

PoroTomo Project March 2016 Nodal Data Sheet

Installer Names: *Thurber & Cardiff*

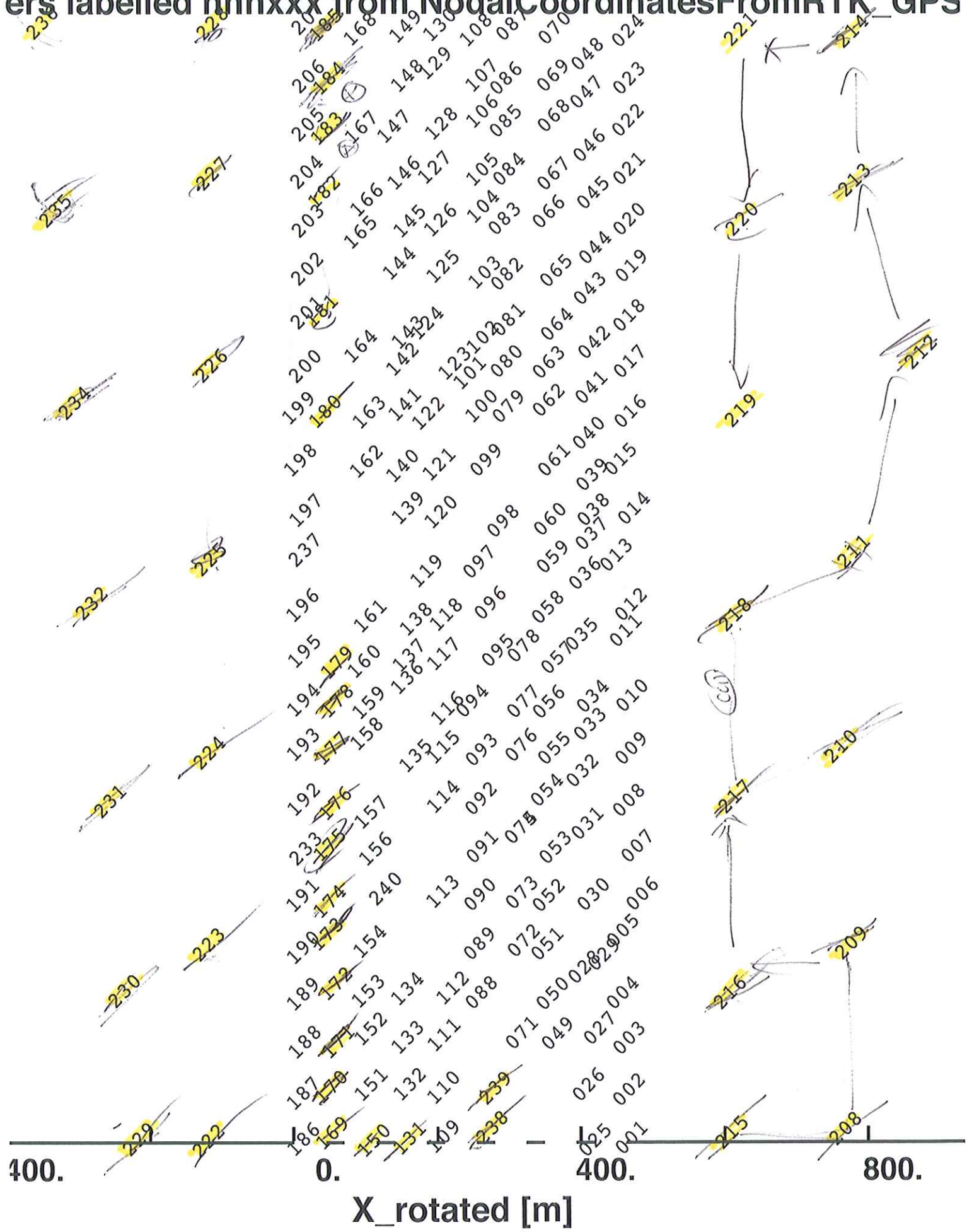
Date (UTC): 2016 March *8* Time (UTC): *2054* (local) Day of Week: *Tuesday*

PoroTomo Sensor Number:	N- <i>55</i>	
Sensor Owner:	Utah <u>Oregon</u>	UTEP
Sensor Serial Number:	<i>1656</i>	
Site and soil condition:	<i>Clayey</i>	
Stake (color and label) or NONE	<i>Pink 55</i>	
Approximate distance to DAS cable	<u> </u>	meters
Burial Information:	Above ground: <i>3cm</i>	cm
	Flush with surface	
	Below surface:	cm
Digging tools used	<i>Trowel</i>	
Realized Longitude: DD.mmmm	<i>119.00386'</i>	<i>4179ft</i>
Realized Latitude: DD.mmmm	<i>39.80310'</i>	
Did you orient arrow to True North using a Brunton compass with declination set to 13.5 deg East? <i>Yes</i>	HHT used: <i>Oregon 1</i>	
Number of your handheld GPS:	Your Waypoint code: NN 55 <i>055</i>	
Resonant frequency:	Vertical: N-S: <i>YUMA</i> E-W: <i>YUMA</i>	
The red LED shows the status: (1 blink, every 5 seconds = standby mode) (Fast blinking, every second = getting time from GPS) 2 quick blinks every 5 seconds = acquiring data!	Wait to see two quick blinks! Time when you see 2 quick blinks: UTC: (hh:mm) YUMA <i>2054</i>	

UTC date (2016/03/)	UTC time (hh:mm)	2 quick blinks?

TEAM 1

ers labelled nnnxxx from NodalCoordinatesFromRTK_GPS



Team 1 Nodal Recovery
Names: Kurt and Xiangfang

7/26/03/26

Station	Surveyed location		Record at time of recovery				Time (UTC)
	Latitude	Longitude	Serial #	Orientation	Latitude	Longitude	
NN238	39.799703	-119.008170	1096	005	39.79966	119.00818	14:46
NN239	39.800080	-119.007755	1073	000	39.80007	119.00776	14:32
NN215	39.797921	-119.005036	1452	001	39.79790	119.00505	15:03
NN216	39.799346	-119.003751	1331	010	39.79932	119.00377	15:07
NN217	39.801297	-119.001860	1521	003	39.80128	119.00186	15:39
NN218	39.803138	-119.000152	1363	004	39.80313	119.00017	15:58
NN219	39.805168	-118.998165	1428	002	39.80518	118.99818	16:51
NN220	39.807101	-118.996365	1432	000	39.80712	118.99640	16:47
NN221	39.809039	-118.994612	1437	003	39.80903	118.99463	16:40
NN214	39.808210	-118.993143	1367	003	39.80823	118.99314	16:23
NN213	39.806682	-118.994503	1478	359	39.80668	118.99451	16:23
NN212	39.804452	-118.995223	1300	355	39.80445	118.99524	16:18
NN211	39.802918	-118.997984	1314	357	39.80293	118.99798	16:08
NN210	39.801034	-118.999974	1461	005	39.80101	118.99997	15:46
NN209	39.798971	-119.001675	1326	006	39.79895	119.00166	15:19
NN208	39.797133	-119.003486	1301	005	39.79711	119.00349	15:11
NN222	39.801615	-119.012060	1091	005	39.80161	119.01207	18:45
NN223	39.803602	-119.010224	1074	003	39.80360	119.01020	20:35
NN224	39.805537	-119.008422	1052	000	39.80554	119.00839	20:28
NN225	39.807489	-119.006604	1493	352	39.80751	119.00658	20:20
NN226	39.809445	-119.004779	1407	005	39.80947	119.00476	20:48
NN227	39.811390	-119.002977	1555	005	39.81140	119.00296	20:54
NN228	39.812913	-119.001567	1562	357	39.81292	119.00155	20:00
NN229	39.802139	-119.012977	1575	004	39.80214	119.01296	17:44

covered the drug mud
111

1559 004

39.80214 119.01296

18:34

Team 1 Nodal Recovery
Names: Kurt and Xiangfang

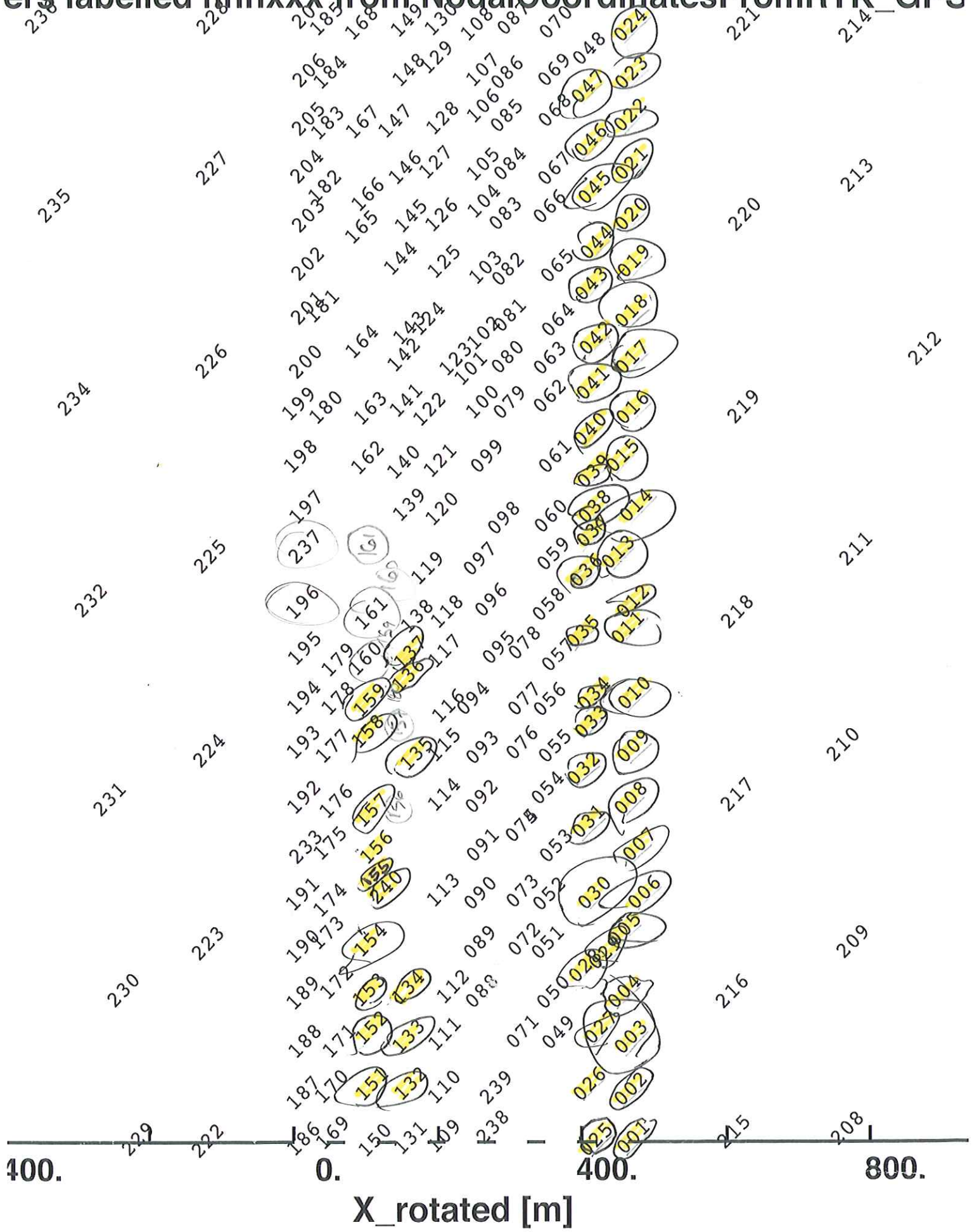
2016/03/26

Station	Surveyed location		Serial #	Orientation	Record at time of recovery			Time (UTC)
	Latitude	Longitude			Latitude	Longitude		
NN230	39.803746	-119.011789	1580	000	39.80374	119.01177	18:27	
NN231	39.805772	-119.010207	1564	000	39.80577	119.01021	18:17	
NN232	39.807910	-119.008608	1574	000	39.80790	119.00861	18:09	
NN234	39.810068	-119.006961	1551	000	39.81005	119.00697	18:05	
NN235	39.812158	-119.005426	1542	000	39.81211	119.00543	17:55	
NN236	39.814161	-119.003846	1575	004	39.81416	119.00385	17:49	
NN131	39.800191	-119.009366	1079	350	39.80019	119.00937	21:17	
NN150	39.800425	-119.009860	1068	355	39.80044	119.00986	21:17	
NN169	39.800802	-119.010342	1095	355	39.80080	119.01033	21:12	
NN170	39.801277	-119.009927	1086	007	39.80129	119.00991	21:29	
NN171	39.801680	-119.009406	1062	352	39.80170	119.00938	21:33	
NN172	39.802285	-119.008896	1077	000	39.80229	119.00890	21:38	
NN173	39.802851	-119.008560	1056	355	39.80283	119.00857	21:42	
NN174	39.803163	-119.008219	1094	350	39.80317	119.00822	21:46	
NN175	39.803736	-119.007690	1059	003	39.80370	119.00771	22:09	
NN176	39.804113	-119.007224	1092	351	39.80411	119.00722	22:06	
NN177	39.804698	-119.006758	1359	353	39.80472	119.00676	21:52	
NN178	39.805138	-119.006242	1308	358	39.80514	119.00626	21:55	
NN179	39.805527	-119.005884	1071	343	39.80553	119.00586	21:58	
NN180	39.808162	-119.003699	1481	353	39.80816	119.00372	22:47	
NN181	39.809206	-119.002805	1460	004	39.80920	119.00282	22:41	
NN182	39.810396	-119.001664	1300	350	39.8105	119.00167	22:38	
NN183	39.811021	-119.001034	1556	008	39.81101	119.00103	22:28	
NN184	39.811514	-119.000533	1586	355	39.81152	119.00053	22:25	
NN185	39.812079	-119.000083	1569	000	39.81206	119.00010	22:24	

457

TEAM 2

ers labelled nnnxxx from NodalCoordinatesFromRTK_GPS



Team 2 Nodal Recovery
 Names: Dante and Chelsea

Station	Surveyed location		Record at time of recovery			Time (UTC)	
	Latitude	Longitude	Serial #	Orientation	Latitude		Longitude
NN001	39.798587	-119.006409	0001144	6°	39.79859	119.00642	14:56:37
NN002	39.799092	-119.005993	0001152	6°	39.79908	119.00596	15:01:01
NN003	39.799613	-119.005508	0001192	3°	39.79961	119.00550	15:05:56
NN025	39.798828	-119.006918	0001146	5°	39.79882	119.00692	14:48:37
NN026	39.799436	-119.006485	0001175	359°	39.79944	119.00649	19:03:34
NN027	39.799928	-119.005809	0001157	359°	39.79993	119.00508	19:09:20
NN004	39.800119	-119.005173	0001149	357°	39.80013	119.00518	15:11:07
NN005	39.800747	-119.004589	0001200	4°	39.80075	119.00460	15:18:16
NN006	39.800975	-119.003991	0001153	356°	39.80097	119.00400	15:25:45
NN028	39.800656	-119.005445	0001189	358°	39.80065	119.00543	19:02:34
NN029	39.800641	-119.005062	0001193	4°	39.80062	119.00506	18:58:05
NN030	39.801326	-119.004646	0001176	7°	39.80131	119.00464	18:52:37
NN007	39.801496	-119.003610	0001148	358°	39.80150	119.00362	15:32:21
NN008	39.802022	-119.003292	0001235	355°	39.80201	119.00329	15:39:36
NN009	39.802530	-119.002773	0001233	357°	39.80253	119.00277	15:47:33
NN031	39.802090	-119.004059	0001224	357°	39.80209	119.00407	18:46:37
NN032	39.802658	-119.003634	0001234	2°	39.80267	119.00365	18:41:39
NN033	39.803075	-119.003098	0001194	17°	39.80309	119.00310	19:36:57
NN010	39.803059	-119.002269	0001152	1°	39.80305	119.00228	15:51:13
NN011	39.803764	-119.001746	0001162	2°	39.80376	119.00175	15:57:52
NN012	39.803991	-119.001434	0001213	7°	39.80399	119.00143	16:02:25
NN034	39.803337	-119.002801	0001231	7°	39.80335	119.00279	18:31:20
NN035	39.804046	-119.002368	0001178	359°	39.80404	119.00237	18:24:46
NN036	39.804637	-119.001757	000202	0°	39.80465	119.00174	19:18:17

03 Blink
 04 Blink
 05 Blink
 06 Blink
 07 Blink
 08 Blink
 09 Blink
 47 Blink
 46 Blink
 45 Blink
 10 Blink
 11 Blink
 12 Blink
 44 Blink
 43 Blink
 42 Blink
 13 Blink
 14 Blink
 15 Blink
 41 Blink
 40 Blink
 39 Blink

Team 2 Nodal Recovery
Names: Dante and Chelsea

Station	Surveyed location		Serial #	Orientation	Record at time of recovery			Time (UTC)
	Latitude	Longitude			Latitude	Longitude	Time (UTC)	
NN013	39.804597	-119.001170	000216	30	39.80460	119.00117	16:07:26	
NN014	39.804944	-119.000497	000165	3540	39.80494	119.00050	16:13:12	
NN015	39.805539	-119.000212	000237	30	39.80555	119.00021	16:19:34	
NN037	39.804994	-119.001301	000243	20	39.80500	119.00129	18:13:40	
NN038	39.805225	-119.001051	000188	3570	39.80521	119.00106	18:08:46	
NN039	39.805588	-119.000738	000168	40	39.80558	119.00074	18:02:57	
NN016	39.805951	-118.999639	000212	00	39.80595	118.99965	16:26:48	
NN017	39.806462	-118.999181	000299	3580	39.80644	118.99918	16:31:17	
NN018	39.806936	-118.998758	000196	3550	39.80694	118.99878	16:36:42	
NN040	39.806036	-119.000395	000206	180 20	39.80603	118.99963	17:50:39	
NN041	39.806479	-118.999934	000203	3590	39.80648	118.99992	17:56:39	
NN042	39.806915	-118.999476	000208	30	39.80692	118.99949	17:45:36	
NN019	39.807422	-118.998262	000241	110	39.80742	118.99824	16:43:40	
NN020	39.807912	-118.997859	000240	3590	39.80791	118.99786	16:51:37	
NN021	39.808425	-118.997390	000180	50	39.80843	118.99740	16:58:14	
NN043	39.807494	-118.999030	000236	3520	39.80750	118.99902	17:40:03	
NN044	39.807871	-118.998578	000230	3530	39.80788	118.99863	17:36:06	
NN045	39.808441	-118.998096	000222	3500	39.80845	118.99811	17:31:55	
NN022	39.808923	-118.996953	000217	00	39.80891	118.99696	17:02:27	
NN023	39.809342	-118.996543	000209	3510	39.80935	118.99654	17:07:36	
NN024	39.809833	-118.996115	000187	00	39.80983	118.99611	17:11:41	
NN046	39.808946	-118.997704	000182	20	39.80895	118.99771	17:26:59	
NN047	39.809511	-118.997244	000179	30	39.80950	118.99725	17:17:58	

End of UTEP nodals

16 ?
17 Blink
18 Blink
38 Blink
37 Blink
34 Blink
19 Blink
20 Blink
21 Blink
22 Blink
23 Blink
24 Blink
32 Blink
31 Blink
30 Blink
25 Blink
26 Blink
27 Blink
29 Blink
28 Blink
missing spike

Team 2 Nodal Recovery
 Names: Dante and Chelsea

Station	Surveyed location		Serial #	Orientation	Record at time of recovery			Time (UTC)
	Latitude	Longitude			Latitude	Longitude	Time (UTC)	
NN132	39.800739	-119.008860	0001445	356°	39.80075	119.00887	20:22:16	
NN151	39.801013	-119.009374	0001464	357°	39.80100	119.030935	20:18:40	
NN152	39.801580	-119.008859	0001658	350°	39.80158	119.00886	20:26:57	
NN133	39.801228	-119.008450	0001444	354°	39.80124	119.00845	20:30:21	
NN134	39.801721	-119.008001	0001457	355°	39.80174	119.00800	20:34:45	
NN153	39.801978	-119.008541	0001684	352°	39.80204	119.00854	20:37:20	
NN154	39.802467	-119.008059	0001089	40°	39.80248	119.00806	20:40:43	
NN240	39.802892	-119.007361	0001053	30°	39.80290	119.00736	20:45:17	
NN155	39.803362	-119.007186	0001072	357°	39.80337	119.00713	20:49:36	
NN156	39.803362	-119.007118	0001072	357°	39.80337	119.00713	21:20:40	
NN157	39.803768	-119.006837	0001063	350°	39.80377	119.00684	21:02:53	
NN135	39.804019	-119.005718	0001483	340°	39.80404	119.0057	21:15:45	
NN158	39.804594	-119.006156	0001473	0°	39.80459	119.00615	21:22:40	
NN159	39.804893	-119.005838	0001442	30°	39.80490	119.00584	21:26:50	
NN136	39.804869	-119.005096	0001644	20°	39.80487	119.00509	21:38:49	
NN137	39.805084	-119.004867	0001066	354°	39.80508	119.00487	21:41:44	
real 161			0001090	30°	39.80641	119.00456	22:39:42	

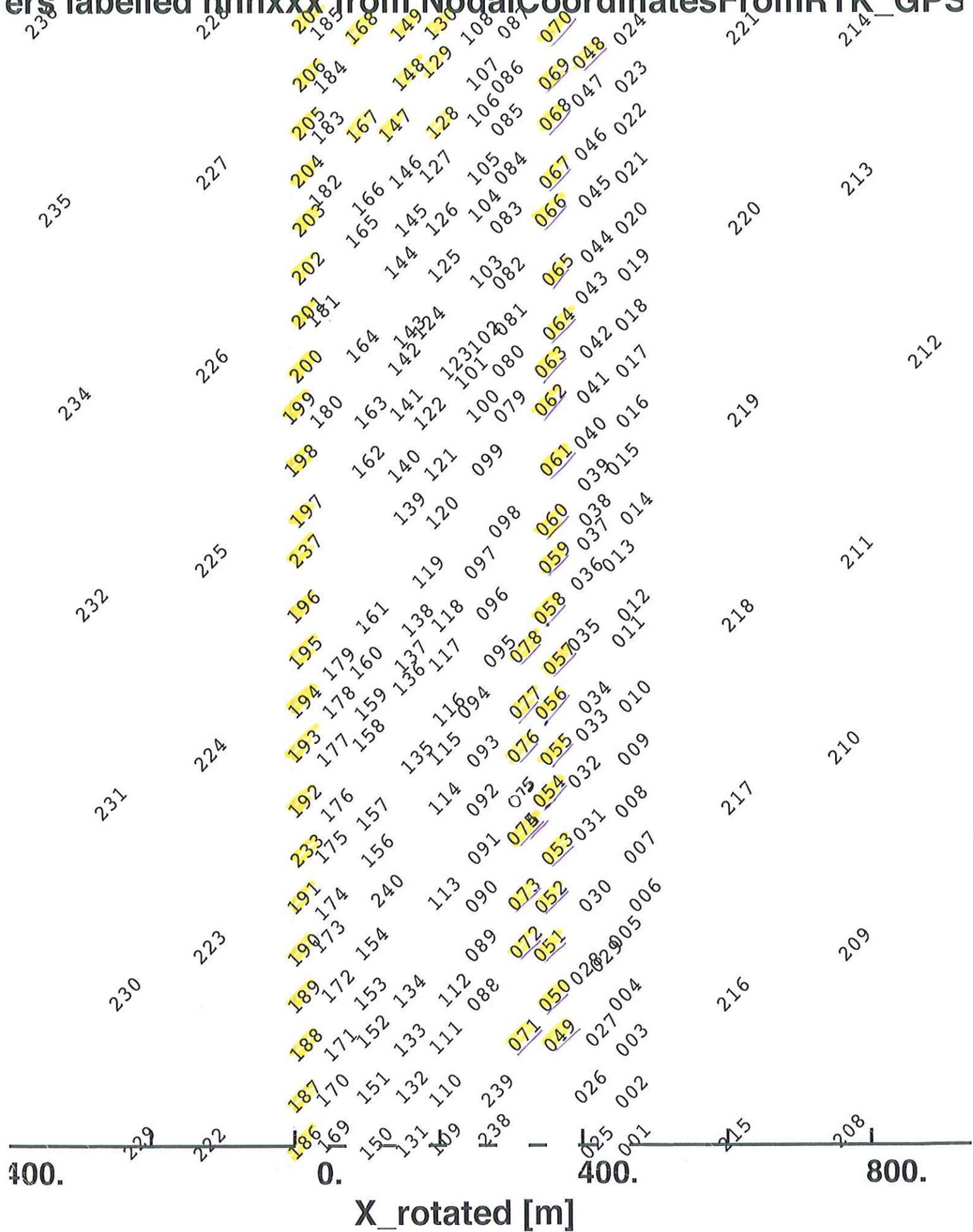
51 Blink
 50 Blink
 52 Blink
 53 Blink
 54 Blink
 55 Blink
 56 Blink
 58 Blink
 59 Blink
 60 Blink
 61 Blink
 62 Blink
 63 Blink
 64 Blink
 65 Blink
 67 Blink

can't find
 n156
 n157
 n158

couldn't locate 156, serial # in location NN157
 NN157 serial # located in 158
 NN158 serial # located in 159

TEAM 3

ers labelled nnnxxx from NodalCoordinatesFromRTK_GPS



Team 3 Nodal Recovery
Names: Lesley and Bill

Station	Surveyed location		Record at time of recovery				
	Latitude	Longitude	Serial #	Orientation	Latitude	Longitude	Time (UTC)
NN071	39.800448	-119.006885	1638	350	N 39.80043°	W 119.00610	14:54
NN049	39.800180	-119.006417	1644	350	N 39.80019°	W 119.00640	15:05
NN050	39.800620	-119.006113	1654	350	N 39.80059°	W 119.00640	15:11
NN051	39.801160	-119.005722	1636	353	N 39.80116°	W 119.00571°	15:24
NN072	39.801363	-119.006007	1665	357	N 39.80137°	W 119.00600°	15:18
NN073	39.801864	-119.005581	1656	344	N 39.80181°	W 119.00559°	15:29 15:37
NN052	39.801640	-119.005250	1643	340	N 39.80161°	W 119.00525°	15:29
NN053	39.802077	-119.004713	1647	340	N 39.80205°	W 119.00473°	16:00
NN074	39.8018642	-119.0055811	1697	003	N 39.80251°	W 119.00500°	15:52
NN075	39.8025311	-119.0049867	1614	344	N 39.80271°	W 119.00430°	16:05
NN054	39.802720	-119.004288	1624 1635	345	N 39.80066°	W 119.00652°	18:05
NN055	39.803091	-119.003801	1651	344	N 39.80310°	W 119.00382°	16:20
NN076	39.803360	-119.004209	1653	347	N 39.80335°	W 119.00423°	16:15
NN077	39.803788	-119.003776	1651	340	N 39.80378°	W 119.00379°	16:31
NN056	39.803597	-119.003438	1604	358	N 39.80359°	W 119.00345°	16:47
NN057	39.803987	-119.002912	1626	358	N 39.80398°	W 119.00293°	16:52
NN078	39.804350	-119.003248	1621	350	N 39.80436°	W 119.00325°	16:37
NN058	39.804564	-119.002567	1654	357	N 39.80456°	W 119.00258°	16:57
NN059	39.805040	-119.002032	1622	006	N 39.80504°	W 119.00204°	17:02
NN060	39.805443	-119.001716	1588	333	N 39.80544°	W 119.00172°	17:20
NN061	39.806014	-119.001106	1630	003	N 39.80603°	W 119.00112°	17:26
NN062	39.806659	-119.000620	1599	358	N 39.80666°	W 119.00063°	17:32
NN063	39.807043	-119.000265	1625	358	N 39.80704°	W 119.00028°	17:36
NN064	39.807368	-118.999803	1629	000	N 39.80737°	W 118.99983°	17:41
			1662	557	N 39.80734°	W 118.99979°	17:56

Cone
Cone
Cone

73
74
75
72

Team 3 Nodal Recovery
 Names: Lesley and Bill

Station	Surveyed location		Record at time of recovery				Time (UTC)
	Latitude	Longitude	Serial #	Orientation	Latitude	Longitude	
NN065	39.807920	-118.999313	1629	000	N 39.80792°	W 118.99932°	17:41
NN066	39.808569	-118.998862	1603	356	N 39.80857°	W 118.99883°	17:47
NN067	39.808922	-118.998444	1633	353	N 39.80892°	W 118.99843°	18:09
NN068	39.809508	-118.997898	1661	356	N 39.80950°	W 118.99791°	18:15
NN069	39.809923	-118.997529	1611	359	N 39.80992°	W 118.99752°	18:19
NN070	39.810392	-118.997066	1666	356	N 39.81039°	W 118.99706°	18:24
NN048	39.809889	-118.996872	1604	003	N 39.80989°	W 118.99687°	18:32

Start of Utah nodals

NN167	39.810782	-119.000569	1583	367	39.81078°	-119.00059°	22:37
NN147	39.810557	-119.000129	1581	356	39.81054°	-119.00014°	22:23
NN148	39.810975	-118.999473	1094	350	39.81096°	-118.99949°	22:13
NN128	39.810243	-118.999469	1082	358	39.81022°	-118.99948°	22:25
NN129	39.810902	-118.998982	1066	353	39.81087°	-118.99899°	22:08
NN130	39.811257	-118.998568	1097	001	39.81126°	-118.99859°	22:03
NN149	39.811489	-118.999034	1091	355	39.81147°	-118.99905°	21:59
NN168	39.811786	-118.999662	1542	004	39.81177°	-118.99966°	21:54
NN207	39.812278	-119.000256	1337	005	39.81227°	-119.00024°	21:41
NN206	39.811682	-119.000793	1309	003	39.81168°	-119.00079°	21:37
NN205	39.811200	-119.001250	1315	000	39.81120°	-119.00125°	21:33
NN204	39.810726	-119.001711	1269	356	39.81071°	-119.00171°	21:30
NN203	39.810221	-119.002147	1316	258	39.81023°	-119.00214°	21:26
NN202	39.809740	-119.002603	1055	010	39.80975°	-119.00260°	21:22
NN201	39.809297	-119.003017	1440	000	39.80929°	-119.00301°	21:19
NN200	39.808768	-119.003542	1340	349	39.80877°	-119.00354°	21:15

Team 3 Nodal Recovery
 Names: Lesley and Bill

Station	Surveyed location		Record at time of recovery				Time (UTC)
	Latitude	Longitude	Serial #	Orientation	Latitude	Longitude	
NN199	39.808390	-119.004020	1421	355	39.80839	-119.00402	2112
NN198	39.807848	-119.004484	1503	356	39.80786	-119.00447	2100
NN197	39.807297	-119.004883	1067	356	39.80720	-119.00488	2106
NN237	39.806904	-119.005267	1351	357	39.80693	-119.00526	2103
NN196	39.806357	-119.005811	1098	356	39.80639	-119.00581	2059
NN195	39.805881	-119.006215	1054	002	39.80589	-119.00621	2050
NN194	39.805391	-119.006681	1075	012	39.80541	-119.00668	2053
NN193	39.804943	-119.007100	1093	356	39.80498	-119.00709	2049
NN192	39.804384	-119.007607	1055	357	39.80444	-119.00761	2046
NN233	39.803873	-119.008043	1070	357	39.80390	-119.00803	2043
NN191	39.803418	-119.008522	1065	001	39.80343	-119.00851	2041
NN190	39.802889	-119.009001	1063	354	39.80289	-119.00899	2037
NN189	39.802421	-119.009433	1080	357	39.80241	-119.00943	2034
NN188	39.801921	-119.009856	1469	353	39.80193	-119.00985	2030
NN187	39.801413	-119.010359	1523	363	39.80143	-119.01035	2025
NN186	39.800945	-119.010783	1458	348	39.80097	-119.01077	2021

TEAM 4

ers labelled nnnxxx from NodalCoordinatesFromRTK_GPS

UTAH

OREGON

400.

229

222

0.

X_rotated [m]

400.

215

208

800.

235

234

232

231

230

227

226

225

224

223

206

205

204

203

202

201

200

199

198

197

196

195

194

193

192

191

190

189

188

187

186

185

184

183

182

181

180

179

178

177

176

175

174

173

172

171

170

169

168

167

166

165

149

148

147

146

145

144

143

142

141

140

139

138

137

136

135

134

133

132

131

130

108

107

106

105

104

103

102

101

100

099

098

097

096

095

094

093

092

091

090

089

088

070

069

068

067

066

065

064

063

062

061

060

059

058

057

056

055

054

053

052

051

050

048

047

046

045

044

043

042

041

040

039

038

037

036

035

034

033

032

031

030

029

028

024

023

022

021

020

019

018

017

016

015

014

013

012

011

010

009

008

007

006

005

004

003

002

001

221

220

219

218

217

216

215

214

213

212

211

210

209

208

Team 4 Nodal Recovery
 Names: Neal and Mike

Station	Surveyed location		Record at time of recovery			Time (UTC)	
	Latitude	Longitude	Serial #	Orientation	Latitude		Longitude
NN109	39.799963	-119.008900	1619	357°	39.79995	-119.00890	14:49
NN110	39.800462	-119.008442	1660	4°	39.80045	-119.00845	14:55
NN111	39.800991	-119.007945	1616	357°	39.80098	-119.00797	14:59
NN112	39.801404	-119.007395	1596	5°	39.80140	-119.00740	15:02
NN088	39.801149	-119.007055	1658	353°	39.80114	-119.00706	15:06
NN089	39.801657	-119.006626	1607	2°	39.80165	-119.00664	15:10
NN090	39.802150	-119.006164	1590	358°	39.80216	-119.00617	15:16
NN113	39.802448	-119.006628	1593	346°	39.80243	-119.00663	15:21
NN091	39.802617	-119.005685	1595	0°	39.80260	-119.00569	15:26
NN092	39.803115	-119.005250	1624	353°	39.80309	-119.00525	15:30
NN114	39.803406	-119.005732	1600	0°	39.80339	-119.00573	15:33
NN115	39.803907	-119.005267	1610	0°	39.80390	-119.00528	15:37
NN093	39.803604	-119.004786	1601	348°	39.80359	-119.00479	15:44
NN094	39.804166	-119.004453	1606	346°	39.80415	-119.00446	15:48
NN116	39.804267	-119.004851	1637	356°	39.80424	-119.00486	15:52
NN117	39.804850	-119.004393	1628	1°	39.80485	-119.00441	15:57
NN095	39.804492	-119.003639	1605	6°	39.80449	-119.00365	16:02
NN096	39.805025	-119.003296	1667	354°	39.80502	-119.00330	16:06
NN118	39.805230	-119.003992	1640	0°	39.80524	-119.00401	16:12
NN119	39.805811	-119.003845	1594	357°	39.80582	-119.00386	16:17
NN097	39.805525	-119.003067	1598	353°	39.80553	-119.00369	16:21
NN098	39.805764	-119.002363	1612	0°	39.80578	-119.00237	16:26
NN120	39.806307	-119.003104	1609	357°	39.80633	-119.00313	16:33
NN121	39.806806	-119.002680	1615	1°	39.80681	-119.00269	16:37

(Handwritten mark)

Team 4 Nodal Recovery
Names: Neal and Mike

Station	Surveyed location		Record at time of recovery			Time (UTC)	
	Latitude	Longitude	Serial #	Orientation	Latitude		Longitude
NN099	39.806510	-119.002015	1589	1°	39.80650	-119.00202	16:50
NN079	39.806888	-119.001215	1613	0°	39.80688	-119.00122	16:58
NN100	39.807090	-119.001573	1618	8°	39.80709	-119.00158	16:55
NN122	39.807399	-119.002347	1648	358°	39.80740	-119.00237	17:04
NN124	39.808321	-119.001518	1664	3°	39.80772	-119.00154	17:09
NN123	39.807716	-119.001532	1652	356°	39.80833	-119.00152	17:14
NN101	39.807509	-119.001418	1646	0°	39.80752	-119.00153	17:20
NN080	39.807360	-119.000822	1623	356°	39.80737	-119.00082	17:27
NN102	39.807776	-119.000916	1642	354°	39.80779	-119.00090	17:32
NN081	39.807765	-119.000401	1649	0°	39.80776	-119.00037	17:35
NN082	39.808242	-119.000001	1620	358°	39.80824	-119.00000	17:39
NN103	39.808422	-119.000282	1641	0°	39.80843	-119.00028	17:43
NN125	39.808783	-119.000783	1657	357°	39.80880	-119.00077	17:47
NN126	39.809270	-119.000382	1591	0°	39.80928	-119.00039	17:52
NN104	39.809102	-118.999689	1639	0°	39.80911	-118.99969	17:56
NN083	39.808823	-118.999518	1617	356°	39.80883	-118.99949	18:01
NN084	39.809291	-118.998996	1632	359°	39.80931	-118.99897	18:05
NN105	39.809483	-118.999356	1592	0°	39.80949	-118.99934	18:09
NN127	39.809847	-118.999971	1655	359°	39.80985	-118.99996	18:14
NN106	39.810070	-118.998815	1663	4°	39.81006	-118.99879	18:20
NN085	39.809804	-118.998592	1627	0°	39.80980	-118.99859	18:23
NN086	39.810234	-118.998186	1631	2°	39.81023	-118.99817	18:28
NN107	39.810442	-118.998487	1645	1°	39.81044	-118.99845	18:31
NN108	39.810945	-118.998135	1602	3°	39.81094	-118.99812	18:35
NN087	39.810741	-118.997597	1634	347°	39.810	-118.99759	18:40

099N
079N
100N
122N
123N
124N
101N
080N
102N
081N
082N
103N
125N
126N
104N
083N
084N
105N
127N
106N
085N
086N
107N
108N
087N

NN123
NN124

End of Oregon nodals

Team 4 Nodal Recovery
 Names: Neal and Mike

Station	Surveyed location		Record at time of recovery				Time (UTC)
	Latitude	Longitude	Serial #	Orientation	Latitude	Longitude	
NN160	39.805345	-119.005514	1470	355°	39.80535	-119.00550	21:39
NN161	39.805761	-119.005012	1057	353°	39.80576	-119.00501	21:35
NN138	39.805401	-119.004435	1060	0°	39.80539	-119.00442	21:30
NN139	39.806585	-119.003500	1076	356°	39.80656	-119.00349	21:19
NN140	39.807052	-119.003180	1069	354°	39.80704	-119.00318	21:15
NN162	39.807358	-119.003616	1078	358°	39.80735	-119.00361	21:12
NN163	39.807835	-119.003122	1087	353°	39.80783	-119.00313	21:08
NN141	39.807658	-119.002576	1585	0°	39.80765	-119.00259	21:04
NN164	39.808566	-119.002616	1557	350°	39.80861	-119.00262	20:55
NN142	39.808132	-119.002185	1579	352°	39.80814	-119.00220	20:48
NN143	39.808364	-119.001862	1088	0°	39.80839	-119.00185	20:45
NN144	39.809130	-119.001333	1317	352°	39.80914	-119.00131	20:40
NN145	39.809482	-119.000802	1535	358°	39.80949	-119.00079	20:35
NN146	39.810011	-119.000428	1460	7°	39.81002	-119.00041	20:30
NN166	39.810007	-119.001172	1323	346°	39.81000	-119.00113	20:26
NN165	39.809724	-119.001557	1357	4°	39.80973	-119.00155	20:21

160 N
 161 N
 138 N
 139 N
 140 N
 162 N
 163 N
 141 N
 164 N
 142 N
 143 N
 144 N
 145 N
 146 N
 166 N
 165 N