



SAM, LLC

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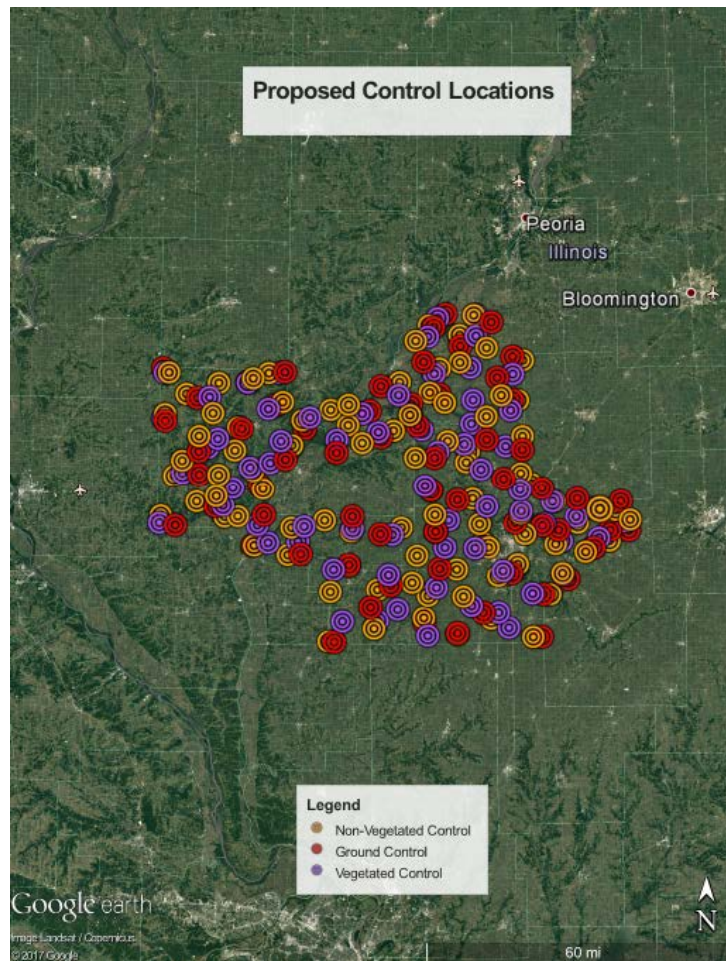
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Surveying and Mapping, LLC Project # 1017041037

Survey Report

Purpose:

Surveying & Mapping, LLC was contracted by Aerial Surveys, Inc. to provide LiDAR calibration and validation points for their 2017 mapping of Schuyler, Brown, Morgan, Sangamon, Menard, and Mason counties in Illinois.



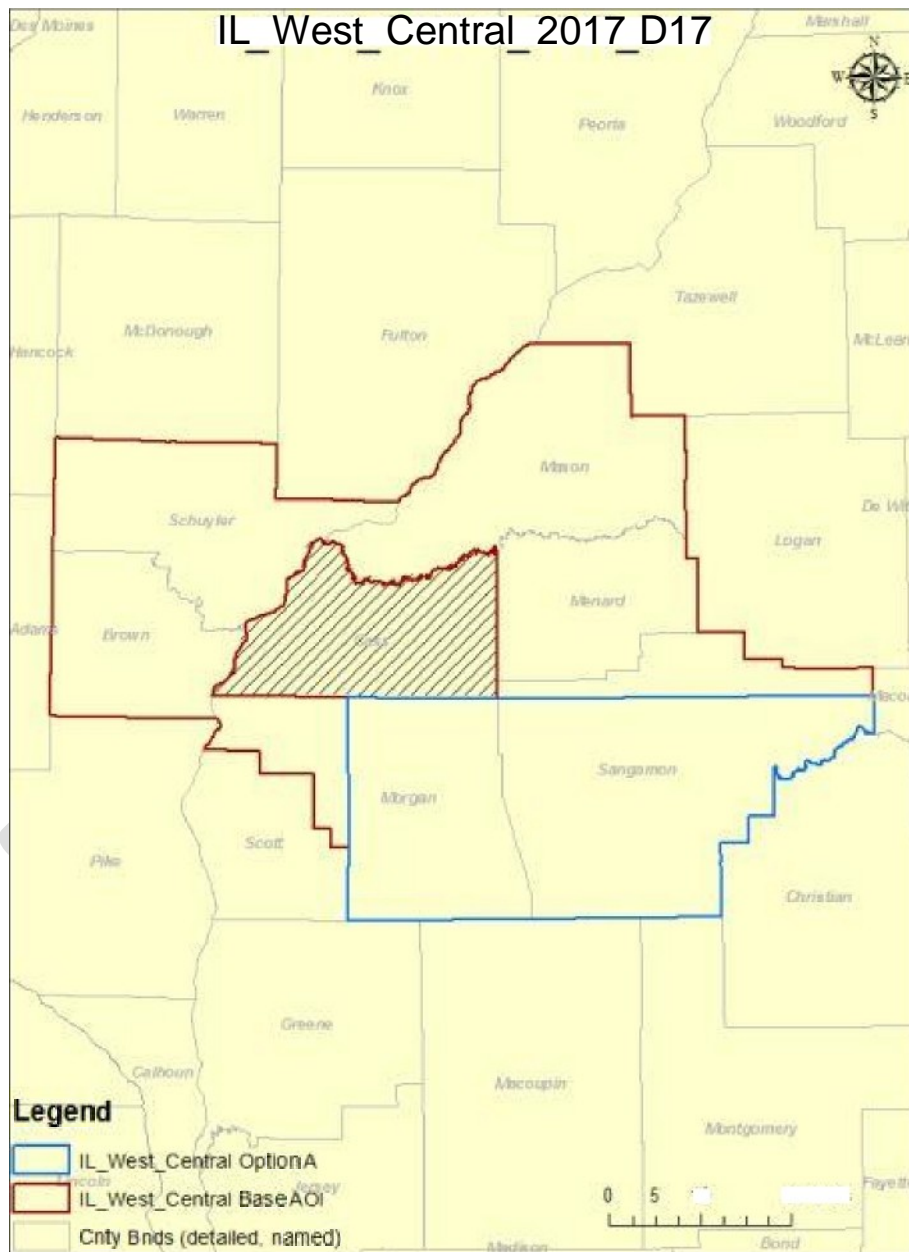


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Project Location Map





Horizontal Datum & Coordinate System: US State Plane 1983, Illinois West 1202, NAD 1983

Vertical Datum & Geoid Model: NAVD 88, Geoid 12B

Units: US Survey Foot = 1200/3937

Control Points

63 Photo Identifiable Ground Control Points (GCP)

91 Non-Vegetated Ground Validation Points (NVA)

71 Vegetated Ground Validation Points (VVA)

Method:

The GCP, NVA, and VVA validation points were established using static GPS methodology, utilizing two Trimble R10 GNSS receivers. One receiver is considered a rover, moving to and obtaining measurements at each of the control point locations. The second receiver is considered a base station, occupying a random on-site control point. This second receiver was simultaneously collecting a static GNSS session, which was later post-processed using Trimble Business Center V4.00, and static GNSS coordinates derived from an OPUS (Online Positioning User Service) solution. The OPUS solution was held horizontally and vertically fixed during the processing of the baselines.

As a quality check on each control point, two independent measurements were taken during the same occupation. One being the static measurement, as mentioned, and the other measurement being two sessions of 15 epochs each utilizing Trimble's VRS Now Real Time Network. The VRS measurements were independently processed in Trimble Business Center and the static coordinate derivations were compared to the VRS coordinates as a quality control check.

The processed static vector metadata can be found on pages seven through twelve along with the 95% precision confidence levels for the horizontal and vertical accuracy of each point.

**Notes:**

- 1) Vector Processing Settings: 10° or higher elevation mask
- 2) Control point 502 was occupied twice. The two OPUS coordinate solutions were averaged to produce a single coordinate. Baselines from the averaged coordinate were then reprocessed.

Personnel:

B. Espinosa	Survey Manager
S. Sherbut	Quality Control & Phase Manager
A. Wesley	Processing and Report Preparation
R. Bischoff	Field Party Chief, data and photo collection
P. DeKlerk	Field Party Chief, data and photo collection

Instrumentation:

Trimble R-10 GNSS Receiver: S/N 5425468925
Trimble R-10 GNSS Receiver: S/N 5326439501
Trimble R-10 GNSS Receiver: S/N 5339444232
Trimble R-10 GNSS Receiver: S/N 5425469008

Software:

NGS: OPUS, via Trimble Business Center Processing Services
Trimble Business Center v4.00
Microsoft Office
Google Earth
BlueBeam Revu



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Vector ID	From	To	Solution Type	Status	Duration	PDOP	H. Precision (95%)	V. Precision (95%)	Satellites	Epochs
PV194	504_312n	1	Fixed	Enabled	0:07:55	1.69	0.023	0.024	10	96
PV149	551_312m	1	Fixed	Enabled	0:07:55	1.46	0.018	0.022	13	96
PV192	504_312n	2	Fixed	Enabled	0:08:00	1.63	0.018	0.027	12	97
PV151	551_312m	2	Fixed	Enabled	0:08:00	1.54	0.014	0.02	13	97
PV193	504_312n	3	Fixed	Enabled	0:07:55	2.32	0.016	0.023	10	96
PV150	551_312m	3	Fixed	Enabled	0:07:55	1.76	0.015	0.02	12	96
PV195	504_312n	4	Fixed	Enabled	0:07:55	4.54	0.052	0.08	6	96
PV148	551_312m	4	Fixed	Enabled	0:07:55	2.08	0.015	0.025	11	96
PV191	504_312n	5	Fixed	Enabled	0:07:55	1.87	0.027	0.05	10	96
PV152	551_312m	5	Fixed	Enabled	0:07:55	1.71	0.019	0.027	12	96
PV170	32	5	Fixed	Enabled	0:05:35	1.71	0.014	0.019	11	68
PV196	504_312n	6	Fixed	Enabled	0:08:00	2.02	0.024	0.036	8	97
PV197	504_312n	7	Fixed	Enabled	0:12:00	1.71	0.016	0.024	9	145
PV383	559_322p	8	Fixed	Enabled	0:07:55	2.3	0.021	0.042	10	96
PV391	559_322p	9	Fixed	Enabled	0:07:55	1.93	0.017	0.026	11	96
PV206	552_313m	10	Fixed	Enabled	0:07:55	2.32	0.039	0.079	9	96
PV388	559_322p	11	Fixed	Enabled	0:07:55	1.82	0.054	0.077	11	96
PV207	552_313m	12	Fixed	Enabled	0:08:00	2.21	0.041	0.066	11	97
PV201	504_312n	13	Fixed	Enabled	0:07:55	2.48	0.039	0.043	7	96
PV142	551_312m	13	Fixed	Enabled	0:07:55	1.57	0.027	0.039	11	96
PV190	504_312n	14	Fixed	Enabled	0:07:55	1.83	0.022	0.029	10	96
PV153	551_312m	14	Fixed	Enabled	0:07:55	1.73	0.015	0.02	11	96
PV154	551_312m	15	Fixed	Enabled	0:08:00	1.6	0.084	0.099	13	97
PV189	504_312n	15	Fixed	Enabled	0:08:00	2.15	0.035	0.053	9	97
PV138	551_312m	16	Fixed	Enabled	0:08:00	1.62	0.01	0.012	12	97
PV230	553_318p	17	Fixed	Enabled	0:07:55	2.15	0.072	0.086	11	96
PV127	502_avg	18	Fixed	Enabled	0:07:55	1.71	0.02	0.031	11	96
PV126	550_311p	18	Fixed	Enabled	0:07:55	1.71	0.043	0.024	12	96
PV155	551_312m	19	Fixed	Enabled	0:07:55	1.4	0.044	0.062	15	96
PV188	504_312n	19	Fixed	Enabled	0:07:55	1.68	0.019	0.032	9	96
PV181	504_312n	20	Fixed	Enabled	0:08:00	2.36	0.037	0.034	10	97
PV166	551_312m	20	Fixed	Enabled	0:08:00	1.69	0.011	0.009	12	97
PV122	550_311p	21	Fixed	Enabled	0:08:00	2.28	0.028	0.038	9	97
PV123	502_avg	21	Fixed	Enabled	0:08:00	2.42	0.024	0.029	8	97
PV325	556	22	Fixed	Enabled	0:07:55	1.84	0.015	0.026	11	96
PV337	556	23	Fixed	Enabled	0:07:55	1.71	0.02	0.031	10	96
PV317	556	24	Fixed	Enabled	0:07:55	1.83	0.069	0.104	11	96
PV349	556	25	Fixed	Enabled	0:07:55	2.35	0.044	0.068	10	96
PV369	557_321n	26	Fixed	Enabled	0:07:55	2.93	0.017	0.033	10	96
PV301	556	27	Fixed	Enabled	0:08:00	1.8	0.042	0.068	10	97
PV176	504_312n	28	Fixed	Enabled	0:08:00	1.77	0.037	0.058	11	97
PV173	551_312m	28	Fixed	Enabled	0:08:00	1.77	0.02	0.029	10	97
PV137	550_311p	29	Fixed	Enabled	0:08:00	1.56	0.085	0.068	11	97
PV110	550_311p	30	Fixed	Enabled	0:08:00	2.42	0.06	0.095	9	97
PV102	502_avg	30	Fixed	Enabled	0:08:00	3.14	0.024	0.038	7	97



Vector ID	From	To	Solution Type	Status	Duration	PDOP	H. Precision (95%)	V. Precision (95%)	Satellites	Epochs
PV44	502_avg	31	Fixed	Enabled	0:07:55	1.45	0.018	0.026	11	96
PV178	504_312n	32	Fixed	Enabled	0:08:00	1.91	0.02	0.036	9	97
PV171	551_312m	32	Fixed	Enabled	0:08:00	1.91	0.016	0.027	9	97
PV174	551_312m	33	Fixed	Enabled	0:07:55	1.71	0.019	0.027	9	96
PV175	504_312n	33	Fixed	Enabled	0:07:55	1.71	0.015	0.02	10	96
PV177	504_312n	34	Fixed	Enabled	0:07:55	2.33	0.068	0.096	7	96
PV172	551_312m	34	Fixed	Enabled	0:07:55	2.33	0.026	0.038	6	96
PV169	551_312m	35	Fixed	Enabled	0:07:55	1.91	0.023	0.037	11	96
PV179	504_312n	35	Fixed	Enabled	0:07:55	1.91	0.019	0.03	11	96
PV182	504_312n	36	Fixed	Enabled	0:07:55	2.07	0.06	0.096	8	96
PV165	551_312m	36	Fixed	Enabled	0:07:55	1.93	0.02	0.04	11	96
PV75	ILSA	37	Fixed	Enabled	0:08:00	2.14	0.015	0.023	7	97
PV4	500_305m	38	Fixed	Enabled	0:08:00	1.8	0.021	0.033	13	97
PV180	504_312n	39	Fixed	Enabled	0:08:00	2.32	0.031	0.045	9	97
PV162	551_312m	40	Fixed	Enabled	0:07:55	2.43	0.022	0.035	8	96
PV6	500_305m	41	Fixed	Enabled	0:08:00	1.24	0.013	0.017	15	97
PV70	ILSA	42	Fixed	Enabled	0:08:00	2.48	0.025	0.046	6	97
PV183	504_312n	43	Fixed	Enabled	0:07:55	2.07	0.019	0.032	7	96
PV164	551_312m	43	Fixed	Enabled	0:07:55	1.8	0.015	0.024	10	96
PV66	ILSA	44	Fixed	Enabled	0:08:00	1.84	0.092	0.1	7	97
PV72	ILSA	45	Fixed	Enabled	0:07:55	2.09	0.03	0.043	7	96
PV65	ILSA	46	Fixed	Enabled	0:07:55	3.98	0.027	0.044	4	96
PV35	501_306m	47	Fixed	Enabled	0:07:55	1.52	0.021	0.035	13	96
PV34	501_306m	48	Fixed	Enabled	0:07:55	1.97	0.037	0.058	12	96
PV54	500_305m	49	Fixed	Enabled	0:07:55	1.45	0.051	0.058	12	96
PV52	500_305m	50	Fixed	Enabled	0:07:55	1.51	0.073	0.092	11	96
PV20	501_306m	51	Fixed	Enabled	0:07:55	1.5	0.017	0.026	13	96
PV17	501_306m	52	Fixed	Enabled	0:07:55	1.48	0.022	0.029	14	96
PV29	501_306m	53	Fixed	Enabled	0:07:55	1.76	0.017	0.026	10	96
PV23	501_306m	54	Fixed	Enabled	0:07:55	1.63	0.02	0.026	13	96
PV48	502_avg	55	Fixed	Enabled	0:07:55	1.33	0.058	0.059	12	96
PV114	550_311p	56	Fixed	Enabled	0:08:50	1.82	0.059	0.084	11	107
PV38	502_avg	57	Fixed	Enabled	0:07:55	2.02	0.022	0.042	9	96
PV16	500_305m	58	Fixed	Enabled	0:07:55	1.55	0.01	0.012	12	96
PV42	502_avg	59	Fixed	Enabled	0:08:00	1.27	0.041	0.038	13	97
PV233	550_311p	60	Fixed	Enabled	0:08:00	2.88	0.014	0.018	9	97
PV235	550_311p	61	Fixed	Enabled	0:08:00	1.82	0.042	0.065	11	97
PV13	500_305m	62	Fixed	Enabled	0:07:55	1.67	0.069	0.074	10	96
PV58	500_305m	63	Fixed	Enabled	0:07:55	1.54	0.02	0.033	14	96
PV374	558_321t	201	Fixed	Enabled	0:07:55	1.6	0.031	0.039	12	96
PV396	559_322p	202	Fixed	Enabled	0:08:00	1.79	0.015	0.022	11	97
PV397	559_322p	203	Fixed	Enabled	0:08:00	1.72	0.02	0.026	11	97
PV375	558_321t	204	Fixed	Enabled	0:07:55	1.88	0.066	0.089	9	96
PV217	552_313m	205	Fixed	Enabled	0:07:55	1.49	0.077	0.106	13	96
PV376	558_321t	206	Fixed	Enabled	0:07:55	1.86	0.023	0.035	10	96



Vector ID	From	To	Solution Type	Status	Duration	PDOP	H. Precision (95%)	V. Precision (95%)	Satellites	Epochs
PV214	552_313m	207	Fixed	Enabled	0:07:55	1.69	0.02	0.029	10	96
PV381	559_322p	208	Fixed	Enabled	0:07:55	1.88	0.009	0.011	10	96
PV392	559_322p	209	Fixed	Enabled	0:08:00	3.21	0.092	0.102	7	97
PV386	559_322p	210	Fixed	Enabled	0:07:55	2.14	0.053	0.066	11	96
PV389	559_322p	211	Fixed	Enabled	0:08:00	1.67	0.063	0.086	13	97
PV219	552_313m	212	Fixed	Enabled	0:08:00	1.91	0.047	0.084	11	97
PV213	552_313m	213	Fixed	Enabled	0:08:40	1.65	0.061	0.106	12	105
PV211	552_313m	214	Fixed	Enabled	0:08:00	1.95	0.04	0.072	11	97
PV208	552_313m	215	Fixed	Enabled	0:07:55	2.73	0.042	0.069	9	96
PV204	504_312n	216	Fixed	Enabled	0:08:00	2.51	0.02	0.041	7	97
PV139	551_312m	216	Fixed	Enabled	0:08:00	1.67	0.021	0.041	12	97
PV228	553_318p	217	Fixed	Enabled	0:07:55	3.69	0.017	0.033	9	96
PV225	552_313m	218	Fixed	Enabled	0:09:55	2.06	0.013	0.018	11	120
PV223	552_313m	219	Fixed	Enabled	0:07:55	1.61	0.016	0.023	12	96
PV97	502_avg	220	Fixed	Disabled	0:08:00	1.89	0.028	0.043	11	97
PV105	550_311p	220	Fixed	Enabled	0:08:00	1.89	0.019	0.028	10	97
PV121	502_avg	221	Fixed	Enabled	0:08:00	1.89	0.022	0.026	10	97
PV120	550_311p	221	Fixed	Enabled	0:08:00	1.55	0.016	0.018	12	97
PV313	556	222	Fixed	Enabled	0:07:55	3.23	0.017	0.028	10	96
PV329	556	223	Fixed	Enabled	0:07:55	2.23	0.016	0.032	9	96
PV305	556	224	Fixed	Enabled	0:07:55	1.71	0.071	0.097	11	96
PV361	556	225	Fixed	Enabled	0:08:00	1.87	0.049	0.086	11	97
PV370	557_321n	226	Fixed	Enabled	0:07:55	1.86	0.034	0.056	11	96
PV297	556	227	Fixed	Enabled	0:08:00	1.83	0.028	0.041	10	97
PV289	556	228	Fixed	Enabled	0:08:00	1.88	0.025	0.049	10	97
PV136	550_311p	229	Fixed	Enabled	0:07:55	1.72	0.072	0.099	12	96
PV243	555_319n	230	Fixed	Enabled	0:07:55	1.81	0.017	0.027	11	96
PV45	502_avg	231	Fixed	Enabled	0:07:55	1.51	0.016	0.026	12	96
PV365	556	232	Fixed	Enabled	0:08:00	2.11	0.017	0.023	11	97
PV187	504_312n	233	Fixed	Enabled	0:07:55	2.51	0.009	0.012	9	96
PV367	556	234	Fixed	Enabled	0:07:55	1.84	0.048	0.079	10	96
PV368	556	235	Fixed	Enabled	0:07:55	2.6	0.07	0.105	11	96
PV248	555_319n	236	Fixed	Enabled	0:07:55	2.05	0.018	0.026	10	96
PV60	503_310m	237	Fixed	Enabled	0:08:00	2.07	0.017	0.035	11	97
PV5	500_305m	238	Fixed	Enabled	0:07:55	1.36	0.046	0.047	14	96
PV252	555_319n	239	Fixed	Enabled	0:08:00	2.24	0.022	0.027	8	97
PV250	555_319n	240	Fixed	Enabled	0:07:55	1.98	0.019	0.036	11	96
PV7	500_305m	241	Fixed	Enabled	0:07:55	1.46	0.02	0.034	12	96
PV69	ILSA	242	Fixed	Enabled	0:07:55	2.29	0.022	0.03	7	96
PV245	555_319n	243	Fixed	Enabled	0:08:00	2.26	0.017	0.034	9	97
PV67	ILSA	244	Fixed	Enabled	0:08:00	2.73	0.02	0.027	6	97
PV71	ILSA	245	Fixed	Enabled	0:07:55	2.5	0.019	0.028	7	96
PV96	502_avg	246	Fixed	Enabled	0:08:05	2.42	0.069	0.096	8	98
PV95	ILSA	246	Fixed	Disabled	0:08:00	4.32	0.083	0.067	3	97
PV37	501_306m	247	Fixed	Enabled	0:08:00	1.67	0.012	0.014	11	97



Vector ID	From	To	Solution Type	Status	Duration	PDOP	H. Precision (95%)	V. Precision (95%)	Satellites	Epochs
PV27	501_306m	248	Fixed	Enabled	0:07:55	4.17	0.056	0.095	8	96
PV53	500_305m	249	Fixed	Enabled	0:07:55	1.91	0.044	0.076	9	96
PV240	555_319n	250	Fixed	Enabled	0:07:55	1.77	0.015	0.024	10	96
PV22	501_306m	251	Fixed	Enabled	0:07:55	2.59	0.055	0.082	10	96
PV19	501_306m	252	Fixed	Enabled	0:07:55	1.81	0.024	0.031	14	96
PV31	501_306m	253	Fixed	Enabled	0:08:00	2.38	0.075	0.107	10	97
PV24	501_306m	254	Fixed	Enabled	0:08:00	1.5	0.017	0.02	13	97
PV49	502_avg	255	Fixed	Enabled	0:07:55	1.48	0.056	0.058	12	96
PV116	550_311p	256	Fixed	Enabled	0:08:00	1.74	0.076	0.101	12	97
PV39	502_avg	257	Fixed	Enabled	0:07:55	1.18	0.02	0.029	15	96
PV14	500_305m	258	Fixed	Enabled	0:08:00	1.37	0.023	0.026	12	97
PV43	502_avg	259	Fixed	Enabled	0:08:00	2.42	0.023	0.037	8	97
PV232	550_311p	260	Fixed	Enabled	0:07:55	2.22	0.028	0.041	9	96
PV41	502_avg	261	Fixed	Enabled	0:08:00	1.33	0.022	0.025	13	97
PV12	500_305m	262	Fixed	Enabled	0:08:00	2.11	0.051	0.086	10	97
PV57	500_305m	263	Fixed	Enabled	0:07:55	1.64	0.017	0.032	15	96
PV394	559_322p	264	Fixed	Enabled	0:07:55	2.48	0.021	0.035	10	96
PV241	555_319n	265	Fixed	Enabled	0:08:00	2.56	0.067	0.103	8	97
PV186	504_312n	266	Fixed	Enabled	0:07:55	2.43	0.051	0.063	8	96
PV159	551_312m	266	Fixed	Enabled	0:07:55	1.99	0.023	0.037	10	96
PV32	501_306m	267	Fixed	Enabled	0:07:55	1.62	0.055	0.047	10	96
PV226	553_318p	268	Fixed	Enabled	0:07:55	1.59	0.022	0.035	11	96
PV372	558_321t	269	Fixed	Enabled	0:07:55	1.68	0.024	0.041	12	96
PV210	552_313m	270	Fixed	Enabled	0:11:15	1.63	0.014	0.019	11	136
PV128	550_311p	271	Fixed	Enabled	0:07:55	1.79	0.024	0.034	10	96
PV9	500_305m	272	Fixed	Enabled	0:07:55	1.28	0.075	0.083	13	96
PV220	552_313m	273	Fixed	Enabled	0:07:55	1.79	0.027	0.037	11	96
PV231	550_311p	274	Fixed	Enabled	0:09:30	1.95	0.025	0.042	11	115
PV227	553_318p	275	Fixed	Enabled	0:07:55	1.79	0.048	0.081	10	96
PV247	555_319n	276	Fixed	Enabled	0:07:55	2.24	0.02	0.026	9	96
PV353	556	277	Fixed	Enabled	0:07:55	1.83	0.026	0.041	11	96
PV25	501_306m	278	Fixed	Enabled	0:07:55	1.5	0.022	0.026	12	96
PV384	559_322p	279	Fixed	Enabled	0:07:55	3.44	0.019	0.041	9	96
PV238	550_311p	280	Fixed	Enabled	0:07:55	1.99	0.067	0.093	11	96
PV242	555_319n	281	Fixed	Enabled	0:08:00	1.92	0.021	0.033	10	97
PV50	502_avg	282	Fixed	Enabled	0:07:55	1.28	0.027	0.043	13	96
PV107	550_311p	283	Fixed	Enabled	0:07:55	3.04	0.051	0.078	10	96
PV73	ILSA	284	Fixed	Enabled	0:08:00	3.86	0.025	0.039	7	97
PV254	555_319n	285	Fixed	Enabled	0:07:55	2.64	0.022	0.04	9	96
PV2	500_305m	286	Fixed	Enabled	0:07:55	1.34	0.019	0.022	14	96
PV203	504_312n	287	Fixed	Enabled	0:07:55	2.18	0.023	0.047	7	96
PV140	551_312m	287	Fixed	Enabled	0:07:55	1.69	0.019	0.036	11	96
PV345	556	288	Fixed	Enabled	0:07:55	1.9	0.062	0.08	12	96
PV143	551_312m	289	Fixed	Enabled	0:07:55	1.56	0.044	0.066	11	96
PV47	502_avg	290	Fixed	Enabled	0:07:55	1.5	0.056	0.067	10	96



Vector ID	From	To	Solution Type	Status	Duration	PDOP	H. Precision (95%)	V. Precision (95%)	Satellites	Epochs
PV378	558_321t	291	Fixed	Enabled	0:07:55	1.69	0.043	0.066	11	96
PV373	558_321t	301	Fixed	Enabled	0:08:00	1.85	0.017	0.025	10	97
PV395	559_322p	302	Fixed	Enabled	0:07:55	1.91	0.019	0.027	11	96
PV380	558_321t	303	Fixed	Enabled	0:08:00	1.59	0.014	0.017	11	97
PV379	558_321t	304	Fixed	Enabled	0:08:00	1.92	0.035	0.057	11	97
PV216	552_313m	305	Fixed	Enabled	0:08:00	2.29	0.078	0.104	10	97
PV377	558_321t	306	Fixed	Enabled	0:09:05	1.77	0.017	0.029	11	110
PV215	552_313m	307	Fixed	Enabled	0:08:00	1.54	0.021	0.024	11	97
PV382	559_322p	308	Fixed	Enabled	0:07:55	2.08	0.02	0.033	10	96
PV390	559_322p	309	Fixed	Enabled	0:08:00	2.15	0.021	0.039	11	97
PV385	559_322p	310	Fixed	Enabled	0:07:55	2.74	0.047	0.064	11	96
PV387	559_322p	311	Fixed	Enabled	0:09:00	1.75	0.059	0.072	13	109
PV221	552_313m	312	Fixed	Enabled	0:08:00	2.23	0.045	0.052	8	97
PV144	551_312m	313	Fixed	Enabled	0:07:55	2.28	0.033	0.051	11	96
PV222	552_313m	314	Fixed	Enabled	0:07:55	2.8	0.03	0.045	9	96
PV209	552_313m	315	Fixed	Enabled	0:07:55	3.15	0.021	0.035	9	96
PV202	504_312n	316	Fixed	Enabled	0:07:55	3.23	0.027	0.037	7	96
PV141	551_312m	316	Fixed	Enabled	0:07:55	2.29	0.018	0.028	11	96
PV229	553_318p	317	Fixed	Enabled	0:08:00	2.09	0.028	0.029	11	97
PV124	550_311p	318	Fixed	Enabled	0:08:10	2.19	0.022	0.036	11	99
PV224	552_313m	319	Fixed	Enabled	0:08:00	1.79	0.017	0.026	11	97
PV98	502_avg	320	Fixed	Enabled	0:08:00	2.17	0.072	0.052	13	97
PV119	502_avg	321	Fixed	Enabled	0:08:15	1.8	0.032	0.036	9	100
PV118	550_311p	321	Fixed	Enabled	0:08:15	1.72	0.018	0.021	12	100
PV321	556	322	Fixed	Enabled	0:08:00	3.02	0.022	0.041	10	97
PV333	556	323	Fixed	Enabled	0:07:55	3.15	0.023	0.055	8	96
PV309	556	324	Fixed	Enabled	0:07:55	2.44	0.062	0.104	9	96
PV341	556	325	Fixed	Enabled	0:08:00	1.75	0.071	0.082	11	97
PV371	557_321n	326	Fixed	Enabled	0:07:55	1.89	0.027	0.048	11	96
PV293	556	327	Fixed	Enabled	0:07:55	2.79	0.025	0.049	8	96
PV393	559_322p	328	Fixed	Enabled	0:07:55	1.45	0.083	0.098	16	96
PV108	550_311p	329	Fixed	Enabled	0:08:05	2.16	0.062	0.076	11	98
PV109	550_311p	330	Fixed	Enabled	0:07:55	1.8	0.069	0.1	10	96
PV101	502_avg	330	Fixed	Enabled	0:07:55	2.16	0.016	0.011	8	96
PV1	500_305m	331	Fixed	Enabled	0:07:55	1.66	0.017	0.026	12	96
PV366	556	332	Fixed	Enabled	0:07:55	1.5	0.075	0.089	15	96
PV256	555_319n	333	Fixed	Enabled	0:07:55	2.09	0.015	0.023	10	96
PV357	556	334	Fixed	Enabled	0:07:55	1.77	0.024	0.041	13	96
PV253	555_319n	335	Fixed	Enabled	0:07:55	3.31	0.027	0.038	8	96
PV249	555_319n	336	Fixed	Enabled	0:07:55	2.2	0.017	0.028	11	96
PV74	ILSA	337	Fixed	Enabled	0:07:55	2.28	0.022	0.035	6	96
PV3	500_305m	338	Fixed	Enabled	0:07:55	1.72	0.038	0.032	10	96
PV251	555_319n	339	Fixed	Enabled	0:07:55	2.13	0.074	0.111	11	96
PV185	504_312n	340	Fixed	Enabled	0:07:55	2.46	0.076	0.073	7	96
PV161	551_312m	340	Fixed	Enabled	0:07:55	1.8	0.028	0.05	10	96



Vector ID	From	To	Solution Type	Status	Duration	PDOP	H. Precision (95%)	V. Precision (95%)	Satellites	Epochs
PV8	500_305m	341	Fixed	Enabled	0:08:35	1.43	0.02	0.023	13	104
PV246	555_319n	342	Fixed	Enabled	0:08:00	3.43	0.087	0.085	11	97
PV244	555_319n	343	Fixed	Enabled	0:08:00	2.26	0.022	0.043	11	97
PV68	ILSA	344	Fixed	Enabled	0:07:55	2.43	0.085	0.095	7	96
PV51	502_avg	345	Fixed	Enabled	0:07:55	2.38	0.016	0.027	13	96
PV63	ILSA	346	Fixed	Enabled	0:08:00	2.22	0.087	0.08	6	97
PV36	501_306m	347	Fixed	Enabled	0:07:55	2.2	0.032	0.042	10	96
PV33	501_306m	348	Fixed	Enabled	0:08:00	3.25	0.053	0.042	5	97
PV55	500_305m	349	Fixed	Enabled	0:07:55	1.65	0.04	0.032	11	96
PV239	555_319n	350	Fixed	Enabled	0:07:55	2.65	0.018	0.026	11	96
PV21	501_306m	351	Fixed	Enabled	0:07:55	1.73	0.024	0.021	15	96
PV18	501_306m	352	Fixed	Enabled	0:07:55	1.27	0.017	0.021	14	96
PV30	501_306m	353	Fixed	Enabled	0:07:55	2.78	0.029	0.064	8	96
PV26	501_306m	354	Fixed	Enabled	0:07:55	1.52	0.02	0.022	10	96
PV46	502_avg	355	Fixed	Enabled	0:07:55	2.75	0.078	0.099	9	96
PV134	550_311p	356	Fixed	Enabled	0:07:55	1.52	0.076	0.099	13	96
PV111	550_311p	357	Fixed	Enabled	0:09:45	3.45	0.019	0.033	9	118
PV15	500_305m	358	Fixed	Enabled	0:07:55	2.01	0.016	0.027	9	96
PV40	502_avg	359	Fixed	Enabled	0:07:55	1.87	0.021	0.028	14	96
PV234	550_311p	360	Fixed	Enabled	0:07:55	2.56	0.047	0.08	12	96
PV237	550_311p	361	Fixed	Enabled	0:08:05	2.09	0.058	0.09	10	98
PV11	500_305m	362	Fixed	Enabled	0:08:00	1.68	0.046	0.068	10	97
PV56	500_305m	363	Fixed	Enabled	0:08:00	4.3	0.058	0.099	7	97
PV218	552_313m	364	Fixed	Enabled	0:08:00	2.54	0.055	0.092	10	97
PV61	503_310m	365	Fixed	Enabled	0:08:00	1.68	0.01	0.012	13	97
PV255	555_319n	366	Fixed	Enabled	0:08:00	1.65	0.015	0.023	11	97
PV145	551_312m	367	Fixed	Enabled	0:07:55	1.69	0.046	0.069	11	96
PV212	552_313m	368	Fixed	Enabled	0:07:55	2.33	0.04	0.079	10	96
PV10	500_305m	369	Fixed	Enabled	0:08:00	2.47	0.058	0.091	8	97
PV131	550_311p	370	Fixed	Enabled	0:07:55	3.01	0.033	0.037	7	96
PV280	MOHL	556	Fixed	Enabled	7:52:45	1.79	0.034	0.107	16	158
PV28	501_306m	353-1	Fixed	Enabled	0:07:55	2.38	0.063	0.088	10	96
PV76	237	ILSA	Fixed	Enabled	0:08:00	3.16	0.02	0.04	6	97



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Static Grid Coordinates			
Identifier	Northing	Easting	Elevation
GCP01	1315916.878	2092392.79	630.816
GCP02	1312154.856	2214784.232	635.255
GCP03	1301960.626	2177291.084	658.271
GCP04	1286423.627	2126991.093	490.526
GCP05	1279272.65	2206106.768	657.354
GCP06	1263413.624	2094517.708	698.995
GCP07	1255572.545	2171331.773	623.331
GCP08	1273383.823	2299779.649	471.386
GCP09	1258531.788	2348027.267	480.995
GCP10	1231400.028	2266491.266	440.277
GCP11	1246898.232	2311200.041	455.132
GCP12	1255512.517	2234858.502	449.62
GCP13	1232758.306	2128193.115	709.545
GCP14	1224551.371	2215326.658	429.797
GCP15	1198332.967	2189429.338	681.39
GCP16	1209293.101	2128629.997	738.274
GCP17	1158126.115	2104587.499	523.364
GCP18	1168314.685	2193621.388	434.528
GCP19	1176962.321	2145165.29	478.424
GCP20	1160659.256	2446237.252	525.083
GCP21	1137700.85	2182114.765	444.691
GCP22	1370181.629	2376120.764	510.118
GCP23	1362255.18	2421887.777	517.142
GCP24	1356989.321	2364175.468	495.44
GCP25	1338242.065	2390874.22	496.525
GCP26	1297998.453	2311173.11	451.479
GCP27	1322278.129	2353990.465	495.262
GCP28	1280229.318	2341753.459	492.569
GCP29	1166772.958	2282626.429	548.086
GCP30	1148901.187	2310574.187	606.639
GCP31	1114561.599	2370332.318	648.97
GCP32	1327773.268	2443331.288	532.747
GCP33	1290098.364	2369749.136	490.958
GCP34	1306776.5	2427957.741	584.139
GCP35	1284784.6	2442779.055	554.008
GCP36	1244837.968	2417405.233	531.224
GCP37	1151776.431	2366225.263	630.037
GCP38	1061031.683	2354961.276	654.162
GCP39	1234652.666	2453230.342	602.27
GCP40	1226427.267	2365085.99	593.752
GCP41	1050446.304	2388265.065	688.324
GCP42	1205342.82	2434405.141	611.191
GCP43	1193714.167	2361472.292	623.845
GCP44	1195715.959	2472965.84	580.761
GCP45	1183564.332	2388131.827	584.383



Static Grid Coordinates			
Identifier	Northing	Easting	Elevation
GCP46	1184968.448	2508641.419	613.158
GCP47	1157738.908	2473503.694	578.676
GCP48	1153345.518	2489817.054	585.627
GCP49	1089078.856	2474353.523	592.925
GCP50	1104430.568	2499476.091	588.541
GCP51	1153233.588	2560506.898	574.992
GCP52	1153183.131	2541503.605	602.236
GCP53	1135776.714	2525281.514	595.084
GCP54	1182656.547	2552326.575	603.6
GCP55	1139116.997	2414568.982	606.685
GCP56	1129003.757	2230697.962	624.32
GCP57	1118431.831	2279027.997	594.771
GCP58	1109961.271	2442400.047	594.112
GCP59	1097678.265	2321076.791	677.369
GCP60	1041216.076	2264466.759	565.58
GCP61	1075864.03	2300910.931	696.992
GCP62	1070715.956	2414146.479	624.866
GCP63	1046590.884	2473020.014	609.115
NVA01	1311777.304	2098259.295	639.355
NVA02	1311183.791	2198618.716	633.537
NVA03	1305874.041	2182908.798	667.242
NVA04	1290366.198	2115925.422	614.869
NVA05	1282265.691	2212614.231	640.348
NVA06	1270139.887	2094349.796	683.101
NVA207	1256856.794	2167900.428	613.565
NVA08	1279468.526	2278680.371	459.706
NVA09	1269258.531	2340256.747	494.923
NVA10	1241173.455	2292438.325	450.027
NVA11	1253525.319	2323758.721	458.751
NVA12	1264035.736	2232442.945	614.942
NVA13	1233799.043	2164557.027	587.886
NVA14	1213040.812	2182772.736	450.945
NVA15	1194657.436	2192739.072	455.724
NVA16	1208242.182	2103710.468	747.077
NVA17	1167820.465	2090010.71	608.916
NVA18	1167005.41	2167460.806	466.926
NVA19	1187305.916	2145858.79	664.536
NVA20	1169885.776	2451599.781	580.984
NVA21	1137607.057	2183869.171	441.766
NVA22	1358796.793	2359435.283	485.9
NVA23	1369199.045	2404275.387	497.234
NVA24	1343341.473	2346070.735	471.233
NVA25	1336544.69	2417203.886	505.154
NVA26	1302038.438	2329906.507	482.832
NVA27	1315857.705	2369885.468	502.968



Static Grid Coordinates			
Identifier	Northing	Easting	Elevation
NVA28	1291783.985	2360162.888	495.103
NVA29	1162896.211	2254715.262	554.442
NVA30	1155562.622	2331769.138	631.243
NVA31	1113822.74	2387392.143	637.482
NVA32	1324142.016	2453620.386	602.721
NVA3	1281559.954	2375195.856	521.681
NVA34	1289089.013	2432043.506	566.095
NVA35	1284204.848	2448738.306	561
NVA36	1232968.605	2399077.097	561.502
NVA37	1151319.563	2366255.508	628.845
NVA38	1065500.167	2354355.302	671.786
NVA39	1248299.576	2453380.564	603.548
NVA40	1226600.703	2345606.176	602.16
NVA41	1049191.303	2388267.026	693.516
NVA42	1210866.265	2451574.455	608.646
NVA43	1192713.488	2361377.762	623.934
NVA44	1200467.232	2462205.287	581.634
NVA45	1184898.378	2403374.255	599.262
NVA46	1182251.333	2485569.569	569.328
NVA47	1149410.173	2456034.712	571.89
NVA48	1160601.891	2509106.045	616.438
NVA49	1089056.83	2481423.717	583.411
NVA50	1110106.287	2493756.189	585.036
NVA51	1163897.394	2561703.221	603.549
NVA52	1142701.729	2540854.452	595.36
NVA53	1131560.869	2517006.578	601.231
NVA54	1173494.003	2547336.067	599.658
NVA55	1140039.115	2414231.947	599.393
NVA56	1128208.84	2217840.6	629.345
NVA57	1117190.979	2279012.839	612.464
NVA58	1107469.427	2429217.019	591.727
NVA59	1100506.23	2342610.526	672.758
NVA60	1041824.567	2258772.034	655.695
NVA61	1093484.492	2307871.581	668.329
NVA62	1064774.437	2422127.506	620.091
NVA63	1046516.824	2464441.057	616.445
NVA64	1274450.84	2260762.264	466.911
NVA65	1119020.69	2448658.799	589.2
NVA66	1243137.271	2378057.333	531.758
NVA67	1139260.021	2486843.726	590.849
NVA68	1166579.418	2154293.17	628.641
NVA69	1301255.468	2148321.079	637.89
NVA70	1208963.324	2148125.71	658.216
NVA71	1155464.787	2221455.303	591.149
NVA72	1086729.896	2394200.846	617.755



Static Grid Coordinates			
Identifier	Northing	Easting	Elevation
NVA73	1239035.04	2221852.36	450.298
NVA74	1091366.505	2260471.197	632.432
NVA75	1182001.39	2126102.031	681.935
NVA76	1221876.806	2396868.698	595.675
NVA77	1321906.845	2390541.807	500.51
NVA78	1174241.252	2531291.101	597.556
NVA79	1258961.172	2278221.654	444.575
NVA80	1054838.216	2304507.836	645.729
NVA81	1127513.904	2347561.304	648.05
NVA82	1159265.368	2410317.045	595.006
NVA83	1151683.636	2281312.432	590.128
NVA84	1168554.098	2365412.161	614.582
NVA85	1267834.07	2417068.869	568.861
NVA86	1087472.319	2358668.628	652.661
NVA87	1223438.231	2111578.439	739.082
NVA88	1349253.702	2390063.279	502.899
NVA89	1248185.842	2128512.332	614.951
NVA90	1135858.974	2419246.036	587.564
NVA91	1271032.419	2142500.66	482.671
VVA01	1311771.945	2094101.771	635.037
VVA02	1311248.434	2209616.92	631.986
VVA03	1301586.903	2177500.566	661.732
VVA04	1287137.808	2139035.429	597.223
VVA05	1275341.27	2198130.566	664.943
VVA06	1266078.148	2092581.929	683.198
VVA07	1256668.257	2168540.88	542.179
VVA08	1270726.553	2292420.958	443.279
VVA09	1254575.994	2352279.472	477.372
VVA10	1244520.241	2266903.984	451.287
VVA11	1252139.97	2308690.889	484.861
VVA12	1243061.869	2210722.023	627.704
VVA13	1236274.299	2137199.396	664.157
VVA14	1221084.078	2200072.004	432.359
VVA315	1195648.667	2162514.051	625.394
VVA16	1210826.521	2111839.849	724.722
VVA17	1160358.986	2088546.954	687.991
VVA18	1158136.65	2187184.833	455.725
VVA19	1177942.33	2152560.46	653.623
VVA20	1172517.114	2452278.348	567.991
VVA21	1140331.004	2197875.544	499.793
VVA22	1366078.523	2368093.155	498.019
VVA23	1369498.051	2406133.206	494.509
VVA24	1347616.598	2358054.639	493.647
VVA25	1348435.405	2406578.668	511.295
VVA26	1289178.715	2328904.338	496.504



Static Grid Coordinates			
Identifier	Northing	Easting	Elevation
VVA27	1310465.39	2364682.943	503.513
VVA28	1269786.922	2340867.829	501.167
VVA29	1154545.915	2282733.15	551.505
VVA30	1148479.747	2322628.122	584.433
VVA31	1095645.186	2367095.233	641.406
VVA32	1310454.732	2443637.907	578.836
VVA33	1284421.148	2403694.105	653.09
VVA34	1316769.849	2400912.868	514.748
VVA35	1274143.723	2441328.774	539.003
VVA36	1240130.713	2394792.9	523.428
VVA37	1163223.458	2379110.884	601.08
VVA38	1073856.217	2328053.529	676.988
VVA39	1238117.179	2436451.855	629.338
VVA40	1232457.162	2368460.641	588.953
VVA41	1047738.002	2358345.483	681.001
VVA42	1214810.268	2411690.436	579.378
VVA43	1197858.751	2355460.57	590.694
VVA44	1194168.091	2450845.401	563.397
VVA45	1176919.914	2417736.524	601.376
VVA46	1182234.91	2483451.121	565.331
VVA47	1159548.414	2475409.706	572.113
VVA48	1142307.502	2492837.03	556.947
VVA49	1089831.077	2463756.597	574.381
VVA50	1108416.483	2494077.06	583.93
VVA51	1162241.417	2557410.081	596.72
VVA52	1145611.187	2530353.326	589.665
VVA53	1134146.529	2520934.406	592.237
VVA53-1	1166938.778	2507528.723	650.245
VVA54	1175119.92	2526077.503	601.479
VVA55	1134997.055	2405846.011	609.996
VVA56	1141642.112	2227949.443	597.971
VVA57	1113512.696	2263731.488	677.671
VVA58	1112348.63	2433877.759	593.052
VVA59	1108155.252	2318992.582	640.899
VVA60	1061818.671	2272643.724	677.837
VVA61	1062656.161	2307928.599	624.966
VVA62	1070837.17	2429669.091	594.422
VVA63	1055752.685	2439903.699	615.324
VVA64	1266696.207	2239806.933	590.156
VVA65	1135715.888	2375603.381	584.12
VVA66	1260672.766	2402146.325	485.447
VVA67	1245496.512	2147261.347	486.914
VVA68	1216435.573	2179819.037	552.668
VVA69	1077495.788	2402395.962	622.699
VVA70	1156700.875	2234176.639	558.445

High Resolution Photos



GCP 01, 20171108



GCP 01, 20171108



GCP 02, 20171108



GCP 02, 20171108



GCP 03, 20171108



GCP 03, 20171108



GCP 04, 20171108



GCP 04, 20171108



GCP 05, 20171108



GCP 05, 20171108



GCP 06, 20171108



GCP 06, 20171108



GCP 07, 20171108



GCP 07, 20171108



GCP 08, 20171118



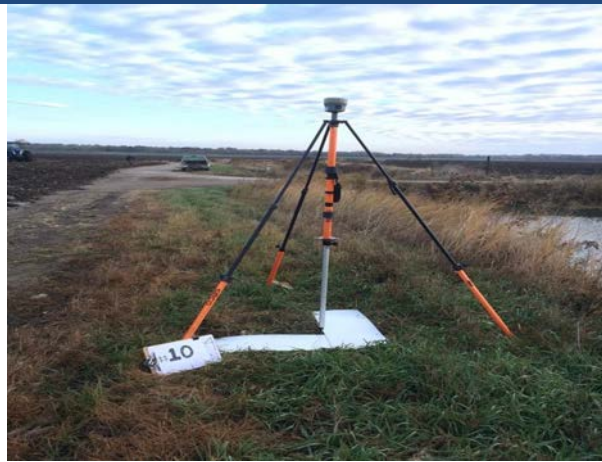
GCP 08, 20171118



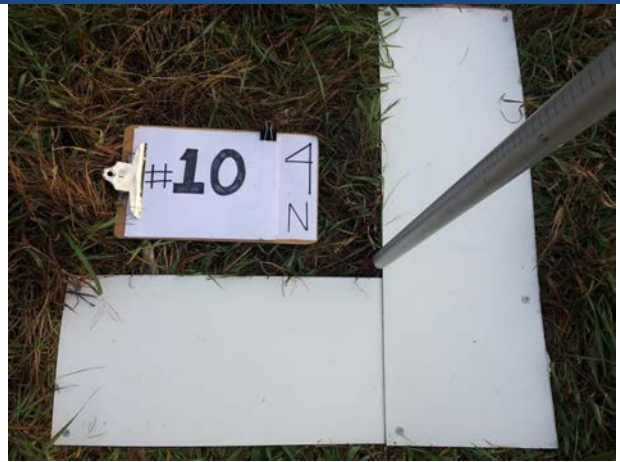
GCP 09, 20171118



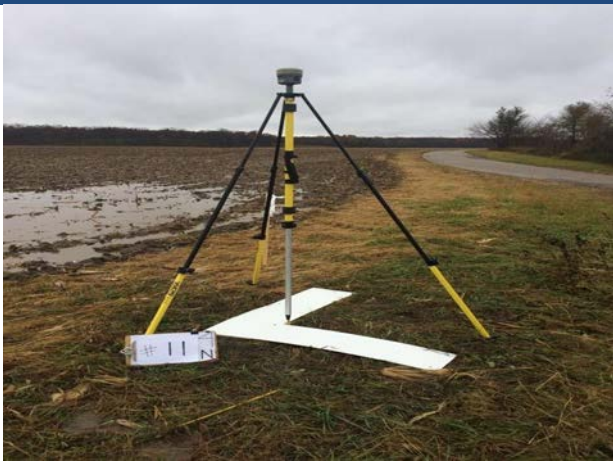
GCP 09, 20171118



GCP 10, 20171109



GCP 10, 20171109



GCP 11, 20171108



GCP 11, 20171108



GCP 12, 20171109



GCP 12, 20171109



GCP 13, 20171108



GCP 13, 20171108



GCP 14, 20171108



GCP 14, 20171108



GCP 15, 20171108



GCP 15, 20171108



GCP 16, 20171108



GCP 16, 20171108



GCP 17, 20171114



GCP 17, 20171114



GCP 18, 20171107



GCP 18, 20171107



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GCP 19, 20171108



GCP 19, 20171108



GCP 20, 20171108



GCP 20, 20171108



GCP 21, 20171108



GCP 21, 20171108



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GCP 22, 20171107



GCP 22, 20171107



GCP 23, 20171116



GCP 23, 20171116



GCP 24, 20171116



GCP 24, 20171116



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GCP 25, 20171116



GCP 25, 20171116



GCP 26, 20171117



GCP 26, 20171117



GCP 27, 20171116



GCP 27, 20171116



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GCP 28, 20171108



GCP 28, 20171108



GCP 29, 20171107



GCP 29, 20171107



GCP 30, 20171104



GCP 30, 20171104



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GCP 31, 20171104



GCP 31, 20171104



GCP 32, 20171108



GCP 32, 20171108



GCP 33, 20171108



GCP 33, 20171108



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GCP 34, 20171108



GCP 34, 20171108



GCP 35, 20171108



GCP 35, 20171108



GCP 36, 20171108



GCP 36, 20171108



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GCP 37, 20171106



GCP 37, 20171106



GCP 38, 20171101



GCP 38, 20171101



GCP 39, 20171108



GCP 39, 20171108



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GCP 40, 20171108



GCP 40, 20171108



GCP 41, 20171101



GCP 41, 20171101



GCP 42, 20171106



GCP 42, 20171106



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GCP 43, 20171108



GCP 43, 20171108



GCP 44, 20171106



GCP 44, 20171106



GCP 45, 20171106



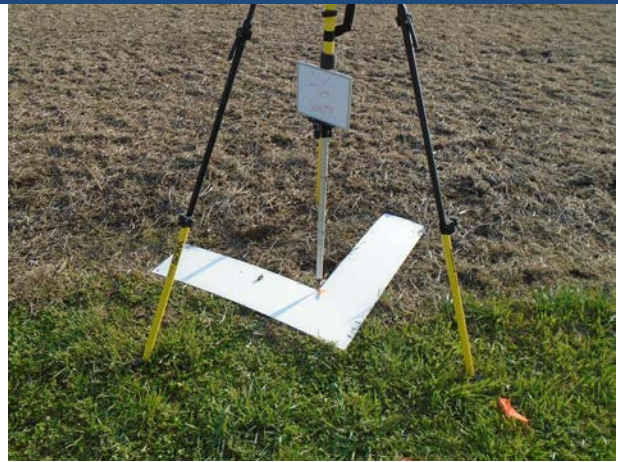
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SAM, LLC
1224 Fern Ridge Parkway, Suite 110, St. Louis, MO 63141
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GCP 46, 20171106



GCP 46, 20171106



GCP 47, 20171102



GCP 47, 20171102



GCP 48, 20171102



GCP 48, 20171102



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GCP 49, 20171105



GCP 49, 20171105



GCP 50, 20171105



GCP 50, 20171105



GCP 51, 20171102



GCP 51, 20171102



SAM, LLC
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GCP 52, 20171102



GCP 52, 20171102



GCP 53, 20171102



GCP 53, 20171102



GCP 54, 20171102



GCP 54, 20171102



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GCP 55, 20171104



GCP 55, 20171104



GCP 56, 20171107



GCP 56, 20171107



GCP 57, 20171104



GCP 57, 20171104



GCP 59, 20171104



GCP 59, 20171104



GCP 60, 20171114



GCP 60, 20171114



GCP 61, 20171114



GCP 61, 20171114



GCP 62, 20171101



GCP 62, 20171101



GCP 63, 20171105



GCP 63, 20171105



NVA 01, 20171117



NVA 01, 20171117



NVA 02, 20171118



NVA 02, 20171118



NVA 03, 20171118



NVA 03, 20171118



NVA 04, 20171117



NVA 04, 20171117



NVA 05, 20171109



NVA 05, 20171109



NVA 06, 20171117



NVA 06, 20171117



NVA 07, 20171109



NVA 07, 20171109



NVA 08, 20171118



NVA 08, 20171118



NVA 09, 20171118



NVA 09, 20171118



NVA 10, 20171118



NVA 10, 20171118



NVA 11, 20171118



NVA 11, 20171118



NVA 12, 20171109



NVA 12, 20171109



NVA 13, 20171109



NVA 13, 20171109



NVA 14, 20171109



NVA 14, 20171109



NVA 15, 20171109



NVA 15, 20171109



NVA 16, 20171108



NVA 16, 20171108



NVA 17, 20171114



NVA 17, 20171114



NVA 18, 20171109



NVA 18, 20171109



NVA 19, 20171109



NVA 19, 20171109



NVA 20, 20171107



NVA 20, 20171107



NVA 21, 20171107



NVA 21, 20171107



NVA 22, 20171116



NVA 22, 20171116



NVA 23, 20171116



NVA 23, 20171116



NVA 24, 20171116



NVA 24, 20171116



NVA 25, 20171116



NVA 25, 20171116



NVA 26, 20171117



NVA 26, 20171117



NVA 27, 20171116



NVA 27, 20171116



NVA 28, 20171116



NVA 28, 20171116



NVA 29, 20171107



NVA 29, 20171107



NVA 30, 20171115



NVA 30, 20171115



NVA 31, 20171104



NVA 31, 20171104



NVA 32, 20171116



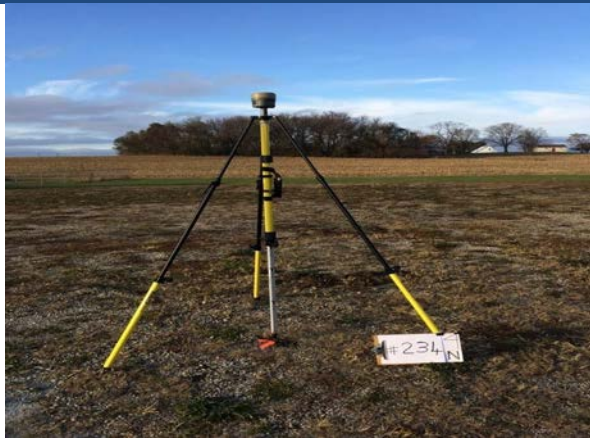
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NVA 33, 20171108



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NVA 34, 20171116



NVA 34, 20171116



NVA 35, 20171116



NVA 35, 20171116



NVA 36, 20171115



NVA 36, 20171115



NVA 37, 20171106



NVA 37, 20171106



NVA 38, 20171101



NVA 38, 20171101



NVA 39, 20171115



NVA 39, 20171115



NVA 40, 20171115



NVA 40, 20171115



NVA 41, 20171101



NVA 41, 20171101



NVA 42, 20171106



NVA 42, 20171106



NVA 43, 20171115



NVA 43, 20171115



NVA 44, 20171106



NVA 44, 20171106



NVA 45, 20171106



NVA 45, 20171106



NVA 46, 20171106



NVA 46, 20171106



NVA 47, 20171102



NVA 47, 20171102



NVA 48, 20171102



NVA 48, 20171102



NVA 49, 20171105



NVA 49, 20171105



NVA 50, 20171115



NVA 50, 20171115



NVA 51, 20171102



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NVA 53, 20171102



NVA 54, 20171102



NVA 54, 20171102



NVA 55, 20171104



NVA 55, 20171104



NVA 56, 20171107



NVA 56, 20171107



NVA 57, 20171104



NVA 57, 20171104



NVA 58, 20171101



NVA 58, 20171101



NVA 59, 20171104



NVA 59, 20171104



NVA 60, 20171114



NVA 60, 20171114



NVA 61, 20171104



NVA 61, 20171104



NVA 62, 20171101



NVA 62, 20171101



NVA 63, 20171105



NVA 63, 20171105



NVA 64, 20171118



NVA 64, 20171118



NVA 65, 20171115



NVA 65, 20171115



NVA 66, 20171108



NVA 66, 20171108



NVA 67, 20171102



NVA 67, 20171102



NVA 68, 20171114



NVA 68, 20171114



NVA 69, 20171117



NVA 69, 20171117



NVA 70, 20171109



NVA 70, 20171109



NVA 71, 20171107



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NVA 72, 20171101



NVA 72, 20171101



NVA 73, 20171109



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NVA 74, 20171114



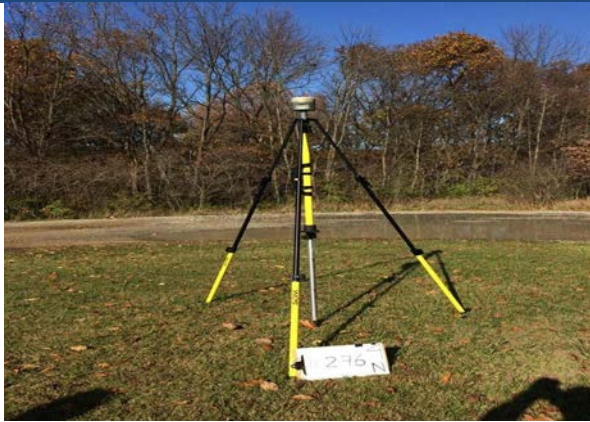
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NVA 77, 20171116



NVA 78, 20171102



NVA 78, 20171102



NVA 79, 20171118



NVA 79, 20171118



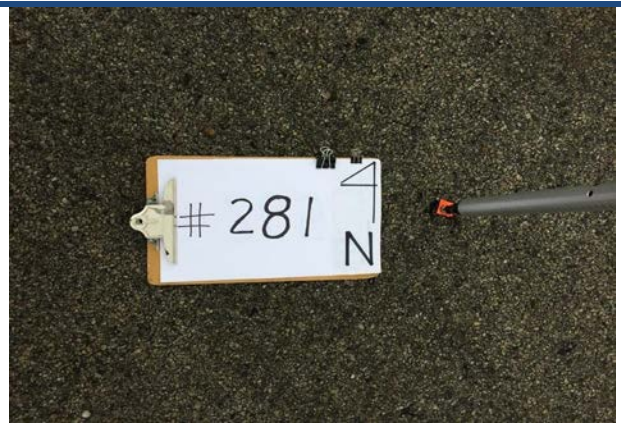
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NVA 81, 20171115



NVA 81, 20171115



NVA 82, 20171104



NVA 82, 20171104



NVA 83, 20171104



NVA 83, 20171104



NVA 84, 20171106



NVA 84, 20171106



NVA 85, 20171115



NVA 85, 20171115



NVA 86, 20171101



NVA 86, 20171101



NVA 87, 20171108



NVA 87, 20171108



NVA 88, 20171116



NVA 88, 20171116



NVA 89, 20171108



NVA 89, 20171108



NVA 90, 20171104



NVA 90, 20171104



NVA 91, 20171117



NVA 91, 20171117



VVA 01, 20171117



VVA 01, 20171117



VVA 02, 20171118



VVA 02, 20171118



VVA 03, 20171117



VVA 03, 20171117



VVA 04, 20171117



VVA 04, 20171117



VVA 05, 20171109



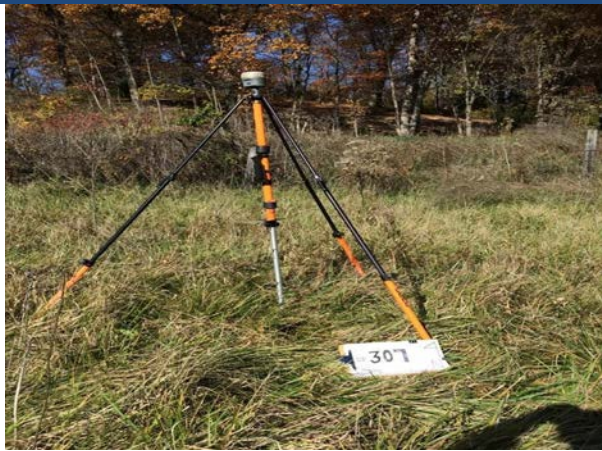
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VVA 07, 20171109



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VVA 08, 20171118



VVA 08, 20171118



VVA 09, 20171118



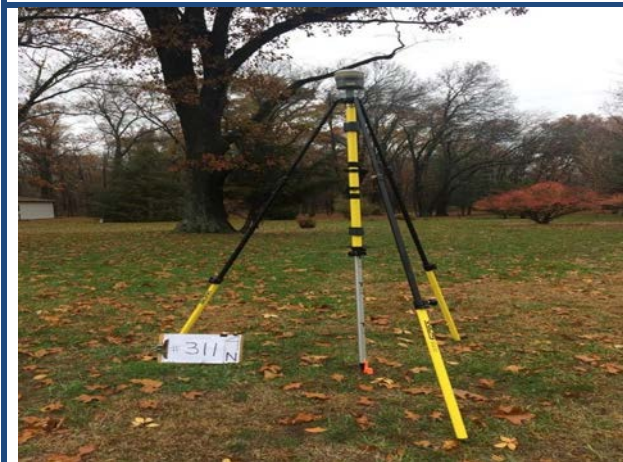
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VVA 10, 20171118



VVA 11, 20171118



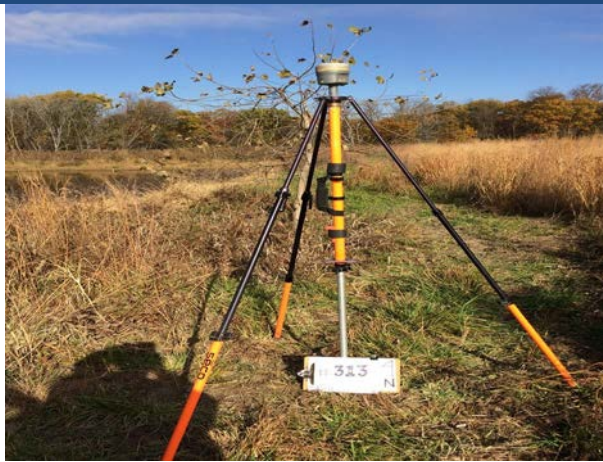
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VVA 12, 20171109



VVA 13, 20171108



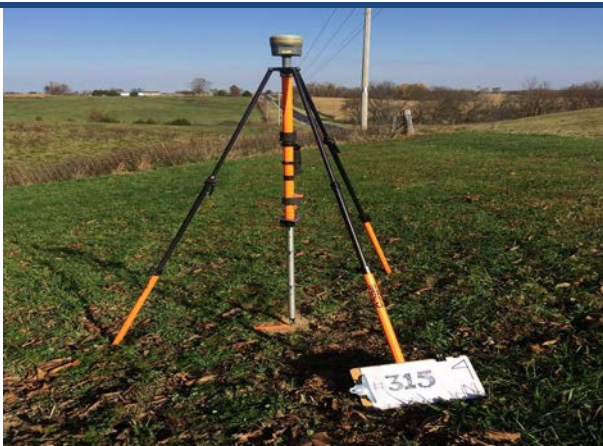
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VVA 14, 20171109



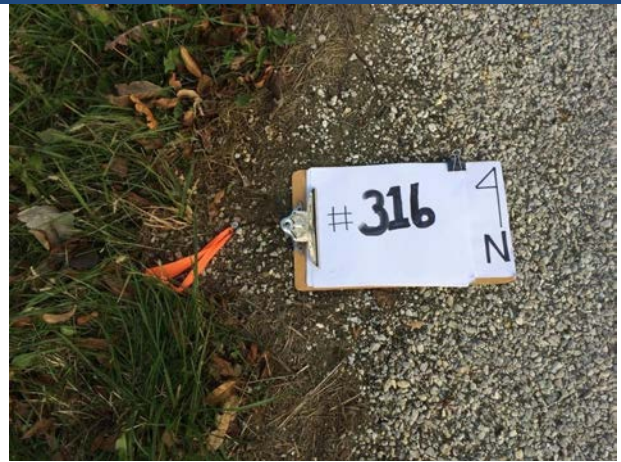
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VVA 16, 20171108



VVA 16, 20171108



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VVA 18, 20171107



VVA 18, 20171107



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VVA 20, 20171107



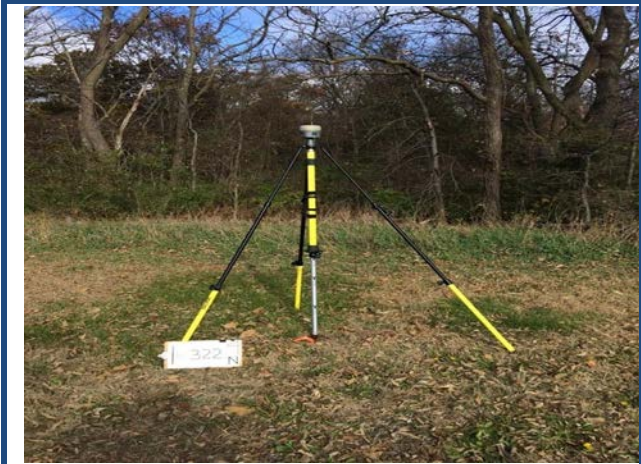
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VVA 21, 20171107



VVA 22, 20171116



VVA 22, 20171116



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VVA 24, 20171116



VVA 24, 20171116



VVA 25, 20171116



VVA 25, 20171116



VVA 26, 20171117



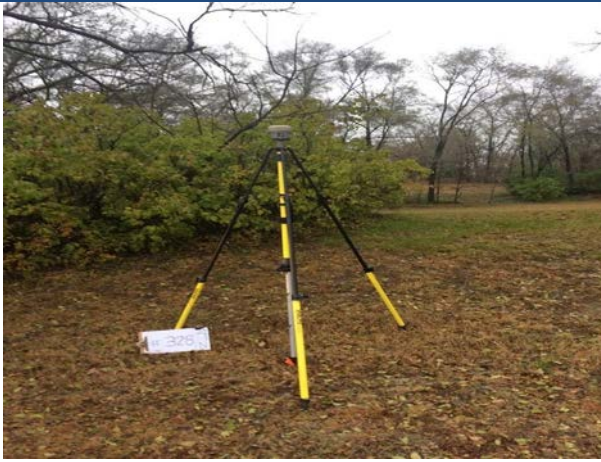
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VVA 27, 20171116



VVA 27, 20171116



VVA 28, 20171117



VVA 28, 20171117



VVA 29, 20171104



VVA 29, 20171104



VVA 30, 20171104



VVA 30, 20171104



VVA 31, 20171101



VVA 31, 20171101



VVA 32, 20171116



VVA 32, 20171116



VVA 33, 20171115



VVA 33, 20171115



VVA 36, 20171115



VVA 36, 20171115



VVA 37, 20171106



VVA 37, 20171106



VVA 38, 20171101



VVA 38, 20171101



VVA 39, 20171115



VVA 39, 20171115



VVA 40, 20171108



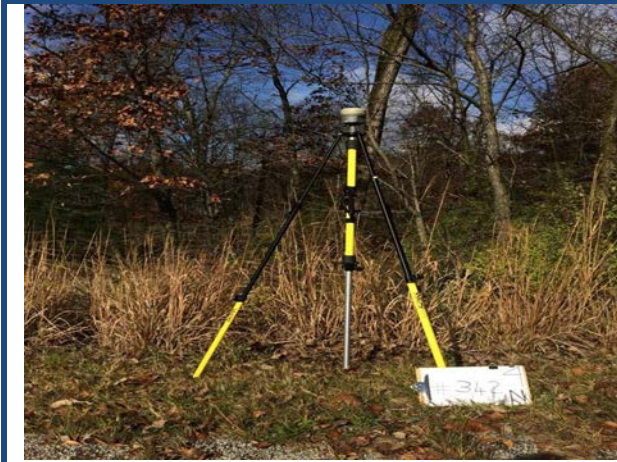
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VVA 41, 20171101



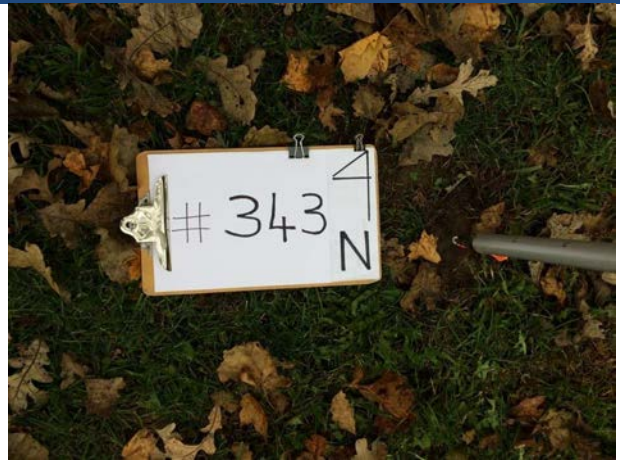
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VVA 43, 20171115



VVA 43, 20171115



VVA 44, 20171106



VVA 44, 20171106



VVA 45, 20171104



VVA 45, 20171104



VVA 46, 20171106



VVA 46, 20171106



VVA 47, 20171102



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VVA 48, 20171102



VVA 48, 20171102



VVA 49, 20171105



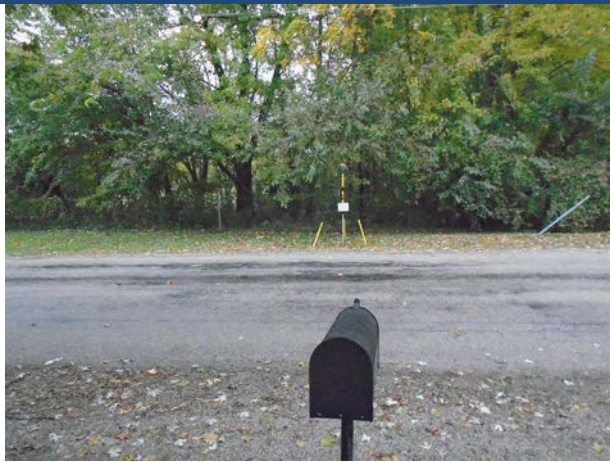
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VVA 51, 20171102



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VVA 53, 20171102



VVA 53, 20171102



VVA 54, 20171102



VVA 54, 20171102



VVA 55, 20171104



VVA 55, 20171104



VVA 56, 20171107



VVA 56, 20171107



VVA 57, 20171107



VVA 57, 20171107



VVA 58, 20171101



VVA 58, 20171101



VVA 59, 20171104



VVA 59, 20171104



VVA 60, 20171114



VVA 60, 20171114



VVA 61, 20171114



VVA 61, 20171114



VVA 62, 20171101



VVA 62, 20171101



VVA 63, 20171105



VVA 63, 20171105



VVA 64, 20171109



VVA 64, 20171109



VVA 65, 20171106



VVA 65, 20171106



VVA 66, 20171115



VVA 66, 20171115



VVA 67, 20171108



VVA 67, 20171108



VVA 68, 20171109



VVA 68, 20171109



VVA 69, 20171101



VVA 69, 20171101



VVA 70, 20171107



VVA 70, 20171107