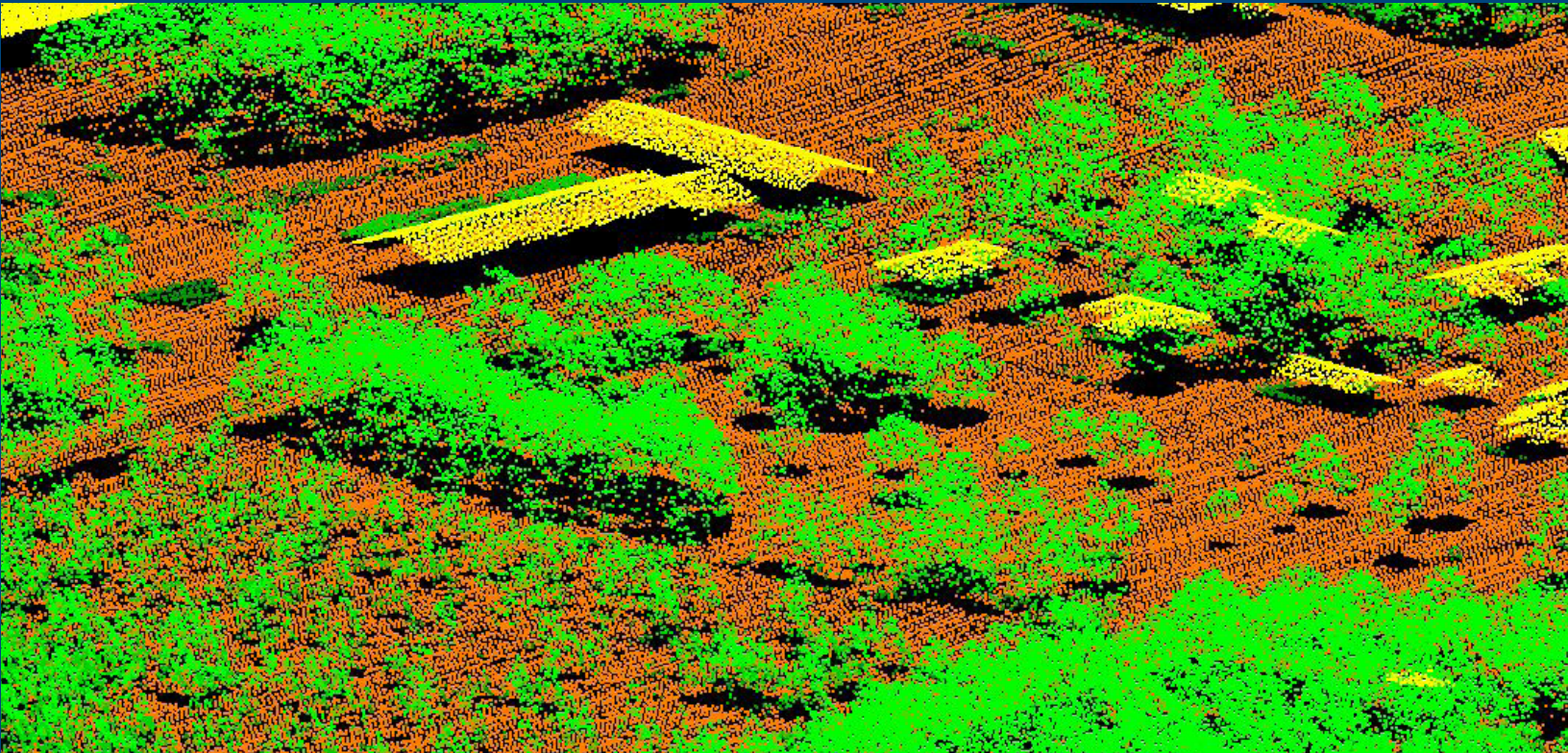


LIDAR GROUND CONTROL REPORT



NSSDA Ground Truth Survey Results: 2013 Vilas County LiDAR Project

Geospatial services provided by Ayres Associates

Report Date: March 20, 2014

Abstract

This report documents the GPS ground surveys conducted in support of FEMA accuracy testing of the lidar data collection for Vilas County in 2013. Surveys were conducted at six sites utilizing the base stations established in the static network. These surveys established “ground truth” data at each site on different surface types, including asphalt, grass, gravel, concrete, and trees. Statistical comparisons were made between ground truth points collected from the ground survey and the elevation at the associated horizontal coordinates represented on the lidar-derived digital terrain model.

Data Analysis

To qualify as an acceptable accuracy test, the lidar data must be compared with a dataset of higher accuracy – in this instance, ground survey. To develop a comparable dataset of points from the lidar dataset, a utility from proprietary software was used.

The ground control survey results were imported into an ESRI PointZ shapefile with each point’s information as attributes. The utility then accessed the lidar and generated a triangulated irregular network (TIN), which is a continuous digital terrain surface, using the bare-earth lidar points and the compiled breaklines. The utility probed the TIN surface to determine its elevations at each of the survey point’s horizontal locations.

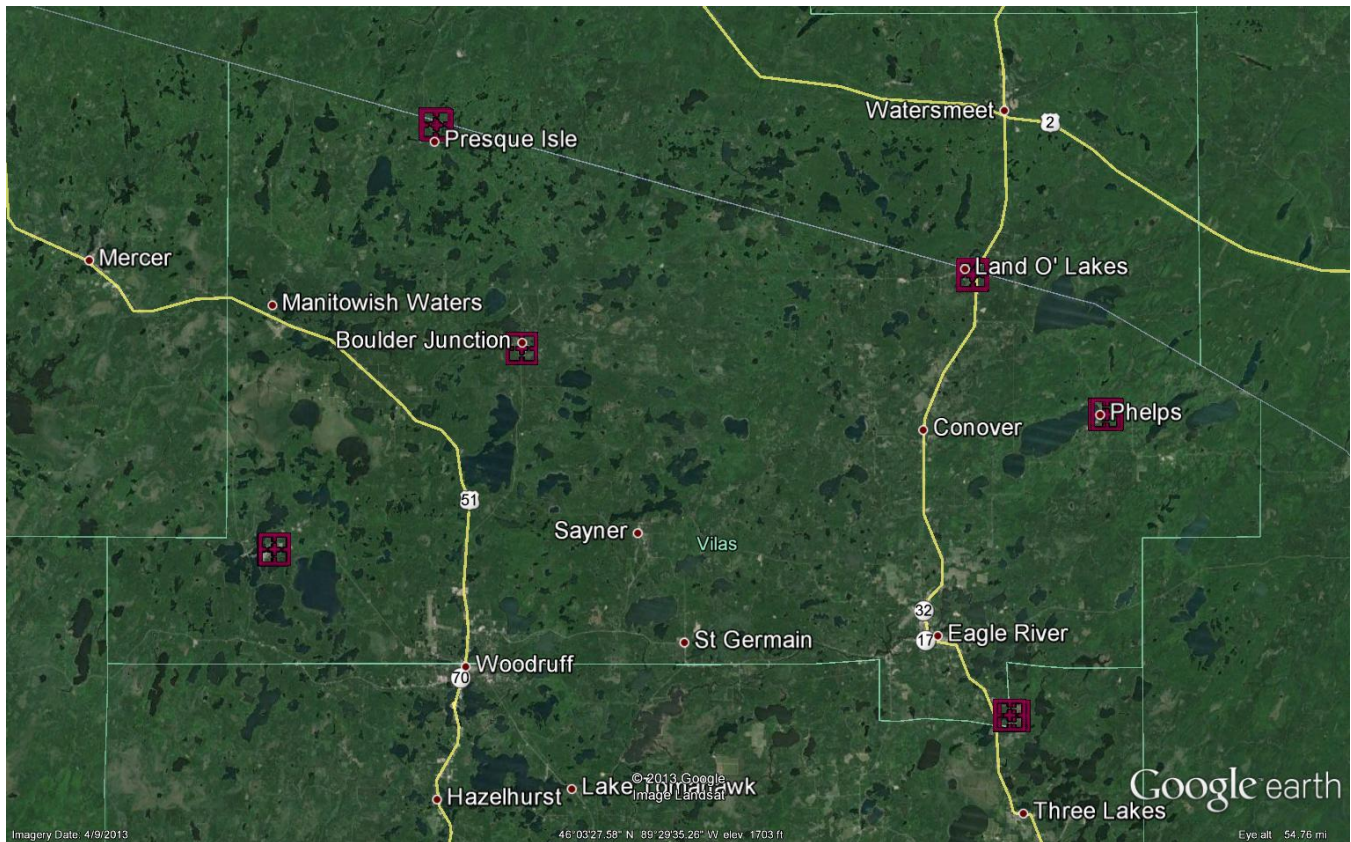
The elevation was then appended as a field to the PointZ shapefile; the attributes for each point were exported to a database and then statistical analysis was performed. The results can be seen on the following pages.

Overall Accuracy

A comparison of the ground survey versus lidar model values indicates a vertical root mean square error (RMSE_z) of 0.296 feet. This is within the FEMA specified vertical accuracy tolerance of 0.61 feet. This RMSE_z equates to a tested 0.580 feet vertical accuracy at 95% confidence level.

Ground Truth Survey Locations

The ground survey test points were distributed and categorized into sites as shown in the map below:



Ground Truth Analysis Reference Information

Coordinate System – Wisconsin Coordinate Reference System (WISCRS): Vilas County

Horizontal Datum – NAD83 HARN

Vertical Datum – NAVD88, survey feet

Field Definitions

Number – The designation given to the ground survey point to identify it with its coordinates and land cover type.

Easting, Northing and KnownZ – The coordinates that describe the point's horizontal and vertical location within the Vilas County WISCRS Coordinate System. The Easting and Northing values are shared between the ground control points and lidar comparison points. The KnownZ field shows the elevation of the survey number. The lidar comparison point's elevation is implicit in the analysis' Delta Z.

Delta Z – The error, the difference between the elevation at a horizontal location as determined by ground survey and as determined by the lidar dataset.

Laser Z– The elevation at a horizontal location as determined by the lidar dataset.

Landcover Types – The predominant land cover category at the location of the survey point; Abbreviations for Landcover Types are as follows:

ASPH	Asphalt
CL	Center Line
CL ST	Center Line Start
CP	Control Point
DTCH	Ditch
DTCH ST	Ditch Start
EA	Edge of Asphalt
EA ST	Edge of Asphalt Start
GRAS	Grass
GRAV	Gravel
SW	Sidewalk
SW ST	Sidewalk Start
TREL	Tree Line
TREL ST	Tree Line Start

Statistical Definitions

RMSEz – The root mean squared error, the square root of the average of the squared errors.

Average Delta Z – The average of the Delta Z squared values.

Minimum Delta Z – The minimum of the Delta Z squared values.

Maximum Delta Z – The maximum of the Delta Z squared values.

Accuracy Z – The product of multiplying the RMSEz with 1.96, a conversion between the RMSEz.

Statistical Results

Summary of Results	
Number of Points	1498
RMSEz	0.296 US Feet
Average Delta Z	0.125 US Feet
Minimum Delta Z	-0.491 US Feet
Maximum Delta Z	1.470 US Feet
Accuracy Z	0.5800 US Feet

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
100	380791.215	230999.84	1673.655	1673.78	0.125	CP
101	380258.113	231355.043	1667.223	1667.19	-0.033	CP
200	511878.457	194787.127	1710.993	1711.12	0.127	CP
201	511613.071	194324.816	1707.615	1707.72	0.105	CP
400	340506.199	127700.076	1611.999	1611.75	-0.249	CP
401	340921.335	127620.723	1613.403	1613.31	-0.093	CP
500	520797.001	87224.617	1648.34	1648.21	-0.13	CP
501	521922.283	87101.797	1648.606	1648.63	0.024	CP
600	543887.195	160594.041	1756.239	1756.56	0.321	CP
601	543753.286	160884.203	1751.799	1751.88	0.081	CP
1000	380292.029	231405.771	1670.717	1670.9	0.183	XYZ
1001	380290.875	231405.91	1670.988	1670.96	-0.028	XYZ
1002	380288.188	231406.384	1670.984	1671.17	0.186	XYZ
1003	380286.548	231406.721	1670.92	1671.26	0.34	XYZ
1004	380283.79	231407.005	1671.026	1671.05	0.024	XYZ
1005	380281.585	231407.581	1670.987	1670.96	-0.027	XYZ
1006	380279.522	231407.931	1671.264	1670.89	-0.374	XYZ
1007	380276.663	231408.148	1671.336	1671	-0.336	XYZ
1008	380274.54	231408.2	1671.086	1671.21	0.124	XYZ
1009	380273.86	231411.992	1670.829	1671.22	0.391	XYZ
1010	380274.83	231414.713	1670.8	1671.01	0.21	XYZ
1011	380275.26	231417.574	1670.689	1670.89	0.201	XYZ
1012	380275.696	231420.315	1670.777	1670.77	-0.007	XYZ
1013	380276.287	231423.133	1670.798	1670.8	0.002	XYZ
1014	380276.52	231425.965	1670.831	1670.79	-0.041	XYZ
1015	380279.143	231426.399	1670.86	1670.66	-0.2	XYZ
1016	380282.55	231426.126	1670.607	1670.62	0.013	XYZ
1017	380285.22	231425.907	1670.402	1670.63	0.228	XYZ
1018	380288.595	231425.838	1670.637	1670.97	0.333	XYZ
1019	380290.462	231425.553	1670.537	1670.99	0.453	XYZ
1020	380292.425	231425.592	1670.418	1671.01	0.592	XYZ
1021	380294.152	231426.008	1670.489	1671.02	0.531	XYZ
1022	380296.952	231425.438	1670.447	1670.79	0.343	XYZ
1023	380297.233	231422.663	1670.5	1670.81	0.31	XYZ
1024	380297.042	231420.083	1670.55	1670.62	0.07	XYZ

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
1025	380296.15	231417.775	1670.601	1670.89	0.289	XYZ
1026	380296.568	231415.101	1670.564	1670.84	0.276	XYZ
1027	380296.767	231411.971	1670.514	1670.8	0.286	XYZ
1028	380296.402	231409.592	1670.657	1670.74	0.083	XYZ
1029	380294.7	231407.737	1670.762	1670.8	0.038	XYZ
1030	380294.281	231412.667	1670.67	1670.9	0.23	XYZ
1031	380290.697	231411.269	1670.772	1671.06	0.288	XYZ
1032	380287.029	231411.587	1670.815	1671.01	0.195	XYZ
1033	380283.919	231412.324	1670.8	1670.84	0.04	XYZ
1034	380281.015	231413.093	1670.867	1670.87	0.003	XYZ
1035	380278.378	231413.95	1670.68	1670.84	0.16	XYZ
1036	380278.745	231417.128	1670.661	1670.66	-0.001	XYZ
1037	380279.277	231419.891	1670.704	1670.73	0.026	XYZ
1038	380279.8	231422.719	1670.853	1670.78	-0.073	XYZ
1039	380282.321	231423.294	1670.575	1670.73	0.155	XYZ
1040	380282.836	231420.353	1670.54	1670.73	0.19	XYZ
1041	380282.487	231417.949	1670.506	1670.73	0.224	XYZ
1042	380281.947	231415.556	1670.637	1670.89	0.253	XYZ
1043	380285.434	231415.265	1670.348	1670.63	0.282	XYZ
1044	380285.66	231418.602	1670.415	1670.73	0.315	XYZ
1045	380285.971	231421.242	1670.512	1670.73	0.218	XYZ
1046	380285.983	231423.344	1670.555	1670.7	0.145	XYZ
1047	380288.641	231422.385	1670.608	1670.94	0.332	XYZ
1048	380288.605	231419.094	1670.646	1670.94	0.294	XYZ
1049	380288.743	231417.102	1670.643	1670.82	0.177	XYZ
1050	380287.872	231414.146	1670.686	1670.82	0.134	XYZ
1051	380290.784	231412.746	1670.779	1671.1	0.321	XYZ
1052	380292.881	231417.755	1670.677	1670.98	0.303	XYZ
1053	380294.802	231421.42	1670.537	1670.87	0.333	XYZ
1054	380291.931	231422.064	1670.419	1670.83	0.411	XYZ
1055	380285.435	231409.78	1670.765	1670.91	0.145	XYZ
1056	380288.375	231409.609	1670.964	1671.17	0.206	XYZ
1057	380290.706	231409.722	1670.917	1671.03	0.113	XYZ
1058	380283.562	231410.669	1670.903	1670.78	-0.123	XYZ
1059	380281.028	231411.17	1670.881	1670.9	0.019	XYZ
1060	380277.994	231412.082	1670.718	1671.32	0.602	XYZ
1061	380282.312	231342.947	1667.217	1667.18	-0.037	EA ST
1062	380285.196	231342.275	1667.202	1667.18	-0.022	EA
1063	380288.012	231341.618	1667.167	1667.21	0.043	EA
1064	380290.657	231340.906	1667.113	1667.19	0.077	EA
1065	380293.304	231340.191	1667.087	1667.22	0.133	EA
1066	380296.036	231339.45	1667.029	1667.09	0.061	EA
1067	380299.248	231338.5	1666.974	1666.97	-0.004	EA
1068	380298.649	231336.316	1666.937	1666.88	-0.057	ASPH
1069	380296.267	231337.071	1667.011	1666.95	-0.061	ASPH
1070	380293.723	231337.914	1667.04	1667.07	0.03	ASPH
1071	380291.619	231338.488	1667.052	1667.07	0.018	ASPH
1072	380289.158	231339.055	1667.106	1667.07	-0.036	ASPH
1073	380286.809	231339.539	1667.123	1667.07	-0.053	ASPH
1074	380284.087	231340.318	1667.157	1667.1	-0.057	ASPH
1075	380281.683	231340.802	1667.211	1667.03	-0.181	ASPH
1076	380280.837	231338.572	1667.114	1666.99	-0.124	ASPH
1077	380284.048	231337.606	1667.069	1667.11	0.041	ASPH

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
1078	380286.642	231336.837	1667.033	1667.19	0.157	ASPH
1079	380289.203	231336.271	1667	1667.09	0.09	ASPH
1080	380291.935	231335.521	1666.965	1666.95	-0.015	ASPH
1081	380294.539	231335.035	1666.918	1666.83	-0.088	ASPH
1082	380297.734	231333.965	1666.874	1666.77	-0.104	ASPH
1083	380296.966	231330.788	1666.778	1666.82	0.042	ASPH
1084	380294.39	231330.87	1666.817	1666.93	0.113	ASPH
1085	380291.005	231331.705	1666.863	1667.03	0.167	ASPH
1086	380287.605	231332.505	1666.895	1666.94	0.045	ASPH
1087	380284.402	231333.235	1666.925	1666.87	-0.055	ASPH
1088	380281.285	231333.973	1666.941	1666.91	-0.031	ASPH
1089	380278.396	231334.756	1666.976	1666.92	-0.056	ASPH
1090	380277.21	231331.714	1666.856	1666.79	-0.066	ASPH
1091	380280.214	231330.443	1666.812	1666.82	0.008	ASPH
1092	380282.977	231329.814	1666.722	1666.66	-0.062	ASPH
1093	380286.936	231328.67	1666.75	1666.92	0.17	ASPH
1094	380290.494	231327.752	1666.735	1666.95	0.215	ASPH
1095	380293.256	231326.908	1666.647	1666.72	0.073	ASPH
1096	380296.415	231326.078	1666.581	1666.77	0.189	ASPH
1097	380296.565	231322.089	1666.527	1666.48	-0.047	ASPH
1098	380293.181	231322.706	1666.55	1666.53	-0.02	ASPH
1099	380290.019	231323.746	1666.584	1666.61	0.026	ASPH
1100	380286.501	231324.805	1666.63	1666.78	0.15	ASPH
1101	380283.276	231325.745	1666.666	1666.72	0.054	ASPH
1102	380279.966	231326.724	1666.701	1666.79	0.089	ASPH
1103	380276.643	231327.475	1666.719	1666.69	-0.029	ASPH
1104	380273.483	231328.057	1666.725	1666.64	-0.085	ASPH
1105	380272.685	231325.419	1666.601	1666.73	0.129	ASPH
1106	380275.044	231324.685	1666.555	1666.7	0.145	ASPH
1107	380277.371	231324.141	1666.527	1666.54	0.013	ASPH
1108	380280.155	231323.424	1666.523	1666.65	0.127	ASPH
1109	380283.366	231322.571	1666.533	1666.66	0.127	ASPH
1110	380286.19	231321.731	1666.497	1666.46	-0.037	ASPH
1111	380289.187	231320.807	1666.443	1666.49	0.047	ASPH
1112	380292.172	231320.143	1666.365	1666.44	0.075	ASPH
1113	380295.431	231319.171	1666.365	1666.21	-0.155	ASPH
1114	380295.555	231317.504	1666.315	1666.14	-0.175	EA ST
1115	380292.783	231318.268	1666.35	1666.33	-0.02	EA
1116	380290.363	231318.975	1666.379	1666.44	0.061	EA
1117	380287.378	231319.86	1666.412	1666.4	-0.012	EA
1118	380284.408	231320.622	1666.437	1666.44	0.003	EA
1119	380281.357	231321.493	1666.47	1666.61	0.14	EA
1120	380278.344	231322.24	1666.493	1666.55	0.057	EA
1121	380274.677	231323.154	1666.519	1666.55	0.031	EA
1122	380509.238	231261.918	1665.295	1665.37	0.075	GRAS
1123	380512.601	231261.056	1665.324	1665.46	0.136	GRAS
1124	380515.363	231259.288	1665.448	1665.41	-0.038	GRAS
1125	380517.795	231257.986	1665.422	1665.43	0.008	GRAS
1126	380520.19	231256.648	1665.389	1665.41	0.021	GRAS
1127	380523.548	231254.781	1665.35	1665.32	-0.03	GRAS
1128	380525.859	231253.645	1665.276	1665.42	0.144	GRAS
1129	380524.735	231250.746	1665.157	1665.26	0.103	GRAS
1130	380522.672	231252.343	1665.187	1665.32	0.133	GRAS

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
1131	380519.238	231255.048	1665.302	1665.26	-0.042	GRAS
1132	380516.828	231256.234	1665.406	1665.26	-0.146	GRAS
1133	380514.336	231257.637	1665.333	1665.24	-0.093	GRAS
1134	380511.283	231259.221	1665.18	1665.29	0.11	GRAS
1135	380508.927	231260.431	1665.205	1665.27	0.065	GRAS
1136	380506.77	231257.816	1664.948	1665.01	0.062	GRAS
1137	380508.909	231257.105	1664.97	1665.05	0.08	GRAS
1138	380511.91	231256.278	1665.147	1665.13	-0.017	GRAS
1139	380514.193	231255.033	1665.194	1665.17	-0.024	GRAS
1140	380516.651	231253.499	1665.17	1665.15	-0.02	GRAS
1141	380518.818	231252.076	1665.185	1665.12	-0.065	GRAS
1142	380521.576	231250.831	1665.158	1665.26	0.102	GRAS
1143	380524.399	231249.23	1665.149	1665.2	0.051	GRAS
1144	380522.572	231246.301	1665.103	1665.22	0.117	GRAS
1145	380520.476	231247.521	1665.047	1665.1	0.053	GRAS
1146	380518.32	231248.852	1665.044	1665.09	0.046	GRAS
1147	380515.312	231250.438	1664.997	1665.16	0.163	GRAS
1148	380512.779	231251.898	1664.865	1664.96	0.095	GRAS
1149	380509.957	231253.453	1664.894	1664.96	0.066	GRAS
1150	380507.423	231255.056	1664.844	1664.85	0.006	GRAS
1151	380504.982	231256.388	1664.83	1664.84	0.01	GRAS
1152	380503.129	231253.706	1664.69	1664.74	0.05	GRAS
1153	380505.113	231252.286	1664.739	1664.7	-0.039	GRAS
1154	380507.908	231250.561	1664.654	1664.59	-0.064	GRAS
1155	380510.601	231249.086	1664.672	1664.79	0.118	GRAS
1156	380512.805	231247.313	1664.769	1664.72	-0.049	GRAS
1157	380515.378	231245.755	1664.762	1664.79	0.028	GRAS
1158	380517.649	231244.139	1664.827	1664.8	-0.027	GRAS
1159	380519.83	231242.837	1664.837	1664.8	-0.037	GRAS
1160	380518.122	231240.271	1664.777	1664.89	0.113	GRAS
1161	380515.181	231241.667	1664.779	1664.78	0.001	GRAS
1162	380512.582	231243.37	1664.682	1664.64	-0.042	GRAS
1163	380509.805	231245.042	1664.577	1664.56	-0.017	GRAS
1164	380506.9	231246.562	1664.479	1664.52	0.041	GRAS
1165	380504.137	231247.973	1664.497	1664.53	0.033	GRAS
1166	380501.548	231249.359	1664.505	1664.54	0.035	GRAS
1167	380498.552	231251.203	1664.48	1664.57	0.09	GRAS
1168	380496.688	231249.126	1664.29	1664.33	0.04	GRAS
1169	380499.331	231247.11	1664.31	1664.34	0.03	GRAS
1170	380501.843	231245.474	1664.319	1664.2	-0.119	GRAS
1171	380504.718	231243.378	1664.308	1664.42	0.112	GRAS
1172	380507.649	231241.215	1664.36	1664.31	-0.05	GRAS
1173	380510.524	231239.065	1664.472	1664.66	0.188	GRAS
1174	380513.403	231236.999	1664.54	1664.61	0.07	GRAS
1175	380515.307	231235.239	1664.585	1664.8	0.215	GRAS
1176	380767.013	231019.557	1672.687	1672.74	0.053	GRAV
1177	380768.006	231018.903	1672.69	1672.81	0.12	GRAV
1179	380770.876	231016.428	1672.792	1673.06	0.268	GRAV
1180	380772.372	231015.357	1672.841	1673.1	0.259	GRAV
1181	380774.497	231013.707	1672.828	1673.1	0.272	GRAV
1182	380776.704	231011.945	1672.996	1673.08	0.084	GRAV
1183	380779.017	231010.252	1673.112	1673.24	0.128	GRAV
1184	380780.066	231009.573	1673.069	1673.3	0.231	GRAV

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
1185	380779.503	231007.431	1673.2	1673.39	0.19	GRAV
1186	380778.537	231006.021	1673.163	1673.38	0.217	GRAV
1187	380777.185	231004.197	1673.144	1673.34	0.196	GRAV
1188	380774.98	231001.411	1673.27	1673.32	0.05	GRAV
1189	380773.404	230999.381	1673.157	1673.34	0.183	GRAV
1190	380771.156	230996.936	1673.254	1673.4	0.146	GRAV
1191	380768.214	230997.773	1673.146	1673.24	0.094	GRAV
1192	380765.298	230999.244	1673.052	1673.19	0.138	GRAV
1193	380763.01	231000.793	1672.958	1672.96	0.002	GRAV
1194	380760.862	231002.284	1672.909	1672.89	-0.019	GRAV
1195	380758.31	231004.067	1672.798	1672.84	0.042	GRAV
1196	380755.729	231005.522	1672.708	1672.82	0.112	GRAV
1197	380753.341	231006.729	1672.614	1672.72	0.106	GRAV
1198	380754.943	231008.864	1672.694	1672.78	0.086	GRAV
1199	380756.842	231010.729	1672.747	1672.83	0.083	GRAV
1200	380758.825	231012.909	1672.694	1672.76	0.066	GRAV
1201	380760.742	231014.565	1672.637	1672.67	0.033	GRAV
1202	380762.496	231016.407	1672.656	1672.77	0.114	GRAV
1203	380764.326	231018.179	1672.666	1672.72	0.054	GRAV
1204	380766.091	231016.999	1672.703	1672.81	0.107	GRAV
1205	380764.968	231014.873	1672.726	1672.73	0.004	GRAV
1206	380763.577	231012.939	1672.773	1672.77	-0.003	GRAV
1207	380762.32	231011.422	1672.828	1672.84	0.012	GRAV
1208	380760.858	231009.587	1672.773	1672.89	0.117	GRAV
1209	380759.302	231007.568	1672.847	1672.98	0.133	GRAV
1210	380761.133	231005.581	1672.95	1672.97	0.02	GRAV
1211	380762.696	231007.779	1672.913	1672.99	0.077	GRAV
1212	380764.16	231009.466	1672.908	1672.93	0.022	GRAV
1213	380765.794	231011.297	1672.833	1672.85	0.017	GRAV
1214	380767.719	231013.923	1672.838	1672.91	0.072	GRAV
1215	380770.149	231012.714	1672.914	1673.04	0.126	GRAV
1216	380768.818	231010.047	1672.934	1672.98	0.046	GRAV
1217	380767.32	231007.661	1673.009	1673.08	0.071	GRAV
1218	380765.641	231005.338	1673.029	1673.22	0.191	GRAV
1219	380763.972	231002.961	1672.998	1673.11	0.112	GRAV
1220	380766.35	231001.139	1673.129	1673.16	0.031	GRAV
1221	380767.501	231003.633	1673.064	1673.19	0.126	GRAV
1222	380768.968	231005.753	1673.094	1673.07	-0.024	GRAV
1223	380770.345	231007.927	1673.007	1673.06	0.053	GRAV
1224	380771.91	231010.173	1672.969	1673.13	0.161	GRAV
1225	380773.95	231012.733	1672.913	1673.12	0.207	GRAV
1226	380776.336	231010.293	1673.056	1673.07	0.014	GRAV
1227	380774.66	231008.13	1673.142	1673.31	0.168	GRAV
1228	380773.253	231006.265	1673.171	1673.15	-0.021	GRAV
1229	380771.49	231003.869	1673.165	1673.24	0.075	GRAV
1230	380770.039	231001.775	1673.142	1673.37	0.228	GRAV
1231	380768.736	231000.033	1673.189	1673.26	0.071	GRAV
2000	511888.533	194713.953	1709.99	1710.16	0.17	GRAV
2001	511886.259	194716.492	1709.949	1710.09	0.141	GRAV
2002	511885.056	194717.944	1709.939	1710.07	0.131	GRAV
2003	511883.359	194719.328	1709.941	1710.16	0.219	GRAV
2004	511881.593	194720.956	1709.928	1710.12	0.192	GRAV
2005	511879.751	194722.534	1709.875	1709.98	0.105	GRAV

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
2006	511877.892	194724.191	1709.875	1710	0.125	GRAV
2007	511875.719	194725.804	1709.914	1709.98	0.066	GRAV
2008	511877.087	194728.273	1709.916	1710.06	0.144	GRAV
2009	511878.723	194730.097	1709.956	1710.12	0.164	GRAV
2010	511880.183	194731.347	1709.955	1710.13	0.175	GRAV
2011	511881.792	194733.156	1710.002	1710.2	0.198	GRAV
2012	511883.103	194734.449	1710.043	1710.21	0.167	GRAV
2013	511884.583	194736.062	1710.094	1710.15	0.056	GRAV
2014	511886.19	194737.985	1710.054	1710.18	0.126	GRAV
2015	511888.668	194735.639	1710.068	1710.42	0.352	GRAV
2016	511890.243	194733.912	1710.107	1710.26	0.153	GRAV
2017	511891.784	194732.02	1710.114	1710.25	0.136	GRAV
2018	511893.696	194729.716	1710.075	1710.21	0.135	GRAV
2019	511895.481	194727.563	1710.07	1710.37	0.3	GRAV
2020	511896.984	194725.628	1710.032	1710.32	0.288	GRAV
2021	511898.359	194723.722	1710.076	1710.32	0.244	GRAV
2022	511900.045	194725.566	1710.1	1710.45	0.35	GRAV
2023	511896.915	194722.174	1710.061	1710.25	0.189	GRAV
2024	511895.057	194720.202	1710.068	1710.26	0.192	GRAV
2025	511893.298	194718.375	1710.039	1710.37	0.331	GRAV
2026	511891.589	194716.638	1710.042	1710.25	0.208	GRAV
2027	511888.955	194718.306	1710.058	1710.12	0.062	GRAV
2028	511886.805	194720.052	1709.99	1710.29	0.3	GRAV
2029	511884.088	194721.945	1709.932	1710.02	0.088	GRAV
2030	511881.802	194723.729	1709.962	1709.93	-0.032	GRAV
2031	511879.207	194725.641	1709.828	1709.98	0.152	GRAV
2032	511880.978	194727.922	1709.857	1710.13	0.273	GRAV
2033	511882.325	194729.999	1709.936	1710.07	0.134	GRAV
2034	511883.814	194732.14	1709.926	1710.05	0.124	GRAV
2035	511885.334	194734.676	1710.034	1710.15	0.116	GRAV
2036	511887.768	194732.518	1710.012	1710.15	0.138	GRAV
2037	511889.942	194730.95	1710.009	1710.09	0.081	GRAV
2038	511892.322	194729.144	1710.012	1710.05	0.038	GRAV
2039	511893.919	194726.641	1709.996	1710.26	0.264	GRAV
2040	511895.143	194723.925	1710.045	1710.25	0.205	GRAV
2041	511892.079	194722.581	1710.052	1710.1	0.048	GRAV
2042	511890.123	194720.313	1710.046	1710.19	0.144	GRAV
2043	511887.116	194723.14	1710.004	1710.05	0.046	GRAV
2044	511889.856	194726.593	1709.97	1710.13	0.16	GRAV
2045	511887.215	194729.316	1709.913	1710.23	0.317	GRAV
2046	511884.648	194726.51	1709.928	1710.16	0.232	GRAV
2047	511736.912	194480.324	1708.324	1708.52	0.196	GRAS
2048	511735.309	194481.086	1708.379	1708.57	0.191	GRAS
2049	511733.877	194481.714	1708.289	1708.62	0.331	GRAS
2050	511732.566	194482.209	1708.333	1708.61	0.277	GRAS
2051	511730.056	194483.324	1708.323	1708.64	0.317	GRAS
2052	511729.654	194483.733	1708.514	1708.63	0.116	GRAS
2053	511726.848	194485.043	1708.394	1708.63	0.236	GRAS
2054	511725.554	194485.777	1708.334	1708.57	0.236	GRAS
2055	511723.693	194486.789	1708.329	1708.53	0.201	GRAS
2056	511722.484	194487.485	1708.286	1708.63	0.344	GRAS
2057	511721.654	194490.497	1708.474	1708.68	0.206	GRAS
2058	511722.615	194490.19	1708.527	1708.74	0.213	GRAS

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
2059	511726.912	194488.677	1708.455	1708.74	0.285	GRAS
2060	511728.748	194487.705	1708.385	1708.64	0.255	GRAS
2061	511729.628	194487.348	1708.304	1708.63	0.326	GRAS
2062	511732.415	194485.785	1708.366	1708.43	0.064	GRAS
2063	511734.165	194484.865	1708.333	1708.55	0.217	GRAS
2064	511736.3	194483.612	1708.338	1708.61	0.272	GRAS
2065	511738.46	194482.13	1708.282	1708.58	0.298	GRAS
2066	511740.308	194484.45	1708.249	1708.35	0.101	GRAS
2067	511737.49	194485.964	1708.304	1708.69	0.386	GRAS
2068	511735.65	194486.868	1708.333	1708.59	0.257	GRAS
2069	511733.916	194487.739	1708.338	1708.51	0.172	GRAS
2070	511732.329	194488.502	1708.442	1708.57	0.128	GRAS
2071	511730.582	194489.558	1708.392	1708.64	0.248	GRAS
2072	511729.088	194490.353	1708.392	1708.73	0.338	GRAS
2073	511727.393	194491.294	1708.464	1708.65	0.186	GRAS
2074	511725.629	194492.01	1708.495	1708.68	0.185	GRAS
2075	511723.821	194493.102	1708.515	1708.6	0.085	GRAS
2076	511724.488	194489.185	1708.44	1708.59	0.15	GRAS
2077	511724.403	194495.957	1708.544	1708.76	0.216	GRAS
2078	511727.646	194494.939	1708.542	1708.76	0.218	GRAS
2079	511729.63	194494.296	1708.487	1708.72	0.233	GRAS
2080	511732.199	194493.424	1708.42	1708.64	0.22	GRAS
2081	511734.118	194492.726	1708.378	1708.58	0.202	GRAS
2082	511735.12	194490.64	1708.366	1708.49	0.124	GRAS
2083	511733.111	194491.104	1708.369	1708.55	0.181	GRAS
2084	511731.02	194491.885	1708.409	1708.57	0.161	GRAS
2085	511728.595	194492.59	1708.475	1708.58	0.105	GRAS
2086	511736.668	194489.642	1708.324	1708.49	0.166	GRAS
2087	511738.79	194488.798	1708.314	1708.6	0.286	GRAS
2088	511740.548	194486.847	1708.337	1708.55	0.213	GRAS
2089	511742.439	194485.873	1708.231	1708.39	0.159	GRAS
2090	511744.46	194488.304	1708.293	1708.47	0.177	GRAS
2091	511742.366	194489.59	1708.327	1708.45	0.123	GRAS
2092	511740.135	194490.886	1708.323	1708.44	0.117	GRAS
2093	511737.854	194492.528	1708.304	1708.46	0.156	GRAS
2094	511735.621	194494.082	1708.318	1708.58	0.262	GRAS
2095	511733.672	194495.32	1708.405	1708.62	0.215	GRAS
2096	511731.712	194496.632	1708.455	1708.69	0.235	GRAS
2097	511729.739	194497.741	1708.517	1708.66	0.143	GRAS
2098	511727.35	194499.42	1708.56	1708.66	0.1	GRAS
2099	511725.446	194496.361	1708.536	1708.79	0.254	GRAS
2100	511727.464	194501.94	1708.626	1708.78	0.154	GRAS
2101	511729.735	194500.806	1708.553	1708.71	0.157	GRAS
2102	511731.917	194499.67	1708.516	1708.69	0.174	GRAS
2103	511734.4	194498.542	1708.448	1708.71	0.262	GRAS
2104	511736.793	194497.081	1708.349	1708.63	0.281	GRAS
2105	511739.399	194495.856	1708.328	1708.53	0.202	GRAS
2106	511741.394	194494.423	1708.335	1708.48	0.145	GRAS
2107	511744.022	194492.749	1708.351	1708.59	0.239	GRAS
2108	511746.342	194491.271	1708.285	1708.48	0.195	GRAS
2109	511749.24	194495.2	1708.297	1708.38	0.083	GRAS
2110	511746.652	194496.993	1708.441	1708.5	0.059	GRAS
2111	511744.249	194498.542	1708.415	1708.65	0.235	GRAS

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
2112	511741.986	194500.119	1708.394	1708.62	0.226	GRAS
2113	511739.621	194501.851	1708.395	1708.6	0.205	GRAS
2114	511737.328	194503.337	1708.532	1708.64	0.108	GRAS
2115	511735.093	194504.726	1708.544	1708.71	0.166	GRAS
2116	511732.474	194506.635	1708.621	1708.75	0.129	GRAS
2117	511729.689	194508.392	1708.647	1708.83	0.183	GRAS
2118	511627.201	194361.666	1707.771	1708.01	0.239	EA ST
2119	511625.67	194358.685	1707.778	1708.05	0.272	EA
2120	511624.741	194356.747	1707.763	1708.01	0.247	EA
2121	511623.484	194354.42	1707.756	1707.92	0.164	EA
2122	511622.279	194352.289	1707.758	1707.97	0.212	EA
2123	511621.015	194349.901	1707.763	1708	0.237	EA
2124	511619.622	194347.524	1707.778	1707.91	0.132	EA
2125	511618.597	194345.499	1707.767	1707.91	0.143	EA
2126	511616.471	194346.525	1707.836	1708.04	0.204	ASPH
2127	511617.737	194348.922	1707.841	1708	0.159	ASPH
2128	511618.788	194350.801	1707.839	1707.98	0.141	ASPH
2129	511619.69	194352.61	1707.839	1708.05	0.211	ASPH
2130	511620.883	194354.327	1707.85	1708.07	0.22	ASPH
2131	511621.969	194356.321	1707.846	1708.12	0.274	ASPH
2132	511623.015	194358.108	1707.85	1708.09	0.24	ASPH
2133	511624.146	194359.877	1707.846	1708.06	0.214	ASPH
2134	511625.78	194362.21	1707.842	1707.98	0.138	ASPH
2135	511623.696	194363.974	1707.914	1708.03	0.116	ASPH
2136	511622.458	194361.664	1707.92	1708.09	0.17	ASPH
2137	511621.129	194359.445	1707.913	1708.16	0.247	ASPH
2138	511619.92	194357.407	1707.906	1708.19	0.284	ASPH
2139	511618.434	194355.157	1707.906	1708.19	0.284	ASPH
2140	511617.072	194352.922	1707.904	1708.15	0.246	ASPH
2141	511615.514	194350.198	1707.892	1708.17	0.278	ASPH
2142	511614.049	194347.447	1707.89	1708.09	0.2	ASPH
2143	511610.6	194349.025	1707.94	1708.08	0.14	ASPH
2144	511612.164	194352.004	1707.956	1707.96	0.004	ASPH
2145	511613.458	194354.147	1707.911	1708.16	0.249	ASPH
2146	511614.727	194356.347	1707.931	1708.14	0.209	ASPH
2147	511616.601	194359.171	1707.987	1707.94	-0.047	ASPH
2148	511618.112	194361.662	1708.002	1708	-0.002	ASPH
2149	511619.161	194363.396	1707.971	1708.09	0.119	ASPH
2150	511620.948	194366.222	1708.016	1708.19	0.174	ASPH
2151	511618.325	194368.392	1708.043	1708.38	0.337	ASPH
2152	511616.834	194366.007	1708.037	1708.16	0.123	ASPH
2153	511615.474	194363.701	1708.029	1708.11	0.081	ASPH
2154	511614.068	194361.207	1708.016	1708.18	0.164	ASPH
2155	511612.89	194358.949	1707.99	1708.43	0.44	ASPH
2156	511611.403	194356.297	1707.989	1708.13	0.141	ASPH
2157	511610.06	194353.707	1707.985	1708.07	0.085	ASPH
2158	511608.159	194350.529	1707.96	1708.17	0.21	ASPH
2159	511605.283	194351.953	1707.942	1708.18	0.238	ASPH
2160	511607.228	194354.756	1707.942	1708.23	0.288	ASPH
2161	511608.557	194356.985	1707.953	1708.11	0.157	ASPH
2162	511609.989	194359.209	1707.941	1708.04	0.099	ASPH
2163	511611.357	194361.558	1707.939	1708.11	0.171	ASPH
2164	511612.82	194364.133	1707.962	1708.13	0.168	ASPH

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
2165	511614.294	194366.703	1707.952	1707.98	0.028	ASPH
2166	511616.155	194369.5	1708.009	1708.14	0.131	ASPH
2167	511613.759	194371.56	1707.965	1707.95	-0.015	ASPH
2168	511612.409	194369.115	1707.917	1708.01	0.093	ASPH
2169	511610.466	194366.282	1707.94	1707.98	0.04	ASPH
2170	511608.678	194363.672	1707.932	1708.25	0.318	ASPH
2171	511607.062	194360.898	1707.919	1708.16	0.241	ASPH
2172	511605.76	194358.268	1707.891	1708.06	0.169	ASPH
2173	511603.966	194355.027	1707.892	1707.94	0.048	ASPH
2174	511601.386	194356.247	1707.778	1707.89	0.112	EA ST
2175	511602.716	194358.654	1707.806	1707.87	0.064	EA
2176	511604.074	194360.951	1707.824	1707.82	-0.004	EA
2177	511605.421	194363.294	1707.825	1707.92	0.095	EA
2178	511606.848	194365.936	1707.821	1707.95	0.129	EA
2179	511608.166	194368.419	1707.828	1707.95	0.122	EA
2180	511609.44	194370.773	1707.852	1707.93	0.078	EA
2181	511610.753	194373.198	1707.866	1707.93	0.064	EA
2182	511581.774	194363.706	1707.376	1707.88	0.504	TREL ST
2183	511579.938	194360.817	1707.227	1707.74	0.513	TREL
2184	511578.311	194357.549	1707.476	1707.67	0.194	TREL
2185	511576.744	194355.136	1707.35	1707.97	0.62	TREL
2186	511575.257	194352.572	1707.28	1707.78	0.5	TREL
2187	511573.925	194350.359	1707.232	1707.69	0.458	TREL
2188	511572.031	194347.811	1707.175	1707.73	0.555	TREL
2189	511570.456	194345.011	1707.273	1707.76	0.487	TREL
2190	511567.955	194346.26	1707.237	1707.7	0.463	XYZ
2191	511565.87	194347.851	1707.244	1707.73	0.486	XYZ
2192	511563.405	194349.386	1707.178	1707.94	0.762	XYZ
2193	511561.574	194351.26	1707.199	1708.19	0.991	XYZ
2194	511558.742	194352.512	1707.097	1708.15	1.053	XYZ
2195	511555.064	194353.961	1707.215	1707.72	0.505	XYZ
2196	511556.122	194356.347	1707.009	1707.69	0.681	XYZ
2197	511557.875	194355.115	1706.997	1708	1.003	XYZ
2198	511560.579	194353.628	1707.106	1708.44	1.334	XYZ
2199	511563.732	194352.229	1707.204	1708.15	0.946	XYZ
2200	511566.619	194349.945	1707.379	1707.82	0.441	XYZ
2201	511569.907	194348.841	1707.175	1707.78	0.605	XYZ
2202	511572.254	194351.998	1707.154	1707.68	0.526	XYZ
2203	511569.585	194354.301	1707.027	1707.88	0.853	XYZ
2204	511570.853	194349.882	1707.065	1707.73	0.665	XYZ
2205	511567.881	194351.827	1707.185	1707.85	0.665	XYZ
2206	511565.831	194353.528	1707.419	1708.08	0.661	XYZ
2207	511562.977	194355.368	1707.043	1708.21	1.167	XYZ
2208	511559.822	194357.32	1706.977	1708.15	1.173	XYZ
2209	511557.22	194358.849	1706.977	1707.82	0.843	XYZ
2210	511558.439	194361.569	1707.131	1707.78	0.649	XYZ
2211	511560.861	194359.532	1706.995	1708.01	1.015	XYZ
2212	511563.561	194357.718	1707.079	1708.06	0.981	XYZ
2213	511565.884	194356.306	1707.106	1708.02	0.914	XYZ
2214	511568.352	194355.002	1707.083	1707.98	0.897	XYZ
2215	511573.639	194355.495	1707.322	1708.12	0.798	XYZ
2216	511570.4	194357.289	1707.042	1707.93	0.888	XYZ
2217	511568.156	194359.44	1706.994	1707.78	0.786	XYZ

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
2218	511564.799	194360.547	1706.821	1707.87	1.049	XYZ
2219	511563.021	194362.331	1706.942	1707.8	0.858	XYZ
2220	511559.946	194363.79	1707.04	1707.67	0.63	XYZ
2221	511561.046	194366.555	1707.223	1707.61	0.387	XYZ
2222	511563.666	194365.387	1707.157	1707.59	0.433	XYZ
2223	511566.36	194364.067	1707.089	1707.76	0.671	XYZ
2224	511568.446	194362.395	1706.968	1707.58	0.612	XYZ
2225	511571.161	194360.143	1707.235	1708	0.765	XYZ
2226	511573.602	194358.406	1707.53	1708.31	0.78	XYZ
2227	511575.626	194357.155	1707.59	1708.17	0.58	XYZ
2228	511577.287	194356.14	1707.311	1707.87	0.559	XYZ
2229	511579.101	194358.609	1707.46	1707.65	0.19	XYZ
2230	511576.874	194361.004	1707.363	1707.79	0.427	XYZ
2231	511573.882	194362.904	1707.214	1707.72	0.506	XYZ
2232	511571.602	194365.267	1706.926	1707.97	1.044	XYZ
2233	511569.207	194366.309	1706.793	1708.07	1.277	XYZ
2234	511566.929	194368.071	1707.033	1708.03	0.997	XYZ
2235	511565.048	194370.298	1707.266	1707.75	0.484	XYZ
2236	511562.538	194369.055	1707.052	1707.71	0.658	XYZ
2237	511564.281	194366.929	1707.091	1707.92	0.829	XYZ
2238	511565.729	194372.588	1707.37	1707.77	0.4	XYZ
2239	511568.42	194371.544	1707.444	1707.86	0.416	XYZ
2240	511570.526	194369.658	1707.168	1708.23	1.062	XYZ
2241	511573.085	194368.19	1706.807	1708.28	1.473	XYZ
2242	511574.312	194366.328	1707.07	1707.92	0.85	XYZ
2243	511576.303	194364.162	1707.203	1707.82	0.617	XYZ
2244	511580.053	194362.375	1707.34	1707.9	0.56	XYZ
2245	511630.842	194319.429	1707.719	1708.14	0.421	TREL ST
2246	511628.657	194316.264	1707.676	1707.75	0.074	TREL
2247	511627.172	194314.214	1707.662	1707.82	0.158	TREL
2248	511625.607	194311.814	1707.61	1707.83	0.22	TREL
2249	511624.076	194309.41	1707.544	1707.82	0.276	TREL
2250	511622.896	194307.29	1707.46	1707.78	0.32	TREL
2251	511621.247	194304.225	1707.452	1707.94	0.488	TREL
2252	511635.266	194295.937	1707.096	1707.78	0.684	XYZ
2253	511633.144	194297.792	1707.169	1707.81	0.641	XYZ
2254	511631.061	194299.512	1707.319	1707.84	0.521	XYZ
2255	511629.164	194300.971	1707.513	1708.07	0.557	XYZ
2256	511625.505	194302.731	1707.546	1708.26	0.714	XYZ
2257	511626.96	194305.647	1707.458	1708.04	0.582	XYZ
2258	511627.974	194308.371	1707.57	1707.87	0.3	XYZ
2259	511629.458	194311.732	1707.677	1708.12	0.443	XYZ
2260	511631.907	194314.062	1707.659	1707.81	0.151	XYZ
2261	511633.398	194317.403	1707.625	1707.92	0.295	XYZ
2262	511637.158	194315.617	1707.692	1708.02	0.328	XYZ
2263	511635.274	194313.321	1707.595	1707.9	0.305	XYZ
2264	511633.857	194311.122	1707.444	1707.82	0.376	XYZ
2265	511632.49	194308.718	1707.434	1707.8	0.366	XYZ
2266	511631.324	194306.797	1707.396	1707.83	0.434	XYZ
2267	511629.977	194304.665	1707.43	1707.93	0.5	XYZ
2268	511631.631	194301.777	1707.538	1707.99	0.452	XYZ
2269	511633.962	194304.456	1707.269	1707.72	0.451	XYZ
2270	511635.593	194306.815	1707.162	1707.84	0.678	XYZ

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
2271	511637.517	194309.472	1707.391	1708.05	0.659	XYZ
2272	511638.816	194311.535	1707.618	1707.95	0.332	XYZ
2273	511639.593	194314.891	1708.028	1708.06	0.032	XYZ
2274	511642.704	194313.083	1707.448	1707.85	0.402	XYZ
2275	511640.694	194310.674	1707.36	1707.89	0.53	XYZ
2276	511639.063	194308.637	1707.297	1708.03	0.733	XYZ
2277	511637.824	194306.143	1707.285	1708.12	0.835	XYZ
2278	511637.102	194302.739	1707.399	1708.02	0.621	XYZ
2279	511635.276	194300.172	1707.348	1707.89	0.542	XYZ
2280	511638.129	194299.518	1707.316	1708.11	0.794	XYZ
2281	511639.509	194301.802	1707.391	1708.26	0.869	XYZ
2282	511641.505	194304.83	1707.445	1708.29	0.845	XYZ
2283	511642.725	194306.858	1707.443	1708.29	0.847	XYZ
2284	511644.865	194308.874	1707.46	1708.06	0.6	XYZ
2285	511646.684	194311.071	1707.508	1707.87	0.362	XYZ
3000	401604.642	176584.05	1651.99	1651.76	-0.23	GRAS
3001	401602.008	176583.563	1651.932	1651.72	-0.212	GRAS
3002	401600.024	176583.215	1651.959	1651.81	-0.149	GRAS
3003	401598.321	176582.906	1652.039	1651.77	-0.269	GRAS
3004	401596.38	176582.71	1652.039	1651.88	-0.159	GRAS
3005	401594.265	176582.316	1651.997	1651.87	-0.127	GRAS
3006	401591.881	176581.694	1652.018	1651.73	-0.288	GRAS
3007	401589.614	176581.714	1651.948	1651.67	-0.278	GRAS
3008	401586.997	176581.864	1651.992	1651.74	-0.252	GRAS
3009	401586.371	176579.236	1652.015	1651.79	-0.225	GRAS
3010	401586.15	176577.312	1652.054	1651.77	-0.284	GRAS
3011	401585.759	176575.457	1651.958	1651.77	-0.188	GRAS
3012	401585.154	176573.486	1651.968	1651.76	-0.208	GRAS
3013	401585.159	176571.317	1651.896	1651.78	-0.116	GRAS
3014	401584.813	176569.412	1651.861	1651.75	-0.111	GRAS
3015	401584.547	176566.925	1651.835	1651.68	-0.155	GRAS
3016	401587.254	176566.414	1651.932	1651.75	-0.182	GRAS
3017	401589.29	176566.133	1652.032	1651.8	-0.232	GRAS
3018	401591.784	176565.961	1652.077	1651.8	-0.277	GRAS
3019	401593.867	176565.926	1652.14	1651.82	-0.32	GRAS
3020	401596.314	176565.846	1652.021	1651.82	-0.201	GRAS
3021	401598.616	176565.932	1652.027	1651.84	-0.187	GRAS
3022	401600.81	176565.948	1652.124	1651.87	-0.254	GRAS
3023	401603.079	176565.954	1652.118	1651.86	-0.258	GRAS
3024	401605.612	176565.945	1652.097	1651.93	-0.167	GRAS
3025	401605.595	176568.555	1652.082	1651.9	-0.182	GRAS
3026	401605.385	176570.496	1652.184	1651.85	-0.334	GRAS
3027	401605.425	176572.588	1652.144	1651.88	-0.264	GRAS
3028	401605.544	176574.826	1652.067	1651.89	-0.177	GRAS
3029	401605.424	176577.388	1651.991	1651.84	-0.151	GRAS
3030	401605.347	176579.281	1652.028	1651.83	-0.198	GRAS
3031	401605.331	176582.017	1652.044	1651.85	-0.194	GRAS
3032	401602.906	176582.161	1651.965	1651.79	-0.175	GRAS
3033	401600.265	176581.903	1651.973	1651.73	-0.243	GRAS
3034	401597.915	176580.688	1651.997	1651.79	-0.207	GRAS
3035	401595.369	176579.421	1651.941	1651.73	-0.211	GRAS
3036	401592.678	176578.924	1651.985	1651.76	-0.225	GRAS
3037	401590.367	176578.844	1652.027	1651.74	-0.287	GRAS

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
3038	401588.828	176578.578	1652.076	1651.78	-0.296	GRAS
3039	401588.657	176576.232	1652.123	1651.95	-0.173	GRAS
3040	401588.552	176573.758	1652.144	1651.85	-0.294	GRAS
3041	401588.456	176570.949	1652.013	1651.88	-0.133	GRAS
3042	401588.528	176568.532	1652.007	1651.8	-0.207	GRAS
3043	401590.958	176568.609	1652.088	1651.79	-0.298	GRAS
3044	401593.136	176568.773	1652.027	1651.83	-0.197	GRAS
3045	401595.732	176568.886	1651.996	1651.69	-0.306	GRAS
3046	401598.269	176569.256	1652.062	1651.78	-0.282	GRAS
3047	401600.462	176569.516	1652.077	1651.93	-0.147	GRAS
3048	401602.714	176569.834	1652.117	1651.9	-0.217	GRAS
3049	401602.362	176572.283	1652.11	1651.9	-0.21	GRAS
3050	401602.055	176575.104	1652.078	1651.74	-0.338	GRAS
3051	401601.834	176577.682	1652.007	1651.9	-0.107	GRAS
3052	401601.511	176580.777	1651.949	1651.75	-0.199	GRAS
3053	401598.744	176580.181	1651.962	1651.77	-0.192	GRAS
3054	401596.405	176577.695	1651.988	1651.76	-0.228	GRAS
3055	401593.278	176577.022	1651.924	1651.7	-0.224	GRAS
3056	401590.447	176577.096	1652.096	1651.9	-0.196	GRAS
3057	401591.104	176575.056	1652.197	1652.08	-0.117	GRAS
3058	401590.668	176572.264	1652.15	1652	-0.15	GRAS
3059	401592.884	176572.275	1652.048	1651.93	-0.118	GRAS
3060	401595.582	176572.662	1652.039	1651.82	-0.219	GRAS
3061	401598.158	176573.034	1652.014	1651.74	-0.274	GRAS
3062	401600.278	176573.931	1652.053	1651.85	-0.203	GRAS
3063	401599.638	176576.23	1651.965	1651.72	-0.245	GRAS
3064	401599.123	176579.04	1651.943	1651.77	-0.173	GRAS
3065	401596.759	176576.612	1651.993	1651.8	-0.193	GRAS
3066	401596.106	176574.073	1651.988	1651.86	-0.128	GRAS
3067	401593.431	176573.574	1652.118	1651.99	-0.128	GRAS
3068	401505.766	176610.807	1651.553	1651.39	-0.163	GRAV
3069	401503.484	176611.129	1651.667	1651.48	-0.187	GRAV
3070	401501.748	176611.327	1651.703	1651.63	-0.073	GRAV
3071	401499.504	176611.894	1651.813	1651.58	-0.233	GRAV
3072	401497.198	176612.346	1651.798	1651.57	-0.228	GRAV
3073	401494.968	176612.828	1651.717	1651.58	-0.137	GRAV
3074	401492.111	176613.311	1651.607	1651.48	-0.127	GRAV
3075	401489.405	176613.709	1651.514	1651.35	-0.164	GRAV
3076	401489	176615.391	1651.558	1651.36	-0.198	GRAV
3077	401489.101	176617.336	1651.57	1651.43	-0.14	GRAV
3078	401489.18	176620.095	1651.62	1651.27	-0.35	GRAV
3079	401489.43	176622.911	1651.668	1651.53	-0.138	GRAV
3080	401489.47	176625.686	1651.697	1651.47	-0.227	GRAV
3081	401489.484	176628.624	1651.754	1651.49	-0.264	GRAV
3082	401489.597	176630.872	1651.808	1651.5	-0.308	GRAV
3083	401492.016	176630.5	1651.812	1651.51	-0.302	GRAV
3084	401494.438	176630.573	1651.86	1651.64	-0.22	GRAV
3085	401497.354	176630.438	1651.83	1651.67	-0.16	GRAV
3086	401500.108	176630.413	1651.888	1651.61	-0.278	GRAV
3087	401502.627	176630.357	1651.923	1651.53	-0.393	GRAV
3088	401505.853	176630.44	1651.93	1651.56	-0.37	GRAV
3089	401509.055	176630.559	1651.875	1651.52	-0.355	GRAV
3090	401511.917	176630.406	1651.889	1651.52	-0.369	GRAV

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
3091	401511.266	176627.988	1651.782	1651.54	-0.242	GRAV
3092	401510.527	176625.767	1651.719	1651.57	-0.149	GRAV
3093	401510.025	176623.696	1651.744	1651.47	-0.274	GRAV
3094	401509.533	176621.647	1651.726	1651.39	-0.336	GRAV
3095	401508.743	176619.181	1651.685	1651.4	-0.285	GRAV
3096	401507.804	176616.482	1651.642	1651.4	-0.242	GRAV
3097	401507.174	176614.186	1651.571	1651.48	-0.091	GRAV
3098	401506.401	176612.481	1651.553	1651.44	-0.113	GRAV
3099	401503.756	176613.611	1651.665	1651.37	-0.295	GRAV
3100	401503.784	176613.622	1651.653	1651.37	-0.283	GRAV
3101	401501.499	176613.995	1651.753	1651.6	-0.153	GRAV
3102	401498.617	176614.199	1651.833	1651.57	-0.263	GRAV
3103	401496.257	176614.39	1651.782	1651.55	-0.232	GRAV
3104	401492.759	176614.634	1651.621	1651.49	-0.131	GRAV
3105	401491.437	176615.048	1651.627	1651.43	-0.197	GRAV
3106	401491.297	176617.161	1651.633	1651.53	-0.103	GRAV
3107	401491.26	176619.535	1651.664	1651.47	-0.194	GRAV
3108	401491.362	176621.974	1651.695	1651.55	-0.145	GRAV
3109	401491.217	176625.104	1651.71	1651.53	-0.18	GRAV
3110	401491.172	176628.254	1651.743	1651.48	-0.263	GRAV
3111	401493.797	176628.224	1651.839	1651.57	-0.269	GRAV
3112	401497.064	176627.95	1651.843	1651.62	-0.223	GRAV
3113	401499.486	176627.73	1651.846	1651.66	-0.186	GRAV
3114	401502.162	176627.566	1651.866	1651.75	-0.116	GRAV
3115	401505.225	176627.345	1651.896	1651.67	-0.226	GRAV
3116	401508.002	176627.3	1651.886	1651.65	-0.236	GRAV
3117	401506.512	176624.047	1651.84	1651.73	-0.11	GRAV
3118	401505.766	176621.295	1651.819	1651.49	-0.329	GRAV
3119	401504.783	176618.444	1651.791	1651.53	-0.261	GRAV
3120	401503.902	176616.094	1651.734	1651.61	-0.124	GRAV
3121	401501.011	176616.76	1651.87	1651.39	-0.48	GRAV
3122	401498.181	176617.032	1651.875	1651.54	-0.335	GRAV
3123	401494.94	176617.318	1651.748	1651.54	-0.208	GRAV
3124	401494.051	176619.808	1651.733	1651.61	-0.123	GRAV
3125	401494.439	176622.97	1651.735	1651.6	-0.135	GRAV
3126	401494.706	176625.83	1651.762	1651.72	-0.042	GRAV
3127	401498.096	176624.902	1651.831	1651.7	-0.131	GRAV
3128	401501.241	176624.36	1651.855	1651.73	-0.125	GRAV
3129	401504.645	176624.274	1651.949	1651.78	-0.169	GRAV
3130	401503.285	176621.209	1651.96	1651.53	-0.43	GRAV
3131	401502.111	176618.782	1651.897	1651.56	-0.337	GRAV
3132	401498.893	176619.853	1651.876	1651.68	-0.196	GRAV
3133	401495.906	176620.231	1651.803	1651.69	-0.113	GRAV
3134	401495.854	176623.098	1651.794	1651.47	-0.324	GRAV
3135	401499.074	176622.648	1651.825	1651.62	-0.205	GRAV
3136	401500.901	176622.021	1651.901	1651.65	-0.251	GRAV
3137	401543.348	176638.734	1652.086	1651.75	-0.336	ASPH
3138	401543.075	176641.281	1652.192	1651.87	-0.322	ASPH
3139	401543.092	176643.466	1652.227	1651.93	-0.297	ASPH
3140	401543.113	176646.094	1652.241	1652.05	-0.191	ASPH
3141	401542.935	176648.169	1652.248	1652.04	-0.208	ASPH
3142	401542.798	176650.683	1652.237	1651.98	-0.257	ASPH
3143	401542.754	176653.13	1652.226	1651.95	-0.276	ASPH

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
3144	401542.626	176655.88	1652.197	1652.01	-0.187	ASPH
3145	401545.28	176656.267	1652.192	1651.87	-0.322	ASPH
3146	401545.346	176653.721	1652.265	1651.88	-0.385	ASPH
3147	401545.565	176650.779	1652.279	1652.07	-0.209	ASPH
3148	401545.676	176647.807	1652.268	1652.09	-0.178	ASPH
3149	401545.722	176645.075	1652.253	1652.05	-0.203	ASPH
3150	401545.881	176641.993	1652.2	1652.02	-0.18	ASPH
3151	401546.149	176638.7	1652.085	1651.84	-0.245	ASPH
3152	401548.78	176638.514	1652.09	1651.83	-0.26	ASPH
3153	401548.675	176641.563	1652.154	1651.95	-0.204	ASPH
3154	401548.813	176644.23	1652.234	1651.96	-0.274	ASPH
3155	401548.765	176646.795	1652.303	1652.15	-0.153	ASPH
3156	401548.405	176649.766	1652.253	1652.07	-0.183	ASPH
3157	401548.457	176652.806	1652.268	1651.87	-0.398	ASPH
3158	401548.41	176655.667	1652.225	1651.94	-0.285	ASPH
3159	401551.376	176656.776	1652.277	1651.99	-0.287	ASPH
3160	401551.177	176653.109	1652.275	1651.86	-0.415	ASPH
3161	401551.205	176649.855	1652.283	1652.04	-0.243	ASPH
3162	401551.119	176646.794	1652.303	1652.1	-0.203	ASPH
3163	401551.039	176643.715	1652.26	1651.95	-0.31	ASPH
3164	401551.053	176640.661	1652.173	1651.89	-0.283	ASPH
3165	401550.882	176638.527	1652.104	1651.79	-0.314	ASPH
3166	401553.937	176638.164	1652.087	1652.02	-0.067	ASPH
3167	401553.996	176641.328	1652.18	1652.17	-0.01	ASPH
3168	401554.148	176644.357	1652.287	1651.99	-0.297	ASPH
3169	401553.996	176647.22	1652.357	1652.08	-0.277	ASPH
3170	401554.037	176650.504	1652.339	1652.03	-0.309	ASPH
3171	401554.163	176653.252	1652.302	1651.9	-0.402	ASPH
3172	401554.303	176655.932	1652.281	1651.99	-0.291	ASPH
3173	401557.883	176656.134	1652.321	1652.07	-0.251	ASPH
3174	401557.662	176652.81	1652.318	1651.97	-0.348	ASPH
3175	401557.521	176650.374	1652.329	1652.13	-0.199	ASPH
3176	401557.247	176646.951	1652.338	1652.11	-0.228	ASPH
3177	401557.163	176643.845	1652.261	1651.96	-0.301	ASPH
3178	401556.815	176640.991	1652.209	1652.08	-0.129	ASPH
3179	401556.94	176638.273	1652.114	1651.97	-0.144	ASPH
3180	401559.874	176637.988	1652.041	1651.87	-0.171	ASPH
3181	401560.066	176640.995	1652.182	1652.01	-0.172	ASPH
3182	401560.23	176643.857	1652.259	1652.05	-0.209	ASPH
3183	401560.295	176646.465	1652.344	1652.02	-0.324	ASPH
3184	401560.325	176649.425	1652.389	1652.09	-0.299	ASPH
3185	401560.532	176652.376	1652.373	1651.88	-0.493	ASPH
3186	401560.581	176655.76	1652.37	1652.01	-0.36	ASPH
3187	401606.432	176734.976	1652.277	1652.1	-0.177	XYZ
3188	401608.814	176735.261	1652.131	1652.09	-0.041	XYZ
3189	401611.23	176735.277	1652.365	1651.97	-0.395	XYZ
3190	401614.689	176735.068	1651.861	1652.31	0.449	XYZ
3191	401616.224	176735.172	1652.196	1652.28	0.084	XYZ
3192	401618.894	176735.067	1652.245	1652.28	0.035	XYZ
3193	401622.058	176734.742	1651.807	1652.16	0.353	XYZ
3194	401624.635	176734.233	1652.215	1652.17	-0.045	XYZ
3195	401625.298	176737.185	1652.246	1652.21	-0.036	XYZ
3196	401626.215	176740.867	1651.965	1652.2	0.235	XYZ

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
3197	401626.925	176742.938	1651.989	1652.34	0.351	XYZ
3198	401628.015	176745.653	1652.054	1652.43	0.376	XYZ
3199	401628.468	176749.939	1652.013	1652.15	0.137	XYZ
3200	401628.497	176752.719	1652.279	1652.07	-0.209	XYZ
3201	401625.882	176752.589	1652.228	1652.05	-0.178	XYZ
3202	401623.292	176753.077	1652.233	1651.99	-0.243	XYZ
3203	401620.191	176753.651	1652.132	1652.08	-0.052	XYZ
3204	401617.172	176753.846	1652.263	1652.13	-0.133	XYZ
3205	401615.116	176753.569	1652.321	1652.13	-0.191	XYZ
3206	401612.119	176753.341	1652.301	1652.17	-0.131	XYZ
3207	401609.275	176753.231	1652.342	1652.24	-0.102	XYZ
3208	401607.202	176753.454	1652.459	1652.36	-0.099	XYZ
3209	401607.56	176750.318	1652.464	1652.36	-0.104	XYZ
3210	401607.459	176747.865	1652.36	1652.28	-0.08	XYZ
3211	401607.097	176745.186	1652.263	1652.34	0.077	XYZ
3212	401606.114	176742.338	1652.399	1652.18	-0.219	XYZ
3213	401605.656	176737.44	1652.163	1652.09	-0.073	XYZ
3214	401608.408	176736.307	1652.158	1652.21	0.052	XYZ
3215	401611.131	176736.871	1652.181	1652.04	-0.141	XYZ
3216	401615.135	176737.943	1652.07	1652.35	0.28	XYZ
3217	401618.389	176738.643	1652.448	1652.16	-0.288	XYZ
3218	401622.074	176739.13	1651.922	1652.37	0.448	XYZ
3219	401621.591	176742.303	1652.261	1652.29	0.029	XYZ
3220	401622.051	176745.2	1652.498	1652.23	-0.268	XYZ
3221	401623.234	176748.684	1652.178	1652.12	-0.058	XYZ
3222	401618.78	176750.062	1652.255	1652.12	-0.135	XYZ
3223	401615.694	176749.782	1652.228	1652.28	0.052	XYZ
3224	401613.014	176750.781	1652.369	1652.18	-0.189	XYZ
3225	401609.907	176751.158	1652.317	1652.31	-0.007	XYZ
3226	401609.283	176748.897	1652.43	1652.36	-0.07	XYZ
3227	401608.93	176745.71	1652.339	1652.5	0.161	XYZ
3228	401609.844	176743.328	1652.176	1652.68	0.504	XYZ
3229	401610.227	176740.693	1652.136	1652.48	0.344	XYZ
3230	401610.81	176737.708	1652.111	1652.14	0.029	XYZ
3231	401613.074	176740.189	1652.44	1652.51	0.07	XYZ
3232	401616.85	176741.908	1652.212	1652.41	0.198	XYZ
3233	401618.899	176742.36	1652.046	1652.11	0.064	XYZ
3234	401620.053	176744.09	1652.361	1652.07	-0.291	XYZ
3235	401616.692	176746.48	1652.146	1652.22	0.074	XYZ
3236	401613.996	176744.89	1652.364	1652.6	0.236	XYZ
3237	401611.841	176743.936	1652.244	1652.76	0.516	XYZ
3238	401615.223	176742.176	1652.31	1652.62	0.31	XYZ
3239	401608.366	176744.946	1652.169	1652.5	0.331	XYZ
3240	401609.974	176746.621	1652.236	1652.53	0.294	XYZ
4000	340985.543	127618.134	1610.174	1610.35	0.176	XYZ
4001	340986.643	127615.753	1610.151	1610.33	0.179	XYZ
4002	340987.475	127613.49	1610.023	1610.25	0.227	XYZ
4003	340988.914	127610.377	1610.058	1610.13	0.072	XYZ
4004	340990.247	127607.414	1610.143	1610.33	0.187	XYZ
4005	340991.499	127605.849	1610.014	1610.32	0.306	XYZ
4006	340992.531	127603.004	1609.854	1610.26	0.406	XYZ
4007	340993.51	127600.144	1609.827	1610.2	0.373	XYZ
4008	340995.807	127602.335	1609.775	1610.17	0.395	XYZ

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
4009	340998.317	127602.535	1609.742	1610.16	0.418	XYZ
4010	341001.555	127603.731	1609.952	1610.26	0.308	XYZ
4011	341004.188	127604.461	1609.952	1610.27	0.318	XYZ
4012	341006.408	127605.261	1609.977	1610.32	0.343	XYZ
4013	341008.718	127606.74	1610.043	1610.43	0.387	XYZ
4014	341011.976	127606.4	1609.954	1610.4	0.446	XYZ
4015	341009.966	127610.333	1610.14	1610.09	-0.05	XYZ
4016	341007.645	127612.845	1610.153	1610.12	-0.033	XYZ
4017	341007.073	127615.038	1610.088	1610.28	0.192	XYZ
4018	341006.47	127617.13	1610.072	1610.35	0.278	XYZ
4019	341005.762	127619.523	1610.188	1610.41	0.222	XYZ
4020	341004.859	127622.381	1610.458	1610.53	0.072	XYZ
4021	341003.808	127625.637	1610.073	1610.52	0.447	XYZ
4022	341001.402	127625.428	1610.017	1610.55	0.533	XYZ
4023	340998.481	127623.905	1610.038	1610.36	0.322	XYZ
4024	340995.358	127621.986	1610.017	1610.27	0.253	XYZ
4025	340992.096	127621.452	1610.223	1610.37	0.147	XYZ
4026	340990.123	127620.161	1610.154	1610.38	0.226	XYZ
4027	340988.188	127618.877	1610.18	1610.32	0.14	XYZ
4028	340989.958	127615.947	1610.101	1610.32	0.219	XYZ
4029	340990.836	127614.149	1610.065	1610.22	0.155	XYZ
4030	340992.149	127611.271	1610.038	1610.12	0.082	XYZ
4031	340993.231	127609.053	1610.008	1610.16	0.152	XYZ
4032	340993.776	127606.271	1609.879	1610.2	0.321	XYZ
4033	340995.481	127603.145	1609.732	1610.18	0.448	XYZ
4034	340997.438	127605.635	1609.779	1610.21	0.431	XYZ
4035	340996.732	127607.249	1609.978	1610.23	0.252	XYZ
4036	340995.788	127609.279	1610.059	1610.17	0.111	XYZ
4037	340995.346	127611.932	1610.016	1610.13	0.114	XYZ
4038	340994.695	127614.248	1610.163	1610.19	0.027	XYZ
4039	340993.233	127617.098	1610.157	1610.32	0.163	XYZ
4040	340996.113	127619.48	1610.223	1610.35	0.127	XYZ
4041	340999.201	127620.116	1610.06	1610.29	0.23	XYZ
4042	341002.334	127621.209	1610.158	1610.36	0.202	XYZ
4043	341002.992	127618.611	1610.112	1610.4	0.288	XYZ
4044	341003.589	127616.743	1610.12	1610.35	0.23	XYZ
4045	341004.538	127615.127	1610.051	1610.28	0.229	XYZ
4046	341005.874	127612.567	1610.095	1610.12	0.025	XYZ
4047	341007	127610.234	1610.104	1610.18	0.076	XYZ
4048	341007.673	127607.153	1609.979	1610.42	0.441	XYZ
4049	341004.28	127607.384	1609.984	1610.34	0.356	XYZ
4050	341001.079	127606.405	1609.936	1610.26	0.324	XYZ
4051	340999.969	127608.274	1609.877	1610.26	0.383	XYZ
4052	340999.038	127611.107	1610.006	1610.19	0.184	XYZ
4053	340997.634	127613.374	1609.932	1610.13	0.198	XYZ
4054	340996.241	127615.579	1609.998	1610.39	0.392	XYZ
4055	340997.817	127617.01	1610.088	1610.31	0.222	XYZ
4056	340999.671	127617.808	1610.091	1610.39	0.299	XYZ
4057	341001.091	127615.316	1610.049	1610.21	0.161	XYZ
4058	340999.534	127615.292	1610.078	1610.18	0.102	XYZ
4059	341000.728	127613.036	1610.009	1610.13	0.121	XYZ
4060	341002.139	127613.489	1610.068	1610.11	0.042	XYZ
4061	341003.73	127611.184	1610.006	1610.24	0.234	XYZ

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
4062	341002.023	127610.781	1610.074	1610.26	0.186	XYZ
4063	340881.974	127639.053	1613.166	1613.11	-0.056	EA ST
4064	340879.809	127637.994	1613.176	1613.06	-0.116	EA
4065	340877.603	127636.934	1613.194	1613.03	-0.164	EA
4066	340875.542	127635.924	1613.19	1613.02	-0.17	EA
4067	340872.854	127634.648	1613.197	1613.07	-0.127	EA
4068	340870.317	127633.412	1613.213	1613.22	0.007	EA
4069	340868.019	127632.309	1613.212	1613.35	0.138	EA
4070	340865.802	127631.244	1613.228	1613.34	0.112	EA
4071	340866.71	127629.277	1613.282	1613.3	0.018	ASPH
4072	340867.615	127627.15	1613.32	1613.31	-0.01	ASPH
4073	340868.638	127624.591	1613.386	1613.59	0.204	ASPH
4074	340869.276	127622.673	1613.412	1613.52	0.108	ASPH
4075	340870.384	127620.204	1613.459	1613.25	-0.209	CL ST
4076	340871.296	127618.248	1613.432	1613.28	-0.152	ASPH
4077	340872.214	127616.257	1613.372	1613.48	0.108	ASPH
4078	340873.222	127613.853	1613.304	1613.33	0.026	ASPH
4079	340874.114	127611.655	1613.253	1613.16	-0.093	ASPH
4080	340875.257	127609.03	1613.211	1613.25	0.039	EA ST
4081	340877.281	127609.97	1613.188	1613.3	0.112	EA
4082	340879.332	127610.955	1613.185	1613.37	0.185	EA
4083	340881.321	127611.9	1613.185	1613.28	0.095	EA
4084	340883.373	127612.86	1613.179	1613.3	0.121	EA
4085	340885.567	127613.892	1613.169	1613.34	0.171	EA
4086	340887.759	127614.974	1613.159	1613.13	-0.029	EA
4087	340889.703	127615.923	1613.152	1613.17	0.018	EA
4088	340891.647	127617.097	1613.145	1613.12	-0.025	EA
4089	340893.742	127617.973	1613.124	1613.11	-0.014	EA
4090	340893.299	127620.212	1613.173	1613.02	-0.153	ASPH
4091	340890.547	127618.827	1613.189	1613.1	-0.089	ASPH
4092	340888.244	127617.657	1613.172	1613.1	-0.072	ASPH
4093	340885.534	127616.256	1613.198	1613.37	0.172	ASPH
4094	340883.042	127615.125	1613.194	1613.3	0.106	ASPH
4095	340879.836	127613.678	1613.219	1613.18	-0.039	ASPH
4096	340877.325	127612.507	1613.232	1613.3	0.068	ASPH
4097	340876.228	127614.717	1613.28	1613.26	-0.02	ASPH
4098	340878.86	127616.062	1613.257	1613.33	0.073	ASPH
4099	340882.189	127617.563	1613.266	1613.33	0.064	ASPH
4100	340885.813	127619.095	1613.253	1613.33	0.077	ASPH
4101	340888.412	127620.297	1613.233	1613.35	0.117	ASPH
4102	340892.201	127622.062	1613.228	1613.26	0.032	ASPH
4103	340891.556	127624.574	1613.303	1613.27	-0.033	ASPH
4104	340888.28	127623.435	1613.313	1613.32	0.007	ASPH
4105	340885.554	127622.18	1613.32	1613.36	0.04	ASPH
4106	340882.512	127620.931	1613.337	1613.42	0.083	ASPH
4107	340879.625	127619.623	1613.349	1613.24	-0.109	ASPH
4108	340876.962	127618.21	1613.345	1613.4	0.055	ASPH
4109	340874.34	127617.041	1613.361	1613.49	0.129	ASPH
4110	340873.352	127619.98	1613.447	1613.26	-0.187	ASPH
4111	340876.314	127621.306	1613.441	1613.52	0.079	ASPH
4112	340873.385	127621.67	1613.455	1613.23	-0.225	CL
4113	340875.472	127622.576	1613.464	1613.3	-0.164	CL
4114	340877.604	127623.552	1613.433	1613.48	0.047	CL

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
4115	340878.762	127621.652	1613.409	1613.62	0.211	ASPH
4116	340880.809	127622.76	1613.413	1613.46	0.047	ASPH
4117	340879.905	127624.737	1613.442	1613.4	-0.042	CL
4118	340882.222	127625.913	1613.436	1613.14	-0.296	CL
4119	340883.781	127624.048	1613.391	1613.28	-0.111	ASPH
4120	340885.848	127625.409	1613.403	1613.22	-0.183	ASPH
4121	340885.022	127627.109	1613.431	1613.34	-0.091	CL
4122	340887.31	127628.257	1613.428	1613.39	-0.038	CL
4123	340888.413	127626.243	1613.391	1613.23	-0.161	ASPH
4124	340890.269	127627.167	1613.392	1613.32	-0.072	ASPH
4125	340889.211	127629.2	1613.425	1613.45	0.025	CL
4126	340888.406	127630.85	1613.388	1613.45	0.062	ASPH
4127	340885.377	127629.342	1613.401	1613.45	0.049	ASPH
4128	340882.949	127628.17	1613.399	1613.25	-0.149	ASPH
4129	340880.132	127626.748	1613.418	1613.09	-0.328	ASPH
4130	340877.31	127625.334	1613.417	1613.35	-0.067	ASPH
4131	340874.626	127624.06	1613.423	1613.29	-0.133	ASPH
4132	340872.759	127623.166	1613.437	1613.25	-0.187	ASPH
4133	340871.635	127625.429	1613.389	1613.2	-0.189	ASPH
4134	340874.239	127626.74	1613.374	1613.35	-0.024	ASPH
4135	340877.104	127628.233	1613.374	1613.29	-0.084	ASPH
4136	340879.856	127629.41	1613.361	1613.21	-0.151	ASPH
4137	340882.588	127630.502	1613.334	1613.26	-0.074	ASPH
4138	340885.833	127632.023	1613.337	1613.25	-0.087	ASPH
4139	340889.181	127633.549	1613.328	1613.23	-0.098	ASPH
4140	340888.633	127636.505	1613.274	1613.36	0.086	ASPH
4141	340887.482	127638.668	1613.227	1613.2	-0.027	ASPH
4142	340884.808	127637.625	1613.24	1613.15	-0.09	ASPH
4143	340885.659	127635.557	1613.285	1613.14	-0.145	ASPH
4144	340882.815	127634.177	1613.336	1613.19	-0.146	ASPH
4145	340881.87	127636.673	1613.24	1613.12	-0.12	ASPH
4146	340879.338	127635.602	1613.258	1613.15	-0.108	ASPH
4147	340880.253	127633.217	1613.293	1613.29	-0.003	ASPH
4148	340878.116	127632.171	1613.295	1613.34	0.045	ASPH
4149	340876.813	127634.327	1613.259	1613.17	-0.089	ASPH
4150	340874.515	127633.024	1613.272	1613.25	-0.022	ASPH
4151	340875.38	127631.081	1613.307	1613.39	0.083	ASPH
4152	340873.117	127629.84	1613.315	1613.4	0.085	ASPH
4153	340871.817	127631.973	1613.281	1613.19	-0.091	ASPH
4154	340869.606	127630.881	1613.289	1613.3	0.011	ASPH
4155	340870.51	127628.875	1613.318	1613.29	-0.028	ASPH
4156	340653.834	127545.129	1612.597	1612.79	0.193	XYZ
4157	340650.95	127544.169	1612.664	1612.75	0.086	XYZ
4158	340647.913	127542.895	1612.58	1613.1	0.52	XYZ
4159	340644.618	127541.535	1612.436	1613.12	0.684	XYZ
4160	340641.914	127540.255	1612.242	1613.02	0.778	XYZ
4161	340639.712	127539.428	1612.319	1612.96	0.641	XYZ
4162	340640.867	127536.194	1612.436	1613.11	0.674	XYZ
4163	340641.864	127533.679	1612.314	1613.09	0.776	XYZ
4164	340642.567	127531.354	1612.51	1613.04	0.53	XYZ
4165	340643.405	127528.578	1612.528	1612.94	0.412	XYZ
4166	340644.673	127525.753	1612.447	1613.07	0.623	XYZ
4167	340646.446	127522.68	1612.803	1613.1	0.297	XYZ

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
4168	340650.136	127524.113	1612.488	1612.97	0.482	XYZ
4169	340653.301	127525.155	1612.409	1612.85	0.441	XYZ
4170	340656.09	127526.132	1612.368	1612.7	0.332	XYZ
4171	340659.113	127527.096	1612.421	1612.57	0.149	XYZ
4172	340662.064	127528.873	1612.137	1612.52	0.383	XYZ
4173	340660.116	127532.095	1612.573	1612.96	0.387	XYZ
4174	340659.43	127535.099	1612.618	1612.96	0.342	XYZ
4175	340657.707	127538.694	1612.651	1612.87	0.219	XYZ
4176	340655.633	127541.821	1612.643	1612.81	0.167	XYZ
4177	340652.506	127541.143	1612.57	1612.83	0.26	XYZ
4178	340650.089	127539.307	1612.43	1613.13	0.7	XYZ
4179	340647.088	127537.902	1612.127	1613.21	1.083	XYZ
4180	340644.974	127537.138	1612.291	1613.12	0.829	XYZ
4181	340645.774	127535.324	1612.183	1613.14	0.957	XYZ
4182	340646.878	127533.258	1612.146	1613.18	1.034	XYZ
4183	340647.492	127530.851	1612.286	1613.2	0.914	XYZ
4184	340648.771	127529.601	1612.559	1613.23	0.671	XYZ
4185	340650.517	127527.556	1612.633	1613.04	0.407	XYZ
4186	340647.452	127528.196	1612.633	1613.2	0.567	XYZ
4187	340652.215	127528.396	1612.604	1613.04	0.436	XYZ
4188	340654.665	127529.197	1612.749	1613.2	0.451	XYZ
4189	340656.87	127529.92	1612.825	1612.96	0.135	XYZ
4190	340658.715	127530.66	1612.629	1612.9	0.271	XYZ
4191	340656.758	127533.127	1612.534	1613.03	0.496	XYZ
4192	340655.561	127535.234	1612.513	1612.98	0.467	XYZ
4193	340654.111	127538.17	1612.684	1612.9	0.216	XYZ
4194	340651.21	127537.628	1612.511	1613.14	0.629	XYZ
4195	340649.293	127536.809	1612.254	1613.26	1.006	XYZ
4196	340647.576	127535.405	1612.141	1613.22	1.079	XYZ
4197	340648.567	127533.573	1612.221	1613.24	1.019	XYZ
4198	340649.737	127531.597	1612.486	1613.26	0.774	XYZ
4199	340650.898	127529.878	1612.522	1613.29	0.768	XYZ
4200	340653.046	127531.712	1612.612	1613.35	0.738	XYZ
4201	340654.227	127532.443	1612.605	1613.27	0.665	XYZ
4202	340652.744	127534.603	1612.506	1613.25	0.744	XYZ
4203	340830.606	127625.797	1613.39	1613.42	0.03	GRAS
4204	340829.615	127628.099	1612.871	1613.01	0.139	GRAS
4205	340828.675	127630.534	1612.386	1612.48	0.094	GRAS
4206	340827.704	127633.015	1611.984	1611.95	-0.034	GRAS
4207	340826.515	127635.488	1611.673	1611.63	-0.043	GRAS
4208	340825.438	127638.144	1611.355	1611.41	0.055	GRAS
4209	340824.205	127640.768	1610.944	1611.17	0.226	DTCH ST
4210	340826.369	127641.951	1610.848	1611.17	0.322	DTCH
4211	340827.863	127639.172	1611.405	1611.37	-0.035	GRAS
4212	340828.776	127636.968	1611.721	1611.96	0.239	GRAS
4213	340830.231	127634.105	1611.986	1612.28	0.294	GRAS
4214	340831.234	127631.688	1612.426	1612.56	0.134	GRAS
4215	340832.117	127629.677	1612.836	1612.82	-0.016	GRAS
4216	340833.643	127626.677	1613.423	1613.44	0.017	GRAS
4217	340831.857	127623.473	1613.548	1613.55	0.002	SW ST
4218	340834.044	127624.49	1613.551	1613.47	-0.081	SW
4219	340836.09	127625.482	1613.574	1613.57	-0.004	SW
4220	340835.201	127627.819	1613.43	1613.39	-0.04	GRAS

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
4221	340834.313	127629.939	1612.977	1612.88	-0.097	GRAS
4222	340833.48	127631.501	1612.638	1612.65	0.012	GRAS
4223	340832.414	127634.115	1612.158	1612.41	0.252	GRAS
4224	340831.342	127636.087	1611.878	1612.16	0.282	GRAS
4225	340830.309	127638.165	1611.699	1611.86	0.161	GRAS
4226	340829.322	127640.358	1611.284	1611.35	0.066	GRAS
4227	340828.002	127642.755	1610.826	1611.08	0.254	DTCH
4228	340830.21	127644.542	1610.764	1611	0.236	DTCH
4229	340831.524	127642.105	1611.176	1611.32	0.144	GRAS
4230	340832.071	127640.324	1611.614	1611.54	-0.074	GRAS
4231	340833.116	127637.92	1611.831	1611.83	-0.001	GRAS
4232	340834.077	127635.56	1612.129	1612.22	0.091	GRAS
4233	340835.157	127633.143	1612.554	1612.55	-0.004	GRAS
4234	340835.786	127631.264	1612.895	1612.76	-0.135	GRAS
4235	340837.267	127628.228	1613.464	1613.42	-0.044	GRAS
4236	340838.093	127626.407	1613.571	1613.46	-0.111	SW
4237	340840.079	127627.326	1613.586	1613.49	-0.096	SW
4238	340839.14	127629.791	1613.334	1613.29	-0.044	GRAS
4239	340838.055	127631.745	1612.925	1613	0.075	GRAS
4240	340837.042	127633.759	1612.567	1612.72	0.153	GRAS
4241	340835.973	127636.095	1612.115	1612.31	0.195	GRAS
4242	340834.941	127638.149	1611.871	1611.94	0.069	GRAS
4243	340833.857	127640.282	1611.637	1611.72	0.083	GRAS
4244	340832.887	127642.556	1611.236	1611.39	0.154	GRAS
4245	340831.894	127645.193	1610.835	1611.01	0.175	DTCH
4246	340834.446	127646.54	1610.795	1610.96	0.165	DTCH
4247	340835.37	127644.112	1611.326	1611.34	0.014	GRAS
4248	340836.535	127641.425	1611.738	1611.76	0.022	GRAS
4249	340837.438	127639.718	1611.962	1612	0.038	GRAS
4250	340838.449	127637.491	1612.231	1612.29	0.059	GRAS
4251	340839.456	127635.208	1612.648	1612.56	-0.088	GRAS
4252	340840.367	127633.068	1612.96	1612.97	0.01	GRAS
4253	340841.618	127630.689	1613.478	1613.37	-0.108	GRAS
4254	340842.649	127628.599	1613.603	1613.53	-0.073	SW
4255	340845.6	127630.036	1613.63	1613.51	-0.12	SW
4256	340844.244	127632.037	1613.465	1613.35	-0.115	GRAS
4257	340843.451	127633.966	1612.956	1613	0.044	GRAS
4258	340842.405	127636.662	1612.659	1612.51	-0.149	GRAS
4259	340841.027	127638.727	1612.209	1612.25	0.041	GRAS
4260	340839.772	127641.154	1611.941	1612.08	0.139	GRAS
4261	340838.247	127643.938	1611.5	1611.54	0.04	GRAS
4262	340836.836	127646.021	1611.087	1611.17	0.083	GRAS
4263	340835.607	127648.834	1610.629	1610.92	0.291	DTCH
4264	340838.689	127649.99	1610.706	1611.12	0.414	DTCH
4265	340839.941	127647.393	1611.18	1611.3	0.12	GRAS
4266	340840.496	127645.938	1611.503	1611.5	-0.003	GRAS
4267	340841.687	127643.289	1611.911	1611.88	-0.031	GRAS
4268	340842.311	127641.655	1612.068	1612.08	0.012	GRAS
4269	340843.269	127639.53	1612.369	1612.44	0.071	GRAS
4270	340844.739	127636.34	1612.799	1612.71	-0.089	GRAS
4271	340845.373	127635.223	1613.157	1612.95	-0.207	GRAS
4272	340846.562	127633.151	1613.54	1613.31	-0.23	GRAS
4273	340847.628	127630.935	1613.639	1613.49	-0.149	SW

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
4274	341008.478	127770.326	1611.466	1611.66	0.194	XYZ
4275	341007.406	127767.95	1611.496	1611.96	0.464	XYZ
4276	341005.938	127765.594	1611.461	1611.9	0.439	XYZ
4277	341004.59	127763.374	1611.431	1611.68	0.249	XYZ
4278	341003.062	127760.995	1611.347	1611.42	0.073	XYZ
4279	341001.351	127758.303	1611.617	1611.65	0.033	XYZ
4280	340999.912	127756.322	1611.504	1611.64	0.136	XYZ
4281	341001.63	127755.183	1611.343	1611.6	0.257	XYZ
4282	341003.049	127757.518	1611.472	1611.3	-0.172	XYZ
4283	341004.335	127759.473	1611.336	1611.36	0.024	XYZ
4284	341005.51	127761.913	1611.476	1611.59	0.114	XYZ
4285	341006.799	127763.974	1611.473	1611.8	0.327	XYZ
4286	341008.041	127766.088	1611.503	1611.87	0.367	XYZ
4287	341009.303	127768.19	1611.429	1611.88	0.451	XYZ
4288	341010.218	127769.695	1611.246	1611.73	0.484	XYZ
4289	341012.301	127768.637	1611.368	1611.77	0.402	XYZ
4290	341011.052	127766.413	1611.399	1611.74	0.341	XYZ
4291	341009.978	127764.724	1611.573	1611.73	0.157	XYZ
4292	341008.595	127762.38	1611.527	1611.69	0.163	XYZ
4293	341007.542	127760.939	1611.449	1611.58	0.131	XYZ
4294	341006.331	127758.836	1611.296	1611.41	0.114	XYZ
4295	341004.992	127756.478	1611.278	1611.36	0.082	XYZ
4296	341003.821	127754.313	1611.306	1611.26	-0.046	XYZ
4297	341007.738	127752.556	1611.248	1611.43	0.182	XYZ
4298	341008.9	127754.388	1611.242	1611.56	0.318	XYZ
4299	341010.134	127756.317	1611.307	1611.61	0.303	XYZ
4300	341011.638	127758.269	1611.421	1611.54	0.119	XYZ
4301	341012.624	127760.122	1611.538	1611.51	-0.028	XYZ
4302	341013.731	127761.774	1611.412	1611.52	0.108	XYZ
4303	341015.062	127763.628	1611.51	1611.52	0.01	XYZ
4304	341016.025	127765.146	1611.446	1611.53	0.084	XYZ
4305	341017.229	127767.161	1611.467	1611.51	0.043	XYZ
4306	341019.407	127765.567	1611.5	1611.6	0.1	XYZ
4307	341018.364	127764.012	1611.482	1611.59	0.108	XYZ
4308	341016.933	127762.068	1611.38	1611.58	0.2	XYZ
4309	341015.632	127760.18	1611.391	1611.48	0.089	XYZ
4310	341014.351	127758.496	1611.283	1611.45	0.167	XYZ
4311	341013.359	127756.993	1611.266	1611.52	0.254	XYZ
4312	341012.225	127755.291	1611.324	1611.68	0.356	XYZ
4313	341011.151	127753.637	1611.424	1611.69	0.266	XYZ
4314	341009.906	127751.415	1611.344	1611.54	0.196	XYZ
4315	341011.648	127750.149	1611.531	1611.39	-0.141	XYZ
4316	341012.907	127751.75	1611.445	1611.43	-0.015	XYZ
4317	341014.316	127753.51	1611.404	1611.52	0.116	XYZ
4318	341015.537	127755.502	1611.201	1611.42	0.219	XYZ
4319	341016.742	127757.23	1611.124	1611.36	0.236	XYZ
4320	341017.963	127759.239	1611.164	1611.52	0.356	XYZ
4321	341019.112	127760.376	1611.294	1611.65	0.356	XYZ
4322	341020.514	127762.238	1611.531	1611.7	0.169	XYZ
4323	341021.641	127764.279	1611.61	1611.67	0.06	XYZ
4324	341023.916	127762.554	1611.618	1611.52	-0.098	XYZ
4325	341022.774	127760.764	1611.544	1611.64	0.096	XYZ
4326	341021.702	127758.932	1611.515	1611.68	0.165	XYZ

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
4327	341020.816	127757.265	1611.431	1611.52	0.089	XYZ
4328	341019.73	127755.789	1611.203	1611.36	0.157	XYZ
4329	341018.433	127753.813	1611.186	1611.34	0.154	XYZ
4330	341017.179	127751.988	1611.071	1611.24	0.169	XYZ
4331	341016.083	127750.55	1611.016	1611.19	0.174	XYZ
4332	341014.81	127748.796	1611.378	1611.35	-0.028	XYZ
4333	341013.912	127747.601	1611.462	1611.46	-0.002	XYZ
5000	520705.171	87236.363	1647.992	1647.96	-0.032	EA ST
5001	520701.65	87236.379	1647.985	1647.89	-0.095	EA
5002	520698.273	87236.58	1647.966	1647.9	-0.066	EA
5003	520695.175	87236.63	1647.945	1647.95	0.005	EA
5004	520691.482	87236.732	1647.933	1647.82	-0.113	EA
5005	520688.109	87236.717	1647.92	1647.87	-0.05	EA
5006	520688.038	87239.966	1647.986	1647.94	-0.046	ASPH
5007	520688.114	87243.126	1648.048	1648.04	-0.008	ASPH
5008	520688.41	87246.646	1648.099	1648.19	0.091	ASPH
5009	520688.421	87250.752	1648.026	1648.02	-0.006	ASPH
5010	520688.635	87254.555	1647.967	1647.95	-0.017	ASPH
5011	520688.698	87257.382	1647.875	1647.7	-0.175	EA ST
5012	520692.571	87257.357	1647.887	1647.92	0.033	EA
5013	520692.664	87253.892	1647.97	1647.94	-0.03	ASPH
5014	520692.542	87250.462	1648.047	1648.13	0.083	ASPH
5015	520692.544	87247.142	1648.093	1648.03	-0.063	ASPH
5016	520692.558	87244.004	1648.077	1648.07	-0.007	ASPH
5017	520692.365	87240.994	1648.016	1647.89	-0.126	ASPH
5018	520696.35	87240.474	1647.999	1647.97	-0.029	ASPH
5019	520696.353	87243.862	1648.066	1648	-0.066	ASPH
5020	520696.352	87246.815	1648.077	1648.27	0.193	ASPH
5021	520696.455	87249.663	1648.057	1648.11	0.053	ASPH
5022	520696.283	87253.358	1647.987	1648.07	0.083	ASPH
5023	520696.128	87257.243	1647.887	1647.88	-0.007	EA
5024	520699.093	87257.164	1647.923	1647.87	-0.053	EA
5025	520699.182	87253.977	1647.982	1647.85	-0.132	ASPH
5026	520699.105	87250.975	1648.032	1648.04	0.008	ASPH
5027	520699.085	87247.612	1648.08	1648.14	0.06	ASPH
5028	520699.062	87244.636	1648.091	1648.06	-0.031	ASPH
5029	520698.826	87240.702	1648.013	1647.98	-0.033	ASPH
5030	520703.014	87239.894	1648.024	1648.12	0.096	ASPH
5031	520703.185	87242.741	1648.06	1647.98	-0.08	ASPH
5032	520703.394	87245.294	1648.085	1647.98	-0.105	ASPH
5033	520703.576	87248.157	1648.078	1647.92	-0.158	ASPH
5034	520703.785	87251.189	1648.029	1647.83	-0.199	ASPH
5035	520704.008	87254.534	1647.996	1647.82	-0.176	ASPH
5036	520704.04	87256.944	1647.943	1647.93	-0.013	EA
5037	520706.99	87257.079	1647.946	1647.84	-0.106	EA
5038	520706.86	87254.412	1647.988	1647.85	-0.138	ASPH
5039	520706.704	87251.179	1648.033	1647.91	-0.123	ASPH
5040	520706.541	87247.488	1648.077	1647.87	-0.207	ASPH
5041	520706.394	87244.479	1648.077	1647.92	-0.157	ASPH
5042	520706.104	87241.226	1648.044	1648.06	0.016	ASPH
5043	520705.602	87238.227	1648.036	1647.99	-0.046	ASPH
5044	520861.748	87320.397	1647.862	1647.84	-0.022	GRAV
5045	520858.548	87320.853	1647.942	1647.91	-0.032	GRAV

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
5046	520855.523	87321.313	1647.86	1647.97	0.11	GRAV
5047	520851.774	87322.307	1647.815	1647.72	-0.095	GRAV
5048	520848.914	87323.381	1647.947	1647.86	-0.087	GRAV
5049	520844.015	87325.979	1648.034	1648.03	-0.004	GRAV
5050	520845.284	87331.182	1648.03	1647.95	-0.08	GRAV
5051	520849.011	87329.797	1647.889	1647.95	0.061	GRAV
5052	520852.281	87328.572	1647.96	1647.77	-0.19	GRAV
5053	520856.064	87327.294	1647.916	1647.84	-0.076	GRAV
5054	520860.399	87324.935	1647.895	1647.77	-0.125	GRAV
5055	520863.379	87323.578	1647.927	1647.83	-0.097	GRAV
5056	520865.167	87326.726	1647.927	1647.82	-0.107	GRAV
5057	520861.204	87327.729	1647.934	1647.92	-0.014	GRAV
5058	520857.368	87328.686	1647.932	1647.86	-0.072	GRAV
5059	520854.084	87330.099	1647.917	1647.87	-0.047	GRAV
5060	520849.774	87331.197	1647.865	1647.9	0.035	GRAV
5061	520845.671	87333.124	1648.002	1647.92	-0.082	GRAV
5062	520846.388	87337.818	1647.983	1647.87	-0.113	GRAV
5063	520850.576	87336.214	1647.838	1647.91	0.072	GRAV
5064	520854.835	87334.17	1647.982	1647.79	-0.192	GRAV
5065	520858.391	87332.57	1647.889	1647.82	-0.069	GRAV
5066	520861.636	87331.467	1647.931	1647.79	-0.141	GRAV
5067	520865.513	87329.894	1647.868	1647.82	-0.048	GRAV
5068	520868.619	87334.076	1647.761	1647.76	-0.001	GRAV
5069	520864.866	87334.965	1647.861	1647.95	0.089	GRAV
5070	520861.189	87335.914	1647.844	1647.87	0.026	GRAV
5071	520858.043	87336.94	1647.886	1647.79	-0.096	GRAV
5072	520853.28	87339.111	1647.888	1648	0.112	GRAV
5073	520849.862	87340.443	1647.871	1647.99	0.119	GRAV
5074	520850.824	87343.169	1647.933	1648.02	0.087	GRAV
5075	520854.048	87341.669	1647.859	1648.12	0.261	GRAV
5076	520858.029	87340.062	1647.859	1647.94	0.081	GRAV
5077	520861.024	87338.506	1647.729	1647.73	0.001	GRAV
5078	520864.434	87337.091	1647.836	1647.75	-0.086	GRAV
5079	520868.57	87337.108	1647.76	1647.69	-0.07	GRAV
5080	520872.57	87335.677	1647.757	1647.7	-0.057	GRAV
5081	520726.577	87157.377	1648.15	1648.58	0.43	TREL ST
5082	520727.214	87160.629	1648.179	1648.38	0.201	TREL
5083	520727.092	87163.696	1648.136	1648.52	0.384	TREL
5084	520727.157	87166.452	1648.387	1648.64	0.253	TREL
5085	520725.959	87170.402	1648.334	1648.82	0.486	TREL
5086	520725.656	87173.859	1648.086	1648.63	0.544	TREL
5087	520722.284	87171.752	1648.033	1648.61	0.577	XYZ
5088	520722.712	87168.403	1648.198	1648.47	0.272	XYZ
5089	520722.605	87165.824	1648.062	1648.33	0.268	XYZ
5090	520723.763	87163	1648.16	1648.34	0.18	XYZ
5091	520724.053	87160.536	1648.215	1648.5	0.285	XYZ
5092	520723.683	87157.482	1648.244	1648.72	0.476	XYZ
5093	520723.212	87155.003	1648.415	1648.73	0.315	XYZ
5094	520720.307	87155.399	1648.246	1648.46	0.214	XYZ
5095	520720.379	87157.951	1648.134	1648.41	0.276	XYZ
5096	520720.506	87160.397	1648.159	1648.37	0.211	XYZ
5097	520721.356	87161.55	1648.209	1648.42	0.211	XYZ
5098	520721.228	87164.984	1648.264	1648.26	-0.004	XYZ

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
5099	520720.998	87168.665	1648.302	1648.42	0.118	XYZ
5100	520717.941	87169.659	1648.084	1648.36	0.276	XYZ
5101	520718.006	87166.326	1648.099	1648.12	0.021	XYZ
5102	520718.293	87162.461	1648.171	1648.1	-0.071	XYZ
5103	520718.344	87158.587	1647.99	1648.19	0.2	XYZ
5104	520718.313	87155.03	1648.083	1648.27	0.187	XYZ
5105	520718.289	87151.427	1647.964	1648.34	0.376	XYZ
5106	520714.143	87151.129	1647.899	1648.11	0.211	XYZ
5107	520714.391	87154.322	1647.923	1647.98	0.057	XYZ
5108	520714.94	87155.931	1648.008	1647.97	-0.038	XYZ
5109	520714.672	87159.548	1648.05	1647.99	-0.06	XYZ
5110	520714.626	87162.676	1647.947	1648.01	0.063	XYZ
5111	520714.036	87166.592	1647.956	1648.01	0.054	XYZ
5112	520710.513	87171.368	1647.779	1648.15	0.371	XYZ
5113	520715.493	87174.409	1647.912	1648.17	0.258	XYZ
5114	520718.791	87176.396	1647.98	1648.29	0.31	XYZ
5115	520707.544	87169.515	1647.676	1648.16	0.484	XYZ
5116	520709.594	87163.803	1647.861	1648.13	0.269	XYZ
5117	520713.568	87164.777	1647.921	1648	0.079	XYZ
5118	520714.389	87160.428	1648.068	1647.99	-0.078	XYZ
5119	520711.511	87158.451	1648.382	1648.08	-0.302	XYZ
5120	520716.166	87154.777	1648.04	1648.05	0.01	XYZ
5121	520712.158	87153.266	1647.922	1648.1	0.178	XYZ
5122	520712.145	87149.441	1647.889	1648.06	0.171	XYZ
5123	520715.774	87149.096	1647.809	1648.15	0.341	XYZ
5124	520719.754	87148.821	1648.188	1648.31	0.122	XYZ
5125	520723.459	87147.632	1648.119	1648.45	0.331	XYZ
5126	520727.914	87147.227	1648.478	1648.45	-0.028	XYZ
5127	520728.805	87150.418	1648.42	1648.68	0.26	XYZ
5128	521932.851	87123.497	1650.029	1650.46	0.431	GRAS
5129	521929.592	87124.55	1650.087	1650.23	0.143	GRAS
5130	521926.632	87125.039	1650.006	1650.17	0.164	GRAS
5131	521923.961	87125.407	1650.064	1650.22	0.156	GRAS
5132	521921.18	87125.793	1649.982	1650.19	0.208	GRAS
5133	521918.574	87126.465	1649.99	1650.26	0.27	GRAS
5134	521918.7	87129.554	1650.077	1650.33	0.253	GRAS
5135	521921.787	87128.993	1650.051	1650.16	0.109	GRAS
5136	521924.237	87128.368	1650.155	1650.16	0.005	GRAS
5137	521926.666	87127.769	1650.12	1650.24	0.12	GRAS
5138	521929.293	87126.977	1650.12	1650.21	0.09	GRAS
5139	521932.186	87126.144	1650.125	1650.4	0.275	GRAS
5140	521933.558	87129.029	1650.223	1650.33	0.107	GRAS
5141	521930.477	87130.127	1650.15	1650.24	0.09	GRAS
5142	521927.913	87130.887	1650.131	1650.24	0.109	GRAS
5143	521925.384	87131.714	1650.097	1650.19	0.093	GRAS
5144	521922.857	87132.473	1649.965	1650.09	0.125	GRAS
5145	521919.655	87133.327	1649.897	1650.23	0.333	GRAS
5146	521920.472	87136.861	1649.832	1650.07	0.238	GRAS
5147	521923.216	87136.054	1649.837	1649.99	0.153	GRAS
5148	521926.028	87135.365	1649.969	1650.15	0.181	GRAS
5149	521929.357	87134.637	1650.197	1650.21	0.013	GRAS
5150	521932.108	87133.889	1650.149	1650.33	0.181	GRAS
5151	521934.749	87133.206	1650.056	1650.27	0.214	GRAS

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
5152	521935.801	87136.63	1650.059	1650.36	0.301	GRAS
5153	521932.036	87137.432	1650.083	1650.12	0.037	GRAS
5154	521929.022	87137.882	1649.989	1650.13	0.141	GRAS
5155	521925.446	87138.585	1649.864	1650.08	0.216	GRAS
5156	521921.974	87139.204	1649.802	1649.9	0.098	GRAS
5157	521919.503	87139.445	1649.871	1650.11	0.239	GRAS
5158	521919.735	87143.67	1649.775	1650.07	0.295	GRAS
5159	521923.319	87143.846	1649.828	1649.95	0.122	GRAS
5160	521925.956	87143.302	1649.853	1650.04	0.187	GRAS
5161	521929.704	87142.771	1649.864	1650.04	0.176	GRAS
5162	521932.082	87142.303	1650.03	1650.01	-0.02	GRAS
5163	521935.169	87141.602	1650.087	1650.23	0.143	GRAS
5164	521935.687	87144.079	1650.007	1650.26	0.253	GRAS
5165	521933.173	87145.129	1649.939	1650.18	0.241	GRAS
5166	521930.671	87145.264	1649.888	1650.06	0.172	GRAS
5167	521927.389	87145.564	1649.843	1650.01	0.167	GRAS
5168	521925.287	87145.738	1649.78	1650.03	0.25	GRAS
5169	521921.528	87145.547	1649.806	1649.95	0.144	GRAS
5170	521913.732	87146.053	1649.642	1650.16	0.518	XYZ
5171	521912.046	87149.529	1649.645	1649.98	0.335	XYZ
5172	521908.999	87151.696	1649.657	1650	0.343	XYZ
5173	521906.043	87153.561	1649.56	1649.83	0.27	XYZ
5174	521903.068	87155.048	1649.405	1649.56	0.155	XYZ
5175	521900.079	87157.533	1649.208	1649.44	0.232	XYZ
5176	521898.98	87154.486	1649.282	1649.52	0.238	XYZ
5177	521901.372	87153.211	1649.396	1649.76	0.364	XYZ
5178	521904.448	87150.645	1649.495	1649.86	0.365	XYZ
5179	521905.432	87148.412	1649.549	1649.9	0.351	XYZ
5180	521907.799	87147.088	1649.596	1650.18	0.584	XYZ
5181	521910.708	87144.428	1649.718	1650.24	0.522	XYZ
5182	521912.717	87142.382	1649.672	1650.06	0.388	XYZ
5183	521910.512	87139.487	1649.681	1650.19	0.509	XYZ
5184	521907.322	87141.428	1649.528	1649.97	0.442	XYZ
5185	521904.513	87143.916	1649.348	1649.91	0.562	XYZ
5186	521902.417	87146.797	1649.434	1649.84	0.406	XYZ
5187	521899.915	87149.586	1649.307	1649.76	0.453	XYZ
5188	521897.181	87150.667	1649.173	1649.8	0.627	XYZ
5189	521896.124	87146.829	1649.032	1649.67	0.638	XYZ
5190	521899.702	87144.795	1649.336	1649.79	0.454	XYZ
5191	521904.168	87142.437	1649.52	1650.02	0.5	XYZ
5192	521909.475	87139.906	1649.727	1650.15	0.423	XYZ
5193	521912.114	87137.437	1649.669	1650.22	0.551	XYZ
5194	521910.309	87133.417	1649.712	1650.2	0.488	XYZ
5195	521906.503	87134.479	1649.689	1650.08	0.391	XYZ
5196	521903.325	87135.701	1649.556	1650.05	0.494	XYZ
5197	521900.528	87136.94	1649.429	1649.95	0.521	XYZ
5198	521897.712	87137.723	1649.372	1649.74	0.368	XYZ
5199	521893.898	87139.03	1649.072	1649.64	0.568	XYZ
5200	521892.693	87142.618	1648.992	1649.46	0.468	XYZ
5201	521897.152	87141.294	1649.297	1649.98	0.683	XYZ
5202	521900.159	87138.875	1649.245	1649.78	0.535	XYZ
5203	521903.847	87135.948	1649.5	1650.03	0.53	XYZ
6000	543887.334	160611.987	1755.949	1756.19	0.241	ASPH

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
6001	543890.341	160611.917	1755.989	1756.41	0.421	ASPH
6002	543893.049	160611.82	1756.027	1756.54	0.513	ASPH
6003	543895.86	160611.762	1756.043	1756.34	0.297	ASPH
6004	543899.425	160611.587	1756.133	1756.38	0.247	ASPH
6005	543902.73	160611.534	1756.225	1756.46	0.235	ASPH
6006	543903.195	160615.316	1756.142	1756.53	0.388	ASPH
6007	543903.128	160618.594	1756.09	1756.41	0.32	ASPH
6008	543903.082	160621.772	1756.024	1756.56	0.536	ASPH
6009	543903.043	160625.052	1755.973	1756.51	0.537	ASPH
6010	543903.057	160628.73	1755.932	1756.14	0.208	ASPH
6011	543899.689	160629.282	1755.879	1756.17	0.291	ASPH
6012	543900.401	160624.943	1755.924	1756.23	0.306	ASPH
6013	543900.515	160621.415	1755.982	1756.45	0.468	ASPH
6014	543900.513	160618.319	1756.03	1756.62	0.59	ASPH
6015	543900.275	160614.704	1756.084	1756.4	0.316	ASPH
6016	543897.262	160614.566	1756.008	1756.24	0.232	ASPH
6017	543897.283	160617.8	1755.944	1756.36	0.416	ASPH
6018	543897.368	160621.038	1755.93	1756.09	0.16	ASPH
6019	543897.387	160624.057	1755.91	1756.04	0.13	ASPH
6020	543897.438	160626.955	1755.883	1756.26	0.377	ASPH
6021	543897.557	160629.966	1755.836	1756.27	0.434	ASPH
6022	543894.502	160630.133	1755.809	1756.03	0.221	ASPH
6023	543894.446	160626.289	1755.838	1756.36	0.522	ASPH
6024	543894.212	160623.192	1755.858	1755.96	0.102	ASPH
6025	543894.278	160620.263	1755.904	1756.25	0.346	ASPH
6026	543894.244	160617.231	1755.943	1756.34	0.397	ASPH
6027	543894.298	160614.29	1756.002	1756.11	0.108	ASPH
6028	543890.592	160614.005	1755.952	1756.1	0.148	ASPH
6029	543890.61	160617.123	1755.884	1756.13	0.246	ASPH
6030	543890.371	160619.855	1755.856	1756.34	0.484	ASPH
6031	543890.377	160622.639	1755.827	1756.06	0.233	ASPH
6032	543890.38	160625.735	1755.777	1756.16	0.383	ASPH
6033	543890.437	160629.66	1755.762	1755.96	0.198	ASPH
6034	543886.929	160629.713	1755.717	1755.98	0.263	ASPH
6035	543886.91	160626.996	1755.735	1756.17	0.435	ASPH
6036	543886.825	160624.475	1755.771	1755.97	0.199	ASPH
6037	543886.536	160621.719	1755.793	1755.89	0.097	ASPH
6038	543886.509	160618.972	1755.824	1755.98	0.156	ASPH
6039	543886.472	160616.263	1755.875	1755.9	0.025	ASPH
6040	543886.318	160613.616	1755.905	1755.96	0.055	ASPH
6041	543885.999	160611.833	1755.928	1756.16	0.232	ASPH
6042	543855.744	160681.104	1754.796	1754.79	-0.006	EA ST
6043	543852.943	160681.108	1754.746	1754.77	0.024	EA
6044	543850.345	160681.238	1754.689	1754.67	-0.019	EA
6045	543847.963	160681.493	1754.625	1754.59	-0.035	EA
6046	543845.538	160681.934	1754.564	1754.62	0.056	EA
6047	543843.169	160682.411	1754.553	1754.62	0.067	EA
6048	543841.489	160682.659	1754.51	1754.5	-0.01	EA
6049	543841.286	160679.983	1754.468	1754.58	0.112	EA
6050	543840.875	160677.504	1754.427	1754.52	0.093	EA
6051	543840.489	160674.958	1754.419	1754.49	0.071	EA
6052	543841.53	160685.164	1754.496	1754.64	0.144	GRAS
6053	543844.31	160684.892	1754.565	1754.56	-0.005	GRAS

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
6054	543846.802	160684.577	1754.648	1754.63	-0.018	GRAS
6055	543849.402	160684.125	1754.691	1754.66	-0.031	GRAS
6056	543852.517	160683.714	1754.768	1754.89	0.122	GRAS
6057	543855.374	160683.602	1754.929	1754.98	0.051	GRAS
6058	543855.156	160686.99	1754.905	1754.92	0.015	GRAS
6059	543851.1	160687.243	1754.764	1754.88	0.116	GRAS
6060	543847.944	160687.545	1754.638	1754.77	0.132	GRAS
6061	543844.649	160687.589	1754.524	1754.55	0.026	GRAS
6062	543841.125	160687.482	1754.529	1754.47	-0.059	GRAS
6063	543840.757	160691.03	1754.416	1754.38	-0.036	GRAS
6064	543844.585	160691.618	1754.456	1754.47	0.014	GRAS
6065	543847.714	160691.449	1754.575	1754.69	0.115	GRAS
6066	543851.458	160691.358	1754.718	1754.76	0.042	GRAS
6067	543855.095	160691.237	1754.909	1754.99	0.081	GRAS
6068	543854.895	160695.623	1754.91	1754.98	0.07	GRAS
6069	543850.82	160695.754	1754.703	1754.6	-0.103	GRAS
6070	543847.327	160695.768	1754.565	1754.59	0.025	GRAS
6071	543844.129	160695.959	1754.452	1754.51	0.058	GRAS
6072	543840.901	160696.107	1754.441	1754.44	-0.001	GRAS
6073	543838.261	160696.372	1754.523	1754.47	-0.053	GRAS
6074	543837.983	160700.328	1754.493	1754.48	-0.013	GRAS
6075	543841.712	160700.842	1754.324	1754.49	0.166	GRAS
6076	543845.439	160700.792	1754.421	1754.61	0.189	GRAS
6077	543848.793	160700.622	1754.68	1754.76	0.08	GRAS
6078	543851.995	160700.392	1754.866	1755.01	0.144	GRAS
6079	543854.735	160700.287	1754.948	1755.02	0.072	GRAS
6080	543858.321	160700.319	1755.254	1755.25	-0.004	GRAS
6081	543933.754	160587.002	1756.138	1756.6	0.462	TREL ST
6082	543931.462	160582.969	1756.423	1756.61	0.187	TREL
6083	543929.962	160580.018	1756.45	1756.97	0.52	TREL
6084	543928.112	160576.962	1756.935	1757.02	0.085	TREL
6085	543926.649	160574.087	1756.843	1757.17	0.327	TREL
6086	543925.967	160572.263	1756.442	1757.17	0.728	TREL
6087	543929.479	160571.092	1756.258	1756.81	0.552	XYZ
6088	543931.404	160573.361	1756.585	1756.9	0.315	XYZ
6089	543933.072	160576.385	1756.879	1757.06	0.181	XYZ
6090	543934.067	160578.857	1756.727	1757.08	0.353	XYZ
6091	543935.204	160580.928	1756.277	1756.66	0.383	XYZ
6092	543936.002	160582.76	1756.347	1756.66	0.313	XYZ
6093	543936.718	160585.325	1755.995	1756.36	0.365	XYZ
6094	543938.111	160588.551	1755.975	1756.44	0.465	XYZ
6095	543941.514	160588.452	1755.841	1756.53	0.689	XYZ
6096	543945.578	160588.036	1756.003	1756.34	0.337	XYZ
6097	543948.939	160589.047	1756.413	1756.62	0.207	XYZ
6098	543952.307	160588.864	1756.93	1756.69	-0.24	XYZ
6099	543950.998	160585.229	1756.573	1756.97	0.397	XYZ
6100	543949.492	160585.39	1756.463	1756.91	0.447	XYZ
6101	543945.724	160585.752	1756.456	1756.62	0.164	XYZ
6102	543942.757	160586.004	1755.997	1756.5	0.503	XYZ
6103	543939.989	160586.513	1755.728	1756.4	0.672	XYZ
6104	543939.443	160583.581	1756.087	1756.47	0.383	XYZ
6105	543937.761	160581.103	1756.37	1756.68	0.31	XYZ
6106	543936.473	160578.875	1756.742	1757.09	0.348	XYZ


<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
6107	543935.169	160576.54	1757.066	1757.31	0.244	XYZ
6108	543933.936	160574.015	1757.144	1757.28	0.136	XYZ
6109	543933.233	160571.705	1756.881	1756.79	-0.091	XYZ
6110	543932.341	160569.393	1756.219	1756.65	0.431	XYZ
6111	543935.895	160568.805	1757.069	1757.06	-0.009	XYZ
6112	543936.859	160571.827	1757.029	1757.83	0.801	XYZ
6113	543937.651	160574.157	1757.014	1757.4	0.386	XYZ
6114	543938.543	160577	1757.091	1757.32	0.229	XYZ
6115	543939.527	160579.59	1756.658	1757.11	0.452	XYZ
6116	543940.455	160582.378	1756.361	1756.68	0.319	XYZ
6117	543941.722	160584.948	1756.191	1756.47	0.279	XYZ
6118	543946.768	160584.995	1756.145	1756.76	0.615	XYZ
6119	543945.411	160581.566	1756.34	1756.9	0.56	XYZ
6120	543944.625	160579.375	1756.763	1757.29	0.527	XYZ
6121	543942.872	160577.577	1756.919	1757.3	0.381	XYZ
6122	543941.552	160574.892	1756.85	1757.16	0.31	XYZ
6123	543940.444	160573.406	1756.722	1757.22	0.498	XYZ
6124	543939.653	160571.022	1756.909	1757.5	0.591	XYZ
6125	543939.335	160568.649	1756.997	1757.12	0.123	XYZ
6126	544570.308	160592.104	1785.28	1785.3	0.02	GRAV
6127	544573.218	160590.547	1785.614	1785.4	-0.214	GRAV
6128	544574.759	160589.322	1785.679	1785.54	-0.139	GRAV
6129	544577.139	160587.81	1785.75	1785.61	-0.14	GRAV
6130	544579.26	160586.307	1785.778	1785.76	-0.018	GRAV
6131	544581.04	160585.182	1785.929	1785.89	-0.039	GRAV
6132	544583.133	160583.964	1785.928	1785.94	0.012	GRAV
6133	544585.217	160582.585	1785.857	1785.98	0.123	GRAV
6134	544587.593	160581.278	1786.095	1786.12	0.025	GRAV
6135	544586.437	160579.163	1785.977	1785.96	-0.017	GRAV
6136	544584.179	160580.382	1785.966	1785.86	-0.106	GRAV
6137	544582.398	160581.697	1785.758	1785.84	0.082	GRAV
6138	544580.679	160582.845	1785.878	1785.71	-0.168	GRAV
6139	544578.455	160584.14	1785.664	1785.63	-0.034	GRAV
6140	544576.211	160585.634	1785.597	1785.48	-0.117	GRAV
6141	544574.402	160586.852	1785.43	1785.38	-0.05	GRAV
6142	544572.173	160588.108	1785.361	1785.35	-0.011	GRAV
6143	544569.227	160589.7	1785.44	1785.06	-0.38	GRAV
6144	544567.536	160587.32	1785.038	1785.09	0.052	GRAV
6145	544570.169	160585.535	1785.081	1785.11	0.029	GRAV
6146	544572.365	160584.284	1785.174	1785.12	-0.054	GRAV
6147	544574.5	160582.972	1785.371	1785.23	-0.141	GRAV
6148	544577.347	160581.623	1785.484	1785.41	-0.074	GRAV
6149	544579.931	160580.326	1785.67	1785.69	0.02	GRAV
6150	544581.894	160579.239	1785.67	1785.75	0.08	GRAV
6151	544583.981	160578.314	1785.836	1785.78	-0.056	GRAV
6152	544585.984	160576.957	1785.937	1785.89	-0.047	GRAV
6153	544584.396	160574.028	1785.772	1785.7	-0.072	GRAV
6154	544581.58	160575.401	1785.571	1785.71	0.139	GRAV
6155	544579.472	160576.557	1785.428	1785.46	0.032	GRAV
6156	544576.974	160578.085	1785.5	1785.36	-0.14	GRAV
6157	544574.948	160579.595	1785.269	1785.45	0.181	GRAV
6158	544572.831	160580.893	1785.069	1785.14	0.071	GRAV
6159	544570.769	160582.188	1785.001	1784.94	-0.061	GRAV

<i>Number</i>	<i>Easting</i>	<i>Northing</i>	<i>Known Z</i>	<i>Laser Z</i>	<i>Delta Z</i>	<i>Landcover Type</i>
6160	544568.887	160583.17	1784.898	1784.9	0.002	GRAV
6161	544567.309	160584.256	1784.929	1784.73	-0.199	GRAV
6162	544564.76	160585.772	1784.938	1784.83	-0.108	GRAV
6163	544562.707	160583.457	1784.62	1784.55	-0.07	GRAV
6164	544565.347	160581.329	1784.628	1784.54	-0.088	GRAV
6165	544567.649	160579.915	1784.874	1784.78	-0.094	GRAV
6166	544570.046	160578.499	1784.862	1784.83	-0.032	GRAV
6167	544571.97	160577.213	1784.965	1784.97	0.005	GRAV
6168	544574.247	160575.65	1785.033	1785.07	0.037	GRAV
6169	544576.095	160574.35	1784.996	1785.18	0.184	GRAV
6170	544578.521	160572.979	1785.328	1785.42	0.092	GRAV
6171	544580.703	160571.45	1785.506	1785.44	-0.066	GRAV
6172	544583.056	160569.817	1785.484	1785.53	0.046	GRAV
6173	544581.773	160567.085	1785.26	1785.3	0.04	GRAV
6174	544578.597	160568.205	1785.127	1785.14	0.013	GRAV
6175	544576.233	160569.351	1785.118	1784.99	-0.128	GRAV
6176	544574.133	160570.927	1785.029	1784.86	-0.169	GRAV
6177	544571.589	160572.551	1784.904	1784.88	-0.024	GRAV
6178	544568.956	160574.226	1784.743	1784.88	0.137	GRAV
6179	544566.688	160575.93	1784.818	1784.61	-0.208	GRAV
6180	544563.825	160577.435	1784.535	1784.4	-0.135	GRAV
6181	544561.09	160579.352	1784.455	1784.42	-0.035	GRAV
6182	544559.063	160577.135	1784.28	1784.21	-0.07	GRAV
6183	544561.947	160574.944	1784.454	1784.49	0.036	GRAV
6184	544564.646	160573.638	1784.578	1784.57	-0.008	GRAV
6185	544566.48	160572.45	1784.629	1784.56	-0.069	GRAV
6186	544568.487	160571.195	1784.583	1784.62	0.037	GRAV
6187	544570.24	160569.842	1784.777	1784.74	-0.037	GRAV
6188	544572.654	160568.713	1784.813	1784.76	-0.053	GRAV
6189	544574.945	160567.153	1784.935	1784.78	-0.155	GRAV
6190	544577.258	160565.642	1784.995	1784.96	-0.035	GRAV
6191	544578.964	160564.574	1785.092	1785.11	0.018	GRAV

Field Notes

Project FEMA ground survey notes
 Contains point number and descriptions
 Includes Control and Check Points not included in statistical analysis

PAGE	REFERENCE	DATE
2-4	BASE SETUPS	
8-9	INDEX POINTS W/ DESCRIPTIONS	
	SEE KML FILE 1-6	
10-B	FEMA MAPPING AREAS FOR GROUND TRUTHING 100-601, 1000-6191	
	COORDINATES ARE P, N, E, Z, C	
	FORMAT	
	WELLS	
	WILCOX	
	74.58 GNSS MODEL -3	
	75.53 TRIMBLE 5-6	
	POINT # 10001, SHOT ON LANDPORT GPS	
	# 10000, SHOT ON QM0811	
	# 10002, SHOT ON ER AZMK	
	# 10003, SHOT ON ER GAS	



Name _____

Address _____

Phone _____

Project _____

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J.L. Daring Corporation.

2	5-13-13	EAGLE RIVER AZ MARK Receiver GX1210 S# 464398 ANT. AX1202GG S# 06380076 1.8M TO ARP 6:05 AM - 7:25 PM		
	74.87			
	5-13-13	EAGLE RIVER GPS Receiver GX1230 S# 464603 ANT. AX1202GG S# 06440109 1.8M TO ARP 6:22 AM - 7:31 PM		
	74.95			
	5-13-13	HILES RECEIVER GX1230 S# 464602 ANT. AX1202GG S# 06380076 1.8M TO ARP 7:07 AM - 6:40 PM		
	74.88			
3	5-14-13	EAGLE RIVER AZ MARK (1) Receiver GX1230 S# 464603 ANT. AX1202GG S# 06440109 1.8M TO ARP 6:06 AM - 7:13 PM		
	74.87			
	5-14-13	EAGLE RIVER GPS (2) Receiver GX1210 S# 464398 ANT. AX1202GG S# 06380076 1.8M TO ARP 6:17 AM - 7:17 PM		
	74.88			
	5-14-13	HILES (3) RECEIVER GX1230 S# 464602 ANT. AX1202GG S# 06380076 1.8M TO ARP 6:58 AM - 6:15 PM		

4

#7187
#7185
001

5-15-13

EAGLE RIVER AZ MARK 001
1.8 M TO ARP

~~6:07~~ 6:20 AM - 12:20 AM
RELIEVER GX1230 464398
ANTENNA AX120266 06380076

74.90

GPS
EAGLE RIVER GPS
1.8 M TO ARP

6:30 AM - 12:27 AM 5-16-13
RELIEVER GX1230 464803
ANTENNA AX120266 06440109

7188

HILES
1.8 M TO ARP
7:10 AM - 10:18 PM

RELIEVER GX1230 464603
ANTENNA AX120266 06380040

5

8

7- INDEX 7, SET PK NAIL IN CENTER OF END OF WHITE STRIPE, SW QUAD OF STH 70 & CTH H, SHOT AS POINT # 7. TOOK 2 PICS 1 N / 2 E BLACKTOP SURFACE

5- INDEX 5, SET PK NAIL IN CENTER OF END OF WHITE STRIPE, NE QUAD OF STH 70 & S. ANVIL LAKE RD AS POINT # 5 TOOK 2 PICS 1 W / 2 N BLACKTOP SURFACE

2- INDEX 2, SET PK NAIL IN CENTER OF END OF WHITE STRIPE (WEST END) IN BETWEEN ENTRANCES TO SMOKEY LAKE BOAT LANDING PARKING LOT. SHOT AS # 2, TOOK 2 PICS 1 W / 2 N BLACKTOP SURFACE

1- INDEX 1 SET PK IN CENTER OF END OF WHITE STRIPE, NW QUAD OF CTH O & OLD HWY O, 100' S OF WISCONSIN MICHIGAN STATE LINE, TOOK 2 PICS 1 W / 2 S BLACKTOP SURFACE

9

3- INDEX 3 SET PK IN ~~WEST~~ ^{MAIN} & CTH M, 2 PICS 1 NE / 2 W

4- INDEX 4 SET PK IN END OF LT TURN ARROW & LITTLE PINES RD & STH 47, TO TURN ONTO LITTLE PINES RD @ CASINO LT TURN OFF OF EB STH 47. PIC 1 E / PIC 2 SE BLACKTOP SURFACE

6- INDEX 6 SET PK IN CENTER OF END OF WHITE STRIPE SW QUAD OF HWY TO 1 W, SQUAW LAKE RD. 1 PIC NUB / 2 PIC SE BLACKTOP SURFACE

Page	Date	Notes	Page
10	5-13-13	FEMA 5 - SET CP'S 500 & 501, B5 500 4.44 BN 501 5.10' 500-5043 ASPHALT ONEIDA FARMS RD 5044-5080 GRAVEL PIT BOTTOM (STRIPPED) 5081-5127 TALL OPEN PINES (RED & WHITE) 501 4.05 BN 500 5.10' 5128-5169 MOWED GRASS 5170-5203 BLACKBERRY BRUSH	11
	5-15-13	FEMA 2 - SET CP'S 800 & 201, B5 801 4.51 BN 200 5.10' 200-2046 GRAVEL PARKING LOT W/GPS 2047-2117 MOWED GRASS 2118-2181 ASPHALT RD 2182-2244 DENSE TREES (MIXED) 2245-2285 OPEN TREES (BIG RED PINES)	
	5-14-13	FEMA 6 - SET CP'S 600 & 601, B5 600 4.52 BN 601 5.10' 600-6041 ASPHALT PARKING LOT 6042-6057 EDGE OF ASPHALT @ GRASS 6058-6080 SHOTS ON MOWED GRASS 6081-6125 OPEN HARDWOODS 6126-6191 GRAVEL PARKING LOT W/GPS	
		FEMA 1 - SET CP'S 100 & 101, B5 101 4.62 BN 100 5.10' 100-1060 XYZ IN OPEN 30 Y.O. Red Pines 1061-1181 ASPHALT RD 1182-1175 GRASS (MOWED) 1176-1231 GRAVEL DRIVEWAY	
		FEMA 3 - RTK GPS 3000-3067 MOWED GRASS 3068-3136 GRAVEL DRIVEWAY 3137-3186 ASPHALT ON RD 3187-3240 THICK B'TALL JACK PINES	

5-16-13
 FENA 4 - SET CPs 400 + 401
 T BS
 401 456 BN 400 5.10
 400 - 4062 25 % Red Pine Plantation
 4063 - 4155 ASPHALT RD
 4156 - 4202 MIXED TREE THICK UNDERBRUSH
 4203 - 4273 Mowed GRASS W/ SIDEWALK
 4274 - 4333 OPEN LARGE WHITE PINES

Field Photos

Identify land cover types present at each survey location





