.888	1,110.309	6,905,159.423	592,205.382
76-028	1,121.776	10,963.184	7,553.230	1,111.166	6,556.523	2,823.713	1,111.166	6,905,168.099	592,241.664
76-029	1,177.772	10,612.632	7,724.422	1,167.162	6,190.333	2,689.184	1,167.162	6,904,822.551	592,422.330
76-029 check (pref)	1,177.664	10,608.611	7,721.449	1,167.054	6,189.696	2,684.224	1,167.054	6,904,818.452	592,419.470
76-030	1,118.573	10,968.695	7,529.654	1,107.963	6,577.354	2,811.372	1,107.963	6,905,172.959	592,217.958
76-030 check	1,118.590	10,968.704	7,529.590	1,107.980	6,577.407	2,811.335	1,107.980	6,905,172.966	592,217.893
76-031	1,111.148	10,926.717	7,415.294	1,100.538	6,630.841	2,701.921	1,100.538	6,905,127.878	592,104.849
76-032	1,115.138	10,992.141	7,523.435	1,104.528	6,598.071	2,823.991	1,104.528	6,905,196.213	592,211.100
76-033	1,180.135	10,620.958	7,733.280	1,169.525	6,189.702	2,701.324	1,169.525	6,904,831.113	592,430.951
76-034	1,109.963	11,018.295	7,495.951	1,099.353	6,636.010	2,823.845	1,099.353	6,905,221.590	592,182.922
76-035	1,103.239	10,960.392	7,379.865	1,092.629	6,679.720	2,701.705	1,092.629	6,905,160.551	592,068.527
76-036	1,116.586	10,986.668	7,528.667	1,105.976	6,590.506	2,823.662	1,105.976	6,905,190.889	592,216.478
76-037	1,104.358	10,954.215	7,386.477	1,093.748	6,670.672	2,701.823	1,093.748	6,905,154.561	592,075.302
76-038	1,103.568	10,963.151	7,383.877	1,092.958	6,678.734	2,706.473	1,092.958	6,905,163.418	592,072.459
76-039	1,103.008	10,979.140	7,380.448	1,092.398	6,692.276	2,715.640	1,092.398	6,905,179.299	592,068.594
76-040	1,102.441	10,988.581	7,382.605	1,091.831	6,697.253	2,723.947	1,091.831	6,905,188.791	592,070.490

Survey Point	KA Elev	KA North	KA East	CRI Elev	CRI North	CRI East	UTM Elev	UTM North	UTM East
76-041	1,183.359	10,574.342	7,756.506	1,172.749	6,140.674	2,683.754	1,172.749	6,904,785.175	592,455.437
76-041 check (pref)	1,183.251	10,569.122	7,752.052	1,172.641	6,140.276	2,676.903	1,172.641	6,904,779.837	592,451.130
76-042	1,103.815	11,020.003	7,412.267	1,093.205	6,697.592	2,767.157	1,093.205	6,905,221.000	592,099.264
76-043	1,106.275	11,034.082	7,479.467	1,095.665	6,658.834	2,823.830	1,095.665	6,905,236.911	592,166.019
76-044	1,188.348	10,542.873	7,782.471	1,177.738	6,100.152	2,679.012	1,177.738	6,904,754.446	592,482.243
76-044 check (pref)	1,188.251	10,536.678	7,776.800	1,177.641	6,099.958	2,670.615	1,177.641	6,904,748.100	592,476.747
76-045	1,104.653	11,049.841	7,441.008	1,094.043	6,697.500	2,808.586	1,094.043	6,905,251.601	592,127.161
76-046	1,105.255	11,051.399	7,463.554	1,094.645	6,682.305	2,825.315	1,094.645	6,905,253.776	592,149.645
76-046 check	1,105.229	11,051.438	7,463.634	1,094.619	6,682.275	2,825.399	1,094.619	6,905,253.818	592,149.724
76-047	1,104.353	11,054.327	7,447.901	1,093.743	6,695.630	2,816.594	1,093.743	6,905,256.272	592,133.925
76-048	1,191.434	10,517.801	7,803.583	1,180.824	6,067.561	2,675.528	1,180.824	6,904,729.975	592,504.025
76-048 check (pref)	1,191.351	10,510.696	7,797.035	1,180.741	6,067.370	2,665.868	1,180.741	6,904,722.696	592,497.677
76-049	1,157.452	10,686.198	7,593.956	1,146.842	6,335.417	2,651.981	1,146.842	6,904,892.472	592,289.958
LP01	1,269.718	10,258.526	7,545.742	1,259.108	6,074.209	2,309.930	1,259.108	6,904,463.847	592,253.524
LP02	1,266.724	10,271.726	7,521.507	1,256.114	6,100.837	2,302.685	1,256.114	6,904,476.372	592,228.948
LP03	1,263.868	10,282.974	7,501.424	1,253.258	6,123.117	2,296.902	1,253.258	6,904,487.058	592,208.573
LP04	1,259.205	10,293.989	7,481.837	1,248.595	6,144.878	2,291.296	1,248.595	6,904,497.526	592,188.701
LP05	1,255.925	10,303.127	7,462.373	1,245.315	6,165.252	2,284.420	1,245.315	6,904,506.122	592,169.003
LP06	1,255.185	10,302.844	7,459.800	1,244.575	6,166.912	2,282.434	1,244.575	6,904,505.768	592,166.441
LP07	1,252.182	10,311.399	7,443.612	1,241.572	6,184.518	2,277.405	1,241.572	6,904,513.872	592,150.032
LP08	1,245.772	10,330.772	7,409.456	1,235.162	6,222.580	2,267.748	1,235.162	6,904,532.291	592,115.374
LP09	1,242.048	10,346.692	7,384.182	1,231.438	6,251.840	2,261.745	1,231.438	6,904,547.503	592,089.685
LP10	1,235.891	10,361.764	7,354.028	1,225.281	6,284.036	2,251.753	1,225.281	6,904,561.734	592,059.143
LP11	1,232.645	10,380.677	7,341.327	1,222.035	6,306.294	2,256.613	1,222.035	6,904,580.282	592,045.934
LP11 check	1,232.633	10,380.674	7,341.346	1,222.023	6,306.278	2,256.623	1,222.023	6,904,580.280	592,045.953
LP12	1,224.821	10,422.746	7,330.187	1,214.211	6,343.452	2,279.266	1,214.211	6,904,622.008	592,033.649
LP13	1,213.336	10,495.437	7,312.371	1,202.726	6,406.623	2,319.402	1,202.726	6,904,694.148	592,013.854
LP14	1,210.397	10,516.121	7,322.701	1,199.787	6,413.483	2,341.480	1,199.787	6,904,715.097	592,023.607
LP14 check	1,210.397	10,516.121	7,322.704	1,199.787	6,413.481	2,341.482	1,199.787	6,904,715.097	592,023.610
LP15	1,202.759	10,537.354	7,362.636	1,192.149	6,399.355	2,384.445	1,192.149	6,904,737.407	592,062.924
LP15 check	1,202.759	10,537.354	7,362.639	1,192.149	6,399.353	2,384.447	1,192.149	6,904,737.408	592,062.927
LP16	1,194.496	10,562.369	7,409.688	1,183.886	6,382.708	2,435.067	1,183.886	6,904,763.692	592,109.249

Survey Point	KA Elev	KA North	KA East	CRI Elev	CRI North	CRI East	UTM Elev	UTM North	UTM East
LP17	1,196.096	10,555.099	7,400.754	1,185.486	6,384.125	2,423.636	1,185.486	6,904,756.184	592,100.522
LP18	1,182.536	10,659.822	7,441.655	1,171.926	6,427.087	2,527.531	1,171.926	6,904,861.939	592,138.513
LP19	1,179.009	10,683.664	7,457.929	1,168.399	6,431.843	2,556.002	1,168.399	6,904,886.206	592,154.118
LP20	1,177.516	10,691.924	7,468.926	1,166.906	6,429.622	2,569.576	1,166.906	6,904,894.761	592,164.879
LP21	1,177.863	10,690.854	7,471.230	1,167.253	6,427.219	2,570.399	1,167.253	6,904,893.755	592,167.211
LP22	1,174.946	10,702.958	7,484.532	1,164.336	6,425.995	2,588.341	1,164.336	6,904,906.213	592,180.168
LP23	1,172.438	10,706.158	7,508.480	1,161.828	6,410.926	2,607.226	1,161.828	6,904,910.068	592,204.008
LP24	1,167.228	10,686.778	7,539.189	1,156.618	6,375.347	2,614.494	1,156.618	6,904,891.548	592,235.222
LP24 check	1,167.229	10,686.656	7,539.189	1,156.619	6,375.263	2,614.405	1,156.619	6,904,891.426	592,235.226
LP25	1,166.986	10,684.142	7,539.931	1,156.376	6,372.987	2,613.104	1,156.376	6,904,888.935	592,236.036
LP25 check	1,166.987	10,684.020	7,539.932	1,156.377	6,372.902	2,613.017	1,156.377	6,904,888.813	592,236.040
LP26	1,164.283	10,672.808	7,557.046	1,153.673	6,352.789	2,616.770	1,153.673	6,904,878.080	592,253.447
LP27	1,163.522	10,668.605	7,568.905	1,152.912	6,341.321	2,621.944	1,152.912	6,904,874.206	592,265.411
LP28	1,160.302	10,674.309	7,582.096	1,149.692	6,335.748	2,635.191	1,149.692	6,904,880.268	592,278.434
LP28	1,160.294	10,674.310	7,582.090	1,149.684	6,335.753	2,635.188	1,149.684	6,904,880.268	592,278.428
LP29	1,155.782	10,700.773	7,607.472	1,145.172	6,335.749	2,671.856	1,145.172	6,904,907.405	592,303.062
LP30	1,155.664	10,730.624	7,636.096	1,145.054	6,335.750	2,713.213	1,145.054	6,904,938.016	592,330.842
LP30 check	1,155.659	10,730.619	7,636.068	1,145.049	6,335.767	2,713.190	1,145.049	6,904,938.010	592,330.814
LP30 check	1,155.659	10,730.621	7,636.068	1,145.049	6,335.768	2,713.191	1,145.049	6,904,938.012	592,330.814
LP31	1,156.845	10,685.891	7,596.631	1,146.235	6,333.274	2,653.611	1,146.235	6,904,892.238	592,292.639
LP32	1,155.167	10,708.303	7,606.311	1,144.557	6,341.799	2,676.487	1,144.557	6,904,914.897	592,301.695
LP33	1,155.183	10,716.951	7,618.964	1,144.573	6,338.652	2,691.487	1,144.573	6,904,923.885	592,314.100
LP34	1,158.635	10,685.658	7,619.822	1,148.025	6,316.374	2,669.494	1,148.025	6,904,892.642	592,315.816
LP35	1,155.717	10,731.878	7,619.303	1,145.107	6,348.739	2,702.495	1,145.107	6,904,938.808	592,314.029
LP36	1,160.640	10,678.304	7,633.219	1,150.030	6,301.614	2,673.459	1,150.030	6,904,885.662	592,329.403
LP37	1,156.232	10,775.121	7,682.127	1,145.622	6,333.325	2,777.189	1,145.622	6,904,983.738	592,375.611
LP38	1,154.859	10,708.895	7,607.226	1,144.249	6,341.548	2,677.548	1,144.249	6,904,915.513	592,302.593
LP39	1,151.830	10,748.318	7,601.885	1,141.220	6,372.689	2,702.305	1,141.220	6,904,954.755	592,296.175
LP40	1,150.165	10,754.119	7,595.842	1,139.555	6,381.066	2,702.310	1,139.555	6,904,960.386	592,289.978
LP41	1,156.850	10,771.852	7,678.533	1,146.240	6,333.656	2,772.342	1,146.240	6,904,980.373	592,372.110
LP42	1,157.092	10,779.525	7,692.521	1,146.482	6,328.871	2,787.562	1,146.482	6,904,988.423	592,385.875
LP43	1,158.386	10,674.335	7,637.294	1,147.776	6,295.926	2,673.415	1,147.776	6,904,881.809	592,333.584

Survey Point	KA Elev	KA North	KA East	CRI Elev	CRI North	CRI East	UTM Elev	UTM North	UTM East
LP45	1,158.800	10,778.515	7,703.610	1,148.190	6,320.168	2,794.508	1,148.190	6,904,987.718	592,396.983
LP46	1,154.302	10,802.045	7,678.037	1,143.692	6,354.912	2,793.791	1,143.692	6,905,010.526	592,370.786
LP47	1,145.072	10,783.191	7,565.513	1,134.462	6,423.078	2,702.301	1,134.462	6,904,988.600	592,258.877
LP48	1,158.884	10,769.152	7,713.377	1,148.274	6,306.638	2,794.510	1,148.274	6,904,978.632	592,406.998
LP50	1,167.384	10,645.447	7,667.060	1,156.774	6,254.447	2,673.166	1,156.774	6,904,853.763	592,364.117
LP51	1,136.033	10,812.926	7,534.524	1,125.423	6,466.026	2,702.314	1,125.423	6,905,017.458	592,227.099
LP52	1,140.867	10,800.169	7,560.266	1,130.257	6,438.617	2,710.924	1,130.257	6,905,005.419	592,253.169
LP53	1,160.089	10,750.249	7,733.881	1,149.479	6,278.756	2,795.058	1,149.479	6,904,960.308	592,428.003
LP54	1,142.554	10,856.150	7,631.987	1,131.944	6,425.597	2,800.969	1,131.944	6,905,063.320	592,323.291
LP55	1,140.737	10,821.276	7,558.107	1,130.127	6,454.784	2,724.664	1,130.127	6,905,026.449	592,250.432
LP55 check	1,140.737	10,821.276	7,558.107	1,130.127	6,454.784	2,724.664	1,130.127	6,905,026.449	592,250.432
LP56	1,141.988	10,863.494	7,623.374	1,131.378	6,436.897	2,800.309	1,131.378	6,905,070.421	592,314.484
LP57	1,139.697	10,881.521	7,633.084	1,129.087	6,442.366	2,820.041	1,129.087	6,905,088.699	592,323.691
LP58	1,132.370	10,832.391	7,512.565	1,121.760	6,495.348	2,701.165	1,121.760	6,905,036.304	592,204.625
LP59	1,138.264	10,892.442	7,627.008	1,127.654	6,454.310	2,823.718	1,127.654	6,905,099.444	592,317.320
LP60	1,128.687	10,850.636	7,494.941	1,118.077	6,520.696	2,702.135	1,118.077	6,905,054.049	592,186.515
LP61	1,141.534	10,866.998	7,602.953	1,130.924	6,454.061	2,788.704	1,130.924	6,905,073.362	592,293.984
LP62	1,133.283	10,913.350	7,606.057	1,122.673	6,483.903	2,824.307	1,122.673	6,905,119.759	592,295.813
LP63	1,122.198	10,876.304	7,468.180	1,111.588	6,557.777	2,702.139	1,111.588	6,905,078.960	592,159.073
LP64	1,121.369	10,881.072	7,465.717	1,110.759	6,562.855	2,703.876	1,110.759	6,905,083.657	592,156.481
LP65	1,170.852	10,630.645	7,682.434	1,160.242	6,233.106	2,673.124	1,160.242	6,904,839.396	592,379.884
LP66	1,119.975	10,898.515	7,465.015	1,109.365	6,575.434	2,715.980	1,109.365	6,905,101.065	592,155.301
LP67	1,128.758	10,932.851	7,584.659	1,118.148	6,512.844	2,823.572	1,118.148	6,905,138.655	592,273.899
LP68	1,174.065	10,629.412	7,703.363	1,163.455	6,217.147	2,686.719	1,163.455	6,904,838.738	592,400.828
LP69	1,116.907	10,903.688	7,440.377	1,106.297	6,596.798	2,702.661	1,106.297	6,905,105.558	592,130.542
LP70	1,121.426	10,931.417	7,493.137	1,110.816	6,577.909	2,759.192	1,110.816	6,905,134.711	592,182.496
LP71	1,120.673	10,956.925	7,518.067	1,110.063	6,577.571	2,794.857	1,110.063	6,905,160.881	592,206.704
LP72	1,121.979	10,960.995	7,555.510	1,111.369	6,553.363	2,823.711	1,111.369	6,905,165.975	592,244.002
LP73	1,177.815	10,611.584	7,725.516	1,167.205	6,188.818	2,689.185	1,167.205	6,904,821.534	592,423.451
LP74	1,118.625	10,970.095	7,529.763	1,108.015	6,578.245	2,812.458	1,108.015	6,905,174.360	592,218.028
LP75	1,110.471	10,929.093	7,412.816	1,099.861	6,634.274	2,701.921	1,099.861	6,905,130.184	592,102.308
LP76	1,115.318	10,990.689	7,524.952	1,104.708	6,595.971	2,823.992	1,104.708	6,905,194.804	592,212.656

Survey Point	KA Elev	KA North	KA East	CRI Elev	CRI North	CRI East	UTM Elev	UTM North	UTM East
LP77	1,178.969	10,606.325	7,730.437	1,168.359	6,181.626	2,688.795	1,168.359	6,904,816.414	592,428.512
LP78	1,103.775	10,957.249	7,383.144	1,093.165	6,675.178	2,701.706	1,093.165	6,905,157.501	592,071.889
LP79	1,103.227	10,963.608	7,379.192	1,092.617	6,682.432	2,703.561	1,092.617	6,905,163.746	592,067.766
LP80	1,110.219	11,015.862	7,498.489	1,099.609	6,632.494	2,823.846	1,099.609	6,905,219.229	592,185.525
LP81	1,104.440	10,957.520	7,385.517	1,093.830	6,673.653	2,703.544	1,093.830	6,905,157.837	592,074.252
LP82	1,103.483	10,965.254	7,383.268	1,092.873	6,680.629	2,707.570	1,092.873	6,905,165.503	592,071.793
LP83	1,102.801	10,976.777	7,379.826	1,092.191	6,691.089	2,713.504	1,092.191	6,905,176.921	592,068.038
LP84	1,102.387	10,990.524	7,384.457	1,091.777	6,697.261	2,726.632	1,091.777	6,905,190.783	592,072.288
LP85	1,182.910	10,576.079	7,755.031	1,172.300	6,142.941	2,683.987	1,172.300	6,904,786.870	592,453.915
LP86	1,104.103	11,022.134	7,414.310	1,093.493	6,697.593	2,770.109	1,093.493	6,905,223.185	592,101.247
LP87	1,106.227	11,031.746	7,481.900	1,095.617	6,655.461	2,823.828	1,095.617	6,905,234.644	592,168.514
LP88	1,187.323	10,546.220	7,779.643	1,176.713	6,104.510	2,679.470	1,176.713	6,904,757.712	592,479.325
LP89	1,103.893	11,048.740	7,437.855	1,093.283	6,699.014	2,805.609	1,093.283	6,905,250.414	592,124.041
LP90	1,105.089	11,052.037	7,460.782	1,094.479	6,684.748	2,823.857	1,094.479	6,905,254.338	592,146.858
LP91	1,191.665	10,515.443	7,805.575	1,181.055	6,064.491	2,675.205	1,181.055	6,904,727.674	592,506.080
NE COR FACE	1,193.916	10,482.585	7,822.767	1,183.306	6,029.341	2,663.388	1,183.306	6,904,695.316	592,524.159
SE COR FACE	1,193.555	10,480.457	7,818.750	1,182.945	6,030.767	2,659.072	1,182.945	6,904,693.080	592,520.204
TP	1,167.586	10,676.526	7,528.648	1,156.976	6,375.860	2,599.798	1,156.976	6,904,881.016	592,224.972
TP 6NE	1,157.066	10,778.312	7,705.296	1,146.456	6,318.811	2,795.528	1,146.456	6,904,987.562	592,398.673
TP CL VENT/RSE	1,166.079	10,676.264	7,528.469	1,155.469	6,375.807	2,599.485	1,155.469	6,904,880.749	592,224.800
TP FLOOR check	1,158.104	10,667.926	7,569.589	1,147.494	6,340.357	2,621.928	1,147.494	6,904,873.547	592,266.113
TP on floor	1,188.622	10,569.800	7,406.411	1,178.012	6,390.217	2,438.162	1,178.012	6,904,771.027	592,105.771
TP1 on floor	1,183.599	10,609.408	7,421.575	1,172.989	6,406.687	2,477.246	1,172.989	6,904,811.017	592,119.834
TP1 (PICKUP)	1,154.820	10,681.776	7,594.480	1,144.210	6,331.978	2,649.152	1,144.210	6,904,888.068	592,290.603
TP2 (PICKUP)	1,152.844	10,727.487	7,637.786	1,142.234	6,332.359	2,712.118	1,142.234	6,904,934.928	592,332.616
TP3 (PICKUP)	1,152.114	10,741.603	7,647.101	1,141.504	6,335.406	2,728.754	1,141.504	6,904,949.287	592,341.536