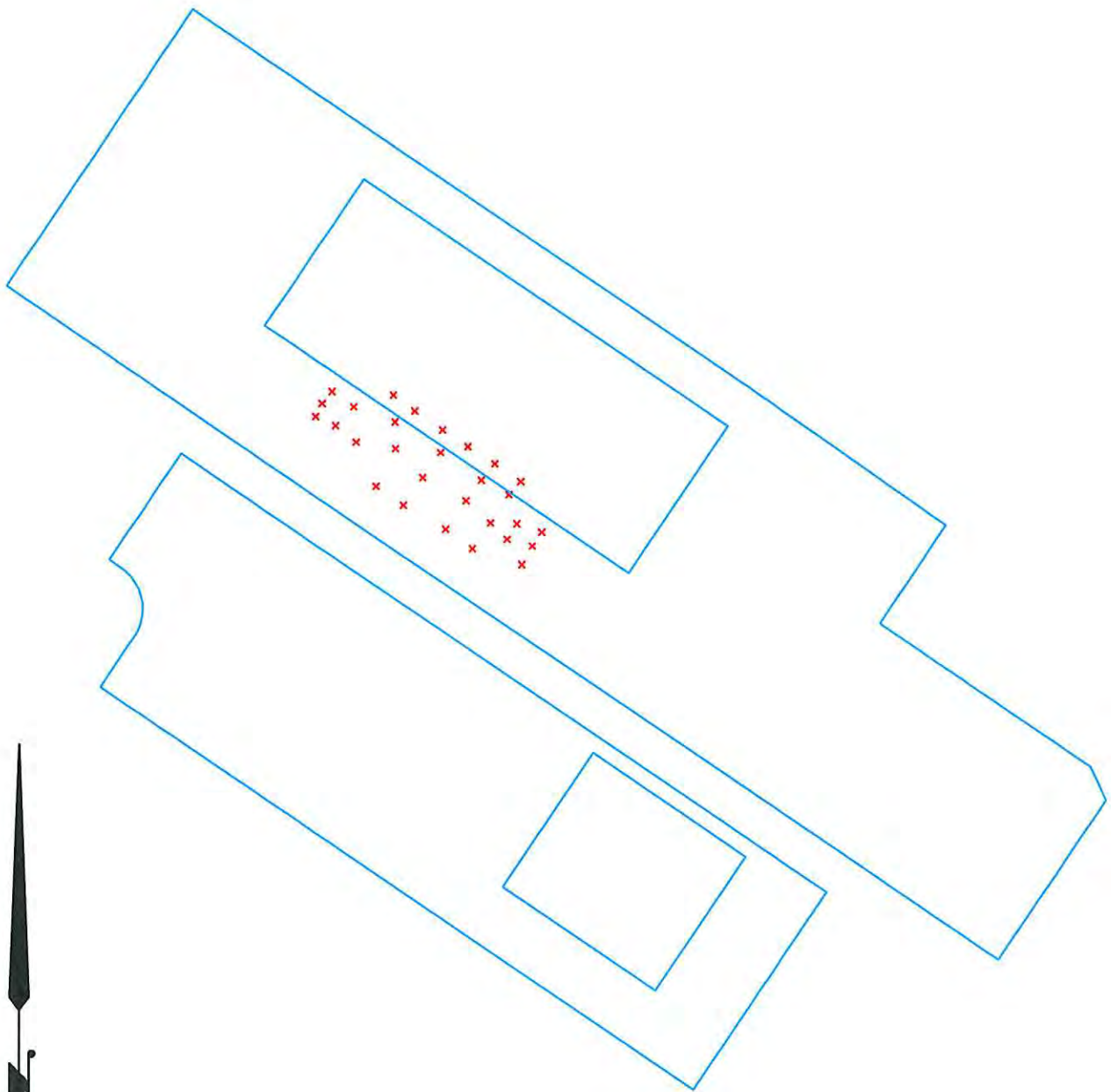




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UNDERHILL GEOMATICS LTD.
PROFESSIONAL LAND SURVEYORS
WHITEHORSE, YUKON
Job: ITP 4611



TITLE

Type 8 Crush Final
As-builts at Tank Farm
ITP Job No. 4611, Activity No. 43

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1:1000

DATE

2013-09-30

CLIENT

Baffinland Iron Mines Corporation

DRAWING NAME

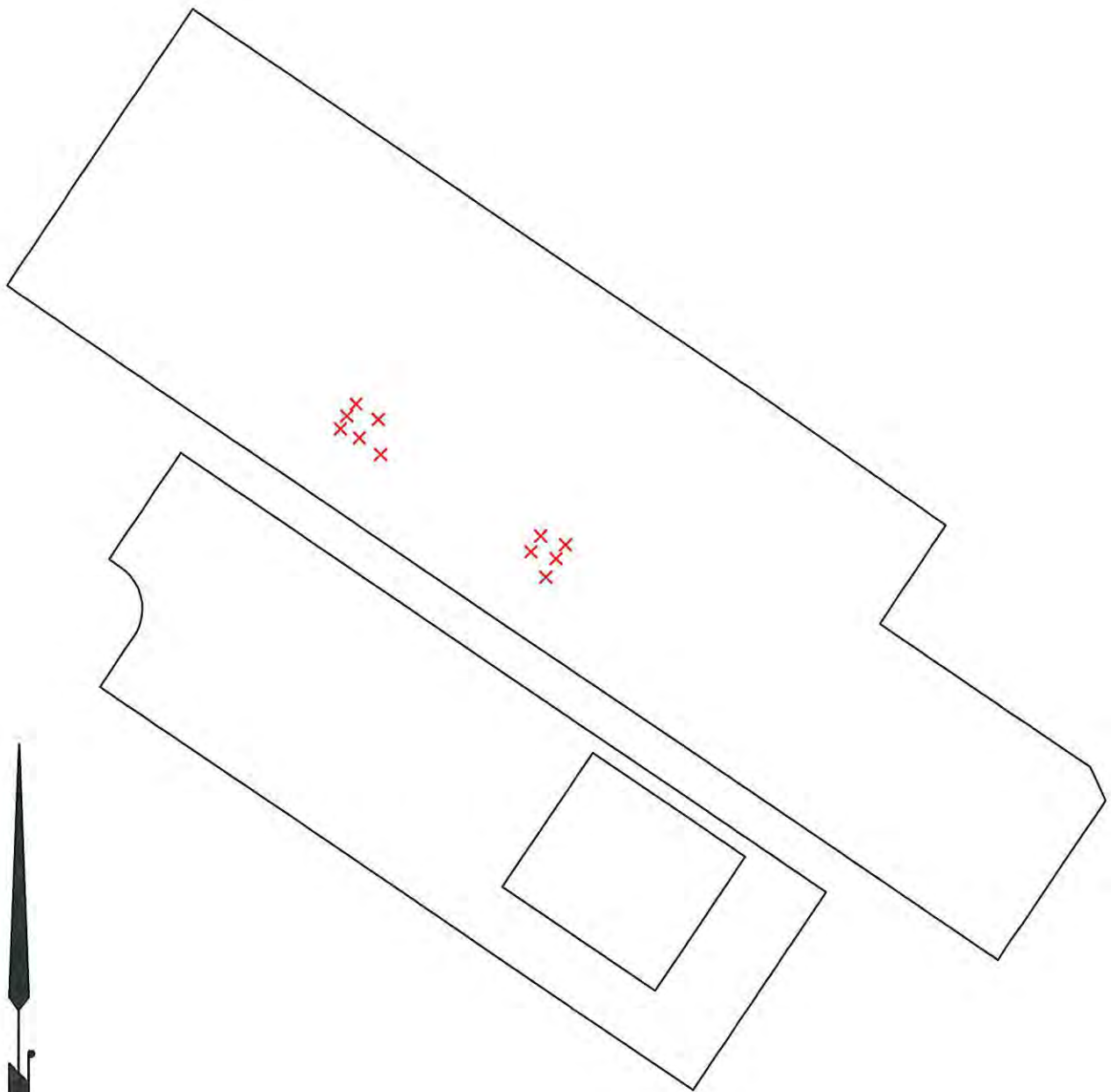
4611-43 Type 8 Crush Fuel Mod.dwg

PROJECT

Mary River Project, Baffin Island, Nunavut

Job # 4611
Activity # 45

Point #	Northing	Easting	Elevation	Description
4246231	7913287.865	561234.56	195.428	CRUSHX
4246240	7913287.867	561234.574	195.424	CRUSHX
4246241	7913290.475	561231.251	195.658	CRUSHX
4246242	7913291.875	561228.24	195.819	CRUSHX
4246243	7913293.902	561229.23	195.835	CRUSHX
4246244	7913295.757	561230.697	195.87	CRUSHX
4246245	7913293.366	561234.185	195.624	CRUSHX
4246246	7913273.823	561263.723	195.841	CRUSHX
4246247	7913271.649	561262.265	195.831	CRUSHX
4246248	7913268.745	561260.641	195.876	CRUSHX
4246249	7913272.71	561258.331	195.613	CRUSHX
4246250	7913275.159	561259.828	195.579	CRUSHX



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PROFESSIONAL LAND SURVEYORS
WHITEHORSE, YUKON
Job: ITP 4611



TITLE

Type 5 Crush Lift Final
As-builts at Fuel Mod
ITP Job No. 4611, Activity No. 45

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SCALE

1:1000

DATE

2013-09-29

CLIENT

Baffinland Iron Mines Corporation

DRAWING NAME

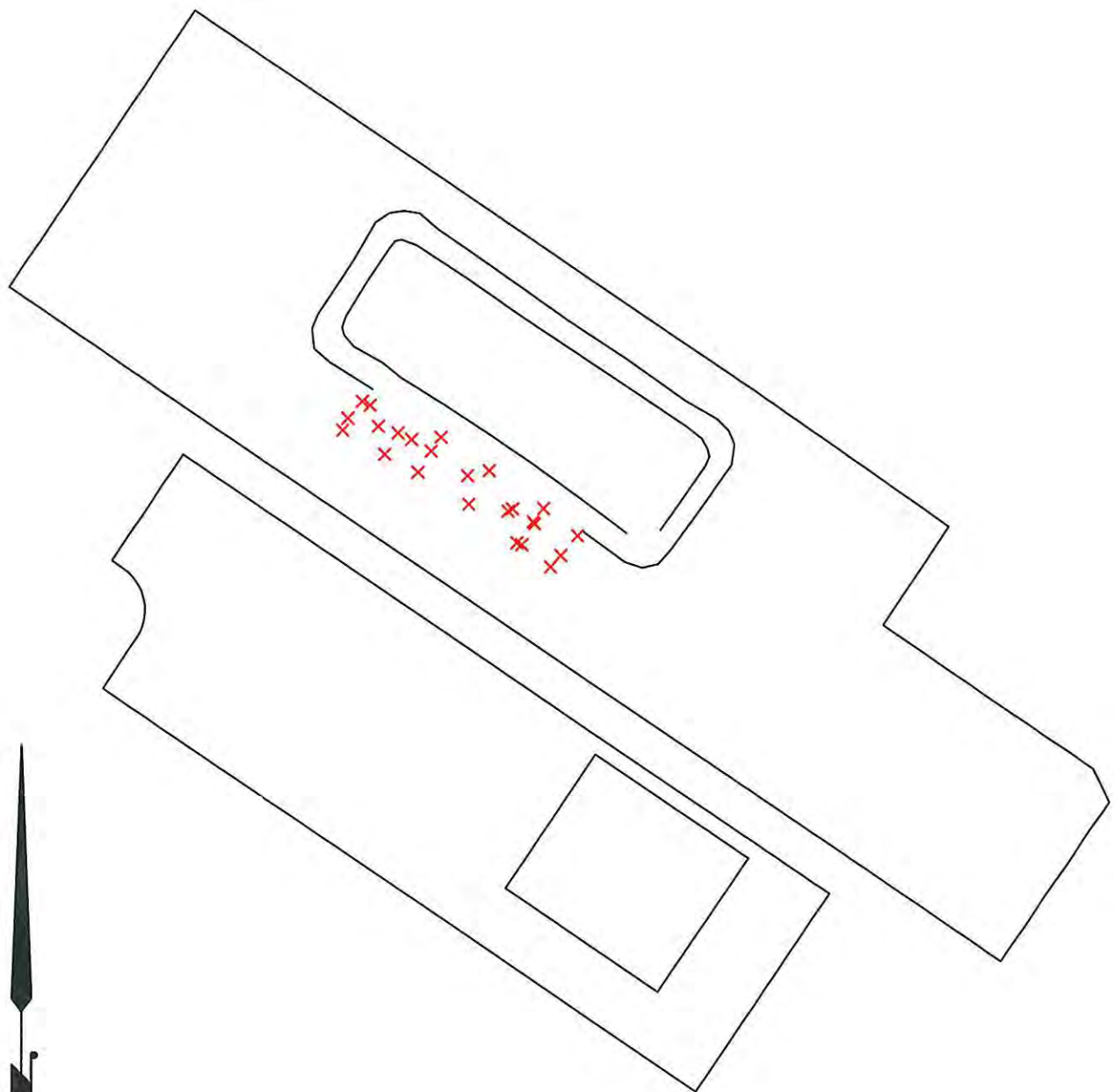
4611-45 Type 5 Crush Lift Fuel Mod.dwg

PROJECT

Mary River Project, Baffin Island, Nunavut

Job # 4611
Activity # 52

Point #	Northing	Easting	Elevation	Description
1255068	7913295.843	561232.519	196.059	GS TOP SAND
1255069	7913290.506	561239.029	195.585	GS TOP SAND
1255070	7913284.828	561247.828	195.579	GS TOP SAND
1255071	7913279.597	561254.947	195.566	GS TOP SAND
1255072	7913277.296	561258.394	195.67	GS TOP SAND
1255073	7913274.034	561256.374	195.661	GS TOP SAND
1259008	7913296.466	561231.305	196.092	GS TOP SAND
1259009	7913293.781	561229.03	196.007	GS TOP SAND
1259010	7913291.932	561228.203	196.011	GS TOP SAND
1259011	7913288.154	561234.807	195.683	GS TOP SAND
1259012	7913291.517	561236.914	195.636	GS TOP SAND
1259013	7913292.508	561233.798	195.801	GS TOP SAND
1259014	7913285.344	561240.039	195.612	GS TOP SAND
1259015	7913288.667	561242.102	195.539	GS TOP SAND
1259016	7913290.849	561243.643	195.522	GS TOP SAND
1259017	7913285.623	561251.23	195.514	GS TOP SAND
1259018	7913280.357	561248.013	195.59	GS TOP SAND
1259019	7913279.282	561254.228	195.563	GS TOP SAND
1259020	7913274.318	561255.618	195.634	GS TOP SAND
1259021	7913277.597	561258.15	195.606	GS TOP SAND
1259022	7913279.701	561259.834	195.568	GS TOP SAND
1259023	7913275.441	561265.205	196.058	GS TOP SAND
1259024	7913272.317	561262.559	196.064	GS TOP SAND
1259025	7913270.561	561260.931	196.078	GS TOP SAND
536876533	7913295.843	561232.519	196.059	GS TOP SAND
536876534	7913290.506	561239.029	195.585	GS TOP SAND
536876535	7913284.828	561247.828	195.579	GS TOP SAND
536876536	7913279.597	561254.947	195.566	GS TOP SAND
536876537	7913277.296	561258.394	195.67	GS TOP SAND
536876538	7913274.034	561256.374	195.661	GS TOP SAND



20 0 10 20 40 60 80 100 metres

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UNDERHILL GEOMATICS LTD.
PROFESSIONAL LAND SURVEYORS
WHITEHORSE, YUKON
Job: ITP 4611



TITLE

*Upper Lift of Crusher Fines
As-builts at Tank Farm
ITP Job No. 4611, Activity No. 52*

DRAWN BY

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DATE

2013-09-30

CLIENT

Baffinland Iron Mines Corporation

DRAWING NAME

4611-52 Upper Lift of Crusher Fines.dwg

PROJECT

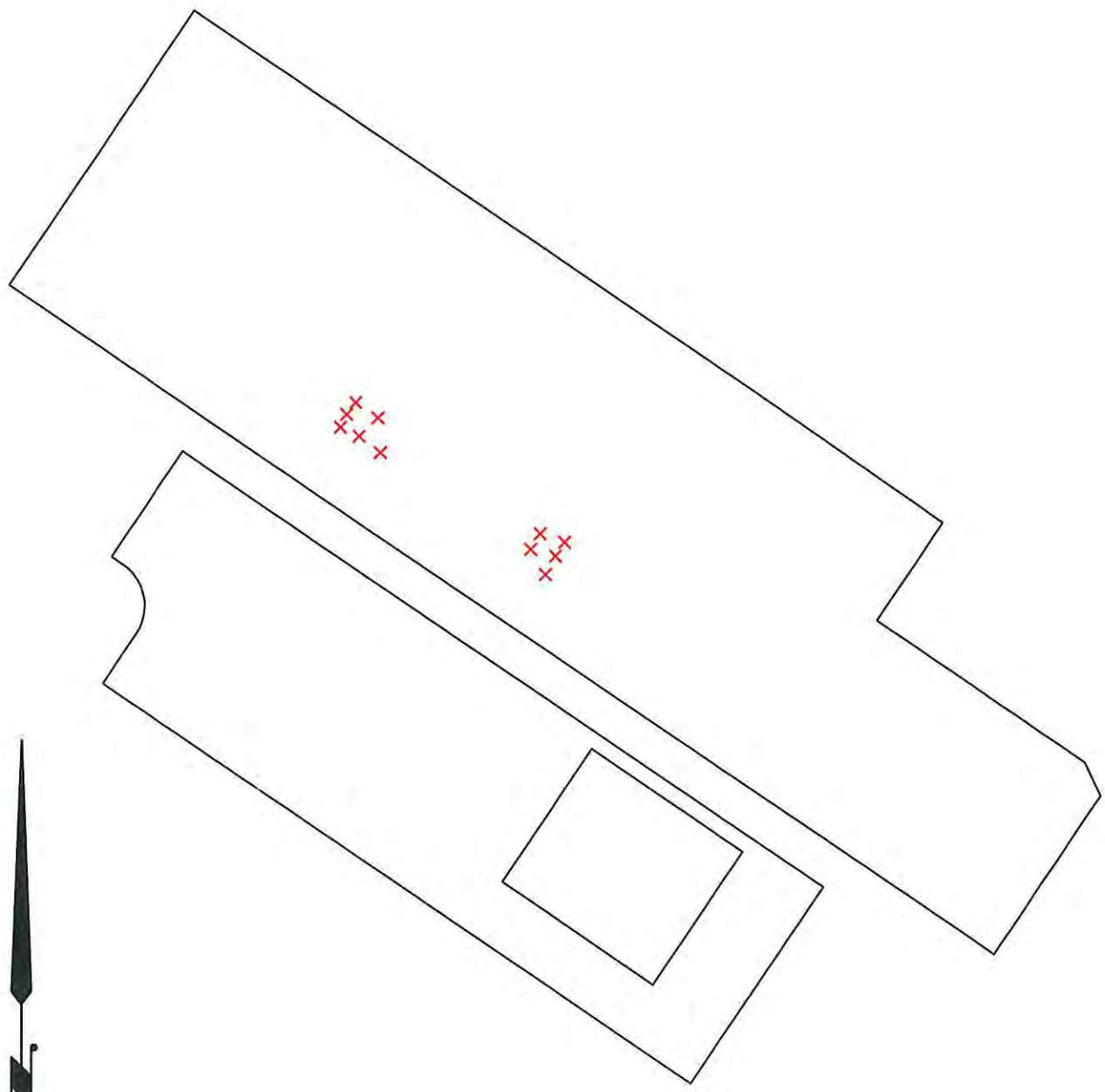
Mary River Project, Baffin Island, Nunavut

Job # 4611
Activity # 54

Point #	Northing	Easting	Elevation	Description
2257100	7913291.138	561272.044	195.62	TOP1
2257101	7913292.698	561275.077	195.61	TOP1
2257102	7913292.297	561278.336	195.595	TOP1
2257103	7913289.643	561280.889	195.616	TOP1
2257104	7913285.87	561280.632	195.592	TOP1
2257105	7913283.105	561278.132	195.582	TOP1
2257106	7913282.828	561274.489	195.62	TOP1
2257107	7913285.067	561271.518	195.585	TOP1
2257108	7913288.678	561270.679	195.559	TOP1
2257109	7913290.735	561271.744	195.606	TOP1
2257110	7913290.232	561272.441	195.614	GS
2257111	7913291.626	561274.531	195.608	GS
2257112	7913291.611	561277.169	195.596	GS
2257113	7913290.164	561279.279	195.619	GS
2257114	7913287.515	561280.181	195.608	GS
2257115	7913285.173	561279.246	195.606	GS
2257116	7913283.688	561276.919	195.6	GS
2257117	7913283.972	561274.113	195.613	GS
2257118	7913286.204	561271.992	195.599	GS
2257119	7913288.734	561271.807	195.593	GS
2257121	7913292.955	561268.111	195.635	TOP2
2257122	7913291.122	561265.981	195.618	TOP2
2257123	7913291.033	561263.025	195.634	TOP2
2257124	7913292.71	561259.853	195.605	TOP2
2257125	7913295.741	561258.472	195.622	TOP2
2257126	7913298.787	561259.521	195.599	TOP2
2257127	7913300.973	561261.778	195.605	TOP2
2257128	7913301.22	561265.03	195.624	TOP2
2257129	7913299.585	561267.878	195.561	TOP2
2257130	7913295.813	561269.093	195.617	TOP2
2257131	7913293.727	561267.244	195.599	GS
2257132	7913292.086	561264.936	195.615	GS
2257133	7913292.087	561262.31	195.616	GS
2257134	7913293.905	561260.078	195.614	GS
2257135	7913296.712	561259.564	195.615	GS
2257136	7913298.421	561260.305	195.606	GS
2257137	7913300.047	561262.542	195.612	GS
2257138	7913300.014	561265.4	195.6	GS
2257139	7913297.974	561267.678	195.582	GS
2257140	7913295.026	561267.999	195.58	GS
2270100	7913304.677	561241.343	194.35	TOE1
2270101	7913304.867	561238.219	194.286	TOE1

2270102	7913305.834	561235.072	194.384	TOE1
2270103	7913307.516	561232.39	194.192	TOE1
2270104	7913310.545	561231.099	194.159	TOE1
2270105	7913314.612	561231.569	194.452	TOE1
2270106	7913317.031	561232.797	194.594	TOE1
2270107	7913319.45	561235.352	194.409	TOE1
2270108	7913320.601	561238.735	194.399	TOE1
2270109	7913319.706	561242.214	194.623	TOE1
2270110	7913317.448	561245.358	194.65	TOE1
2270111	7913314.621	561247.444	194.322	TOE1
2270112	7913312.059	561247.693	194.321	TOE1
2270113	7913310.286	561246.426	194.707	TOE1
2270114	7913308.397	561244.699	195.085	TOE1
2270115	7913307.38	561240.982	195.58	TOP1
2270116	7913307.378	561238.269	195.651	TOP1
2270117	7913308.21	561236.259	195.57	TOP1
2270118	7913310.765	561234.743	195.633	TOP1
2270119	7913313.719	561234.472	195.615	TOP1
2270120	7913315.995	561235.712	195.481	TOP1
2270121	7913317.461	561238.316	195.585	TOP1
2270122	7913317.061	561241.646	195.421	TOP1
2270123	7913315.342	561244.022	195.559	TOP1
2270124	7913312.205	561244.928	195.594	TOP1
2270125	7913309.581	561243.966	195.595	TOP1
2270126	7913308.262	561242.914	195.594	TOP1
2270127	7913303.352	561243.014	194.287	TOE2
2270128	7913299.822	561244.703	194.298	TOE2
2270129	7913297.564	561247.137	194.285	TOE2
2270130	7913296.172	561250.219	194.251	TOE2
2270131	7913296.18	561252.853	194.279	TOE2
2270132	7913297.191	561254.523	194.412	TOE2
2270133	7913298.464	561255.425	194.895	TOE2
2270134	7913300.295	561257.09	194.971	TOE2
2270135	7913302.124	561258.509	194.874	TOE2
2270136	7913304.096	561259.858	194.371	TOE2
2270137	7913307.076	561259.298	194.333	TOE2
2270138	7913309.987	561256.658	194.582	TOE2
2270139	7913311.486	561253.92	194.551	TOE2
2270140	7913312.376	561250.879	194.36	TOE2
2270141	7913311.286	561248.208	194.377	TOE2
2270142	7913309.831	561247.367	194.67	TOE2
2270143	7913307.246	561246.062	195.074	TOE2
2270144	7913302.687	561246.413	192.197	TOP2
2270145	7913301.368	561247.096	195.664	TOP2
2270146	7913299.613	561249.066	195.569	TOP2
2270147	7913298.896	561252.276	195.58	TOP2
2270148	7913300.013	561254.998	195.533	TOP2

2270149	7913302.788	561256.939	195.594	TOP2
2270150	7913306.13	561256.713	195.519	TOP2
2270151	7913308.708	561254.17	195.445	TOP2
2270152	7913309.666	561251.6	195.615	TOP2
2270153	7913308.659	561248.892	195.605	TOP2
2270154	7913306.904	561247.136	195.535	TOP2
2270155	7913304.977	561246.177	195.636	TOP2
2270156	7913304.974	561246.171	195.619	TOP2
2270157	7913291.162	561257.53	194.351	TOE3
2270158	7913289.288	561259.483	194.304	TOE3
2270159	7913288.047	561263.426	194.336	TOE3
2270160	7913288.396	561266.537	194.349	TOE3
2270161	7913291.795	561268.725	194.983	TOE3
2270162	7913293.469	561270.429	194.928	TOE3
2270163	7913295.19	561271.593	194.629	TOE3
2270164	7913299.001	561271.283	194.38	TOE3
2270165	7913301.501	561269.117	194.586	TOE3
2270166	7913303.09	561265.917	194.691	TOE3
2270167	7913303.412	561262.834	194.358	TOE3
2270168	7913302.398	561260.254	194.464	TOE3
2270169	7913301.153	561259.317	194.901	TOE3
2270170	7913298.837	561257.861	194.905	TOE3
2270171	7913296.956	561256.367	194.727	TOE3
2270172	7913295.019	561255.287	194.329	TOE3
2270173	7913292.93	561256.143	194.299	TOE3
2270174	7913292.246	561270.564	194.826	TOE4
2270175	7913294.073	561272.337	194.47	TOE4
2270176	7913295.294	561276.515	194.374	TOE4
2270177	7913294.132	561279.461	194.452	TOE4
2270178	7913291.756	561282.413	194.404	TOE4
2270179	7913288.365	561283.601	194.36	TOE4
2270180	7913284.826	561283.01	194.389	TOE4
2270181	7913281.874	561280.703	194.402	TOE4
2270182	7913280.165	561277.006	194.287	TOE4
2270183	7913280.94	561272.667	194.348	TOE4
2270184	7913283.548	561269.533	194.333	TOE4
2270185	7913283.557	561269.521	194.331	TOE4
2270186	7913287.174	561268.442	194.4	TOE4
2270187	7913289.016	561269.183	194.343	TOE4



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UNDERHILL GEOMATICS LTD.
PROFESSIONAL LAND SURVEYORS
WHITEHORSE, YUKON
Job: ITP 4611



TITLE

Type 5 Capping Crush Final
As-builts at Tank Farm
ITP Job No. 4611, Activity No. 54

DRAWN BY

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DATE

2013-09-30

CLIENT

Baffinland Iron Mines Corporation

DRAWING NAME

4611-54 Type 5 Capping Crush.dwg

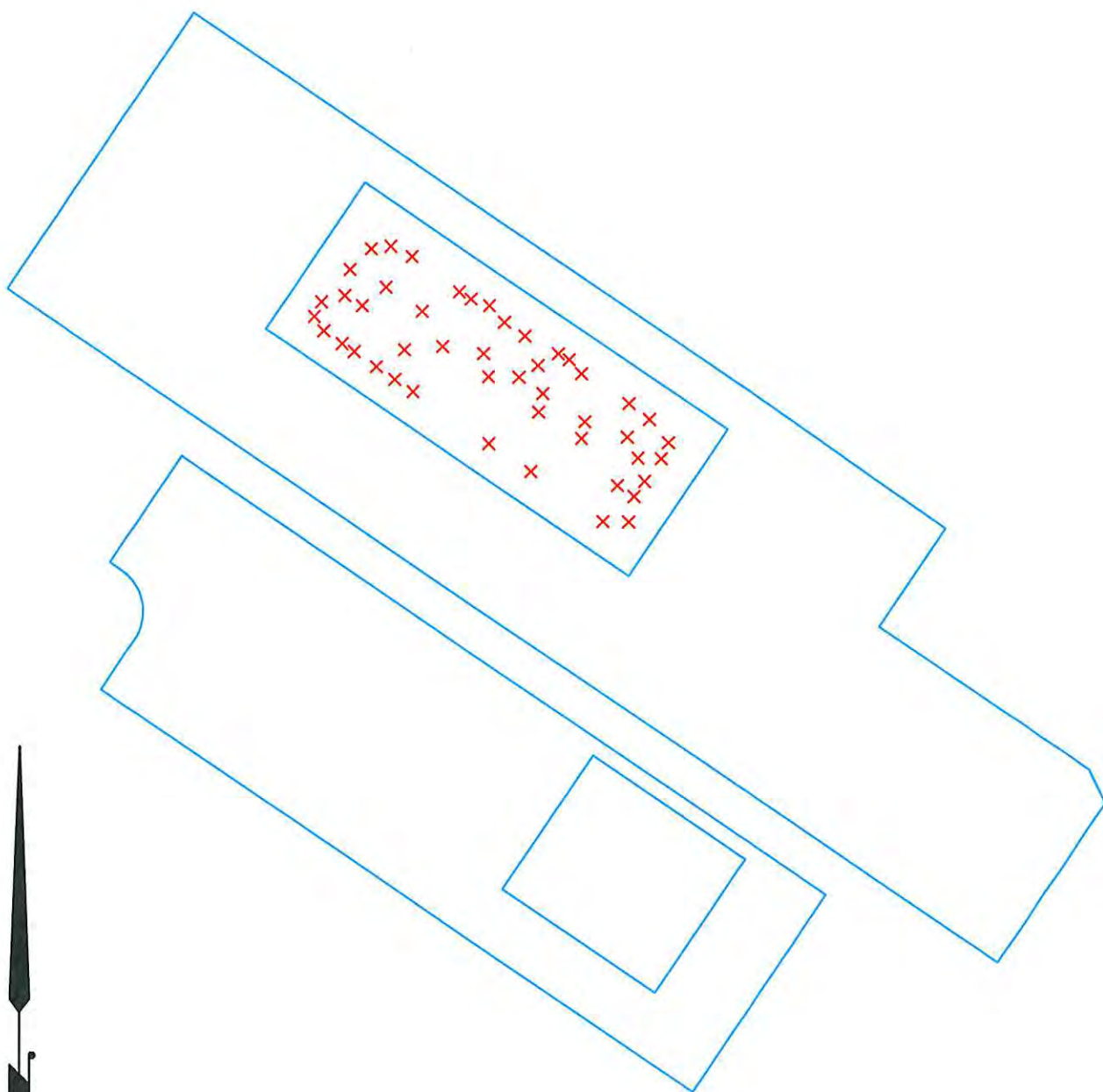
PROJECT

Mary River Project, Baffin Island, Nunavut

Job # 4611
Activity # 60

Point #	Northing	Easting	Elevation	Description
1007	7913279.907	561278.208	193.745	F0.02 TOP TYPE5
1247001	7913309.762	561235.346	193.759	C0.06
1247003	7913302.829	561242.033	193.799	F0.02
1247005	7913289.17	561277.098	193.746	F0.01
1247006	7913288.343	561283.559	193.712	F0.08
1247024	7913308.052	561227.813	193.805	F0.01
1247055	7913282.291	561279.852	193.714	F0.06
1247056	7913285.905	561278.774	193.757	C0.012
1247058	7913291.572	561270.395	193.756	C0.011
1247060	7913298.551	561260.107	193.76	C0.014
1247061	7913302.247	561254.564	193.752	C0.007
1247063	7913308.873	561244.837	193.741	F0.005
1247064	7913312.68	561239.068	193.735	F0.010
1247070	7913300.417	561263.078	193.781	C0.004
1247077	7913319.066	561239.824	193.814	C0.011
1249009	7913296.24	561243.376	193.818	C0.012
1249010	7913300.16	561237.588	193.817	C0.013
1249049	7913283.767	561261.997	193.792	F0.012
1249050	7913288.117	561255.404	193.802	F0.002
1249052	7913298.145	561240.504	193.794	F0.010
1249054	7913305.789	561229.286	193.813	C0.009
536874735	7913317.471	561243.185	193.799	F0.01
536874736	7913302.553	561234.088	193.758	F0.05
536874738	7913310.344	561228.934	193.827	F0.01
536874739	7913296.004	561263.845	193.706	F0.04
536874751	7913285.843	561282.456	193.769	C0.004
536874754	7913294.484	561277.354	193.814	C0.005
536874756	7913291.986	561280.582	193.792	F0.014
536874758	7913299.11	561269.899	193.806	C0.001
536874759	7913301.316	561267.943	193.809	F0.004
536874760	7913302.259	561266.264	193.818	C0.006
536874762	7913305.03	561261.023	193.814	C0.009
536874763	7913307.187	561257.824	193.818	C0.013
536874764	7913309.786	561255.439	193.82	C0.006
536874766	7913310.834	561252.58	193.811	C0.005
536874767	7913311.953	561250.703	193.798	F0.07
536874771	7913318.661	561236.72	193.784	C0.004
536874772	7913315.406	561233.375	193.741	C0.006
536874773	7913311.338	561232.556	193.71	0.014
536874776	7913303.362	561248.078	193.725	C0.008
536874777	7913298.638	561255.357	193.733	C0.014
536874778	7913293.092	561263.192	193.726	C0.009

536874779	7913288.97	561269.922	193.714	F0.006
536874795	7913283.767	561261.997	193.792	F0.012
536874796	7913288.117	561255.404	193.802	F0.002
536874798	7913298.145	561240.504	193.794	F0.010
536874800	7913305.789	561229.286	193.813	C0.009
536874859	7913296.24	561243.376	193.818	C0.012
536874860	7913300.16	561237.588	193.817	C0.013
536874861	7913303.794	561232.158	193.799	F0.05
536874933	7913281.618	561275.571	193.819	F0.05
536874949	7913283.767	561261.997	193.792	F0.012
536874950	7913288.117	561255.404	193.802	F0.002
536874952	7913298.145	561240.504	193.794	F0.010
536874954	7913305.789	561229.286	193.813	C0.009
536874980	7913275.989	561273.341	193.804	F0.001
536875508	7913275.921	561277.344	193.734	:0.01 TOE ROQ TOP TYPE!



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UNDERHILL GEOMATICS LTD.
PROFESSIONAL LAND SURVEYORS
WHITEHORSE, YUKON
Job: ITP 4611



TITLE

Area of Works Final
As-builts at Tank Farm
ITP Job No. 4611, Activity No. 60 67 74 81

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DATE

2013-09-30

CLIENT

Baffinland Iron Mines Corporation

DRAWING NAME

4611-60 67 74 81 Area of Works.dwg

PROJECT

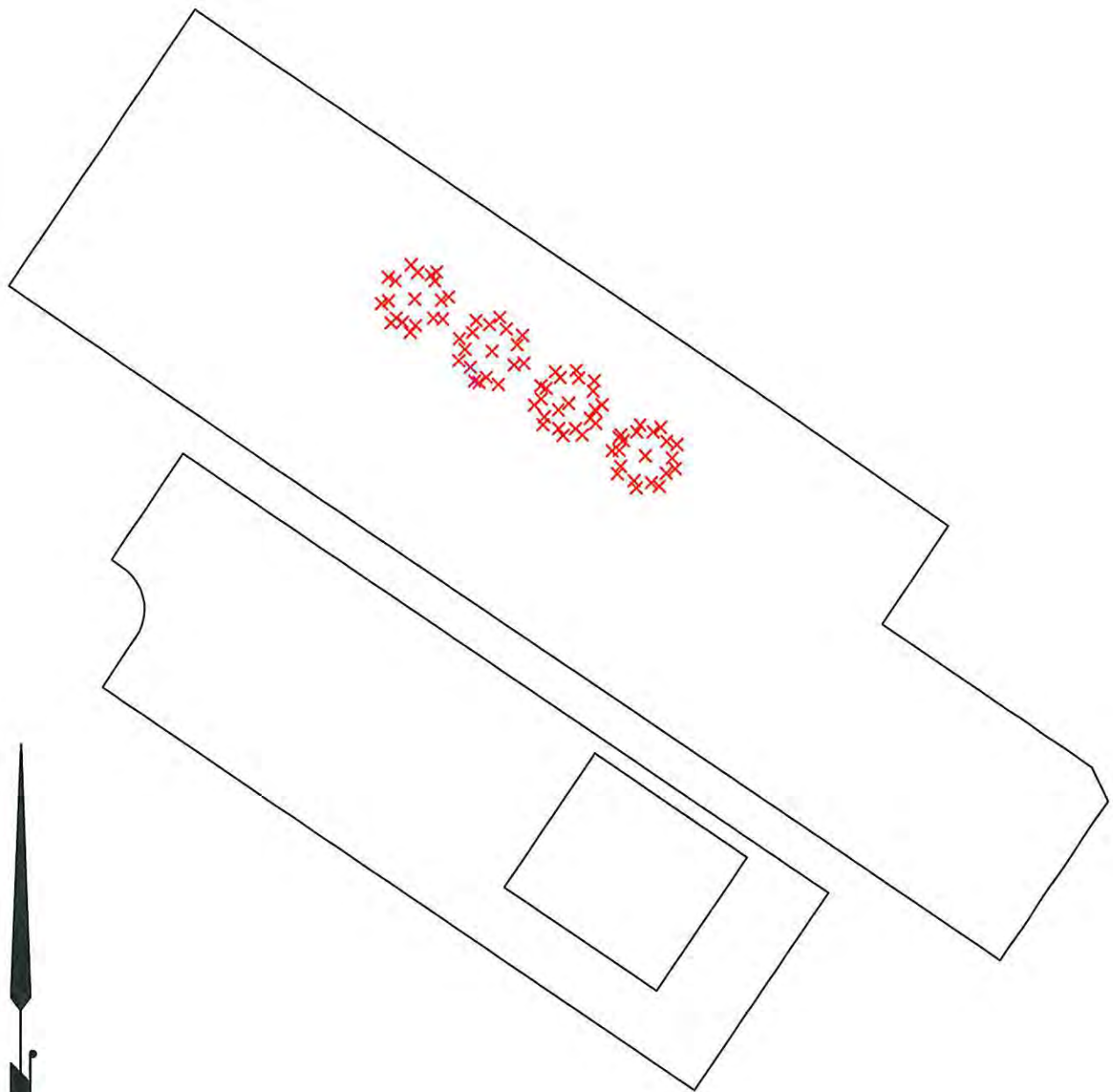
Mary River Project, Baffin Island, Nunavut

Job # 4611
Activity # 61

Point #	Northing	Easting	Elevation	Description
1258011	7913300.084	561250.877	195.585	CL
1258012	7913301.667	561248.373	195.602	CL
1258013	7913304.466	561247.548	195.61	CL
1258014	7913307.102	561248.739	195.604	CL
1258015	7913308.335	561251.397	195.618	CL
1258016	7913307.65	561254.053	195.624	CL
1258017	7913305.177	561255.766	195.586	CL
1258018	7913302.011	561255.307	195.586	CL
1258019	7913304.152	561251.8	195.634	CENTER TOP SAND
1258020	7913299.505	561249.059	195.593	TOP20
1258021	7913302.665	561246.614	195.597	TOP20
1258022	7913306.105	561246.703	195.632	TOP20
1258023	7913308.965	561249.254	195.612	TOP20
1258024	7913309.479	561253.024	195.605	TOP20
1258025	7913306.649	561256.592	195.599	TOP20
1258026	7913302.318	561256.809	195.605	TOP20
1258027	7913298.948	561252.81	195.572	TOP20
1258028	7913299.275	561249.755	195.622	TOP20
1258030	7913316.08	561242.181	195.605	PLNAIL
1258033	7913309.349	561236.702	195.593	CL
1258034	7913312.012	561235.448	195.61	CL
1258035	7913315.132	561236.544	195.588	CL
1258036	7913316.475	561240.076	195.61	CL
1258037	7913315.132	561242.746	195.613	CL
1258038	7913312.132	561243.778	195.58	CL
1258039	7913309.345	561242.553	195.593	CL
1258040	7913308.168	561239.743	195.585	CL
1258041	7913308.677	561237.694	195.598	CL
1258042	7913312.304	561239.615	195.638	CENTER TOP SAND
1258043	7913308.552	561235.861	195.605	TOP21
1258044	7913311.56	561234.402	195.55	TOP21
1258045	7913315.716	561235.424	195.564	TOP21
1258046	7913317.683	561239.045	195.542	TOP21
1258047	7913316.526	561243.016	195.587	TOP21
1258048	7913312.648	561244.953	195.59	TOP21
1258049	7913309.218	561243.996	195.619	TOP21
1258050	7913307.088	561238.938	195.521	TOP21
2257100	7913291.138	561272.044	195.62	TOP1
2257101	7913292.698	561275.077	195.61	TOP1
2257102	7913292.297	561278.336	195.595	TOP1
2257103	7913289.643	561280.889	195.616	TOP1
2257104	7913285.87	561280.632	195.592	TOP1

2257105	7913283.105	561278.132	195.582	TOP1
2257106	7913282.828	561274.489	195.62	TOP1
2257107	7913285.067	561271.518	195.585	TOP1
2257108	7913288.678	561270.679	195.559	TOP1
2257109	7913290.735	561271.744	195.606	TOP1
2257110	7913290.232	561272.441	195.614	GS
2257111	7913291.626	561274.531	195.608	GS
2257112	7913291.611	561277.169	195.596	GS
2257113	7913290.164	561279.279	195.619	GS
2257114	7913287.515	561280.181	195.608	GS
2257115	7913285.173	561279.246	195.606	GS
2257116	7913283.688	561276.919	195.6	GS
2257117	7913283.972	561274.113	195.613	GS
2257118	7913286.204	561271.992	195.599	GS
2257119	7913288.734	561271.807	195.593	GS
2257121	7913292.955	561268.111	195.635	TOP2
2257122	7913291.122	561265.981	195.618	TOP2
2257123	7913291.033	561263.025	195.634	TOP2
2257124	7913292.71	561259.853	195.605	TOP2
2257125	7913295.741	561258.472	195.622	TOP2
2257126	7913298.787	561259.521	195.599	TOP2
2257127	7913300.973	561261.778	195.605	TOP2
2257128	7913301.22	561265.03	195.624	TOP2
2257129	7913299.585	561267.878	195.561	TOP2
2257130	7913295.813	561269.093	195.617	TOP2
2257131	7913293.727	561267.244	195.599	GS
2257132	7913292.086	561264.936	195.615	GS
2257133	7913292.087	561262.31	195.616	GS
2257134	7913293.905	561260.078	195.614	GS
2257135	7913296.712	561259.564	195.615	GS
2257136	7913298.421	561260.305	195.606	GS
2257137	7913300.047	561262.542	195.612	GS
2257138	7913300.014	561265.4	195.6	GS
2257139	7913297.974	561267.678	195.582	GS
2257140	7913295.026	561267.999	195.58	GS
2257141	7913295.034	561262.24	195.643	CL
536876836	7913287.863	561275.955	195.645	center tank
536876839	7913291.138	561272.044	195.62	TOP1
536876840	7913292.698	561275.077	195.61	TOP1
536876841	7913292.297	561278.336	195.595	TOP1
536876842	7913289.643	561280.889	195.616	TOP1
536876843	7913285.87	561280.632	195.592	TOP1
536876844	7913283.105	561278.132	195.582	TOP1
536876845	7913282.828	561274.489	195.62	TOP1
536876846	7913285.067	561271.518	195.585	TOP1
536876847	7913288.678	561270.679	195.559	TOP1
536876848	7913290.735	561271.744	195.606	TOP1

536876849	7913290.232	561272.441	195.614	GS
536876850	7913291.626	561274.531	195.608	GS
536876851	7913291.611	561277.169	195.596	GS
536876852	7913290.164	561279.279	195.619	GS
536876853	7913287.515	561280.181	195.608	GS
536876854	7913285.173	561279.246	195.606	GS
536876855	7913283.688	561276.919	195.6	GS
536876856	7913283.972	561274.113	195.613	GS
536876857	7913286.204	561271.992	195.599	GS
536876858	7913288.734	561271.807	195.593	GS
536876860	7913292.955	561268.111	195.635	TOP2
536876861	7913291.122	561265.981	195.618	TOP2
536876862	7913291.033	561263.025	195.634	TOP2
536876863	7913292.71	561259.853	195.605	TOP2
536876864	7913295.741	561258.472	195.622	TOP2
536876865	7913298.787	561259.521	195.599	TOP2
536876866	7913300.973	561261.778	195.605	TOP2
536876867	7913301.22	561265.03	195.624	TOP2
536876868	7913299.585	561267.878	195.561	TOP2
536876869	7913295.813	561269.093	195.617	TOP2
536876870	7913293.727	561267.244	195.599	GS
536876871	7913292.086	561264.936	195.615	GS
536876872	7913292.087	561262.31	195.616	GS
536876873	7913293.905	561260.078	195.614	GS
536876874	7913296.712	561259.564	195.615	GS
536876875	7913298.421	561260.305	195.606	GS
536876876	7913300.047	561262.542	195.612	GS
536876877	7913300.014	561265.4	195.6	GS
536876878	7913297.974	561267.678	195.582	GS
536876879	7913295.026	561267.999	195.58	GS
536876880	7913295.034	561262.24	195.643	CL
536876885	7913296.026	561263.85	195.645	center tank



PREPARED BY



UNDERHILL GEOMATICS LTD.
PROFESSIONAL LAND SURVEYORS
WHITEHORSE, YUKON
Job: ITP 4611



TITLE

Type 5 Pedestal Lift
As-builts at Tank Farm
ITP Job No. 4611, Activity No. 61

DRAWN BY

SC

SCALE

1:1000

DATE

2013-09-29

CLIENT

Baffinland Iron Mines Corporation

DRAWING NAME

4611-61 Type 5 Pedestal Lift.dwg

PROJECT

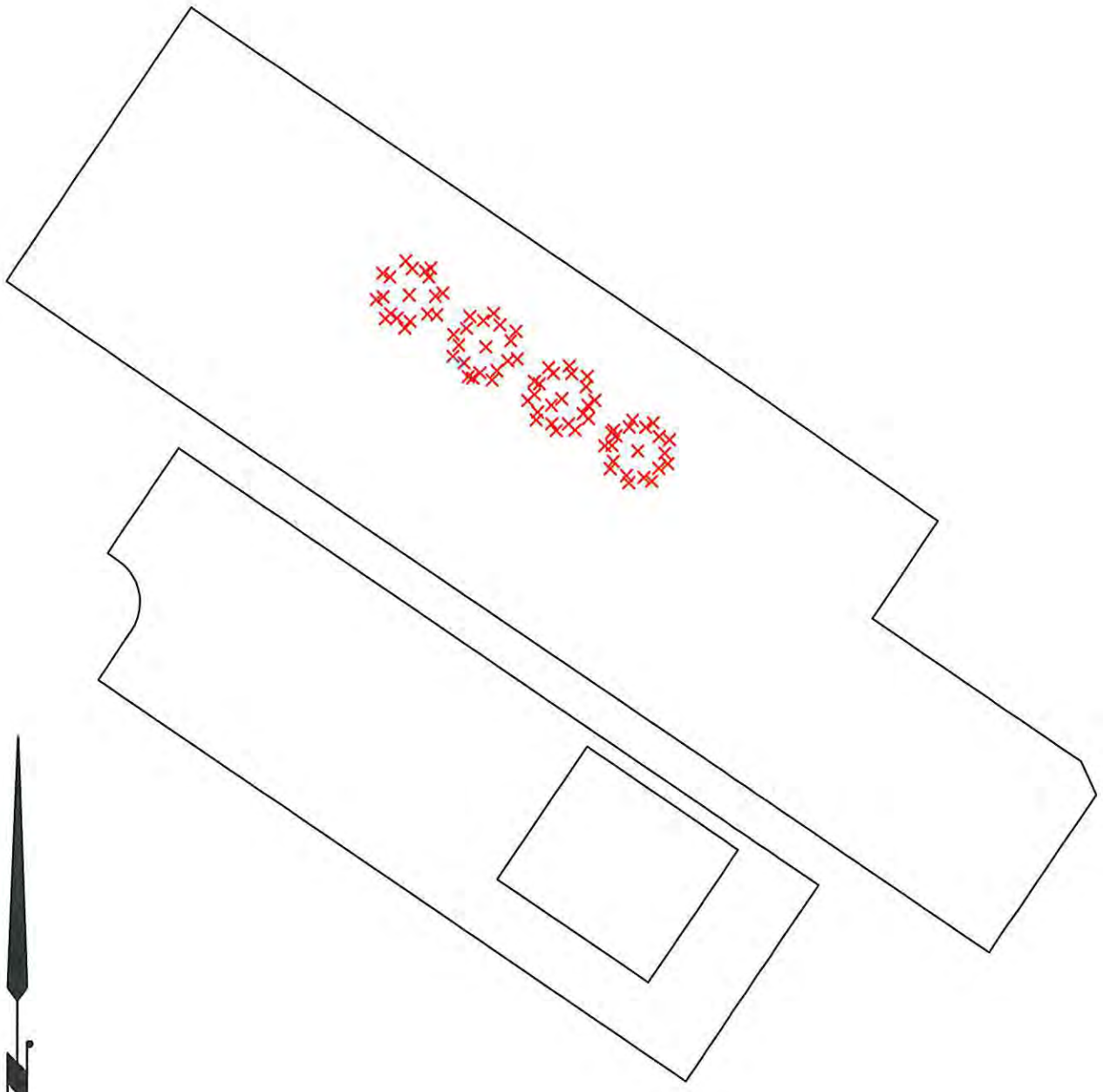
Mary River Project, Baffin Island, Nunavut

Job # 4611
Activity # 63

Point #	Northing	Easting	Elevation	Description
1258010	7913300.443	561253.581	195.586	START AB CL
1258011	7913300.084	561250.877	195.585	CL
1258012	7913301.667	561248.373	195.602	CL
1258013	7913304.466	561247.548	195.61	CL
1258014	7913307.102	561248.739	195.604	CL
1258015	7913308.335	561251.397	195.618	CL
1258016	7913307.65	561254.053	195.624	CL
1258017	7913305.177	561255.766	195.586	CL
1258018	7913302.011	561255.307	195.586	CL
1258019	7913304.152	561251.8	195.634	CENTER TOP SAND
1258020	7913299.505	561249.059	195.593	TOP20
1258021	7913302.665	561246.614	195.597	TOP20
1258022	7913306.105	561246.703	195.632	TOP20
1258023	7913308.965	561249.254	195.612	TOP20
1258024	7913309.479	561253.024	195.605	TOP20
1258025	7913306.649	561256.592	195.599	TOP20
1258026	7913302.318	561256.809	195.605	TOP20
1258027	7913298.948	561252.81	195.572	TOP20
1258028	7913299.275	561249.755	195.622	TOP20
1258030	7913316.08	561242.181	195.605	PLNAIL
1258033	7913309.349	561236.702	195.593	CL
1258034	7913312.012	561235.448	195.61	CL
1258035	7913315.132	561236.544	195.588	CL
1258036	7913316.475	561240.076	195.61	CL
1258037	7913315.132	561242.746	195.613	CL
1258038	7913312.132	561243.778	195.58	CL
1258039	7913309.345	561242.553	195.593	CL
1258040	7913308.168	561239.743	195.585	CL
1258041	7913308.677	561237.694	195.598	CL
1258042	7913312.304	561239.615	195.638	CENTER TOP SAND
1258043	7913308.552	561235.861	195.605	TOP21
1258044	7913311.56	561234.402	195.55	TOP21
1258045	7913315.716	561235.424	195.564	TOP21
1258046	7913317.683	561239.045	195.542	TOP21
1258047	7913316.526	561243.016	195.587	TOP21
1258048	7913312.648	561244.953	195.59	TOP21
1258049	7913309.218	561243.996	195.619	TOP21
1258050	7913307.088	561238.938	195.521	TOP21
2257100	7913291.138	561272.044	195.62	TOP1
2257101	7913292.698	561275.077	195.61	TOP1
2257102	7913292.297	561278.336	195.595	TOP1
2257103	7913289.643	561280.889	195.616	TOP1

2257104	7913285.87	561280.632	195.592	TOP1
2257105	7913283.105	561278.132	195.582	TOP1
2257106	7913282.828	561274.489	195.62	TOP1
2257107	7913285.067	561271.518	195.585	TOP1
2257108	7913288.678	561270.679	195.559	TOP1
2257109	7913290.735	561271.744	195.606	TOP1
2257110	7913290.232	561272.441	195.614	GS
2257111	7913291.626	561274.531	195.608	GS
2257112	7913291.611	561277.169	195.596	GS
2257113	7913290.164	561279.279	195.619	GS
2257114	7913287.515	561280.181	195.608	GS
2257115	7913285.173	561279.246	195.606	GS
2257116	7913283.688	561276.919	195.6	GS
2257117	7913283.972	561274.113	195.613	GS
2257118	7913286.204	561271.992	195.599	GS
2257119	7913288.734	561271.807	195.593	GS
2257121	7913292.955	561268.111	195.635	TOP2
2257122	7913291.122	561265.981	195.618	TOP2
2257123	7913291.033	561263.025	195.634	TOP2
2257124	7913292.71	561259.853	195.605	TOP2
2257125	7913295.741	561258.472	195.622	TOP2
2257126	7913298.787	561259.521	195.599	TOP2
2257127	7913300.973	561261.778	195.605	TOP2
2257128	7913301.22	561265.03	195.624	TOP2
2257129	7913299.585	561267.878	195.561	TOP2
2257130	7913295.813	561269.093	195.617	TOP2
2257131	7913293.727	561267.244	195.599	GS
2257132	7913292.086	561264.936	195.615	GS
2257133	7913292.087	561262.31	195.616	GS
2257134	7913293.905	561260.078	195.614	GS
2257135	7913296.712	561259.564	195.615	GS
2257136	7913298.421	561260.305	195.606	GS
2257137	7913300.047	561262.542	195.612	GS
2257138	7913300.014	561265.4	195.6	GS
2257139	7913297.974	561267.678	195.582	GS
2257140	7913295.026	561267.999	195.58	GS
2257141	7913295.034	561262.24	195.643	CL
536876836	7913287.863	561275.955	195.645	center tank
536876839	7913291.138	561272.044	195.62	TOP1
536876840	7913292.698	561275.077	195.61	TOP1
536876841	7913292.297	561278.336	195.595	TOP1
536876842	7913289.643	561280.889	195.616	TOP1
536876843	7913285.87	561280.632	195.592	TOP1
536876844	7913283.105	561278.132	195.582	TOP1
536876845	7913282.828	561274.489	195.62	TOP1
536876846	7913285.067	561271.518	195.585	TOP1
536876847	7913288.678	561270.679	195.559	TOP1

536876848	7913290.735	561271.744	195.606	TOP1
536876849	7913290.232	561272.441	195.614	GS
536876850	7913291.626	561274.531	195.608	GS
536876851	7913291.611	561277.169	195.596	GS
536876852	7913290.164	561279.279	195.619	GS
536876853	7913287.515	561280.181	195.608	GS
536876854	7913285.173	561279.246	195.606	GS
536876855	7913283.688	561276.919	195.6	GS
536876856	7913283.972	561274.113	195.613	GS
536876857	7913286.204	561271.992	195.599	GS
536876858	7913288.734	561271.807	195.593	GS
536876860	7913292.955	561268.111	195.635	TOP2
536876861	7913291.122	561265.981	195.618	TOP2
536876862	7913291.033	561263.025	195.634	TOP2
536876863	7913292.71	561259.853	195.605	TOP2
536876864	7913295.741	561258.472	195.622	TOP2
536876865	7913298.787	561259.521	195.599	TOP2
536876866	7913300.973	561261.778	195.605	TOP2
536876867	7913301.22	561265.03	195.624	TOP2
536876868	7913299.585	561267.878	195.561	TOP2
536876869	7913295.813	561269.093	195.617	TOP2
536876870	7913293.727	561267.244	195.599	GS
536876871	7913292.086	561264.936	195.615	GS
536876872	7913292.087	561262.31	195.616	GS
536876873	7913293.905	561260.078	195.614	GS
536876874	7913296.712	561259.564	195.615	GS
536876875	7913298.421	561260.305	195.606	GS
536876876	7913300.047	561262.542	195.612	GS
536876877	7913300.014	561265.4	195.6	GS
536876878	7913297.974	561267.678	195.582	GS
536876879	7913295.026	561267.999	195.58	GS
536876880	7913295.034	561262.24	195.643	CL
536876885	7913296.026	561263.85	195.645	center tank



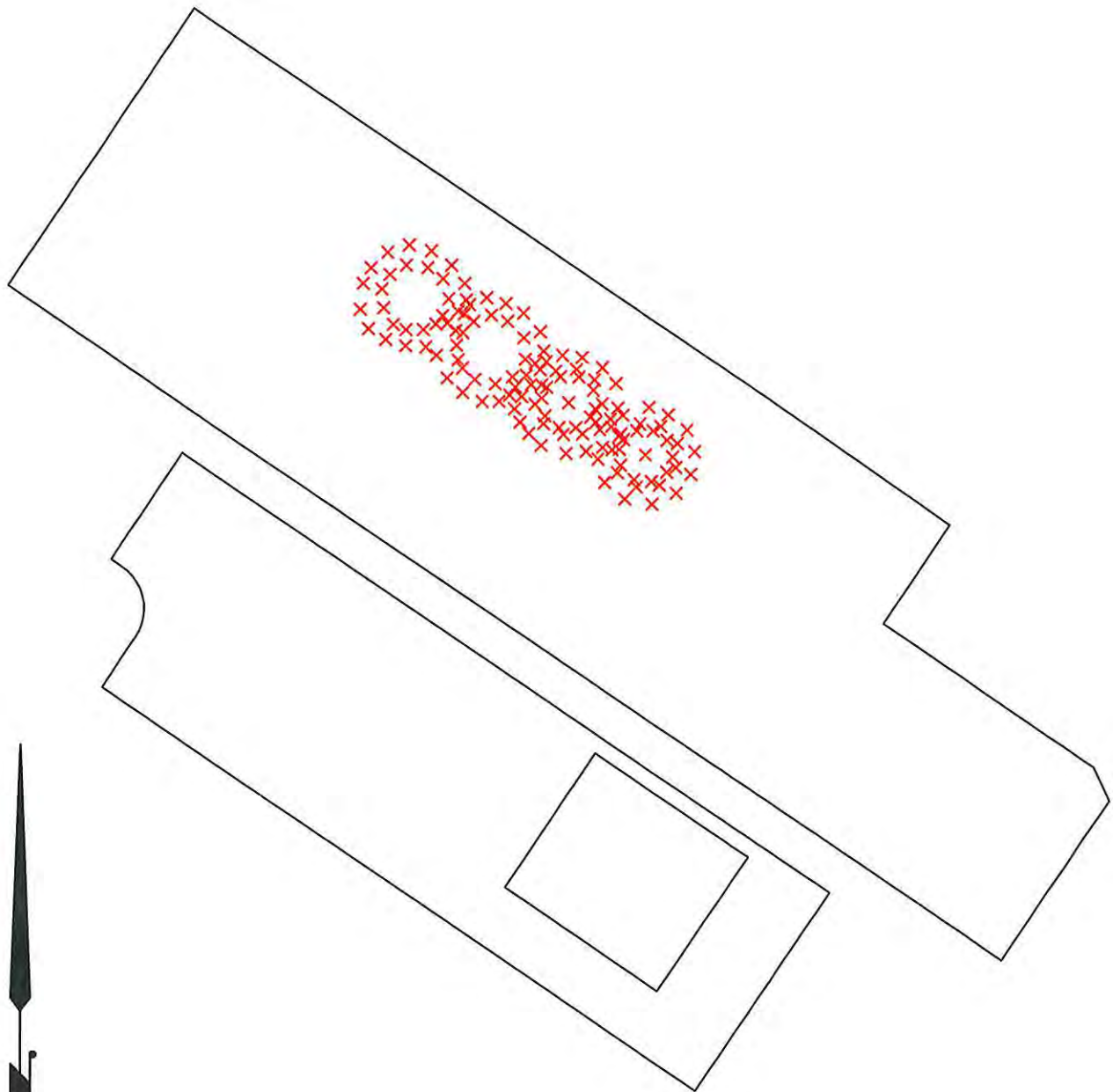
PREPARED BY  UNDERHILL GEOMATICS LTD. PROFESSIONAL LAND SURVEYORS WHITEHORSE, YUKON Job: ITP 4611				TITLE Crusher Fines Under Tank As-builts at Tank Farm ITP Job No. 4611, Activity No. 63
DRAWN BY SC	SCALE 1:1000	DATE 2013-09-29	CLIENT Baffinland Iron Mines Corporation	
DRAWING NAME 4611-63 Crusher Fines Under Tank.dwg			PROJECT Mary River Project, Baffin Island, Nunavut	

Job # 4611
Activity # 65

Point #	Northing	Easting	Elevation	Description
2257100	7913291.138	561272.044	195.62	TOP1
2257101	7913292.698	561275.077	195.61	TOP1
2257102	7913292.297	561278.336	195.595	TOP1
2257103	7913289.643	561280.889	195.616	TOP1
2257104	7913285.87	561280.632	195.592	TOP1
2257105	7913283.105	561278.132	195.582	TOP1
2257106	7913282.828	561274.489	195.62	TOP1
2257107	7913285.067	561271.518	195.585	TOP1
2257108	7913288.678	561270.679	195.559	TOP1
2257109	7913290.735	561271.744	195.606	TOP1
2257110	7913290.232	561272.441	195.614	GS
2257111	7913291.626	561274.531	195.608	GS
2257112	7913291.611	561277.169	195.596	GS
2257113	7913290.164	561279.279	195.619	GS
2257114	7913287.515	561280.181	195.608	GS
2257115	7913285.173	561279.246	195.606	GS
2257116	7913283.688	561276.919	195.6	GS
2257117	7913283.972	561274.113	195.613	GS
2257118	7913286.204	561271.992	195.599	GS
2257119	7913288.734	561271.807	195.593	GS
2257120	7913287.845	561275.945	195.629	CL
2257121	7913292.955	561268.111	195.635	TOP2
2257122	7913291.122	561265.981	195.618	TOP2
2257123	7913291.033	561263.025	195.634	TOP2
2257124	7913292.71	561259.853	195.605	TOP2
2257125	7913295.741	561258.472	195.622	TOP2
2257126	7913298.787	561259.521	195.599	TOP2
2257127	7913300.973	561261.778	195.605	TOP2
2257128	7913301.22	561265.03	195.624	TOP2
2257129	7913299.585	561267.878	195.561	TOP2
2257130	7913295.813	561269.093	195.617	TOP2
2257131	7913293.727	561267.244	195.599	GS
2257132	7913292.086	561264.936	195.615	GS
2257133	7913292.087	561262.31	195.616	GS
2257134	7913293.905	561260.078	195.614	GS
2257135	7913296.712	561259.564	195.615	GS
2257136	7913298.421	561260.305	195.606	GS
2257137	7913300.047	561262.542	195.612	GS
2257138	7913300.014	561265.4	195.6	GS
2257139	7913297.974	561267.678	195.582	GS
2257140	7913295.026	561267.999	195.58	GS
2257141	7913296.003	561263.81	195.643	CL

2270100	7913304.677	561241.343	194.35	TOE1
2270101	7913304.867	561238.219	194.286	TOE1
2270102	7913305.834	561235.072	194.384	TOE1
2270103	7913307.516	561232.39	194.192	TOE1
2270104	7913310.545	561231.099	194.159	TOE1
2270105	7913314.612	561231.569	194.452	TOE1
2270106	7913317.031	561232.797	194.594	TOE1
2270107	7913319.45	561235.352	194.409	TOE1
2270108	7913320.601	561238.735	194.399	TOE1
2270109	7913319.706	561242.214	194.623	TOE1
2270110	7913317.448	561245.358	194.65	TOE1
2270111	7913314.621	561247.444	194.322	TOE1
2270112	7913312.059	561247.693	194.321	TOE1
2270113	7913310.286	561246.426	194.707	TOE1
2270114	7913308.397	561244.699	195.085	TOE1
2270115	7913307.38	561240.982	195.58	TOP1
2270116	7913307.378	561238.269	195.651	TOP1
2270117	7913308.21	561236.259	195.57	TOP1
2270118	7913310.765	561234.743	195.633	TOP1
2270119	7913313.719	561234.472	195.615	TOP1
2270120	7913315.995	561235.712	195.481	TOP1
2270121	7913317.461	561238.316	195.585	TOP1
2270122	7913317.061	561241.646	195.421	TOP1
2270123	7913315.342	561244.022	195.559	TOP1
2270124	7913312.205	561244.928	195.594	TOP1
2270125	7913309.581	561243.966	195.595	TOP1
2270126	7913308.262	561242.914	195.594	TOP1
2270127	7913303.352	561243.014	194.287	TOE2
2270128	7913299.822	561244.703	194.298	TOE2
2270129	7913297.564	561247.137	194.285	TOE2
2270130	7913296.172	561250.219	194.251	TOE2
2270131	7913296.18	561252.853	194.279	TOE2
2270132	7913297.191	561254.523	194.412	TOE2
2270133	7913298.464	561255.425	194.895	TOE2
2270134	7913300.295	561257.09	194.971	TOE2
2270135	7913302.124	561258.509	194.874	TOE2
2270136	7913304.096	561259.858	194.371	TOE2
2270137	7913307.076	561259.298	194.333	TOE2
2270138	7913309.987	561256.658	194.582	TOE2
2270139	7913311.486	561253.92	194.551	TOE2
2270140	7913312.376	561250.879	194.36	TOE2
2270141	7913311.286	561248.208	194.377	TOE2
2270142	7913309.831	561247.367	194.67	TOE2
2270143	7913307.246	561246.062	195.074	TOE2
2270144	7913302.687	561246.413	192.197	TOP2
2270145	7913301.368	561247.096	195.664	TOP2
2270146	7913299.613	561249.066	195.569	TOP2

2270147	7913298.896	561252.276	195.58	TOP2
2270148	7913300.013	561254.998	195.533	TOP2
2270149	7913302.788	561256.939	195.594	TOP2
2270150	7913306.13	561256.713	195.519	TOP2
2270151	7913308.708	561254.17	195.445	TOP2
2270152	7913309.666	561251.6	195.615	TOP2
2270153	7913308.659	561248.892	195.605	TOP2
2270154	7913306.904	561247.136	195.535	TOP2
2270155	7913304.977	561246.177	195.636	TOP2
2270156	7913304.974	561246.171	195.619	TOP2
2270157	7913291.162	561257.53	194.351	TOE3
2270158	7913289.288	561259.483	194.304	TOE3
2270159	7913288.047	561263.426	194.336	TOE3
2270160	7913288.396	561266.537	194.349	TOE3
2270161	7913291.795	561268.725	194.983	TOE3
2270162	7913293.469	561270.429	194.928	TOE3
2270163	7913295.19	561271.593	194.629	TOE3
2270164	7913299.001	561271.283	194.38	TOE3
2270165	7913301.501	561269.117	194.586	TOE3
2270166	7913303.09	561265.917	194.691	TOE3
2270167	7913303.412	561262.834	194.358	TOE3
2270168	7913302.398	561260.254	194.464	TOE3
2270169	7913301.153	561259.317	194.901	TOE3
2270170	7913298.837	561257.861	194.905	TOE3
2270171	7913296.956	561256.367	194.727	TOE3
2270172	7913295.019	561255.287	194.329	TOE3
2270173	7913292.93	561256.143	194.299	TOE3
2270174	7913292.246	561270.564	194.826	TOE4
2270175	7913294.073	561272.337	194.47	TOE4
2270176	7913295.294	561276.515	194.374	TOE4
2270177	7913294.132	561279.461	194.452	TOE4
2270178	7913291.756	561282.413	194.404	TOE4
2270179	7913288.365	561283.601	194.36	TOE4
2270180	7913284.826	561283.01	194.389	TOE4
2270181	7913281.874	561280.703	194.402	TOE4
2270182	7913280.165	561277.006	194.287	TOE4
2270183	7913280.94	561272.667	194.348	TOE4
2270184	7913283.548	561269.533	194.333	TOE4
2270185	7913283.557	561269.521	194.331	TOE4
2270186	7913287.174	561268.442	194.4	TOE4
2270187	7913289.016	561269.183	194.343	TOE4



PREPARED BY



UNDERHILL GEOMATICS LTD.
PROFESSIONAL LAND SURVEYORS
WHITEHORSE, YUKON
Job: ITP 4611



TITLE

Type 2 Pedestal Slope
As-builts at Tank Farm
ITP Job No. 4611, Activity No. 65

DRAWN BY

SC

SCALE

1:1000

DATE

2013-09-29

CLIENT

Baffinland Iron Mines Corporation

DRAWING NAME

4611-65 Type 2 Pedestal Slope.dwg

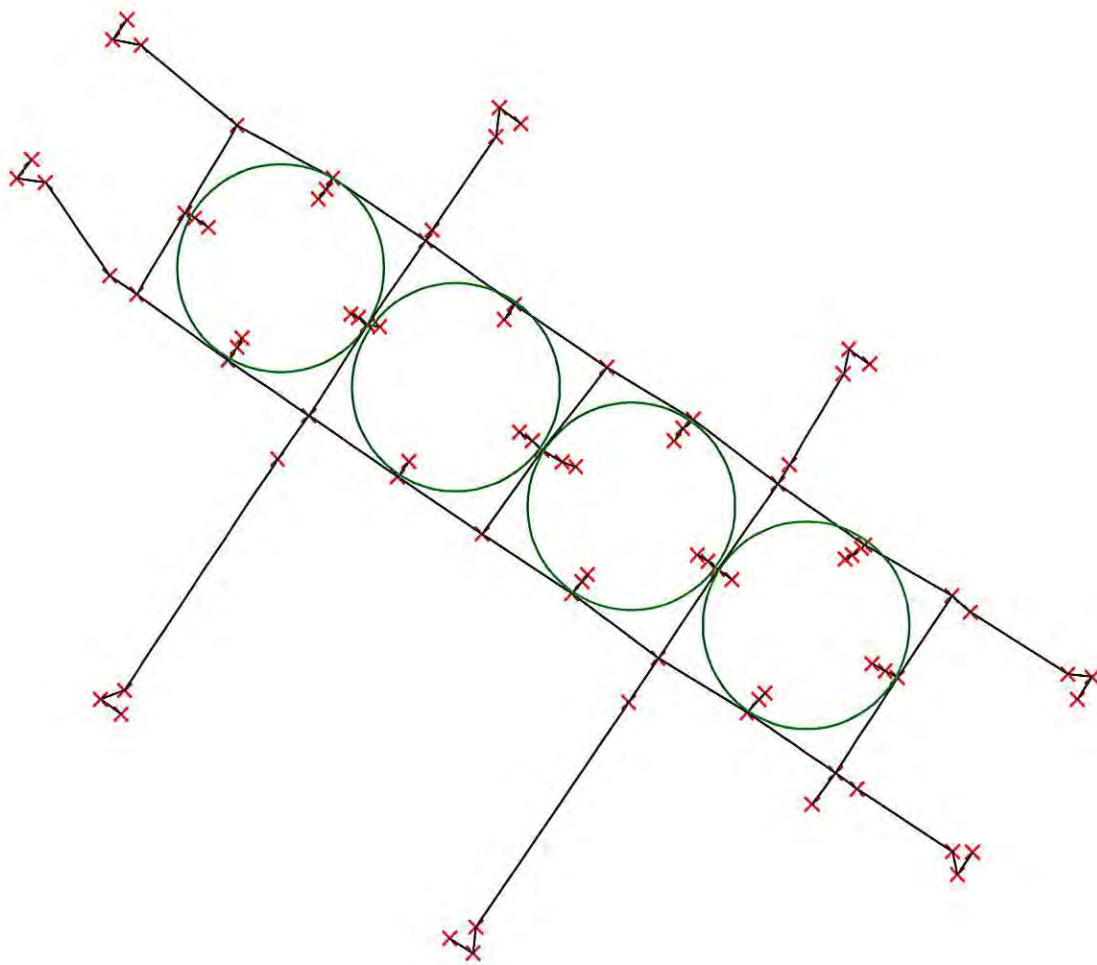
PROJECT

Mary River Project, Baffin Island, Nunavut

Job # 4611
Activity # 88

Point #	Northing	Easting	Elevation	Description
1266007	7913305.143	561278.474	193.236	GRD ROD
1270011	7913323.423	561254.712	193.652	GRD ROD
1270012	7913322.31	561256.183	193.578	GRD ROD
1270013	7913321.429	561254.482	193.637	GRD ROD
2262006	7913281.844	561271.855	194.417	CABLE
2262007	7913282.75	561272.694	195.039	CABLE
2262008	7913283.192	561273.101	195.465	CABLE
2262009	7913285.217	561280.495	195.495	CABLE
2262010	7913284.721	561281.419	194.96	CABLE
2262011	7913284.278	561282.251	194.523	CABLE
2262012	7913290.019	561259.747	194.539	CABLE
2262013	7913290.843	561260.459	194.899	CABLE
2262014	7913291.324	561260.832	195.307	CABLE
2262015	7913292.682	561268.404	195.23	CABLE
2262016	7913292.247	561269.126	194.963	CABLE
2262017	7913291.7	561269.812	194.736	CABLE
2262018	7913290.987	561270.788	195.059	CABLE
2262019	7913301.104	561256.143	195.484	CABLE
2262020	7913300.511	561257.025	194.854	CABLE
2262021	7913299.881	561257.706	194.712	CABLE
2262022	7913299.057	561259.074	198.413	CABLE
2262023	7913298.742	561259.996	198.889	CABLE
2262032	7913306.014	561236.006	194.344	CABLE
2262033	7913306.909	561236.658	194.79	CABLE
2262034	7913307.536	561236.997	195.211	CABLE
2262035	7913308.317	561246.501	194.718	CABLE
2262036	7913308.444	561245.626	194.665	CABLE
2262037	7913308.943	561245.021	194.793	CABLE
2262038	7913309.187	561244.517	195.081	CABLE
2262039	7913318.541	561243.207	194.792	CABLE
2262040	7913317.777	561242.738	194.822	CABLE
2262041	7913317.109	561242.196	195.175	CABLE
2262042	7913315.147	561234.637	195.318	CABLE
2262043	7913315.781	561233.709	194.873	CABLE
2262044	7913316.126	561233.014	194.678	CABLE
2262048	7913301.992	561268.098	194.431	CABLE
2262049	7913301.4	561267.369	194.755	CABLE
2262050	7913300.529	561266.781	195.424	CABLE
2262051	7913293.173	561279.774	194.544	CABLE
2262052	7913292.698	561279.123	194.941	CABLE
2262053	7913292.428	561278.644	195.411	CABLE
2265017	7913272.341	561286.105	193.694	GRD ROD

2265018	7913270.779	561286.447	193.871	GRD ROD
2265019	7913272.289	561287.49	193.878	GRD ROD
2265020	7913284.534	561294.006	193.746	GRD ROD
2265021	7913282.815	561294.683	193.731	GRD ROD
2265022	7913284.353	561295.699	193.659	GRD ROD
2265023	7913318.229	561223.387	193.359	GRD ROD
2265024	7913318.504	561221.436	193.278	GRD ROD
2265025	7913319.803	561222.454	193.381	GRD ROD
2265026	7913328.05	561228	193.494	GRD ROD
2265027	7913329.424	561228.976	193.478	GRD ROD
2265028	7913327.672	561229.953	193.456	GRD ROD
2265029	7913283.319	561228.897	193.747	GRD ROD
2265030	7913281.689	561228.665	193.642	GRD ROD
2265031	7913282.716	561227.247	193.662	GRD ROD
2265042	7913306.844	561278.857	193.25	GRD ROD
2265043	7913305.824	561280.284	193.482	GRD ROD
2265044	7913265.287	561253.039	193.719	GRD ROD
2265045	7913267.085	561253.228	193.782	GRD ROD
2265046	7913266.299	561251.443	193.791	GRD ROD
4254076	7913310.537	561229.68	194.008	CABLE
4254077	7913311.821	561227.826	194.801	CABLE
4254079	7913322.162	561236.606	194.377	CABLE
4254082	7913314.247	561249.663	194.179	CABLE
4254083	7913314.988	561250.094	194.48	CABLE
4254087	7913302.218	561241.593	193.952	CABLE
4254090	7913299.236	561239.42	193.947	CABLE
4254091	7913298.041	561247.748	194.005	CABLE
4254092	7913299.08	561248.53	194.034	CABLE
4254093	7913294.092	561253.593	194.007	CABLE
4254097	7913305.545	561262.13	194.105	CABLE
4254098	7913309.877	561255.772	194.107	CABLE
4254099	7913308.833	561255.08	194.111	CABLE
4254102	7913297.59	561273.947	194.079	CABLE
4254103	7913298.899	561274.747	194.772	CABLE
4254107	7913285.564	561265.714	193.989	CABLE
4254110	7913282.538	561263.678	193.98	CABLE
4254113	7913293.404	561279.966	194.107	CABLE
4254115	7913289.913	561286.019	194.368	CABLE
4254116	7913288.792	561287.3	194.788	CABLE
4254119	7913277.707	561278.009	194.042	CABLE
4254120	7913276.613	561279.501	194.539	CABLE
4254121	7913275.584	561276.396	194.071	CABLE



PREPARED BY



UNDERHILL GEOMATICS LTD.
PROFESSIONAL LAND SURVEYORS
WHITEHORSE, YUKON
Job: ITP 4611



TITLE

**Grounding Cables and Rods
As-builts at Tank Farm**
ITP Job No. 4611, Activity No. 88

DRAWN BY

SC

SCALE

1:500

DATE

2013-09-28

CLIENT

Baffinland Iron Mines Corporation

DRAWING NAME

4611-88 Ground Cables and Rods.dwg

PROJECT

Mary River Project, Baffin Island, Nunavut



NUNA EAST LTD

Section 5

Statements of Compliance



STATEMENT OF COMPLIANCE

Engineering Required Specification: Quarried Fill Materials Section: H349000 S31 12 13 (IFC).

Project Aggregate Generated: -2 mm fines aggregate.

Statement: The production of the project required aggregate has been found to meet the Quarried Fill Materials Specification of Section: H349000 S31 12 13.

I, the undersigned, declare that the above described aggregate generation and its inspection and testing complies in all respects with the requirements of the above listed construction specification issued to Nuna East Ltd.

HATCH

(Company)

TYLER BRINE

(Name)

CONST. SUPERVISOR

(Title)

06/09/2013

(Date)



STATEMENT OF COMPLIANCE

Engineering Required Specification: Quarried Fill Materials Section: H349000 S31 12 13 (IFC).

Project Aggregate Generated: Type 8 Minus 150mm aggregate.

Statement: The production of the project required aggregate has been found to meet the Quarried Fill Materials Specification of Section: H349000 S31 12 13.

I, the undersigned, declare that the above described aggregate generation and its inspection and testing complies in all respects with the requirements of the above listed construction specification issued to Nuna East Ltd.

HATCH

(Company)

Tyler Brown

(Name)

CONST. SUPERVISOR

(Title)

06/09/2013

(Date)



STATEMENT OF COMPLIANCE

Engineering Required Specification: Quarried Fill Materials Section: H349000 S31 12 13 (IFC).

Project Aggregate Generated: Type 5 Minus 32mm aggregate.

Statement: The production of the project required aggregate has been found to meet the Quarried Fill Materials Specification of Section: H349000 S31 12 13.

I, the undersigned, declare that the above described aggregate generation and its inspection and testing complies in all respects with the requirements of the above listed construction specification issued to Nuna East Ltd.

HATCH
(Company)

TYLER BRUCE
(Name)

CONST. SUPERVISOR
(Title)

06/09/2013
(Date)



NUNA EAST LTD

Section 6

Request for Information Documentation



NUNA EAST LTD

REQUEST FOR INFORMATION

RFI NUMBER	NE-RFI-#012				
ISSUE DATE (YY/MM/DD)	2013/08/25				
PRIORITY	H	X	M	L	
REQ'D RESPONSE DATE					

Subject:	Type 8 Jaw Run Material	Project Zone/Area:	4613 - Utilities Pad
Company:		Station/Location:	Tank Farm Berms
Attention:	James Cleland/Tyler Bruce	Discipline:	Civil Engineering

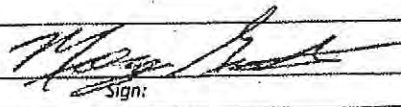
AFE:		Specification Number:	
Related Drawings:	H349000-4613-10-035-003 R.0	Related Documents:	

Information Request/Description of Issue/Approval Required:

Detail 2 on drawing H349000-4613-10-035-003 Rev.1 calls for the bulk of the berm material to be Type 8 (150mm jaw run). Due to schedule restraints and equipment availability this material cannot be made to meet proposed milestones for tank farm completion.

Proposed Corrective Action:

Replace all Type 8 (150 mm jaw run) for berm sections with SELECT ROQ from QMR2. This material will be strategically loaded from the quarry to assure no oversized material is utilized for berm construction.

Originator:	Morgan Gunter		August 25, 2013
	Print:	Sign:	Date:

Cost Impact:	☐ No ☒ Yes	\$	Summary Estimate
Detailed Estimate attached:	☒ No ☐ Yes		
Schedule Impact:	☐ No ☒ Yes	#	Number of Days
Source for Communication:	☐ Owner Change	☐ Clarification/Info	☒ Constructor Change
	☐ Vendor Change	☐ Designer Change	☐ Other

Response

☒ Corrective Action Approved ☐ Correct as Follows:

Responsible Engineer:	J. Cleland	25 August 2013
	Print:	Sign:
		Date:



NUNA EAST LTD

REQUEST FOR INFORMATION

RFI NUMBER	NE-RFI-013				
ISSUE DATE (YY/MM/DD)	2013/08-25				
PRIORITY	H	x	M		L
REQ'D RESPONSE DATE					

Subject:	Utilities Pad Surfacing Material	Project Zone/Area:	4130
Company:		Station/Location:	Mine Site Utilities Pad
Attention:	James Cleland/Tyler Bruce	Discipline:	Civil

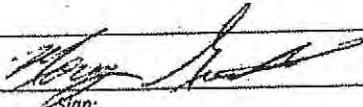
A/E:		Specification Number:	
Related Drawings:	H349000-4613-10-035-001 R. 0	Related Documents:	
	H349000-4613-10-035-003 R. 0		
	H349000-4130-10-035-002 R. 0		

Information Request/Description of Issue/Approval Required:

Type 5 (32mm minus) surface material is required for all areas of the pad as well as the tank farm. This material must be crushed to provide "flat edges" and proper gradation for compaction. The current screener on site is not capable of accepting material that is blasted from the ROQ due to the configuration and size of the blast rock.

Proposed Corrective Action:

All type 5 material is produced from local borrows. The same screen configuration will be utilized however the "flat faces" will not be present due to the nature of the borrow esker.

Originator:	Morgan Gunter		August 25, 2013
Print:		Sign:	Date:

Cost Impact:	☒ No ☐ Yes	\$	Summary Estimate
Detailed Estimate attached:	☒ No ☐ Yes		
Schedule Impact:	☐ No ☒ Yes	#	Number of Days
Source for Communication:	☐ Owner Change	☐ Clarification/Info	☒ Constructor Change
	☐ Vendor Change	☐ Designer Change	☐ Other

Response

☒ Corrective Action Approved ☐ Correct as Follows:

The use of borrow material is approved provided the size distribution is similar to the specified material and Hatch construction manager assesses that the level of compaction being achieved is suitable for the work.

Responsible Engineer:	J. Cleland	25 August 2013
Print:	Sign:	Date:



NUNA EAST LTD

Section 7

Quality Surveillance Reports



NUNA EAST LTD

No individual reports
accumulated for this job
file.

Refer to ITP Activity
sequence for details.



NUNA EAST LTD

Section 8

Liner Data



LAYFIELD

Environmental Systems

Project Completion QA/QC Package
for

Nuna Logistics Limited

**Baffinland Iron Mines Corporation
Projects Performed in Subcontract
BIM-34802-SC-03**

Mary River/ Milne Inlet Baffin Island, NU

Supply and Install of Hazgard 535

Prepared By: Trish Palek

Reviewed By: Fred Cross

Date Submitted: September 26, 2013



Layfield Environmental Systems Ltd.

Table of Contents

for

Nuna Logistics Limited

Baffinland Iron Mines Corporation Projects Performed in Subcontract BIM-34802-SC-03

Mary River/ Milne Inlet Baffin Island, NU

Bladder Farm Cover

1) Geomembrane Deployment Log	2 pgs.
2) Geomembrane Trial Seam Log	1 pg.
3) Geomembrane Seam Log	2 pgs.
4) Geomembrane Defect/Repair Log	1 pg.
5) Geomembrane Vacuum/Air Lance Test Log	1 pg.
6) As-built	1 pg.
7) Certificate of Final Inspection and Acceptance	1 pg.

MRP Tank Farm

1) Certificate of Acceptance of Soil Subgrade Surface	1 pg.
2) Geomembrane Deployment Log	2 pgs.
3) Geomembrane Trial Seam Log	2 pgs.
4) Geomembrane Seam Log	2 pgs.
5) Geomembrane Defect/Repair Log	2 pgs.
6) Geomembrane Vacuum/Air Lance Test Log	3 pgs.
7) Liner As-Built	1 pg.
8) Certificate of Final Inspection and Acceptance	1 pg.



Other Documents

- | | | |
|----|-------------------------------|--------|
| 1) | Fabrication QC | 8 pgs. |
| 2) | Geomembrane Mill Certificates | 3 pgs. |
| 3) | Installation Warranty | 1 pg. |



GEOMEMBRANE DEPLOYMENT LOG

PROJECT NUMBER: 14C-152

PROJECT TITLE: Bladder Farm Cover

OWNER: Baffinland

CONTRACTOR: Nuna Logistics

LOCATION: Minlet Inlet NU

GEOMEMBRANE SECONDARY PRIMARY CLOSURE OTHER

SUBGRADE CONDITION (SURFACE COMPACTION, PROTRUSIONS, DESICCATION, EXCESSIVE MOISTURE):

REMARKS: EL 60 mil HD

DATE: 16-Sep-13

SHEET NUMBER: 1

DEPLOYMENT EQUIPMENT:

	PANEL LOCATION REFERENCE NUMBER 1	PANEL LOCATION REFERENCE NUMBER 2	PANEL LOCATION REFERENCE NUMBER 3
PANEL/ROLL NUMBER	1092624	1092624	Roll 2 "JN 301114"
DEPLOYMENT LENGTH	74m	74m	74m
AMBIENT AIR TEMP.	-3	-3	-3
VISUAL OBSERVATION	Good	Good	Good
OBSERVED OVERLAP	5"	5"	5"
CHECKED BY	Y.e	Y.e	Y.e
ADJACENT PANEL	N= 2 S= 1 E= W=	N= 3 S= 1 E= W=	N= 4 S= 2 E= W=

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 4	PANEL LOCATION REFERENCE NUMBER 5	PANEL LOCATION REFERENCE NUMBER 6
PANEL/ROLL NUMBER	Roll 2 "JN 301114"		
DEPLOYMENT LENGTH	74m	302186	302186
AMBIENT AIR TEMP.	-3	-3	-3
VISUAL OBSERVATION	Good	Good	Good
OBSERVED OVERLAP	5"	5"	5"
CHECKED BY	Y.e	Y.e	Y.e
ADJACENT PANEL	N= 5 S= 3 E= W=	N= 6 S= 4 E= W=	N= 7 S= 5 E= W=

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 7	PANEL LOCATION REFERENCE NUMBER 8	PANEL LOCATION REFERENCE NUMBER 9
PANEL/ROLL NUMBER	Roll 1 "JN 300876"	Roll 1 "JN 300876"	Roll 1 "JN 300878"
DEPLOYMENT LENGTH	74m	74m	74m
AMBIENT AIR TEMP.	-3	-3	-3
VISUAL OBSERVATION	Good	Good	Good
OBSERVED OVERLAP	5"	5"	5"
CHECKED BY	Y.e	Y.e	Y.e
ADJACENT PANEL	N= 8 S= 6 E= W=	N= 9 S= 7 E= W=	N= 10 S= 8 E= W=

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER
PANEL/ROLL NUMBER			
DEPLOYMENT LENGTH			
AMBIENT AIR TEMP.			
VISUAL OBSERVATION			
OBSERVED OVERLAP			
CHECKED BY			
ADJACENT PANEL	N= S= 6 E= W=	N= S= 7 E= W=	N= S= 8 E= W=

SUBMITTED BY:

DATE:



GEOMEMBRANE DEPLOYMENT LOG

PROJECT NUMBER: 14C-152

PROJECT TITLE: Bladder Farm Cover

OWNER: Baffinland

CONTRACTOR: Nuna Logistics

LOCATION: Minlet Inlet NU

GEOMEMBRANE SECONDARY PRIMARY CLOSURE OTHER

SUBGRADE CONDITION (SURFACE COMPACTION, PROTRUSIONS, DESICCATION, EXCESSIVE MOISTURE):

REMARKS: EL 60 mil HD

DATE: 17-Sep-13

SHEET NUMBER: 2

DEPLOYMENT EQUIPMENT:

	PANEL LOCATION REFERENCE NUMBER 10	PANEL LOCATION REFERENCE NUMBER 11	PANEL LOCATION REFERENCE NUMBER 12
PANEL/ROLL NUMBER	Roll 1 "JN 300878"	"JN 302186"	"JN 302186"
DEPLOYMENT LENGTH	74m	74m	74m
AMBIENT AIR TEMP.	-3	-3	-3
VISUAL OBSERVATION	Good	Good	Good
OBSERVED OVERLAP	5"	5"	5"
CHECKED BY	Y.e	Y.e	Y.e
ADJACENT PANEL	N= 2 S= 1 E= W=	N= 3 S= 1 E= W=	N= 4 S= 2 E= W=

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 13	PANEL LOCATION REFERENCE NUMBER 14	PANEL LOCATION REFERENCE NUMBER 15
PANEL/ROLL NUMBER	1092624	Roll 2 "JN 301114"	302186
DEPLOYMENT LENGTH	10m	10m	24m
AMBIENT AIR TEMP.	-3	-3	-3
VISUAL OBSERVATION	Good	Good	Good
OBSERVED OVERLAP	5"	5"	5"
CHECKED BY	Y.e	Y.e	Y.e
ADJACENT PANEL	N= S= 12 E= W= 14	N= S= 12 E= W= 15	N= S= 12 E= W= 16

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER 16	PANEL LOCATION REFERENCE NUMBER 17	PANEL LOCATION REFERENCE NUMBER 18
PANEL/ROLL NUMBER	Roll 1 "JN 300876"	Roll 1 "JN 300878"	"JN 302186"
DEPLOYMENT LENGTH	10m	10m	10m
AMBIENT AIR TEMP.	-3	-3	-3
VISUAL OBSERVATION	Good	Good	Good
OBSERVED OVERLAP	5"	5"	5"
CHECKED BY	Y.e	Y.e	Y.e
ADJACENT PANEL	N= S= 12 E= W= 17	N= S= 12 E= W= 18	N= S= 12 E= W=

DESCRIPTION	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER	PANEL LOCATION REFERENCE NUMBER
PANEL/ROLL NUMBER			
DEPLOYMENT LENGTH			
AMBIENT AIR TEMP.			
VISUAL OBSERVATION			
OBSERVED OVERLAP			
CHECKED BY			
ADJACENT PANEL	N= S=	N= S=	N= S=
	E= W=	E= W=	E= W=

SUBMITTED BY: _____

DATE: _____



GEOMEMBRANE SEAM LOG

PROJECT NUMBER:

14C-152

PROJECT TITLE:

Bladder Farm Cover

OWNER:

Baffinland

CONTRACTOR:

Nuna Logistics

LOCATION:

Milne Inlet NU

PASSING TRIAL SEAMS

☒ FUSION

☐ EXTRUSION

☐ SOLVENT

NO.	TIME	TECH ID
TF1	8:00	Y.E

SHEET NUMBER: 1

DATE: 16-Sep-13

SEAM NUMBER	SEAM SECTION * START POINT FINISH POINT	APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED (M)	DESTR. NUMBER	CHK'D BY	REMARKS	NON- DESTRUCTIVE	
						DIGITAL SET	INDICATOR					TEST DATE	CHECKED BY
						WEDGE OR BARREL	WEDGE OR BARREL						
1 / 2	EEOS TO WEOS	10:00	-3	Y.E	55%	800	800	74.0		Y.E			
2 / 3	EEOS TO WEOS	11:15	-3	Y.E	55%	800	800	74.0		Y.E			
3 / 4	EEOS TO WEOS	12:05	-3	Y.E	55%	800	800	74.0		Y.E			
4 / 5	EEOS TO WEOS	13:40	-3	Y.E	55%	800	800	74.0		Y.E			
5 / 6	EEOS TO WEOS	14:45	-3	Y.E	55%	800	800	74.0		Y.E			
6 / 7	EEOS TO WEOS	15:56	-3	Y.E	55%	800	800	74.0		Y.E			
7 / 8	EEOS TO WEOS	17:45	-3	Y.E	55%	800	800	74.0		Y.E			
8 / 9	EEOS TO WEOS	18:30	-3	Y.E	55%	800	800	74.0		Y.E			
/													
/													
/													
DAILY TOTAL													

* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR, OR A POINT LOCATION ON THE SEAM.

SUBMITTED BY: Y.E

LS FORM 4

LAYFIELD ENVIRONMENTAL SYSTEMS

DATE: 20-Sep-13

**LAYFIELD****GEOMEMBRANE SEAM LOG**

PROJECT NUMBER: 14C-152 PROJECT TITLE: Bladder Farm Cover
 OWNER: Baffinland CONTRACTOR: Nuna Logistics
 LOCATION: Miine Inlet NU

PASSING TRIAL SEAMS

☒ FUSION
☐ EXTRUSION
☐ SOLVENT

NO.	TIME	TECH ID
TF2	8:35	Y.E

SHEET NUMBER: 2

DATE: 17-Sep-13

SEAM NUMBER	SEAM SECTION * START POINT FINISH POINT	APPROX. START TIME	AMB. AIR TEMP.	WELD TECH.	PREHEAT OR MACH. SPEED	MACHINE TEMPERATURES		APPROX. LENGTH WELDED (M)	DESTR. NUMBER	CHK'D BY	REMARKS	NON-DESTRUCTIVE	
						DIGITAL SET	INDICATOR					TEST DATE	CHECKED BY
9 / 10	EEOS TO WEOS	9:45	-3	Y.E	55%	800	800	74.0		Y.E			
10 / 11	EEOS TO WEOS	10:55	-3	Y.E	55%	800	800	74.0		Y.E			
11 / 12	EEOS TO WEOS	11:30	-3	Y.E	55%	800	800	74.0		Y.E			
13 / 14	SEOS TO NEOS	12:32	-3	Y.E	55%	800	800	6.8		Y.E			
14 / 15	SEOS TO NEOS	12:50	-3	Y.E	55%	800	800	6.8		Y.E			
15 / 16	SEOS TO NEOS	13:07	-3	Y.E	55%	800	800	6.8		Y.E			
16 / 17	SEOS TO NEOS	13:20	-3	Y.E	55%	800	800	6.8		Y.E			
17 / 18	SEOS TO NEOS	13:38	-3	Y.E	55%	800	800	6.8		Y.E			
TIE-IN													
12 13 to 14	SEOS TO NEOS	13:50	-3	Y.E	55%	800	800	74.0		Y.E			
/													
DAILY TOTAL													

* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR, OR A POINT LOCATION ON THE SEAM.

SUBMITTED BY: Y.E

DATE: 20-Sep-13



GEOMEMBRANE DEFECT / REPAIR LOG

PROJECT NUMBER: 14C-152

PROJECT TITLE: B ladder Farm Cover

OWNER: Baffinland

CONTRACTOR: Nuna Logistics

LOCATION: Milne Inlet NU

SHEET NUMBER: 1

DEFECT CODE	LOG DATE	DEFECT LOCATION		DEFECT TYPE	REPAIR TYPE	WELD TECH.		REPAIR DATE	REMARKS **	TEST DATE	CHECKED BY
		SEAM OR PANEL NO.	DEFECT LOCATION DESCRIPTION								
1 A	17-se-13	13,14 / 12	10m From WEOS TO EEOS	T	G&W	Y.E		17-Sep-13		17-Sep-13	Y.E
1 B	17-se-13	14,15 / 12	9.8m From WEOS TO EEOS	T	G&W	Y.E		17-Sep-13		17-Sep-13	Y.E
1 C	17-se-13	15,16 / 12	23.7m From WEOS TO EEOS	T	G&W	Y.E		17-Sep-13		17-Sep-13	Y.E
1 D	17-se-13	16,17 / 12	10m From WEOS TO EEOS	T	G&W	Y.E		17-Sep-13		17-Sep-13	Y.E
1 E	17-se-13	17,18 / 12	9.8m From WEOS TO EEOS	T	G&W	Y.E		17-Sep-13		17-Sep-13	Y.E
1 F		/									
1 G		/									
1 H		/									
1 I		/									
1 J		/									
1 K		/									
1 L		/									
1 M		/									
1 N		/									
1 O		/									
1 P		/									
1 Q		/									
1 R		/									
1 S		/									
1 T		/									

DEFECT TYPE: AD - ANIMAL RELATED DAMAGE

BE - EARTHWORK EQUIPMENT DAMAGE

PT - PRESSURE TEST CUT

B - UNDISPERSED RESIN BEAD

EXT - EXTENSION

SI - SOIL SURFACE IRREGULARITY

BO - FUSION WELDER BURN

FM - FISHMOUTH

SL - SLAG ON TEXTURED SHEET

BS - BOOT/SHIRT FROM FML PENETRATION

FS - FAILED SEAM LENGTH

T - THREE PANEL INTERSECTION

CO - CHANGE OF OVERLAP

FTS - FIELD TEST STRIP

VL - VACUUM TEST LEAK

CR - CREASE

HT - HEAT TACK BURN

WR - WRINKLE

D - INSTALLATION DAMAGE

IO - INSUFFICIENT OVERLAP (UNDER SPEC.)

WS - WELDER RESTART

DS# - DESTRUCTIVE TEST NUMBER

MD - MANUFACTURER/DELIVERY DAMAGE

OTHER: _____

REPAIR TYPE: P - PATCH, C - CAP, RS - RECONSTRUCTED SEAM, G&W - GRIND WELD

PASSING TRIAL SEAMS		
NO.	TIME	TECH ID.

** COLUMNS TO BE USED BY THE PROJECT SUPERVISOR OR LEAD TECHNICIAN ONLY.

LPL FORM 7

LAYFIELD ENVIRONMENTAL SYSTEMS

SUBMITTED BY: _____

DATE: _____



LAYFIELD GEOMEMBRANE VACUUM / AIR LANCE TEST LOG

PROJECT NUMBER: 14C-152 PROJECT TITLE: Bladder Farm Cover
 OWNER: Baffinland CONTRACTOR: Nuna Logistics
 LOCATION: Milne Inlet NU

VACUUM BOX X AIR LANCE X SHEET NUMBER: 1

SEAMS									REPAIRS					
SEAM NUMBER	SEAM SECTION * FROM TO		TEST DATE	TECH ID	DEFECTS **	COMPLETE NO YES	CHK'D BY	REMARKS **	DEFECT CODE	TEST DATE	TECH ID	DEFECTS **	CHK'D BY	REMARKS **
1 / 2	EEOS	- WEOS	16-Sep-13	Y.E		YES	Y.E		1A	17-Sep-13	Y.E		Y.E	
2 / 3	EEOS	- WEOS	16-Sep-13	Y.E		YES	Y.E		1B	17-Sep-13	Y.E		Y.E	
3 / 4	EEOS	- WEOS	16-Sep-13	Y.E		YES	Y.E		1C	17-Sep-13	Y.E		Y.E	
4 / 5	EEOS	- WEOS	16-Sep-13	Y.E		YES	Y.E		1D	17-Sep-13	Y.E		Y.E	
5 / 6	EEOS	- WEOS	16-Sep-13	Y.E		YES	Y.E		1E	17-Sep-13	Y.E		Y.E	
6 / 7	EEOS	- WEOS	16-Sep-13	Y.E		YES	Y.E		1F					
7 / 8	EEOS	- WEOS	16-Sep-13	Y.E		YES	Y.E		1G					
8 / 9	EEOS	- WEOS	16-Sep-13	Y.E		YES	Y.E		1H					
9 / 10	EEOS	- WEOS	17-Sep-13	Y.E		YES	Y.E		1I					
10 / 11	EEOS	- WEOS	17-Sep-13	Y.E		YES	Y.E		1J					
11 / 12	EEOS	- WEOS	17-Sep-13	Y.E		YES	Y.E		1K					
13 / 14	NEOS	- SEOS	17-Sep-13	Y.E		YES	Y.E		1L					
14 / 15	NEOS	- SEOS	17-Sep-13	Y.E		YES	Y.E		1M					
15 / 16	NEOS	- SEOS	17-Sep-13	Y.E		YES	Y.E		1N					
16 / 17	NEOS	- SEOS	17-Sep-13	Y.E		YES	Y.E		1O					
17 / 18	NEOS	- SEOS	17-Sep-13	Y.E		YES	Y.E		1P					
12 / 13 T	EEOS	- WEOS	17-Sep-13	Y.E		YES	Y.E		1Q					
/	-								1R					
/	-								1S					
/	-								1T					

* REFERENCE SEAM ENDPOINTS FROM AN END OF SEAM (EOS), A REPAIR NUMBER, OR A POINT LOCATION ON THE SEAM
 ** RECORD QUANTITY OF LEAKS DETECTED AND REFERENCE NEW DEFECT CODE IN REMARKS

No.	REVISIONS	DATE (MM/DD/YY)	BY
-----	-----------	-----------------	----

P-1	P-2	P-3	P-4	P-5	P-6	P-7	P-8	P-9	P-10	P-11	P-12	P-13
												P-14
												P-15
												P-16
												P-17
												P-18

NOTES

Bladder Farm
Cover



6L 60 M.I. HD.

LEGEND

- EXTENT OF LINER
- TOE OF SLOPE
- LINER FIELD SEAM
- XXX EXTRUSION WELDING
- Δ PATCH
- P2 PANEL NUMBER
- TA REPAIR NUMBER

Circle No.	PROJECT No.
1	14C-152

DWG.	OF	SCALE
DWN.	CHD.	HTD.

DATE: 20-SEP-13	REVISION: P. E
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CERTIFICATE OF FINAL INSPECTION AND ACCEPTANCE

PROJECT NAME: Baffinland Milne Inlet Bladder Farm
PROJECT NUMBER: 14C-152 DATE: 19 Sep 2013
OWNER: Baffinland
LOCATION: Milne Inlet NU

SCOPE OF INSTALLATION(S): THE WORK
Installation of EL 60 mil 13 panels. "75m X 6.8m each"
to cover the old Bladder Farm "Fuel"

Part 1 – LAYFIELD ENVIRONMENTAL SYSTEMS LTD.

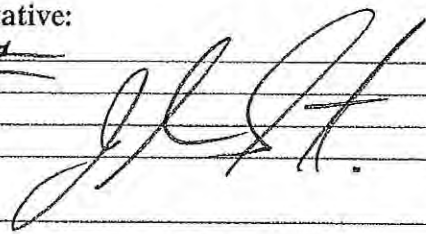
I, Yonatan Espinosa, a duly appointed representative of Layfield Environmental Systems Ltd. (LESL), have visually observed the installations (as outlined above), and have found the Work to be complete and free of defects and declare that the Work was completed in accordance with the project specifications, Layfield Environmental Systems' QC program and the terms and conditions of the contract.

Layfield Environmental Systems Representative:
Name: Yonatan Espinosa
Title: Supervisor
Date: 19 Sep 2013 Signature: 

Part 2 – OWNER (or Representative)

I, Jordan Gwiza, a duly appointed representative of NUNA EAST, do hereby take over and accept the installation(s) described above, and confirm that the work has been completed in accordance with the project specifications and the terms of the conditions of the contract.

I have evaluated and measured the work together with the Layfield Environmental Systems representative, and agree that the measurements shown are both true and correct, and that the installation has met our approval.

Owners Representative:
Name: Jordan Gwiza
Title: SUPERINTENDENT
Company: NUNA
Date: SEPT 19/2013 Signature: 

Comments: _____



CERTIFICATE OF ACCEPTANCE OF SOIL SUBGRADE SURFACE

PROJECT NAME: Baffinland MRP Tank Farm
PROJECT NUMBER: 14c-152
OWNER: Baffinland
LOCATION: Mary River No

I, the undersigned, a duly appointed representative of Layfield Environmental Systems Ltd. (LESL), have visually observed the soil subgrade described below, and found it to be an acceptable surface on which to install geomembrane.

This certification is based on observations of the surface of the subgrade only. No subterranean inspections or tests have been performed by Layfield Environmental Systems, and LESL makes no representations or warranties regarding conditions which may exist below the surface of the subgrade. Layfield Environmental Systems accepts no responsibility for conformance of the subgrade to this project's specifications.

The soil subgrade accepted on this date refers to its present condition. Any changes in the subgrade condition that result from the effects of inclement weather and/or other forces beyond the control of Layfield Environmental Systems and remedial work to correct the resulting deficiencies, will be the direct responsibility of the General Contractor.

Area Being Accepted: North, South and the west side with a little
hand work as we place the geotextile.
"THE East side had to finish the slope."

LAYFIELD ENVIRONMENTAL SYSTEMS REPRESENTATIVE:

Date: 07 Sep 2013
Signature: [Signature]
Name: Jonathan Espindola
Title: Supervisor

OWNERS REPRESENTATIVE:

Date: 07/sep/13
Signature: [Signature]
Name: Mike Price
Title: Assistant Project Manager
Company: Nuna East