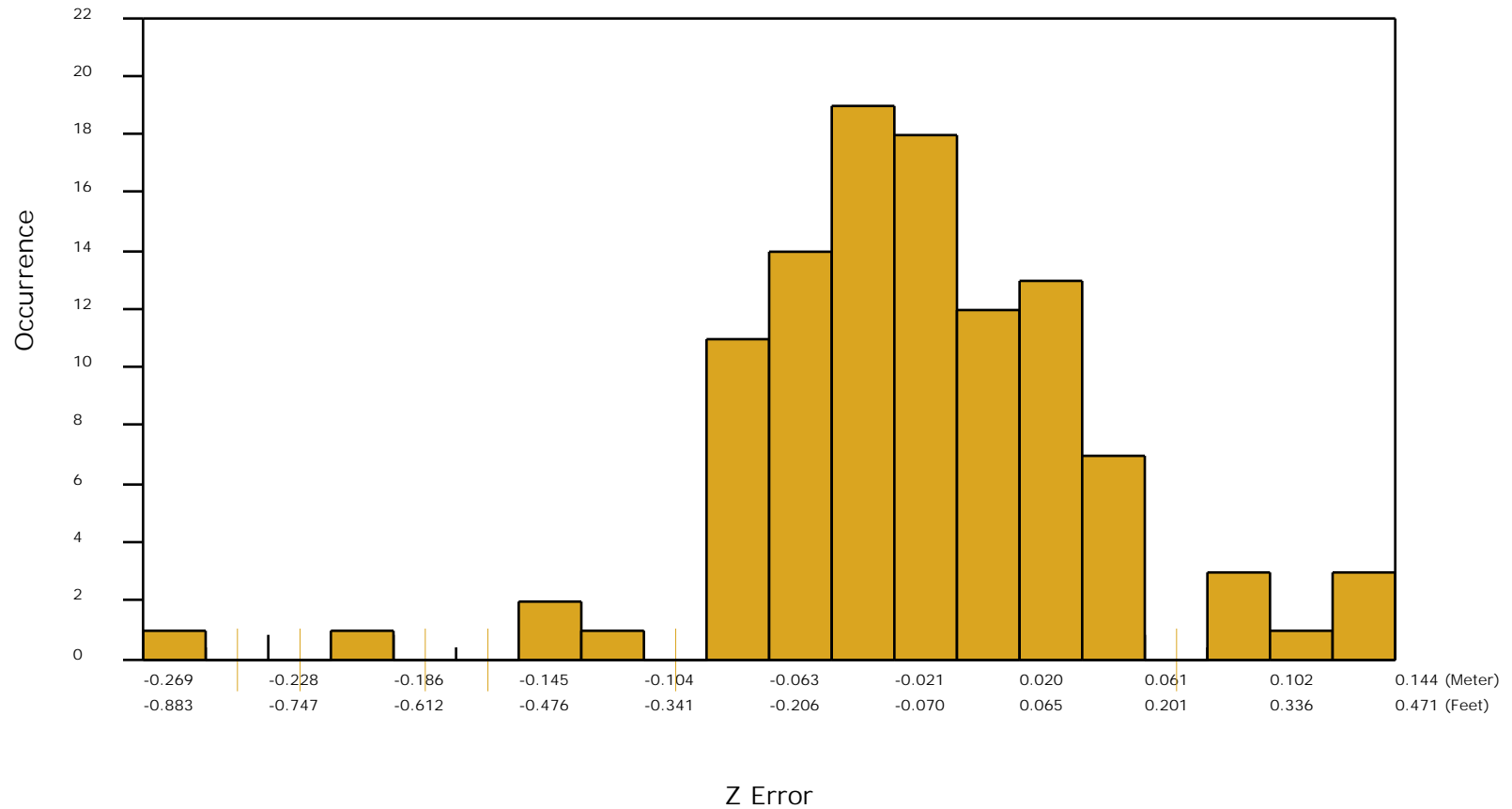


DPH-11 Report on Absolute Vertical Accuracy - continued

The purpose of this section is to show a frequency distribution chart of the non-vegetated vertical accuracy (NVA) of the lidar point cloud data measured against surveyed ground check points.

[Data Source - Y:\Mapping\Projects\65220171_USGS-TX_West_Texas\Production\Final_Client_Deliverables\Lot9_utm13\point_cloud\tilecls](#)

NVA (lidar data)



DPH-11 Report on Absolute Vertical Accuracy - continued

The purpose of this section is to report the results of measuring the DEM data against surveyed ground NVA (nonvegetated vertical accuracy) check points. All XY coordinates and Z values reported are in the selected data units.

NVA (DEM)

ID	X	Y	Coverage	Z	Z From Lidar	Z Error	Description	Comments
1004	658479.864	3240043.379	Yes	1112.147	1112.088	-0.059		
1006	628366.402	3359058.829	Yes	1367.001	1366.898	-0.103		
1007	607516.467	3349821.71	Yes	1494.228	1494.157	-0.071		
1011	665037.202	3239093.257	Yes	1641.018	1640.770	-0.248		
1013	619824.002	3374515.642	Yes	1351.838	1351.743	-0.095		
1020	650473.134	3377094.501	Yes	1204.628	1204.587	-0.041		
1022	559562.486	3270239.897	Yes	784.431	784.469	0.038		
1023	592973.378	3394827.268	Yes	1891.471	1891.446	-0.025		
1024	601055.845	3260481.567	Yes	1266.677	1266.673	-0.004		
1027	642457.042	3246108.726	Yes	800.354	800.284	-0.070		
1028	590251.625	3378246.25	Yes	1648.947	1648.987	0.040		
1029	607965.347	3336789.666	Yes	1442.539	1442.539	0.000		
1029A	607965.52	3336792.719	Yes	1442.52	1442.489	-0.031		
1032	658178.473	3261575.974	Yes	1043.441	1043.377	-0.064		
1033	642382.896	3360521.222	Yes	1366.27	1366.324	0.054		
1042	639318.577	3274484.762	Yes	1019.583	1019.605	0.022		
1045	642589.561	3261570.641	Yes	1009.726	1009.640	-0.086		
1046	615947.17	3238147.524	Yes	714.36	714.305	-0.055		
1047	608140.872	3387438.826	Yes	1460.563	1460.584	0.021		
1055	636485.051	3326659.88	Yes	1333.893	1333.829	-0.064		
1056	612586.64	3270771.752	Yes	1338.704	1338.676	-0.028		
1057	594370.113	3244690.4	Yes	823.082	823.100	0.018		
1060A	577656.981	3268580.515	Yes	872.165	872.213	0.048		
1074	647821.166	3243024.986	Yes	865.23	865.176	-0.054		
1077	650330.846	3218935.06	Yes	697.832	697.894	0.062		
1081	679672.767	3239332.562	Yes	951.759	951.666	-0.093		
1085	584758.221	3397179.771	Yes	1815.306	1815.226	-0.080		
1090	594052.054	3329639.16	Yes	1303.246	1303.213	-0.033		
1090A	594041.678	3329635.498	Yes	1303.058	1303.101	0.043		
1095	677685.97	3286038.667	Yes	857.89	857.878	-0.012		

Check Points Vertical Accuracy - continued

ID	X	Y	Coverage	Z	Z From Lidar	Z Error	Description	Comments
1096A	616547.583	3400574.953	Yes	1320.155	1320.156	0.001		
1112	679968.802	3253263.704	Yes	867.813	867.758	-0.055		
1117	583655.977	3251405.48	Yes	758.079	758.036	-0.043		
1118	595824.269	3294608.995	Yes	1090.988	1090.968	-0.020		
1119	600108.746	3373933.007	Yes	1540.635	1540.716	0.081		
1121	665285.209	3248528.108	Yes	1121.34	1121.358	0.018		
1127	643913.594	3255034.582	Yes	955.806	955.758	-0.048		
1127VOID	643913.595	3255034.579	Yes	955.716	955.758	0.042		
1132	629863.025	3367980.037	Yes	1298.89	1298.979	0.089		
1136	570713.176	3266083.883	Yes	780.725	780.687	-0.038		
1153	684917.516	3236866.548	Yes	784.943	784.865	-0.078		
1161	603803.046	3381434.82	Yes	1497.495	1497.607	0.112		
1165	593926.387	3323470.869	Yes	1278.056	1278.030	-0.026		
1165A	593920.847	3323465.902	Yes	1277.994	1277.958	-0.036		
1168	659153.542	3284832.036	Yes	1116.321	1116.356	0.035		
1172	637364.551	3293992.679	Yes	1197.428	1197.393	-0.035		
1173	616552.629	3378606.737	Yes	1387.924	1387.915	-0.009		
1177	680482.139	3272986.408	Yes	824.455	824.393	-0.062		
1186	674205.73	3245694.553	Yes	1137.03	1136.993	-0.037		
1195	612186.919	3241520.688	Yes	767.852	767.818	-0.034		
1198	622883.898	3261732.982	Yes	1190.755	1190.795	0.040		
1201	636876.088	3310476.698	Yes	1213.825	1213.849	0.024		
1203	678466.052	3279968.768	Yes	812.911	812.840	-0.071		
1205	606887.036	3338475.046	Yes	1438.029	1437.817	-0.212		
1205A	602285.403	3335506.437	Yes	1412.543	1412.462	-0.081		
1208	636586.353	3284555.03	Yes	1109.461	1109.457	-0.004		
1211	688791.395	3278684.436	Yes	769.002	768.989	-0.013		
1216	641083.475	3268317.311	Yes	1048.904	1048.838	-0.066		
1217	622244.454	3361719.799	Yes	1411.552	1411.545	-0.007		
1219	693115.625	3236930.106	Yes	694.247	694.238	-0.009		
1225	604011.484	3343252.691	Yes	1433.957	1433.915	-0.042		
1232	625451.239	3371171.705	Yes	1313.554	1313.555	0.001		
1234	637619.134	3298025.46	Yes	1153.712	1153.707	-0.005		
1235	607865.573	3339155.721	Yes	1443.462	1443.403	-0.059		
1242	652604.796	3401870.213	Yes	1076.313	1076.463	0.150		

Check Points Vertical Accuracy - continued

ID	X	Y	Coverage	Z	Z From Lidar	Z Error	Description	Comments
1257A	594225.244	3353505.696	Yes	1429.499	1429.635	0.136		
1271	637951.429	3345039.285	Yes	1577.423	1577.423	0.000		
1272	637371.309	3305199.265	Yes	1158.444	1158.462	0.018		
1278	636539.759	3335338.79	Yes	1436.994	1436.938	-0.056		
1285	597152.251	3366036.419	Yes	1528.324	1528.416	0.092		
1289	592758.18	3309425.897	Yes	1212.725	1212.652	-0.073		
1289A	592779.768	3309392.406	Yes	1211.992	1211.995	0.003		
1292	613542.791	3349126.451	Yes	1547.09	1547.083	-0.007		
1293	635758.844	3227438.239	Yes	678.174	678.266	0.092		
1294	639336.263	3319383.853	Yes	1271.664	1271.650	-0.014		
1296	606013.853	3300143.485	Yes	1257.208	1257.152	-0.056		
1299	613977.513	3246700.271	Yes	850.692	850.630	-0.062		
1300	589854	3342572.043	Yes	1375.64	1375.598	-0.042		
1300A	589893.301	3342553.19	Yes	1375.105	1375.103	-0.002		
1308	654916.069	3347135.304	Yes	1335.585	1335.628	0.043		
1313	653520.258	3232254.279	Yes	977.059	977.077	0.018		
1314	647158.205	3225520.645	Yes	725.416	725.463	0.047		
1327	631136.847	3281758.345	Yes	1040.532	1040.565	0.033		
1335	634665.685	3243377.267	Yes	826.496	826.499	0.003		
1345	629144.574	3277598.309	Yes	1069.544	1069.557	0.013		
1346	595563.745	3360973.217	Yes	1478.979	1479.104	0.125		
1348	681095.422	3263060.386	Yes	898.883	898.852	-0.031		
110103	599896.724	3322235.582	Yes	1268.629	1268.567	-0.062		
110104	602430.176	3315608.047	Yes	1303.886	1303.904	0.018		
112103	646338.53	3274925.14	Yes	1001.666	1001.559	-0.107		
115101	609374.214	3264881.361	Yes	1371.412	1371.403	-0.009		
115102	588415.489	3262927.564	Yes	1116.967	1116.910	-0.057		
116103	588325.397	3284853.254	Yes	1082.412	1082.286	-0.126		
116105	585605.887	3285671.583	Yes	1055.873	1055.901	0.028		
117101	631651.572	3255800.796	Yes	896.482	896.456	-0.026		
117102	648607.037	3243758.943	Yes	876.677	876.629	-0.048		
117105	652435.229	3215422.221	Yes	643.109	643.133	0.024		
118102	646031.968	3284241.107	Yes	1112.535	1112.499	-0.036		
118105	636894.437	3310445.187	Yes	1213.846	1213.800	-0.046		
1051001	634610.091	3352893.627	Yes	1568.224	1568.228	0.004		

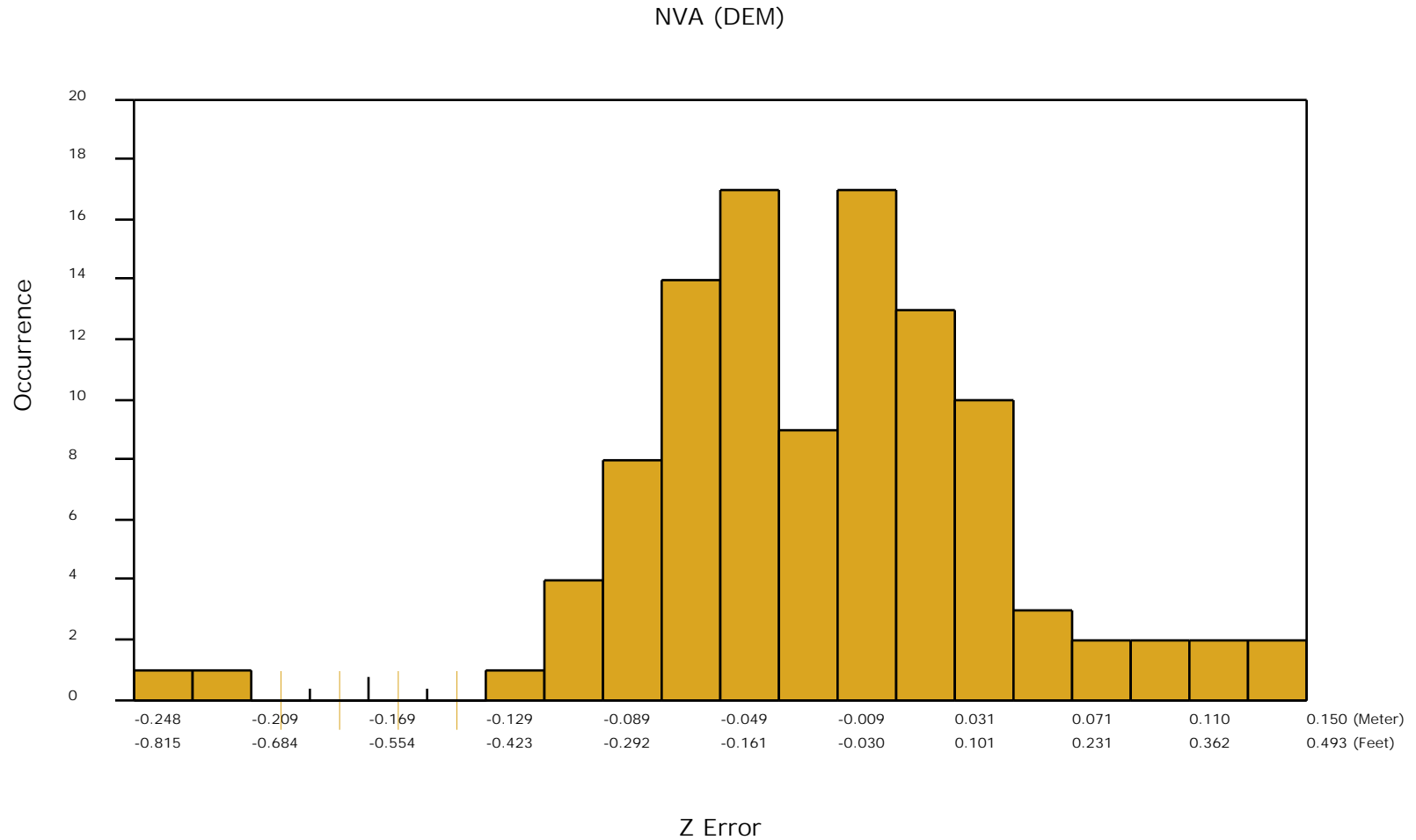
Check Points Vertical Accuracy - continued

ID	X	Y	Coverage	Z	Z From Lidar	Z Error	Description	Comments
1051007	633836.334	3342329.815	Yes	1503.331	1503.384	0.053		
1051013	651634.063	3268611.842	Yes	1038.287	1038.279	-0.008		
1051017	656398.971	3266191.15	Yes	1013.424	1013.452	0.028		
1051020	660089.407	3276152.236	Yes	975.786	975.813	0.027		
1061003	601455.237	3335007.262	Yes	1406.659	1406.664	0.005		
1061009	592684.887	3335568.002	Yes	1324.959	1324.920	-0.039		

DPH-11 Report on Absolute Vertical Accuracy - continued

The purpose of this section is to show a frequency distribution chart of the non-vegetated vertical accuracy (NVA) of the DEM data measured against surveyed ground check points.

[Data Source - Y:\Mapping\Projects\65220171_USGS-TX_West_Texas\Production\Final_Client_Deliverables\Lot9_utm13\point_cloud\tilecls](Y:\Mapping\Projects\65220171_USGS-TX_West_Texas\Production\Final_Client_Deliverables\Lot9_utm13\point_cloud\tilecls)



DPH-11 Report on Absolute Vertical Accuracy - continued

The purpose of this section is to report the results of measuring the DEM data against surveyed ground VVA (vegetated vertical accuracy) check points. All XY coordinates and Z values reported are in the selected data units.

VVA (DEM)

ID	X	Y	Coverage	Z	Z From Lidar	Z Error	Description	Comments
2001	631104.631	3281672.349	Yes	1041.545	1041.638	0.093		
2003	658410.25	3240033.375	Yes	1108.988	1109.058	0.070		
2005	628347.761	3359013.286	Yes	1368.398	1368.318	-0.080		
2006	607527.79	3349802.12	Yes	1493.98	1493.959	-0.021		
2010	665035.26	3239169.559	Yes	1639.138	1638.984	-0.154		
2012	619908.587	3374237.933	Yes	1353.907	1353.930	0.023		
2019	650478.508	3377073.839	Yes	1206.711	1206.788	0.077		
2021	559531.847	3270209.993	Yes	785.002	785.168	0.166		
2022	592937.096	3394813.434	Yes	1890.674	1890.800	0.126		
2023	601083.917	3260560.899	Yes	1265.332	1265.374	0.042		
2026	642428.75	3246093.394	Yes	799.15	799.072	-0.078		
2027	589738.594	3378343.067	Yes	1661.522	1661.524	0.002		
2028	607944.148	3336784.89	Yes	1442.559	1442.614	0.055		
2028A	607925.486	3336796.286	Yes	1442.523	1442.521	-0.002		
2031	658166.573	3261569.026	Yes	1043.747	1043.763	0.016		
2032	642380.213	3360547.825	Yes	1365.512	1365.639	0.127		
2040	639305.042	3274494.315	Yes	1019.632	1019.696	0.064		
2043	615921.465	3238128.754	Yes	715.081	715.110	0.029		
2044	608138.581	3387455.089	Yes	1459.577	1459.817	0.240		
2052	636485.531	3326633.544	Yes	1333.262	1333.343	0.081		
2053	612584.391	3270688.543	Yes	1338.21	1338.203	-0.007		
2054	594308.747	3244610.37	Yes	816.65	816.750	0.100		
2057	577700.513	3268559.858	Yes	876.606	876.663	0.057		
2065	616798.896	3400693.789	Yes	1317.194	1317.301	0.107		
2072	650336.562	3218895.624	Yes	697.926	698.005	0.079		
2076	679694.832	3239353.395	Yes	952.105	952.068	-0.037		
2080	584745.472	3397187.322	Yes	1815.484	1815.481	-0.003		
2085	594050.631	3329619.585	Yes	1303.1	1303.128	0.028		
2085A	594053.404	3329700.013	Yes	1302.597	1302.678	0.081		
2090	677658.375	3286068.445	Yes	858.316	858.320	0.004		

Check Points Vertical Accuracy - continued

ID	X	Y	Coverage	Z	Z From Lidar	Z Error	Description	Comments
2107	679931.02	3253154.325	Yes	868.198	868.132	-0.066		
2112	583745.751	3251367.526	Yes	758.154	758.148	-0.006		
2113	595886.991	3294603.603	Yes	1092.076	1092.077	0.001		
2114	600098.477	3373940.127	Yes	1540.051	1540.235	0.184		
2116	662957.305	3246527.529	Yes	1126.654	1126.718	0.064		
2122	643925.788	3255100.543	Yes	956.513	956.498	-0.015		
2127	630035.323	3367734.125	Yes	1298.609	1298.740	0.131		
2131	570747.81	3266024.072	Yes	779.307	779.206	-0.101		
2147	684873.09	3236871.633	Yes	781.616	781.584	-0.032		
2153	603982.239	3381797.745	Yes	1497.228	1497.439	0.211		
2156	593911.976	3323515.663	Yes	1278.184	1278.271	0.087		
2159	659263.267	3285351.548	Yes	1134.856	1134.851	-0.005		
2162	637345.984	3294002.201	Yes	1196.176	1196.199	0.023		
2163	616567.273	3378586.018	Yes	1387.615	1387.660	0.045		
2165A	593937.228	3323476.26	Yes	1277.59	1277.705	0.115		
2167	680520.842	3272951.528	Yes	825.294	825.294	0.000		
2175	674235.549	3245709.912	Yes	1135.508	1135.515	0.007		
2184	612149.14	3241469.588	Yes	766.576	766.533	-0.043		
2187	622931.926	3261854.174	Yes	1187.953	1187.950	-0.003		
2190	636879.429	3310493.875	Yes	1213.976	1214.063	0.087		
2193	606899.095	3338472.843	Yes	1438.173	1437.961	-0.212		
2193A	602396.759	3335541.774	Yes	1413.216	1413.176	-0.040		
2196	636588.473	3284543.036	Yes	1109.27	1109.326	0.056		
2199	688807.698	3278733.32	Yes	768.382	768.410	0.028		
2204	641033.07	3268342.441	Yes	1047.671	1047.781	0.110		
2205	622143.129	3361888.134	Yes	1409.324	1409.373	0.049		
2207	693127.929	3237005.533	Yes	697.664	697.710	0.046		
2213	603954.274	3343246.152	Yes	1433.567	1433.522	-0.045		
2214	613548.179	3349125.439	Yes	1547.008	1547.038	0.030		
2220	625468.013	3371142.678	Yes	1313.602	1313.687	0.085		
2222	637621.129	3297995.394	Yes	1153.372	1153.381	0.009		
2223	607887.271	3339227.853	Yes	1443.453	1443.415	-0.038		
2231	595163.214	3353684.915	Yes	1434.526	1434.762	0.236		
2234	654925.476	3347120.733	Yes	1335.107	1335.280	0.173		
108101	613571.807	3349119.991	Yes	1547.04	1547.062	0.022		

Check Points Vertical Accuracy - continued

ID	X	Y	Coverage	Z	Z From Lidar	Z Error	Description	Comments
110101	589892.566	3342505.516	Yes	1374.566	1374.623	0.057		
110102	599913.036	3322187.129	Yes	1269.889	1269.860	-0.029		
110105	602462.13	3315655.516	Yes	1303.79	1303.837	0.047		
110106	592806.186	3309423.279	Yes	1212.214	1212.215	0.001		
110107	605998.783	3300107.408	Yes	1259.141	1259.139	-0.002		
112100	629179.435	3277557.145	Yes	1069.756	1069.828	0.072		
112102	646396.736	3274909.766	Yes	1001.554	1001.615	0.061		
112104	642571.531	3261490.108	Yes	1007.186	1007.235	0.049		
112105	647822.678	3242987.9	Yes	864.757	864.799	0.042		
115100	609366.744	3264842.921	Yes	1372.07	1372.026	-0.044		
115103	588446.732	3262937.845	Yes	1117.967	1117.971	0.004		
116100	614808.225	3246616.132	Yes	876.62	876.649	0.029		
116104	588319.407	3284904.794	Yes	1082.509	1082.525	0.016		
117100	631635.341	3255836.546	Yes	897.462	897.490	0.028		
117103	648669.712	3243769.989	Yes	876.832	876.822	-0.010		
117104	635179.491	3227374.101	Yes	659.723	659.859	0.136		
117106	652462.581	3215415.816	Yes	642.319	642.348	0.029		
118100	646086.484	3284226.006	Yes	1114.367	1114.322	-0.045		
118104	636880.673	3310512.057	Yes	1214.407	1214.430	0.023		
991005	594349.78	3394683.952	Yes	2021.094	2021.166	0.072		
1001001	595566.557	3360990.027	Yes	1478.864	1479.191	0.327		
1001003	597144.229	3366016.104	Yes	1527.745	1527.880	0.135		
1051002	634596.721	3352870.227	Yes	1568.905	1568.988	0.083		
1051004	637937.221	3345040.075	Yes	1578.275	1578.329	0.054		
1051008	633851.198	3342327.571	Yes	1503.933	1504.020	0.087		
1051009	636545.339	3335332.445	Yes	1436.89	1436.962	0.072		
1051011	637371.041	3305224.081	Yes	1158.609	1158.684	0.075		
1051014	651623.575	3268611.841	Yes	1038.062	1038.049	-0.013		
1051018	656411.056	3266194.329	Yes	1013.226	1013.228	0.002		
1051021	660066.451	3276153.463	Yes	976.008	976.065	0.057		
1061004	601457.671	3335027.418	Yes	1406.662	1406.677	0.015		
1061006	590034.867	3342242.378	Yes	1374.766	1374.846	0.080		
1061007	592665.609	3335562.819	Yes	1324.887	1324.929	0.042		
1061013	593781.749	3315622.269	Yes	1231.071	1231.004	-0.067		
1061014	592772.687	3309435.674	Yes	1212.827	1212.741	-0.086		

DPH-11 Report on Absolute Vertical Accuracy - continued

The purpose of this section is to show a frequency distribution chart of the vegetated vertical accuracy (VVA) of the DEM data measured against surveyed ground check points.

[Data Source - Y:\Mapping\Projects\65220171_USGS-TX_West_Texas\Production\Final_Client_Deliverables\Lot9_utm13\point_cloud\tilecls](#)

