

PALOS VERDES LANDFILL
REMEDIAL INVESTIGATION REPORT

APPENDIX E.4
SURVEYING REPORT

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY



LOCATION PALOS VERDES LANDFILL

F.B. No. _____ Page 1

GROUNDWATER MONITORING WELLS

SURVEY BY GREG TOWNER

DISTRICT No. _____ A.F.E. _____

DATE 12-7-1992

SURVEY NOTES

STA.

DESCRIPTION

CERTIFICATION

I, GREG L. TOWNER, PLS WITH CALIFORNIA LAND SURVEYOR LICENSE #6284, DO HEREBY CERTIFY THAT A SURVEY OF THE 91 GROUNDWATER MONITORING WELLS IN AND AROUND THE PALOS VERDES LANDFILL WAS PERFORMED BY MYSELF AND ALL FIELD MEASUREMENTS WERE MADE USING PROFESSIONAL AND ACCURATE PROCEDURES. I ALSO CERTIFY THAT THE COORDINATES AND ELEVATIONS ARE CORRECT AND ACCURATE TO WITHIN 1 FOOT OF THE TRUE POSITION.

PLOTTED ON DRAWING No.



Board of Registration for Professional Engineers & Land Surveyors
1428 HOWE AVENUE, SUITE 56
SACRAMENTO, CA 95825-3298
916 320-7466



LAND SURVEYOR

LICENSE NO. 6284

EXPIRATION DATE

GREG L TOWNER
9256 1/2 RAMONA STREET
BELLFLOWER CA 90706

09/30/94

Signature

Greg L. Towner

RECEIPT NO.

19801277

18 10/7 5M 9-76



LOCATION PALOS VERDES LANDFILL
MONITORING WELLS

F.B. No. _____ Page 2

SURVEY BY G. TOWNER

DISTRICT No. _____ A.F.E. _____

DATE 12-7-92

SURVEY NOTES

STA.	DESCRIPTION
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PARTY CHIEF: GREG TOWNER, PLS
INSTRUMENT OPER: ALRIC JOHNSON
ROD MAN: ROBERT GARDNER

SURVEY INSTRUMENTS USED -
WILD TC1600 TOTAL STATION (BUILT IN GTF 10)
SERIAL # 361350 - BRAND NEW
DATA COLLECTOR

ZEISS NI 2 LEVEL
SERIAL # 54666 - PEGGED BEFORE SURVEY

ALL HORIZONTAL COORDINATES ARE TO CENTER POINT OF ROUND WELL CASING AT SURFACE.

ALL ELEVATIONS ARE TO HIGHEST POINT OF WELL CASING. WELL M39A WAS ORIGINALLY MEASURED AT GROUND LEVEL, WHICH HAS SINCE BEEN CHANGED. ELEVATION NOW REFLECTS TOP OF WELL CASING, WHICH STICKS OUT OF THE GROUND A FEW FEET.

POINT #1 IS THE BEGINNING POINT OF THE SURVEY. IT IS THE CLOSEST KNOWN STATE PLANE COORDINATE TO THE LANDFILL AS PROVIDED BY THE L.A. COUNTY SURVEYORS OFFICE AT THE TIME SURVEY BEGAN 11-1992.

PLOTTED ON DRAWING NO.

FORM 107 5/8 9 78



LOCATION PALOS VERDES LANDFILL
GROUNDWATER WELLS

F.B. No. _____

Page 3

SURVEY BY G. TOWNER

DISTRICT No. _____

A.F.E. _____

DATE 12-7-92

SURVEY NOTES

STA.	DESCRIPTION
	ELEVATION AT POINT #1 WAS REVISED TO REPRESENT THE MOST CURRENT ELEVATION OF THAT POINT. ELEVATION CHECK WAS PERFORMED FROM OTHER BENCH MARKS ON SAME 1990 DATUM, AS PROVIDED BY L.A. COUNTY SURVEYORS OFFICE.

HORIZONTAL AND VERTICAL CLOSURE WAS ADDITIONALLY SURVEYED ON 21 WELLS AND ALL CLOSURES VERIFIED ACCURACY OF ERROR OF LESS THAN 1 FOOT IN ALL DIRECTIONS. (WELL M39A WAS ALTERED, THEREFORE COULDN'T BE COMPARED FOR ELEVATION.)

PLOTTED ON DRAWING No.

DATE 12-7-92

L.A. COUNTY SANITATION DISTRICTS
 PALOS VERDES LANDFILL
 GROUNDWATER MONITORING WELL LOCATIONS
 USGS STATE PLANE COORDINATES, NAD27
 CALIFORNIA, ZONE 7
 MEAN SEA LEVEL ELEVATIONS

PT#	NORTH	EAST	ELEV	DESCRIPTION
7	4038132.30	4182542.53	190.60	Well M26A Eleda & Madison.
44	4036652.44	4182782.17	320.60	Well M30B No Side Landfill.
201	4038476.50	4182366.67	176.64	Well M50B Courtney & Madison.
202	4037746.62	4182644.10	218.19	Well M51B Rolling Hills Rd & Madison.
203	4037622.59	4182380.63	228.00	Well M25A Rolling Hills Rd & Hawthorne Blvd.
204	4037962.80	4182234.72	216.80	Well M24A Rolling Hills Rd & Hawthorne Blvd.
205	4037761.80	4182250.05	225.68	Well PV3 Rolling Hills Rd & Hawthorne Bl.
206	4037722.40	4182145.76	224.94	Well M23A Rolling Hills Rd & Hawthorne Blvd.
207	4037500.07	4182098.48	238.75	Well M49A Rolling Hills Rd & Hawthorne Blvd.
208	4037529.93	4181892.92	243.50	Well P4-12 NW Cor Landfill.
209	4037459.96	4181952.66	241.86	Well P4-11 NW Cor Landfill.
210	4037399.98	4182014.53	245.01	Well P4-10 NW Cor Landfill.
211	4037321.82	4181998.14	252.16	Well P4-9 NW Cor Landfill.
212	4037207.24	4181929.56	261.56	Well P4-8 NW Cor Landfill.
213	4037139.41	4181870.61	267.75	Well P4-7 NW Cor Landfill.
214	4037031.53	4181738.83	279.01	Well P4-6 NW Cor Landfill.
215	4036093.47	4180783.13	366.82	Well M46A SW Cor Landfill.
216	4036694.46	4180678.99	380.88	Well M47B SE Cor Ernie Howlett Park.
217	4037606.18	4180540.18	278.54	Well M48A SW Cor Ernie Howlett Park.
218	4037243.22	4180009.44	301.68	Well M55B Gully W of Howlett Park.
219	4037829.37	4179894.99	278.04	Well M54B Gully W of Howlett Park.
220	4035110.02	4178935.44	518.10	Well M56B Rockbluff Dr.
221	4034362.39	4179263.92	500.99	Well M57B Silver Saddle Lane.

PT#	NORTH	EAST	ELEV	DESCRIPTION	
222	4033194.01	4181352.67	424.87	Well M58B	Palos Verdes No Dr & Crenshaw.
223	4032291.22	4182410.43	439.33	Well M60B	Palos Verdes No Dr & Rawhide.
224	4031857.96	4182789.69	436.52	Well M61B	Palos Verdes No Dr & Dobbin Ln.
225	4032898.92	4182774.09	410.81	Well M42A	So End Botanical Gardens.
226	4032662.43	4183224.08	355.12	Well M41A	So End Botanical Gardens.
227	4033756.95	4184400.69	345.12	Well M39A	NE Cor Botanical Gardens.
228	4033113.97	4184435.49	336.57	Well M40A	East Side Botanical Gardens.
229	4033035.04	4185588.78	388.12	Well M62A	Empty Sadle Rd.
230	4035187.28	4184533.10	261.95	Well M37A	Crenshaw Bl & Rolling Hills Rd.
231	4034968.24	4184804.67	251.85	Well M36A	Crenshaw Bl & Rolling Hills Rd.
232	4035364.66	4185102.71	283.67	Well M59B	In Park, Top of Hill.
233	4036452.49	4185668.42	180.13	Well M52B	Windmill Rd.
234	4037275.18	4182134.61	254.00	Well MO7A	NW Cor Landfill.
235	4037278.22	4182144.56	256.03	Well MO7B	NW Cor Landfill.
236	4037235.27	4182083.43	257.32	Well MO6B	NW Cor Landfill.
237	4037229.26	4182081.50	257.39	Well MO6A	NW Cor Landfill.
238	4037178.91	4182050.49	260.94	Well EO9	NW Cor Landfill.
242	4037167.77	4182023.58	264.80	Well MO5A	NW Cor Landfill.
243	4037163.94	4182019.26	265.21	Well MO5B	NW Cor Landfill.
245	4037150.36	4182091.28	262.84	Well EO11	NW Cor Landfill.
246	4037155.02	4182056.03	263.89	Well EO10	NW Cor Landfill.
247	4037130.14	4182043.45	273.07	Well EO8	NW Cor Landfill.
248	4037099.62	4181964.32	269.52	Well MO4B	West Side Landfill.
249	4037094.07	4181957.97	270.01	Well MO4A	W Side Landfill.
250	4037049.68	4181913.78	273.34	Well MO3B	W Side Landfill.
251	4037044.60	4181907.31	273.75	Well MO3A	W Side Landfill.
252	4037000.37	4181854.20	277.56	Well MO2A	W Side Landfill.
253	4036996.60	4181850.93	277.88	Well MO2B	W Side Landfill.
254	4036957.09	4181795.41	281.75	Well MO1B	W Side Landfill.

PT#	NORTH	EAST	ELEV	DESCRIPTION
255	4036953.18	4181789.36	282.21	Well MO1A W Side Landfill.
256	4036946.11	4181816.86	288.41	Well EW2 W Side Landfill.
257	4036905.99	4181782.61	286.08	Well EW1 W Side Landfill.
258	4036963.74	4181874.29	279.99	Well EW3 W Side Landfill.
259	4036990.17	4181903.36	279.94	Well EW4 W Side Landfill.
260	4037019.90	4181949.49	275.72	Well EW5 W Side Landfill.
261	4037058.68	4181993.67	280.00	Well EW6 W Side Landfill.
262	4037098.21	4182020.05	275.53	Well EW7 North Side Landfill.
263	4035995.55	4183434.67	307.71	Well M33B N Side Landfill.
264	4036005.39	4183423.85	306.45	Well M32B N Side Landfill.
265	4035517.92	4183904.85	330.00	Well M34B N Side Landfill.
266	4035512.52	4183911.74	330.18	Well M35B N Side Landfill.
267	4034893.83	4184012.03	303.72	Well M53B NE Cor Landfill.
268	4034447.62	4183785.98	341.33	Well M38A NW Cor Botanical Gardens.
269	4034188.78	4182865.11	363.74	Well M44A East Side Landfill.
270	4033899.20	4182195.26	380.27	Well M43A SW Cor Botanical Gardens.
271	4034038.99	4181405.76	410.71	Well M45A SE Cor Landfill.
302	4032334.63	4184213.18	387.80	Well RFB 32 SE Cor Botanical Gardens.
306	4032338.95	4183110.61	389.87	Well RFB 30 Dobbin Lane.
308	4032207.03	4181888.06	479.93	Well RFB 28 Eastvale Rd.
310	4034194.20	4180813.90	427.15	Well L-2 Goldring Place.
312	4036229.89	4179089.42	498.57	Well RFB 23 Hidden Valley & PVNDR.
315	4036589.35	4180184.74	405.80	Well RFB 22 Hidden Valley Rd.
319	4037529.39	4179230.86	422.99	Well L-1 Sugarhill Dr.
320	4038184.63	4181486.78	418.54	Well RFB 19 Top Butcher Hill.
321	4038224.22	4181441.17	421.87	Well RFB 18 Top Butcher Hill.
323	4036847.00	4182827.98	297.71	Well RFB 7 Carolwood Lane.
326	4035278.81	4185604.82	283.14	Well RFB 15 Tennis Court Area.
327	4036762.32	4184672.34	189.27	Well RFB 40 Softwind Way.

PT#	NORTH	EAST	ELEV	DESCRIPTION
328	4036272.25	4183638.69	268.03	Well RFB 10 Carolwood Lane.
329	4035808.94	4183961.95	298.30	Well RFB 11 Carolwood Lane.
330	4036555.66	4181002.31	337.43	Well RFB 1 SE Cor Howlett Park.
331	4037492.74	4183845.26	173.45	Well RFB 9 Portola Park.
332	4038305.57	4182113.83	201.70	Well RFB 2 Hawthorne Blvd.
333	4037215.39	4183281.21	211.36	Well RFB 8 Rolling Hills Rd.
334	4037284.06	4182576.24	262.53	Well RFB 6 Singlewood & Carolwood.
335	4035921.14	4185703.37	206.50	Well RFB 14 Crenshaw Blvd.
338	4035958.17	4185123.64	195.83	Well RFB 17 Amberleaf & Sunnyglen.
339	4035672.20	4184527.43	238.16	Well RFB 12 Rolling Hills Rd & Crenshaw.

L.A. COUNTY SANITATION DISTRICTS
PALOS VERDES LANDFILL
GROUNDWATER MONITORING WELLS
TRAVERSE POINT LIST

PT#	NORTH	EAST	ELEV	DESCRIPTION
1	4041449.82	4181570.65	94.85	Found County Brass Cap-Pacific Coast Hiway & Hawthorne Blvd. Torrance K-12, beginning State Plane Coordinates & USGS Elevation.
2	4042425.05	4179506.52	76.59	Found Spike at PI Anza Ave. & PCH, Reference Point to Torrance J-12. Beginning Backsight & Bearing=N64*42'39"W.
3	(N00*56"33"E 1692.63')			Found County Brass Cap-Northbound Lanes Hawthorne Blvd. No. of Pacific Coast Hiway. Backup Reference Bearing & SP Coordinate. Torrance K-11
4	4039449.63	4181601.31	151.80	(SET)PK Nail in Asph NE Cor Int Hawthorne Blvd & Newton Ave.
5	4039274.40	4182585.06	150.39	PK Nail in Asph SE Cor Int Newton Ave & Madison St.
6	4038448.65	4182582.03	175.51	PK Nail in Asph E Side Int Madison & Courtney.
7	4038132.30	4182542.53	190.60	Well M26A. Eleda & Madison.
8	4037661.93	4182649.04	222.15	PK Nail NE Cor Madison & Rolling Hills Way
9	4037623.00	4182227.42	232.51	Y in Conc Walk-SE Cor Rolling Hills Way & Hawthorne Blvd.
10	4037285.78	4182039.60	254.90	Hub & Tack in Center Median Hawthorne Blvd at NW Cor Palos Verdes Landfill.
11	4036489.83	4180988.88	341.11	H&T in Center Median Hawthorne Blvd at SW Entr Landfill.
12	4036550.63	4180672.31	385.62	H&T SE Cor Ernie Howlett Park, Top of Hill.
13	4037071.44	4180612.05	382.70	H&T SW Cor Howlett Park.
14	4037261.15	4180683.10	366.57	H&T S of Batting Cages SW Cor H Park.
15	4035329.16	4179529.11	460.45	PK Nail NW Cor Int Palos Verdes North Drive & Hawthorne Blvd.
16	4034584.22	4179656.14	466.31	PK Nail in Asph SW Cor Silver Saddle Lane & Palos Verdes No Dr.
17	4035163.50	4178991.31	514.13	H&T in Park SW Cor Int PV No Dr & Hawthorne Blvd near Cul-de-sac.
18	4034139.69	4180133.72	458.00	PK Nail Roanwood & PV No Dr.

PT#	NORTH	EAST	ELEV	DESCRIPTION
19	4033275.01	4181240.88	421.71	PK Nail NE Cor Crenshaw BLvd & PV No Dr.
20	4032496.94	4182058.63	443.27	H&T S Side PV No Dr E of Crenshaw.
21	4032202.11	4182500.45	438.85	H&T NW Cor PVNDR.
22	4032813.65	4182857.23	402.49	H&T So Side Botanical Gardens
23	4032815.51	4183303.84	362.66	H&T Center Botanical Gardens.
24	4033321.23	4184077.40	382.20	H&T NE Cor Botanical Gardens.
25	4033527.12	4184470.87	379.94	H&T NE Cor Botanical Gardens.
26	4033199.32	4184448.58	330.54	H&T East Side Botanical Gardens.
27	4032955.96	4184820.26	345.53	PK Nail Empty Saddle Rd.
28	4033525.07	4184757.38	315.79	H&T East Side Rolling Hills Rd.
29	4032912.64	4185081.52	361.33	PK Nail Empty Saddle Rd.
30	4032948.87	4185586.72	386.72	PK Nail at Gate to Empty Saddle Stables.
31	4035357.64	4184810.19	241.74	PK Nail Crenshaw Blvd & Rolling Hills
32	4035850.45	4185362.12	203.25	Y in Center Conc Median Crenshaw Blvd.
33	4036117.98	4185707.75	192.85	PK Nail Rolling Hills Way.
34	4036345.75	4185810.01	182.28	PK Nail Windmill Dr & Rolling Hills Way.
35	4037402.11	4186196.47	144.93	PK Nail Pacific Coast Hiway & Rolling Hills Way.
36	4040023.31	4183471.97	124.34	PK Nail So Side PCH at Aero Rd.
37	4041056.66	4182423.69	105.40	PK Nail No Side PCH at Madison.
38	4041449.82	4181570.65	94.85	Closing Point Traverse #1-Compare to Pt #1
39	4037179.95	4182039.60	262.74	PK Nail NW Cor Landfill inside Gate.
40	4037046.87	4181925.85	273.69	H&T West Side Landfill.
41	4037048.48	4181980.45	282.94	H&T West Side Landfill.
42	4037142.59	4182302.87	306.94	PK Nail NW Cor Landfill, Top of Hill.
43	4036865.76	4182537.35	334.41	H&T North Slope Landfill.
44	4036652.44	4182782.17	320.60	Well M30B No Side Landfill.
45	4035294.98	4184124.00	326.83	PK Nail NE Cor Landfill, Top of Hill.
46	4035121.34	4184291.49	279.31	H&T NE Cor Landfill.

PT#	NORTH	EAST	ELEV	DESCRIPTION
47	4034477.13	4183501.20	347.19	H&T East Side Landfill.
48	4034064.31	4182982.27	367.04	H&T West Side Botanical Gardens.
49	4033871.39	4181599.03	412.93	H&T West Side Crenshaw Blvd.
50	4033706.37	4181385.08	423.39	H&T West Side Crenshaw Blvd.
51	4033275.01	4181240.88	421.71	Closure Point Traverse #2-Compare to Pt #19.
201	4038476.50	4182366.67	176.64	Well M50B Courtney & Madison.
202	4037746.62	4182644.10	218.19	Well M51B Rolling Hills Rd & Madison.
203	4037622.59	4182380.63	228.00	Well M25A Rolling Hills Rd & Hawthorne Blvd.
204	4037962.80	4182234.72	216.80	Well M24A Rolling Hills Rd & Hawthorne Blvd.
205	4037761.80	4182250.05	225.68	Well PV3 Rolling Hills Rd & Hawthorne Blvd
206	4037722.40	4182145.76	224.94	Well M23A Rolling Hills Rd & Hawthorne Blvd.
207	4037500.07	4182098.48	238.75	Well M49A Rolling Hills Rd & Hawthorne Blvd.
208	4037529.93	4181892.92	243.50	Well P4-12 NW Cor Landfill.
209	4037459.96	4181952.66	241.86	Well P4-11 NW Cor Landfill.
210	4037399.98	4182014.53	245.01	Well P4-10 NW Cor Landfill.
211	4037321.82	4181998.14	252.16	Well P4-9 NW Cor Landfill.
212	4037207.24	4181929.56	261.56	Well P4-8 NW Cor Landfill.
213	4037139.41	4181870.61	267.75	Well P4-7 NW Cor Landfill.
214	4037031.53	4181738.83	279.01	Well P4-6 NW Cor Landfill.
215	4036093.47	4180783.13	366.82	Well M46A SW Cor Landfill.
216	4036694.46	4180678.99	380.88	Well M47B SE Cor Ernie Howlett Park.
217	4037606.18	4180540.18	278.54	Well M48A SW Cor Ernie Howlett Park.
218	4037243.22	4180009.44	301.68	Well M55B Gully W of Howlett Park.
219	4037829.37	4179894.99	278.04	Well M54B Gully W of Howlett Park.
220	4035110.02	4178935.44	518.10	Well M56B Rockbluff Dr.
221	4034362.39	4179263.92	500.99	Well M57B Silver Saddle Lane.

PT#	NORTH	EAST	ELEV	DESCRIPTION	
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223	4032291.22	4182410.43	439.33	Well M60B	Palos Verdes No Dr & Rawhide.
224	4031857.96	4182789.69	436.52	Well M61B	Palos Verdes No Dr & Dobbin Ln
225	4032898.92	4182774.09	410.81	Well M42A	So End Botanical Gardens.
226	4032662.43	4183224.08	355.12	Well M41A	So End Botanical Gardens.
227	4033756.95	4184400.69	345.12	Well M39A	NE Cor Botanical Gardens.
228	4033113.97	4184435.49	336.57	Well M40A	East Side Botanical Gardens.
229	4033035.04	4185588.78	388.12	Well M62A	Empty Sadle Rd.
230	4035187.28	4184533.10	261.95	Well M37A	Crenshaw Blvd & Rolling Hills Rd
231	4034968.24	4184804.67	251.85	Well M36A	Crenshaw Blvd & Rolling Hills Rd
232	4035364.66	4185102.71	283.67	Well M59B	In Park, Top of Hill.
233	4036452.49	4185668.42	180.13	Well M52B	Windmill Rd.
234	4037275.18	4182134.61	254.00	Well M07A	NW Cor Landfill.
235	4037278.22	4182144.56	256.03	Well M07B	NW Cor Landfill.
236	4037235.27	4182083.43	257.32	Well M06B	NW Cor Landfill.
237	4037229.26	4182081.50	257.39	Well M06A	NW Cor Landfill.
238	4037178.91	4182050.49	260.94	Well E09	NW Cor Landfill.
242	4037167.77	4182023.58	264.80	Well M05A	NW Cor Landfill.
243	4037163.94	4182019.26	265.21	Well M05B	NW Cor Landfill.
245	4037150.36	4182091.28	262.84	Well E011	NW Cor Landfill.
246	4037155.02	4182056.03	263.89	Well E010	NW Cor Landfill.
247	4037130.14	4182043.45	273.07	Well E08	NW Cor Landfill.
248	4037099.62	4181964.32	269.52	Well M04B	West Side Landfill.
249	4037094.07	4181957.97	270.01	Well M04A	W Side Landfill.
250	4037049.68	4181913.78	273.34	Well M03B	W Side Landfill.
251	4037044.60	4181907.31	273.75	Well M03A	W Side Landfill.
252	4037000.37	4181854.20	277.56	Well M02A	W Side Landfill.
253	4036996.60	4181850.93	277.88	Well M02B	W Side Landfill.

PT#	NORTH	EAST	ELEV	DESCRIPTION
254	4036957.09	4181795.41	281.75	Well MO1B W Side Landfill.
255	4036953.18	4181789.36	282.21	Well MO1A W Side Landfill.
256	4036946.11	4181816.86	288.41	Well EW2 W Side Landfill.
257	4036905.99	4181782.61	286.08	Well EW1 W Side Landfill.
258	4036963.74	4181874.29	279.99	Well EW3 W Side Landfill.
259	4036990.17	4181903.36	279.94	Well EW4 W Side Landfill.
260	4037019.90	4181949.49	275.72	Well EW5 W Side Landfill.
261	4037058.68	4181993.67	280.00	Well EW6 W Side Landfill.
262	4037098.21	4182020.05	275.53	Well EW7 North Side Landfill.
263	4035995.55	4183434.67	307.71	Well M33B N Side Landfill.
264	4036005.39	4183423.85	306.45	Well M32B N Side Landfill.
265	4035517.92	4183904.85	330.00	Well M34B N Side Landfill.
266	4035512.52	4183911.74	330.18	Well M35B N Side Landfill.
267	4034893.83	4184012.03	303.72	Well M53B NE Cor Landfill.
268	4034447.62	4183785.98	341.33	Well M38A NW Cor Botanical Gardens.
269	4034188.78	4182865.11	363.74	Well M44A East Side Landfill.
270	4033899.20	4182195.26	380.27	Well M43A SW Cor Botanical Gardens.
271	4034038.99	4181405.76	410.71	Well M45A SE Cor Landfill.
301	4032762.05	4184387.05	356.91	H&T Rolling Hills Rd & Singletree.
302	4032334.63	4184213.18	387.80	Well RFB 32 SE Cor Botanical Gardens.
303	4031853.69	4182910.61	435.51	Y in Gutter at PVNDR & Dubbin Lane.
304	4032530.44	4182127.17	443.91	C Nail PVNDR & Rawhide Lane.
305	4031970.36	4183044.28	427.49	Nail & Tag E Curb Dubbin Lane.
306	4032338.95	4183110.61	389.87	Well RFB 30 Dobbin Lane.
307	4032301.34	4181871.88	479.82	C Nail at 26708 Eastvale.
308	4032207.03	4181888.06	479.93	Well RFB 28 Eastvale Rd.
309	4034000.61	4180401.67	454.26	H&T Palos Verdes No Dr.
310	4034194.20	4180813.90	427.15	Well L-2 Goldring Place.

PT#	NORTH	EAST	ELEV	DESCRIPTION
311	4035576.55	4179402.73	475.52	C Nail PVNDR W of Hawthorne Blvd.
312	4036229.89	4179089.42	498.57	Well RFB 23 Hidden Valley & PVNDR.
313	4036953.84	4180624.00	385.42	H&T So End Howlett Park.
314	4036765.52	4180413.55	394.83	C Nail Hidden Valley Rd.
315	4036589.35	4180184.74	405.80	Well RFB 22 Hidden Valley Rd.
316	4037446.14	4179814.23	400.77	C Nail Cul De Sac.
317	4038018.17	4181637.58	404.82	H&T E Side Butcher Hill.
318	4037592.92	4179574.27	410.51	C Nail Sugarhill & Chalmett.
319	4037529.39	4179230.86	422.99	Well L-1 Sugarhill Dr.
320	4038184.63	4181486.78	418.54	Well RFB 19 Top Butcher Hill.
321	4038224.22	4181441.17	421.87	Well RFB 18 Top Butcher Hill.
322	4037306.96	4182620.90	259.35	X on Sidewalk.
323	4036847.00	4182827.98	297.71	Well RFB 7 Carolwood Lane.
324	4036012.59	4184032.72	282.26	X on Gutter.
325	4037102.02	4184171.32	188.94	H&T E End Portola Park.
326	4035278.81	4185604.82	283.14	Well RFB 15 Tennis Court Area.
327	4036762.32	4184672.34	189.27	Well RFB 40 Softwind Way.
328	4036272.25	4183638.69	268.03	Well RFB 10 Carolwood Lane.
329	4035808.94	4183961.95	298.30	Well RFB 11 Carolwood Lane.
330	4036555.66	4181002.31	337.43	Well RFB 1 SE Cor Howlett Park.
331	4037492.74	4183845.26	173.45	Well RFB 9 Portola Park.
332	4038305.57	4182113.83	201.70	Well RFB 2 Hawthorne Blvd.
333	4037215.39	4183281.21	211.36	Well RFB 8 Rolling Hills Rd.
334	4037284.06	4182576.24	262.53	Well RFB 6 Singlewood & Carolwood.
335	4035921.14	4185703.37	206.50	Well RFB 14 Crenshaw Blvd.
336	4036490.72	4185651.42	180.42	Windmill & Amberleaf.
337	4036083.12	4185403.44	189.91	Amberleaf
338	4035958.17	4185123.64	195.83	Well RFB 17 Amberleaf & Sunnyglen.

PT#	NORTH	EAST	ELEV	DESCRIPTION
339	4035672.20	4184527.43	238.16	Well RFB 12 Rolling Hills Rd & Crenshaw.
401	4036366.40	4180882.60	350.62	PM East Curb West Entr Landfill.
402	4036561.95	4180698.10	382.91	H&T East End Howlett Park.
403	4037080.31	4180625.08	381.81	H&T West End Howlett Park.
404	4037240.98	4180675.69	366.29	H&T South End Batting Cages, Howlett Park.
405	4037243.00	4180009.36	301.78	Closure Pt-Compare Well M55B, Pt # 218.
406	4037288.14	4180543.74	336.79	H&T Hillside SW of Park.
407	4037829.17	4179894.88	278.17	Closure Pt-Compare Well M54B, Pt # 219.
408	4037502.36	4180219.78	291.16	H&T in Horse Stables.
409	4037606.06	4180540.22	278.13	Closure Pt-Compare Well M48A, Pt # 217
410	4037150.75	4180618.42	371.35	H&T West End Howlett Park.
411	4037870.20	4181509.27	379.76	H&T North End Howlett Park.
412	4037285.78	4182039.60	254.90	Closure Pt-Compare Pt # 10.
413	4035593.41	4183827.31	329.64	PK Nail North Rd Landfill.
414	4035294.98	4184124.00	326.83	Closure Pt-Compare Pt # 45.
415	4036443.53	4185764.86	180.16	NW Cor Rolling Hills Rd & Windmill.
416	4036117.98	4185707.75	192.85	Closure Pt-Compare Pt # 33.
417	4034287.02	4183236.25	357.58	PK Nail East Rd Landfill.
418	4034477.00	4183501.34	347.52	Closure Pt-Compare Pt # 47.
419	4034893.87	4184012.06	303.21	Closure Pt-Compare Well M53B, Pt # 267.
420	4034983.48	4184275.64	285.63	PM Curb East Side Crenshaw Blvd.
421	4035187.30	4184533.08	262.00	Closure Pt-Compare Well M37A, Pt # 230.
422	4035357.64	4184810.19	241.74	Closure Pt-Compare Pt # 31.
423	4033525.07	4184757.38	315.79	Closure Pt-Compare Pt # 28.
424	4033569.55	4184456.57	372.54	H&T Near Pt # 25 in Botanical Gardens.
425	4033756.95	4184400.69	341.41	Closure Pt-Compare Well M39A, Pt # 227.
426	4032913.81	4185506.30	382.20	PK Nail Empty Saddle Rd.
427	4032934.58	4184843.10	347.99	PK Nail Empty Saddle Rd.

PT#	NORTH	EAST	ELEV	DESCRIPTION
428	4033118.29	4184566.92	331.80	Bolt in Curb Empty Saddle Rd & Rolling Hills Rd.
429	4033199.32	4184448.58	330.54	Closure Pt-Compare Pt # 26.
430	4032202.11	4182500.45	438.85	Closure Pt-Compare Pt # 21.
431	4032496.94	4182058.63	443.27	Closure Pt-Compare Pt # 20.
432	4034542.10	4179656.12	467.27	PK Nail 50' East of Pt # 16.
433	4035329.16	4179529.11	460.45	Closure Pt-Compare Pt # 15.
434	4035976.78	4180965.83	375.51	H&T SW Cor Landfill.
435	4035329.16	4179529.11	460.45	Closure Pt-Compare PT # 15.
436	4037962.82	4182234.71	216.85	Closure Pt-Compare Well M24A, Pt # 204.
437	4037500.06	4182098.48	238.79	Closure Pt-Compare Well M49A, Pt # 207.
438	4037623.00	4182227.42	232.51	Closure Pt-Compare Pt # 9.
439	4038132.30	4182542.53	190.60	Closure Pt-Compare Pt # 7.
440	4037241.07	4182078.70	258.14	C Nail NW Cor Landfill.
441	4037179.95	4182039.60	262.74	Closure Pt-Compare Pt # 39.

SURVEYING REQUIREMENTS FOR AN "ACCURATE" SURVEY

The following requirements are intended for construction surveys that are performed for or required by the DTSC and require good accuracy which can be objectively checked. Construction surveys may include the surveying of monitoring wells, concrete pads, treatment device placement, fence line establishment, property boundary discovery (but not establishment of boundary lines), etc. These requirements are not intended for legal or property surveys which must be performed by a registered land surveyor and often requires a formal legal description. Legal or property surveys would include the establishment of property boundaries, recovering lost property corners, determining easement corridors, etc. Requirements for legal and property surveys are specifically written in the Professional Land Surveyor's Code.

Surveyor Requirements:

The **surveyor** is defined as the person or persons who performed and/or supervised the surveying field measurements and the person(s) who certifies the final surveying report by signature. The surveyor must either be a California Licensed Land Surveyor, and/or a California Licensed Professional Civil Engineer qualified to perform construction surveys. Included with the signature of each surveyor must be the surveyor's printed full name, full professional title, the professional's license number or stamp, the license number's date of expiration and date that the surveyor signed the report. The surveyor's license must be valid from the time of the survey field measurements to the signing of the report. The signing will be certifying both the accuracy of the instrument measurements as well as the results in the report. More than one signing is possible for different aspects of the field measurements and the report. All signatures must be present in the report and a description of what aspect they are certifying must be clearly stated.

Field Notes Requirements:

Written field notes must be taken for all field measurements by the field surveyor. Written field notes must be taken even if an EDM with an electronic recording devices is used. A complete copy of the surveyor's field note must be included as an appendix to the report. The field notes must record all pertinent information. When using an EDM, the field notes must record the slope distance, vertical angle, and horizontal direction or

deflection angle as measured by the instrument for each positional shot. For differential leveling, the field notes must record each level rod reading and the stadia hair readings (not just the stadia interval) for each rod sighting. In addition, the field notes shall include, but not be limited to, the following information:

- o The instrument used (brand, model, serial #)
- o General description of each surveying point's location
- o The name of the surveyor and the name of all assistance and their roles.
- o For well casings, the direction of the surveying point on the casing for each well.
- o All instrument referencing information such as known bearing, control point position and elevation, etc.
- o For stadia readings, the stadia interval-to-distance factor.

Requirements of the Surveying Report:

The report for the surveying must use standard tabular formats for directional surveying and differential leveling. The report must contain a to-scale diagram showing all surveying points (control points, surveyed points, bench marks, turning points, etc.) The report must include information on the type of instrument used as well as its rated precision. The report must include standard error computations for each traverse and must show all error adjustments to the field measurements. The report must separate each traverse, its computations and adjustments from other traverses. The report shall include a table showing the final results of each surveying point, including control points and benchmarks, and report the following information for each point:

- o Coordinates using a coordinate system defined in the report, or coordinates based on the State Plane Coordinate System
- o Vertical Elevation above established Mean Sea Level
- o Identifying description of each point
- o For survey well casings, the location of the well casing surveying mark (north, northeast, south-southeast, etc.)

Control Points Requirements:

Control points must be established for an accurate survey. These control points must be definable to the positional coordinates of the California State Coordinate

System and elevation above mean sea level. Control points can be permanent land monuments, benchmarks, or other established control points from other surveys, or the survey must establish them from permanent land monuments, benchmarks, or other established control points. Control points must be recoverable for future use. Control points must be accurate to one thousandth ($1/1000'$, $0.001'$) of a foot in north-south position, $1/1000'$ in east-west position, and $1/1000'$ in elevation. Control points must be established on ground that is geographically stable within the required accuracy of the survey. Control points must be at the beginning AND the end of each traverse. Traverses involving points that are over one mile (directly) from the beginning or ending control point shall make geodetic corrections to the survey. An absolute minimum of two control points must be established for each survey area, with a recommended minimum of three. The ideal (and maximum) number of control points for an area to be surveyed is to have more than three points, and just enough additional control points situated in such a way that a direct sighting of each possible survey point is less than 500 feet from any control point. Control points should be more than 50 feet from each other, and no more than 1000 feet from another control point. Control points should be evenly distributed around the outside of the area to be surveyed.

Requirements for Surveying Wells:

Wells are surveyed at the top lip of the inner well casings. A point on each well casing must be chosen and specifically marked on each well casing. The well casing survey mark (WCSM) must be easily identifiable. It is the WCSM that must be used when making depth to groundwater measurements. It is the convention of the DTSC, that the northern edge of the well casing is marked as the WCSM whenever feasible. The field notes shall record the position of the WCSM for each well by describing its location to the nearest 22.5 degree sector (north, northeast, south-southwest, etc.). Well casings are surveyed to an accuracy of at least one hundredth of a foot ($1/100'$, $0.01'$) in north-south position, $1/100'$ in east-west position and $1/100'$ in elevation. Depth to groundwater measurements are made to an accuracy of $1/100'$ distance from the WCSM.

Along with the surveying of the WCSM, it may also be desirable to survey the ground area immediately surrounding the well and the top lip of the outer protective casing of the well. If these measurements are made, they should be

measured to an accuracy of 1/10'-1/100', but they must not be part of the transverse calculations.



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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-4998
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (310) 699-7411, FAX: (310) 695-6139

CHARLES W. CARRY
Chief Engineer and General Manager

August 28, 1992
File No. 31R-101.10

Ms. Denise Yaffe
California Environmental Protection Agency
Department of Toxic Substances Control
Region 4 (Long Beach)
245 West Broadway, Suite 350
Long Beach, CA 90802

Dear Ms. Yaffe:

Palos Verdes Landfill Remedial Investigation/Feasibility Study
Re-Surveying of Palos Verdes Landfill Wells

Thank you for meeting with Sanitation Districts' staff members yesterday to discuss the Hydrogeologic Characterization Report, Phases 2 and 3 (Sanitation Districts, July 1992). We appreciate the opportunity to respond to your questions and receive your verbal comments.

One of the subjects discussed at our meeting was surveying documentation and the level of detail desired by the Department of Toxic Substances Control (DTSC) to be able to check the work performed by the Sanitation Districts. The previous survey from which data was provided to DTSC by the Sanitation Districts was performed by a licensed land surveyor in conformance with generally accepted standard practices. State of the art electronic surveying equipment and software was used to minimize erroneous measurements and errors that can result from hand calculations. However, only partial mathematical closure was obtained during this survey. DTSC staff expressed a need for the raw data in back-up tables and mathematical closure at the individual survey points. This level of detail was not provided to DTSC by the Sanitation Districts with the previous survey data, since it was not known at that time that it was needed. Mr. Steven Baxter of your office supplied guidelines to the Sanitation Districts' surveyor, Mr. Greg Towner, for use in determining what data are necessary for DTSC's review. To obtain the information desired by DTSC at a well, it will be necessary to re-survey that well.

As we discussed and agreed upon at our meeting, the Sanitation Districts will re-survey a minimum of 20% of the 69 wells (58 monitoring wells and 11 extraction wells) at the Palos Verdes Landfill (PVLf). These wells will be measured to 0.01 foot vertically. The necessary tolerance with the previous measurements are one foot vertically and ten feet horizontally. Assuming that these tolerance levels are met, it will not be necessary to re-survey the remaining wells. For this project, this will serve as a valid sampling population and tolerance levels because there is a head loss of approximately 50 to 100 feet across the landfill itself, and approximately 200 feet across the Palos Verdes fault zone. A difference of one foot in vertical elevation will not cause the direction of groundwater flow to be mistakenly identified, nor will it materially affect the results of groundwater flow modeling. Additionally, since both the previous and the proposed surveying will be performed by a licensed land surveyor, it is reasonable to assume that if 20% of the measurements can be

Ms. Denise Yaffe
August 28, 1992
Page 2

repeated within the specified tolerance limits, the remaining measurements will also fall within the tolerance limits.

We propose to re-survey a total of 21 wells. These wells are shown on the attached list and the enclosed maps. The selection criteria used was as follows:

- 1. Select wells that provide a wide distribution across and around the site; and
- 2. Select critical wells or well pairs; for example, well M24A on the landfill side of the Palos Verdes fault zone and well M26A on the West Coast Basin side of the fault zone.

The survey procedures and information generated from the surveying for these 21 wells will be based on the guidelines provided by Mr. Steven Baxter. They will include:

- 1. Differential leveling, including each level rod reading and stadia hair readings;
- 2. A maximum of 500 feet between horizontal points;
- 3. Representation of field notes output from the computer software used, including slope distance, vertical angle, and horizontal direction and/or deflection angle;
- 4. Hand notes made in the field, including instrument details, a description of each survey point location, names of surveyor and assistants, and other relevant information;
- 5. Horizontal closure; and
- 6. Mapping on a 7 1/2 minute sheet (or more precise scale) showing lines of site and reading stations.

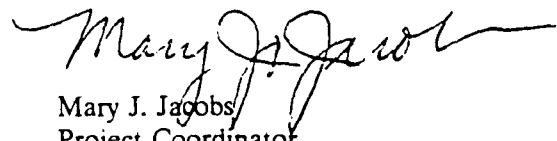
The goal of the survey documentation will be to provide enough information in a written format so that the field operations can be followed and the calculations can be checked.

Please review the proposed wells and provide us with written permission to proceed as soon as possible. We would like to begin the surveying work on September 14, 1992.

If you have any questions or comments, please contact the undersigned at one of the above listed telephone numbers.

Very truly yours,

Charles W. Carry

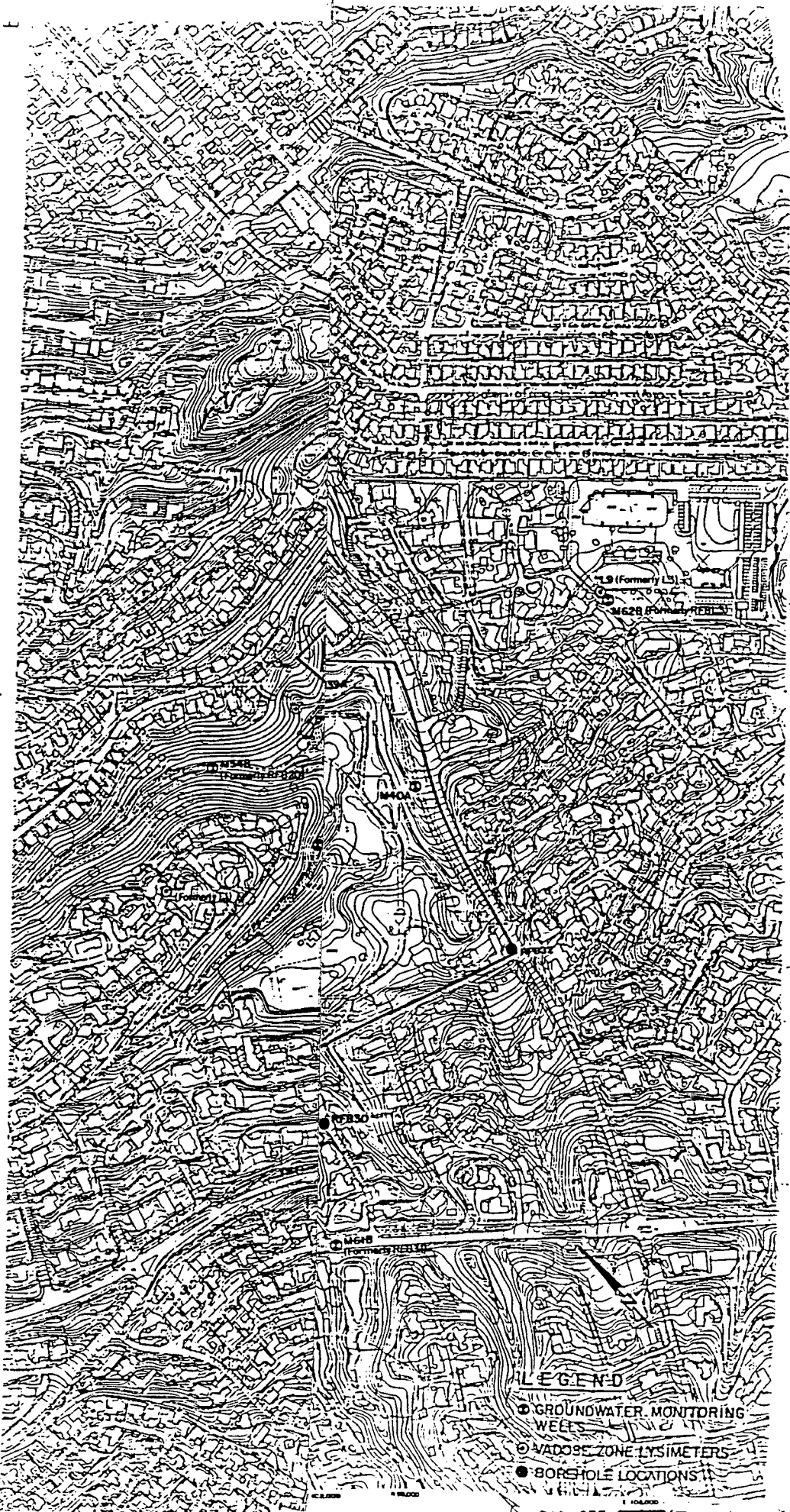


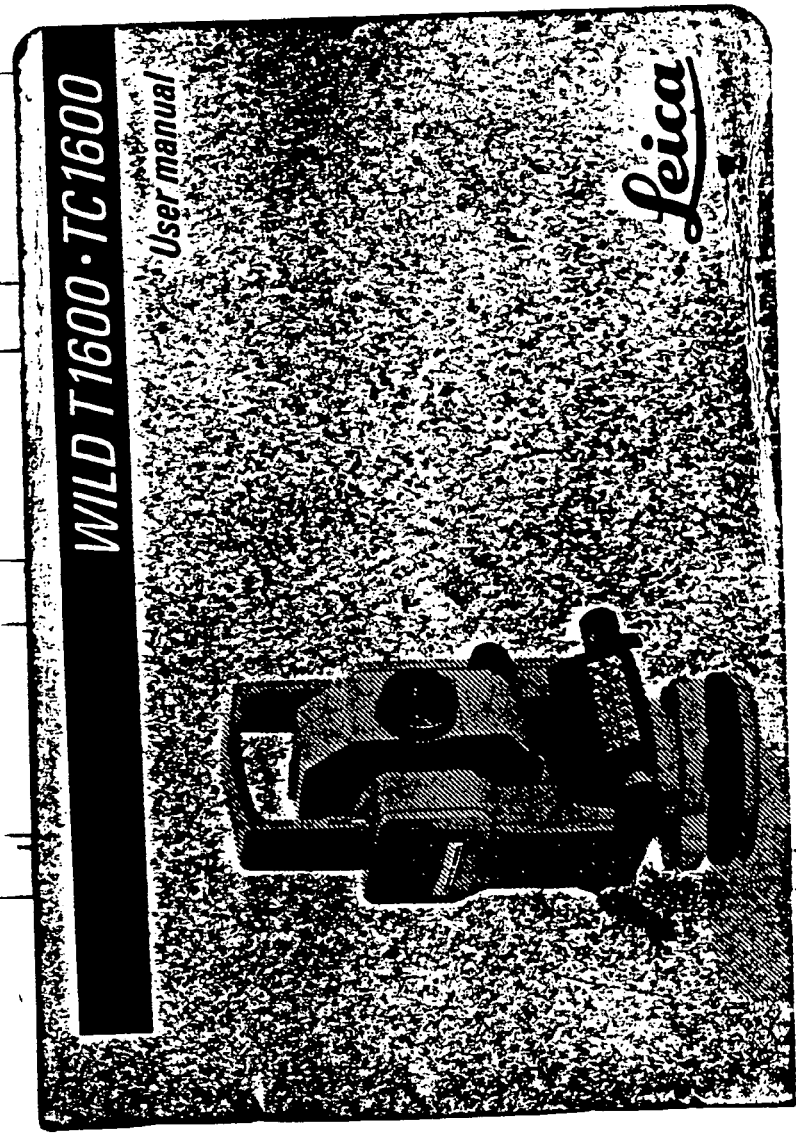
Mary J. Jacobs
Project Coordinator
Solid Waste Management Department

MJJ:leh
Attachment and Enclosures

PALOS VERDES LANDFILL REMEDIAL INVESTIGATION/FEASIBILITY STUDY
WELLS TO BE RE-SURVEYED

<u>WELL NUMBER</u>	<u>LOCATION</u>
M07A	Northern corner of the Main Site
M24A M26A M49A M51A PV-3	Off site near Hawthorne Boulevard in the City of Torrance
M32B	On the Main Site along the northeast border
M36A M37A M52B	Off site near Crenshaw Boulevard in the City of Torrance
M44A M53B	On the Main Site along Crenshaw Boulevard
M39A	Eastern corner of the South Coast Botanic Garden
M62B	Off site to the east of the South Coast Botanic Garden in the City of Rolling Hills Estates
M48A	Along the western boundary of Ernie Howlett Park
M54B M55B	Off site on the horse trails west of Ernie Howlett Park in the City of Rolling Hills Estates
M46A	On the Main Site in the western corner near Hawthorne Boulevard
M57B M58B M61B	Off site to the southwest of the landfill in the City of Rolling Hills Estates





1. Introduction

The Wild T1600 is a highly accurate electronic theodolite. The TC1600 is identical with the T1600 but has a built-in electronic distance-measuring (EDM) unit.

In average atmospheric conditions, the TC1600 has a range of up to 4 km to 11 prisms. Its accuracy for distance measurement is 3 mm + 2 ppm.

The T1600 is the central element of the Wild surveying system. Any Wild DISTOMAT™ readily fits on top of its telescope: DI1001 for the short range to 1.3 km, DI1600 for the middle range to 5 km, DI2002 for precision distance measurement, DI3000 for greater distances to 14 km and DIOR3002 for distance measurement without reflector.

For data acquisition, a Wild GRE data terminal may be connected to the theodolite. A GRM10 REC data-recording module may be used with the T1600/TC1600 model with a keyboard on one side and an insert for the REC module on the other.

After the instrument has been delivered and unpacked, proceed as follows:

- Charge battery
- Set up instrument
- Adjust DISTOMAT to instrument (T1600 only)
- Point to reflector
- Test functions

For best results, we recommend a thorough study of the contents of this manual.

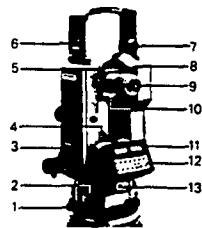


Fig. 2 Wild T1600

- | | |
|---------------------------------------|------------------------------------------------------------------|
| 1 Optical plummet, focusing | 9 Telescope eyepiece (bayonet fitting) |
| 2 Circular bubble | 10 Optical sight |
| 3 Battery insert cover | 11 Displays |
| 4 Plate level | 12 Keyboard |
| 5 Adapter plate for Wild DISTOMAT | 13 Socket for cable to external battery and/or GRE data terminal |
| 6 Clamping screw of carrying handle | |
| 7 Snap lock of carrying handle | |
| 8 Focusing ring, coarse/fine movement | |

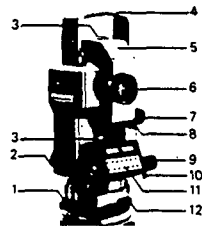


Fig. 3 Wild TC1600

- | | |
|-----------------------------------------------------|----------------------------------------------------|
| 1 Footscrew | 7 Vertical drive |
| 2 Keyboard | 8 Clamp, vertical drive |
| 3 Optical sight | 9 Horizontal drive |
| 4 Carrying handle | 10 Clamp, horizontal drive |
| 5 Telescope with integrated EDM | 11 Keyboard or insert for REC module in position 2 |
| 6 Coaxial optics for angle and distance measurement | 12 Rotary knob to lock in-brace |

14. Technical data

Angle measurement	continuous, by absolute encoder
Updates (continuous mode)	0.1 s to 0.3 s
Units	360° sexagesimal, 360° decimal, 400 gon, 6400 mil
Display (smallest unit)	1", 0.0001°, 0.0001 gon, 0.001 mil
Standard deviation to DIN 18723	H: 1.5" 0.0005 gon V: 1.5" 0.0005 gon
Automatic index	Pendulum compensator
Working range	±3" ±0.1 gon
Setting accuracy	±1" ±0.0003 gon
Telescope	erect image
Magnification with standard eyepiece	30x
Objective aperture	42 mm
Shortest focusing range	1.7 m
Field at 1000 m	27 m
Focusing	coarse and fine

Telescope tilting range

TC1600, T1600 with DI2000 fully transiting

T1600 with DI1001/DI1600

Position 1 -55° (-60 gon) to zenith

Position 2 -30° (-33 gon) to zenith

Displays 2 liquid-crystal displays each for 8 digits, sign, decimal point and symbols for user guidance

Two models Keyboard and displays in both telescope positions or keyboard and displays in position 1 and REC module in position 2

Keyboard weatherproof, 14 multiple-function keys, contact pressure 30 g

Distance measurement
T1600 with Wild DISTOMAT attached coaxial telescope for angle and distance measurement
TC1600

Automatic correction Circle eccentricity
Horizontal collimation error
Vertical-index error
Earth curvature and mean refraction

Battery charger GKL14	to charge a large battery GEB71
Primary voltage	115 V or 230 V \pm 20%, 50/60 Hz
Consumption	about 25 W
Charging current	0.7 A \pm 10%
Charging time	about 14 h
Charging temperature	+ 10°C to + 30°C
Height of tilting axis above tribrach dish	196 mm, as T2, T1000, T2000
Sensitivity of levels	
Circular bubble in tribrach	8' per 2 mm
Plate level	30" per 2 mm
Optical plummet (in tribrach)	focusing
Magnification	2x
Temperature range	
Measurement	-20°C to +50°C
Storage	-40°C to +70°C
Weights	
T1600, excluding tribrach and battery	4.5 kg (9.9 lb)
TC1600, excluding tribrach and battery	5.5 kg (12.1 lb)
Plug-in battery GEB77	0.2 kg (0.4 lb)
Tribrach GDF22	0.9 kg (2.0 lb)
Case	3.9 kg (8.6 lb)

Distance measurement with TC1600

Standard deviation

Normal distance measurement	3 mm + 2 ppm, time needed 4 s
DIL continuous measurement	3 mm + 2 ppm, time needed 4 s
Fast measurement	3 mm + 2 ppm, time needed 3 s
Tracking	10 mm + 2 ppm, time needed 1-2 s

Signal attenuation automatic

Break in measuring beam no effect on results

Range

Circular prisms	Atmospheric conditions		
	poor ¹⁾	medium ²⁾	excellent ³⁾
1	1.0 km	2.0 km	2.5 km
3	1.2 km	2.8 km	3.5 km
7	1.4 km	3.5 km	4.5 km
11	1.6 km	4.0 km	5.5 km

¹⁾ strong haze, visibility about 3 km; or bright sunlight, severe heat shimmer
²⁾ light haze, visibility about 15 km; or moderate sunlight, light heat shimmer
³⁾ overcast, no haze, visibility about 30 km, no heat shimmer

Carrier wave 0.850 μ m, infra-red

Measuring frequency	
Fine measurement	50 MHz \pm 3 m
Beam width at half power	2.5' = 0.70 m at 1000 m
Power consumption during distance measurement	about 5 W (0.4 A, 12 V)
Scale correction	-399 ppm to +399 ppm in 1 ppm steps
Additive (prism) constant	-999 mm to +999 mm in 1 mm steps
Automatic correction	Circle eccentricity Horizontal collimation error Vertical-index error Earth curvature and mean refraction

SET mm mm RUN

SET ppm ppm RUN

15. Prism constant and scale correction

15.1 Prism constant (mm)

The prism constant must be set in the theodolite. Set the mm value stored in the DISTOMAT to 0.

To ensure that the correct distance is displayed, set the appropriate prism constant for the type of prism used. The constant for Wild circular prisms is 0.

For other makes or types of reflector, measure an accurately known base line to determine the prism constant.

15.2 Scale correction (ppm)

The scale correction in parts per million (ppm) must be input and stored in the theodolite. This applies automatic corrections proportional to the distance, such as atmospheric correction, reduction to mean sea level, projection-scale factor, etc. Set the ppm value stored in the DISTOMAT to 0.

15.2.1 Atmospheric correction ΔD_1

To ensure that the correct distance is displayed, a scale correction in ppm must be input for the atmospheric conditions prevailing at the time of measurement.

The atmospheric correction takes into account both atmospheric pressure and temperature.

To determine the atmospheric correction to an accuracy of 1 ppm, measure the ambient temperature to an accuracy of 1°C and atmospheric pressure to 3 mb.

For most applications, an approximate value for atmospheric correction (within about 10 ppm) is adequate. This can be obtained by taking the average temperature for the day and the height above mean sea level of the survey site. A temperature change of about 10°C or a change in height above sea level of about 350 m (= 35 mb) varies the scale correction by only 10 ppm.

The atmospheric correction is computed in accordance with the following formula:

$$\Delta D_1 = 281.8 - \frac{0.29065 p}{1 + 0.00366 t}$$

where: ΔD_1 = atmospheric correction (ppm)
 p = atmospheric pressure (mb)
 t = ambient temperature (°C)

15.2.2 Reduction to mean sea level ΔD_2

The correction in ppm for the reduction to mean sea level is shown in graph 2. For all locations above sea level, the correction is always negative.

Graph 2 is based on the formula:

$$\Delta D_2 = -10^3 \cdot \frac{H}{R}$$

where: ΔD_2 = reduction to MSL in ppm
 H = height of EDM above MSL
 R = 6378 km (earth radius)

15.2.3 Correction for projection-scale factor ΔD_3

This correction depends on the standard map projection in local use. This information and tables are usually available from the local Survey Department. For cylindrical projections, such as Gauss-Kruger, the correction values may be taken from graph 3. This is based on the formula:

$$\Delta D_3 = 10^6 \cdot \frac{X^2}{2R^2}$$

where: ΔD_3 = projection-scale factor in ppm
 R = 6378 km (earth radius)
 X = northing in km from base line of projection (at scale factor 1)

Do not use graph 3 for countries where the scale factor is not 1.

15.2.1 Atmospheric correction ΔD_1

To ensure that the correct distance is displayed, a scale correction in ppm must be input for the atmospheric conditions prevailing at the time of measurement.

The atmospheric correction takes into account both atmospheric pressure and temperature.

To determine the atmospheric correction to an accuracy of 1 ppm, measure the ambient temperature to an accuracy of 1°C and atmospheric pressure to 3 mb.

For most applications, an approximate value for atmospheric correction (within about 10 ppm) is adequate. This can be obtained by taking the average temperature for the day and the height above mean sea level of the survey site. A temperature change of about 10°C or a change in height above sea level of about 350 m (= 35 mb) varies the scale correction by only 10 ppm.

The atmospheric correction is computed in accordance with the following formula:

$$\Delta D_1 = 281.8 - \frac{0.29065 p}{1 + 0.00366 t}$$

where: ΔD_1 = atmospheric correction (ppm)
 p = atmospheric pressure (mb)
 t = ambient temperature (°C)

15.2.2 Reduction to mean sea level ΔD_2

The correction in ppm for the reduction to mean sea level is shown in graph 2. For all locations above sea level, the correction is always negative.

Graph 2 is based on the formula:

$$\Delta D_2 = -10^3 \cdot \frac{H}{R}$$

where: ΔD_2 = reduction to MSL in ppm
 H = height of EDM above MSL
 R = 6378 km (earth radius)

15.2.3 Correction for projection-scale factor ΔD_3

This correction depends on the standard map projection in local use. This information and tables are usually available from the local Survey Department. For cylindrical projections, such as Gauss-Kruger, the correction values may be taken from graph 3. This is based on the formula:

$$\Delta D_3 = 10^6 \cdot \frac{X^2}{2R^2}$$

where: ΔD_3 = projection-scale factor in ppm
 R = 6378 km (earth radius)
 X = northing in km from base line of projection (at scale factor 1)

Do not use graph 3 for countries where the scale factor is not 1.

WILDsoft™

Surveying System Software

Version 1.63

September 1990

KEY DISK # 2123

Leica

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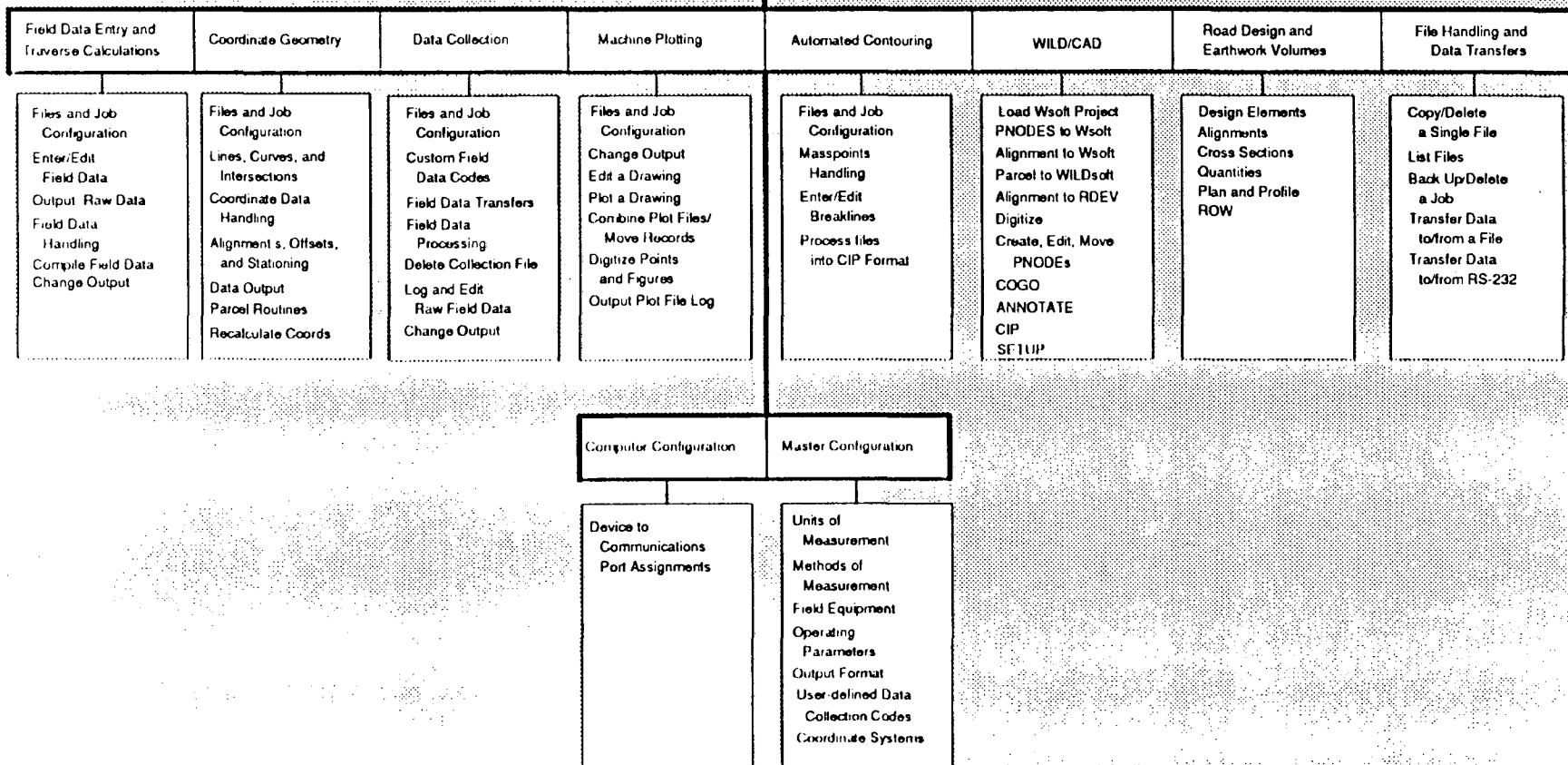
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ISBN 0-944813-17-8

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**WILDsoft
Main Menu**



1-M

Introduction: Working with WILDsoft

Preface

The WILDsoft program was developed to provide a total field-to-finish package for today's advanced surveying applications. In WILDsoft, manually or electronically collected field data are readily processed into files for standard surveying applications such as traverse calculations and coordinate geometry, for flexible data output, for data sharing with other computer systems or text files, and for direct creation of plotting instructions, including on-line graphics capabilities.

Fully alphanumeric point identifiers and descriptors are supported by the WILDsoft program. This provides increased flexibility in building and manipulating coordinate data, since the common names of control points or stations may be used. Alphanumerics give the surveyor increased power in specifying coordinate file subsets in point-search routines. In the WILDsoft program the user may define groups of points for searches, thus greatly enhancing the speed and efficiency with which points are manipulated.

WILDsoft also gives the surveyor the added flexibility of tailoring data output to specific field-collection techniques, as well as the opportunity to choose and define units for angles and distance and spheroids for coordinate systems. WILDsoft software represents a powerful, complete, yet highly adaptable series of solutions to common surveying problems.

The first section of the WILDsoft manual is divided into two parts. **Part I** (pages 1-1 - 1-9) discusses basic system requirements for running WILDsoft, the variety of possible computer configurations that will work with the program, and the way to install WILDsoft on your computer system. **Part II** (pages 1-10 - 1-32) talks about the structure and operation of the program, including instructions on entering data and a brief overview of special WILDsoft features.

Part I. System Requirements and Program Installation

System Requirements

WILDsoft was designed for use on the IBM PC XT, IBM PC AT, and strict PC compatibles. The program also supports IBM Personal System/2 Computers. Specific support is provided for the PS/2 Model 50 and higher. Support for the PS/2 Model 30 is not specifically included; however, that model will operate in a similar manner to the IBM PC/XT.

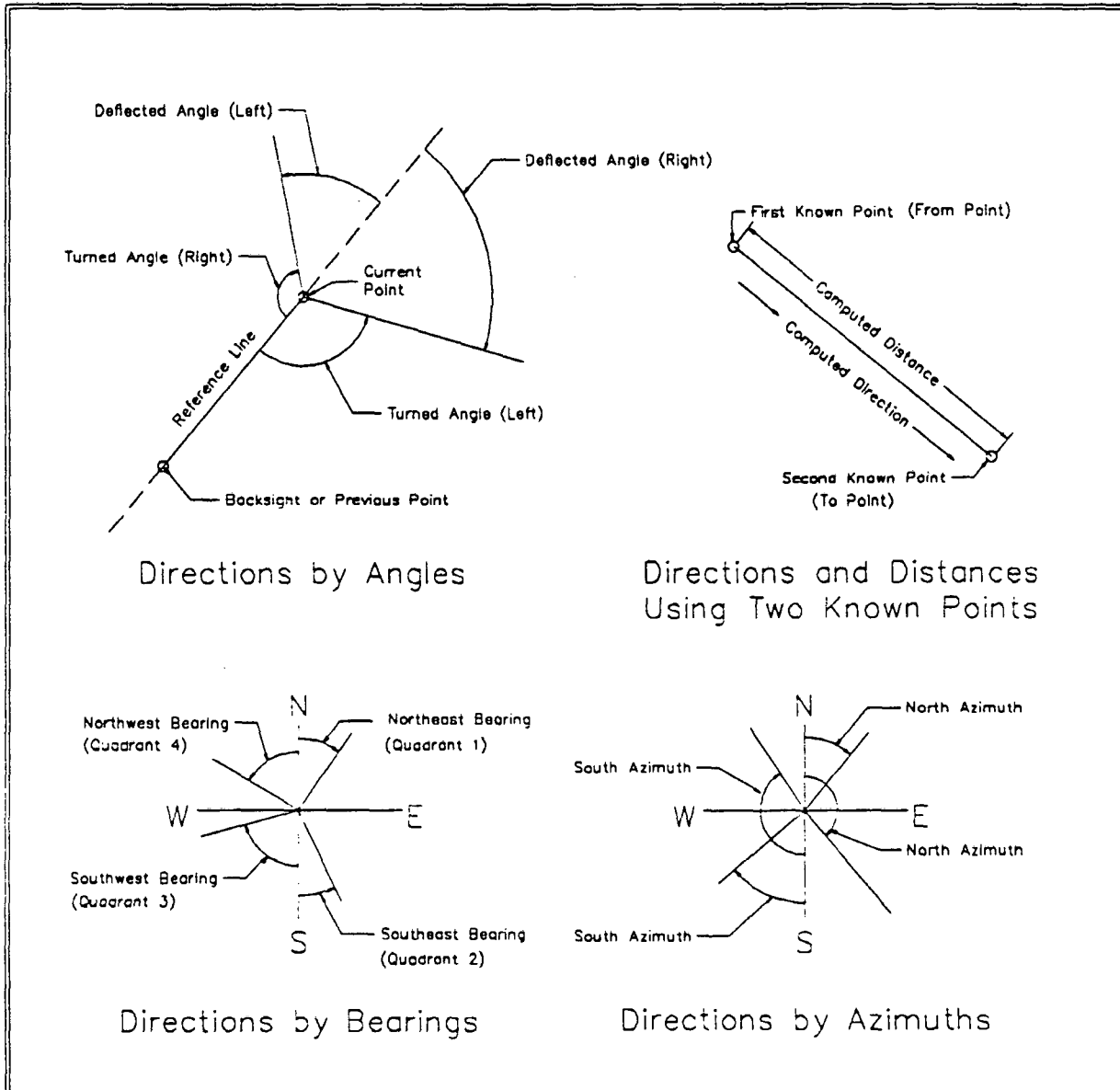


Figure 1-16. Direction and Distance

Methods Of Measurement

SYSTEM CONFIGURATION ROUTINES

1. Units for Input and Output
2. **METHODS OF MEASUREMENT**
3. Field Equipment Config.
4. Default Plotting Parameters
5. Default Operating Parameters
6. Printer Output Format
7. User Defined Data Codes
8. Coordinate Systems

Selection [2] in the System Configuration Routines Main Menu (refer to Figure 2-10 above) allows the user to choose the appropriate method used in field data collection. When the Field Data Measurement Methods Menu (Figure 2-15) appears, press the number corresponding to the applicable angular and distance methods. Press [9] when selections have been made; program will return to the Configuration Routines Main Menu.

The field data entry routines will request measurements based on the specified methods--for example, vertical distances as opposed to vertical angles. The quantities that will be requested during field-data entry are detailed in the discussion that follows.

Methods of Measurement:	
Angles:	DIRS
Distances:	EDM
FIELD DATA MEASUREMENT METHODS	
Angular Methods:	
1. (REPS)	Repetitions
2. (DIRS)	Directions
3. (LANG)	Single Angle
Distance Methods:	
4. (HDVD)	Horizontal Distance and Vertical Distance
5. (EDM)	EDM Slope Distance and Zenith or Vertical Angle
6. (TAPE)	Taped Slope Distance and Zenith or Vertical Angle
7. (STAD)	Stadia Interval, Zenith Angle, and Intercept
9. Exit to Previous Menu	
ESC=ABORT	

Figure 2-15. Field Data Measurement Menu

Angular Methods

1. (REPS) Repetitions

The REPS method is used with repeating theodolites such as the Wild T1. When this option is chosen, the program will request horizontal and vertical circle readings for the initial backsight and foresight pointings and for the final foresight pointing. It will also request the number of repetitions taken.

2. (DIRS) Directions

This method is used with directional theodolites such as the Wild T2 or T2000. The program will request horizontal and vertical circle readings for each backsight/foresight pair.

3. (IANG) Single Angle

The IANG method may be used with any type of instrument. The program will request the angle between the backsight line and the foresight line as measured to the right. If multiple readings have been taken in the field, they must be reduced to a single value in order to use this method.

Distance Methods

See Figures 2-16 and 2-17 for illustrations of the distance measurement techniques discussed below.

4. (HDVD) Horizontal and Vertical Distance

This method is realized by using a total station that calculates and reports horizontal and vertical distances based on measurements of slope distances and zenith or vertical angles. These calculations may be done manually if desired. When the HDVD option is chosen, the program will request the horizontal and vertical distances and target height. Be sure to enter the vertical distance from the instrument to the target, and not the differences in ground elevations between the two points. If the target is lower than the instrument, enter the vertical distance as a negative number.

5. (EDM) Electronic Distance Measurement

This configuration should be selected when using Electronic Data Collection. In the EDM method, a distance meter is used in conjunction with a theodolite to measure slope distance and vertical or zenith angle. The program will request the target height, vertical angle, and slope distance. Corrections for scope- or yoke-mounted EDMs may be made using the Field Equipment Parameters Options discussed below. Corrections for curvature and refraction may also be applied if desired. This option is set when entering the Field Data Compiler.

6. (TAPE) Taped Slope Distance

In this method a tape is used in conjunction with a theodolite to measure slope distance and vertical or zenith angle. The program will request the target height, vertical angle, and slope distance. No corrections for curvature and refraction are made, and corrections for tension, temperature, and sag must be made manually before entering a taped distance. In instances where distances are measured by breaking tape, the total taped distance should be entered.

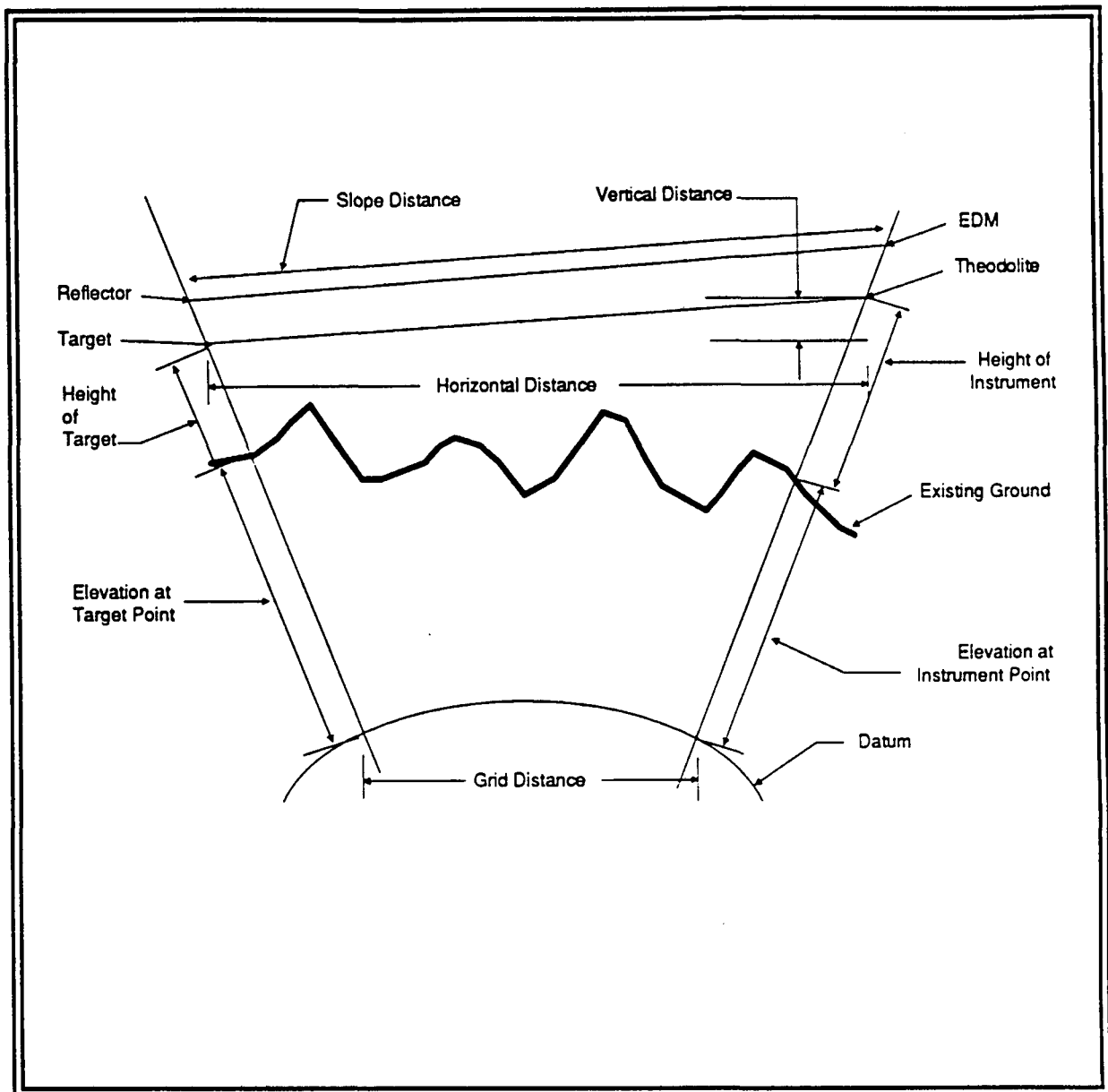


Figure 2-16. Field Equipment/Measurement

7. (STAD) Stadia Interval, Zenith Angle, and Intercept

In the STAD method the three stadia hairs in a transit or theodolite are used to measure a distance interval on a leveling rod. When the STAD method is chosen, the program will request the rod interval between the bottom and top stadia hairs, the intercept or rod reading of the middle hair, and the zenith or vertical angle.

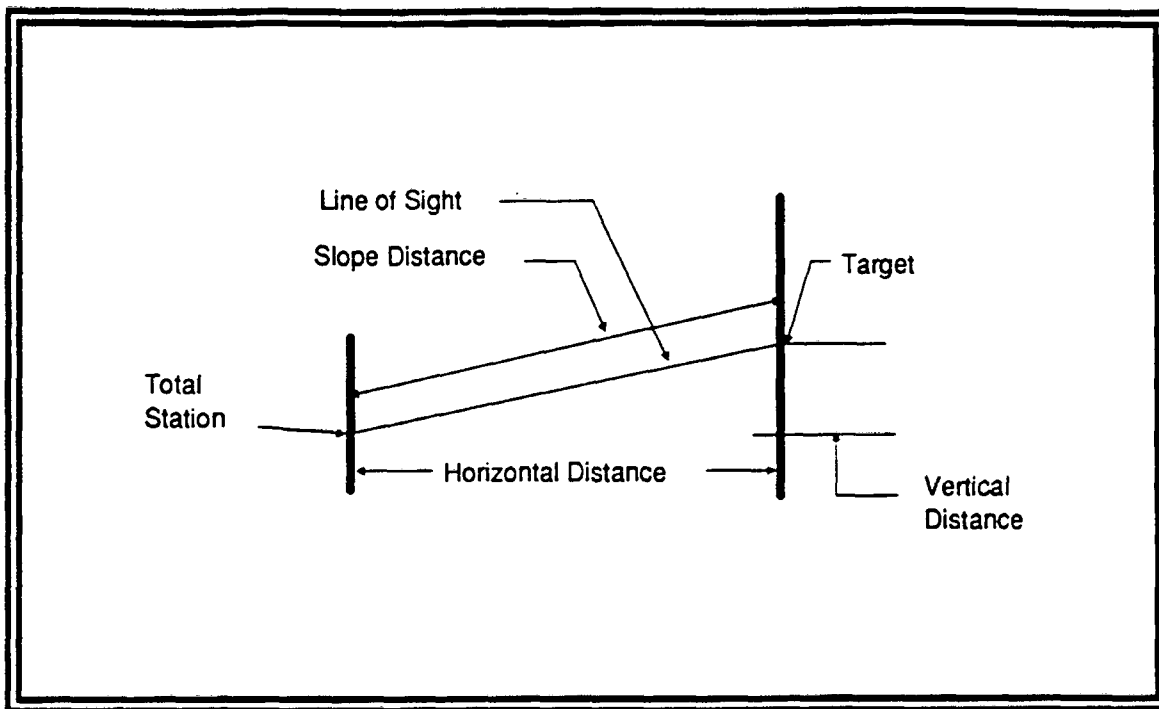


Figure 2-17. Horizontal and Vertical Distance

Field Equipment Parameters

SYSTEM CONFIGURATION ROUTINES

1. Units for Input and Output
2. Methods of Measurement
3. **FIELD EQUIPMENT CONFIG.**
4. Default Plotting Parameters
5. Default Operating Parameters
6. Printer Output Format
7. User Defined Data Codes
8. Coordinate Systems

System Configuration Option [3] reflects field equipment setups. Eight parameters are offered for change; see Figure 2-18, Field Equipment Configuration Menu. These parameters are stored in the field data file for each job, so a reconstruction of instrument setup is always possible by reference to printed field data for the job in question.

[1] Offset: Theodolite to EDM

Choose selection [1] from the Equipment Configuration Menu to change the distance above or below the horizontal axis of the theodolite to the point of measurement on the EDM. The cursor will be placed in the status section of the screen to receive this numeric value. If the EDM is above the theodolite, enter a positive value; if EDM is below, the value will be negative. Enter and press [RETURN].

Theo to EDM:	0.20	HZ Deviation:	000 00 10.0
Tgt to Reflr:	0.20	VT Deviation:	000 00 20.0
Stadia Const:	100	Vertical Angles:	ZN
Inst. Height	5.50	Target Height:	5.00

FIELD EQUIPMENT CONFIGURATION

Select Parameter to Change:

1. Offset: Theodolite to EDM
2. Offset: Target to Reflector
3. Stadia Constant
4. Maximum Deviation of Horizontal Angle Sets
5. Maximum Deviation of Vertical Angle Sets
6. Zenith or Vertical Angles
7. Default Height of Instrument
8. Default Height of Foresight Target
9. Exit to Previous Menu

ESC=ABORT

Figure 2-18. Configuration Menu

[2] Offset: Target to Reflector

Selection [2] changes the vertical distance between target and reflector in a manner similar to [1] Offset: Theodolite to EDM discussed above. Again, if reflector is above the target, enter a positive value; if below, enter a negative.

NOTE: If the vertical distance from the theodolite to the EDM and the vertical distance from the target to the reflector are equal, you may enter a 0 for each value.

[3] Stadia Interval Factor

Equipment Configuration Selection [3] represents the stadia interval factor. This factor, when multiplied by the measured interval of a rod, produces the estimated distance between rod and instrument. For most modern surveying instruments the stadia interval factor is 100; however, to be certain, consult the manual for the instrument you are using.

[4] Maximum Deviation of Horizontal Angle Sets

[5] Maximum Deviation of Vertical Angle Sets

These two selections change the maximum value by which a single angle may deviate from the mean of the set of angles that contains it. Maximum deviation is a valuable criterion for judging the precision of any series of angular measurements. When either selection [4] or [5] is chosen, the cursor will be placed in the status section of the screen to receive an angular quantity. Enter this value and press [RETURN].

[6] Zenith or Vertical Angles

Selection [6] is used to set measurement mode to either zenith or vertical angles, depending on whether the instrument you are using measures vertical angles 1) from the zenith or 2) from the horizontal plane. See Figure 2-19. In the first case, the instrument will read 0 at the zenith; in the second, the instrument will read 0 at the horizontal. Key [6] is toggled between the two choices.

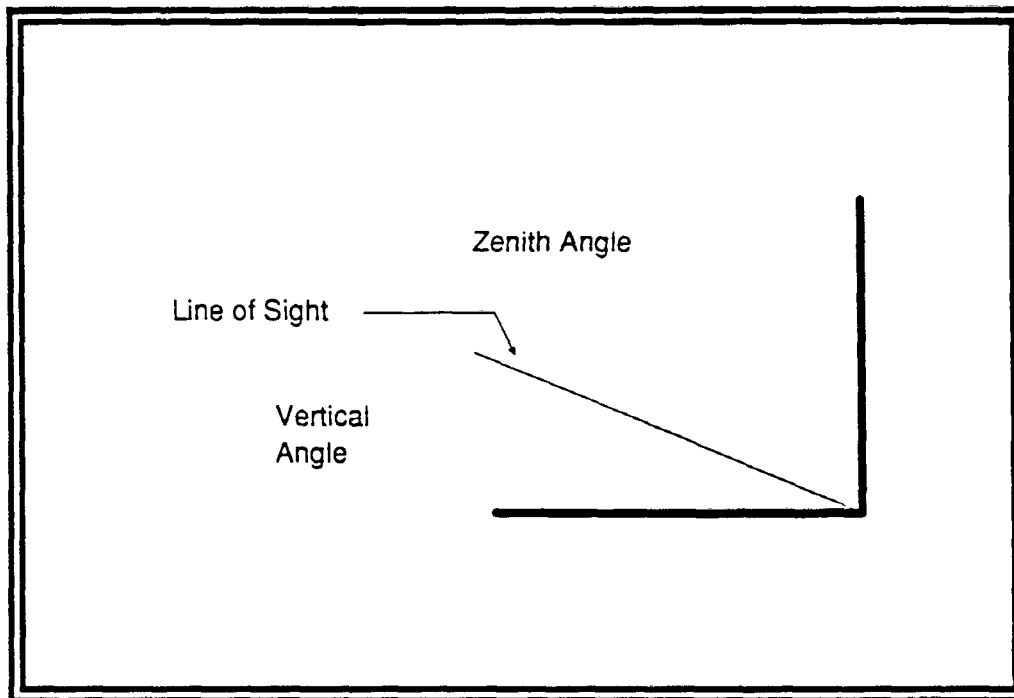


Figure 2-19. Zenith or Vertical Angles

[7] Default Height of Instrument

[8] Default Height of Foresight Target

Equipment Configuration Selections [7] and [8] change the default value for the height of the measuring instrument and of the foresight target on a shot. When either selection is chosen, the

**Note!**

Coordinate systems may be changed only in the Master Configuration File (thus affecting subsequent files) or for newly created, empty coordinate files. To change the coordinate system of any existing file, you must use the Coordinate Transformation Routines in the Coordinate Geometry section of the program.

The Coordinate Systems and Spheroids Menu offers six options, as shown in Figure 2-34.

Coordinate System: TMERC	
Zone: 29	Descr: DELAWARE
Spheroid: WGS 72	

COORDINATE SYSTEMS AND SPHEROIDS

NOTE:

Selections 2-5 require use of elevations when compiling field data to produce grid coordinates.

You may select one of the following:

1. (LCC) Local Coordinates
2. U.S. State Plane Coordinates--NAD 27
3. U.S. State Plane Coordinates--NAD 83 or Other
4. (UTM) Universal Transverse Mercator
5. User Defined Projection

9. Exit to Previous Menu

ESC=ABORT

Figure 2-34. Coordinate Systems Menu

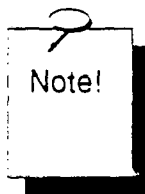
Local Coordinates

Press Key [1] in this menu to select local coordinates, in which case coordinates computed will not be subject to further transformation. This option will commonly be used in plane surveying on projects with an assumed coordinate system.

—OR—

State Plane Coordinates, UTM, and User-defined Systems

Select Options [2]-[5] for the coordinate system applicable to your project. The cursor will be positioned to receive a zone number. (Refer to Figure 2-34 above.) For a listing of WILDsoft zone numbers for Universal Transverse Mercator (UTM) and U.S. State Plane Coordinates zones, see Table 2-4 at the end of this section.



Choice of Options [2]-[5] requires computation of point elevations when compiling field data. The program will then reduce the measured ground distances to grid distances so that grid coordinates in the chosen coordinate system will be computed.

[2] U.S. State Plane Coordinates—NAD 27

When Menu Option [2] is chosen, WILDsoft will prompt for zone number. Enter as prompted, and press [RETURN]. Entry of zone number will cause WILDsoft to automatically change the spheroid to Clarke 1866, then recall the Coordinate Systems Menu (Figure 2-34). In the status section of the screen, the selected zone will be displayed as the current coordinate system.

[3] U.S. State Plane Coordinates—NAD 83

Option [3] will prompt for a zone number. Enter a zone number, and press [RETURN]. Next, the program will prompt for the geoid height. This is the height that the ellipsoid is either above or below the geoid. A common value for the continental U.S. is approximately -30.5m (about -100'). Alaska will vary considerably (positive height). Enter an appropriate value for your area and press [RETURN]. Based on the input zone number, WILDsoft will issue one of three submenus:

- Lambert Projection (LAMBERT)
- Transverse Mercator Projection (TMERC)
- Oblique Mercator Projection (OBLIQ)

Figure 2-35 shows the Lambert Projection submenu. There are eight options for changing and storing parameters. Offered as default values are the NAD83 Plane Coordinate System parameters (SPCS83). These parameters are displayed opposite the numbered options corresponding to them; see Figure 2-35.

To change any parameter, choose the appropriate numbered key. WILDsoft will place the cursor for input of a new value. **Note that you must enter South Latitude and West Longitude as negative values.** Refer to Figure 2-35, which shows a reverse-video field and an on-screen reminder for entering the Longitude of Central Meridian.

When all parameters are as desired, press Key [9] to store the changes and exit. WILDsoft will then recall the Coordinate Systems Menu (Figure 2-34).

Note Reverse-video Field for Entry of Parameter [4] and On-screen "Reminder"

Coordinate System: LAMBERT	
Zone: 51	Descr: KENTUCKY NORTH
Spheroid: GRS 1980	

COORDINATE SYSTEMS AND SPHEROIDS

Parameters for the Lambert Projection

1. Latitude for North Standard Parallel	38 58 00.0
2. Latitude for South Standard Parallel	37 58 00.0
3. Latitude of the Origin	37 30 00.0
4. Longitude of Central Meridian	- 84 15 00.0
5. Easting of Central Meridian	500000.00
6. Northing of Origin	0.00
7. Change Spheroid	
9. Store Parameters and Exit	

Enter **WEST** Longitude as a Negative

ESC=ABORT

Figure 2-35. Lambert Projection Submenu

Figures 2-36 and 2-37 illustrate the Transverse Mercator and Oblique Mercator Projection submenus with parameters displayed. Choice of options and input of parameters are as for the Lambert submenu discussed above.

Note that the NAD83 State Plane Coordinates Submenu offers an option for changing the current spheroid. However, a warning will first pop up on the screen before WILDsoft allows the spheroid to be changed. If you change the spheroid, you will introduce distortions into your coordinate system. See the heading "Spheroids" for a discussion of changing spheroids.

[4] (UTM) Universal Transverse Mercator

If you choose Option [4] from the Coordinate Systems Menu, WILDsoft will first prompt for zone number and when proper zone number is entered, will then prompt:

Change Spheroid Y/N?

A "Y" response will call up the Spheroids for Coordinate Systems Menu shown in Figure 5-39 below. For a discussion of this process, see "Spheroids" below.

[5] User-defined Projections

Option [5] from the Coordinate Systems Menu permits the selection of user-defined projections that are stored by WILDsoft beginning at Zone Number 200 and numbered consecutively thereafter.

A. If you are defining a projection for the first time:

1. WILDsoft will issue the User-defined Projections Display (Figure 2-38) and prompt for a zone number. Type in the number of the next available zone and press [RETURN].
2. WILDsoft will display the message "New Projection" as illustrated in Figure 2-38 and request an optional descriptor (25 characters maximum) that will be assigned to it. Type in as desired and press [RETURN].
3. The program will next offer the menu of three Projection Types shown in Figure 2-38. Choose one of the menu options by striking the corresponding numbered key: [1] for Lambert.

```

Coordinate System:  LAMBERT
                   Zone:   201   Descr: TEST SYSTEM

COORDINATE SYSTEMS AND SPHEROIDS

User Defined Projections

Enter Zone:   201           New Projection
Projection:   LAMBERT
Descriptor:   TEST SYSTEM

Select Projection Type

1.  Lambert
2.  Transverse Mercator
3.  Oblique Transverse Mercator

9.  Exit to Previous Menu

ESC=ABORT

```

Figure 2-38. User-defined Projection Display

[2] for Transverse Mercator, [3] for Oblique Mercator. When Projection Type has been selected, the appropriate Coordinate System submenu will appear to permit changes to any or all listed parameters.

4. Change parameters as desired for the new, user-defined projection, then store and exit as described above. WILDsoft will recall the Coordinate Systems Menu (Figure 2-34) with the newly defined projection as the current Coordinate System.

B. Once a projection has been defined by you and stored by the program, you may select or change it in the User-defined Projections Display as follows:

1. WILDsoft will prompt for a zone number, then descriptor, offering the current descriptor as default. Accept by pressing [RETURN] without entry OR enter a new one and press [RETURN].

2. Next WILDsoft will issue the menu of three Projection Types shown in Figure 2-38 and request a selection: the current type is displayed in the status section of the screen. Press [RETURN] to keep the current projection and return to the Coordinate Systems Menu.

—OR—

Choose one of the three menu options by striking the corresponding numbered key: [1] for Lambert, [2] for Transverse Mercator, [3] for Oblique Mercator.

3. WILDsoft will call up the appropriate Projection Submenu (see Figures 2-35 - 2-37 above) and permit changing any or all of the parameters listed for the chosen Projection Type. When parameters are set as desired, press Key [9] to store and exit. WILDsoft will recall the Coordinate Systems Menu with the chosen User-defined Projection as the current coordinate system.

NOTE: The surveyor should maintain a list of the zone number and parameters for any user-defined coordinate systems.

Spheroids

When the chosen coordinate system is not Local but a U.S. State Plane Coordinate System, WILDsoft automatically selects an appropriate spheroid. For SPCS27, the spheroid is Clark 1866, and in SPCS83, it is GRS1980. In a UTM or User Defined Projection, you must choose an appropriate spheroid. In any case, WILDsoft offers the choice only if the Coordinate File is empty OR when changing the Master System Configuration.

If you select the Change Spheroids option OR (in the case of UTM) answer [Y] to the "Change Spheroids?" prompt, WILDsoft will issue the menu shown in Figure 2-39 below. Any one of three standard spheroids and two user-defined spheroids may be chosen.

Spheroids are defined in terms of the equatorial radius (semi-major axis) "a" and by specifying either the polar radius (semi-minor axis) "b" or the reciprocal of the flattening "1/f" (see Figure 2-39). To define a spheroid, choose Selection [6] or [7], "Modify User-Defined A or B." Cursor will be positioned in status section of the screen to receive "a," "b," and "1/f" variables. Enter and press [RETURN].

Table 2-3. Common Units of Angular and Distance Measurement (USA)

ANGULAR MEASUREMENT

Name	Type	Units per circle
Degrees	(Decimal)	360.0
Degrees	(Sexagesimal)	360° 00' 00"
Grads	(Decimal)	400.0
Mils	(Decimal)	6400.0

DISTANCE MEASUREMENT

Name	Units per meter
Meter	1.0
US Survey Foot	3937/1200 (1m=39.37in)
International Foot	1/0.3048 (1in=25.4mm)

Table 2-4. Coordinate Systems Listed by Zones

I. UNIVERSAL TRANSVERSE MERCATOR ZONE NUMBERS

Longitude	East	West
0° - 6°	31	30
6° - 12°	33	29
12° - 18°	34	27
24° - 30°	35	26
30° - 36°	36	25
36° - 42°	37	24
42° - 48°	38	23
48° - 54°	39	22
54° - 60°	40	21
60° - 66°	41	20
66° - 72°	42	19
72° - 78°	43	18
78° - 84°	44	17
84° - 90°	45	16
90° - 96°	46	15
96° - 102°	47	14
102° - 108°	48	13
108° - 114°	49	12
114° - 120°	50	11
120° - 126°	51	10
126° - 132°	52	9
132° - 138°	53	8
138° - 144°	54	7
144° - 150°	55	6
150° - 156°	56	5
156° - 162°	57	4
162° - 168°	58	3
168° - 174°	59	2
174° - 180°	60	1

II. STATE PLANE COORDINATE SYSTEM ZONE NUMBERS

1	ALABAMA EAST	T	45	INDIANA EAST	T
2	ALABAMA WEST	T	46	INDIANA WEST	T
3	ALASKA ZONE 1	O	47	IOWA NORTH	L
4	ALASKA ZONE 2	T	48	IOWA SOUTH	L
5	ALASKA ZONE 3	T	49	KANSAS NORTH	L
6	ALASKA ZONE 4	T	50	KANSAS SOUTH	L
7	ALASKA ZONE 5	T	51	KENTUCKY NORTH	L
8	ALASKA ZONE 6	T	52	KENTUCKY SOUTH	L
9	ALASKA ZONE 7	T	53	LOUISIANA NORTH	L
10	ALASKA ZONE 8	T	54	LOUISIANA SOUTH	L
11	ALASKA ZONE 9	T	55	LOUISIANA OFFSHORE	L
12	ALASKA ZONE 10	L	56	MAINE EAST	T
13	ARIZONA EAST	T	57	MAINE WEST	T
14	ARIZONA CENTRAL	T	58	MARYLAND	L
15	ARIZONA WEST	T	59	MASSACHUSETTS MAINLAND	L
16	ARKANSAS NORTH	L	60	MASSACHUSETTS ISLAND	L
17	ARKANSAS SOUTH	L	61	MICHIGAN EAST ²	T
18	CALIFORNIA ZONE 1	L	62	MICHIGAN CENTRAL ²	T
19	CALIFORNIA ZONE 2	L	63	MICHIGAN WEST ²	T
20	CALIFORNIA ZONE 3	L	64	MICHIGAN NORTH ³	L
21	CALIFORNIA ZONE 4	L	65	MICHIGAN CENTRAL ³	L
22	CALIFORNIA ZONE 5	L	66	MICHIGAN SOUTH ³	L
23	CALIFORNIA ZONE 6	L	67	MINNESOTA NORTH	L
24	CALIFORNIA ZONE 7 ¹	L	68	MINNESOTA CENTRAL	L
25	COLORADO NORTH	L	69	MINNESOTA SOUTH	L
26	COLORADO CENTRAL	L	70	MISSISSIPPI EAST	T
27	COLORADO SOUTH	L	71	MISSISSIPPI WEST	T
28	CONNECTICUT	L	72	MISSOURI EAST	T
29	DELAWARE	T	73	MISSOURI CENTRAL	T
30	FLORIDA EAST	T	74	MISSOURI WEST	T
31	FLORIDA WEST	T	75	MONTANA NORTH ⁴	L
32	FLORIDA NORTH	L	76	MONTANA CENTRAL ⁴	L
33	GEORGIA EAST	T	77	MONTANA SOUTH ⁴	L
34	GEORGIA WEST	T	78	NEBRASKA NORTH ⁵	L
35	HAWAII ZONE 1	T	79	NEBRASKA SOUTH ⁵	L
36	HAWAII ZONE 2	T	80	NEVADA EAST	T
37	HAWAII ZONE 3	T	81	NEVADA CENTRAL	T
38	HAWAII ZONE 4	T	82	NEVADA WEST	T
39	HAWAII ZONE 5	T	83	NEW HAMPSHIRE	T
40	IDAHO EAST	T	84	NEW JERSEY	T
41	IDAHO CENTRAL	T	85	NEW MEXICO EAST	T
42	IDAHO WEST	T	86	NEW MEXICO CENTRAL	T
43	ILLINOIS EAST	T	87	NEW MEXICO WEST	T
44	ILLINOIS WEST	T	88	NEW YORK - LONG ISLAND	L

89	NEW YORK EAST	T
90	NEW YORK CENTRAL	T
91	NEW YORK WEST	T
92	NORTH CAROLINA	L
93	NORTH DAKOTA NORTH	L
94	NORTH DAKOTA SOUTH	L
95	OHIO NORTH	L
96	OHIO SOUTH	L
97	OKLAHOMA NORTH	L
98	OKLAHOMA SOUTH	L
99	OREGON NORTH	L
100	OREGON SOUTH	L
101	PENNSYLVANIA NORTH	L
102	PENNSYLVANIA SOUTH	L
103	RHODE ISLAND	T
104	SOUTH CAROLINA NORTH ⁶	L
105	SOUTH CAROLINA SOUTH ⁶	L
106	SOUTH DAKOTA NORTH	L
107	SOUTH DAKOTA SOUTH	L
108	TENNESSEE	L
109	TEXAS NORTH	L
110	TEXAS NORTH CENTRAL	L
111	TEXAS CENTRAL	L
112	TEXAS SOUTH CENTRAL	L
113	TEXAS SOUTH	L
114	UTAH NORTH	L
115	UTAH CENTRAL	L
116	UTAH SOUTH	L
117	VERMONT	T
118	VIRGINIA NORTH	L
119	VIRGINIA SOUTH	L
120	WASHINGTON NORTH	L
121	WASHINGTON SOUTH	L
122	WEST VIRGINIA NORTH	L
123	WEST VIRGINIA SOUTH	L
124	WISCONSIN NORTH	L
125	WISCONSIN CENTRAL	L
126	WISCONSIN SOUTH	L
127	WYOMING EAST	T
128	WYOMING EAST CENTRAL	T
129	WYOMING WEST CENTRAL	T
130	WYOMING WEST	T
131	PUERTO RICO	L
132	VIRGIN ISLANDS ZONE 1	L
133	VIRGIN ISLANDS-ST.CROIX	L

Legend:

L = Lambert
O = Oblique Mercator
T = Transverse Mercator

Notes:

¹CALIFORNIA ZONE 7 has been abandoned under the NAD83 State Plane Coordinate System.

²The MICHIGAN Transverse Mercator zones have been abandoned under the NAD83 State Plane Coordinate System.

³The 800-foot datum shift for the MICHIGAN Lambert zones under the NAD27 definition has not been carried forward into the NAD83 definition of the State Plane Coordinate System.

⁴MONTANA has only a single Lambert zone under the NAD83 State Plane Coordinate System. WILDsoft Zones 75, 76 and 77 will yield the same parameters when NAD83 is selected by the user.

⁵NEBRASKA has only a single Lambert zone under the NAD83 State Plane Coordinate System. WILDsoft Zones 78 and 79 will yield the same parameters when NAD83 is selected by the user.

⁶SOUTH CAROLINA has only a single Lambert zone under the NAD83 State Plane Coordinate System. WILDsoft Zones 104 and 105 will yield the same parameters when NAD83 is selected by the user.

--The projection parameters for the State Plane Coordinate zones under NAD83 have been obtained from the National Geodetic Survey (NGS) and may be subject to change as the various states pass legislation for the coordinate systems under the NAD83 datum. If in doubt, check with your state or NGS to verify parameters.

Table 2-5. Selected Spheroids for Coordinate Systems

Name	Date	Equatorial Radius a	Polar Radius b	Flattening f
Clark	1866	6378206.4*	6356583.8*	1/294.98
International	1924	6378388.0*	6356911.9	1/297.0*
WGS 72	1972	6378135.0*	6356750.5	1/298.26
WGS 84	1984	6378137.0*	6356752.31	1/298.257*
GRS 1980	1980	6378137.0*	6356752.3	1/298.257
Airy	1849	6377563.4	6356256.9	1/299.32
Bessel	1841	6377397.2	6356079.0	1/299.15

Notes:

--Dimensions are in meters.

--* Indicates an exact value. When two parameters are so marked, the third is calculated using the expression

$$f=(a-b)/a.$$

--Parameters for WGS 72 and GRS 1980 indicate the adopted value for f.

Source: Map projections used by the U.S. Geological Survey. *Geological Survey Bulletin 1532*. Second Edition. Washington: U.S. Government Printing Office, 1983.

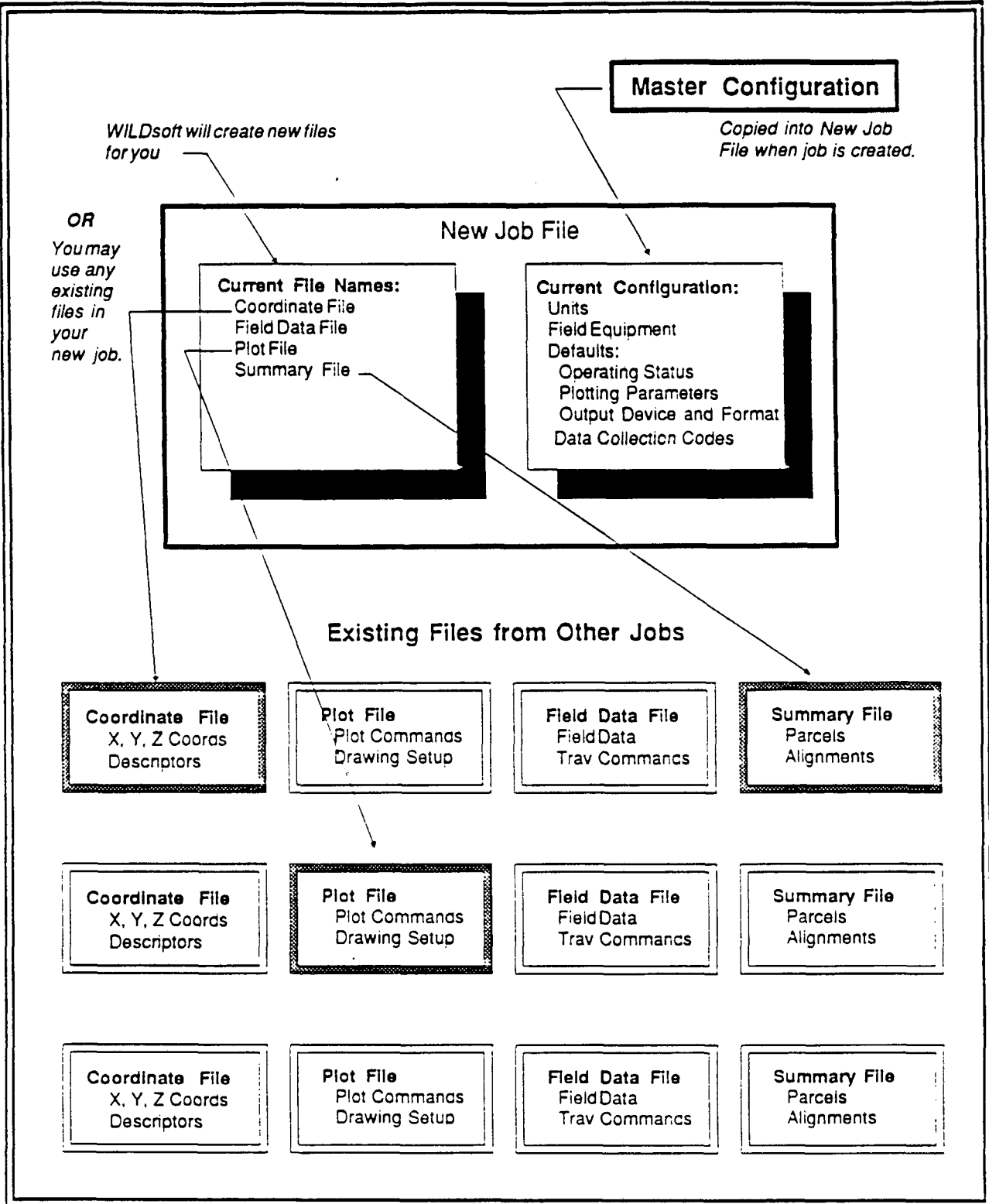


Figure 3-12. Creating a Job File

Section IV

Field Data Entry and Traverse Calculations

Introduction

This module contains routines to enter, edit, and manipulate raw field data, as well as to compile the raw field data into coordinates and plotting instructions. The process is accomplished by using the field data editor to enter and edit the raw data, then using the field data compiler to process the raw data.

The field data editor allows entry and editing of field data and commands. Commands are instructions by which the field data compiler is programmed to compute coordinates and graphics. Through the use of WILDsoft traverse commands, the surveyor may enter data into the field data file in the same order in which the measurements were taken in the field. It is not necessary to reduce sets of angles to a single value nor to reduce slope distances to the horizontal. The surveyor may enter commands to produce a drawing based on field measurements by invoking the appropriate graphics command.

The field data compiler will compute and adjust a horizontal and/or vertical traverse, placing the resultant coordinates into the current coordinate file. It will then use these adjusted coordinates to calculate any sideshots in the field data file and add the coordinates of the sideshot points to the coordinate file. The compiler will calculate average horizontal and vertical angles from field measurements and compare them against user-specified tolerances for precision of angle sets. If instructed, it will apply corrections for curvature and refraction or for scaling in calculations of horizontal distances. The compiler will also apply any graphics commands in the field data file to the creation of plotting instructions for use in the Machine Plotting Module. Such plotting instructions are added to the current plot file.

Figure 4-1 represents the Field Data Main Menu, offering seven program options. Three of these, numbers [1], [6], and [7], are common WILDsoft functions and are discussed elsewhere in this manual. The remaining options are discussed under the major section headings in the present chapter.

3. Program will request backsight point. If the backsight point is unknown, press [SPACE BAR] and enter backsight direction as requested. See Figure 4-4. For a discussion of direction entry in the WILDsoft program, see Section I, "Direction and Distance Entry."

4. When backsight information has been entered, START and OCCUPY commands will be added to the file and placed in the data window at midscreen. The Traverse Commands Menu will be called to the prompt section of the screen. This menu offers nine traverse options; see Figure 4-5.

0001	1	START	12MAPLE	NA 085 30 00.0
0002	2	OCCUPY	12MAPLE	5.00

Traverse Commands	
1. OCCUPY: Occupy a Point	6. COMPARE/RECALL/REMARK
2. FS TP: Foresight to Trav Point	7. Closing Commands
3. FS SS: Foresight to One Sideshot	8. Traverse Graphics
4. RADIAL: Begin Radial Sideshots	9. Return to Previous Menu
5. Vertical Trav/Contouring	
ESC=ABORT	

Figure 4-5. Traverse Commands Menu

Traverse Commands

[1] OCCUPY: Occupy a Point

The OCCUPY command signals the Compiler to occupy a specified point for traversing or sideshots. It also transfers information regarding the backsight point and height of instrument.

The program will request the point to OCCUPY, the instrument height, and the backsight point. It will offer the last traverse foresight, the height of the last traverse target, and the last occupied point as the default values for these parameters. Occupying any point other than the default will not be linked to the present traverse. Program

[2] FS TP:
Foresight to Traverse Point

will request any missing data (e.g. descriptor, coordinates), the instrument height, and backsight point as for the START command discussed above.

This command starts the routine to input a set of measurements to a traverse point. Measurements to a traverse point may be entered based on the selected measurement methods. The traverse point is adjusted as desired following closure of the traverse. When the FS TP command is chosen, only a single, linked path may be used for traverse closure and adjustment; network calculations are not supported.

1. In the Foresight to Traverse Point Command, if AutoNumber is ON, the program offers as default the next available point (i.e. the last traverse foresight point incremented by one.)

Press [RETURN] to accept OR enter new point ID and press [RETURN]. Program will prompt for 25-character point descriptor and then height of target, offering as default the last traverse target height. Accept or enter new numeric value for height. See Figure 4-6, FS-TP Command, indicating direction sets and EDM measurements.

0001	1	START	TRAV1	N 00 00 00.0	E		
0002	2	OCCUPY	TRAV1	5.15			
0003	3	FS TP	TRAV2				5.30
0004	BS		358 23 22.7	00 00 00.0		0.00	
0005	FS		104 22 35.1	89 13 45.1		850.09	

Traverse Command FS TP--Foresight to Traverse Point							
Foresight Point: TRAV2 Descr.:							
Height of Target: 5.30							
Circle Readings and Measurements: (Press RETURN to Exit)							
BS #2	Hz:	178 23	23.0	Vt:	00 00 00.0	Dist:	0.00
FS #2	Hz:	284 22	26.6	Vt:	078 11 40.0	Dist:	850.07
ESC=ABORT							

Figure 4-6. FS TP Command (Sets/EDM)

**[3] FS SS:
Foresight to One Sideshot**

2. Based on the current Measurement Methods, program will next request readings and measurements for backsight and foresight, as shown in Figure 4-6. Enter measurements as prompted, pressing [RETURN] after each entry.

This command is similar to FS TP above, except that the foresight point is not included in the traverse. The point is calculated following closure and adjustment of the traverse.

The sequence of operations for FS SS is similar to that for FS TP as well. Default value for foresight point ID is **next available controlled sideshot point**; default for height of target is **most recent target height**.

**[4] RADIAL:
Begin Radial Sideshot**

The RADIAL command allows multiple foresight points to be entered rapidly. The program will request only a single set of measurements to each foresight point. Each foresight point is calculated subsequent to closure and adjustment of the traverse.

When this option is chosen, WILDsoft will request (in succession) the point ID with which to begin numbering the sideshots; backsight point; and backsight Hz circle reading. Offered as default values are the next available sideshot point (the last radial sideshot point incremented by one), the current backsight point, and 0.00 as the Hz circle reading.

1. Accept defaults or enter new data as prompted, pressing [RETURN] after each entry. See Figure 4-7 below.
2. Next requested in succession are a 25-character descriptor, target height, and measurements. Enter as prompted, pressing [RETURN] after each entry.
3. For subsequent foresights, the point ID is incremented by one, and the cursor is positioned to receive the Hz circle reading. IF no change to the foresight information is desired, simply enter the requested measurements. To change the foresight information press [SPACE BAR] and step through the three prompts for point ID, descriptor, and target height.
4. To quit entering RADIAL sideshots, simply press [RETURN] at the Hz prompt. See Figure 4-8.

**[3] FS SS:
Foresight to One Sideshot**

2. Based on the current Measurement Methods, program will next request readings and measurements for backsight and foresight, as shown in Figure 4-6. Enter measurements as prompted, pressing [RETURN] after each entry.

This command is similar to FS TP above, except that the foresight point is not included in the traverse. The point is calculated following closure and adjustment of the traverse.

The sequence of operations for FS SS is similar to that for FS TP as well. Default value for foresight point ID is next available controlled sideshot point; default for height of target is most recent target height.

**[4] RADIAL:
Begin Radial Sideshot**

The RADIAL command allows multiple foresight points to be entered rapidly. The program will request only a single set of measurements to each foresight point. Each foresight point is calculated subsequent to closure and adjustment of the traverse.

When this option is chosen, WILDsoft will request (in succession) the point ID with which to begin numbering the sideshots; backsight point; and backsight Hz circle reading. Offered as default values are the next available sideshot point (the last radial sideshot point incremented by one), the current backsight point, and 0.00 as the Hz circle reading.

1. Accept defaults or enter new data as prompted, pressing [RETURN] after each entry. See Figure 4-7 below.

2. Next requested in succession are a 25-character descriptor, target height, and measurements. Enter as prompted, pressing [RETURN] after each entry.

3. For subsequent foresights, the point ID is incremented by one, and the cursor is positioned to receive the Hz circle reading. IF no change to the foresight information is desired, simply enter the requested measurements. To change the foresight information press [SPACE BAR] and step through the three prompts for point ID, descriptor, and target height.

4. To quit entering RADIAL sideshots, simply press [RETURN] at the Hz prompt. See Figure 4-8.

[1] CLOSE: Closing Point and Line

This command causes the closure and adjustment of the traverse. Closing point and direction of closing line are held with the CLOSE command. When compiling the field data, WILDsoft computes the positional closure and angular error of the traverse. If specified, the traverse angles are balanced and the traverse adjusted. For instructions on making traverse adjustments, see "Compile Field Data: Horizontal Traverse Settings" below. Note, however, that closure and/or adjustment of a traverse is not required for the Compiler to compute sideshot points.

Program will request a closing point and direction, offering as default values the beginning point from the START command and the direction of the original reference line less 180 degrees. If no angular balancing is desired, simply enter any value for the known direction of the closing line in the CLOSE command and set the Balanced Angles toggle in the Compile Field Data Menu to the OFF position. See Figure 4-15.

```

0055  2 OCCUPY      TRAV5      5.30      TRAV4
Closing Information:  CLOSE
Closing Point:      TRAV1
Closing Line Direction:  S 00 00 00.0 E
1=NE  2=SE  3=SW  5=N AZ  6=S AZ  9=EXIT
Press SPACE BAR to Define Direction by Two Points

ESC=ABORT

```

```

0055  2 OCCUPY      TRAV5      5.30      TRAV4
0056  4 CLOSE       TRAV1      S 00 00 00.0 E
Closing Information:  CANGLE
Closing Angle to Reference Line from currently occupied Point

Horizontal readings only:
BS # 1  Hz:  274 54 56.6  (press RETURN for no entry)
FS # 1  Hz:  217.41124

ESC=ABORT

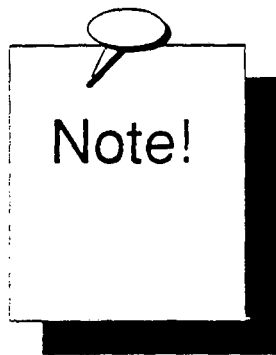
```

Figure 4-15. CLOSE/CANGLE Commands

**[2] CANG: Closing Angle from
Currently Occupied Point**

CANG Command allows a set of horizontal angle measurements to be taken from the occupied point to the closing line. The backsight direction may optionally include distance information. You are prompted for a horizontal angle, a vertical/zenith angle, and a distance. This vertical information allows WILDsoft to calculate reciprocal angles, if chosen, or "arc-to-chord" correction. Regardless of vertical backsight information, the resulting foresight direction will be compared to the known direction of the closing line. WILDsoft takes the difference of the two directions as the angular error. You may locate the CANG command anywhere in the Field Data File ahead of the CLOSE command.

Program will request measurements for horizontal angles only. Enter readings as prompted; refer to Figure 4-15 above. After last desired foresight reading has been entered, press [RETURN] to quit the CANG command.



On the combined functions of the Closing Commands:

When the Field Data File is compiled, the CLOSE command compares the calculated coordinates of the most recent FS TP point to the known coordinates of the closing point specified in the CLOSE command to obtain the traverse closure. The horizontal distance and direction between the most recent traverse point and the known closing point is the misclosure of the horizontal traverse.

If no CANGLE command is in the file, the direction of the most recent FS TP line is compared to the known direction specified in the CLOSE command to obtain the angular error of the horizontal traverse. When there is a CANGLE command in the file, its measured angle is added to the back direction of the final traverse leg to obtain the measured closing direction. This measured direction is compared with the known direction specified in the CLOSE command to obtain the angular error of the traverse. If no angular balancing is desired, simply enter any value for the known direction of the closing line in the CLOSE command and set the Balance Angles toggle in the Compile Field Data Menu to the OFF position. See "Compile Field Data: Horizontal Traverse Settings Options, {4} Balance Horizontal Angles" (Figure 4-30 below).

Compile Field Data

- | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FIELD DATA ENTRY
1. Select Files
2. Enter/Edit Field Data
3. Output Raw Field Data
4. Field Data Handling
5. COMPILE FIELD DATA
6. Change Output
7. Change Coordinate System |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Selection [5] from the Field Data Main Menu invokes the Field Data Compiler, which compiles raw field data into coordinates for use in coordinate geometry and machine plotting. The compiler performs computations for horizontal and vertical traverses and sideshots, as well as making related adjustments or conversions for angles, elevations, and scale factoring. Coordinates, once generated, go into WILDsoft coordinate files, along with point ID's and descriptors. Plotting instructions taken by the compiler from the data file form the basis of WILDsoft plot files. See Figure 4-28, the Compile Field Data File Menu.

**[1] Check and Compile
Field Data File**

Option [1] from the Menu initiates the compilation of field data once all parameters (as discussed below) have been selected by user. As data is converted and the traverse computed, the program will issue a number of messages relating to the status of the compilation; see Figure 4-29 below.

During compilation, WILDsoft will check for logical precision of the field data file. Any errors in logic or any missing data are noted and output in a report. If the errors or missing data cannot be resolved by the Compiler, it will stop after checking the logic of the entire field data file; no coordinates or plotting instructions will be generated. The surveyor must then use the error report as a basis for editing the field data file to correct the reported problems before restarting the Compiler.

Compiler error messages describe the nature of the error and the record number at which it occurs, as shown in the following example:

Coordinates for REDMAPLE2 not found on
Record No. 006

Job File:	MYFILE.JOB	Plot File:	MYFILE.PLT
Coord File:	MYFILE.CRD	Field Data File:	MYFILE.FLD
Output:	ON	Point Protect:	ON

Horizontal Traverse:		Vertical Traverse:	
Min. Precision:	20000	Compute Elevations:	ON
Scale Factor:	1.000	Average All Angles:	ON
Use C and R:	ON	Reciprocal Angles:	OFF
Balance Angles:	ON	Adjust Elevations:	OFF
Adjustment:	COMPASS		

COMPILE FIELD DATA FILE

Select an Option:

1. Check and Compile Field Data File
2. Check Field Data File
3. Change Files and Configuration
4. Change Output
5. Point Protect ON/OFF
6. Change Horizontal Traverse Settings
7. Change Vertical Traverse Settings
9. Exit to Previous Menu

ESC=ABORT

Figure 4-28. Compile Menu

COMPILE FIELD DATA FILE

Compile in Progress...

Record No. 0007

Status: Checking Field Data File Logic
 Compiling Traverse
 Adjusting Traverse
 Compiling Sideshots and Graphics

Press ESC to Abort

Figure 4-29. Compile Status

- For a complete listing of WILDsoft error messages and ways to address and correct the problems they indicate, see Appendix C.
- [2] Check Field Data File** Option [2] simply checks the field data file for logical consistency and completeness, issuing error messages as entry errors are found. No traverse computations will be performed, and the coordinate and plot files will not be changed.
- [3] Change Files and Configuration** For a discussion of the routines accessed by Keys [3] and [4], see Section II, "WILDsoft Files and Configuration Routines."
[4] Change Output
- [5] Point Protect ON/OFF** Key [5] is toggled to turn Point Protect ON or OFF. Current setting is reflected in the right-hand corner of the status section of screen. See Figure 4-28 above.
- [6] Change Horizontal Traverse Settings** Choosing Selection [6] from the Compile Field Data Menu calls up the Traverse Settings Submenu, offering five options, as shown in Figure 4-30 below.

Horizontal Traverse Settings Options

[1] Change Minimum Allowable Precision

Option [1] allows user to set a minimum allowable precision for traverse closure.

1. When key [1] is pressed, the cursor will be positioned in the status section of the screen to receive a seven-character positive integer. Enter this numerical value and press [RETURN]. See Figure 4-28 below.
2. During computation, if the traverse closure is below the user-specified minimum precision, WILDsoft will issue an on-screen message to that effect, as shown in Figure 4-31 below. In this case the user has two options: [1] Continue with the compile, accepting the substandard closure; or [2] Abort compile, so that corrections can be made before continuing. Press numbered key corresponding to the desired option.

[2] Change Scale Factor Option

[2] from the Horizontal Traverse Submenu permits user to select a scale factor to be applied to horizontal distances prior to computation of coordinates. When key [2] is pressed, cursor will be positioned to receive a real number for the scale factor, as shown in Figure 4-30.

Default value for scale factor is 1. If the operator enters a factor other than 1, that number will be used as the factor throughout computation. Accept default OR enter desired numerical value and press [RETURN].

The surveyor may choose a scale factor of 0, in which case the scaling of distances will be computed by the program. If you are currently working in a State Plane Coordinate system, WILDsoft will issue the message shown at the bottom of the screen in Figure 4-30 to indicate that a computed scale factor may be chosen. It is only permitted when working in a Plane Coordinate System. When prompted for the scale factor, type in 0 and press [RETURN]; WILDsoft will then compute state plane coordinates from all measured geographic coordinates. The 0 ("Computed") setting is noted in the status section of the screen as shown in Figure 4-30. For more information on the use of computed scale factor, see Appendix D to this manual.

Cursor Positioned Here for Input of Numerals

Note "Computed" Setting

Other Traverse Options Reflected Here

Job File:	MYFILE.JOB	Plot File:	MYFILE.PLT
Coord File:	MYFILE.CRD	Field Data File:	MYFILE.FLD
Output:	ON	Point Protect:	ON

Horizontal Traverse:	Vertical Traverse:
Min. Precision: 20000	Compute Elevations: OFF
Scale Factor: Computed	Average All Angles: OFF
Use C and R: ON	Reciprocal Angles: ON
Balance Angles: ON	Adjust Elevations: OFF
Adjustment: COMPASS	

COMPILE FIELD DATA FILE

Horizontal Traverse Settings:

1. Change Minimum Allowable Precision
2. Change Scale Factor
3. Correct for Curvature and Refraction ON/OFF
4. Balance Horizontal Angles ON/OFF
5. Change Horizontal Adjustment Method

9. Exit to Previous Menu

ESC=ABORT Set Scale Factor = 0 to Use Computed Scale Factors

Figure 4-30. Horiz. Traverse Options

```

COMPILE FIELD DATA FILE

Traverse Closure is below Minimum Precision.

Closing Line:      NA 075 00 10.0
Distance:          3.26
Precision:         15013

Select an Option:
  1. Continue with Field Data Compile
  2. Abort Field Data Compile

ESC=ABORT

```

Figure 4-31. Below Minimum Precision

[3] Correct for Curvature and Refraction

Key Number [3] is toggled to turn correction for curvature and refraction ON or OFF. Status of this option is reflected at top of screen; see Figure 4-30 above.

[4] Balance Horizontal Angles

Option [4] is also toggled to turn a setting for balancing angles ON or OFF. IF ON, the Compiler will compute the angular error in the traverse and distribute it throughout the traverse legs.

[5] Change Horizontal Adjustment Method

Option [5] from the Horizontal Traverse Submenu allows the surveyor to choose one of four standard traverse adjustment methods, or no adjustment at all. When Horizontal Adjustment Method Submenu appears, press the key corresponding to the desired method. See Figure 4-32.

Following selection of the Horizontal Traverse Adjustment Method and entry of any required parameters, you will return to the Horizontal Traverse Settings Menu (Figure 4-30).

COMPILE FIELD DATA

1. Check and Compile Field Data File
2. Check Field Data File
3. Change Files and Configuration
4. Change Output
5. Point Protect
6. Change Horizontal Traverse Settings
7. **CHANGE VERTICAL TRAVERSE SETTINGS**

[7] Change Vertical Traverse Settings

Selection [7] from the Compile Field Data Menu calls up the Vertical Traverse Settings Submenu, offering four toggled options, as shown in Figure 4-34.

COMPILE FIELD DATA FILE

Vertical Traverse Settings:

- | | |
|--------------------------------|--------|
| 1. Compute Elevations | ON/OFF |
| 2. Average All Vertical Angles | ON/OFF |
| 3. Calculate Reciprocals | ON/OFF |
| 4. Adjust Elevations | ON/OFF |
| 9. Exit to Previous Menu | |

ESC=ABORT

Figure 4-34. Vertical Traverse Settings Submenu

Vertical Traverse Settings Options

[1] Compute Elevations

When Option [1] is turned ON, the elevation or Z coordinates for foresight points are calculated, and any Vertical Traverse commands are executed.

[2] Average All Vertical Angles

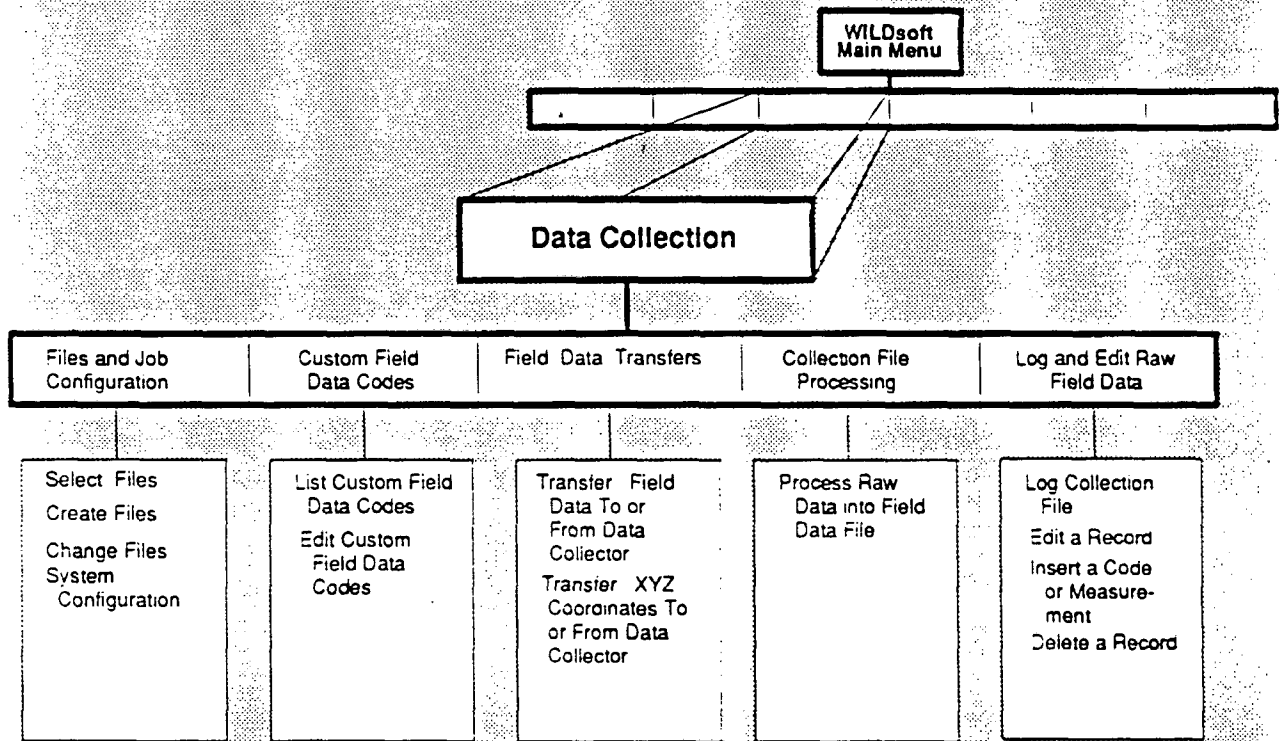
With Option [2] turned ON, all vertical angles to a sight (with or without accompanying distance measurements) are averaged and then applied to the average slope distance to obtain the horizontal and vertical distance for the line. When OFF, only vertical angles that have accompanying distances are used. These angles, with their slope distances, are reduced to horizontal and vertical dimensions individually and then averaged for use in traverse calculations.

[3] Calculate Reciprocals

If the Calculate Reciprocals option is turned ON, the compiler will use the data collected in the backsight measurement (in accordance with the choices made under Average All Angles) to compute the horizontal and vertical distances of the line. The surveyor **must** measure the angle and distance from both ends for this feature to function. When OFF, the vertical angles and distances measured in the BS direction are not used in the traverse computation. **NOTE: This function OFF also disables C and R (if ON) from looking in the backsight direction, effectively applying C and R to the foresight measurement only.**

[4] Adjust Elevations

When the Adjust Elevations option is turned ON, the compiler will compare the calculated elevation of the final point with the known elevation of that point. The difference will be applied to each leg of the traverse proportional to the length of the leg to obtain adjusted Z coordinates for the traverse points. When OFF, elevations may be carried, but no adjustments will be made.



Electronic Data Collection

Introduction

This module contains routines to interact with the WILD GRE3/4 and GIF10 Data Terminals, to define and implement custom field data codes, and to process raw field data into a WILDsoft Field Data File. It also allows limited editing of copies of the raw field data, and will produce a listing of the raw data just as it came from the Data Collector. The User-defined Data Collection Codes allow the surveyor to tailor the system to his specific needs and methods. By using a sequence of Data Collection Codes and measurements, the surveyor can perform and adjust a traverse, take sideshots, and develop a drawing in one operation. This section of the manual contains the following information:

1. A description of the strategy and procedure for using data collection.
2. A list of the WILDsoft Data Collection Codes, followed by a detailed description of each of the codes.
3. A discussion of the methods for measuring sets of angles available in conjunction with Electronic Data Collection.
4. Instructions for running the program routines associated with Electronic Data Collection. See Figure 6-1 below, the Electronic Data Collection Main Menu.

```
ELECTRONIC DATA COLLECTION
Copyright 1986, 1987, 1988, 1989, 1990, Wild Heerbrugg
Instruments, Inc. All Rights Reserved.
```

1. Change Files and Job Configuration
2. User Defined Codes
3. Transfer Field Data or Coordinates
4. Collection File Processing
5. Delete a Collection File
6. Log and Edit Collection File
7. Change Output

9. Exit to Previous Menu

```
ESC=ABORT
```

Figure 6-1. Data Collection Main Menu

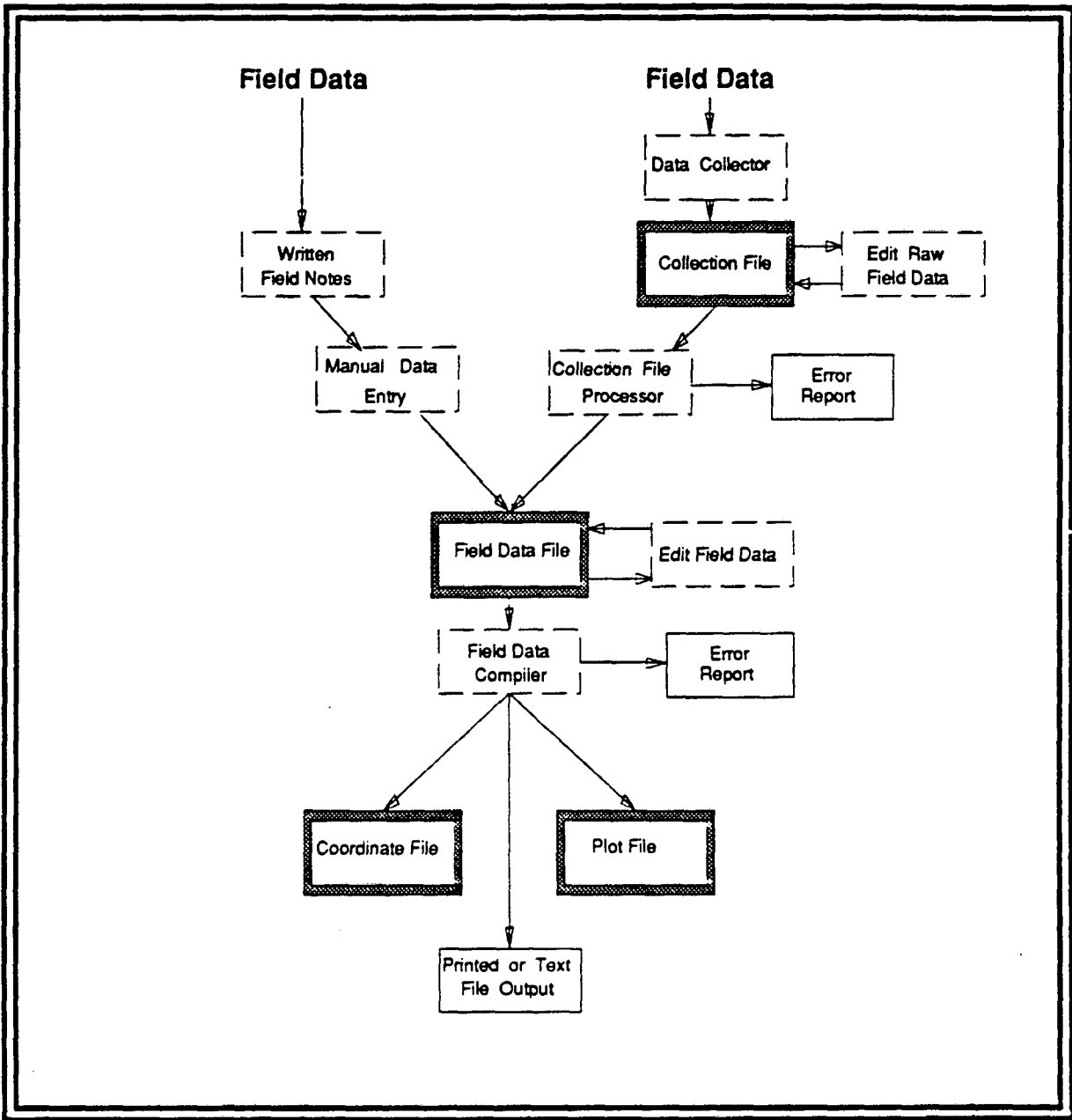
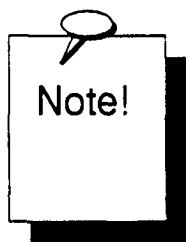


Figure 6-2. The Flow of Field Data



WILDsoft includes the following provision to maintain an unedited version of the raw field data: When the raw data is transferred from the Data Collector, WILDsoft places it into a special file called a Collection File, and assigns the file extension .COL to it. This file may not be edited using any WILDsoft routine, nor is it accessible by word processing or text editing software. If changes to the raw data are necessary, you must first make a copy of the Collection File and assign it a file extension other than .COL, then use WILDsoft to make changes to that copy.

Data Collection Strategy

Use of a Data Collector affords significant time savings in gathering and processing field data, and in elimination of errors in recording and transcription of field data. A simple system of codes is used to provide instructions to the Field Data Compiler. These codes are identical in function to the commands that are placed into the Field Data File using the Field Data Editor. The primary difference is that the codes are included in the file at the same time that the measurements are taken. Refer to Figure 6-2, *The Flow of Field Data*; it maps the route that raw field data, collected either electronically or by hand, takes on the way to becoming a finished drawing in WILDsoft. A typical project using data collection will be done as follows:

1. The field survey is performed using Field Data Codes to measure traverse points and sideshots and to place graphics instructions into the raw data.
2. The raw field data is transferred from the data collector to the computer using the Data Transfers routines. WILDsoft automatically places the raw data into an uneditable Collection File.
3. The raw data is processed into a Field Data File using the Collection File Processing operation. The processor will output a list of any errors or problems encountered.
 - a. If problems are found by the processor, it may be necessary to make a copy of the Collection File and edit it using the Log and Edit Raw Data routine. However, most problems will be more easily resolved by using the Field Data Editor in Module 1.
 - b. If severe problems are found by the processor, you may elect to use a WILDsoft utility named COLLFIX. With COLLFIX, you may translate the collection file into an ASCII text format, readable by your word processor. Using your word processor, you would edit and correct the file. Be sure to save the edited file in a text format. After the edits, use COLLFIX to translate the file back to the special collection file format and then process the file as usual in Electronic Data Collection.

COLLFIX is a stand-alone program. It is accessed from the DOS prompt by typing "COLLFIX" in the directory in which it resides.

4. Use the Field Data Editor in Module 1 to inspect and edit the data. The error report prepared by the Collection File Processing routine will assist in locating and correcting any problems in the file. See Section IV: Field Data Entry and Traverse Calculation.
5. Use the Field Data Compiler in Module 1 to compile the data into coordinates and plotting instructions. The compiler will produce a list of any problems or errors that it encounters. See Section IV: Field Data Entry and Traverse Calculation.

Table 6-1: WILDsoft Data Collection Codes

CODE	FUNCTION	INFO1	INFO2	INFO3	INFO4
1	Start Job	Start Point ID*	<i>(Ref Az.)</i>	<i>(BS Point ID)</i>	<i>(Job No.)</i>
11	Assign Coords	Point ID	X Coord	Y Coord	Z Coord
12	Coord Offset	X Offset	Y Offset		
13	Target Height	Height of FS			
14	Add to Tgt Ht	Height to Add			
15	Add to Meas Dist	Dist to Add			
2	Occupy a Point	<i>(Point ID)</i>	<i>(Inst. Ht.)</i>	<i>(BS Point ID)</i>	
21	Occupy Saved Pt.	Point ID -OR-	Temp. Pt. ID	<i>(Inst. Ht.)</i>	<i>(BS Point ID)</i>
3	FS to Trav Pt	<i>(Point ID)</i>	<i>(Tgt. Ht.)</i>	<i>(BS Tgt. Ht.)</i>	
31	FS to Single Pt.	<i>(Point ID)</i>	<i>(Tgt. Ht.)</i>		
32	RADIAL Sideshots	<i>(Point ID)</i>	<i>(Tgt. Ht.)</i>	<i>(BS Point ID)</i>	
33	Sets of Angles	# of FS Points	# of Sets	<i>(Point ID)</i>	
4	Closing Pt/Line	Point ID	<i>(Ref Az.)</i>	<i>(Pt. on Ref Line)</i>	
41	Closing Angle				
50	BS to Benchmark	Point ID	<i>(Elev)</i>	<i>(Tgt. Ht.)</i>	
51	FS to Turn Pt	<i>(Point ID)</i>	<i>(Tgt. Ht.)</i>		
52	BS to Turn Pt	<i>(Point ID)</i>	<i>(Tgt. Ht.)</i>		
53	FS to Benchmark	Point ID	<i>(Elev)</i>	<i>(Tgt. Ht.)</i>	
60	Save Point	Temp Point ID			
61	Recall Point	Temp Point ID			
62	Compare Point	Point ID -OR-	Temp. Pt. ID		
63	Remark	<i>(Optional)</i>	<i>(Optional)</i>	<i>(Optional)</i>	<i>(Optional)</i>
70	Start Line	<i>(Line Type)</i>	<i>(Pen No.)</i>	<i>(Tic No.)</i>	
71	Interrupt Line				
72	Continue Line				
73	3 Points for Arc				
74	Start Smooth Curve				
75	Traverse Linework	<i>(Line Type)</i>	<i>(Pen No.)</i>	<i>(Tic No.)</i>	
76	Label Locations	<i>(Point ID's)</i>	<i>(Descriptors)</i>	<i>(Elevations)</i>	<i>(LBI Orientation)</i>
80	Start Breakline	Breakline ID	Breakline type		
81	Interrupt Breakline				
82	Continue Breakline	<i>(Breakline ID)</i>			
83	Start Masspoints				
84	Interrupt Masspoints				
100	Descriptors OFF				
101+	Custom Data Codes				

***Boldface** items indicate required information; () and *italics* indicate optional information

The Function and Operation of WILDsoft Data Collection Codes

This section provides a detailed description of the WILDsoft Data Collection Coding System. Data Collection Codes are the means by which the surveyor controls the Field Data Compiler. The codes are grouped according to their function. Table 6-1 above lists the available codes and the contents of the Data Collector INFO blocks.

In the pages that follow, all Data Collection Codes are described in detail. The function of each code is outlined, along with the role played by the INFO blocks in the Data Collector. The use of alpha in data collection is discussed using two methods: (1) Use of PROFIS and the BASIC module in the GRE3 Data Collector to enter and encode alphanumeric information; and (2) Use of the alphanumeric capability of the GRE4 to store alphanumeric data in INFO blocks or as free text. Finally, a discussion of the two supported methods for measuring horizontal angles is presented.

The coding system is grouped into codes that perform similar functions. The first digit of a code indicates its function group. The function groups are as follows:

- Group 1: Start job and assign traverse parameters
- Group 2: Occupy an Instrument Station
- Group 3: Foresight a Point or Points
- Group 4: Close Horizontal Traverse
- Group 5: Vertical Control and Vertical Traverse
- Group 6: Point Handling Functions
- Group 7: Graphics Control
- Group 8: Contouring
- Group 9: Earthwork (Future)

A closed traverse can be done using the following Codes:

- Code 1: START
- Code 2: OCCUPY
- Code 3: FS TP (Repeat Codes 2 and 3 as required)
- Code 4: CLOSE.

Using WILDsoft Data Collection Codes

The Data Collection Codes are used in the field to place traverse and graphics commands into the Field Data File, just as though you were keying in the data manually from the keyboard. The position of the codes in the Data Collector File is important since the codes control the action that is taken on the measurements recorded subsequently. The following table provides detailed information on the operation and use of the Data Collector INFO blocks of each WILDsoft Data Collection Code.

Group 1: Start Job and Assign Traverse Parameters

CODE 1

- Name:** START
- Function:** This command is used to initiate a job and to set the beginning point, reference azimuth or backsight point. If multiple jobs are placed into one data collector file, a Code 1 is used to separate the jobs.
- INFO1:** The Point ID or number of the first Instrument Point to be occupied.
- INFO2:** Optional. The direction, to four decimal places, of the backsight line looking from the Instrument Point specified in INFO1. This direction is given as a North Azimuth. If not known, place a 0 in INFO2 and use INFO3 to define the backsight point.
- INFO3:** Optional. The Point ID of the backsight point for the first setup. This information may be given in place of the reference azimuth in INFO2.
- INFO4:** Optional. A job number or other information about the project that follows the Code 1.
- Notes:** Any Code from Group 1, 2, or 6 may follow this code. A Code 2 must be given prior to beginning any measurements.

CODE 11

- Name:** ASSIGN
- Function:** Assigns coordinates to a point and places the point into the coordinate file. The point may then be accessed in the normal manner by any WILDsoft routine.
- INFO1:** The Point ID.
- INFO2:** The X coordinate or Easting of the point to three decimal places.
- INFO3:** The Y coordinate or Northing of the point to three decimal places.
- INFO4:** The Z coordinate of Elevation of the point to three decimal places.
- Notes:** Any Code or measurement may follow this code.

CODE 12

- Name:** TRANS
- Function:** Defines a coordinate translation that is applied to all coordinates of points created using the Code 11 ASSIGN function subsequent to this code.
- INFO1:** A positive or negative integer to be used as the X coordinate translation.
- INFO2:** A positive or negative integer to be used as the Y coordinate translation.
- INFO3:** Not used.
- INFO4:** Not used.
- Notes:** Any Code or measurement may follow this code.

CODE 13

Name: HT FS

Function: Sets the height of the foresight target for all subsequent RADIAL sideshots. This target height is also used on any other foresight command where a target height is required but omitted.

INFO1: The height of the foresight target to three decimal places.

INFO2: Not used.

INFO3: Not used.

INFO4: Not used.

Notes: Any Code or measurement may follow this code.

CODE 14

Name: ADD HT

Function: Causes the height of the foresight target defined by the Code 13 FS HT function to be changed by a specified amount for THE NEXT FORESIGHT ONLY! Subsequent target heights are not changed.

INFO1: The amount to add to the current foresight target height. This may be positive or negative, to three decimal places.

INFO2: Not used.

INFO3: Not used.

INFO4: Not used.

Notes: This code MUST be followed by a foresight measurement to a RADIAL sideshot.

CODE 15

Name: ADD MD

Function: Causes the measured distance of the next foresight to be changed by the specified amount. This function should be used during RADIAL sideshots only.

INFO1: The distance to be added to the next measured distance. This may be positive or negative, to three decimal places.

INFO2: Not used.

INFO3: Not used.

INFO4: Not used.

Notes: This code MUST be followed by a foresight measurement to a RADIAL sideshot.

Group 2: Occupy an Instrument Station

CODE 2

Name:	OCCUPY
Function:	Places the instrument at a specified point.
INFO1:	Optional. The Point ID of the point to occupy. If 0 or blank, the most recent traverse point (the Code 3 FS TP function will be occupied).
INFO2:	Optional. Height of Instrument to three decimal places. If 0 or blank, the HT of the most recent traverse point will be used.
INFO3:	Optional. Point ID of the backsight point. If 0 or blank, the most recently occupied point (the Code 2 OCCUPY function) will be used.
INFO4:	Not used.
Notes:	Any code may follow this code. No measurements may be taken until a code from Groups 3, 4 or 5 has been given. If a Code 52 (BS to Turn Point) is used to obtain the elevation of the instrument point, that code and its accompanying measurements must occur <u>immediately</u> after the Code 2.

CODE 21

Name:	OCSP
Function:	Occupies a sideshot point or point stored using the Code 60 SAVE function.
INFO1:	Optional. The Point ID of the point to occupy. If 0 or blank, the program will look for a temporary Point ID in INFO2.
INFO2:	Optional. The temporary point ID of the point to occupy. This temporary point and its ID must previously have been defined using the Code 60 SAVE function. This INFO is checked only if INFO1 is 0 or blank.
INFO3:	Optional. The height of the instrument. If 0 or blank, the height of target set by the Code 13 HT FS function is used.
INFO4:	Optional. The point ID of the backsight point. If 0 or blank, the most recently occupied point is used as the backsight point.
Notes:	This code is used to occupy a sideshot station. Foresights to horizontal and vertical traverse points are not allowed. Any Code may follow this code except for Code 3 (FS TP) and any Group 4 (Traverse Closure) Code. No measurements may be taken until an allowed Group 3 or 5 code is given.

Group 3: Foresight a Point or Points

CODE 3

Name: FS TP

Function: Foresight to Traverse Point.

INFO1: Optional. The Point ID for the foresight point. If 0 or blank, the next available Traverse Point ID will be assigned to this foresight.

INFO2: Optional. Height of foresight target. If 0 or blank, the height defined by the Code 13 (FS HT) function will be used.

INFO3: Optional. Height of backsight target.

INFO4: Not used.

Notes: This code must be followed by a series of measurements to the backsight and foresight points (See Measurement Methods description below). All measurements following this code will be used to produce average angular and distance measurements from the current instrument point to the foresight point. If distances are measured to the backsight point, those measurements will be included in the calculation of the line from the backsight point to the instrument point as part of the traverse closure and adjustment process. If elevations are being calculated, a distance measurement to the backsight point will affect the elevation calculations if the height of the backsight target is present.

CODE 31

Name: FS SS

Function: Foresight to a single sideshot. This operates identically to the Code 3 (FS TP) function except that the foresight point is not included in any adjustment operation. This code allows multiple measurements to a single point.

INFO1: Optional. The Point ID for the foresight point. If 0 or blank, the next available Sideshot point ID is used.

INFO2: Optional. Height of target. If 0 or blank, the height defined by the Code 13 (FS HT) function will be used.

INFO3: Not used.

INFO4: Not used.

Notes: This code must be followed by a series of measurements to the backsight and foresight points. (See Measurement Methods description below). All measurements following this code will be used to produce average angular and distance measurements from the current instrument point to the foresight point. The coordinates of the foresight point are computed following traverse closure and adjustment.

CODE 32

Name: RADIAL

Function: Begins measurements to RADIAL sideshots. All measurements following this code will be handled as single measurements to individual points. Any Code from Group 2, 3, 4, or 5 may be used to cancel this RADIAL mode.

INFO1: Optional. The Point ID for the first RADIAL sideshot foresight point. Subsequent foresights will be incremented from this ID. If 0 or blank, the next available RADIAL sideshot Point ID will be used.

INFO2: Optional. Height of target. If 0 or blank, the height defined by the Code 13 (FS HT) function will be used.

INFO3: Optional. Point ID of backsight point. If 0 or blank, the backsight point established by the most recent Code 2 (OCCUPY) or Code 21 (OCSP) is used.

INFO4: Not used.

Notes: This code must be followed by a measurement to the backsight point. This is used to set the horizontal circle reading for all subsequent RADIAL foresights. Following this backsight measurement, any number of measurements may be taken; each measurement will be used as a foresight to an individual foresight point. Additionally, any code from Group 1, 6, 7, or 100 (except Code 1: START) may be used.

CODE 33

Name: SETS

Function: Sets of angles. Allows multiple measurements to multiple foresights. This code functions in a similar manner to Code 31 (FS SS).

INFO1: The number of foresight points.

INFO2: The number of angle sets to be measured.

INFO3: Point ID of the first foresight point of the set. If a Code 31 has been entered previously, the field data processor will use the next available FS SS point ID. If no Code 31 has been used before, the starting point ID must be specified.

INFO4: Not used.

Notes: This code must be followed by a series of measurements to the backsight and foresight points (See Measurement Methods description below). All measurements following this code will be used to produce average angular and distance measurements from the current instrument point to the foresight point. The coordinates of the foresight point are computed following traverse closure and adjustment. The field data processor will convert the Code 33 SETS function into a series of Code 31 (FS SS) commands within the WILDsoft Field Data File.

Group 4: Close Horizontal Traverse

CODE 4

Name: CLOSE

Function: Contains information for traverse closure.

INFO1: Closing Point ID.

INFO2: Optional. Direction (N. Azimuth) of closing line.

INFO3: Optional. Point ID of known point on reference line.

INFO4: Not used.

Notes: The closing Point must exist in the coordinate file when the Field Data Compiler is run. Any Code may follow this code, but no further traverse calculations or adjustments will be made. If a closing angle is used (see Code 41: CANGLE below), it must be measured prior to placing Code 4 into the Data Collector.

CODE 41

Name: CANGLE

Function: Closing Angle. The measurements following this code will be used to calculate the measured direction of the closing line of the traverse. This measured direction will be compared with the known direction given by Code 4 (CLOSE) to determine the angular error of the traverse.

INFO1: Not used.

INFO2: Not used.

INFO3: Not used.

INFO4: Not used.

Notes: This code must be followed by a series of measurements to the backsight and foresight points (See Measurement Methods description below). All measurements following this code will be used to produce average horizontal angular measurements from the current instrument point to the foresight point. The code and its associated measurements MUST precede the Code 4: CLOSE command.

Figure 6-3. Code\Measurement Sequences

Legend



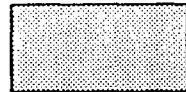
WILDsoft Traverse Control Code



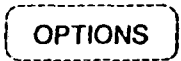
Measurement to Backsight Point



Measurement to Foresight Point



Codes/Measurements may be repeated as many times as desired.



(Optional) Any Code from Group 1, 6, or 7; or any User-Defined Code.

GROUP 1:	GROUP 6:	GROUP 7:	GROUP 8:
11 ASSIGN	60 SAVE	70 STLINE	80 STBRK
12 TRANS	61 RECALL	71 ITLINE	81 ITBRK
13 HT FS	62 COMPARE	72 CTLINE	82 CTBRK
14 ADD HT	63 REMARK	73 3POINT	83 STMSP
15 ADD MD		74 SMOOTH	84 ITMSP
		75 TRLINE	
		76 LABELS	

USER-DEFINED CODES:
 100 Descriptors OFF
 101-99999999 User-Defined

1 START

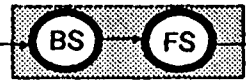
OPTIONS

2 OCCUPY

OPTIONS

2 OCCUPY

3 FS TP



31 FS SS



32 RADIAL



33 SETS



4 CLOSE

41 CANGLE



50 BS BM



51 FS TURN



52 BS TURN



53 FS BM



may be interspersed with other text as part of the NOTE. Refer to "User-defined Data Collection Codes" below.

Measurement Methods

The electronic theodolites that allow use of data collectors operate as a directional instrument. This means that circle readings when pointing to both the backsight and foresight lines are necessary to determine the angular difference between the two lines. In many instances, multiple readings (in the direct and reverse position, if desired) are taken to obtain a more precise value for the angle between the two lines. WILDsoft provides routines to accommodate two different methods for these measurements.

Method 1: B-F-B-F

In this method, backsight and foresight readings are made in order. The six steps of the following field procedure produce one set (Direct and Reverse) of measurements.

1. Place the telescope in the Direct position.
2. Point to the Backsight and record measurements.
3. Point to the Foresight and record measurements.
4. Invert (Plunge) the instrument telescope to the Reverse position.
5. Point to the Backsight and record measurements.
6. Point to the Foresight and record measurements.
7. Steps 1-6 may be repeated as many times as desired.

Method 2: B-F-F-B

In this method the two foresight readings are made successively. This may be slightly faster in the field than the B-F-B-F method since less movement of the instrument is necessary. The six steps of the following field procedure produce one set (Direct and Reverse) of measurements.

1. Place the telescope in the Direct position.
2. Point to the Backsight and record measurements.
3. Point to the Foresight and record measurements.
4. Invert (Plunge) the instrument telescope to the Reverse position.

5. Point to the Foresight and record measurements
6. Point to the Backsight and record measurements
7. Steps 1-6 may be repeated as many times as desired.

Figure 6-3 above graphically illustrates the use of WILDsoft Data Collection Codes and the types of measurements that must accompany each code. We recommend you study this illustration carefully before proceeding to the discussion of the Electronic Data Collection Menu that follows.

Program Operation and Menu Options

ELECTRONIC DATA COLLECTION
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Instruments, Inc. All Rights Reserved.

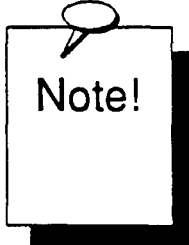
1. Change Files and Job Configuration
2. User Defined Codes
3. Transfer Field Data or Coordinates
4. Collection File Processing
5. Delete a Collection File
6. Log and Edit Collection File
7. Change Output

9. Exit to Previous Menu

ESC=ABORT

Below is a brief summary of all menu options in this module of the WILDsoft program, followed by more detailed descriptions of each function.

- [1] Change Files and Job Configuration Option [1] is a feature common to all WILDsoft program modules. For further information, see Section II and Section III, "Configuring WILDsoft" and "WILDsoft Files."



The GRE3/4 is capable of storing coordinates and field data in the same file. This poses no problem for WILDsoft; the program looks through the incoming GRE3/4 data and extracts any coordinate data. However, this operation does not place field data (codes and measurements) into a Collection File. Thus, if both coordinates and field data are stored in one file in the Data Collector, two transfers must be done: one transfer to extract field data and a second to extract coordinates.

Collection File Processing

- ELECTRONIC DATA COLLECTION
1. Change Files
 2. User-defined Codes
 3. Transfer Field Data
 4. **COLLECTION FILE PROCESSING**
 5. Delete a Collection File
 6. Log & Edit Collection File
 7. Change Output

Field data received from the Data Collector is placed into a Collection File. (WILDsoft automatically appends the file extension .COL to these files.) The information in the Collection File must be processed into a Field Data File before it can be accessed for editing and compilation by Module 1 (Field Data Entry and Traverse Calculations) of the WILDsoft program. THE RAW DATA IN THE COLLECTION FILE IS NOT CHANGED IN ANY WAY BY ANY OF THE COLLECTION FILE PROCESSING ROUTINES.

The Collection File processing operation performs a number of functions:

1. The raw data is checked for missing information and measurements. Any missing data is reported in a list of error messages output during processing.
2. Any coordinates placed in the Data Collector using the Code 11 (ASSIGN) function are read and placed into the active coordinate file.
3. Point ID's are assigned to all foresight points. Three classes of Point ID's are tracked: Traverse Points (Code 3, FS TP), Sideshot Points (Code 31, FS SS), and Radial Sideshot Points (Code 32, RADIAL). Separate numbering schemes may be used for the three point classes.

Point ID's are assigned to all foresight points using one of three optional methods:

1. Auto

In this method, Point ID's must be assigned in the field by placing information into the GRE3/4 INFO blocks in conformance with the chosen code. Once a Point ID is specified for a given class of points, it is no longer necessary to number the points in the field. For example, a Code 32 (Start RADIAL Sideshots) requires that a Point ID be placed in INFO1. This need only occur the first time Code 32 is used in the file to establish a beginning Point ID for numbering RADIAL sideshot points.

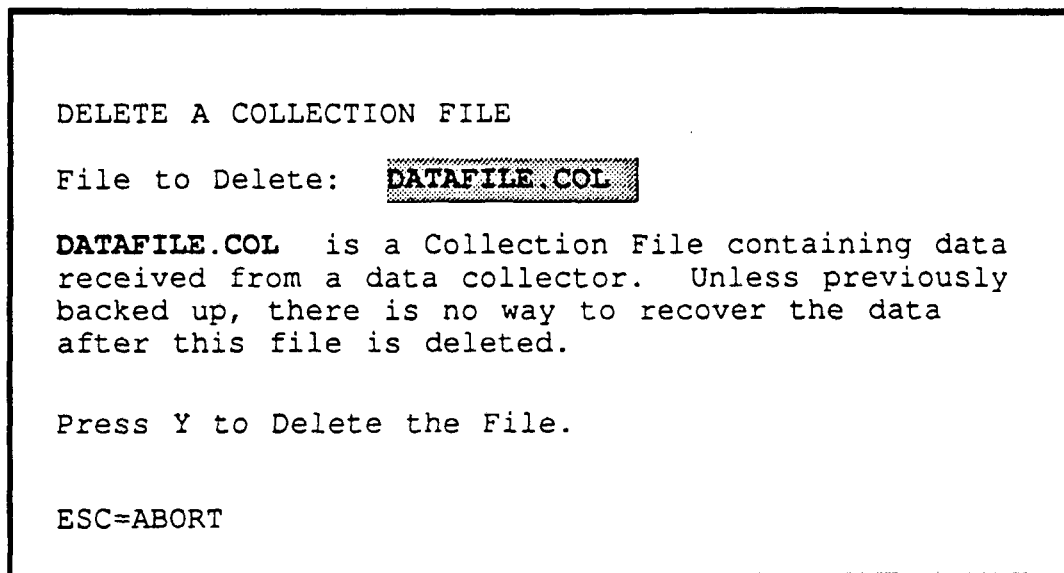
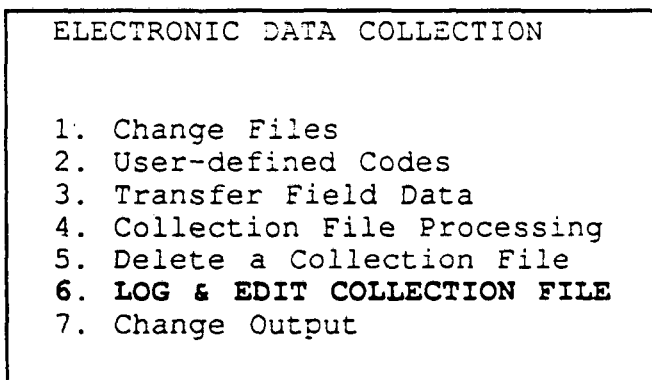


Figure 6-20. Delete a Collection File

Log and Edit a Collection File



The sixth option in the Electronic Data Collection Main Menu accesses a variety of routines for printing out and making changes to Collection Files.

As mentioned in the Introduction to this section, files with the extension .COL cannot be directly edited in WILDsoft. They must first be copied into a file of another name, without the .COL extension; a routine for doing this is provided. If you wish to assign an extension to the new file, any extension that conforms to DOS conventions is permissible. Of course you should NOT use extensions reserved for special WILDsoft filenames: JOB, .CRD, etc.


Note!

The routines described in this section of the WILDsoft manual assist in editing raw field data from the Data Collector. In most instances, however, it is most desirable to correct errors reported by the Collection File Processing Routine, using the Enter/Edit Field Data option in Module 1, Field Data Entry and Traverse Calculations. The Log and Edit routines of Module 3 are designed to assist in correcting errors caused by serious blunders and omissions that are not easily resolved in any other manner.

When you choose to log and edit a file, the cursor is placed in the status section of the screen for input of a Collection File name. Type in the desired filename and press [RETURN]. WILDsoft will then issue a menu of eight options, as shown in Figure 6-21.

Submenu with Options for Decoded or Raw Data Offered when Collection File Is Logged

Job File: MYFILE.JOB Coord File: MYFILE.CRD Output: ALL	Plot File: MYFILE.PLT Field Data File: MYFILE.FLD Collection File: DATAFILE.COL
------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------

LOG AND EDIT A COLLECTION FILE

1. Change Collection File
2. Change Output
3. Log Collection File
4. Edit a Record
5. Insert a Code Record
6. Insert a Measurement Record
7. Delete a Record

9. Exit to Previous Menu

Log: Begin at Record No.: **001**
 End after Record No.: **059**
 1. Decoded 2. Raw Data

ESC=ABORT

Figure 6-21. Log/Edit Menu Options

[1] Change Collection File

The first option changes the Collection File you are working on. Cursor will be placed at top of screen for input of new filename. Type in name of desired file and press [RETURN].

[2] Change Output

Option [2] changes output device and level. Refer to Section II: "Default Operating Parameters, [4] Output Level."

[3] Log Collection File

This option provides a printed log of the contents of a Collection File, either as raw or as decoded data.

1. WILDsoft will prompt for the beginning and end records you wish to log, offering as defaults the first and last records in the file. Accept the defaults by pressing [RETURN] after each prompt OR enter new record numbers, pressing [RETURN] after each entry.

2. You will then be given the option of receiving the log as [1] decoded data or [2] raw data. Press the numbered key corresponding to the desired option; see submenu in Figure 6-21 above. Decoded data are printed sequentially by record number and grouped under a series of descriptive headings, as shown in Figure 6-22 below. Raw data are listed exactly as they are received from the Data Collector.

[4] Edit a Record

When the Edit option is chosen, WILDsoft will first prompt for the number of the record you wish to edit. Enter number as prompted, and press [RETURN].

a) If the desired record is a **Measurement Record**, the program will display all information in the measurement block, as shown in Figure 6-23, then place the cursor for editing the following units of information:

- Hz Circle reading
- Vt Circle reading
- (Slope) Distance
- PPM (Parts Per Million)
- (Prism) Offset

The program will step the cursor through each unit of information. Edit as necessary, pressing [RETURN] after each entry, OR press [RETURN] with no entry to leave any unit unedited.

b) If the desired record is a **Code Record**, WILDsoft will display the code number and all information contained in the four INFO blocks, as shown

Wild Heerbrugg Instruments, Inc.
40 Technology Park/Atlanta
Norcross, Georgia 30092
(404) 447-6664

Date: 06-10-87
Time: 5:40:50
Page: 1

=====

ELECTRONIC DATA COLLECTION

=====

Collection File: DATA.COL
Field Data Log

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 FPM Prism Offset
1	1	+000000T1	+00000000		
2	11	+000000T1	+10000000	+10000000	+00100000
3	2	+000000T1	+00005250		
4	3	+000000T2	+00005100		
5		359 59 59	89 46 56	334.09	+0010 +000
6		87 00 21	90 48 54	202.21	+0010 +000
7		267 00 22	269 11 34	0.00	+0010 +000
8		180 00 01	270 13 32	0.00	+0010 +000
9		00 00 06	89 46 53	334.09	+0010 +000
10		87 00 24	90 48 58	202.21	+0010 +000
11		267 00 16	269 11 28	0.00	+0010 +000
12		179 59 55	270 13 34	0.00	+0010 +000
13	32	+00000010			
14		359 59 59	89 46 52	334.09	+0010 +000
15	70	+00000007	+00000001	+00000003	
16	101				
17		330 56 01	90 29 38	265.30	+0010 +000
18	100				
19	73				
20		341 06 05	90 14 43	261.52	+0010 +000
21		342 40 50	90 13 27	258.30	+0010 +000
22		343 18 38	90 11 53	251.23	+0010 +000
23	73				
24		341 16 45	90 06 12	112.17	+0010 +000
25		342 12 29	90 12 20	87.16	+0010 +000
26		349 47 40	90 29 34	61.92	+0010 +000
27	73				
28		349 49 47	90 29 19	61.76	+0010 +000
29		350 01 38	90 34 17	58.99	+0010 +000
30		347 59 42	90 34 18	56.13	+0010 +000
31		332 38 55	90 19 11	48.73	+0010 +000
32	73				
33		332 39 56	90 19 08	48.67	+0010 +000
34		77 24 48	92 05 20	40.22	+0010 +000
35		87 43 20	91 16 52	106.38	+0010 +000
36	60	+00000001			
37	76	+00000002	+00000006		
38	70	+00000008			
39	103				
40	14	-00000700			
41		100 30 37	88 54 14	82.08	+0010 +000

Figure 6-22. Printed Log

Transfer to DXF Files

WILDsoft provides a routine for converting coordinate and graphical data to the AutoCAD DXF (Drawing Exchange Format) file format. Once WILDsoft has generated a DXF file, the AutoCAD command DXFIN is used to import the WILDsoft drawing into a new or existing AutoCAD Drawing. If desired, WILDsoft takes advantage of the layering capability of AutoCAD to separate different linetypes and pen selections.

General Notes:

1. The DXF format was defined by Autodesk, Inc., as a means to assist in interchanging drawings between AutoCAD and other programs. Other CAD programs include features to import and/or export DXF files as well. While successful importation of a WILDsoft-generated DXF file by a CAD program other than AutoCAD is possible, success is guaranteed only when a WILDsoft-generated DXF file is imported into AutoCAD.
2. **Text Style.** Custom Text Styles are not supported by the transfer to DXF format. All Text Entities will be assigned the standard text style. This style may be redefined by the operator within AutoCAD. Further, the text style for individual Text Entities may be changed using the Edit capabilities of AutoCAD.
3. **Text Size.** WILDsoft text size is expressed in paper units, either inches or centimeters. These paper units are usually different from the units of the project (feet, meters, etc). Within AutoCAD, all dimensions and coordinates are expressed in the same units. During conversion to DXF format, text sizes are converted to AutoCAD units based on the scale of the drawing. Thus, the WILDsoft text height of .5" on a drawing with 1:120 scale will appear in AutoCAD as a text size of 60 AutoCAD units.
4. **Linetypes and Repeating Patterns.** Custom Linetypes are not supported by the transfer to DXF format. All WILDsoft linetypes are supported in AutoCAD (see Table B-1 below), but pattern repeat lengths are fixed at 2 percent of the diagonal dimension of the WILDsoft border size. This reflects the fixed pattern-repeat length of AutoCAD standard linetypes. Custom linetypes with different pattern-repeat lengths may be defined and used within AutoCAD to obtain the desired results.

Transfer Coordinates to AutoCAD DXF File

WILDsoft coordinate points are transferred to AutoCAD as Point Entities. Each Point Entity is placed on Layer 0. Accompanying the Point Entity are Text Entities consisting of the Point ID, Elevation, and Descriptor. These Text Entities are also placed on Layer 0. The Elevation is given to the same number of decimal digits as specified for display on distances. The X and Y coordinates of the point are transferred to AutoCAD using full 16-digit precision.

WILDsoft allows specification of Point Mode, Point Size, and Text Size for use in the transfer. The Point Mode is used to specify the symbol to be drawn at each point. The Point Size controls the size of the symbol drawn and the Text Size controls the size of the text used for the Point ID, Elevation, and Descriptor. The operator should refer to the AutoCAD Reference Manual for further information concerning Point and Point Entities and their associated parameters.

Transfer a Drawing to AutoCAD DXF File

A WILDsoft Plot File is converted to a DXF file containing Line, Point, Arc, and Text Entities. The drawing extents and limits are defined based on the WILDsoft Drawing Size and Border Size, respectively, and placed in the header section of the DXF file. Sixteen-digit precision is maintained on all X and Y coordinate values passed to the DXF file. Multiple layers are defined and supported as discussed below. **If the option to use multiple layers is turned OFF, all entities will be placed onto AutoCAD Layer 1.**

Drawing Layers

AutoCAD layers are used to separate pen selections and linetypes. Each layer is given a number consisting of one or two digits. The first digit is the same as the WILDsoft pen number and ranges from 1 to 8. The second digit is the same as the WILDsoft line type and ranges from 0 to 8. The following Table lists layer numbers and the associated AutoCAD linetypes and colors. AutoCAD uses a color number; the number for each color is given in the table.

Table B-1: AutoCAD Layers

1st Digit		2nd Digit	
WILDsoft Pen No.	AutoCAD Color	WILDsoft Line No.	AutoCAD Linetype
1	4 (Cyan)	0	Text Only
2	1 (Red)	1	Dot
3	3 (Green)	2	Hidden
4	2 (Yellow)	3	Dashed
5	5 (Blue)	4	Dasdot
6	6 (Magenta)	5	Center
7	7 (White)	6	Phantom
8	4 (Cyan)	7	Continuous

Examples:

- a. A line drawn using Pen 2 and Linetype 3 in WILDsoft is placed on layer 23 in AutoCAD. In the tables section of the DXF file, this layer has been defined as drawing in Red using Dashed lines.
- b. The line is to be labeled with direction and distance. The direction and distance are computed and the appropriate text is generated. The text is placed on layer 20 in AutoCAD. This layer is defined as drawing in Red, using continuous lines.

Linetypes and Pattern Repeat Lengths

All WILDsoft linetypes are supported by AutoCAD and are included in the listing in Table B-1 above. In WILDsoft, the user may specify different pattern lengths for linetypes with repeating patterns. AutoCAD controls repeat length for all linetypes by a scale factor stored in the LTSCALE variable. This repeat length is calculated by WILDsoft to be **two percent of the diagonal measure of the border** specified in the first SETUP command in the WILDsoft Plot File.

The user may use the AutoCAD LTSCALE command to change the scale factor applied to all linetypes in the AutoCAD drawing. Additional linetypes with different pattern length ratios may be defined and used within AutoCAD to provide variable pattern repeat lengths. Refer to the AutoCAD Reference Manual for further information on AutoCAD linetypes and linetype scales.

Special AutoCAD Layers

Two AutoCAD layers are reserved for special WILDsoft purposes.

- Layer 0 is used only for coordinate transfers. It receives point entities and their accompanying text as described above.
- Layer 1 is used when the user elects to send all drawing entities to a single layer rather than allowing WILDsoft to place the entities onto separate layers. In this instance the layer table above is not used; all entities are placed onto AutoCAD layer 1. This layer is not defined in the tables section of the DXF file. The result will be white color and solid (continuous) linetypes.

A text layer is reserved for each color or pen. The layer is defined as above, with the second digit being set to a value of 0. Thus, text written in Red is on layer 20, text written in Green is placed on layer 30, and so forth.

Drawing Extents and Limits

Unless instructed, AutoCAD starts all drawings at the origin (0,0), even though all entities in the drawing may be several thousand units away from this point. When executing a drawing to a DXF file, WILDsoft uses the SEXTMAX and SEXTMIN variables in the header section of the DXF file. These variables are used to set the X and Y coordinates of the lower left and upper right corners of the AutoCAD drawing. Thus only the range of coordinates falling on the WILDsoft drawing will be included in the AutoCAD drawing. The drawing extents may be changed within AutoCAD if desired.

WILDsoft automatically clips all lines and curves at the border specified by the most recent SETUP line in the Plot File. AutoCAD is capable of clipping as well but allows only one set of limiting coordinates in the DXF file. These limits are assigned using the SLIMMAX and SLIMMIN variables in the DXF file header section. The drawing limits are computed based on the border size given in the SETUP line on Record 1 of the Plot File. Subsequent SETUP lines in a WILDsoft Plot File will operate to change scale and border size but will not change clipping within AutoCAD.

Coordinates and AutoCAD Drawings

The WILDsoft to DXF transfers are designed to produce a faithful reproduction of entire WILDsoft drawings. The operator should be aware of certain WILDsoft characteristics if it is necessary to maintain proper coordinate values for plotted points in addition to obtaining a good reproduction.

During plotting, the X and Y coordinates of points stored in WILDsoft Coordinate Files are transformed into the coordinate system of the plotting device (plotter, graphics monitor, etc.). This transformation is defined in part by the specified values for the scale and rotation of the drawing contained in SETUP lines in the WILDsoft Plot File. When transferring a drawing to AutoCAD, WILDsoft modifies the transformation to produce drawing coordinates that match the world coordinates of the points on the drawing.

This modification applies only if the drawing rotation specified in the SETUP line is set to zero. A non-zero rotation will cause the drawing coordinates of the plotted points to be rotated about the reference point of the drawing. A rotation of 0 will result in accurate coordinate values for plotted points in the AutoCAD drawing. In either case, an accurate representation of the WILDsoft drawing will appear in AutoCAD.

To summarize, use one of the following options to insure accurate coordinates for plotted points:

A. Set the drawing rotation to zero in the WILDsoft Plot File.

--OR--

B. Use the Coordinates to DXF Transfer. Note that the resulting coordinate plot in AutoCAD will not properly overlay a drawing with non-zero rotation previously transferred to AutoCAD.

Field Data Computations, Traverse Adjustments, and Coordinate Systems

This appendix describes the effects of the various Horizontal and Vertical Traverse Options that may be set by the operator. A brief discussion of traverse adjustment is included. For more detailed information on the various traverse adjustment methods, the reader is encouraged to consult the various references cited in the Bibliography.

Horizontal Traverse Settings

Minimum Precision: The precision of traverse closure is computed prior to making any adjustments to measured angles or distances and prior to balancing horizontal angles. The computed precision is compared with the user specified value. If the computed precision meets or exceeds the specified precision, the compiler continues with its work; otherwise, it will stop and alert the operator of the substandard closure.

Scale Factor: The user may determine a scale factor to be applied to all horizontal distances computed by the WILDsoft Field Data Compiler. When a local coordinate system is in use, the scale factor is usually set to a value of 1.0.

When using coordinate system projections such as State Plane Coordinates, two options are available. The user may determine a scale factor for the entire project and enter it into WILDsoft. This scale factor should be a combined factor (grid factor multiplied by elevation factor) to obtain correctly scaled grid coordinates. The second option is to enter a scale factor of zero. This will instruct WILDsoft to compute a scale factor for each measured horizontal distance based on the location of the measured leg in the coordinate system. The computed scale factor is output during traverse computations.

Curvature and Refraction: If desired, corrections for curvature and refraction may be applied to all measured vertical angles. The correction is computed using the following formulae:

$$c = \sin^{-1} (SD * \sin(Zn) / 2 R)$$

where: c = The curvature correction
 SD = The measured slope distance
 Zn = The measured zenith angle
 R = The radius of the Earth = 6372 Km

Field Data Computations, Traverse Adjustments, and Coordinate Systems

This appendix describes the effects of the various Horizontal and Vertical Traverse Options that may be set by the operator. A brief discussion of traverse adjustment is included. For more detailed information on the various traverse adjustment methods, the reader is encouraged to consult the various references cited in the Bibliography.

Horizontal Traverse Settings

Minimum Precision: The precision of traverse closure is computed prior to making any adjustments to measured angles or distances and prior to balancing horizontal angles. The computed precision is compared with the user specified value. If the computed precision meets or exceeds the specified precision, the compiler continues with its work; otherwise, it will stop and alert the operator of the substandard closure.

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Curvature and Refraction: If desired, corrections for curvature and refraction may be applied to all measured vertical angles. The correction is computed using the following formulae:

$$c = \sin^{-1} (SD * \sin(Z_n) / 2 R)$$

where: c = The curvature correction
 SD = The measured slope distance
 Z_n = The measured zenith angle
 R = The radius of the Earth = 6372 Km

Vertical Traverse Settings

Compute Elevations: When set to ON, WILDsoft will compute and store the Z coordinate for each foresight point. Computation requires that known X, Y, and Z coordinates be in the Coordinate File for the Starting Point of the traverse and for any points to be occupied that are not included in the traverse.

When set to OFF, no elevations are computed, and only X and Y coordinates are necessary for the Starting Point.

Average All Angles: When set to ON, all vertical angles and all measured (non-zero) slope distances to a foresight are averaged. (Reciprocal measurement ON will average backsight data also.) The average vertical angle is corrected as required (e.g. curvature and refraction), then applied to the average slope distance to compute the horizontal and vertical distance to a point. When using this option, it is critical to verify that the instrument is pointed at the target correctly before recording vertical or zenith angles and distances.

When set to OFF, WILDsoft uses only vertical angles to a foresight (reciprocal toggle ON will average BS data also as noted above) that include a measured slope distance to compute the horizontal and vertical distance to a point. Any correction is made prior to computing the horizontal and vertical distance. If multiple sets of angles with distances are taken, the horizontal and vertical distances are reduced individually then averaged to compute the coordinates of the point.

WILDsoft uses the ON/OFF toggle in Average All Angles to differentiate between:

ON) using all angles in a set when possibly only one distance to a point was taken.

OFF) using only angles in a set that are accompanied by a distance.

In WILDsoft, if an angle is deemed in error, it can be edited in Field Data Entry and Traverse Calculations by 1) editing the incorrect angle to its correct value and proceeding normally, 2) deleting the BS/FS pair with the bad data (allowing you to leave Average All Angles ON for subsequent calculations), or 3) leaving Average All Angles OFF and removing the accompanying distance from the angle with the bad data. Whichever edit method is chosen will depend on how the user wishes the other angles in the traverse to be computed.

Calculate Reciprocals: This WILDsoft option allows precise measurement of a line by taking reciprocal measurements at both ends of the line. As explained on Page 4-39 of the manual, when ON, the compiler uses the data collected in the backsight measurement (in accordance with the choices made in Average All Angles) to compute the horizontal and vertical distances of the line. The surveyor must measure the vertical angle and distance from both ends of the line for the compiler to compute the weighted average according to the number of sightings taken. This is easily done by pressing the ALL key when pointing to the backsight using the data collector, or by entering the measured vertical or zenith angle and slope distance when entering field data manually.

When Calculate Reciprocals is toggled OFF, the vertical angles and distances in the backsight pointing are not used in the calculations.

Adjust Elevations: When set to ON, any error is adjusted out of the vertical traverse. The vertical error is applied to each leg in the same proportion as the length of the leg to the total length of the traverse. This method is analogous to the Compass Rule for horizontal traverse adjustment.

Horizontal Traverse Adjustments

Compass Rule, Transit Rule, Crandall's Rule: Adjustment by Compass Rule, Transit Rule, and Crandall's Rule is handled in the classical manner described in surveying textbooks. The adjustments are applied subsequent to balancing of angles (if any) and affect only the computed X and Y coordinates of the points on the traverse. The coordinates of sideshot points are computed following the adjustment and storing of the traverse points and therefore reflect the traverse adjustment.

Adjustment by Least Squares: When least square is selected for traverse adjustment, the method of adjustment of observations only is utilized. The general form of this adjustment is:

$$A * v = f$$

where: A = The coefficient matrix for the observations
 v = The vector of residuals on the observations
 f = The vector of constant terms for the condition equations.

The following conditions are maintained in the traverse adjustment:

- (1) The sum of the departures equals zero.
- (2) The sum of the latitudes equals zero.
- (3) The angles must close.

If the user has set angle balance to OFF, then only Conditions (1) and (2) above will be held.

The standard errors of measurement for angles and distances are set by the user or are determined based on the field equipment and procedures used in taking the measurements.

Refer to the Bibliography for references that provide a detailed discussion of the least squares solution for the case of adjustment of observations only.

Coordinate Systems

A wide variety of options are available to the surveyor with respect to coordinate systems (projections). These are:

- (1) Local Coordinates
- (2) U.S. State Plane Coordinates — NAD27
- (3) U.S. State Plane Coordinates — NAD83 or Other
- (4) Universal Transverse Mercator
- (5) User-defined Projections

The local coordinate system option is the general case for plane surveying. When this option is selected, WILDsoft does not use a spheroid as the basis for coordinate computations. Instead, coordinates are computed directly on a plane. If the surveyor has used a local system for a project and later needs to transform into one of the other projections, the Rotate/Translate/Scale routine of the Coordinate Geometry Module must be utilized.

There are two selections for U.S. State Plane Coordinates:

a) The NAD27 option will automatically select the Clark 1866 spheroid and perform the coordinate computations through the algorithm described in "State Plane Coordinates by Automated Data Processing" by C.N. Claire (C&GS Publication 62-4). This will yield a result that is most consistent with the published control data under NAD27.

b) The NAD83 option will automatically select the GRS80 spheroid. This allows the user to perform coordinate computations that are in conformance with control data for the new datum.

Using the NAD83 requires an input of a geoid height. A geoid height is, in general terms, the height that the approximating ellipsoid is either above or below the geoid. This difference must be accounted for to avoid systematic errors in calculations. The NOAA manual *State Plane Coordinate System of 1983* states "-30 meters of geoid height will affect reductions by "-4.8 ppm (1:208,000)." Depending on the precision required by the survey, an average or project value of geoid height may be entirely suitable, or in some instances, this value may even be ignored. However, even if you choose to ignore the affect of geoid height, you must still give the program a value that should be somewhat reasonable.

In both NAD27 and NAD83, WILDsoft calculates a weighted average for line scale factors. The start, mid-point, and end point of a line are used. WILDsoft also incorporates "arc-to-chord" corrections in the field data compiler. The "arc-to-chord" correction accounts for the difference between an angle measured in the field and that same angle projected on the grid.

Spheroids

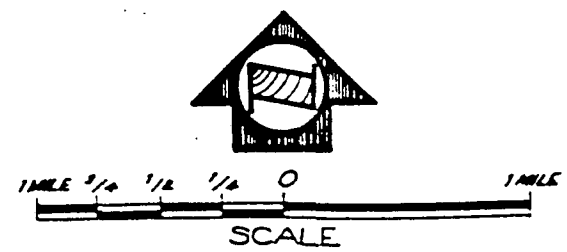
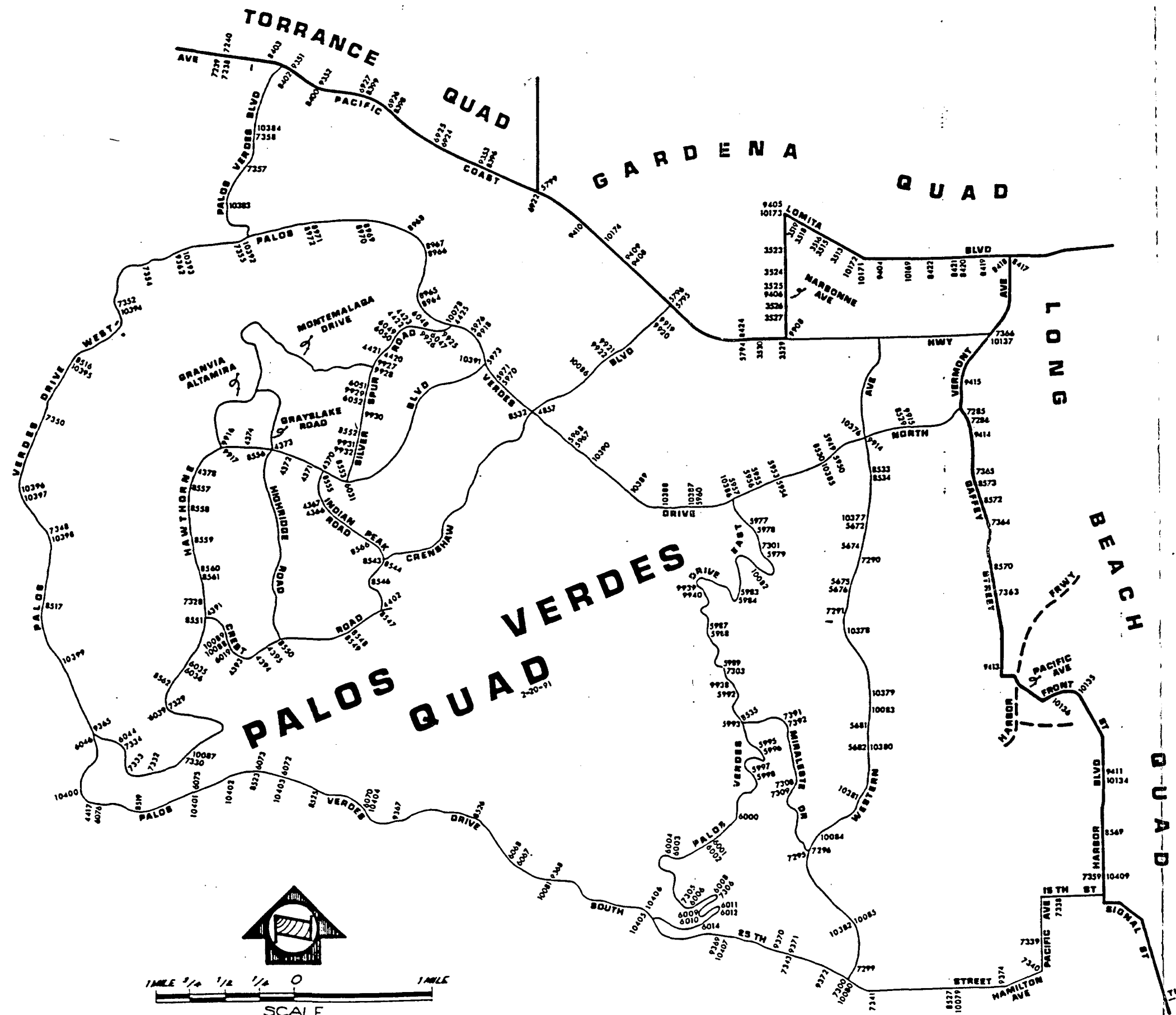
WILDsoft allows the user to select one of five possible spheroids. Three of the spheroids are predefined, and two are user defined. The predefined spheroids in WILDsoft are:

- (1) Clark 1866
- (2) World Geodetic System 1972 (WGS72)
- (3) Geodetic Reference System 1980 (GRS80)

The Clark 1866 spheroid is used for the North American Datum of 1927 (NAD27). WGS72 was not widely used for conventional survey applications, but coordinates from the Global Positioning System (GPS) have been based on the WGS72 definition until recent times. GRS80 is the reference ellipsoid for the North American Datum of 1983 (NAD83). Additionally, GRS80 (or WGS84) has replaced WGS72 for GPS applications.

The user-defined spheroids may be entered by either the lengths of semi-major (a) and semi-minor axes (b) OR by the length of the semi-major axis (a) and the reciprocal of the flattening (1/f).

The spheroid must be selected prior to entering any coordinate data into a file. Once points have been created, the surveyor may transform the coordinates from one coordinate system to another on the same spheroid, but will not be able to change the spheroid.

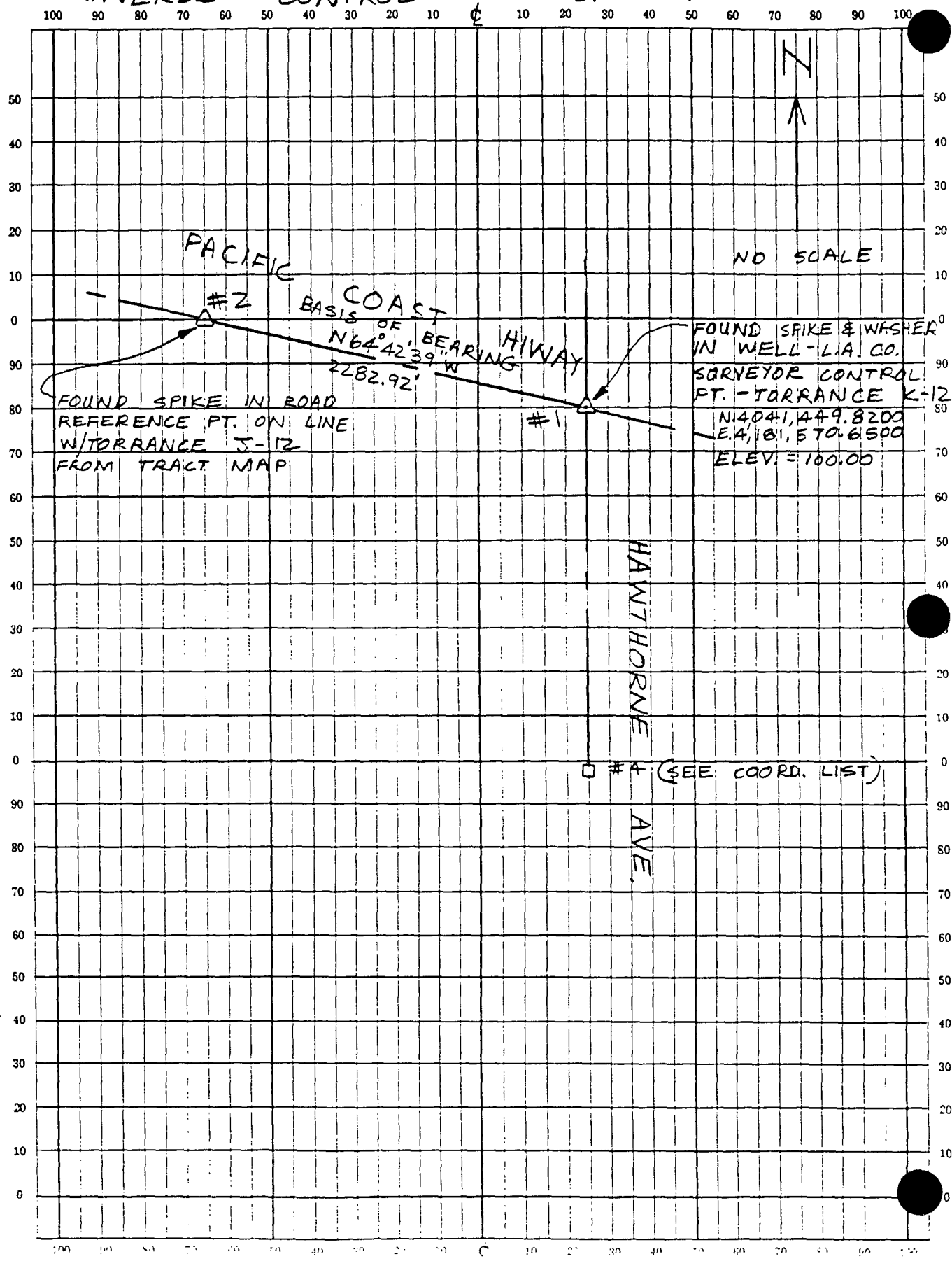


LIGHT SOLID LINES WITHOUT NUMBERS INDICATE PREVIOUS LINES OF BENCH MARKS THAT ARE NOT INCLUDED IN THE 1980 ADJUSTMENT.

QUAD-YEAR	ELEV	DESCRIPTION (INCLUDE QUAD AND YEAR IN DESCRIPTION)	BM NUMBER
PAL VRDS (1990)	385.665	LACE BRASS DISC 4FT N/O BCR 1FT E/O CB @ LIGHT STD 40FT E/O C/L WESTERN AVE & 64FT N/O C/L DODSON AVE MKD (PBM 24-06528 1984)	DY 10382
PAL VRDS (1990)	207.254	COE BRASS DISC 7FT N/O BCR IN W CB @ NW COR PALOS VERDES BLVD & VIA ROSA 28FT W & 161FT N/O C/L INT MKD (RDP-101 1988)	DY 10383
PAL VRDS (1990)	132.141	COE BR DISC 1FT E/O BCR IN S CB @ SE COR PALOS VERDES BLVD & CALLE MIRAMAR 51FT E & 26FT S/O C/L INT MKD (RDP -102 1988)	DY 10384
PAL VRDS (1990)	323.383	L&T 1FT E/O BCR @ SE COR 57FT S/O C/L PALOS VERDES DR N & 45FT E/O C/L ROLLING VISTA DR	DY 10385
PAL VRDS (1990)	367.630	DWP BM TAG 24FT W/O BCR @ SW COR 57FT S/O C/L PALOS VERDES DR N & 122FT W/O C/L PALOS VERDES DR E	DY 10386
PAL VRDS (1990)	401.643	DWP BM TAG @ BCR NW COR 66FT N/O C/L PALOS VERDES DR N & 22FT W/O C/L DAPPLEGRAY LN	DY 10387
PAL VRDS (1990)	450.835	DPW BM TAG 1FT E/O BCR @ NE COR 31FT N/O C/L PALOS VERDES DR N & 50FT E/O C/L STRAWBERRY LN	DY 10388
PAL VRDS (1990)	459.355	DWP BM TAG S CB 18FT E/O C/L PROD @ ENTRANCE TO DAPPLEGRAY SCHOOL 27FT S/O C/L PALOS VERDES DR N & 0.2MI W/O STRAWBERRY LN	DY 10389
PAL VRDS (1990)	475.038	DWP BM TAG 1FT N/O BCR @ NE COR 35FT N/O C/L PALOS VERDES DR N & 19FT E/O C/L ROLLING HILLS RD	DY 10390
PAL VRDS (1990)	462.003	DWP BM TAG 1FT E/O BCR @ NE COR 55FT N/O C/L PALOS VERDES DR N & 60FT E/O C/L HAWTHORNE BLVD	DY 10391
PAL VRDS (1990)	215.442	DWP BM TAG IN CB 64FT W/O LARGE FOUNTAIN IN PALOS VERDES ESTATES MALAGA COVE PLAZA 155FT W/O VIA CHICO & 75FT E/O C/L PALOS VERDES DR W	DY 10392
PAL VRDS (1990)	164.196	L&T S CB 3FT E/O E WALL C B 0.3MI W/O VIA DEL PUENTE & 15FT S/O C/L PALOS VERDES DR W (206FT W/O C/L INT SERVICE RD TO THE S)	DY 10393
PAL VRDS (1990)	324.442	DWP BM TAG N CB PARKWAY ISLAND 22FT W/O C/L PALOS VERDES DR W & 56FT S/O C/L VIA MONTEMAR	DY 10394
PAL VRDS	292.179	DPW BM TAG 2FT S/O BCR IN W CB 55FT S/O C/L PALOS VERDES DR W & 18FT W/O C/L PALOS VERDES DR W	DY 10395

START

TRAVERSE CONTROL TOPO SHEET SKETCH



FORM 107 2-73 82

NAME **Torrance K-12**
 ESTABLISHED BY **L.A. Co. Surveyor** DATE **1942**
 ELEV. OF STATION MARK **29** METERS
 (PE: **TRIANGULATION**)
 GEOGRAPHIC POSITIONS: LAT. **33° 48' 18.0388"**
 LONG. **118° 21' 00.7000"**
 GEODETIC DATUM: **NORTH AMERICAN, 1927**
 PLANE COORDINATES: **ZONE 7 - CALIFORNIA**
COORDINATE SYSTEM
 NORTH **4,041,449.46**
 EAST **4,181,570.20**

DESCRIPTION

This station is in the City of Torrance at the intersection of the center lines of Hawthorne Ave. and Pacific Coast Highway, in a well cut through the pavement and protected by a cast iron cover marked: "County Surveyor Monument." This is a replacement of a cut spike and washer per L.B. 800-174.

Station Mark: A standard 4 inch brass tablet inscribed: "L. A. County Survey Control System Triangulation Station Torrance K-12, R. E. 2177 Set by County Surveyor 1942," was set in concrete 2 inches below the subgrade of street.

No sub-surface mark

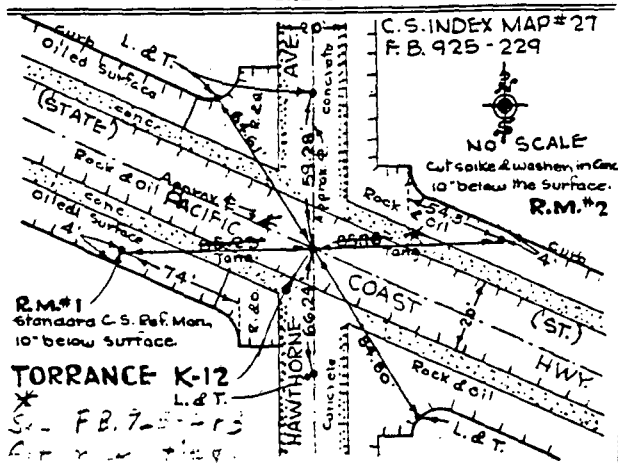
References: F.B. 925-229, 230, 243

Dreier on 9-24-59 reported that the Station Mark was in good condition with no obstructions.

On 4-21-61 W. D. Bay reported str. Sta. good - R.M. No 142 under new permit. in Hwy. - Ed. Tan. L&T's in curbs.

1957 recovered
 Recovered - Date 7-12-73 - good condition CDM-VII

SKETCH



NAME: **Torrance K-12** ZONE 7 - CALIFORNIA ~~LOS ANGELES COUNTY COORDINATE SYSTEM~~ ~~LAMBERT-33~~
COORDINATE SYSTEM

DIRECTIONS AND DISTANCES TO OTHER STATIONS AND PROMINENT OBJECTS

TO	GEODETIC AZIMUTH	GRID BEARING	GEODETIC DISTANCE		GRID DISTANCE
			LOG METERS	FEET	FEET
Reference Mark #1		N 87 27 49 W			*85.23
Reference Mark #2		S 87 27 49 E			*85.76
San Pedro Hills J-1	8 11 06.26	S 8 11 40.13 W	2.965 02526	3,026.98	3,027.01
Torrance J-12	** 115 16 46.68	N 84 42 39.16 W	2.850 77351	2,222.07	2,222.08
Torrance K-11	** 180 56 04.89	N 0 56 38.85 E	2.712 57782	1,692.63	1,692.63
Torrance K-12A	** 284 45 09.96	S 75 14 15.77 E	2.860 80631	2,380.07	2,380.09

**Precisely Measured Base
 *Ground Surface Distance

NAME **Torrance J-12**
 ESTABLISHED BY **L.A.Co.Surveyor** DATE **1942**
 ELEV. OF STATION MARK **23** METERS
 (P.E. TRIANGULATION)
 GEOGRAPHIC POSITIONS: LAT. **33° 48' 27.4256"**
 LONG. **118° 21' 24.5108"**
 GEODETIC DATUM: NORTH AMERICAN, 1927
 PLANE COORDINATES: **ZONE 7 - CALIFORNIA**
COORDINATE SYSTEM
 NORTH **4,042,398.70**
 EAST **4,179,561.08**

DESCRIPTION

This station is in the City of Torrance on the center line of Pacific Coast Highway, 0.4 mi. westerly from Hawthorne Ave., and 41.67 ft. easterly from a cut spike and washer marking the center line intersection of Pacific Coast Highway, and a 25 ft. westerly offset line of Meadow Park Tract, in a well out thru the pavement and protected by a cast iron cover marked: "County Surveyor Monument."

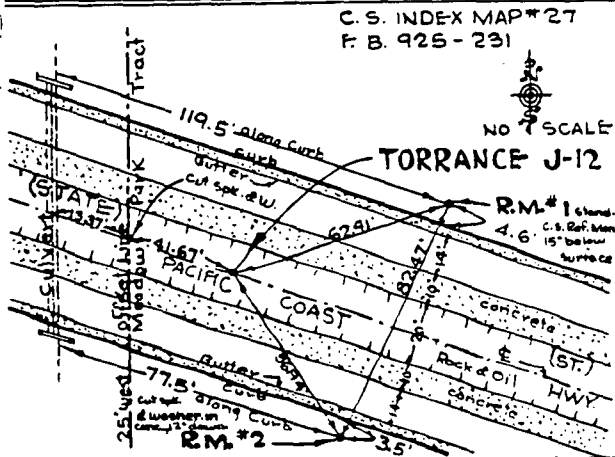
Station Mark: A standard 4 inch ^{brass} tablet inscribed: "L. A. County Survey Control System Triangulation Station Torrance J-12, R. E. 2177, Set by County Surveyor 1942," was set in concrete 2 inches below subgrade of street.

No sub-surface mark.

Reference: F.B. 925-231,232

On 4-21-61 W.B. Bay reported this sta. good P.M.'s U2 1 & 2 Not recoverable. 1967 Recovered

SKETCH



FORM 316 3-28

SURVEY CONTROL STATION

COUNTY SURVEYOR

COUNTY OF LOS ANGELES, CALIFORNIA

CARD 2 OF 2 CARDS

NAME: **Torrance J-12**

ZONE 7 - CALIFORNIA
COORDINATE SYSTEM

~~LOS ANGELES COUNTY COORDINATE SYSTEM~~

~~LAMBERT GRID~~

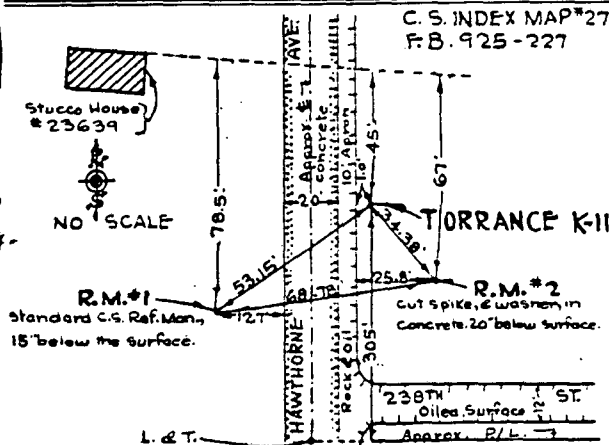
DIRECTIONS AND DISTANCES TO OTHER STATIONS AND PROMINENT OBJECTS

TO	GEODETIC AZIMUTH	GRID BEARING	GEODETIC DISTANCE		GRID DISTANCE
			LOG METERS	FEET	FEET
Reference Mark #1		N 73 39 31 E			*62.91
Reference Mark #2		S 19 31 49 E			*56.94
San Pedro Hills J-1	338 11 28.25	S 21 47 44.07 E	3.112 30858	4,249.08	4,249.09
Torrance K-11	249 56 35.92	N 69 57 23.66 E	2.820 14260	2,168.34	2,168.34
Torrance K-12	** 295 18 33.43	S 64 42 39.16 E	2.830 77351	2,222.07	2,222.08

*Ground Surface Distance
 **Precisely Measured Base

NAME **Torrance K-11**
 ESTABLISHED BY **L.A. Co. Surveyor** DATE **1942**
 ELEV. OF STATION MARK **22** METERS
 TYPE: **TRIANGULATION**
 GEOGRAPHIC POSITIONS: LAT. **33° 48' 34.7816"**
 LONG. **118° 21' 00.3728"**
 GEODETIC DATUM: **NORTH AMERICAN, 1927**
 PLANE COORDINATES: **ZONE 7 - CALIFORNIA**
COORDINATE SYSTEM
 NORTH **4,043,141.86**
 EAST **4,181,598.09**

SKETCH



DESCRIPTION

This station is in the City of Torrance in Hawthorne Ave., about 305 ft. North of the center line of 238th St., located 45 ft. southerly from the easterly prolongation of the north line of Stucco Dwelling No. 23639 and about 1.0 ft. easterly from the east edge of rock and oil pavement, in a well cut through the pavement and protected by a cast iron cover marked: "County Surveyor Monument."

Station Mark: A standard 4 inch brass tablet inscribed: "L. A. County Survey Control System Triangulation Station Torrance K-11, R. E. 2177, Set by County Surveyor 1942," was set in concrete 2 inches below the subgrade of street.

No sub-surface mark

Reference: F.B. 925-227, 228, 242, 246

Dreier on 9-24-59 reported that the monument and R.M.s. were buried under new construction which was under the direction of the State Div. of Highways.

on 4-21-61 W.D. Bay reset ctr. station by ties to R.M.s 2+3 - Rd R.M. 4 - R.M.s 7' below pavement.

Recovered - Date 4-22-76 IN GOOD CONDITION.
 ALL REF. MARKS TAKEN BY HIGHWAY CONST.
 BY F.B. BROOKS. NEEDS NEW DESCRIPTION
 FOR CTR. STA. & R.M.'S.

NAME: **Torrance K-11** ZONE 7 - CALIFORNIA ~~LOS ANGELES COUNTY COORDINATE SYSTEM~~ **LAMBERT GRID**
 COORDINATE SYSTEM

DIRECTIONS AND DISTANCES TO OTHER STATIONS AND PROMINENT OBJECTS

TO	GEODETIC AZIMUTH	GRID BEARING	GEODETIC DISTANCE		GRID DISTANCE FEET
			LOG METERS	FEET	
Reference Mark #1		S 55 46 39 W			*58.16
Reference Mark #2		S 45 38 28 E			*34.38
San Pedro Hills J-1	5 35 10.04	S 5 35 43.81 W	3.157 12162	4,710.92	4,710.95
Torrance J-12	69 56 49.35	S 69 57 23.66 W	2.820 14260	2,168.34	2,168.34
Torrance K-10	180 13 00.0	N 0 13 33.9 E	2.987 89010	3,190.61	3,190.63
Torrance K-12	** 0 58 05.07	S 0 58 38.85 W	2.712 57782	1,692.63	1,692.63
Torrance K-12A	315 18 24.77	S 44 41 01.89 E	2.993 65960	3,233.28	3,233.30

**Precisely Measured Base
 *Ground Surface Distance

COUNTY OF LOS ANGELES
DEPT. OF COUNTY ENGINEER

SECTION 7 - SURVEY CONTROL STATIONS
RUN DATE - 06/26/78

REPORT EK16C-01
PAGE 405

STATION NAME	CODE	YEAR	REFERENCE	ELEVATION OR LATITUDE	LONGITUDE	ZONE	NORTH	EAST
TOR K-10	BM1	NO	22- 15					
TOR K-10	TRA	42	925-225	33-49-06.3459	118-21-00.2298	7	4,046,332.47	4,181,610.68
TOR K-10	IN	59	925-241			7	4,046,332.47	4,181,610.68
TOR K-11	BM1	NO	22- 16C					
TOR K-11	IRI	42	925-227	33-48-34.7816	118-21-00.3728	7	4,043,141.86	4,181,598.09
TOR K-11	IN	59	925-242			7	4,043,141.86	4,181,598.09
TOR K-11	RST	61	925-246			7	4,043,141.86	4,181,598.09
TOR K-11	HOR	76	4312-088				4,043,141.86	4,181,598.09
TOR K-11	BM1	77	22-16C	76.535			4,043,141.86	4,181,598.09
TOR K-12	BM1	NO	21- 59					
TOR K-12	TRI	42	925-229	33-48-18.0388	118-21-00.7000	7	4,041,449.46	4,181,570.20
TOR K-12	SUB	54	925-59			7	4,041,449.77	4,181,570.33
TOR K-12	IN	59	925-243			7	4,041,449.46	4,181,570.20
TOR K-12	IN	61	925-243			7	4,041,449.46	4,181,570.20
TOR K-12	BM1	65	3702-127	94.885		7	4,041,449.46	4,181,570.20
TOR K-12	SUB	66	LABE	33-48-18.0424	118-21-00.6947	7	4,041,449.82	4,181,570.65
TOR K-12	IN	67	925-243			7	4,041,449.46	4,181,570.20
TOR K-12	IN	73	CDM			7	4,041,449.82	4,181,570.65
TOR K-12A	TRI	42	925-233	33-48-12.0420	118-20-33.4263	7	4,040,842.99	4,183,871.73
TOR K-12A	OUT	61	925-233			7	4,040,842.99	4,183,871.73
TOR K-12B	SUB	50	LABE			7	4,041,042.80	4,182,431.76
TOR K-12B	SUB	54	LABE			7	4,041,042.80	4,182,431.76
TOR K-12B	SUB	66	LABE	33-48-14.0177	118-20-50.4860	7	4,041,042.86	4,182,432.09
TOR K-12B	IN	73	CDM			7	4,041,042.86	4,182,432.09
TOR K-12B	SUB	74	LABE	33-48-14.0175	118-20-50.4878	7	4,041,042.84	4,182,431.94
TOR K-12C	SUB	50	LABE			7	4,039,589.22	4,183,963.98
TOR K-12C	SUB	54	LABE			7	4,039,589.22	4,183,963.98
TOR K-12C	SUB	66	LABE	33-47-59.6394	118-20-32.3287	7	4,039,589.29	4,183,964.25
TOR K-12C	IN	73	CDM			7	4,039,589.29	4,183,964.25
TOR K-12C	SUB	74	LABE	33-47-59.6393	118-20-32.3301	7	4,039,589.28	4,183,964.13
TOR L- 5	TRA	42	925-195	33-51-29.9963	118-20-04.8825	7	4,060,852.65	4,186,280.81
TOR L- 5	IN	61	2455-35			7	4,060,852.65	4,186,280.81
TOR L- 5 AX1	TRA	41	961-53	33-51-29.8869	118-20-03.1495	7	4,060,841.53	4,186,426.97
TOR L- 5 AX1	IN	61	2455-35			7	4,060,841.53	4,186,426.97
TOR M- 4	BM1	76	22-5A	53.648			4,066,129.77	4,189,050.11
TOR N- 5	TRA	42	925-197	33-51-30.0391	118-19-24.7851	7	4,060,857.11	4,189,662.45
TOR N- 5	IN	61	2455-39			7	4,060,857.11	4,189,662.45
TOR N- 5 AX1	TRA	42	2455-41	33-51-29.9328	118-19-24.7334	7	4,060,846.37	4,189,665.81
TOR N- 5 AX1	IN	61	2455-39			7	4,060,846.37	4,189,665.81
TOR N- 5 AX2	TRA	42	2455-43	33-51-29.924	118-19-31.9848	7	4,060,845.45	4,189,055.26
TOR N- 5 AX2	IN	61	961-16			7	4,060,845.45	4,189,055.26

COUNTY OF LOS ANGELES
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STATION NAME	CODE	YEAR	REFERENCE	ELEVATION OR LATITUDE	LONGITUDE	ZONE	NORTH	EAST	
SPH H- 9	IN	57	625-157			7	4,016,759.47	4,174,623.94	
SPH H- 8	IN	65	625-157			7	4,016,759.47	4,174,623.94	
SPH H- 9	SUB	69	625-157	33-44-13.7640	118-22-22.9001	7	4,016,759.48	4,174,623.86	
SPH H- 8	TRI	72	625-157	114.3		7	4,016,759.48	4,174,623.86	
SPH H- 8	TRI	73	625-157	33-44-13.7640	118-22-22.9001	7	4,016,759.48	4,174,623.86	
SPH H- 8	SLD	76	625-157	33-44-13.7640	118-22-22.9001	7	4,016,759.48	4,174,623.86	
SPH H- 8B <i>Point</i>	SLD	76	949-022	33-44-12.3136	118-22-05.5897	7	4,016,612.32	4,176,085.77	
SPH I- 6	TRI	36	625-105	33-45-24.2092	118-21-37.2469	7	4,023,878.98	4,178,481.42	
SPH I- 6	IN	57	625-105			7	4,023,878.98	4,178,481.42	
SPH I- 6	TRI	36	939-141			7	4,024,104.67	4,178,515.71	
SPH I- 6	EC1	TRI	36	625-105	33-45-26.4420	118-21-36.8414	7	4,024,104.67	4,178,515.71
SPH I- 6	EC4	SUB	69	2922-019	33-45-22.4789	118-21-39.9691	7	4,023,704.14	4,178,251.52
SPH I- 6	EC4	TRI	73	2922-019	33-45-22.4789	118-21-39.9691	7	4,023,704.14	4,178,251.52
SPH I- 6	EC4	TRI	73	2922-019	1251.0	7	4,023,704.14	4,178,251.52	
SPH I- 6	EC4	SLD	76	2922-019	33-45-22.4789	118-21-39.9691	7	4,023,704.14	4,178,251.52
SPH I- 6A	CS2	70	1-4011	33-45-24.5590	118-21-37.6640	7	4,023,914.35	4,178,446.20	
SPH I- 6F <i>Hand pt</i>	SLD	76	949-073	33-44-59.5518	118-21-35.3172	7	4,021,386.50	4,178,643.71	
SPH J- 1	SUB	36	625-107	33-47-48.3980	118-21-05.8063	7	4,038,453.36	4,181,138.75	
SPH J- 1	SUB	50	625-107			7	4,038,453.65	4,181,138.90	
SPH J- 1	SUB	54	625-107			7	4,038,453.65	4,181,138.90	
SPH J- 1	SUB	58	2653-27			7	4,038,453.51	4,181,139.04	
SPH J- 1	SUB	62	2653-27			7	4,038,453.58	4,181,139.38	
SPH J- 1	SUB	64	625-107	33-47-48.4016	118-21-05.8023	7	4,038,453.72	4,181,139.09	
SPH J- 1	SUB	66	625-107	33-47-48.4031	118-21-05.8018	7	4,038,453.88	4,181,139.12	
SPH J- 1	SUB	70	LABE	33-47-48.4022	118-21-05.8027	7	4,038,453.78	4,181,139.04	
SPH J- 1	MON	76	4372-089			7	4,038,453.88	4,181,139.12	
SPH J- 1 AX1	IN	69	2653-133			7	4,038,430.80	4,181,187.32	
SPH J- 1 AX1	VBM	69	2653-133	460.4		7	4,038,430.80	4,181,187.32	
SPH J- 1 AX1	SUB	70	2653-133	33-47-48.1739	118-21-05.2318	7	4,038,430.70	4,181,187.23	
SPH J- 1 AX1	SUB	74	2653-133	459.03		7	4,038,430.78	4,181,187.30	
SPH J- 1 AX1	SUB	74	2653-133	33-47-48.1747	118-21-05.2310	7	4,038,430.78	4,181,187.30	
SPH J- 7 <i>E. FIX</i>	SLD	76	949-075	33-44-36.6330 Elev=633.3	118-21-21.1416	7	4,019,069.53	4,179,840.22	
SPH J- 7A	SLD	76	949-022	33-44-29.0630	118-21-29.8092	7	4,018,304.51	4,179,108.06	
SPH K- 7	SLD	56	949-65			7	4,020,167.20	4,184,116.40	
SPH K- 9	TRI	36	625-115	33-43-41.0295	118-21-02.3785	7	4,013,448.69	4,181,423.80	
SPH K- 9	INT	57	625-115			7	4,013,448.69	4,181,423.80	
SPH K- 9	EC1	TRI	53	625-269	33-43-40.5897	118-21-01.1114	7	4,013,404.23	4,181,530.82
SPH K- 9	EC2	TRI	53	625-269	33-43-41.2560	118-21-02.6366	7	4,013,471.59	4,181,402.01
SPH K- 9 AX1	SUB	69	3766-183			7	4,013,760.	4,181,490.	
SPH K- 9 AX1	SUB	69	625-269			7	4,013,760.	4,181,490.	
SPH K- 9 AX1	SUB	69	3766-183			7	4,013,760.	4,181,490.	

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STATION NAME	CODE	YEAR	REFERENCE	ELEVATION OR LATITUDE	LONGITUDE	ZONE	NORTH	EAST
SPH K-9 AX1	IN	73	3766-183	33-43-44.1066	118-21-01.5668	7	4,013,759.72	4,181,492.41
SPH K-9 AX1	IN	73	3766-183	164.7		7	4,013,759.72	4,181,492.41
SPH K-9 AX1	SLD	76	3766-183	33-43-44.1066	118-21-01.5668	7	4,013,759.72	4,181,492.41
SPH L-1	SUB	50	LARE	33-47-38.3094	118-20-05.5216	7	4,037,433.08	4,186,226.56
SPH L-1	SUB	54	LARE			7	4,037,433.02	4,186,226.50
SPH L-1	IN	73	COM			7	4,037,433.02	4,186,226.50
SPH L-1	SUB	66	LARE			7	4,037,396.87	4,186,211.90
SPH L-1	ECL	70	LARE			7	4,037,396.91	4,186,211.67
SPH L-1	ECL	74	LARE	33-47-37.9516	118-20-05.6963	7	4,037,396.91	4,186,211.82
SPH L-7	TRI	33	625-117			7	4,020,002.58	4,186,179.57
SPH L-7	TRI	36	SP202-310			7	4,020,002.58	4,186,179.57
SPH L-7	TRI	36	525-17	33-44-45.8710	118-20-06.0749	7	4,020,002.58	4,186,179.57
SPH L-7	TRI	53	923-204			7	4,020,002.58	4,186,179.57
SPH L-7	TRI	53	625-117			7	4,020,002.58	4,186,179.57
SPH L-7	TRI	54	625-117			7	4,020,002.58	4,186,179.57
SPH L-7	IN	58	625-117			7	4,020,002.58	4,186,179.57
SPH L-7	OUT	59	923-204			7	4,020,002.58	4,186,179.57
SPH L-7	OUT	59	923-295			7	4,020,002.58	4,186,179.57
SPH L-7	MLD	99	REPORT 99			7	4,020,003.	4,186,180.
SPH L-7	ECL	36	625-117	33-44-41.8868	118-20-06.0568	7	4,019,599.85	4,186,181.10
SPH L-7	ECL	57	939-161			7	4,019,599.85	4,186,181.10
SPH L-7	ECL	63	939-161			7	4,019,599.85	4,186,181.10
SPH L-7	ECL	36	625-117	33-44-40.9706	118-19-59.0736	7	4,019,507.23	4,186,770.81
SPH L-7	ECL	61	939-161			7	4,019,507.23	4,186,770.81
SPH L-7	FC2	63	625-117			7	4,019,507.23	4,186,770.81
SPH L-7	ECL	47	625-123	33-44-46.0804	118-20-06.0111	7	4,020,023.74	4,186,184.96
SPH L-7	ECL	47	923-204			7	4,020,023.74	4,186,184.96
SPH L-7	ECL	58	625-117			7	4,020,023.74	4,186,184.96
SPH L-7	ECL	61	923-204			7	4,020,023.74	4,186,184.96
SPH L-7	ECL	50	939-161	33-44-48.1497	118-20-03.9342	7	4,020,232.92	4,186,360.34
SPH L-7	ECL	58	939-161			7	4,020,232.92	4,186,360.34
SPH L-7	ECL	62	939-161			7	4,020,232.92	4,186,360.34
SPH L-7	ECL	64	939-161			7	4,020,232.92	4,186,360.34
SPH L-7	ECL	64	3247-38			7	4,020,232.92	4,186,360.34
SPH L-7	ECL	66	939-161			7	4,020,232.92	4,186,360.34
SPH L-7	ECL	68	3616-093			7	4,020,232.92	4,186,360.34
SPH L-7	ECL	70	939-161	33-44-48.1497	118-20-03.9342	7	4,020,232.92	4,186,360.34
SPH L-7	ECL	74	2453-219	33-44-48.1497	118-20-03.9342	7	4,020,232.91	4,186,360.35
SPH L-7	ECL	74	2453-219	1465.65		7	4,020,232.91	4,186,360.35
SPH L-7	ECL	63	939-162	33-44-41.6654	118-20-04.3698	7	4,019,577.47	4,186,323.56
SPH L-7	ECL	64	939-163	33-44-48.2989	118-20-03.9098	7	4,020,248.00	4,186,362.41
SPH L-7A	TRI	26	SP202 315			7	4,020,001.87	4,186,183.96
SPH L-7A	TRI	26	SP202 315			7	4,020,001.87	4,186,183.96
SPH L-7A	TRI	26	525-17			7	4,020,001.87	4,186,183.96
SPH L-7H	TRI	63	1-3051	33-44-47.1998	118-20-08.3681	7	4,020,214.83	4,185,985.92

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 RUN DATE - 06/26/78

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STATION NAME	CODE	YEAR	REFERENCE	ELEVATION OR LATITUDE	LONGITUDE	ZONE	NORTH	EAST
SPH L- 10	TRI	63	1-3021	33-44-49.5947	118-20-06.3472	7	4,020,378.98	4,186,156.59
SPH L- 9	IN	60	1-3029			7	4,012,449.02	4,185,737.08
SPH L- 9	CS2	70	1-3028	33-43-31.1440	118-20-11.3120	7	4,012,449.02	4,185,737.08
SPH L- 9A	NFO	69	2337-007			7	4,013,887.54	4,185,790.61
SPH L-10	IN	63	1-3014			7	4,011,573.44	4,194,668.62
SPH L-10	CS2	70	1-3014	33-43-22.4720	118-18-25.5750	7	4,011,573.44	4,194,668.62
SPH M- 1	SUR	74	LABE	33-47-31.4646	118-19-56.1593	7	4,036,741.19	4,187,016.74
SPH M- 2	SUR	50	2653-032			7	4,035,886.59	4,187,991.81
SPH M- 2	SUB	54	2653-032			7	4,035,886.49	4,187,991.81
SPH M- 2	SUB	66	LABE	33-47-23.0106	118-19-44.6021	7	4,035,886.66	4,187,992.22
SPH M- 2	BMI	76	21-00310	132.282		7	4,035,886.66	4,187,992.22
SPH M- 2	SUB	74	LABE	33-47-22.6872	118-19-43.2980	7	4,035,853.98	4,188,102.29
SPH M- 7	TRI	58	LABE			7	4,019,852.55	4,187,044.58
SPH M- 9	TRI	36	625-161	33-43-54.7772	118-19-55.3572	7	4,014,837.90	4,187,084.71
SPH M- 9	IN	58	2337-29			7	4,014,837.90	4,187,084.71
SPH M- 9	IN	65	2337-29			7	4,014,837.90	4,187,084.71
SPH M- 9A	NFO	69	2337-011			7	4,013,278.04	4,187,641.43
SPH M- 9A AX1	NFO	69	2337-025			7	4,012,233.05	4,187,587.87
SPH M- 9B	NFO	69	2337-012			7	4,013,174.05	4,188,693.92
SPH M- 9C	NFO	69	2337-020			7	4,012,154.11	4,187,548.17
SPH M- 9D	CS2	60	1-3002	33-43-54.6640	118-19-55.2630	7	4,014,826.45	4,187,092.67
SPH M- 9D	IN	60	1-3002			7	4,014,826.45	4,187,092.67
SPH M-10	TRI	36	625-155	33-43-11.5605	118-19-31.8275	7	4,010,469.54	4,189,072.39
SPH M-10	OUT	57	625-155			7	4,010,469.54	4,189,072.39
SPH M-10	TRI	56	625-273	33-43-13.4751	118-19-25.7857	7	4,010,663.12	4,189,582.74
SPH M-10	IN	58	625-273			7	4,010,663.12	4,189,582.74
SPH N- 2	SUR	50	2653-031			7	4,035,811.52	4,189,470.51
SPH N- 2	SUB	54	2653-031			7	4,035,811.33	4,189,470.41
SPH N- 2	SUB	66	LABE	33-47-22.2666	118-19-27.0840	7	4,035,811.55	4,189,470.81
SPH N- 2	IN	73	COM			7	4,035,811.25	4,189,470.81
SPH N- 2	SUB	74	LABE	33-47-22.2671	118-19-27.0853	7	4,035,811.60	4,189,470.70
SPH N- 2	BMI	76	21-00310	134.744		7	4,035,811.60	4,189,470.70
SPH N- 2C	SUR	58	2653-037	33-47-05.4907	118-19-18.4936	7	4,034,115.95	4,190,195.83
SPH N- 2C	SUR	60	2653-037	33-47-05.4907	118-19-18.4936	7	4,034,116.04	4,190,195.89
SPH N- 2C	SUR	61	2653-037	33-47-05.4907	118-19-18.4936	7	4,034,115.94	4,190,195.87
SPH N- 2C	SUR	63	2653-037	33-47-05.4907	118-19-18.4936	7	4,034,115.87	4,190,195.07

SR75-086

PG 6

0006

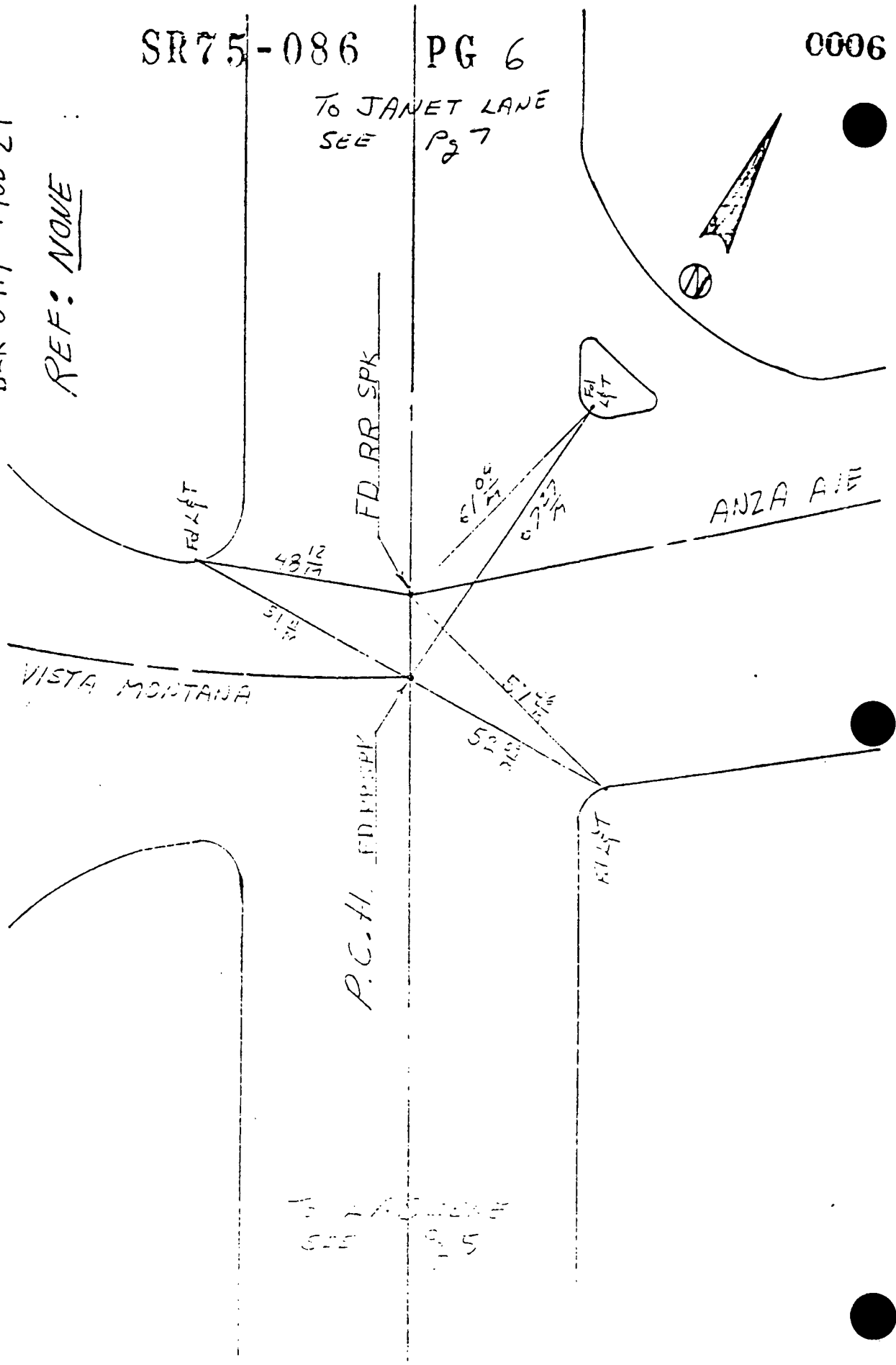
TO JANET LANE
SEE PG 7

BLK 0417 MOD 29

REF: NONE

6-10-75
TURNER PROPERTY ACROSS ST 6
GROUNDS

THIS INT. PARTS CONTAINING
VISTA MONTANA & ANZA AVE



51 12 / 14
52 12 / 14

PALOS VERDES LANDFILL
GROUNDWATER MONITORING WELLS
BOOK 2 OF 2

Date: 12-03-92
Time: 11:53:17
Page: 1

=====

FIELD DATA COMPILER

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Field Data File: PV1.FLD
Coordinate File: PV.CRD
Plot File: WELL.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 1		N 64 42 39.0 W		
Scale Factor: Computed				
1		4041449.8200	4181570.6500	94.8470

Reference Line From: 1		N 64 42 39.0 W		
From: 1	Inst. Ht: 6.59	Target Ht: 3.63		
Hz: 243 49 57.9	Vt: 88 27 28.0	Dist: 2001.15		
Hz: 243 49 58.4	Vt: 88 27 30.0	Dist: 2001.15		
Averages: 243 49 58.2	88 27 29.0	2001.15		
Std Deviation: 00 00 00.4	00 00 01.2	0.00		
Scale Factor: 1.00000016				

Traverse S 00 52 40.8 E	Hz. Dist: 2000.42	Vt. Dist: 56.89	
4			

From: 4	Inst. Ht: 5.16	Target Ht: 5.27		
Hz: 100 58 43.0	Vt: 90 04 39.5	Dist: 999.24		
Hz: 100 58 41.0	Vt: 90 04 40.0	Dist: 999.24		
Averages: 100 58 42.0	90 04 39.7	999.24		
Std Deviation: 00 00 01.4	00 00 00.3	0.00		
Scale Factor: 0.99999907				

Traverse S 79 53 58.8 E	Hz. Dist: 999.24	Vt. Dist: -1.44	
5			

From: 5	Inst. Ht: 5.16	Target Ht: 4.96		
Hz: 260 06 38.0	Vt: 88 16 28.5	Dist: 826.13		
Averages: 260 06 38.0	88 16 28.5	826.13		
Std Deviation: 00 00 00.0	00 00 00.0	0.00		
Scale Factor: 0.99999866				

Point	Descriptor	NORTH	EAST	ELEV
Traverse S 6	00 12 39.1 W	Hz. Dist: 825.75	Vt. Dist: 25.09	
From:	6	Inst. Ht: 5.11	Target Ht: 4.94	
	Hz: 186 54 28.5	Vt: 87 19 22.5	Dist: 319.16	
Averages:	186 54 28.5	87 19 22.5	319.16	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999786			
Traverse S 7	07 07 07.6 W	Hz. Dist: 318.81	Vt. Dist: 15.08	
From:	7	Inst. Ht: 5.21	Target Ht: 5.00	
	Hz: 160 07 23.0	Vt: 86 17 03.0	Dist: 483.30	
Averages:	160 07 23.0	86 17 03.0	483.30	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999686			
Traverse S 8	12 45 29.4 E	Hz. Dist: 482.28	Vt. Dist: 31.54	
From:	8	Inst. Ht: 5.22	Target Ht: 4.89	
	Hz: 277 29 04.0	Vt: 88 38 42.5	Dist: 423.53	
Averages:	277 29 04.0	88 38 42.5	423.53	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999593			
Traverse S 9	84 43 34.6 W	Hz. Dist: 423.41	Vt. Dist: 10.35	
From:	9	Inst. Ht: 5.04	Target Ht: 4.57	
	Hz: 124 23 27.0	Vt: 86 45 09.5	Dist: 386.63	
Averages:	124 23 27.0	86 45 09.5	386.63	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999521			
Traverse S 10	29 07 01.6 W	Hz. Dist: 386.01	Vt. Dist: 22.37	
From:	10	Inst. Ht: 5.28	Target Ht: 4.29	
	Hz: 203 44 19.5	Vt: 86 18 14.5	Dist: 1320.92	
Averages:	203 44 19.5	86 18 14.5	1320.92	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999279			
Traverse S 11	52 51 21.2 W	Hz. Dist: 1318.16	Vt. Dist: 86.18	
From:	11	Inst. Ht: 5.22	Target Ht: 4.55	
	Hz: 178 39 22.6	Vt: 86 21 48.5	Dist: 1868.75	

Point	Descriptor	NORTH	EAST	ELEV
Averages:	178 39 22.6	86 21 48.5		1868.75
Std Deviation:	00 00 00.0	00 00 00.0		0.00
Scale Factor:	0.99998815			
Traverse S 51 30 43.8 W		Hz. Dist: 1864.96		Vt. Dist: 119.27
15				
From:	15	Inst. Ht: 5.11		Target Ht: 5.06
	Hz: 118 48 42.0	Vt: 89 33 42.0		Dist: 755.72
Averages:	118 48 42.0	89 33 42.0		755.72
Std Deviation:	00 00 00.0	00 00 00.0		0.00
Scale Factor:	0.99998542			
Traverse S 9 40 34.2 E		Hz. Dist: 755.69		Vt. Dist: 5.84
16				
From:	16	Inst. Ht: 5.22		Target Ht: 4.60
	Hz: 142 37 30.0	Vt: 90 47 14.5		Dist: 652.52
Averages:	142 37 30.0	90 47 14.5		652.52
Std Deviation:	00 00 00.0	00 00 00.0		0.00
Scale Factor:	0.99998567			
Traverse S 47 03 04.2 E		Hz. Dist: 652.45		Vt. Dist: -8.34
18				
From:	18	Inst. Ht: 5.08		Target Ht: 4.34
	Hz: 175 02 28.9	Vt: 91 30 47.5		Dist: 1405.31
Averages:	175 02 28.9	91 30 47.5		1405.31
Std Deviation:	00 00 00.0	00 00 00.0		0.00
Scale Factor:	0.99998694			
Traverse S 52 00 35.3 E		Hz. Dist: 1404.80		Vt. Dist: -36.33
19				
From:	19	Inst. Ht: 5.13		Target Ht: 5.10
	Hz: 185 35 10.0	Vt: 88 54 38.5		Dist: 1128.98
Averages:	185 35 10.0	88 54 38.5		1128.98
Std Deviation:	00 00 00.0	00 00 00.0		0.00
Scale Factor:	0.99998752			
Traverse S 46 25 25.3 E		Hz. Dist: 1128.76		Vt. Dist: 21.52
20				
From:	20	Inst. Ht: 5.04		Target Ht: 4.87
	Hz: 170 08 24.5	Vt: 90 29 51.0		Dist: 531.19
Averages:	170 08 24.5	90 29 51.0		531.19
Std Deviation:	00 00 00.0	00 00 00.0		0.00
Scale Factor:	0.99998728			
Traverse S 56 17 00.9 E		Hz. Dist: 531.16		Vt. Dist: -4.44
21				
From:	21	Inst. Ht: 5.10		Target Ht: 4.61

Point	Descriptor	NORTH	EAST	ELEV
	Hz: 86 32 38.0	Vt: 92 58 56.0	Dist: 708.98	
Averages:	86 32 38.0	92 58 56.0	708.98	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998821			
Traverse N 30 15 37.1 E 22		HZ. Dist: 708.01		Vt. Dist: -36.39
From: 22		Inst. Ht: 4.93		Target Ht: 4.43
	Hz: 239 30 04.0	Vt: 95 09 44.0	Dist: 448.43	
Averages:	239 30 04.0	95 09 44.0	448.43	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998994			
Traverse N 89 45 41.1 E 23		HZ. Dist: 446.61		Vt. Dist: -39.84
From: 23		Inst. Ht: 4.93		Target Ht: 5.03
	Hz: 147 03 51.5	Vt: 88 47 08.5	Dist: 924.41	
Averages:	147 03 51.5	88 47 08.5	924.41	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999034			
Traverse N 56 49 32.5 E 24		HZ. Dist: 924.19		Vt. Dist: 19.51
From: 24		Inst. Ht: 5.03		Target Ht: 4.83
	Hz: 185 33 09.0	Vt: 90 19 07.5	Dist: 444.10	
Averages:	185 33 09.0	90 19 07.5	444.10	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998983			
Traverse N 62 22 41.5 E 25		HZ. Dist: 444.09		Vt. Dist: -2.27
From: 25		Inst. Ht: 4.75		Target Ht: 3.37
	Hz: 301 30 40.0	Vt: 98 47 21.0	Dist: 332.47	
Averages:	301 30 40.0	98 47 21.0	332.47	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999111			
Traverse S 3 53 21.5 W 26		HZ. Dist: 328.56		Vt. Dist: -49.42
From: 26		Inst. Ht: 3.65		Target Ht: 3.75
	Hz: 39 34 48.0	Vt: 91 52 16.0	Dist: 449.09	
	Hz: 39 34 46.5	Vt: 91 52 20.0	Dist: 449.09	
Averages:	39 34 47.2	91 52 18.0	449.09	
Std Deviation:	00 00 01.1	00 00 02.3	0.00	
Scale Factor:	0.99999261			
Traverse N 43 28 08.8 E 28		HZ. Dist: 448.85		Vt. Dist: -14.76

Point	Descriptor	NORTH	EAST	ELEV
	Hz: 180 41 45.1	Vt: 90 43 56.0	Dist: 1472.09	
	Hz: 180 41 47.6	Vt: 90 44 00.5	Dist: 1472.09	
Averages:	180 41 46.3	90 43 58.3	1472.09	
Std Deviation:	00 00 01.8	00 00 02.6	0.00	
Scale Factor:	1.00000050			

Traverse N 45 24 40.7 W Hz. Dist: 1471.97 Vt. Dist: -18.98
37

From: 37 Inst. Ht: 5.19 Target Ht: 6.73
 Hz: 160 09 22.5 Vt: 90 33 21.0 Dist: 939.33
 Hz: 160 09 20.0 Vt: 90 33 00.0 Dist: 939.33
 Averages: 160 09 21.3 90 33 10.5 939.33
 Std Deviation: 00 00 01.8 00 00 12.1 0.00
 Scale Factor: 1.00000098

Traverse N 65 15 19.4 W Hz. Dist: 939.29 Vt. Dist: -10.59
38

Closing Point:
1 4041449.8200 4181570.6500 94.8470
Ref. Line: N 00 00 00.0 E

Misclosure:
 Closing Angle:
 Hz. Direction: N 71 24 24.5 E
 Hz. Distance: 0.17
 Vt. Distance: -0.88

Traverse Closure:
 Length of Traverse: 26968.47
 Angular Error: - 65 15 19.4
 Precision: 157742.50

Angle Balance: OFF
 Horizontal Adjustment: L SQUARE
 Vertical Adjustment: ON
 Standard Errors:
 Angles: 00 00 01.5
 Distances: +/- 0.01 + 2 ppm

ADJUSTED COORDINATES

1		4041449.8200	4181570.6500	94.8470
From:	1			
Traverse	S 00 52 41.5 E	Hz. Dist: 2000.42	Vt. Dist: 56.96	
4		4039449.6328	4181601.3103	151.8030
From:	4			
Traverse	S 79 54 00.1 E	Hz. Dist: 999.24	Vt. Dist: -1.41	
5		4039274.3997	4182585.0649	150.3908
From:	5			

Point	Descriptor	NORTH	EAST	ELEV
Traverse 6	S 00 12 37.5 W	Hz. Dist: 825.75 4038448.6523	Vt. Dist: 4182582.0323	25.12 175.5062
From: Traverse 7	6 S 7 07 05.7 W	Hz. Dist: 318.81 4038132.2995	Vt. Dist: 4182542.5261	15.09 190.5957
From: Traverse 8	7 S 12 45 31.5 E	Hz. Dist: 482.28 4037661.9261	Vt. Dist: 4182649.0363	31.55 222.1479
From: Traverse 9	8 S 84 43 32.3 W	Hz. Dist: 423.41 4037623.0043	Vt. Dist: 4182227.4206	10.36 232.5096
From: Traverse 10	9 S 29 06 59.1 W	Hz. Dist: 386.01 4037285.7769	Vt. Dist: 4182039.5957	22.39 254.8966
From: Traverse 11	10 S 52 51 18.5 W	Hz. Dist: 1318.16 4036489.8300	Vt. Dist: 4180988.8763	86.22 341.1146
From: Traverse 15	11 S 51 30 40.9 W	Hz. Dist: 1864.96 4035329.1556	Vt. Dist: 4179529.1147	119.33 460.4457
From: Traverse 16	15 S 9 40 37.2 E	Hz. Dist: 755.69 4034584.2221	Vt. Dist: 4179656.1408	5.87 466.3135
From: Traverse 18	16 S 47 03 07.3 E	Hz. Dist: 652.45 4034139.6859	Vt. Dist: 4180133.7160	-8.32 457.9969
From: Traverse 19	18 S 52 00 38.3 E	Hz. Dist: 1404.80 4033275.0079	Vt. Dist: 4181240.8766	-36.28 421.7130
From: Traverse 20	19 S 46 25 28.0 E	Hz. Dist: 1128.76 4032496.9407	Vt. Dist: 4182058.6264	21.56 443.2688
From: Traverse 21	20 S 56 17 03.2 E	Hz. Dist: 531.16 4032202.1056	Vt. Dist: 4182500.4492	-4.42 438.8497
From:	21			

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Point	Descriptor	NORTH	EAST	ELEV
Traverse 22	N 30 15 35.3 E	Hz. Dist: 708.01 4032813.6518	Vt. Dist: 4182857.2326	-36.36 402.4876
From: Traverse 23	22 N 89 45 39.7 E	Hz. Dist: 446.61 4032815.5146	Vt. Dist: 4183303.8371	-39.83 362.6583
From: Traverse 24	23 N 56 49 31.6 E	Hz. Dist: 924.19 4033321.2264	Vt. Dist: 4184077.3950	19.54 382.1961
From: Traverse 25	24 N 62 22 41.0 E	Hz. Dist: 444.09 4033527.1223	Vt. Dist: 4184470.8705	-2.25 379.9440
From: Traverse 26	25 S 3 53 21.5 W	Hz. Dist: 328.56 4033199.3165	Vt. Dist: 4184448.5845	-49.41 330.5359
From: Traverse 28	26 N 43 28 09.2 E	Hz. Dist: 448.85 4033525.0658	Vt. Dist: 4184757.3766	-14.75 315.7870
From: Traverse 31	28 N 1 39 03.1 E	Hz. Dist: 1833.34 4035357.6414	Vt. Dist: 4184810.1935	-74.05 241.7378
From: Traverse 32	31 N 48 14 19.6 E	Hz. Dist: 739.92 4035850.4492	Vt. Dist: 4185362.1204	-38.49 203.2508
From: Traverse 33	32 N 52 15 31.1 E	Hz. Dist: 437.08 4036117.9838	Vt. Dist: 4185707.7539	-10.40 192.8532
From: Traverse 35	33 N 20 50 09.3 E	Hz. Dist: 1373.98 4037402.1083	Vt. Dist: 4186196.4683	-47.92 144.9346
From: Traverse 36	35 N 46 06 25.3 W	Hz. Dist: 3780.68 4040023.3075	Vt. Dist: 4183471.9706	-20.60 124.3387
From: Traverse 37	36 N 45 24 39.4 W	Hz. Dist: 1471.97 4041056.6559	Vt. Dist: 4182423.6921	-18.94 105.4028
From: Traverse	37 N 65 15 18.7 W	Hz. Dist: 939.29	Vt. Dist:	-10.56

Point	Descriptor	NORTH	EAST	ELEV
38		4041449.8200	4181570.6500	94.8470
SIDESHOTS FROM ADJUSTED COORDINATES				

From: 1 6.59
 Averages: 00 00 00.1 90 29 46.0 2283.00
 Std Deviation: 00 00 00.0 00 00 00.0 0.00
 Scale Factor: 1.00000151
 Sideshot N 64 42 38.9 W Hz. Dist: 2282.92 Vt. Dist: -18.26
 2 4042425.0536 4179506.5188 76.5865

From: 6 5.11
 Hz: 277 09 26.0 Vt: 89 44 42.5 Dist: 217.16
 Averages: 277 09 26.0 89 44 42.5 217.16
 Std Deviation: 00 00 00.0 00 00 00.0 0.00
 Scale Factor: 0.99999814
 Sideshot N 82 37 56.5 W Hz. Dist: 217.16 Vt. Dist: 1.14
 201 4038476.4996 4182366.6678 176.6431

From: 7 5.21
 Hz: 158 07 36.5 Vt: 86 06 14.5 Dist: 399.76
 Averages: 158 07 36.5 86 06 14.5 399.76
 Std Deviation: 00 00 00.0 00 00 00.0 0.00
 Scale Factor: 0.99999694
 Sideshot S 14 45 17.8 E Hz. Dist: 398.83 Vt. Dist: 27.60
 202 4037746.6168 4182644.1034 218.1907

From: 8 5.22
 Hz: 274 25 15.5 Vt: 88 49 14.0 Dist: 271.33
 Averages: 274 25 15.5 88 49 14.0 271.33
 Std Deviation: 00 00 00.0 00 00 00.0 0.00
 Scale Factor: 0.99999603
 Sideshot S 81 39 44.0 W Hz. Dist: 271.27 Vt. Dist: 5.86
 203 4037622.5894 4182380.6321 228.0044

From: 9 5.04
 Hz: 276 30 20.5 Vt: 92 41 14.0 Dist: 340.25
 Averages: 276 30 20.5 92 41 14.0 340.25
 Std Deviation: 00 00 00.0 00 00 00.0 0.00
 Scale Factor: 0.99999601
 Sideshot N 1 13 52.8 E Hz. Dist: 339.87 Vt. Dist: -15.71
 204 4037962.8004 4182234.7243 216.7998

Hz: 284 32 04.0 Vt: 92 50 13.0 Dist: 140.80
 Averages: 284 32 04.0 92 50 13.0 140.80
 Std Deviation: 00 00 00.0 00 00 00.0 0.00
 Scale Factor: 0.99999582
 Sideshot N 9 15 36.3 E Hz. Dist: 140.63 Vt. Dist: -6.83
 205 4037761.7985 4182250.0498 225.6813
 Hz: 235 51 59.0 Vt: 93 16 56.5 Dist: 128.85

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Point	Descriptor	NORTH	EAST	ELEV
Averages:	235 51 59.0	93 16 56.5	128.85	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999584			
Sideshot	N 39 24 28.7 W	Hz. Dist: 128.64	Vt. Dist: -7.57	
206		4037722.3959	4182145.7563	224.9424
	Hz: 141 38 23.5	Vt: 87 52 25.0	Dist: 178.28	
Averages:	141 38 23.5	87 52 25.0	178.28	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999553			
Sideshot	S 46 21 55.8 W	Hz. Dist: 178.15	Vt. Dist: 6.25	
207		4037500.0699	4182098.4824	238.7549
From:	10	5.28		
	Hz: 299 53 20.0	Vt: 92 22 16.0	Dist: 285.07	
Averages:	299 53 20.0	92 22 16.0	285.07	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999495			
Sideshot	N 30 59 40.9 W	Hz. Dist: 284.82	Vt. Dist: -11.39	
208		4037529.9328	4181892.9228	243.5044
	Hz: 304 21 29.5	Vt: 93 52 33.5	Dist: 195.12	
Averages:	304 21 29.5	93 52 33.5	195.12	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999499			
Sideshot	N 26 31 31.4 W	Hz. Dist: 194.67	Vt. Dist: -13.04	
209		4037459.9578	4181952.6559	241.8579
	Hz: 318 30 11.5	Vt: 94 54 12.5	Dist: 117.35	
Averages:	318 30 11.5	94 54 12.5	117.35	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999492			
Sideshot	N 12 22 49.4 W	Hz. Dist: 116.92	Vt. Dist: -9.89	
210		4037399.9780	4182014.5279	245.0061
	Hz: 281 53 29.0	Vt: 93 01 48.0	Dist: 55.01	
Averages:	281 53 29.0	93 01 48.0	55.01	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999477			
Sideshot	N 48 59 31.9 W	Hz. Dist: 54.93	Vt. Dist: -2.74	
211		4037321.8217	4181998.1422	252.1589
	Hz: 205 21 58.0	Vt: 87 15 26.5	Dist: 135.35	
Averages:	205 21 58.0	87 15 26.5	135.35	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999456			
Sideshot	S 54 28 57.1 W	Hz. Dist: 135.19	Vt. Dist: 6.67	
212		4037207.2357	4181929.5559	261.5634
	Hz: 199 59 07.5	Vt: 86 44 52.0	Dist: 223.92	
Averages:	199 59 07.5	86 44 52.0	223.92	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999442			
Sideshot	S 49 06 06.6 W	Hz. Dist: 223.56	Vt. Dist: 12.85	

Point	Descriptor	NORTH	EAST	ELEV
213		4037139.4098	4181870.6138	267.7509
	Hz: 200 40 30.5	Vt: 86 35 21.5	Dist: 394.53	
Averages:	200 40 30.5	86 35 21.5	394.53	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999418			
Sideshot	S 49 47 29.6 W	Hz. Dist: 393.83	Vt. Dist: 24.11	
214		4037031.5329	4181738.8283	279.0114
From:	11	5.02		
	Hz: 154 34 41.5	Vt: 86 43 05.5	Dist: 447.32	
Averages:	154 34 41.5	86 43 05.5	447.32	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999025			
Sideshot	S 27 26 00.0 W	Hz. Dist: 446.58	Vt. Dist: 25.70	
215		4036093.4674	4180783.1289	366.8164
	Hz: 228 01 01.0	Vt: 82 16 55.5	Dist: 325.30	
Averages:	228 01 01.0	82 16 55.5	325.30	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998975			
Sideshot	N 79 07 40.5 W	Hz. Dist: 322.35	Vt. Dist: 44.51	
12		4036550.6306	4180672.3127	385.6233
From:	12	5.00		
	Hz: 261 47 04.5	Vt: 92 07 03.5	Dist: 144.08	
Averages:	261 47 04.5	92 07 03.5	144.08	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998877			
Sideshot	N 2 39 24.0 E	Hz. Dist: 143.98	Vt. Dist: -4.74	
216		4036694.4558	4180678.9863	380.8797
	Hz: 252 31 39.5	Vt: 90 25 25.0	Dist: 524.30	
Averages:	252 31 39.5	90 25 25.0	524.30	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998868			
Sideshot	N 6 36 01.0 W	Hz. Dist: 524.28	Vt. Dist: -2.92	
13		4037071.4355	4180612.0509	382.7026
From:	13	5.05		
	Hz: 207 07 50.5	Vt: 94 58 40.0	Dist: 203.35	
Averages:	207 07 50.5	94 58 40.0	203.35	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998904			
Sideshot	N 20 31 49.5 E	Hz. Dist: 202.58	Vt. Dist: -16.13	
14		4037261.1497	4180683.0970	366.5689
From:	13	5.39		
	Hz: 178 56 42.0	Vt: 100 53 44.5	Dist: 549.46	
Averages:	178 56 42.0	100 53 44.5	549.46	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	

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Point	Descriptor	NORTH	EAST	ELEV
Scale Factor:	0.99999106			
Sideshot 217	N 7 39 19.0 W	Hz. Dist: 539.55 4037606.1779	Vt. Dist: -104.16 4180540.1759	278.5387
From:	14	5.02		
Averages:	Hz: 67 56 41.0	Vt: 95 27 08.0	Dist: 676.96	
Std Deviation:	67 56 41.0	95 27 08.0	676.96	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999091			
Sideshot 218	S 88 28 30.5 W	Hz. Dist: 673.89 4037243.2170	Vt. Dist: -64.89 4180009.4436	301.6764
Averages:	Hz: 105 15 38.5	Vt: 95 11 12.0	Dist: 975.59	
Std Deviation:	105 15 38.5	95 11 12.0	975.59	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999139			
Sideshot 219	N 54 12 32.0 W	Hz. Dist: 971.59 4037829.3658	Vt. Dist: -88.52 4179894.9883	278.0442
From:	15	5.11		
Averages:	Hz: 201 22 06.5	Vt: 84 32 35.5	Dist: 565.31	
Std Deviation:	201 22 06.5	84 32 35.5	565.31	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998418			
Sideshot 17	S 72 52 47.4 W	Hz. Dist: 562.74 4035163.4985	Vt. Dist: 53.68 4178991.3114	514.1306
From:	17	4.98		
Averages:	Hz: 153 22 23.5	Vt: 87 43 37.5	Dist: 77.40	
Std Deviation:	153 22 23.5	87 43 37.5	77.40	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998285			
Sideshot 220	S 46 15 10.9 W	Hz. Dist: 77.34 4035110.0214	Vt. Dist: 3.97 4178935.4425	518.1003
From:	16	5.22		
Averages:	Hz: 250 11 10.0	Vt: 85 44 48.0	Dist: 451.86	
Std Deviation:	250 11 10.0	85 44 48.0	451.86	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998461			
Sideshot 221	S 60 30 32.8 W	Hz. Dist: 450.61 4034362.3943	Vt. Dist: 34.68 4179263.9161	500.9906
From:	19	5.13		
Averages:	Hz: 177 56 06.0	Vt: 88 47 15.0	Dist: 138.08	
Std Deviation:	177 56 06.0	88 47 15.0	138.08	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998784			
Sideshot 222	S 54 04 32.3 E	Hz. Dist: 138.05 4033194.0132	Vt. Dist: 3.15 4181352.6663	424.8652

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Point	Descriptor	NORTH	EAST	ELEV
From:	21	5.10		
	Hz: 10 59 35.0	Vt: 89 57 05.0	Dist: 126.67	
Averages:	10 59 35.0	89 57 05.0	126.67	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998739			
Sideshot	N 45 17 28.2 W	Hz. Dist: 126.67	Vt. Dist: 0.48	
223		4032291.2173	4182410.4272	439.3275
	Hz: 196 14 19.5	Vt: 90 53 26.0	Dist: 449.61	
Averages:	196 14 19.5	90 53 26.0	449.61	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998762			
Sideshot	S 40 02 43.7 E	Hz. Dist: 449.55	Vt. Dist: -2.33	
224		4031857.9596	4182789.6877	436.5158
From:	22	4.93		
	Hz: 105 27 44.0	Vt: 86 13 45.0	Dist: 119.35	
Averages:	105 27 44.0	86 13 45.0	119.35	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99998876			
Sideshot	N 44 16 40.7 W	Hz. Dist: 119.09	Vt. Dist: 8.32	
225		4032898.9158	4182774.0909	410.8070
From:	23	4.93		
	Hz: 297 45 32.0	Vt: 92 32 34.0	Dist: 172.79	
Averages:	297 45 32.0	92 32 34.0	172.79	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999107			
Sideshot	S 27 31 11.7 W	Hz. Dist: 172.62	Vt. Dist: -7.54	
226		4032662.4280	4183224.0776	355.1231
From:	25	4.75		
	Hz: 100 38 28.5	Vt: 99 14 58.0	Dist: 243.47	
Averages:	100 38 28.5	99 14 58.0	243.47	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999072			
Sideshot	N 16 58 50.5 W	Hz. Dist: 240.30	Vt. Dist: -38.53	
227		4033756.9482	4184400.6903	341.4116
From:	26	3.65		
	Hz: 184 50 09.0	Vt: 84 55 20.5	Dist: 86.69	
Averages:	184 50 09.0	84 55 20.5	86.69	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999211			
Sideshot	S 8 43 30.5 W	Hz. Dist: 86.35	Vt. Dist: 6.03	
228		4033113.9667	4184435.4858	336.5686
	Hz: 119 19 33.0	Vt: 87 56 56.0	Dist: 444.55	
Averages:	119 19 34.0	87 56 53.5	Dist: 444.55	
	119 19 33.5	87 56 54.8	444.55	

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Point	Descriptor	NORTH	EAST	ELEV

Std Deviation:	00 00 00.7	00 00 01.4	0.00	
Scale Factor:	0.99999194			
Sideshot	S 56 47 05.0 E	Hz. Dist: 444.26	Vt. Dist: 15.00	
27		4032955.9563	4184820.2617	345.5335
From:	27	5.01		
	Hz: 156 11 55.0	Vt: 86 39 32.0	Dist: 265.28	
	Hz: 156 11 55.0	Vt: 86 39 28.5	Dist: 265.28	
Averages:	156 11 55.0	86 39 30.3	265.28	
Std Deviation:	00 00 00.0	00 00 02.0	0.00	
Scale Factor:	0.99999128			
Sideshot	S 80 35 10.1 E	Hz. Dist: 264.83	Vt. Dist: 15.79	
29		4032912.6400	4185081.5217	361.3278
From:	29	5.10		
	Hz: 166 29 03.5	Vt: 87 11 20.0	Dist: 507.11	
	Hz: 166 28 59.5	Vt: 87 11 20.0	Dist: 507.11	
Averages:	166 29 01.5	87 11 20.0	507.11	
Std Deviation:	00 00 02.8	00 00 00.0	0.00	
Scale Factor:	0.99999030			
Sideshot	N 85 53 51.4 E	Hz. Dist: 506.49	Vt. Dist: 25.40	
30		4032948.8740	4185586.7186	386.7235
From:	30	5.29		
	Hz: 95 28 17.0	Vt: 89 44 11.0	Dist: 86.19	
	Hz: 95 28 21.5	Vt: 89 44 10.5	Dist: 86.19	
Averages:	95 28 19.2	89 44 10.8	86.19	
Std Deviation:	00 00 03.2	00 00 00.3	0.00	
Scale Factor:	0.99998965			
Sideshot	N 1 22 10.7 E	Hz. Dist: 86.19	Vt. Dist: 1.40	
229		4033035.0376	4185588.7787	388.1203
From:	31	5.15		
	Hz: 56 45 55.5	Vt: 86 32 22.0	Dist: 325.87	
	Hz: 56 45 52.0	Vt: 86 32 22.0	Dist: 325.87	
Averages:	56 45 53.7	86 32 22.0	325.87	
Std Deviation:	00 00 02.5	00 00 00.0	0.00	
Scale Factor:	0.99999545			
Sideshot	S 58 24 56.9 W	Hz. Dist: 325.27	Vt. Dist: 20.21	
230		4035187.2788	4184533.1017	261.9500
	Hz: 359 09 41.0	Vt: 88 37 32.0	Dist: 389.55	
	Hz: 359 09 41.5	Vt: 88 37 32.5	Dist: 389.55	
Averages:	359 09 41.2	88 37 32.2	389.55	
Std Deviation:	00 00 00.4	00 00 00.3	0.00	
Scale Factor:	0.99999573			
Sideshot	S 00 48 44.4 W	Hz. Dist: 389.44	Vt. Dist: 10.12	
231		4034968.2444	4184804.6723	251.8543
	Hz: 266 58 26.5	Vt: 81 58 54.0	Dist: 295.49	
	Hz: 266 58 28.0	Vt: 81 58 54.5	Dist: 295.49	

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Point	Descriptor	NORTH	EAST	ELEV
Averages:	266 58 27.2	81 58 54.2		295.49
Std Deviation:	00 00 01.1	00 00 00.3		0.00
Scale Factor:	0.99999491			
Sideshot	N 88 37 30.4 E	Hz. Dist: 292.60	Vt. Dist: 41.93	
232		4035364.6621	4185102.7087	283.6671
From:	33	5.08		
	Hz: 151 55 08.5	Vt: 92 29 56.0	Dist: 249.91	
	Hz: 151 55 08.0	Vt: 92 29 55.5	Dist: 249.91	
Averages:	151 55 08.2	92 29 55.7		249.91
Std Deviation:	00 00 00.4	00 00 00.3		0.00
Scale Factor:	0.99999824			
Sideshot	N 24 10 39.3 E	Hz. Dist: 249.67	Vt. Dist: -10.57	
34		4036345.7547	4185810.0111	182.2787
From:	34	5.03		
	Hz: 102 50 00.0	Vt: 90 48 57.0	Dist: 177.33	
	Hz: 102 50 00.5	Vt: 90 48 57.5	Dist: 177.33	
Averages:	102 50 00.2	90 48 57.2		177.33
Std Deviation:	00 00 00.4	00 00 00.3		0.00
Scale Factor:	0.99999849			
Sideshot	N 52 59 20.4 W	Hz. Dist: 177.31	Vt. Dist: -2.14	
233		4036452.4907	4185668.4241	180.1343

Date: 12-03-92
Time: 11:55:56
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FIELD DATA COMPILER

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Field Data File: PV2.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 10 N 29 06 59.1 E				
Backsight Point: 9				
Scale Factor: Computed				
10		4037285.7769	4182039.5957	254.8966
From:	10	Inst. Ht: 5.41	Target Ht: 4.69	
	Hz: 150 52 44.0	Vt: 86 08 46.0	Dist: 106.08	
	Hz: 150 52 46.5	Vt: 86 08 49.5	Dist: 106.08	
Averages:	150 52 45.3	86 08 47.8	106.08	
Std Deviation:	00 00 01.8	00 00 02.0	0.00	
Scale Factor:	0.99999455			
Traverse S 00 00 15.6 E		Hz. Dist: 105.84	Vt. Dist: 7.85	
39				
From:	39	Inst. Ht: 5.13	Target Ht: 4.45	
	Hz: 220 31 41.5	Vt: 86 38 20.5	Dist: 175.38	
	Hz: 220 31 42.0	Vt: 86 38 21.0	Dist: 175.38	
Averages:	220 31 41.8	86 38 20.7	175.38	
Std Deviation:	00 00 00.4	00 00 00.3	0.00	
Scale Factor:	0.99999413			
Traverse S 40 31 26.1 W		Hz. Dist: 175.08	Vt. Dist: 10.96	
40				
From:	40	Inst. Ht: 5.00	Target Ht: 5.43	
	Hz: 47 47 07.0	Vt: 79 57 05.0	Dist: 55.48	
	Hz: 47 47 07.5	Vt: 79 57 04.0	Dist: 55.48	
Averages:	47 47 07.3	79 57 04.5	55.48	
Std Deviation:	00 00 00.4	00 00 00.6	0.00	
Scale Factor:	0.99999364			

 Point Descriptor NORTH EAST ELEV

 Traverse N 88 18 33.4 E Hz. Dist: 54.63 Vt. Dist: 9.25
 41

From: 41 Inst. Ht: 4.85 Target Ht: 4.75
 Hz: 165 25 08.0 Vt: 85 55 41.0 Dist: 336.73
 Hz: 165 25 07.0 Vt: 85 55 38.5 Dist: 336.73
 Averages: 165 25 07.5 85 55 39.7 336.73
 Std Deviation: 00 00 00.7 00 00 01.4 0.00
 Scale Factor: 0.99999284

Traverse N 73 43 40.9 E Hz. Dist: 335.88 Vt. Dist: 24.02
 42

From: 42 Inst. Ht: 5.10 Target Ht: 5.25
 Hz: 246 00 24.5 Vt: 85 38 36.0 Dist: 363.85
 Hz: 246 00 22.5 Vt: 85 38 37.5 Dist: 363.85
 Averages: 246 00 23.5 85 38 36.7 363.85
 Std Deviation: 00 00 01.4 00 00 00.9 0.00
 Scale Factor: 0.99999163

Traverse S 40 15 55.7 E Hz. Dist: 362.80 Vt. Dist: 27.49
 43

From: 43 Inst. Ht: 4.86 Target Ht: 4.77
 Hz: 171 19 55.5 Vt: 92 26 52.0 Dist: 325.03
 Hz: 171 19 59.0 Vt: 92 26 55.5 Dist: 325.03
 Averages: 171 19 57.2 92 26 53.7 325.03
 Std Deviation: 00 00 02.5 00 00 02.0 0.00
 Scale Factor: 0.99999138

Traverse S 48 55 58.4 E Hz. Dist: 324.73 Vt. Dist: -13.79
 44

From: 44 Inst. Ht: 5.30 Target Ht: 5.71
 Hz: 184 15 52.4 Vt: 89 47 57.0 Dist: 1908.76
 Hz: 184 15 50.4 Vt: 89 48 00.5 Dist: 1908.76
 Averages: 184 15 51.4 89 47 58.8 1908.76
 Std Deviation: 00 00 01.4 00 00 02.0 0.00
 Scale Factor: 0.99999177

Traverse S 44 40 07.0 E Hz. Dist: 1908.73 Vt. Dist: 6.34
 45

From: 45 Inst. Ht: 4.90 Target Ht: 5.50
 Hz: 180 42 12.5 Vt: 101 00 07.0 Dist: 245.78
 Hz: 180 42 07.5 Vt: 101 00 05.0 Dist: 245.78
 Averages: 180 42 10.0 101 00 06.0 245.78
 Std Deviation: 00 00 03.5 00 00 01.2 0.00
 Scale Factor: 0.99999298

Traverse S 43 57 57.0 E Hz. Dist: 241.26 Vt. Dist: -47.50
 46

From: 46 Inst. Ht: 5.23 Target Ht: 4.91

Point	Descriptor	NORTH	EAST	ELEV
	Hz: 274 46 44.5	Vt: 86 12 27.0	Dist: 1021.84	
	Hz: 274 46 46.0	Vt: 86 12 25.0	Dist: 1021.84	
Averages:	274 46 45.3	86 12 26.0	1021.84	
Std Deviation:	00 00 01.1	00 00 01.2	0.00	
Scale Factor:	0.99999263			

Traverse S 50 48 48.2 W Hz. Dist: 1019.59 Vt. Dist: 67.93
47

From:	47	Inst. Ht: 5.04	Target Ht: 4.92
	Hz: 180 40 58.0	Vt: 88 17 33.0	Dist: 663.41
	Hz: 180 40 57.0	Vt: 88 17 36.0	Dist: 663.41
Averages:	180 40 57.5	88 17 34.5	663.41
Std Deviation:	00 00 00.7	00 00 01.7	0.00
Scale Factor:	0.99999068		

Traverse S 51 29 45.8 W Hz. Dist: 663.11 Vt. Dist: 19.89
48

From:	48	Inst. Ht: 5.02	Target Ht: 4.76
	Hz: 210 33 46.1	Vt: 88 07 38.0	Dist: 1397.39
	Hz: 210 33 46.6	Vt: 88 07 37.0	Dist: 1397.39
Averages:	210 33 46.3	88 07 37.5	1397.39
Std Deviation:	00 00 00.4	00 00 00.6	0.00
Scale Factor:	0.99998920		

Traverse S 82 03 32.1 W Hz. Dist: 1396.63 Vt. Dist: 45.97
49

From:	49	Inst. Ht: 4.93	Target Ht: 4.71
	Hz: 150 17 50.0	Vt: 87 49 41.0	Dist: 270.39
	Hz: 150 17 47.5	Vt: 87 49 40.0	Dist: 270.39
Averages:	150 17 48.8	87 49 40.5	270.39
Std Deviation:	00 00 01.8	00 00 00.6	0.00
Scale Factor:	0.99998790		

Traverse S 52 21 20.9 W Hz. Dist: 270.19 Vt. Dist: 10.47
50

From:	50	Inst. Ht: 5.06	Target Ht: 5.03
	Hz: 146 07 42.0	Vt: 90 12 44.0	Dist: 454.85
	Hz: 146 07 45.0	Vt: 90 12 43.5	Dist: 454.85
Averages:	146 07 43.5	90 12 43.7	454.85
Std Deviation:	00 00 02.1	00 00 00.3	0.00
Scale Factor:	0.99998778		

Traverse S 18 29 04.4 W Hz. Dist: 454.84 Vt. Dist: -1.65
51

Closing Point:
19 4033275.0079 4181240.8766 421.7130
Ref. Line: N 00 00 00.0 E

Misclosure:
Closing Angle:

Point	Descriptor	NORTH	EAST	ELEV
	Hz. Direction:	N 28 06 24.1 W		
	Hz. Distance:	0.12		
	Vt. Distance:	0.41		
	Traverse Closure:			
	Length of Traverse:	7313.31		
	Angular Error:	-161 30 55.6		
	Precision:	58832.60		

Angle Balance: OFF
 Horizontal Adjustment: L SQUARE
 Vertical Adjustment: ON
 Standard Errors:
 Angles: 00 00 01.5
 Distances: +/- 0.01 + 2 ppm

ADJUSTED COORDINATES

10	9		4037285.7769	4182039.5957	254.8966
From:	10				
Traverse	S 00 00 15.6 E	Hz. Dist:	105.83	Vt. Dist:	7.84
39			4037179.9460	4182039.6036	262.7398
From:	39				
Traverse	S 40 31 26.2 W	Hz. Dist:	175.07	Vt. Dist:	10.95
40			4037046.8676	4181925.8477	273.6923
From:	40				
Traverse	N 88 18 33.3 E	Hz. Dist:	54.63	Vt. Dist:	9.25
41			4037048.4793	4181980.4502	282.9397
From:	41				
Traverse	N 73 43 40.7 E	Hz. Dist:	335.88	Vt. Dist:	24.00
42			4037142.5914	4182302.8729	306.9360
From:	42				
Traverse	S 40 15 55.6 E	Hz. Dist:	362.79	Vt. Dist:	27.47
43			4036865.7643	4182537.3525	334.4067
From:	43				
Traverse	S 48 55 57.9 E	Hz. Dist:	324.72	Vt. Dist:	-13.81
44			4036652.4398	4182782.1733	320.5962
From:	44				
Traverse	S 44 40 06.0 E	Hz. Dist:	1908.72	Vt. Dist:	6.23
45			4035294.9822	4184124.0049	326.8278
From:	45				
Traverse	S 43 57 54.6 E	Hz. Dist:	241.25	Vt. Dist:	-47.52
46			4035121.3374	4184291.4878	279.3113
From:	46				

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Point	Descriptor	NORTH	EAST	ELEV
Traverse 47	S 50 48 52.2 W	Hz. Dist: 1019.59 4034477.1277	Vt. Dist: 67.88 4183501.2006	347.1880
From: Traverse 48	47 S 51 29 50.3 W	Hz. Dist: 663.10 4034064.3108	Vt. Dist: 19.85 4182982.2686	367.0425
From: Traverse 49	48 S 82 03 36.7 W	Hz. Dist: 1396.63 4033871.3905	Vt. Dist: 45.89 4181599.0279	412.9343
From: Traverse 50	49 S 52 21 24.2 W	Hz. Dist: 270.19 4033706.3743	Vt. Dist: 10.45 4181385.0846	423.3886
From: Traverse 51	50 S 18 29 06.2 W	Hz. Dist: 454.83 4033275.0079	Vt. Dist: -1.68 4181240.8766	421.7130

SIDESHOTS FROM ADJUSTED COORDINATES

From:	10	5.41		
	Hz: 67 14 54.5	Vt: 90 20 43.0	Dist: 95.61	
Averages:	67 14 54.5	90 20 43.0	95.61	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999472			
Sideshot 234	S 83 38 06.4 E	Hz. Dist: 95.61 4037275.1778	Vt. Dist: -0.90 4182134.6141	254.0006
	Hz: 65 00 00.0	Vt: 90 14 50.0	Dist: 105.24	
Averages:	65 00 00.0	90 14 50.0	105.24	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999471			
Sideshot 235	S 85 53 00.9 E	Hz. Dist: 105.24 4037278.2226	Vt. Dist: 1.14 4182144.5626	256.0327
From:	39	5.13		
	Hz: 38 23 27.5	Vt: 93 39 00.5	Dist: 70.72	
Averages:	38 23 27.5	93 39 00.5	70.72	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999446			
Sideshot 236	N 38 23 11.9 E	Hz. Dist: 70.58 4037235.2663	Vt. Dist: -5.42 4182083.4290	257.3176
	Hz: 40 21 21.5	Vt: 93 40 12.0	Dist: 64.84	
Averages:	40 21 21.5	93 40 12.0	64.84	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999445			
Sideshot 237	N 40 21 05.9 E	Hz. Dist: 64.71 4037229.2580	Vt. Dist: -5.35 4182081.4997	257.3895
	Hz: 95 26 34.5	Vt: 91 16 36.0	Dist: 10.94	
Averages:	95 26 34.5	91 16 36.0	10.94	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	

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Point	Descriptor	NORTH	EAST	ELEV
Scale Factor: 0.99999436				
Sideshot 238	S 84 33 41.1 E	Hz. Dist: 10.94 4037178.9094	Vt. Dist: -1.80 4182050.4916	260.9361
Averages:	Hz: 232 46 22.0	Vt: 85 24 39.0	Dist: 20.19	
Std Deviation:	232 46 22.0	85 24 39.0	20.19	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor: 0.99999432				
Sideshot 242	S 52 46 06.4 W	Hz. Dist: 20.13 4037167.7695	Vt. Dist: 2.06 4182023.5801	264.7952
Averages:	Hz: 231 48 39.5	Vt: 85 11 46.0	Dist: 25.97	
Std Deviation:	231 48 39.5	85 11 46.0	25.97	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor: 0.99999431				
Sideshot 243	S 51 48 23.9 W	Hz. Dist: 25.88 4037163.9448	Vt. Dist: 2.47 4182019.2649	265.2147
From: 39		5.10		
Averages:	Hz: 119 47 32.0	Vt: 87 50 27.0	Dist: 59.59	
Std Deviation:	119 47 32.0	87 50 27.0	59.59	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor: 0.99999431				
Sideshot 245	S 60 12 43.6 E	Hz. Dist: 59.55 4037150.3635	Vt. Dist: 0.10 4182091.2830	262.8350
Averages:	Hz: 146 37 13.0	Vt: 84 12 35.0	Dist: 30.00	
Std Deviation:	146 37 13.0	84 12 35.0	30.00	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor: 0.99999429				
Sideshot 246	S 33 23 02.6 E	Hz. Dist: 29.85 4037155.0239	Vt. Dist: 1.15 4182056.0268	263.8865
Averages:	Hz: 175 35 12.0	Vt: 76 36 03.0	Dist: 51.35	
Std Deviation:	175 35 12.0	76 36 03.0	51.35	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor: 0.99999408				
Sideshot 247	S 4 25 03.6 E	Hz. Dist: 49.95 4037130.1425	Vt. Dist: 10.33 4182043.4513	273.0694
From: 40		5.00		
Averages:	Hz: 355 34 48.0	Vt: 94 07 18.0	Dist: 65.46	
Std Deviation:	355 34 48.0	94 07 18.0	65.46	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor: 0.99999398				
Sideshot 248	N 36 06 14.2 E	Hz. Dist: 65.29 4037099.6188	Vt. Dist: -4.17 4181964.3202	269.5174
Averages:	Hz: 353 42 40.5	Vt: 94 02 59.5	Dist: 57.24	
Std Deviation:	353 42 40.5	94 02 59.5	57.24	
Scale Factor:	00 00 00.0	00 00 00.0	0.00	
Scale Factor: 0.99999396				
Sideshot	N 34 14 06.7 E	Hz. Dist: 57.10	Vt. Dist: -3.68	

Point	Descriptor	NORTH	EAST	ELEV
249		4037094.0714	4181957.9698	270.0098
	Hz: 242 36 51.5	Vt: 94 20 51.0	Dist: 12.43	
Averages:	242 36 51.5	94 20 51.0	12.43	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999389			
Sideshot	N 76 51 42.3 W	Hz. Dist: 12.39	Vt. Dist: -0.35	
250		4037049.6848	4181913.7780	273.3400
	Hz: 222 29 33.0	Vt: 90 50 40.0	Dist: 18.68	
Averages:	222 29 33.0	90 50 40.0	18.68	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999388			
Sideshot	S 83 00 59.2 W	Hz. Dist: 18.68	Vt. Dist: 0.05	
251		4037044.5966	4181907.3084	273.7470
	Hz: 196 29 26.5	Vt: 87 34 17.0	Dist: 85.49	
Averages:	196 29 26.5	87 34 17.0	85.49	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999379			
Sideshot	S 57 00 52.7 W	Hz. Dist: 85.41	Vt. Dist: 3.86	
252		4037000.3668	4181854.2027	277.5550
	Hz: 195 36 54.5	Vt: 87 38 29.5	Dist: 90.30	
Averages:	195 36 54.5	87 38 29.5	90.30	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999379			
Sideshot	S 56 08 20.7 W	Hz. Dist: 90.22	Vt. Dist: 4.19	
253		4036996.5973	4181850.9273	277.8784
	Hz: 194 56 15.5	Vt: 87 12 56.5	Dist: 158.54	
Averages:	194 56 15.5	87 12 56.5	158.54	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999370			
Sideshot	S 55 27 41.7 W	Hz. Dist: 158.35	Vt. Dist: 8.06	
254		4036957.0886	4181795.4060	281.7540
	Hz: 195 00 40.0	Vt: 87 10 11.5	Dist: 165.75	
Averages:	195 00 40.0	87 10 11.5	165.75	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999369			
Sideshot	S 55 32 06.2 W	Hz. Dist: 165.55	Vt. Dist: 8.51	
255		4036953.1843	4181789.3590	282.2068
From:	255	5.02		
	Hz: 48 53 45.0	Vt: 75 28 40.5	Dist: 29.33	
Averages:	48 53 45.0	75 28 40.5	29.33	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999332			
Sideshot	S 75 34 08.8 E	Hz. Dist: 28.39	Vt. Dist: 6.20	
256		4036946.1085	4181816.8559	288.4114
From:	41	4.85		

Point	Descriptor	NORTH	EAST	ELEV
	Hz: 325 55 42.5	Vt: 88 38 25.0	Dist: 243.88	
Averages:	325 55 42.5	88 38 25.0	243.88	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999331			
Sideshot	S 54 14 15.8 W	Hz. Dist: 243.81	Vt. Dist: 3.14	
257		4036905.9912	4181782.6112	286.0781
	Hz: 323 05 39.0	Vt: 90 08 40.0	Dist: 135.83	
Averages:	323 05 39.0	90 08 40.0	135.83	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999345			
Sideshot	S 51 24 12.3 W	Hz. Dist: 135.83	Vt. Dist: -2.95	
258		4036963.7449	4181874.2923	279.9877
	Hz: 324 35 12.0	Vt: 90 39 09.0	Dist: 96.67	
Averages:	324 35 12.0	90 39 09.0	96.67	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999346			
Sideshot	S 52 53 45.3 W	Hz. Dist: 96.66	Vt. Dist: -3.00	
259		4036990.1659	4181903.3574	279.9390
	Hz: 318 59 08.0	Vt: 96 56 54.0	Dist: 42.45	
Averages:	318 59 08.0	96 56 54.0	42.45	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999355			
Sideshot	S 47 17 41.3 W	Hz. Dist: 42.14	Vt. Dist: -7.22	
260		4037019.9002	4181949.4850	275.7244
	Hz: 144 02 27.5	Vt: 94 09 28.5	Dist: 16.74	
Averages:	144 02 27.5	94 09 28.5	16.74	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999346			
Sideshot	N 52 21 00.8 E	Hz. Dist: 16.70	Vt. Dist: -2.94	
261		4037058.6777	4181993.6693	279.9960
	Hz: 130 13 13.5	Vt: 94 47 15.5	Dist: 63.80	
Averages:	130 13 13.5	94 47 15.5	63.80	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999355			
Sideshot	N 38 31 46.8 E	Hz. Dist: 63.58	Vt. Dist: -7.40	
262		4037098.2147	4182020.0536	275.5349
From:	44	5.30		
	Hz: 184 07 30.0	Vt: 90 49 27.0	Dist: 925.98	
Averages:	184 07 30.0	90 49 27.0	925.98	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999216			
Sideshot	S 44 48 28.0 E	Hz. Dist: 925.88	Vt. Dist: -12.88	
263		4035995.5529	4183434.6671	307.7146
	Hz: 184 10 18.5	Vt: 90 54 15.0	Dist: 911.40	
Averages:	184 10 18.5	90 54 15.0	911.40	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999218			

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Point	Descriptor	NORTH	EAST	ELEV
Sideshot 264	S 44 45 39.5 E	Hz. Dist: 911.28 4036005.3851	Vt. Dist: 4183423.8514	-14.14 306.4514
From:	45	4.90		
	Hz: 00 09 32.0	Vt: 89 17 18.0	Dist: 312.64	
Averages:	00 09 32.0	89 17 18.0	312.64	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999171			
Sideshot 265	N 44 30 34.0 W	Hz. Dist: 312.61 4035517.9176	Vt. Dist: 4183904.8547	3.18 330.0030
	Hz: 00 22 14.5	Vt: 89 15 47.0	Dist: 303.97	
Averages:	00 22 14.5	89 15 47.0	303.97	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999171			
Sideshot 266	N 44 17 51.5 W	Hz. Dist: 303.94 4035512.5203	Vt. Dist: 4183911.7360	3.35 330.1793
From:	46	5.23		
	Hz: 274 48 58.5	Vt: 86 09 14.0	Dist: 361.17	
Averages:	274 48 58.5	86 09 14.0	361.17	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999362			
Sideshot 267	S 50 51 03.9 W	Hz. Dist: 360.35 4034893.8322	Vt. Dist: 4184012.0305	24.41 303.7202
From:	47	5.04		
	Hz: 45 06 02.0	Vt: 91 10 39.0	Dist: 286.37	
Averages:	45 06 02.0	91 10 39.0	286.37	
Std Deviation:	00 00 00.0	00 00 00.0	0.00	
Scale Factor:	0.99999125			
Sideshot 268	S 84 05 05.8 E	Hz. Dist: 286.31 4034447.6226	Vt. Dist: 4183785.9833	-5.85 341.3348
From:	48	5.02		
	Hz: 265 14 08.5	Vt: 91 27 59.0	Dist: 170.99	
	Hz: 265 14 11.0	Vt: 91 28 09.0	Dist: 170.99	
Averages:	265 14 09.8	91 28 04.0	170.99	
Std Deviation:	00 00 01.8	00 00 05.8	0.00	
Scale Factor:	0.99999037			
Sideshot 269	N 43 15 59.9 W	Hz. Dist: 170.93 4034188.7789	Vt. Dist: 4182865.1126	-3.30 363.7432
	Hz: 206 39 12.0	Vt: 89 10 57.0	Dist: 804.23	
	Hz: 206 39 16.5	Vt: 89 10 57.0	Dist: 804.23	
Averages:	206 39 14.3	89 10 57.0	804.23	
Std Deviation:	00 00 03.2	00 00 00.0	0.00	
Scale Factor:	0.99999003			
Sideshot 270	S 78 09 04.6 W	Hz. Dist: 804.14 4033899.1980	Vt. Dist: 4182195.2624	13.23 380.270

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Point	Descriptor	NORTH	EAST	ELEV
From:	49	4.93		
	Hz: 228 52 15.0	Vt: 90 34 30.5	Dist: 255.83	
	Hz: 228 52 14.5	Vt: 90 34 31.0	Dist: 255.83	
Averages:	228 52 14.8	90 34 30.7	255.83	
Std Deviation:	00 00 00.4	00 00 00.3	0.00	
Scale Factor:	0.99998818			
Sideshot	N 49 04 08.6 W	Hz. Dist: 255.81	Vt. Dist: -2.23	
271		4034038.9869	4181405.7604	410.7074

Date: 12-03-92
Time: 12:17:31
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=====
FIELD DATA COMPILER
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Field Data File: PV3.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From:	26	N 43 28 09.2 E		
Backsight Point:	28			
Scale Factor:	Computed			
26		4033199.3165	4184448.5845	330.5359

Point	Descriptor	NORTH	EAST	ELEV
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ADJUSTED COORDINATES

26	28	4033199.3165	4184448.5845	330.5359
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SIDESHOTS FROM ADJUSTED COORDINATES

From:	26		4.96		
	Hz:	144 32 31.5	Vt:	86 39 00.0	Dist: 442.34
	Hz:	144 32 28.5	Vt:	86 39 03.5	Dist: 442.34
Averages:		144 32 30.0		86 39 01.8	442.34
Std Deviation:		00 00 02.1		00 00 02.0	0.00
Scale Factor:		0.99999173			
Sideshot	S 8 00 39.2 W	Hz. Dist:	441.58	Vt. Dist:	26.38
301			4032762.0452	4184387.0453	356.9144

From:	301		5.10		
	Hz:	194 07 30.0	Vt:	86 14 21.0	Dist: 462.43
	Hz:	194 07 31.5	Vt:	86 14 19.0	Dist: 462.43
Averages:		194 07 30.8		86 14 20.0	462.43
Std Deviation:		00 00 01.1		00 00 01.2	0.00

Point	Descriptor	NORTH	EAST	ELEV

Scale Factor:	0.99999049			
Sideshot 302	S 22 08 09.9 W	Hz. Dist: 461.43 4032334.6271	Vt. Dist: 30.89 4184213.1750	387.8026
From:	21	5.05		
	Hz: 100 05 12.0	Vt: 90 20 33.5	Dist: 538.19	
	Hz: 100 05 13.5	Vt: 90 20 31.5	Dist: 538.19	
Averages:	100 05 12.8	90 20 32.5	538.19	
Std Deviation:	00 00 01.1	00 00 01.2	0.00	
Scale Factor:	0.99998753			
Sideshot 303	S 49 39 12.0 E	Hz. Dist: 538.17 4031853.6861	Vt. Dist: -3.34 4182910.6136	435.5098
	Hz: 281 04 31.5	Vt: 89 25 01.0	Dist: 497.17	
	Hz: 281 04 30.0	Vt: 89 25 01.5	Dist: 497.16	
Averages:	281 04 30.8	89 25 01.2	497.17	
Std Deviation:	00 00 01.1	00 00 00.3	0.01	
Scale Factor:	0.99998723			
Sideshot 304	N 48 39 54.0 W	Hz. Dist: 497.13 4032530.4422	Vt. Dist: 5.06 4182127.1717	443.9133
From:	303	5.23		
	Hz: 98 32 16.5	Vt: 92 50 48.5	Dist: 177.64	
	Hz: 98 32 06.0	Vt: 92 50 53.5	Dist: 177.64	
Averages:	98 32 11.2	92 50 51.0	177.64	
Std Deviation:	00 00 07.4	00 00 02.9	0.00	
Scale Factor:	0.99998786			
Sideshot 305	N 48 52 59.3 E	Hz. Dist: 177.42 4031970.3560	Vt. Dist: -8.02 4183044.2754	427.4857
From:	305	4.67		
	Hz: 141 19 11.0	Vt: 95 44 11.0	Dist: 376.40	
	Hz: 141 19 01.0	Vt: 95 44 10.5	Dist: 376.40	
Averages:	141 19 06.0	95 44 10.7	376.40	
Std Deviation:	00 00 07.1	00 00 00.3	0.00	
Scale Factor:	0.99998886			
Sideshot 306	N 10 12 05.3 E	Hz. Dist: 374.51 4032338.9467	Vt. Dist: -37.62 4183110.6050	389.8672
From:	304	5.12		
	Hz: 96 45 35.5	Vt: 84 01 14.5	Dist: 344.90	
	Hz: 96 45 40.0	Vt: 84 01 09.0	Dist: 344.90	
Averages:	96 45 37.8	84 01 11.8	344.90	
Std Deviation:	00 00 03.2	00 00 03.2	0.00	
Scale Factor:	0.99998624			
Sideshot 307	S 48 05 43.8 W	Hz. Dist: 343.02 4032301.3435	Vt. Dist: 35.90 4181871.8773	479.8183
From:	307	5.25		
	Hz: 122 09 59.5	Vt: 90 04 50.5	Dist: 95.69	

Point	Descriptor	NORTH	EAST	ELEV
Averages:	Hz: 122 09 53.5	Vt: 90 04 46.0	Dist: 95.69	
	122 09 56.5	90 04 48.3	95.69	
Std Deviation:	00 00 04.2	00 00 02.6	0.00	
Scale Factor:	0.99998543			
Sideshot	S 9 44 19.7 E	Hz. Dist: 95.69	Vt. Dist: 0.12	
308		4032207.0339	4181888.0637	479.9348
From:	18	5.25		
	Hz: 164 28 55.5	Vt: 91 10 40.5	Dist: 301.96	
	Hz: 164 28 59.0	Vt: 91 10 42.0	Dist: 301.96	
Averages:	164 28 57.2	91 10 41.3	301.96	
Std Deviation:	00 00 02.5	00 00 00.9	0.00	
Scale Factor:	0.99998608			
Sideshot	S 62 34 10.0 E	Hz. Dist: 301.89	Vt. Dist: -3.74	
309		4034000.6124	4180401.6663	454.2602
From:	309	4.63		
	Hz: 127 24 52.5	Vt: 93 22 45.0	Dist: 456.22	
	Hz: 127 24 53.5	Vt: 93 22 48.5	Dist: 456.22	
Averages:	127 24 53.0	93 22 46.7	456.22	
Std Deviation:	00 00 00.7	00 00 02.0	0.00	
Scale Factor:	0.99998674			
Sideshot	N 64 50 43.0 E	Hz. Dist: 455.42	Vt. Dist: -27.11	
310		4034194.1955	4180813.8964	427.1495
From:	15	5.26		
	Hz: 162 37 03.5	Vt: 86 54 07.0	Dist: 278.22	
	Hz: 162 36 59.0	Vt: 86 54 04.0	Dist: 278.22	
Averages:	162 37 01.3	86 54 05.5	278.22	
Std Deviation:	00 00 03.2	00 00 01.7	0.00	
Scale Factor:	0.99998504			
Sideshot	N 27 03 36.0 W	Hz. Dist: 277.81	Vt. Dist: 15.07	
311		4035576.5531	4179402.7330	475.5157
From:	311	4.96		
	Hz: 181 26 19.5	Vt: 87 50 33.0	Dist: 725.11	
	Hz: 181 26 24.0	Vt: 87 50 31.5	Dist: 725.11	
Averages:	181 26 21.8	87 50 32.2	725.11	
Std Deviation:	00 00 03.2	00 00 00.9	0.00	
Scale Factor:	0.99998390			
Sideshot	N 25 37 14.2 W	Hz. Dist: 724.58	Vt. Dist: 23.05	
312		4036229.8937	4179089.4156	498.5670
From:	13	5.08		
	Hz: 153 40 03.0	Vt: 88 47 53.5	Dist: 118.23	
	Hz: 153 40 04.5	Vt: 88 47 57.0	Dist: 118.23	
Averages:	153 40 03.8	88 47 55.2	118.23	
Std Deviation:	00 00 01.1	00 00 02.0	0.00	
Scale Factor:	0.99998861			
Sideshot	S 5 48 06.7 E	Hz. Dist: 118.20	Vt. Dist: 2.72	

Point	Descriptor	NORTH	EAST	ELEV
313		4036953.8384	4180623.9999	385.4216
From:	313	5.07		
	Hz: 233 58 44.5	Vt: 88 07 49.0	Dist: 282.56	
	Hz: 233 58 42.0	Vt: 88 07 49.5	Dist: 282.56	
Averages:	233 58 43.2	88 07 49.2	282.56	
Std Deviation:	00 00 01.8	00 00 00.3	0.00	
Scale Factor:	0.99998836			
Sideshot	S 48 10 36.5 W	Hz. Dist: 282.41	Vt. Dist: 9.41	
314		4036765.5202	4180413.5490	394.8320
From:	314	4.85		
	Hz: 184 13 47.5	Vt: 88 15 50.5	Dist: 288.91	
	Hz: 184 13 45.5	Vt: 88 15 56.0	Dist: 288.91	
Averages:	184 13 46.5	88 15 53.3	288.91	
Std Deviation:	00 00 01.4	00 00 03.2	0.00	
Scale Factor:	0.99998797			
Sideshot	S 52 24 23.0 W	Hz. Dist: 288.77	Vt. Dist: 10.97	
315		4036589.3517	4180184.7368	405.8021
From:	14	4.88		
	Hz: 81 29 22.0	Vt: 87 48 55.5	Dist: 889.00	
	Hz: 81 29 19.0	Vt: 87 48 55.5	Dist: 889.00	
Averages:	81 29 20.5	87 48 55.5	889.00	
Std Deviation:	00 00 02.1	00 00 00.0	0.00	
Scale Factor:	0.99998853			
Sideshot	N 77 58 50.0 W	Hz. Dist: 888.34	Vt. Dist: 34.20	
316		4037446.1415	4179814.2291	400.7728
From:	12	5.22		
	Hz: 39 56 05.5	Vt: 89 23 01.5	Dist: 1756.66	
	Hz: 39 56 06.0	Vt: 89 23 04.0	Dist: 1756.66	
Averages:	39 56 05.7	89 23 02.8	1756.66	
Std Deviation:	00 00 00.4	00 00 01.4	0.00	
Scale Factor:	0.99998799			
Sideshot	N 33 20 04.7 E	Hz. Dist: 1756.54	Vt. Dist: 19.20	
317		4038018.1734	4181637.5791	404.8196
From:	316	5.10		
	Hz: 199 26 03.5	Vt: 88 03 37.0	Dist: 281.45	
	Hz: 199 26 00.5	Vt: 88 03 41.0	Dist: 281.45	
Averages:	199 26 02.0	88 03 39.0	281.45	
Std Deviation:	00 00 02.1	00 00 02.3	0.00	
Scale Factor:	0.99998743			
Sideshot	N 58 32 48.0 W	Hz. Dist: 281.29	Vt. Dist: 9.74	
318		4037592.9172	4179574.2744	410.5083
From:	318	5.22		
	Hz: 138 03 59.0	Vt: 87 59 07.5	Dist: 349.46	

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Point	Descriptor	NORTH	EAST	ELEV
	Hz: 138 03 55.5	Vt: 87 59 12.0	Dist: 349.46	
Averages:	138 03 57.3	87 59 09.7	349.46	
Std Deviation:	00 00 02.5	00 00 02.6	0.00	
Scale Factor:	0.99998688			
Sideshot	S 79 31 09.3 W	Hz. Dist: 349.24	Vt. Dist: 12.48	
319		4037529.3887	4179230.8616	422.9919
From:	317	4.88		
	Hz: 104 29 26.0	Vt: 86 23 54.5	Dist: 225.05	
	Hz: 104 29 24.0	Vt: 86 23 56.5	Dist: 225.05	
Averages:	104 29 25.0	86 23 55.5	225.05	
Std Deviation:	00 00 01.4	00 00 01.2	0.00	
Scale Factor:	0.99998695			
Sideshot	N 42 10 30.3 W	Hz. Dist: 224.60	Vt. Dist: 13.72	
320		4038184.6257	4181486.7813	418.5366
	Hz: 103 02 15.0	Vt: 86 29 21.0	Dist: 285.20	
	Hz: 103 02 14.5	Vt: 86 29 19.5	Dist: 285.20	
Averages:	103 02 14.7	86 29 20.2	285.20	
Std Deviation:	00 00 00.4	00 00 00.9	0.00	
Scale Factor:	0.99998687			
Sideshot	N 43 37 40.5 W	Hz. Dist: 284.66	Vt. Dist: 17.05	
321		4038224.2211	4181441.1710	421.8672
	Hz: 272 32 34.0	Vt: 96 49 36.0	Dist: 1222.24	
	Hz: 272 32 35.0	Vt: 96 49 34.5	Dist: 1222.24	
Averages:	272 32 34.5	96 49 35.2	1222.24	
Std Deviation:	00 00 00.7	00 00 00.9	0.00	
Scale Factor:	0.99999089			
Sideshot	S 54 07 20.8 E	Hz. Dist: 1213.57	Vt. Dist: -145.47	
322		4037306.9558	4182620.8982	259.3514
	Hz: 281 11 53.0	Vt: 93 39 22.5	Dist: 1673.36	
	Hz: 281 12 00.0	Vt: 93 39 16.5	Dist: 1673.36	
Averages:	281 11 56.5	93 39 19.5	1673.36	
Std Deviation:	00 00 04.9	00 00 03.5	0.00	
Scale Factor:	0.99999004			
Sideshot	S 45 27 58.8 E	Hz. Dist: 1669.94	Vt. Dist: -107.11	
323		4036846.9954	4182827.9784	297.7106
	Hz: 276 36 19.0	Vt: 92 14 30.5	Dist: 3126.37	
	Hz: 276 36 28.9	Vt: 92 14 24.5	Dist: 3126.37	
Averages:	276 36 24.0	92 14 27.5	3126.37	
Std Deviation:	00 00 07.1	00 00 03.5	0.00	
Scale Factor:	0.99999053			
Sideshot	S 50 03 31.3 E	Hz. Dist: 3123.95	Vt. Dist: -122.56	
324		4036012.5882	4184032.7212	282.2621
	Hz: 256 32 39.0	Vt: 94 34 36.0	Dist: 2702.91	
	Hz: 256 32 41.0	Vt: 94 34 35.0	Dist: 2702.91	
Averages:	256 32 40.0	94 34 35.5	2702.91	
Std Deviation:	00 00 01.4	00 00 00.6	0.00	
Scale Factor:	0.99999260			
Sideshot	S 70 07 15.3 E	Hz. Dist: 2694.28	Vt. Dist: -215.88	

Point	Descriptor	NORTH	EAST	ELEV
325		4037102.0191	4184171.3172	188.9423
	Hz: 271 17 23.9	Vt: 91 26 25.0	Dist: 4822.66	
	Hz: 271 17 25.9	Vt: 91 26 18.0	Dist: 4822.66	
Averages:	271 17 24.9	91 26 21.5	4822.66	
Std Deviation:	00 00 01.4	00 00 04.0	0.00	
Scale Factor:	0.99999060			
Sideshot	S 55 22 30.3 E	Hz. Dist: 4821.11	Vt. Dist: -121.68	
326		4035278.8140	4185604.8155	283.1423
From:	325	4.94		
	Hz: 194 15 26.9	Vt: 89 56 09.0	Dist: 605.33	
	Hz: 194 15 32.0	Vt: 89 56 05.0	Dist: 605.33	
Averages:	194 15 29.5	89 56 07.0	605.33	
Std Deviation:	00 00 03.6	00 00 02.3	0.00	
Scale Factor:	0.99999794			
Sideshot	S 55 51 45.8 E	Hz. Dist: 605.33	Vt. Dist: 0.33	
327		4036762.3225	4184672.3448	189.2736
From:	324	5.40		
	Hz: 353 26 35.0	Vt: 91 44 35.0	Dist: 472.12	
	Hz: 353 26 37.0	Vt: 91 44 32.5	Dist: 472.12	
Averages:	353 26 36.0	91 44 33.8	472.12	
Std Deviation:	00 00 01.4	00 00 01.4	0.00	
Scale Factor:	0.99999407			
Sideshot	N 56 36 55.3 W	Hz. Dist: 471.89	Vt. Dist: -14.23	
328		4036272.2511	4183638.6919	268.0291
	Hz: 249 13 15.0	Vt: 85 53 13.5	Dist: 216.15	
	Hz: 249 13 14.5	Vt: 85 53 22.5	Dist: 216.15	
Averages:	249 13 14.7	85 53 18.0	216.15	
Std Deviation:	00 00 00.4	00 00 05.2	0.00	
Scale Factor:	0.99999342			
Sideshot	S 19 09 43.4 W	Hz. Dist: 215.59	Vt. Dist: 16.04	
329		4035808.9411	4183961.9549	298.3012
From:	11	5.22		
	Hz: 318 40 33.0	Vt: 93 32 17.5	Dist: 67.31	
	Hz: 318 40 37.0	Vt: 93 32 19.0	Dist: 67.31	
Averages:	318 40 35.0	93 32 18.2	67.31	
Std Deviation:	00 00 02.8	00 00 00.9	0.00	
Scale Factor:	0.99999090			
Sideshot	N 11 31 53.5 E	Hz. Dist: 67.18	Vt. Dist: -3.68	
330		4036555.6550	4181002.3063	337.4305
From:	325	5.09		
	Hz: 30 16 32.0	Vt: 91 43 46.0	Dist: 509.13	
	Hz: 30 16 33.0	Vt: 91 43 44.5	Dist: 509.13	
Averages:	30 16 32.5	91 43 45.2	509.13	
Std Deviation:	00 00 00.7	00 00 00.9	0.00	
Scale Factor:	0.99999822			

Point	Descriptor	NORTH	EAST	ELEV
Sideshot 331	N 39 50 42.8 W	Hz. Dist: 508.90 4037492.7393	Vt. Dist: -15.49 4183845.2585	173.4539
From:	9	5.20		
	Hz: 141 26 09.5	Vt: 92 33 56.0	Dist: 692.67	
	Hz: 141 26 04.0	Vt: 92 34 04.0	Dist: 692.64	
Averages:	141 26 06.7	92 34 00.0	692.65	
Std Deviation:	00 00 03.9	00 00 04.6	0.02	
Scale Factor:	0.99999632			
Sideshot 332	N 9 26 54.1 W	Hz. Dist: 691.96 4038305.5727	Vt. Dist: -30.81 4182113.8300	201.7012
From:	8	5.25		
	Hz: 220 30 34.0	Vt: 90 49 06.5	Dist: 774.07	
	Hz: 220 30 37.5	Vt: 90 49 01.0	Dist: 774.05	
Averages:	220 30 35.7	90 49 03.7	774.06	
Std Deviation:	00 00 02.5	00 00 03.2	0.01	
Scale Factor:	0.99999649			
Sideshot 333	S 54 45 52.0 E	Hz. Dist: 773.98 4037215.3887	Vt. Dist: -10.78 4183281.2098	211.3635
From:	322	5.17		
	Hz: 296 58 25.0	Vt: 86 43 21.0	Dist: 50.27	
	Hz: 296 58 34.5	Vt: 86 43 20.0	Dist: 50.27	
Averages:	296 58 29.7	86 43 20.5	50.27	
Std Deviation:	00 00 06.7	00 00 00.6	0.00	
Scale Factor:	0.99999442			
Sideshot 334	S 62 51 09.0 W	Hz. Dist: 50.19 4037284.0561	Vt. Dist: 3.17 4182576.2396	262.5257
From:	32	5.30		
	Hz: 26 02 19.0	Vt: 89 38 23.5	Dist: 348.50	
	Hz: 26 02 15.5	Vt: 89 38 25.0	Dist: 348.50	
Averages:	26 02 17.3	89 38 24.2	348.50	
Std Deviation:	00 00 02.5	00 00 00.9	0.00	
Scale Factor:	0.99999753			
Sideshot 335	N 78 17 48.3 E	Hz. Dist: 348.49 4035921.1382	Vt. Dist: 3.25 4185703.3680	206.5025
From:	34	5.13		
	Hz: 108 15 15.5	Vt: 90 31 44.0	Dist: 214.87	
	Hz: 108 15 08.5	Vt: 90 31 43.0	Dist: 214.87	
Averages:	108 15 12.0	90 31 43.5	214.87	
Std Deviation:	00 00 04.9	00 00 00.6	0.00	
Scale Factor:	0.99999847			
Sideshot 336	N 47 34 08.7 W	Hz. Dist: 214.86 4036490.7213	Vt. Dist: -1.86 4185651.4244	180.4168
From:	336	4.93		

Point	Descriptor	NORTH	EAST	ELEV
	Hz: 78 53 03.5	Vt: 88 52 58.5	Dist: 477.20	
	Hz: 78 53 08.5	Vt: 88 52 56.0	Dist: 477.20	
Averages:	78 53 06.0	88 52 57.3	477.20	
Std Deviation:	00 00 03.5	00 00 01.4	0.00	
Scale Factor:	0.99999833			
Sideshot	S 31 18 57.3 W	Hz. Dist: 477.11	Vt. Dist: 9.49	
337		4036083.1207	4185403.4442	189.9076
From:	337	4.94		
	Hz: 214 37 13.0	Vt: 88 54 47.0	Dist: 306.49	
	Hz: 214 37 14.5	Vt: 88 54 48.0	Dist: 306.49	
Averages:	214 37 13.8	88 54 47.5	306.49	
Std Deviation:	00 00 01.1	00 00 00.6	0.00	
Scale Factor:	0.99999804			
Sideshot	S 65 56 11.1 W	Hz. Dist: 306.43	Vt. Dist: 5.93	
338		4035958.1721	4185123.6411	195.8328
From:	31	5.07		
	Hz: 269 48 23.5	Vt: 90 05 03.0	Dist: 422.94	
	Hz: 269 48 31.0	Vt: 90 05 08.0	Dist: 423.00	
Averages:	269 48 27.3	90 05 05.5	422.97	
Std Deviation:	00 00 05.3	00 00 02.9	0.04	
Scale Factor:	0.99999586			
Sideshot	N 41 57 13.1 W	Hz. Dist: 422.97	Vt. Dist: -3.58	
339		4035672.1985	4184527.4255	238.1550

Date: 12-03-92
 Time: 12:36:03
 Page: 1

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FIELD DATA COMPILER

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Field Data File: PV4.FLD
 Coordinate File: PV.CRD
 Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
 Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 11 N 52 51 18.5 E				
Backsight Point: 10				
Scale Factor: Computed				
11		4036489.8300	4180988.8763	341.1146
From:	11	Inst. Ht: 5.40	Target Ht: 4.72	
	Hz: 167 52 27.5	Vt: 86 53 54.0	Dist: 163.11	
	Hz: 167 52 27.5	Vt: 86 53 52.5	Dist: 163.11	
Averages:	167 52 27.5	86 53 53.3	163.11	
Std Deviation:	00 00 00.0	00 00 00.9	0.00	
Scale Factor:	0.99999061			
Traverse S 40 43 46.0 W Hz. Dist: 162.87 Vt. Dist: 9.51				
401				
From:	401	Inst. Ht: 4.96	Target Ht: 5.35	
	Hz: 275 56 10.0	Vt: 83 04 22.0	Dist: 270.85	
	Hz: 275 56 14.0	Vt: 83 04 24.0	Dist: 270.86	
Averages:	275 56 12.0	83 04 23.0	270.86	
Std Deviation:	00 00 02.8	00 00 01.2	0.01	
Scale Factor:	0.99998958			
Traverse N 43 20 02.0 W Hz. Dist: 268.87 Vt. Dist: 32.28				
402				
From:	402	Inst. Ht: 5.31	Target Ht: 5.24	
	Hz: 215 18 58.5	Vt: 90 07 43.0	Dist: 523.51	
	Hz: 215 18 57.0	Vt: 90 07 46.5	Dist: 523.51	
Averages:	215 18 57.8	90 07 44.7	523.51	
Std Deviation:	00 00 01.1	00 00 02.0	0.00	
Scale Factor:	0.99998874			

Point	Descriptor	NORTH	EAST	ELEV
Traverse N 403	8 01 04.2 W	Hz. Dist: 523.50		Vt. Dist: -1.10
From:	403	Inst. Ht: 5.34		Target Ht: 5.17
	Hz: 205 29 57.5	Vt: 95 19 19.5	Dist: 169.20	
	Hz: 205 29 52.5	Vt: 95 19 23.5	Dist: 169.20	
Averages:	205 29 55.0	95 19 21.5	169.20	
Std Deviation:	00 00 03.5	00 00 02.3	0.00	
Scale Factor:	0.99998904			
Traverse N 404	17 28 50.8 E	Hz. Dist: 168.47		Vt. Dist: -15.53
From:	404	Inst. Ht: 5.12		Target Ht: 5.34
	Hz: 72 41 32.5	Vt: 95 30 44.0	Dist: 669.44	
	Hz: 72 41 35.0	Vt: 95 30 45.5	Dist: 669.44	
Averages:	72 41 33.8	95 30 44.7	669.44	
Std Deviation:	00 00 01.8	00 00 00.9	0.00	
Scale Factor:	0.99999092			
Traverse N 405	89 49 35.5 W	Hz. Dist: 666.34		Vt. Dist: -64.52
From:	405	Inst. Ht: 5.19		Target Ht: 4.84
	Hz: 354 59 52.0	Vt: 86 18 12.5	Dist: 537.40	
	Hz: 354 59 51.0	Vt: 86 18 18.0	Dist: 537.40	
Averages:	354 59 51.5	86 18 15.3	537.40	
Std Deviation:	00 00 00.7	00 00 03.2	0.00	
Scale Factor:	0.99999164			
Traverse N 406	85 10 16.0 E	Hz. Dist: 536.28		Vt. Dist: 35.00
From:	406	Inst. Ht: 5.22		Target Ht: 4.80
	Hz: 44 38 59.5	Vt: 93 59 55.5	Dist: 846.92	
	Hz: 44 38 59.0	Vt: 94 00 00.0	Dist: 846.92	
Averages:	44 38 59.2	93 59 57.8	846.92	
Std Deviation:	00 00 00.4	00 00 02.6	0.00	
Scale Factor:	0.99999212			
Traverse N 407	50 10 44.7 W	Hz. Dist: 844.85		Vt. Dist: -58.63
From:	407	Inst. Ht: 5.02		Target Ht: 5.31
	Hz: 5 20 43.0	Vt: 88 21 03.0	Dist: 461.00	
	Hz: 5 20 41.5	Vt: 88 21 03.5	Dist: 461.00	
Averages:	5 20 42.3	88 21 03.2	461.00	
Std Deviation:	00 00 01.1	00 00 00.3	0.00	
Scale Factor:	0.99999316			
Traverse S 408	44 50 02.5 E	Hz. Dist: 460.81		Vt. Dist: 12.98
From:	408	Inst. Ht: 5.15		Target Ht: 5.57
	Hz: 116 54 04.5	Vt: 92 08 42.5	Dist: 337.04	

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Point	Descriptor	NORTH	EAST	ELEV
	Hz: 116 54 04.0	Vt: 92 08 37.0	Dist: 337.04	
Averages:	116 54 04.2	92 08 39.7	337.04	
Std Deviation:	00 00 00.4	00 00 03.2	0.00	
Scale Factor:	0.99999319			

Traverse N 72 04 01.8 E Hz. Dist: 336.80 Vt. Dist: -13.03
409

From: 409 Inst. Ht: 5.32 Target Ht: 4.79
 Hz: 278 11 14.5 Vt: 78 39 25.0 Dist: 471.16
 Hz: 278 11 10.5 Vt: 78 39 18.0 Dist: 471.16
 Averages: 278 11 12.5 78 39 21.5 471.16
 Std Deviation: 00 00 02.8 00 00 04.0 0.00
 Scale Factor: 0.99999135

Traverse S 9 44 45.8 E Hz. Dist: 461.95 Vt. Dist: 93.21
410

From: 410 Inst. Ht: 5.04 Target Ht: 4.33
 Hz: 60 49 11.5 Vt: 89 37 04.0 Dist: 1145.14
 Hz: 60 49 12.5 Vt: 89 37 02.0 Dist: 1145.14
 Averages: 60 49 12.0 89 37 03.0 1145.14
 Std Deviation: 00 00 00.7 00 00 01.2 0.00
 Scale Factor: 0.99998888

Traverse N 51 04 26.2 E Hz. Dist: 1145.10 Vt. Dist: 8.38
411

From: 411 Inst. Ht: 4.86 Target Ht: 5.35
 Hz: 266 42 13.0 Vt: 98 57 29.5 Dist: 798.90
 Hz: 266 42 12.5 Vt: 98 57 27.0 Dist: 798.90
 Averages: 266 42 12.7 98 57 28.3 798.90
 Std Deviation: 00 00 00.4 00 00 01.4 0.00
 Scale Factor: 0.99999162

Traverse S 42 13 21.1 E Hz. Dist: 789.15 Vt. Dist: -124.87
412

Closing Point:
 10 4037285.7769 4182039.5957 254.8966
 Ref. Line: N 00 00 00.0 E

Misclosure:
 Closing Angle:
 Hz. Direction: S 20 37 28.7 E
 Hz. Distance: 0.21
 Vt. Distance: -0.11
 Traverse Closure:
 Length of Traverse: 6365.00
 Angular Error: 137 46 38.9
 Precision: 30057.95

Angle Balance: OFF
 Horizontal Adjustment: L SQUARE

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Point	Descriptor	NORTH	EAST	ELEV
Vertical Adjustment:		ON		
Standard Errors:				
	Angles:	00 00 01.5		
	Distances:	+/- 0.01	+ 2	ppm

ADJUSTED COORDINATES

11	10	4036489.8300	4180988.8763	341.1146
From:	11			
Traverse	S 40 43 45.9 W	Hz. Dist: 162.88	Vt. Dist: 9.51	
401		4036366.3983	4180882.5981	350.6241
From:	401			
Traverse	N 43 20 01.9 W	Hz. Dist: 268.85	Vt. Dist: 32.28	
402		4036561.9531	4180698.0983	382.9064
From:	402			
Traverse	N 8 01 03.6 W	Hz. Dist: 523.48	Vt. Dist: -1.09	
403		4037080.3124	4180625.0846	381.8115
From:	403			
Traverse	N 17 28 51.7 E	Hz. Dist: 168.45	Vt. Dist: -15.52	
404		4037240.9823	4180675.6851	366.2893
From:	404			
Traverse	N 89 49 34.5 W	Hz. Dist: 666.33	Vt. Dist: -64.51	
405		4037243.0028	4180009.3580	301.7825
From:	405			
Traverse	N 85 10 18.5 E	Hz. Dist: 536.28	Vt. Dist: 35.01	
406		4037288.1408	4180543.7388	336.7877
From:	406			
Traverse	N 50 10 41.9 W	Hz. Dist: 844.83	Vt. Dist: -58.62	
407		4037829.1680	4179894.8773	278.1681
From:	407			
Traverse	S 44 49 58.3 E	Hz. Dist: 460.83	Vt. Dist: 12.99	
408		4037502.3633	4180219.7808	291.1572
From:	408			
Traverse	N 72 04 06.9 E	Hz. Dist: 336.80	Vt. Dist: -13.02	
409		4037606.0573	4180540.2227	278.1341
From:	409			
Traverse	S 9 44 40.6 E	Hz. Dist: 461.98	Vt. Dist: 93.22	
410		4037150.7462	4180618.4153	371.3535
From:	410			
Traverse	N 51 04 31.7 E	Hz. Dist: 1145.09	Vt. Dist: 8.40	
411		4037870.2034	4181509.2674	379.7550
From:	411			
Traverse	S 42 13 18.0 E	Hz. Dist: 789.18	Vt. Dist: -124.86	

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Point	Descriptor	NORTH	EAST	ELEV
412		4037285.7769	4182039.5957	254.8966

Date: 12-03-92
Time: 12:36:51
Page: 1

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FIELD DATA COMPILER

=====

Field Data File: PV5.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
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Reference Line From: 264 N 44 45 39.5 W
Backsight Point: 44
Scale Factor: Computed

264 4036005.3851 4183423.8514 306.4514

From: 264 Inst. Ht: 5.54 Target Ht: 5.21
Hz: 180 21 49.0 Vt: 87 43 27.5 Dist: 577.11
Hz: 180 21 49.0 Vt: 87 43 31.0 Dist: 577.11
Averages: 180 21 49.0 87 43 29.3 577.11
Std Deviation: 00 00 00.0 00 00 02.0 0.00
Scale Factor: 0.99999212

Traverse S 44 23 50.5 E Hz. Dist: 576.65 Vt. Dist: 23.25
413

From: 413 Inst. Ht: 5.32 Target Ht: 4.93
Hz: 179 34 05.5 Vt: 90 25 51.5 Dist: 420.86
Hz: 179 34 05.0 Vt: 90 25 46.5 Dist: 420.86
Averages: 179 34 05.2 90 25 49.0 420.86
Std Deviation: 00 00 00.4 00 00 02.9 0.00
Scale Factor: 0.99999173

Traverse S 44 49 45.2 E Hz. Dist: 420.84 Vt. Dist: -2.77
414

Closing Point:
45 4035294.9822 4184124.0049 326.8278
Ref. Line: N 00 00 00.0 E

Misclosure:
Closing Angle:
Hz. Direction: N 11 49 54.2 E

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Point	Descriptor	NORTH	EAST	ELEV
	Hz. Distance:	0.09		
	Vt. Distance:	0.10		
	Traverse Closure:			
	Length of Traverse:	997.49		
	Angular Error:	135 10 14.8		
	Precision:	11579.98		
	Angle Balance:	OFF		
	Horizontal Adjustment:	L SQUARE		
	Vertical Adjustment:	ON		
	Standard Errors:			
	Angles:	00 00 01.5		
	Distances:	+/- 0.01	+ 2	ppm

ADJUSTED COORDINATES

264	44	4036005.3851	4183423.8514	306.4514
From:	264			
Traverse	S 44 24 06.0 E	Hz. Dist: 576.62	Vt. Dist: 23.19	
413		4035593.4143	4183827.3063	329.6388
From:	413			
Traverse	S 44 49 59.2 E	Hz. Dist: 420.82	Vt. Dist: -2.81	
414		4035294.9822	4184124.0049	326.8278

Date: 12-03-92
Time: 12:50:59
Page: 1

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FIELD DATA COMPILER

=====

Field Data File: PV6.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 233		S 52 59 20.4 E		
Backsight Point: 34				
Scale Factor: Computed				
233		4036452.4907	4185668.4241	180.1343
From:	233	Inst. Ht: 5.28	Target Ht: 5.09	
	Hz: 328 17 50.0	Vt: 90 06 32.0	Dist: 96.86	
	Hz: 328 17 47.5	Vt: 90 06 24.5	Dist: 96.86	
Averages:	328 17 48.7	90 06 28.3	96.86	
Std Deviation:	00 00 01.8	00 00 04.3	0.00	
Scale Factor:	0.99999853			
Traverse S 84 41 31.7 E		Hz. Dist: 96.86	Vt. Dist: 0.01	
415				
From:	415	Inst. Ht: 5.28	Target Ht: 4.96	
	Hz: 274 38 26.5	Vt: 87 52 07.0	Dist: 330.73	
	Hz: 274 38 27.0	Vt: 87 51 59.0	Dist: 330.73	
Averages:	274 38 26.7	87 52 03.0	330.73	
Std Deviation:	00 00 00.4	00 00 04.6	0.00	
Scale Factor:	0.99999827			
Traverse S 9 56 55.1 W		Hz. Dist: 330.50	Vt. Dist: 12.63	
416				
Closing Point:				
33		4036117.9838	4185707.7539	192.8532
Ref. Line: N 00 00 00.0 E				
Misclosure:				
Closing Angle:				
Hz. Direction:		S 44 12 03.3 W		

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Point	Descriptor	NORTH	EAST	ELEV
	Hz. Distance:	0.02		
	Vt. Distance:	-0.08		
	Traverse Closure:			
	Length of Traverse:	427.36		
	Angular Error:	-170 03 04.9		
	Precision:	19044.28		
	Angle Balance:	OFF		
	Horizontal Adjustment:	L SQUARE		
	Vertical Adjustment:	ON		
	Standard Errors:			
	Angles:	00 00 01.5		
	Distances:	+/- 0.01	+ 2	ppm

ADJUSTED COORDINATES

233	34	4036452.4907	4185668.4241	180.1343
From:	233			
Traverse	S 84 41 31.4 E	Hz. Dist: 96.85	Vt. Dist: 0.03	
415		4036443.5315	4185764.8563	180.1608
From:	415			
Traverse	S 9 56 55.4 W	Hz. Dist: 330.52	Vt. Dist: 12.69	
416		4036117.9838	4185707.7539	192.8532

Date: 12-03-92
Time: 12:53:37
Page: 1

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FIELD DATA COMPILER

=====

Field Data File: PV7.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
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Reference Line From: 269 S 43 15 59.9 E
Backsight Point: 48
Scale Factor: Computed

269 4034188.7789 4182865.1126 363.7432

From: 269 Inst. Ht: 5.45 Target Ht: 5.54
Hz: 298 26 54.5 Vt: 90 53 50.0 Dist: 384.04
Hz: 298 26 51.0 Vt: 90 53 50.0 Dist: 384.04
Averages: 298 26 52.7 90 53 50.0 384.04
Std Deviation: 00 00 02.5 00 00 00.0 0.00
Scale Factor: 0.99999053

Traverse N 75 10 52.8 E Hz. Dist: 383.99 Vt. Dist: -6.10
417

From: 417 Inst. Ht: 5.23 Target Ht: 5.41
Hz: 159 12 16.5 Vt: 91 43 41.0 Dist: 326.26
Hz: 159 12 15.5 Vt: 91 43 42.5 Dist: 326.26
Averages: 159 12 16.0 91 43 41.8 326.26
Std Deviation: 00 00 00.7 00 00 00.9 0.00
Scale Factor: 0.99999087

Traverse N 54 23 08.8 E Hz. Dist: 326.11 Vt. Dist: -10.02
418

From: 418 Inst. Ht: 4.59 Target Ht: 5.72
Hz: 176 24 25.5 Vt: 93 44 26.5 Dist: 660.62
Hz: 176 24 27.0 Vt: 93 44 19.0 Dist: 660.62
Averages: 176 24 26.2 93 44 22.7 660.62
Std Deviation: 00 00 01.1 00 00 04.3 0.00
Scale Factor: 0.99999206

Point	Descriptor	NORTH	EAST	ELEV
Traverse N 50 47 35.0 E 419		Hz. Dist: 659.21	Vt. Dist: -44.21	

From: 419 Inst. Ht: 5.62 Target Ht: 5.18
 Hz: 200 26 45.5 Vt: 93 41 35.5 Dist: 279.03
 Hz: 200 26 44.5 Vt: 93 41 42.5 Dist: 279.03
 Averages: 200 26 45.0 93 41 39.0 279.03
 Std Deviation: 00 00 00.7 00 00 04.0 0.00
 Scale Factor: 0.99999350

Traverse N 71 14 20.0 E 420		Hz. Dist: 278.45	Vt. Dist: -17.54	
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From: 420 Inst. Ht: 5.08 Target Ht: 5.58
 Hz: 160 24 07.5 Vt: 94 01 19.5 Dist: 329.13
 Hz: 160 24 11.0 Vt: 94 01 23.0 Dist: 329.13
 Averages: 160 24 09.2 94 01 21.2 329.13
 Std Deviation: 00 00 02.5 00 00 02.0 0.00
 Scale Factor: 0.99999441

Traverse N 51 38 29.2 E 421		Hz. Dist: 328.32	Vt. Dist: -23.59	
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From: 421 Inst. Ht: 5.33 Target Ht: 5.33
 Hz: 186 47 12.0 Vt: 93 33 17.5 Dist: 325.91
 Hz: 186 47 12.0 Vt: 93 33 20.5 Dist: 325.91
 Averages: 186 47 12.0 93 33 19.0 325.91
 Std Deviation: 00 00 00.0 00 00 01.7 0.00
 Scale Factor: 0.99999542

Traverse N 58 25 41.2 E 422		Hz. Dist: 325.28	Vt. Dist: -20.21	
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Closing Point:
 31 4035357.6414 4184810.1935 241.7378
 Ref. Line: N 00 00 00.0 E

Misclosure:
 Closing Angle:
 Hz. Direction: N 33 24 32.3 W
 Hz. Distance: 0.53
 Vt. Distance: 0.35
 Traverse Closure:
 Length of Traverse: 2301.36
 Angular Error: 58 25 41.2
 Precision: 4383.42

Angle Balance: OFF
 Horizontal Adjustment: L SQUARE
 Vertical Adjustment: ON
 Standard Errors:
 Angles: 00 00 01.5
 Distances: +/- 0.01 + 2 ppm

Page: 3

Point	Descriptor	NORTH	EAST	ELEV

ADJUSTED COORDINATES				

269	48	4034188.7789	4182865.1126	363.7432
From:	269			
Traverse	N 75 10 25.4 E	Hz. Dist: 383.92	Vt. Dist: -6.16	
417		4034287.0206	4183236.2528	357.5846
From:	417			
Traverse	N 54 22 22.5 E	Hz. Dist: 326.14	Vt. Dist: -10.07	
418		4034476.9969	4183501.3441	347.5175
From:	418			
Traverse	N 50 46 37.4 E	Hz. Dist: 659.25	Vt. Dist: -44.31	
419		4034893.8670	4184012.0598	303.2093
From:	419			
Traverse	N 71 13 26.4 E	Hz. Dist: 278.40	Vt. Dist: -17.58	
420		4034983.4755	4184275.6447	285.6307
From:	420			
Traverse	N 51 37 45.9 E	Hz. Dist: 328.35	Vt. Dist: -23.64	
421		4035187.2978	4184533.0759	261.9950
From:	421			
Traverse	N 58 25 15.8 E	Hz. Dist: 325.29	Vt. Dist: -20.26	
422		4035357.6414	4184810.1935	241.7378

Date: 12-03-92
 Time: 12:58:20
 Page: 1

=====

FIELD DATA COMPILER

=====

Field Data File: PV8.FLD
 Coordinate File: PV.CRD
 Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
 Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 231		N 00 48 44.4 E		
Backsight Point: 31				
Scale Factor: Computed				
231		4034968.2444	4184804.6723	251.8543
From:	231	Inst. Ht: 5.33	Target Ht: 5.00	
	Hz: 181 04 18.5	Vt: 87 28 54.5	Dist: 1445.48	
	Hz: 181 04 11.0	Vt: 87 28 51.0	Dist: 1445.48	
Averages:	181 04 14.8	87 28 52.8	1445.48	
Std Deviation:	00 00 05.3	00 00 02.0	0.00	
Scale Factor:	0.99999422			
Traverse S	1 52 59.1 W	Hz. Dist: 1444.07	Vt. Dist: 63.89	
423				
Closing Point:				
28		4033525.0658	4184757.3766	315.7870
Ref. Line:	N 00 00 00.0 E			

Misclosure:

Closing Angle:
 Hz. Direction: N 53 47 21.7 E
 Hz. Distance: 0.19
 Vt. Distance: -0.04

Traverse Closure:

Length of Traverse: 1444.07
 Angular Error: -178 07 00.9
 Precision: 7424.16

Angle Balance: OFF
 Horizontal Adjustment: L SQUARE

Page: 2

Point	Descriptor	NORTH	EAST	ELEV
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Vertical Adjustment: ON
 Standard Errors:
 Angles: 00 00 01.5
 Distances: +/- 0.01 + 2 ppm

ADJUSTED COORDINATES

231	31	4034968.2444	4184804.6723	251.8543
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From: 231
 Traverse S 1 52 37.3 W Hz. Dist: 1443.95 Vt. Dist: 63.93
 423 4033525.0658 4184757.3766 315.7870

Date: 12-03-92
Time: 12:58:46
Page: 1

=====

FIELD DATA COMPILER

=====

Field Data File: PV9.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 24 N 62 22 41.0 E				
Backsight Point: 25				
Scale Factor: Computed				
24		4033321.2264	4184077.3950	382.1961
From:	24	Inst. Ht: 5.14	Target Ht: 5.29	
	Hz: 354 23 59.5	Vt: 90 52 04.0	Dist: 453.11	
	Hz: 354 24 02.5	Vt: 90 52 02.5	Dist: 453.11	
Averages:	354 24 01.0	90 52 03.2	453.11	
Std Deviation:	00 00 02.1	00 00 00.9	0.00	
Scale Factor:	0.99998990			
Traverse N 56 46 42.0 E		Ht. Dist: 453.05	Vt. Dist: -7.01	
424				
From:	424	Inst. Ht: 5.26	Target Ht: 2.12	
	Hz: 106 37 02.5	Vt: 99 37 09.5	Dist: 198.28	
	Hz: 106 37 04.5	Vt: 99 37 08.5	Dist: 198.28	
Averages:	106 37 03.5	99 37 09.0	198.28	
Std Deviation:	00 00 01.4	00 00 00.6	0.00	
Scale Factor:	0.99999080			
Traverse N 16 36 14.5 W		Ht. Dist: 195.49	Vt. Dist: -29.99	
425				
Closing Point:				
227		4033756.9482	4184400.6903	341.4116
Ref. Line: N 00 00 00.0 E				
Misclosure:				
Closing Angle:				
Hz. Direction:		N 42 57 00.0 E		

Point	Descriptor	NORTH	EAST	ELEV
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Hz. Distance:	0.22			
Vt. Distance:	3.79			
Traverse Closure:				
Length of Traverse:	648.54			
Angular Error:	- 16 36 14.5			
Precision:	2894.82			

Angle Balance:	OFF			
Horizontal Adjustment:	L SQUARE			
Vertical Adjustment:	ON			
Standard Errors:				
Angles:	00 00 01.5			
Distances:	+/- 0.01	+ 2	ppm	

ADJUSTED COORDINATES

24	25	4033321.2264	4184077.3950	382.1961
From:	24			
Traverse	N 56 46 42.9 E	Hz. Dist: 453.25	Vt. Dist: -9.65	
424		4033569.5524	4184456.5677	372.5445
From:	424			
Traverse	N 16 36 12.4 W	Hz. Dist: 195.55	Vt. Dist: -31.13	
425		4033756.9482	4184400.6903	341.4116

Date: 12-03-92
Time: 12:59:19
Page: 1

=====

FIELD DATA COMPILER

=====

Field Data File: PV10.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 229 S 1 22 10.7 W				
Backsight Point: 30				
Scale Factor: Computed				
229		4033035.0376	4185588.7787	388.1203
From:	229	Inst. Ht: 4.90	Target Ht: 5.22	
	Hz: 32 51 29.5	Vt: 92 11 14.0	Dist: 146.74	
	Hz: 32 51 27.5	Vt: 92 11 16.5	Dist: 146.74	
Averages:	32 51 28.5	92 11 15.3	146.74	
Std Deviation:	00 00 01.4	00 00 01.4	0.00	
Scale Factor:	0.99998973			
Traverse S 34 13 39.2 W		Hz. Dist: 146.63	Vt. Dist: -5.92	
426				
From:	426	Inst. Ht: 5.20	Target Ht: 5.30	
	Hz: 237 34 01.0	Vt: 92 56 29.0	Dist: 664.40	
	Hz: 237 33 54.0	Vt: 92 56 28.5	Dist: 664.40	
Averages:	237 33 57.5	92 56 28.8	664.40	
Std Deviation:	00 00 04.9	00 00 00.3	0.00	
Scale Factor:	0.99999071			
Traverse N 88 12 23.3 W		Hz. Dist: 663.52	Vt. Dist: -34.18	
427				
From:	427	Inst. Ht: 5.11	Target Ht: 4.84	
	Hz: 211 50 15.0	Vt: 92 50 21.5	Dist: 332.10	
	Hz: 211 50 15.0	Vt: 92 50 25.0	Dist: 332.10	
Averages:	211 50 15.0	92 50 23.3	332.10	
Std Deviation:	00 00 00.0	00 00 02.0	0.00	
Scale Factor:	0.99999189			

Point	Descriptor	NORTH	EAST	ELEV
Traverse N 56 22 08.3 W 428		Hz. Dist: 331.69	Vt. Dist: -16.18	
From: 428		Inst. Ht: 4.78	Target Ht: 4.84	
Hz: 180 46 07.5		Vt: 90 28 54.0	Dist: 143.41	
Hz: 180 46 09.0		Vt: 90 28 53.5	Dist: 143.41	
Averages: 180 46 08.3		90 28 53.7	143.41	
Std Deviation: 00 00 01.1		00 00 00.3	0.00	
Scale Factor: 0.99999226				

Traverse N 55 36 00.0 W Hz. Dist: 143.40 Vt. Dist: -1.26
429

Closing Point:
26 4033199.3165 4184448.5845 330.5359
Ref. Line: N 00 00 00.0 E

Misclosure:
Closing Angle:
Hz. Direction: N 45 07 01.4 W
Hz. Distance: 0.04
Vt. Distance: 0.03

Traverse Closure:
Length of Traverse: 1285.24
Angular Error: - 55 36 00.0
Precision: 34377.66

Angle Balance: OFF
Horizontal Adjustment: L SQUARE
Vertical Adjustment: ON
Standard Errors:
Angles: 00 00 01.5
Distances: +/- 0.01 + 2 ppm

ADJUSTED COORDINATES

229	30	4033035.0376	4185588.7787	388.1203
From: 229				
Traverse S 34 13 39.9 W 426		Hz. Dist: 146.63 4032913.8065	Vt. Dist: -5.92 4185506.3043	382.1957
From: 426				
Traverse N 88 12 22.0 W 427		Hz. Dist: 663.53 4032934.5778	Vt. Dist: -34.20 4184843.1014	347.9946
From: 427				
Traverse N 56 22 07.2 W 428		Hz. Dist: 331.70 4033118.2906	Vt. Dist: -16.19 4184566.9192	331.8047
From: 428				
Traverse N 55 35 59.4 W 429		Hz. Dist: 143.42 4033199.3165	Vt. Dist: -1.27 4184448.5845	330.5359

Date: 12-03-92
 Time: 12:59:49
 Page: 1

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FIELD DATA COMPILER

=====

Field Data File: PV11.FLD
 Coordinate File: PV.CRD
 Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
 Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 224		S 87 58 33.7 E		
Backsight Point: 303				
Scale Factor: Computed				
224		4031857.9596	4182789.6877	436.5158
From: 224	Inst. Ht: 4.76	Target Ht: 5.02		
Hz: 227 56 57.5	Vt: 89 41 41.5	Dist: 449.57		
Hz: 227 56 54.0	Vt: 89 41 39.0	Dist: 449.57		
Averages: 227 56 55.8		89 41 40.2		449.57
Std Deviation: 00 00 02.5		00 00 01.4		0.00
Scale Factor: 0.99998751				
Traverse N 40 01 37.9 W		Hz. Dist: 449.56	Vt. Dist: 2.14	
430				
Closing Point:				
21		4032202.1056	4182500.4492	438.8497
Ref. Line: N 00 00 00.0 E				

Misclosure:

Closing Angle:
 Hz. Direction: S 46 51 24.4 W
 Hz. Distance: 0.14
 Vt. Distance: -0.19

Traverse Closure:
 Length of Traverse: 449.56
 Angular Error: - 40 01 37.9
 Precision: 3131.19

Angle Balance: OFF
 Horizontal Adjustment: L SQUARE

Point	Descriptor	NORTH	EAST	ELEV
Vertical Adjustment:		ON		
Standard Errors:				
Angles:		00 00 01.5		
Distances:		+/- 0.01	+ 2	ppm

ADJUSTED COORDINATES

224	303	4031857.9596	4182789.6877	436.5158
From:	224			
Traverse	N 40 02 43.7 W	Hz. Dist: 449.55	Vt. Dist: 2.33	
430		4032202.1056	4182500.4492	438.8497

Date: 12-03-92
 Time: 13:00:34
 Page: 1

=====

FIELD DATA COMPILER

=====

Field Data File: PV12.FLD
 Coordinate File: PV.CRD
 Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
 Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
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Reference Line From: 222 N 54 04 32.3 W
 Backsight Point: 19
 Scale Factor: Computed

222 4033194.0132 4181352.6663 424.8652

From:	222	Inst. Ht:	4.76	Target Ht:	5.44
	Hz: 188 42 46.5	Vt:	88 54 21.5	Dist:	992.36
	Hz: 188 42 47.0	Vt:	88 54 19.0	Dist:	992.36
Averages:	188 42 46.7		88 54 20.3		992.36
Std Deviation:	00 00 00.3		00 00 01.4		0.00
Scale Factor:	0.99998742				

Traverse S 45 21 45.6 E Hz. Dist: 992.17 Vt. Dist: 18.29
 431

Closing Point:
 20 4032496.9407 4182058.6264 443.2688
 Ref. Line: N 00 00 00.0 E

Misclosure:
 Closing Angle:
 Hz. Direction: N 40 02 19.8 W
 Hz. Distance: 0.05
 Vt. Distance: -0.11
 Traverse Closure:
 Length of Traverse: 992.17
 Angular Error: 134 38 14.4
 Precision: 18880.89

Angle Balance: OFF
 Horizontal Adjustment: L SQUARE

Page: 2

Point	Descriptor	NORTH	EAST	ELEV
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Vertical Adjustment: ON

Standard Errors:

Angles: 00 00 01.5

Distances: +/- 0.01 + 2 ppm

ADJUSTED COORDINATES

222	19	4033194.0132	4181352.6663	424.8652
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From: 222

Traverse	S 45 21 46.6 E	Hz. Dist: 992.11	Vt. Dist: 18.40
431		4032496.9407	4182058.6264 443.2688

Date: 12-03-92
Time: 13:01:18
Page: 1

=====

FIELD DATA COMPILER

=====

Field Data File: PV13.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 221 N 60 30 32.8 E				
Backsight Point: 16				
Scale Factor: Computed				
221		4034362.3943	4179263.9161	500.9906
From:	221	Inst. Ht: 4.79	Target Ht: 5.34	
	Hz: 4 52 28.5	Vt: 94 24 02.5	Dist: 432.73	
	Hz: 4 52 29.0	Vt: 94 24 02.0	Dist: 432.73	
Averages:	4 52 28.7	94 24 02.2	432.73	
Std Deviation:	00 00 00.4	00 00 00.3	0.00	
Scale Factor:	0.99998455			
Traverse N 65 23 01.5 E		Hz. Dist: 431.45	Vt. Dist: -33.75	
432				
From:	432	Inst. Ht: 5.05	Target Ht: 5.11	
	Hz: 105 26 59.0	Vt: 90 29 23.0	Dist: 797.27	
	Hz: 105 27 01.0	Vt: 90 29 28.5	Dist: 797.27	
Averages:	105 27 00.0	90 29 25.8	797.27	
Std Deviation:	00 00 01.4	00 00 03.2	0.00	
Scale Factor:	0.99998539			
Traverse N 9 09 58.5 W		Hz. Dist: 797.23	Vt. Dist: -6.87	
433				
Closing Point:				
15		4035329.1556	4179529.1147	460.4457
Ref. Line: N 00 00 00.0 E				
Misclosure:				
Closing Angle:				
Hz. Direction:		S 86 47 57.6 W		

Page: 2

Point	Descriptor	NORTH	EAST	ELEV
	Hz. Distance:	0.04		
	Vt. Distance:	-0.08		
	Traverse Closure:			
	Length of Traverse:	1228.68		
	Angular Error:	- 9 09 58.5		
	Precision:	30555.61		
	Angle Balance:	OFF		
	Horizontal Adjustment:	L SQUARE		
	Vertical Adjustment:	ON		
	Standard Errors:			
	Angles:	00 00 01.5		
	Distances:	+/- 0.01	+ 2	ppm

ADJUSTED COORDINATES

221	16	4034362.3943	4179263.9161	500.9906
From:	221			
Traverse	N 65 23 00.2 E	Hz. Dist: 431.42	Vt. Dist: -33.72	
432		4034542.0980	4179656.1223	467.2680
From:	432			
Traverse	N 9 10 00.5 W	Hz. Dist: 797.24	Vt. Dist: -6.82	
433		4035329.1556	4179529.1147	460.4457

Date: 12-03-92
Time: 13:01:59
Page: 1

=====

FIELD DATA COMPILER

=====

Field Data File: PV14.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 215 N 27 26 00.0 E				
Backsight Point: 11				
Scale Factor: Computed				
215		4036093.4674	4180783.1289	366.8164
From:	215	Inst. Ht: 5.11	Target Ht: 3.17	
	Hz: 95 08 01.5	Vt: 88 13 13.5	Dist: 216.87	
	Hz: 95 07 57.0	Vt: 88 13 12.5	Dist: 216.87	
Averages:	95 07 59.2	88 13 13.0	216.87	
Std Deviation:	00 00 03.2	00 00 00.6	0.00	
Scale Factor:	0.99998955			
Traverse S 57 26 00.8 E		Hz. Dist: 216.76	Vt. Dist: 8.68	
434				
From:	434	Inst. Ht: 5.16	Target Ht: 5.35	
	Hz: 303 10 16.0	Vt: 86 54 52.5	Dist: 1578.26	
	Hz: 303 10 09.0	Vt: 86 54 46.0	Dist: 1578.25	
Averages:	303 10 12.5	86 54 49.3	1578.26	
Std Deviation:	00 00 04.9	00 00 03.8	0.01	
Scale Factor:	0.99998737			
Traverse S 65 44 11.8 W		Hz. Dist: 1575.94	Vt. Dist: 84.83	
435				
Closing Point:				
15		4035329.1556	4179529.1147	460.4457
Ref. Line: N 00 00 00.0 E				
Misclosure:				
Closing Angle:				
Hz. Direction:		S 54 39 26.9 E		

Point	Descriptor	NORTH	EAST	ELEV
	Hz. Distance:	0.05		
	Vt. Distance:	-0.12		
	Traverse Closure:			
	Length of Traverse:	1792.71		
	Angular Error:	-114 15 48.2		
	Precision:	37815.77		

Angle Balance: OFF
 Horizontal Adjustment: L SQUARE
 Vertical Adjustment: ON
 Standard Errors:
 Angles: 00 00 01.5
 Distances: +/- 0.01 + 2 ppm

ADJUSTED COORDINATES

215	11	4036093.4674	4180783.1289	366.8164
From:	215			
Traverse	S 57 26 02.0 E	Hz. Dist: 216.79	Vt. Dist: 8.69	
434		4035976.7763	4180965.8316	375.5070
From:	434			
Traverse	S 65 44 09.1 W	Hz. Dist: 1575.93	Vt. Dist: 84.94	
435		4035329.1556	4179529.1147	460.4457

Date: 12-03-92
Time: 13:02:22
Page: 1

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FIELD DATA COMPILER

=====

Field Data File: PV15.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 205 S 9 15 36.3 W				
Backsight Point: 9				
Scale Factor: Computed				
205		4037761.7985	4182250.0498	225.6813
From:	205	Inst. Ht: 5.32	Target Ht: 4.78	
	Hz: 166 22 30.5	Vt: 92 39 40.5	Dist: 201.84	
	Hz: 166 22 30.0	Vt: 92 39 39.0	Dist: 201.84	
Averages:	166 22 30.2	92 39 39.8	201.84	
Std Deviation:	00 00 00.4	00 00 00.9	0.00	
Scale Factor:	0.99999616			
Traverse N	4 21 53.4 W	Hz. Dist: 201.62	Vt. Dist: -8.83	
436				
From:	436	Inst. Ht: 5.17	Target Ht: 4.23	
	Hz: 20 46 05.0	Vt: 87 30 23.5	Dist: 482.83	
	Hz: 20 46 04.5	Vt: 87 30 25.5	Dist: 482.83	
Averages:	20 46 04.8	87 30 24.5	482.83	
Std Deviation:	00 00 00.4	00 00 01.2	0.00	
Scale Factor:	0.99999589			
Traverse S	16 24 11.3 W	Hz. Dist: 482.38	Vt. Dist: 21.95	
437				
From:	437	Inst. Ht: 5.34	Target Ht: 4.68	
	Hz: 29 57 35.0	Vt: 92 13 49.5	Dist: 178.30	
	Hz: 29 57 31.5	Vt: 92 13 47.5	Dist: 178.30	
Averages:	29 57 33.2	92 13 48.5	178.30	
Std Deviation:	00 00 02.5	00 00 01.2	0.00	
Scale Factor:	0.99999556			

Point	Descriptor	NORTH	EAST	ELEV
Traverse N 46 21 44.6 E 438		Hz. Dist: 178.16	Vt. Dist: -6.28	

Closing Point:
 9 4037623.0043 4182227.4206 232.5096
 Ref. Line: N 00 00 00.0 E

Misclosure:
 Closing Angle:
 Hz. Direction: S 7 20 59.0 W
 Hz. Distance: 0.04
 Vt. Distance: 0.01
 Traverse Closure:
 Length of Traverse: 862.16
 Angular Error: 46 21 44.6
 Precision: 21961.75

Angle Balance: OFF
 Horizontal Adjustment: L SQUARE
 Vertical Adjustment: ON
 Standard Errors:
 Angles: 00 00 01.5
 Distances: +/- 0.01 + 2 ppm

ADJUSTED COORDINATES

205	9	4037761.7985	4182250.0498	225.6813
From:	205			
Traverse	N 4 21 53.6 W	Hz. Dist: 201.60	Vt. Dist: -8.83	
436		4037962.8153	4182234.7063	216.8483
From:	436			
Traverse	S 16 24 10.8 W	Hz. Dist: 482.39	Vt. Dist: 21.94	
437		4037500.0568	4182098.4828	238.7898
From:	437			
Traverse	N 46 21 44.5 E	Hz. Dist: 178.16	Vt. Dist: -6.28	
438		4037623.0043	4182227.4206	232.5096

Date: 12-03-92
Time: 13:02:46
Page: 1

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FIELD DATA COMPILER

=====

Field Data File: PV16.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
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Reference Line From: 202 S 3 20 00.5 E
Backsight Point: 8
Scale Factor: Computed

202 4037746.6168 4182644.1034 218.1907

From: 202 Inst. Ht: 4.99 Target Ht: 5.19
Hz: 168 35 11.5 Vt: 93 56 04.0 Dist: 399.79
Hz: 168 35 11.0 Vt: 93 56 04.5 Dist: 399.78
Averages: 168 35 11.3 93 56 04.3 399.79
Std Deviation: 00 00 00.4 00 00 00.3 0.00
Scale Factor: 0.99999692

Traverse N 14 44 49.3 W Hz. Dist: 398.84 Vt. Dist: -27.63
439

Closing Point:
7 4038132.2995 4182542.5261 190.5957
Ref. Line: N 00 00 00.0 E

Misclosure:
Closing Angle:
Hz. Direction: S 65 27 18.3 W
Hz. Distance: 0.06
Vt. Distance: -0.03

Traverse Closure:
Length of Traverse: 398.84
Angular Error: - 14 44 49.3
Precision: 7129.60

Angle Balance: OFF
Horizontal Adjustment: L SQUARE

Page: 2

Point	Descriptor	NORTH	EAST	ELEV
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Vertical Adjustment: ON

Standard Errors:

Angles: 00 00 01.5

Distances: +/- 0.01 + 2 ppm

ADJUSTED COORDINATES

202	8	4037746.6168	4182644.1034	218.1907
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From: 202

Traverse	N 14 45 17.8 W	Hz. Dist: 398.83	Vt. Dist: -27.60
439		4038132.2995	4182542.5261 190.5957

Date: 12-03-92
Time: 13:03:13
Page: 1

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FIELD DATA COMPILER

=====

Field Data File: PV17.FLD
Coordinate File: PV.CRD
Plot File: BAD.PLT

Field File Check:

Compiler Errors: 0
Missing Data: 0

Point	Descriptor	NORTH	EAST	ELEV
Reference Line From: 234 N 83 38 06.4 W				
Backsight Point: 10				
Scale Factor: Computed				
234		4037275.1778	4182134.6141	254.0006
From:	234	Inst. Ht: 6.09	Target Ht: 4.70	
	Hz: 322 15 11.5	Vt: 87 36 47.5	Dist: 65.50	
	Hz: 322 15 12.5	Vt: 87 36 52.5	Dist: 65.50	
Averages:	322 15 12.0	87 36 50.0	65.50	
Std Deviation:	00 00 00.7	00 00 02.9	0.00	
Scale Factor:	0.99999469			
Traverse S 58 37 05.6 W Hz. Dist: 65.44 Vt. Dist: 4.12				
440				
From:	440	Inst. Ht: 5.18	Target Ht: 4.60	
	Hz: 153 58 57.0	Vt: 86 51 23.5	Dist: 72.72	
	Hz: 153 59 02.0	Vt: 86 51 23.0	Dist: 72.72	
Averages:	153 58 59.5	86 51 23.3	72.72	
Std Deviation:	00 00 03.5	00 00 00.3	0.00	
Scale Factor:	0.99999447			
Traverse S 32 36 05.1 W Hz. Dist: 72.61 Vt. Dist: 4.57				
441				
Closing Point:				
39		4037179.9460	4182039.6036	262.7398
Ref. Line: N 00 00 00.0 E				
Misclosure:				
Closing Angle:				
Hz. Direction: N 49 14 34.4 W				

Point	Descriptor	NORTH	EAST	ELEV
	Hz. Distance:	0.03		
	Vt. Distance:	-0.05		
	Traverse Closure:			
	Length of Traverse:	138.05		
	Angular Error:	-147 23 54.9		
	Precision:	5493.96		
	Angle Balance:	OFF		
	Horizontal Adjustment:	L SQUARE		
	Vertical Adjustment:	ON		
	Standard Errors:			
	Angles:	00 00 01.5		
	Distances:	+/- 0.01	+ 2	ppm

ADJUSTED COORDINATES

234	10	4037275.1778	4182134.6141	254.0006
From:	234			
Traverse	S 58 37 07.3 W	Hz. Dist: 65.50	Vt. Dist: 4.14	
440		4037241.0715	4182078.6979	258.1434
From:	440			
Traverse	S 32 36 06.8 W	Hz. Dist: 72.56	Vt. Dist: 4.60	
441		4037179.9460	4182039.6036	262.7398

LOCATION PALOS VERDES LANDFILL
MONITORING WELL LOCATIONS

F.B. No. _____ Page 175

SURVEY BY G. TOWNER

DISTRICT No. _____ A.F.E. _____

DATE 11-92

SURVEY NOTES

HORIZONTAL TRAVERSE #1 - REFERENCE CONTROL POINT

COORD. STA. NO.	DESCRIPTION
1	T AT L.A. COUNTY SURVEYOR MON. TORRANCE K-12 AT INT. P.C.H. & HAWTHORNE AVE.
2	ES. & ROAD P.I. AT P.C.H. AND ANZA AVE. FOUND PUNCHED SPIKE IN ASPHALT
3	TO L.A. CO. SURVEYOR MON. TORRANCE K-11 IN NORTH-BOUND LANES HAWTHORNE AVE. NO. OF P.C.H.
	40K. 2 FT.
	D 2-22-22 00
	R 179-59-59
	D 65-30-11 12
	R 246-39-14
	MEAN \angle 65° 20' 12"
	MEAN \angle 65° 20' 12"
	D 3-20-22 12
	R 189-22-22
	D 65-30-13 15
	R 246-33-16
	MEAN \angle 65° 20' 12"
	40K. DIST. = 16'' .75'
	NOTE: REFERENCE POINT & LINE ONLY NOT USED
	FOR TRAVERSE CLOSURE CALCULATIONS.

PLOTTED ON DRAWING No. _____

FORM 107 5M 9-78 62

Date: 12-05-92
 Time: 12:21:48
 Page: 1

ACTIVE FILES:

Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PLAY.CRD
 Job No:
 Descr:
 Field Data File: PV1.FLD
 Job No: 5066909
 Descr: wells
 Plot File: PV.PLT
 Job No: 5066909
 Descr: wells
 Summary File: PV.CMD
 Job No:
 Descr:

=====

FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:

Angles: DDD.mmsss Distances: USFeet

Methods of Measurement:

Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	1		N 64 42 39.0 W
0002	2 OCCUPY	1	6.59	
0003	31 FS SS	2		5.19
0004	BS		00 00 00.0 90 29 46.0	0.00
0005	FS		00 00 00.0 90 29 46.0	2283.00
0006	2 OCCUPY	1	6.59	N 64 42 39.0 W
0007	3 FS TP	4		3.63
0008	BS		00 00 00.0 90 46 10.0	0.00
0009	FS		243 49 53.0 88 27 28.0	2001.15
0010	BS		179 59 51.0 269 36 41.0	0.00
0011	FS		63 49 54.0 271 32 32.0	0.00
0012	BS		00 00 00.0 90 43 56.0	0.00
0013	FS		243 49 56.0 88 27 30.0	2001.15
0014	BS		179 59 52.0 269 32 32.0	0.00
0015	FS		63 49 53.0 271 32 30.0	0.00
0016	2 OCCUPY	4	5.16	1
0017	3 FS TP	5		5.27
0018	BS		00 00 00.0 91 36 23.0	0.00

Rec.	Command	HZ	VT	SD
0019	FS	100 58	43.0	90 04 39.0 999.24
0020	BS	180 00	00.0	268 23 16.0 2001.21
0021	FS	280 58	43.0	269 55 20.0 0.00
0022	BS	00 00	00.0	91 36 40.0 0.00
0023	FS	100 58	42.0	90 04 40.0 999.24
0024	BS	180 00	02.0	268 23 20.0 2001.21
0025	FS	280 58	42.0	269 55 20.0 0.00
0026	2 OCCUPY	5	5.16	4
0027	3 FS TP	6		4.96
0028	BS	00 00	00.0	90 14 15.0 0.00
0029	FS	260 06	38.0	88 16 39.0 826.13
0030	BS	180 00	07.0	270 31 42.0 0.00
0031	FS	80 06	45.0	271 43 42.0 826.13
0032	2 OCCUPY	6	5.11	5
0033	31 FS SS	201		4.94
0034	BS	00 00	00.0	91 55 17.0 0.00
0035	FS	277 09	26.0	89 44 59.0 217.16
0036	BS	180 00	05.0	268 26 46.0 0.00
0037	FS	97 09	31.0	270 15 34.0 217.16
0038	3 FS TP	7		4.94
0039	BS	00 00	00.0	91 50 17.0 0.00
0040	FS	186 54	27.0	87 19 37.0 319.16
0041	BS	180 00	03.0	268 32 53.0 0.00
0042	FS	6 54	33.0	272 40 52.0 319.16
0043	2 OCCUPY	7	5.21	6
0044	31 FS SS	202		4.78
0045	BS	00 00	00.0	92 41 19.0 0.00
0046	FS	158 07	36.0	86 06 30.0 399.76
0047	BS	180 00	00.0	267 35 41.0 0.00
0048	FS	338 07	37.0	273 54 01.0 399.76
0049	3 FS TP	8		5.00
0050	BS	00 00	00.0	4 14 58.0 0.00
0051	FS	160 07	18.0	86 17 19.0 483.30
0052	BS	179 59	57.0	267 29 39.0 0.00
0053	FS	340 07	25.0	273 43 13.0 483.30
0054	2 OCCUPY	8	5.22	7
0055	31 FS SS	203		4.95
0056	BS	00 00	00.0	93 43 01.0 0.00
0057	FS	274 25	09.0	88 49 34.0 271.33
0058	BS	179 59	58.0	266 34 46.0 0.00
0059	FS	94 25	20.0	271 11 06.0 271.33
0060	3 FS TP	9		4.89
0061	BS	00 00	00.0	93 57 12.0 0.00
0062	FS	277 29	04.0	88 39 03.0 423.53
0063	BS	180 00	05.0	266 30 40.0 0.00
0064	FS	97 29	09.0	271 21 38.0 423.53
0065	2 OCCUPY	9	5.04	8
0066	31 FS SS	204		4.80
0067	BS	00 00	00.0	91 26 45.0 0.00
0068	FS	276 30	18.0	92 41 32.0 340.25

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Rec.	Command	HZ	VT	SD	
0069	BS	179 59 53.0	268 36 06.0	0.00	
0070	FS	96 30 16.0	267 19 04.0	340.25	
0071	31 FS SS	205			4.90
0072	BS	00 00 00.0	91 30 13.0	0.00	
0073	FS	284 32 04.0	92 50 30.0	140.80	
0074	BS	180 00 04.0	268 51 44.0	0.00	
0075	FS	104 32 08.0	267 10 04.0	140.80	
0076	31 FS SS	206			5.23
0077	BS	00 00 00.0	91 36 02.0	0.00	
0078	FS	235 52 00.0	93 17 14.0	128.85	
0079	BS	180 00 03.0	268 44 03.0	0.00	
0080	FS	55 52 01.0	266 43 21.0	128.85	
0081	31 FS SS	207			5.41
0082	BS	00 00 00.0	91 12 37.0	0.00	
0083	FS	141 38 22.0	87 52 43.0	178.27	
0084	BS	180 00 01.0	268 37 25.0	0.00	
0085	FS	321 38 26.0	272 07 53.0	178.28	
0086	3 FS TP	10			4.57
0087	BS	00 00 00.0	91 12 12.0	0.00	
0088	FS	124 23 30.0	86 45 28.0	386.63	
0089	BS	179 59 59.0	268 29 11.0	0.00	
0090	FS	304 23 23.0	273 15 09.0	386.63	
0091	2 OCCUPY	10	5.28	9	
0092	31 FS SS	208			4.88
0093	BS	00 00 00.0	93 08 38.0	0.00	
0094	FS	299 53 19.0	92 22 34.0	285.07	
0095	BS	180 00 01.0	266 37 46.0	0.00	
0096	FS	119 53 22.0	267 38 02.0	285.07	
0097	31 FS SS	209			5.13
0098	BS	00 00 00.0	93 32 03.0	0.00	
0099	FS	304 21 24.0	93 52 50.0	195.12	
0100	BS	179 59 53.0	266 44 43.0	0.00	
0101	FS	124 21 28.0	266 07 43.0	195.12	
0102	31 FS SS	210			5.14
0103	BS	00 00 00.0	93 23 05.0	0.00	
0104	FS	318 30 05.0	94 54 32.0	117.35	
0105	BS	179 59 54.0	266 54 37.0	0.00	
0106	FS	138 30 12.0	265 06 07.0	117.35	
0107	31 FS SS	211			5.11
0108	BS	00 00 00.0	93 30 19.0	0.00	
0109	FS	281 53 23.0	93 02 05.0	55.01	
0110	BS	179 59 57.0	266 49 02.0	0.00	
0111	FS	101 53 32.0	266 58 29.0	55.01	
0112	31 FS SS	212			5.09
0113	BS	00 00 00.0	93 29 57.0	0.00	
0114	FS	205 21 57.0	87 15 41.0	135.35	
0115	BS	179 59 56.0	266 46 22.0	0.00	
0116	FS	25 21 55.0	272 44 48.0	135.35	
0117	31 FS SS	213			5.13
0118	BS	00 00 00.0	93 31 07.0	0.00	
0119	FS	199 59 05.0	86 45 08.0	223.92	
0120	BS	179 59 56.0	266 41 42.0	0.00	
0121	FS	19 59 06.0	273 15 24.0	223.92	
0122	31 FS SS	214			4.64

Rec.	Command	HZ	VT	SD
0123	BS	00 00 00.0	93 29 13.0	0.00
0124	FS	200 40 31.0	86 35 38.0	394.53
0125	BS	180 00 04.0	266 50 08.0	0.00
0126	FS	20 40 34.0	273 24 55.0	394.53
0127	3 FS TP	11		
0128	BS	00 00 00.0	93 29 28.0	0.00
0129	FS	203 44 21.0	86 18 31.0	1320.92
0130	BS	180 00 01.0	266 42 45.0	0.00
0131	FS	23 44 19.0	273 42 02.0	1320.92
0132	2 OCCUPY	11	5.02	10
0133	31 FS SS	215		
0134	BS	00 00 00.0	93 56 43.0	0.00
0135	FS	154 34 46.0	86 43 22.0	447.32
0136	BS	180 00 04.0	266 19 58.0	0.00
0137	FS	334 34 41.0	273 17 11.0	447.32
0138	31 FS SS	12		
0139	BS	00 00 00.0	93 59 57.0	0.00
0140	FS	228 00 57.0	82 17 11.0	325.30
0141	BS	179 59 56.0	266 17 21.0	0.00
0142	FS	48 01 01.0	277 43 20.0	325.30
0143	2 OCCUPY	12	5.00	11
0144	31 FS SS	216		
0145	BS	00 00 00.0	98 16 44.0	0.00
0146	FS	261 47 08.0	92 07 00.0	144.08
0147	BS	180 00 09.0	262 02 07.0	0.00
0148	FS	81 47 10.0	267 52 53.0	0.00
0149	31 FS SS	13		
0150	BS	00 00 00.0	98 12 32.0	0.00
0151	FS	252 31 40.0	90 25 26.0	524.30
0152	BS	180 00 04.0	262 08 06.0	0.00
0153	FS	72 31 43.0	269 34 36.0	0.00
0154	2 OCCUPY	13	5.05	12
0155	31 FS SS	14		
0156	BS	00 00 00.0	89 54 38.0	0.00
0157	FS	207 07 50.0	94 58 47.0	203.35
0158	BS	180 00 01.0	270 26 13.0	0.00
0159	FS	27 07 52.0	265 01 27.0	0.00
0160	2 OCCUPY	13	5.39	12
0161	31 FS SS	217		
0162	BS	00 00 00.0	89 57 22.0	0.00
0163	FS	178 56 41.0	100 53 56.0	549.46
0164	BS	179 59 58.0	270 13 34.0	0.00
0165	FS	358 56 41.0	259 06 27.0	0.00
0166	2 OCCUPY	14	5.02	13
0167	31 FS SS	218		
0168	BS	00 00 00.0	85 59 56.0	0.00
0169	FS	67 56 40.0	95 27 08.0	676.96
0170	BS	180 00 03.0	274 15 37.0	0.00
0171	FS	247 56 45.0	264 32 52.0	0.00
0172	31 FS SS	219		

4.29

4.93

4.20

4.42

4.05

3.54

5.70

5.60

5.37

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Rec.	Command	HZ	VT	SD	
0173	BS	00 00 00.0	85 55	45.0	0.00
0174	FS	105 15 35.0	95 11	12.0	975.59
0175	BS	179 59 57.0	274 15	18.0	0.00
0176	FS	285 15 39.0	264 48	48.0	0.00
0177	2 OCCUPY	11	5.22		10
0178	3 FS TP	15			4.55
0179	BS	00 00 00.0	93 57	27.0	0.00
0180	FS	178 39 26.0	86 21	52.0	1868.75
0181	BS	180 00 02.0	266 28	15.0	0.00
0182	FS	358 39 21.0	273 38	15.0	0.00
0183	2 OCCUPY	15	5.11		11
0184	3 FS TP	16			5.06
0185	BS	00 00 00.0	93 49	04.0	0.00
0186	FS	118 48 44.0	89 33	52.0	755.72
0187	BS	180 00 01.0	266 29	44.0	0.00
0188	FS	298 48 41.0	270 26	28.0	0.00
0189	2 OCCUPY	15	5.11		11
0190	31 FS SS	17			5.19
0191	BS	00 00 00.0	93 50	59.0	0.00
0192	FS	201 22 14.0	84 32	50.0	565.31
0193	BS	180 00 09.0	266 33	28.0	0.00
0194	FS	21 22 08.0	275 27	39.0	0.00
0195	2 OCCUPY	17	4.98		15
0196	31 FS SS	220			4.08
0197	BS	00 00 00.0	95 34	56.0	0.00
0198	FS	153 22 29.0	87 43	47.0	77.40
0199	BS	180 00 06.0	264 50	21.0	0.00
0200	FS	333 22 24.0	272 16	32.0	0.00
0201	2 OCCUPY	16	5.22		15
0202	31 FS SS	221			4.06
0203	BS	00 00 00.0	90 37	16.0	0.00
0204	FS	250 11 10.0	85 44	58.0	451.86
0205	BS	180 00 02.0	269 46	30.0	0.00
0206	FS	70 11 12.0	274 15	22.0	0.00
0207	3 FS TP	18			4.60
0208	BS	00 00 00.0	90 34	50.0	0.00
0209	FS	142 37 34.0	90 47	26.0	652.52
0210	BS	180 00 05.0	269 40	29.0	0.00
0211	FS	322 37 31.0	269 12	57.0	652.52
0212	2 OCCUPY	18	5.08		16
0213	3 FS TP	19			4.34
0214	BS	00 00 00.0	89 18	58.0	0.00
0215	FS	175 02 27.0	91 30	42.0	1405.31
0216	BS	180 00 05.0	270 57	28.0	0.00
0217	FS	355 02 36.0	268 29	07.0	0.00
0218	2 OCCUPY	19	5.13		18
0219	31 FS SS	222			4.90
0220	BS	00 00 00.0	88 43	29.0	0.00

Rec.	Command	HZ	VT	SD
0221	FS	177 56	05.0	88 47 18.0 138.08
0222	BS	180 00	00.0	271 25 42.0 0.00
0223	FS	357 56	07.0	271 12 48.0 0.00
0224	3 FS TP	20		
0225	BS	00 00	00.0	88 43 59.0 0.00
0226	FS	185 35	09.0	88 54 49.0 1128.98
0227	BS	179 59	57.0	271 41 39.0 0.00
0228	FS	5 35	08.0	271 05 32.0 0.00
0229	2 OCCUPY	20	5.04	19
0230	3 FS TP	21		
0231	BS	00 00	00.0	91 13 11.0 0.00
0232	FS	170 08	29.0	90 29 59.0 531.19
0233	BS	180 00	05.0	269 00 00.0 0.00
0234	FS	350 08	25.0	269 30 17.0 0.00
0235	2 OCCUPY	21	5.10	20
0236	31 FS SS	223		
0237	BS	00 00	00.0	89 47 32.0 0.00
0238	FS	10 59	37.0	89 57 05.0 126.67
0239	BS	180 00	01.0	270 30 57.0 0.00
0240	FS	190 59	34.0	270 02 55.0 0.00
0241	31 FS SS	224		
0242	BS	00 00	00.0	89 37 57.0 0.00
0243	FS	196 14	27.0	90 53 26.0 449.61
0244	BS	180 00	07.0	270 35 18.0 0.00
0245	FS	16 14	19.0	269 06 34.0 0.00
0246	3 FS TP	22		
0247	BS	00 00	00.0	89 49 47.0 0.00
0248	FS	86 32	38.0	92 58 56.0 708.98
0249	BS	180 00	01.0	270 29 24.0 0.00
0250	FS	266 32	39.0	267 01 04.0 0.00
0251	2 OCCUPY	22	4.93	21
0252	31 FS SS	225		
0253	BS	00 00	00.0	87 08 30.0 0.00
0254	FS	105 27	47.0	86 14 00.0 119.35
0255	BS	179 59	57.0	273 16 57.0 0.00
0256	FS	285 27	38.0	273 46 30.0 0.00
0257	3 FS TP	23		
0258	BS	00 00	01.0	87 16 15.0 0.00
0259	FS	239 30	00.0	95 09 44.0 448.43
0260	BS	179 59	50.0	273 00 01.0 0.00
0261	FS	59 29	59.0	264 50 16.0 0.00
0262	2 OCCUPY	23	4.93	22
0263	31 FS SS	226		
0264	BS	00 00	00.0	85 07 08.0 0.00
0265	FS	297 45	30.0	92 32 34.0 172.79
0266	BS	179 59	51.0	274 58 35.0 0.00
0267	FS	117 45	25.0	267 27 26.0 0.00
0268	3 FS TP	24		
0269	BS	00 00	00.0	85 09 25.0 0.00
0270	FS	147 03	50.0	88 47 24.0 924.41
0271	BS	179 59	53.0	275 06 34.0 0.00

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Rec.	Command	HZ	VT	SD	
0272	FS	327 03 46.0	271 13 07.0	924.41	
0273	2 OCCUPY	24	5.03	23	
0274	3 FS TP	25			4.83
0275	BS	00 00 00.0	91 34 13.0	0.00	
0276	FS	185 33 08.0	90 19 17.0	444.10	
0277	BS	179 59 54.0	268 55 59.0	0.00	
0278	FS	5 33 04.0	269 41 02.0	0.00	
0279	2 OCCUPY	25	4.75	24	
0280	31 FS SS	227			4.15
0281	BS	00 00 00.0	89 47 38.0	0.00	
0282	FS	100 38 27.0	99 15 08.0	243.47	
0283	BS	180 00 00.0	270 23 57.0	0.00	
0284	FS	280 38 30.0	260 45 12.0	0.00	
0285	3 FS TP	26			3.37
0286	BS	00 00 00.0	89 52 53.0	0.00	
0287	FS	301 30 38.0	98 47 31.0	332.47	
0288	BS	179 59 55.0	270 24 23.0	0.00	
0289	FS	121 30 37.0	261 12 49.0	0.00	
0290	2 OCCUPY	26	3.65	25	
0291	31 FS SS	228			5.29
0292	BS	00 00 00.0	81 22 45.0	0.00	
0293	FS	184 50 08.0	84 55 07.0	86.69	
0294	BS	179 59 58.0	278 46 23.0	0.00	
0295	FS	4 50 08.0	275 04 26.0	0.00	
0296	31 FS SS	27			4.57
0297	BS	00 00 00.0	81 22 44.0	332.33	
0298	FS	119 19 34.0	87 56 56.0	444.55	
0299	BS	180 00 05.0	278 37 16.0	0.00	
0300	FS	299 19 37.0	272 03 04.0	0.00	
0301	BS	00 00 00.0	81 22 51.0	332.33	
0302	FS	119 19 38.0	87 56 51.0	444.55	
0303	BS	180 00 02.0	278 37 16.0	0.00	
0304	FS	299 19 32.0	272 03 04.0	0.00	
0305	2 OCCUPY	26	3.65	25	
0306	3 FS TP	28			3.75
0307	BS	00 00 00.0	81 46 20.0	0.00	
0308	FS	39 34 44.0	91 52 16.0	449.09	
0309	BS	180 00 00.0	278 42 19.0	0.00	
0310	FS	219 34 52.0	268 07 44.0	0.00	
0311	BS	00 00 00.0	81 36 20.0	0.00	
0312	FS	39 34 47.0	91 52 20.0	449.09	
0313	BS	180 00 05.0	278 52 27.0	0.00	
0314	FS	219 34 51.0	268 07 40.0	0.00	
0315	2 OCCUPY	27	5.01	26	
0316	31 FS SS	29			4.68
0317	BS	00 00 00.0	92 08 04.0	444.57	
0318	FS	156 12 02.0	86 39 32.0	265.28	
0319	BS	180 00 09.0	267 51 56.0	0.00	
0320	FS	336 11 57.0	273 20 28.0	0.00	
0321	BS	00 00 00.0	92 08 04.0	444.57	

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Rec.	Command	HZ	VT	SD
0322	FS	156 11	59.0	86 39 25.0 265.28
0323	BS	180 00	09.0	267 51 56.0 0.00
0324	FS	336 12	00.0	273 20 28.0 0.00
0325	2 OCCUPY	29		5.10 27
0326	31 FS SS	30		4.58
0327	BS	00 00	00.0	93 26 41.0 265.31
0328	FS	166 29	04.0	87 11 20.0 507.11
0329	BS	180 00	03.0	266 33 19.0 0.00
0330	FS	346 29	06.0	272 48 40.0 0.00
0331	BS	00 00	00.0	93 26 42.0 265.31
0332	FS	166 29	02.0	87 11 20.0 507.11
0333	BS	180 00	08.0	266 33 19.0 0.00
0334	FS	346 29	05.0	272 48 40.0 0.00
0335	2 OCCUPY	30		5.29 29
0336	31 FS SS	229		4.29
0337	BS	00 00	00.0	92 53 16.0 507.16
0338	FS	95 28	18.0	89 44 11.0 86.19
0339	BS	180 00	02.0	267 06 44.0 0.00
0340	FS	275 28	18.0	270 15 49.0 0.00
0341	BS	00 00	00.0	92 53 12.0 507.15
0342	FS	95 28	24.0	89 44 10.0 86.19
0343	BS	180 00	03.0	267 06 44.0 0.00
0344	FS	275 28	22.0	270 15 49.0 0.00
0345	2 OCCUPY	28		4.93 26
0346	3 FS TP	31		4.75
0347	BS	00 00	00.0	88 17 42.0 449.05
0348	FS	138 10	55.0	92 19 22.0 1834.85
0349	BS	180 00	03.0	271 42 18.0 0.00
0350	FS	318 10	52.0	267 40 38.0 0.00
0351	BS	00 00	00.0	88 17 42.0 449.05
0352	FS	138 10	54.0	92 19 19.0 1834.85
0353	BS	179 59	56.0	271 42 18.0 0.00
0354	FS	318 10	52.0	267 40 38.0 0.00
0355	2 OCCUPY	31		5.15 28
0356	31 FS SS	230		4.61
0357	BS	00 00	01.0	87 42 20.0 1834.82
0358	FS	56 45	58.0	86 32 22.0 325.87
0359	BS	180 00	01.0	272 17 40.0 0.00
0360	FS	236 45	55.0	273 27 38.0 0.00
0361	BS	00 00	00.0	87 42 31.0 1834.82
0362	FS	56 45	53.0	86 32 22.0 325.87
0363	BS	179 59	57.0	272 17 40.0 0.00
0364	FS	236 45	48.0	273 27 38.0 0.00
0365	31 FS SS	231		4.38
0366	BS	00 00	00.0	87 42 35.0 1834.82
0367	FS	359 09	41.0	88 37 32.0 389.55
0368	BS	179 59	56.0	272 17 25.0 0.00
0369	FS	179 09	37.0	271 22 28.0 0.00
0370	BS	00 00	00.0	87 52 11.0 0.00
0371	FS	359 09	39.0	88 37 33.0 389.55
0372	BS	179 59	52.0	272 17 25.0 0.00

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Rec.	Command	HZ	VT	SD	
0373	FS	179 09 36.0	271 22 28.0	0.00	
0374	31 FS SS	232			4.44
0375	BS	00 00 00.0	87 52 22.0	0.00	
0376	FS	266 58 28.0	81 58 54.0	295.49	
0377	BS	179 59 53.0	272 31 16.0	0.00	
0378	FS	86 58 18.0	278 01 06.0	0.00	
0379	BS	00 00 00.0	87 51 12.0	0.00	
0380	FS	266 58 32.0	81 58 55.0	295.49	
0381	BS	179 59 54.0	272 29 38.0	0.00	
0382	FS	86 58 18.0	278 01 06.0	0.00	
0383	2 OCCUPY	31	4.24	28	
0384	3 FS TP	32			4.01
0385	BS	00 00 00.0	87 55 43.0	0.00	
0386	FS	226 35 18.0	92 59 53.0	740.93	
0387	BS	179 59 51.0	272 24 18.0	0.00	
0388	FS	46 35 09.0	267 00 07.0	0.00	
0389	BS	00 00 00.0	87 48 57.0	0.00	
0390	FS	226 35 16.0	92 59 53.0	740.94	
0391	BS	179 59 54.0	272 25 33.0	0.00	
0392	FS	46 35 07.0	267 00 07.0	0.00	
0393	2 OCCUPY	32	5.09	31	
0394	3 FS TP	33			4.74
0395	BS	00 00 00.0	87 09 15.0	740.84	
0396	FS	184 01 10.0	91 24 39.0	437.21	
0397	BS	179 59 54.0	272 50 45.0	0.00	
0398	FS	4 01 06.0	268 35 21.0	0.00	
0399	BS	00 00 00.0	87 09 14.0	740.84	
0400	FS	184 01 14.0	91 24 41.0	437.21	
0401	BS	180 00 02.0	272 50 45.0	0.00	
0402	FS	4 01 11.0	268 35 21.0	0.00	
0403	2 OCCUPY	33	5.08	32	
0404	31 FS SS	34			4.76
0405	BS	00 00 00.0	88 39 22.0	437.20	
0406	FS	151 55 12.0	92 29 56.0	249.91	
0407	BS	179 59 59.0	271 20 38.0	0.00	
0408	FS	331 55 04.0	267 30 04.0	0.00	
0409	BS	00 00 00.0	88 39 21.0	437.20	
0410	FS	151 55 07.0	92 29 55.0	249.91	
0411	BS	179 59 53.0	271 20 38.0	0.00	
0412	FS	331 55 02.0	267 30 04.0	0.00	
0413	3 FS TP	35			4.66
0414	BS	00 00 00.0	88 39 18.0	437.20	
0415	FS	148 34 37.0	92 01 07.0	1374.83	
0416	BS	179 59 59.0	271 20 42.0	0.00	
0417	FS	328 34 37.0	267 58 53.0	0.00	
0418	BS	00 00 00.0	88 39 20.0	437.20	
0419	FS	148 34 38.0	92 01 04.0	1374.83	
0420	BS	179 59 59.0	271 20 42.0	0.00	
0421	FS	328 34 38.0	267 58 53.0	0.00	
0422	2 OCCUPY	34	5.03	33	
0423	31 FS SS	233			4.65

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Rec.	Command	HZ	VT	SD
0424	BS	00 00 00.0	87 35 19.0	249.90
0425	FS	102 49 57.0	90 48 57.0	177.33
0426	BS	179 59 50.0	272 24 41.0	0.00
0427	FS	282 49 53.0	269 11 03.0	0.00
0428	BS	00 00 00.0	87 35 17.0	249.89
0429	FS	102 49 57.0	90 48 58.0	177.33
0430	BS	179 59 51.0	272 24 41.0	0.00
0431	FS	282 49 55.0	269 11 03.0	0.00
0432	2 OCCUPY	35	5.23	33
0433	3 FS TP	36		5.54
0434	BS	00 00 00.0	88 00 52.0	1374.81
0435	FS	113 03 30.0	90 18 45.0	3780.74
0436	BS	180 00 06.0	271 59 08.0	0.00
0437	FS	293 03 31.0	269 40 50.0	0.00
0438	BS	00 00 00.0	88 00 52.0	1374.81
0439	FS	113 03 26.0	90 18 38.0	3780.74
0440	BS	179 59 55.0	271 59 08.0	0.00
0441	FS	293 03 15.0	269 41 15.0	0.00
0442	2 OCCUPY	36	5.12	35
0443	3 FS TP	37		5.32
0444	BS	00 00 00.0	89 41 29.0	3780.73
0445	FS	180 41 40.0	90 43 56.0	1472.09
0446	BS	179 59 49.0	270 18 30.0	0.00
0447	FS	00 41 39.0	269 16 04.0	0.00
0448	BS	00 00 00.0	89 42 04.0	3780.73
0449	FS	180 41 56.0	90 44 05.0	1472.09
0450	BS	180 00 12.0	270 18 31.0	0.00
0451	FS	00 41 51.0	269 16 04.0	0.00
0452	2 OCCUPY	37	5.19	36
0453	3 FS TP	38		6.73
0454	BS	00 00 00.0	89 16 19.0	1472.09
0455	FS	160 09 22.0	90 33 21.0	939.33
0456	BS	179 59 56.0	270 43 40.0	0.00
0457	FS	340 09 19.0	269 26 39.0	0.00
0458	BS	00 00 00.0	89 16 19.0	1472.09
0459	FS	160 09 22.0	90 33 00.0	939.33
0460	BS	180 00 05.0	270 43 41.0	0.00
0461	FS	340 09 23.0	269 27 00.0	0.00
0462	4 CLOSE	1		N 00 00 00.0 E

Date: 11-18-92
 Time: 13:46:51
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ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV2.FLD
 Job No: 5066909
 Descr: wells
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	10	9	N 29 06 58.6 E
0002	2 OCCUPY	10	5.41	
0003	3 FS TP	39		4.69
0004	BS	00 00 01.0	93 21 28.0	386.67
0005	FS	150 52 45.0	86 08 46.0	106.08
0006	BS	180 00 02.0	266 38 15.0	0.00
0007	FS	330 52 46.0	273 51 14.0	0.00
0008	BS	00 00 00.0	93 21 29.0	386.67
0009	FS	150 52 43.0	86 08 53.0	106.08
0010	BS	179 59 55.0	266 38 18.0	0.00
0011	FS	330 52 45.0	273 51 14.0	0.00
0012	31 FS SS	234		5.73
0013	BS	00 00 00.0	93 21 29.0	386.67
0014	FS	67 14 52.0	90 20 34.0	95.61
0015	BS	179 59 56.0	266 38 13.0	0.00
0016	FS	247 14 53.0	269 39 08.0	0.00
0017	31 FS SS	235		3.82
0018	BS	00 00 00.0	93 21 31.0	386.67
0019	FS	65 00 00.0	90 14 43.0	105.24
0020	BS	179 59 52.0	266 38 12.0	0.00

Rec.	Command	HZ	VT			SD			
0021	FS	244 59	52.0	269	45	03.0	0.00		
0022	2 OCCUPY	39		5.13			10		
0023	31 FS SS	236						6.05	
0024	BS	00 00	00.0	94	19	31.0	106.15		
0025	FS	38 23	28.0	93	38	57.0	70.72		
0026	BS	180 00	02.0	265	40	23.0	0.00		
0027	FS	218 23	29.0	266	20	56.0	0.00		
0028	31 FS SS	237						6.33	
0029	BS	00 00	00.0	94	19	27.0	0.00		
0030	FS	40 21	26.0	93	40	04.0	64.84		
0031	BS	180 00	06.0	265	40	15.0	0.00		
0032	FS	220 21	23.0	266	19	40.0	0.00		
0033	31 FS SS	238						6.69	
0034	BS	00 00	00.0	94	19	28.0	0.00		
0035	FS	95 26	33.0	91	16	24.0	10.94		
0036	BS	180 00	06.0	265	40	17.0	0.00		
0037	FS	275 26	42.0	268	43	12.0	0.00		
0038	31 FS SS	242						4.69	
0039	BS	00 00	00.0	94	19	45.0	0.00		
0040	FS	232 46	26.0	85	24	31.0	20.19		
0041	BS	180 00	02.0	265	40	15.0	0.00		
0042	FS	52 46	20.0	274	35	13.0	0.00		
0043	31 FS SS	243						4.83	
0044	BS	00 00	00.0	94	19	37.0	0.00		
0045	FS	231 48	35.0	85	11	38.0	25.97		
0046	BS	179 59	56.0	265	40	23.0	0.00		
0047	FS	51 48	40.0	274	48	06.0	0.00		
0048	3 FS TP	40						4.45	
0049	BS	00 00	00.0	94	19	22.0	106.15		
0050	FS	220 31	41.0	86	38	13.0	175.38		
0051	BS	180 00	04.0	265	40	18.0	0.00		
0052	FS	40 31	46.0	273	21	32.0	0.00		
0053	BS	00 00	00.0	94	19	26.0	106.15		
0054	FS	220 31	45.0	86	38	09.0	175.38		
0055	BS	180 00	03.0	265	40	18.0	0.00		
0056	FS	40 31	42.0	273	21	27.0	0.00		
0057	2 OCCUPY	39		5.10			10		
0058	31 FS SS	245						7.25	
0059	BS	00 00	00.0	94	41	37.0	0.00		
0060	FS	119 47	31.0	87	50	27.0	59.59		
0061	BS	179 59	55.0	265	18	23.0	0.00		
0062	FS	299 47	28.0	272	09	33.0	0.00		
0063	31 FS SS	246						6.98	
0064	BS	00 00	00.0	94	27	35.0	0.00		
0065	FS	146 37	12.0	84	12	35.0	30.00		
0066	BS	179 59	57.0	265	32	25.0	0.00		
0067	FS	326 37	11.0	275	47	25.0	0.00		
0068	31 FS SS	247						6.67	
0069	BS	00 00	00.0	94	37	21.0	0.00		
0070	FS	175 35	14.0	76	36	03.0	51.35		
0071	BS	180 00	03.0	265	22	39.0	0.00		
0072	FS	355 35	13.0	283	23	57.0	0.00		

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Rec.	Command	HZ	VT	SD	
0073	2 OCCUPY	40	5.00	39	
0074	31 FS SS	248			4.47
0075	BS	00 00 00.0	93 30 52.0	175.41	
0076	FS	355 34 48.0	94 07 00.0	65.46	
0077	BS	180 00 05.0	266 29 08.0	0.00	
0078	FS	175 34 53.0	265 52 24.0	0.00	
0079	31 FS SS	249			4.64
0080	BS	00 00 00.0	93 35 32.0	0.00	
0081	FS	353 42 42.0	94 02 59.0	57.24	
0082	BS	180 00 07.0	266 24 28.0	0.00	
0083	FS	173 42 46.0	265 57 00.0	0.00	
0084	31 FS SS	250			4.41
0085	BS	00 00 00.0	93 45 01.0	0.00	
0086	FS	242 36 53.0	94 20 51.0	12.43	
0087	BS	180 00 06.0	266 14 59.0	0.00	
0088	FS	62 36 56.0	265 39 09.0	0.00	
0089	31 FS SS	251			4.67
0090	BS	00 00 00.0	93 42 41.0	0.00	
0091	FS	222 29 32.0	90 50 40.0	18.68	
0092	BS	180 00 01.0	266 17 19.0	0.00	
0093	FS	42 29 35.0	269 09 20.0	0.00	
0094	31 FS SS	252			4.76
0095	BS	00 00 00.0	93 34 42.0	0.00	
0096	FS	196 29 28.0	87 36 39.0	85.49	
0097	BS	180 00 02.0	266 39 39.0	0.00	
0098	FS	16 29 27.0	272 28 05.0	0.00	
0099	31 FS SS	253			4.53
0100	BS	00 00 00.0	93 41 20.0	0.00	
0101	FS	195 36 53.0	87 43 41.0	90.30	
0102	BS	180 00 02.0	266 37 46.0	0.00	
0103	FS	15 36 58.0	272 26 42.0	0.00	
0104	31 FS SS	254			4.64
0105	BS	00 00 00.0	93 35 40.0	0.00	
0106	FS	194 56 15.0	87 18 13.0	158.54	
0107	BS	180 00 01.0	266 34 47.0	0.00	
0108	FS	14 56 17.0	272 52 20.0	0.00	
0109	31 FS SS	255			4.67
0110	BS	00 00 00.0	93 34 32.0	0.00	
0111	FS	195 00 41.0	87 15 49.0	165.75	
0112	BS	180 00 03.0	266 31 03.0	0.00	
0113	FS	15 00 42.0	272 55 26.0	0.00	
0114	3 FS TP	41			5.43
0115	BS	00 00 00.0	93 30 51.0	175.41	
0116	FS	47 47 08.0	79 57 05.0	55.48	
0117	BS	180 00 04.0	266 29 09.0	0.00	
0118	FS	227 47 10.0	280 02 55.0	0.00	
0119	BS	00 00 00.0	93 30 52.0	175.41	
0120	FS	47 47 08.0	79 57 03.0	55.48	
0121	BS	180 00 03.0	266 29 09.0	0.00	
0122	FS	227 47 10.0	280 02 55.0	0.00	
0123	2 OCCUPY	255	5.02	40	
0124	31 FS SS	256			6.17
0125	BS	00 00 00.0	92 54 03.0	0.00	
0126	FS	48 53 49.0	75 28 41.0	29.33	

Rec.	Command	HZ			VT			SD	
0127	BS	180	00	08.0	267	24	41.0	0.00	
0128	FS	228	53	49.0	284	31	20.0	0.00	
0129	2 OCCUPY	41			4.85			40	
0130	31 FS SS	257							7.50
0131	BS	00	00	00.0	99	07	55.0	0.00	
0132	FS	325	55	44.0	88	38	25.0	243.88	
0133	BS	180	00	04.0	261	12	52.0	0.00	
0134	FS	145	55	45.0	271	21	35.0	0.00	
0135	31 FS SS	258							7.46
0136	BS	00	00	00.0	98	53	37.0	0.00	
0137	FS	323	05	33.0	90	08	40.0	135.83	
0138	BS	180	00	00.0	261	23	00.0	0.00	
0139	FS	143	05	45.0	269	51	20.0	0.00	
0140	31 FS SS	259							6.75
0141	BS	00	00	00.0	98	55	27.0	0.00	
0142	FS	324	35	13.0	90	39	09.0	96.67	
0143	BS	180	00	07.0	261	24	19.0	0.00	
0144	FS	144	35	18.0	269	20	51.0	0.00	
0145	31 FS SS	260							6.93
0146	BS	00	00	00.0	98	53	29.0	0.00	
0147	FS	318	59	06.0	96	56	54.0	42.45	
0148	BS	180	00	05.0	261	26	27.0	0.00	
0149	FS	138	59	15.0	263	03	06.0	0.00	
0150	31 FS SS	261							6.58
0151	BS	00	00	00.0	99	08	23.0	0.00	
0152	FS	144	02	29.0	94	13	11.0	16.74	
0153	BS	180	00	05.0	261	06	13.0	0.00	
0154	FS	324	02	31.0	265	54	14.0	0.00	
0155	31 FS SS	262							6.93
0156	BS	00	00	00.0	99	07	53.0	0.00	
0157	FS	130	13	15.0	94	50	43.0	63.80	
0158	BS	180	00	05.0	261	06	10.0	0.00	
0159	FS	310	13	17.0	265	16	12.0	0.00	
0160	3 FS TP	42							4.75
0161	BS	00	00	00.0	99	00	44.0	55.32	
0162	FS	165	25	08.0	85	55	41.0	336.73	
0163	BS	180	00	04.0	260	59	16.0	0.00	
0164	FS	345	25	12.0	274	04	19.0	0.00	
0165	BS	00	00	00.0	99	00	49.0	55.32	
0166	FS	165	25	09.0	85	55	37.0	336.73	
0167	BS	180	00	04.0	260	59	16.0	0.00	
0168	FS	345	25	09.0	274	04	20.0	0.00	
0169	2 OCCUPY	42			5.10			41	
0170	3 FS TP	43							5.25
0171	BS	00	00	00.0	94	18	29.0	336.83	
0172	FS	246	00	24.0	85	38	36.0	363.85	
0173	BS	180	00	00.0	265	41	30.0	0.00	
0174	FS	66	00	25.0	274	21	24.0	0.00	
0175	BS	00	00	00.0	94	18	25.0	336.84	
0176	FS	246	00	24.0	85	38	39.0	363.85	
0177	BS	180	00	03.0	265	41	30.0	0.00	
0178	FS	66	00	24.0	274	21	24.0	0.00	

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Rec.	Command	HZ	VT	SD	
0179	2 OCCUPY	43	4.86	42	
0180	3 FS TP	44			4.77
0181	BS	00 00 00.0	94 10 58.0	363.77	
0182	FS	171 19 57.0	92 26 52.0	325.03	
0183	BS	180 00 09.0	265 49 02.0	0.00	
0184	FS	351 20 03.0	267 33 08.0	0.00	
0185	BS	00 00 00.0	94 10 55.0	363.77	
0186	FS	171 19 58.0	92 26 59.0	325.03	
0187	BS	180 00 02.0	265 49 02.0	0.00	
0188	FS	351 20 02.0	267 33 08.0	0.00	
0189	2 OCCUPY	44	5.30	43	
0190	31 FS SS	263			4.88
0191	BS	00 00 00.0	87 37 48.0	325.01	
0192	FS	184 07 30.0	90 49 27.0	925.98	
0193	BS	180 00 00.0	272 22 12.0	0.00	
0194	FS	4 07 30.0	269 10 33.0	0.00	
0195	31 FS SS	264			5.08
0196	BS	00 00 00.0	87 37 43.0	325.01	
0197	FS	184 10 19.0	90 54 15.0	911.40	
0198	BS	180 00 01.0	272 22 17.0	0.00	
0199	FS	4 10 19.0	269 05 45.0	0.00	
0200	3 FS TP	45			5.71
0201	BS	00 00 00.0	87 37 54.0	325.01	
0202	FS	184 15 53.0	89 47 57.0	1908.76	
0203	BS	179 59 59.0	272 22 06.0	0.00	
0204	FS	4 15 51.0	270 12 03.0	0.00	
0205	BS	00 00 00.0	87 37 55.0	325.00	
0206	FS	184 15 52.0	89 48 04.0	1908.76	
0207	BS	179 59 59.0	272 22 06.0	0.00	
0208	FS	4 15 48.0	270 12 03.0	0.00	
0209	2 OCCUPY	45	4.90	44	
0210	31 FS SS	265			5.61
0211	BS	00 00 00.0	90 15 27.0	0.00	
0212	FS	00 09 31.0	89 17 18.0	312.64	
0213	BS	179 59 58.0	269 53 36.0	0.00	
0214	FS	180 09 31.0	270 42 42.0	0.00	
0215	31 FS SS	266			5.46
0216	BS	00 00 00.0	90 18 33.0	0.00	
0217	FS	00 22 17.0	89 15 47.0	303.97	
0218	BS	179 59 58.0	269 58 58.0	0.00	
0219	FS	180 22 10.0	270 44 13.0	0.00	
0220	3 FS TP	46			5.50
0221	BS	00 00 00.0	90 09 34.0	1908.76	
0222	FS	180 42 12.0	101 00 07.0	245.78	
0223	BS	179 59 55.0	269 50 26.0	0.00	
0224	FS	00 42 08.0	258 59 53.0	0.00	
0225	BS	00 00 00.0	90 09 37.0	1908.76	
0226	FS	180 42 06.0	101 00 03.0	245.78	
0227	BS	180 00 00.0	269 50 26.0	0.00	
0228	FS	00 42 09.0	258 59 53.0	0.00	
0229	2 OCCUPY	46	5.23	45	
0230	31 FS SS	267			5.05

Rec.	Command	HZ	VT	SD	
0231	BS	00 00 00.0	78 56 55.0	0.00	
0232	FS	274 48 57.0	86 09 14.0	361.17	
0233	BS	180 00 00.0	281 29 43.0	0.00	
0234	FS	94 49 00.0	273 50 46.0	0.00	
0235	3 FS TP	47			4.91
0236	BS	00 00 00.0	78 45 50.0	245.98	
0237	FS	274 46 51.0	86 12 27.0	1021.84	
0238	BS	180 00 01.0	281 14 10.0	0.00	
0239	FS	94 46 39.0	273 47 33.0	0.00	
0240	BS	00 00 00.0	78 45 55.0	245.98	
0241	FS	274 46 47.0	86 12 23.0	1021.84	
0242	BS	180 00 00.0	281 14 10.0	0.00	
0243	FS	94 46 45.0	273 47 33.0	0.00	
0244	2 OCCUPY	47	5.04	46	
0245	31 FS SS	268			5.01
0246	BS	00 00 00.0	93 59 09.0	0.00	
0247	FS	45 06 01.0	91 10 39.0	286.37	
0248	BS	179 59 57.0	266 16 58.0	0.00	
0249	FS	225 06 00.0	268 49 21.0	0.00	
0250	3 FS TP	48			4.92
0251	BS	00 00 00.0	93 49 22.0	1021.87	
0252	FS	180 40 58.0	88 17 33.0	663.41	
0253	BS	179 59 55.0	266 10 38.0	0.00	
0254	FS	00 40 53.0	271 42 27.0	0.00	
0255	BS	00 00 00.0	93 49 32.0	1021.87	
0256	FS	180 40 57.0	88 17 36.0	663.41	
0257	BS	179 59 59.0	266 10 28.0	0.00	
0258	FS	00 40 56.0	271 42 24.0	0.00	
0259	2 OCCUPY	48	5.02	47	
0260	31 FS SS	269			3.94
0261	BS	00 00 00.0	91 28 34.0	0.00	
0262	FS	265 14 11.0	91 27 59.0	170.99	
0263	BS	180 00 01.0	268 25 25.0	0.00	
0264	FS	85 14 07.0	268 32 01.0	0.00	
0265	BS	00 00 00.0	91 48 26.0	0.00	
0266	FS	265 14 11.0	91 28 18.0	170.99	
0267	BS	180 00 00.0	268 21 25.0	0.00	
0268	FS	85 14 11.0	268 32 00.0	0.00	
0269	31 FS SS	270			3.28
0270	BS	00 00 00.0	89 11 06.0	0.00	
0271	FS	206 39 13.0	89 10 57.0	804.23	
0272	BS	180 00 00.0	268 21 47.0	0.00	
0273	FS	26 39 11.0	270 49 03.0	0.00	
0274	BS	00 00 00.0	91 53 58.0	0.00	
0275	FS	206 39 18.0	89 10 57.0	804.23	
0276	BS	179 59 59.0	268 23 46.0	0.00	
0277	FS	26 39 14.0	270 49 03.0	0.00	
0278	3 FS TP	49			4.76
0279	BS	00 00 00.0	91 44 14.0	663.42	
0280	FS	210 33 49.0	88 07 38.0	1397.39	
0281	BS	180 00 05.0	268 15 46.0	0.00	
0282	FS	30 33 48.0	271 52 22.0	0.00	
0283	BS	00 00 00.0	91 44 10.0	663.42	

Rec.	Command	HZ	VT			SD			
0284	FS	210 33	47.0	88 07	36.0	1397.39			
0285	BS	179 59	58.0	268 15	46.0	0.00			
0286	FS	30 33	44.0	271 52	22.0	0.00			
0287	2 OCCUPY	49		4.93		48			
0288	31 FS SS	271						4.59	
0289	BS	00 00	00.0	90 34	29.0	0.00			
0290	FS	228 52	16.0	90 34	31.0	255.83			
0291	BS	180 00	09.0	268 15	39.0	0.00			
0292	FS	48 52	23.0	269 25	30.0	0.00			
0293	BS	00 00	00.0	91 57	27.0	0.00			
0294	FS	228 52	16.0	90 34	32.0	255.83			
0295	BS	180 00	08.0	268 20	47.0	0.00			
0296	FS	48 52	21.0	269 25	30.0	0.00			
0297	3 FS TP	50						4.71	
0298	BS	00 00	00.0	91 52	00.0	1397.39			
0299	FS	150 17	52.0	87 49	41.0	270.39			
0300	BS	180 00	09.0	268 08	00.0	0.00			
0301	FS	330 17	57.0	272 10	19.0	0.00			
0302	BS	00 00	00.0	91 52	07.0	1397.39			
0303	FS	150 17	50.0	87 49	39.0	270.39			
0304	BS	180 00	04.0	268 08	00.0	0.00			
0305	FS	330 17	49.0	272 10	19.0	0.00			
0306	2 OCCUPY	50		5.06		49			
0307	3 FS TP	51						5.03	
0308	BS	00 00	00.0	92 13	10.0	270.40			
0309	FS	146 07	41.0	90 12	44.0	454.85			
0310	BS	180 00	08.0	267 46	50.0	0.00			
0311	FS	326 07	51.0	269 47	16.0	0.00			
0312	BS	00 00	00.0	92 13	11.0	270.40			
0313	FS	146 07	46.0	90 12	43.0	454.85			
0314	BS	180 00	04.0	267 46	50.0	0.00			
0315	FS	326 07	48.0	269 47	16.0	0.00			
0316	4 CLOSE	19				N 00 00 00.0 E			

Date: 11-18-92
 Time: 13:55:31
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ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV3.FLD
 Job No: 5066909
 Descr: wells
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	26	28	N 43 28 04.9 E
0002	2 OCCUPY	26	4.96	
0003	31 FS SS	301		4.43
0004	BS	00 00 00.0	91 59 27.0	0.00
0005	FS	144 32 32.0	86 39 02.0	442.34
0006	BS	180 00 00.0	268 04 01.0	0.00
0007	FS	324 32 31.0	273 21 02.0	442.34
0008	BS	00 00 00.0	91 56 50.0	0.00
0009	FS	144 32 29.0	86 39 03.0	442.34
0010	BS	179 59 56.0	268 06 14.0	0.00
0011	FS	324 32 24.0	273 20 56.0	442.34
0012	2 OCCUPY	301	5.10	26
0013	31 FS SS	302		4.55
0014	BS	00 00 00.0	93 29 00.0	0.00
0015	FS	194 07 27.0	86 14 17.0	462.43
0016	BS	179 59 56.0	266 39 16.0	0.00
0017	FS	14 07 29.0	273 45 35.0	462.43
0018	BS	00 00 00.0	93 28 25.0	0.00
0019	FS	194 07 32.0	86 14 17.0	462.43

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Rec.	Command	HZ	VT	SD
0020	BS	179 59 59.0	266 38 09.0	0.00
0021	FS	14 07 30.0	273 45 39.0	462.43
0022	2 OCCUPY	21	5.05	22
0023	31 FS SS	303		5.18
0024	BS	00 00 00.0	92 56 26.0	0.00
0025	FS	100 05 12.0	90 20 33.0	538.19
0026	BS	179 59 56.0	267 03 57.0	0.00
0027	FS	280 05 08.0	269 39 26.0	538.19
0028	BS	00 00 00.0	93 01 46.0	0.00
0029	FS	100 05 14.0	90 20 29.0	538.19
0030	BS	180 00 00.0	267 08 20.0	0.00
0031	FS	280 05 13.0	269 39 26.0	538.19
0032	31 FS SS	304		5.05
0033	BS	00 00 00.0	92 58 13.0	0.00
0034	FS	281 04 30.0	89 25 08.0	497.17
0035	BS	179 59 55.0	267 03 11.0	0.00
0036	FS	101 04 28.0	270 35 06.0	497.17
0037	BS	00 00 00.0	93 02 52.0	0.00
0038	FS	281 04 31.0	89 25 06.0	497.16
0039	BS	179 59 56.0	267 04 07.0	0.00
0040	FS	101 04 25.0	270 35 03.0	497.16
0041	2 OCCUPY	303	5.23	21
0042	31 FS SS	305		4.43
0043	BS	00 00 00.0	89 42 13.0	0.00
0044	FS	98 32 13.0	92 50 54.0	177.64
0045	BS	179 59 51.0	270 24 20.0	0.00
0046	FS	278 32 11.0	267 09 17.0	177.64
0047	BS	00 00 00.0	89 48 11.0	0.00
0048	FS	98 32 14.0	92 50 59.0	177.64
0049	BS	180 00 08.0	270 28 35.0	0.00
0050	FS	278 32 06.0	267 09 12.0	177.64
0051	2 OCCUPY	305	4.67	303
0052	31 FS SS	306		4.67
0053	BS	00 00 00.0	87 04 54.0	0.00
0054	FS	141 19 07.0	95 44 19.0	376.40
0055	BS	179 59 51.0	272 46 46.0	0.00
0056	FS	321 19 06.0	264 15 57.0	376.40
0057	BS	00 00 00.0	87 19 49.0	0.00
0058	FS	141 19 04.0	95 44 20.0	376.40
0059	BS	179 59 58.0	272 44 27.0	0.00
0060	FS	321 18 56.0	264 15 59.0	0.00
0061	2 OCCUPY	304	5.12	21
0062	31 FS SS	307		5.15
0063	BS	00 00 00.0	90 35 06.0	0.00
0064	FS	96 45 35.0	84 01 21.0	344.90
0065	BS	179 59 50.0	269 24 11.0	0.00
0066	FS	276 45 26.0	275 58 52.0	344.90
0067	BS	00 00 00.0	90 39 57.0	0.00
0068	FS	96 45 41.0	84 01 25.0	344.90
0069	BS	179 59 52.0	269 25 56.0	0.00
0070	FS	276 45 31.0	275 59 07.0	344.90

Rec.	Command	HZ	VT	SD	
0071	2 OCCUPY	307	5.25	304	
0072	31 FS SS	308			5.00
0073	BS	00 00 00.0	96 03 04.0	0.00	
0074	FS	122 10 06.0	90 05 04.0	95.69	
0075	BS	179 59 55.0	263 57 28.0	0.00	
0076	FS	302 09 48.0	269 55 23.0	95.69	
0077	BS	00 00 00.0	96 00 04.0	0.00	
0078	FS	122 10 02.0	90 04 57.0	95.69	
0079	BS	179 59 56.0	264 00 52.0	0.00	
0080	FS	302 09 41.0	269 55 25.0	95.69	
0081	2 OCCUPY	18	5.25	16	
0082	31 FS SS	309			2.78
0083	BS	00 00 00.0	89 18 18.0	0.00	
0084	FS	164 28 58.0	91 10 39.0	301.96	
0085	BS	180 00 05.0	270 45 10.0	0.00	
0086	FS	344 28 58.0	268 49 18.0	301.96	
0087	BS	00 00 00.0	89 15 44.0	0.00	
0088	FS	164 28 59.0	91 10 36.0	301.96	
0089	BS	180 00 02.0	270 52 06.0	0.00	
0090	FS	344 29 01.0	268 49 12.0	301.96	
0091	2 OCCUPY	309	4.63	18	
0092	31 FS SS	310			4.85
0093	BS	00 00 00.0	90 11 38.0	0.00	
0094	FS	127 24 51.0	93 22 45.0	456.22	
0095	BS	180 00 04.0	269 54 17.0	0.00	
0096	FS	307 24 58.0	266 37 15.0	456.22	
0097	BS	00 00 00.0	90 11 31.0	0.00	
0098	FS	127 24 55.0	93 22 47.0	456.22	
0099	BS	180 00 01.0	269 55 42.0	0.00	
0100	FS	307 24 53.0	266 37 10.0	456.22	
0101	2 OCCUPY	15	5.26	16	
0102	31 FS SS	311			5.23
0103	BS	00 00 00.0	89 35 03.0	0.00	
0104	FS	162 37 04.0	86 54 06.0	278.22	
0105	BS	180 00 00.0	270 27 19.0	0.00	
0106	FS	342 37 03.0	273 05 52.0	278.22	
0107	BS	00 00 00.0	89 38 59.0	0.00	
0108	FS	162 36 59.0	86 53 57.0	278.22	
0109	BS	180 00 01.0	270 26 31.0	0.00	
0110	FS	342 37 00.0	273 05 49.0	278.22	
0111	2 OCCUPY	311	4.96	15	
0112	31 FS SS	312			9.22
0113	BS	00 00 00.0	92 54 21.0	0.00	
0114	FS	181 26 21.0	87 50 35.0	725.11	
0115	BS	180 00 02.0	267 16 29.0	0.00	
0116	FS	1 26 20.0	272 09 29.0	725.11	
0117	BS	00 00 00.0	92 41 24.0	0.00	
0118	FS	181 26 23.0	87 50 35.0	725.11	
0119	BS	180 00 02.0	267 13 12.0	0.00	
0120	FS	1 26 27.0	272 09 32.0	725.11	

Rec.	Command	HZ	VT	SD
0121	2 OCCUPY	13	5.08	14
0122	31 FS SS	313		4.84
0123	BS	00 00 00.0	94 32 40.0	0.00
0124	FS	153 40 05.0	88 47 58.0	118.23
0125	BS	179 59 55.0	265 29 21.0	0.00
0126	FS	333 39 56.0	271 12 11.0	118.23
0127	BS	00 00 00.0	94 38 29.0	0.00
0128	FS	153 40 05.0	88 48 01.0	118.23
0129	BS	179 59 55.0	265 14 13.0	0.00
0130	FS	333 39 59.0	271 12 07.0	118.23
0131	2 OCCUPY	313	5.07	13
0132	31 FS SS	314		4.88
0133	BS	00 00 00.0	91 18 07.0	0.00
0134	FS	233 58 46.0	88 07 54.0	282.56
0135	BS	180 00 03.0	268 23 36.0	0.00
0136	FS	53 58 46.0	271 52 16.0	282.56
0137	BS	00 00 00.0	91 18 03.0	0.00
0138	FS	233 58 47.0	88 07 55.0	282.56
0139	BS	180 00 00.0	268 25 02.0	0.00
0140	FS	53 58 37.0	271 52 16.0	282.56
0141	2 OCCUPY	314	4.85	313
0142	31 FS SS	315		2.63
0143	BS	00 00 00.0	91 49 00.0	0.00
0144	FS	184 13 45.0	88 15 48.0	288.91
0145	BS	180 00 00.0	268 30 20.0	0.00
0146	FS	4 13 50.0	271 44 07.0	288.91
0147	BS	00 00 00.0	91 54 30.0	0.00
0148	FS	184 13 44.0	88 16 02.0	288.91
0149	BS	180 00 02.0	268 13 58.0	0.00
0150	FS	4 13 49.0	271 44 10.0	288.91
0151	2 OCCUPY	14	4.88	13
0152	31 FS SS	316		4.58
0153	BS	00 00 00.0	85 28 59.0	0.00
0154	FS	81 29 18.0	87 48 57.0	889.00
0155	BS	179 59 58.0	274 41 01.0	0.00
0156	FS	261 29 24.0	272 11 06.0	889.00
0157	BS	00 00 00.0	85 21 32.0	0.00
0158	FS	81 29 21.0	87 48 56.0	889.00
0159	BS	180 00 01.0	274 53 00.0	0.00
0160	FS	261 29 18.0	272 11 05.0	0.00
0161	2 OCCUPY	12	5.22	13
0162	31 FS SS	317		4.97
0163	BS	00 00 00.0	90 20 18.0	0.00
0164	FS	39 56 05.0	89 23 06.0	1756.66
0165	BS	179 59 54.0	269 37 41.0	0.00
0166	FS	219 56 00.0	270 37 03.0	1756.66
0167	BS	00 00 00.0	90 22 35.0	0.00
0168	FS	39 56 09.0	89 23 06.0	1756.66
0169	BS	180 00 01.0	269 38 55.0	0.00
0170	FS	219 56 04.0	270 36 58.0	1756.66

Rec.	Command	HZ	VT	SD
0171	2 OCCUPY	316	5.10	14
0172	31 FS SS	318		4.89
0173	BS	00 00 00.0	92 10 51.0	0.00
0174	FS	199 26 06.0	88 03 36.0	281.45
0175	BS	180 00 03.0	267 48 15.0	0.00
0176	FS	19 26 04.0	271 56 22.0	281.45
0177	BS	00 00 00.0	92 18 13.0	0.00
0178	FS	199 26 03.0	88 03 45.0	281.45
0179	BS	180 00 02.0	267 47 06.0	0.00
0180	FS	19 26 00.0	271 56 23.0	281.45
0181	2 OCCUPY	318	5.22	316
0182	31 FS SS	319		5.02
0183	BS	00 00 00.0	93 09 09.0	0.00
0184	FS	138 04 04.0	87 59 19.0	349.46
0185	BS	179 59 59.0	267 19 09.0	0.00
0186	FS	318 03 53.0	272 01 04.0	349.46
0187	BS	00 00 00.0	92 48 36.0	0.00
0188	FS	138 03 58.0	87 59 26.0	349.46
0189	BS	180 00 01.0	267 17 48.0	0.00
0190	FS	318 03 54.0	272 01 02.0	349.46
0191	2 OCCUPY	317	4.88	12
0192	31 FS SS	320		5.30
0193	BS	00 00 00.0	90 40 00.0	0.00
0194	FS	104 29 28.0	86 24 08.0	225.05
0195	BS	179 59 52.0	269 25 24.0	0.00
0196	FS	284 29 16.0	273 36 19.0	225.05
0197	BS	00 00 00.0	90 37 50.0	0.00
0198	FS	104 29 25.0	86 24 07.0	225.05
0199	BS	179 59 50.0	269 24 52.0	0.00
0200	FS	284 29 13.0	273 36 14.0	225.05
0201	31 FS SS	321		5.30
0202	BS	00 00 00.0	90 40 20.0	0.00
0203	FS	103 02 19.0	86 29 32.0	285.20
0204	BS	179 59 49.0	269 22 27.0	0.00
0205	FS	283 02 00.0	273 30 50.0	285.20
0206	BS	00 00 00.0	90 36 48.0	0.00
0207	FS	103 02 16.0	86 29 33.0	285.20
0208	BS	179 59 45.0	269 25 27.0	0.00
0209	FS	283 01 58.0	273 30 54.0	285.20
0210	31 FS SS	322		5.10
0211	BS	00 00 00.0	90 38 55.0	0.00
0212	FS	272 32 31.0	96 49 50.0	1222.24
0213	BS	179 59 45.0	269 23 06.0	0.00
0214	FS	92 32 22.0	263 10 38.0	1222.24
0215	BS	00 00 00.0	90 46 08.0	0.00
0216	FS	272 32 35.0	96 49 47.0	1222.24
0217	BS	179 59 51.0	269 26 42.0	0.00
0218	FS	92 32 26.0	263 10 38.0	1222.24
0219	31 FS SS	323		5.36
0220	BS	00 00 00.0	90 39 03.0	0.00
0221	FS	281 11 58.0	93 39 43.0	1673.36
0222	BS	179 59 58.0	269 25 28.0	0.00

Rec.	Command	HZ	VT	SD
0223	FS	101 11 46.0	266 20 58.0	1673.36
0224	BS	00 00 00.0	90 39 13.0	0.00
0225	FS	281 12 06.0	93 39 37.0	1673.36
0226	BS	180 00 02.0	269 26 23.0	0.00
0227	FS	101 11 56.0	266 21 04.0	1673.36
0228	31 FS SS	324		5.39
0229	BS	00 00 00.0	90 40 00.0	0.00
0230	FS	276 36 18.0	92 14 46.0	3126.37
0231	BS	179 59 50.0	269 25 40.0	0.00
0232	FS	96 36 10.0	267 45 45.0	3126.36
0233	BS	00 00 00.0	90 40 26.0	0.00
0234	FS	276 36 32.0	92 14 32.0	3126.36
0235	BS	179 59 52.0	269 25 50.0	0.00
0236	FS	96 36 18.0	267 45 43.0	3126.37
0237	31 FS SS	325		5.24
0238	BS	359 59 58.0	90 42 29.0	0.00
0239	FS	256 32 37.0	94 34 56.0	2702.91
0240	BS	179 59 56.0	269 26 55.0	0.00
0241	FS	76 32 35.0	265 25 44.0	2702.91
0242	BS	00 00 00.0	90 44 37.0	0.00
0243	FS	256 32 40.0	94 34 57.0	2702.91
0244	BS	179 59 52.0	269 28 23.0	0.00
0245	FS	76 32 34.0	265 25 47.0	2702.91
0246	31 FS SS	326		5.90
0247	BS	00 00 00.0	90 41 17.0	0.00
0248	FS	271 17 29.0	91 26 43.0	4822.66
0249	BS	179 59 57.0	269 29 01.0	0.00
0250	FS	91 17 16.0	268 33 53.0	4822.66
0251	BS	00 00 00.0	90 42 30.0	0.00
0252	FS	271 17 31.0	91 26 37.0	4822.66
0253	BS	179 59 53.0	269 26 55.0	0.00
0254	FS	91 17 14.0	268 34 01.0	4822.66
0255	2 OCCUPY	325	4.94	317
0256	31 FS SS	327		5.30
0257	BS	00 00 00.0	85 30 34.0	0.00
0258	FS	194 15 29.0	89 56 03.0	605.33
0259	BS	180 00 05.0	274 34 57.0	0.00
0260	FS	14 15 30.0	270 03 45.0	605.33
0261	BS	00 00 00.0	85 32 37.0	0.00
0262	FS	194 15 34.0	89 55 57.0	605.33
0263	BS	179 59 59.0	274 32 27.0	0.00
0264	FS	14 15 29.0	270 03 47.0	605.33
0265	2 OCCUPY	324	5.40	317
0266	31 FS SS	328		5.28
0267	BS	00 00 00.0	87 52 54.0	0.00
0268	FS	353 26 36.0	91 44 28.0	472.12
0269	BS	179 59 58.0	272 12 11.0	0.00
0270	FS	173 26 32.0	268 15 18.0	472.11
0271	BS	00 00 00.0	87 58 06.0	0.00
0272	FS	353 26 37.0	91 44 29.0	472.12
0273	BS	179 59 56.0	272 12 48.0	0.00
0274	FS	173 26 33.0	268 15 24.0	472.11
0275	31 FS SS	329		4.86

Rec.	Command	HZ	VT	SD
0276	BS	00 00 00.0	87 55 21.0	0.00
0277	FS	249 13 12.0	85 53 06.0	216.15
0278	BS	179 59 53.0	272 20 23.0	0.00
0279	FS	69 13 11.0	274 06 39.0	216.15
0280	BS	00 00 00.0	87 52 37.0	0.00
0281	FS	249 13 10.0	85 53 26.0	216.15
0282	BS	179 59 52.0	272 11 24.0	0.00
0283	FS	69 13 11.0	274 06 41.0	216.15
0284	2 OCCUPY	11	5.22	10
0285	31 FS SS	330		4.75
0286	BS	00 00 00.0	93 49 04.0	0.00
0287	FS	318 40 33.0	93 32 15.0	67.31
0288	BS	179 59 53.0	266 20 49.0	0.00
0289	FS	138 40 26.0	266 27 40.0	67.31
0290	BS	00 00 00.0	93 50 44.0	0.00
0291	FS	318 40 35.0	93 32 15.0	67.31
0292	BS	179 59 53.0	266 19 32.0	0.00
0293	FS	138 40 32.0	266 27 37.0	67.31
0294	2 OCCUPY	325	5.09	317
0295	31 FS SS	331		5.22
0296	BS	00 00 00.0	85 33 21.0	0.00
0297	FS	30 16 32.0	91 43 42.0	509.13
0298	BS	179 59 53.0	274 31 43.0	0.00
0299	FS	210 16 25.0	268 16 10.0	509.13
0300	BS	00 00 00.0	85 39 42.0	0.00
0301	FS	30 16 36.0	91 43 45.0	509.13
0302	BS	179 59 58.0	274 38 58.0	0.00
0303	FS	210 16 28.0	268 16 16.0	509.13
0304	2 OCCUPY	9	5.20	10
0305	31 FS SS	332		5.00
0306	BS	00 00 00.0	86 47 40.0	0.00
0307	FS	141 26 11.0	92 34 01.0	692.66
0308	BS	179 59 59.0	273 14 08.0	0.00
0309	FS	321 26 07.0	267 26 09.0	692.68
0310	BS	00 00 00.0	86 47 20.0	0.00
0311	FS	141 26 04.0	92 34 08.0	692.64
0312	BS	180 00 03.0	273 18 15.0	0.00
0313	FS	321 26 07.0	267 26 00.0	692.63
0314	2 OCCUPY	8	5.25	9
0315	31 FS SS	333		5.00
0316	BS	00 00 00.0	88 46 17.0	0.00
0317	FS	220 30 32.0	90 49 07.0	774.07
0318	BS	179 59 53.0	271 20 17.0	0.00
0319	FS	40 30 29.0	269 10 54.0	774.06
0320	BS	00 00 00.0	88 47 30.0	0.00
0321	FS	220 30 36.0	90 49 00.0	774.06
0322	BS	179 59 58.0	271 19 59.0	0.00
0323	FS	40 30 37.0	269 10 58.0	774.04
0324	2 OCCUPY	322	5.17	317
0325	31 FS SS	334		4.87

Rec.	Command	HZ	VT	SD
0326	BS	00 00 00.0	83 12 02.0	0.00
0327	FS	296 58 31.0	86 43 25.0	50.27
0328	BS	179 59 58.0	276 49 04.0	0.00
0329	FS	116 58 17.0	273 16 43.0	50.27
0330	BS	00 00 00.0	83 11 06.0	0.00
0331	FS	296 58 26.0	86 43 19.0	50.27
0332	BS	179 59 53.0	276 50 25.0	0.00
0333	FS	116 58 36.0	273 16 39.0	50.27
0334	2 OCCUPY	32	5.30	33
0335	31 FS SS	335		4.24
0336	BS	00 00 00.0	91 29 33.0	0.00
0337	FS	26 02 21.0	89 38 20.0	348.50
0338	BS	179 59 49.0	268 41 10.0	0.00
0339	FS	206 02 06.0	270 21 33.0	348.50
0340	BS	00 00 00.0	91 25 43.0	0.00
0341	FS	26 02 14.0	89 38 27.0	348.50
0342	BS	179 59 48.0	268 40 10.0	0.00
0343	FS	206 02 05.0	270 21 37.0	348.50
0344	2 OCCUPY	34	5.13	33
0345	31 FS SS	336		5.01
0346	BS	00 00 00.0	87 34 05.0	0.00
0347	FS	108 15 15.0	90 31 52.0	214.87
0348	BS	179 59 52.0	272 26 07.0	0.00
0349	FS	288 15 08.0	269 28 24.0	214.87
0350	BS	00 00 00.0	87 30 35.0	0.00
0351	FS	108 15 09.0	90 31 52.0	214.87
0352	BS	179 59 51.0	272 27 48.0	0.00
0353	FS	288 14 59.0	269 28 26.0	214.87
0354	2 OCCUPY	336	4.93	34
0355	31 FS SS	337		4.75
0356	BS	00 00 00.0	89 19 57.0	0.00
0357	FS	78 53 02.0	88 53 08.0	477.20
0358	BS	179 59 49.0	270 33 47.0	0.00
0359	FS	258 52 54.0	271 07 11.0	477.20
0360	BS	359 59 56.0	89 20 08.0	0.00
0361	FS	78 53 12.0	88 53 10.0	477.20
0362	BS	179 59 54.0	270 37 57.0	0.00
0363	FS	258 52 55.0	271 07 18.0	477.20
0364	2 OCCUPY	337	4.94	336
0365	31 FS SS	338		4.83
0366	BS	00 00 00.0	91 07 43.0	0.00
0367	FS	214 37 09.0	88 55 02.0	306.49
0368	BS	179 59 50.0	269 19 33.0	0.00
0369	FS	34 37 07.0	271 05 28.0	306.49
0370	BS	00 00 00.0	91 07 25.0	0.00
0371	FS	214 37 14.0	88 55 03.0	306.49
0372	BS	179 59 50.0	269 18 55.0	0.00
0373	FS	34 37 05.0	271 05 27.0	306.49
0374	2 OCCUPY	31	5.07	32
0375	31 FS SS	339		8.03

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Rec.	Command	HZ	VT	SD
0376	BS	00 00 00.0	90 03 55.0	0.00
0377	FS	269 48 44.0	90 04 42.0	422.93
0378	BS	179 59 59.0	266 40 52.0	0.00
0379	FS	89 48 02.0	269 54 36.0	422.95
0380	BS	359 59 59.0	93 29 20.0	0.00
0381	FS	269 48 34.0	90 04 48.0	422.98
0382	BS	179 59 57.0	266 44 42.0	0.00
0383	FS	89 48 24.0	269 54 32.0	423.03

Date: 11-18-92
 Time: 14:03:19
 Page: 1

ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV4.FLD
 Job No:
 Descr:
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	11	10	N 52 51 18.7 E
0002	2 OCCUPY	11	5.40	
0003	3 FS TP	401		4.72
0004	BS	00 00 00.0	93 48 55.0	0.00
0005	FS	167 52 28.0	86 53 44.0	163.11
0006	BS	180 00 04.0	266 14 53.0	0.00
0007	FS	347 52 31.0	273 05 56.0	163.11
0008	BS	00 00 00.0	93 47 45.0	0.00
0009	FS	167 52 28.0	86 53 35.0	163.11
0010	BS	180 00 01.0	266 14 28.0	0.00
0011	FS	347 52 28.0	273 05 50.0	163.11
0012	2 OCCUPY	401	4.96	11
0013	3 FS TP	402		5.35
0014	BS	00 00 00.0	93 17 56.0	0.00
0015	FS	275 56 10.0	83 04 17.0	270.85
0016	BS	179 59 58.0	266 44 03.0	0.00
0017	FS	95 56 08.0	276 55 33.0	270.85
0018	BS	00 00 00.0	93 16 34.0	0.00
0019	FS	275 56 15.0	83 04 17.0	270.86

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Rec.	Command	HZ	VT	SD
0020	BS	179 59 59.0	266 46 41.0	0.00
0021	FS	95 56 12.0	276 55 29.0	270.86
0022	2 OCCUPY	402	5.31	401
0023	3 FS TP	403		5.24
0024	BS	00 00 00.0	96 52 40.0	0.00
0025	FS	215 18 57.0	90 07 39.0	523.51
0026	BS	180 00 00.0	263 05 02.0	0.00
0027	FS	35 19 00.0	269 52 13.0	523.51
0028	BS	00 00 00.0	96 52 49.0	0.00
0029	FS	215 18 57.0	90 07 38.0	523.51
0030	BS	180 00 01.0	263 06 31.0	0.00
0031	FS	35 18 58.0	269 52 05.0	523.51
0032	2 OCCUPY	403	5.34	402
0033	3 FS TP	404		5.17
0034	BS	00 00 00.0	89 53 39.0	0.00
0035	FS	205 29 57.0	95 19 10.0	169.20
0036	BS	179 59 56.0	270 04 35.0	0.00
0037	FS	25 29 54.0	264 40 31.0	169.20
0038	BS	00 00 00.0	89 54 48.0	0.00
0039	FS	205 29 51.0	95 19 09.0	169.20
0040	BS	179 59 58.0	270 04 38.0	0.00
0041	FS	25 29 52.0	264 40 22.0	169.20
0042	2 OCCUPY	404	5.12	403
0043	3 FS TP	405		5.34
0044	BS	00 00 00.0	84 45 31.0	0.00
0045	FS	72 41 34.0	95 30 49.0	669.44
0046	BS	180 00 04.0	275 18 08.0	0.00
0047	FS	252 41 35.0	264 29 21.0	669.44
0048	BS	00 00 00.0	84 44 05.0	0.00
0049	FS	72 41 37.0	95 30 46.0	669.44
0050	BS	180 00 01.0	275 20 48.0	0.00
0051	FS	252 41 34.0	264 29 15.0	669.44
0052	2 OCCUPY	405	5.19	403
0053	3 FS TP	406		4.84
0054	BS	359 59 59.0	84 30 03.0	0.00
0055	FS	354 59 51.0	86 18 22.0	537.40
0056	BS	179 59 54.0	275 40 05.0	0.00
0057	FS	174 59 46.0	273 41 57.0	537.40
0058	BS	00 00 00.0	84 25 26.0	0.00
0059	FS	354 59 50.0	86 18 21.0	537.40
0060	BS	180 00 00.0	275 35 51.0	0.00
0061	FS	174 59 52.0	273 41 45.0	537.40
0062	2 OCCUPY	406	5.22	405
0063	3 FS TP	407		4.80
0064	BS	00 00 00.0	93 47 28.0	0.00
0065	FS	44 38 59.0	94 00 01.0	846.92
0066	BS	179 59 58.0	266 13 46.0	0.00
0067	FS	224 38 58.0	266 00 10.0	846.92
0068	BS	00 00 00.0	93 46 06.0	0.00
0069	FS	44 39 00.0	94 00 04.0	846.92

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Rec.	Command	HZ	VT	SD
0070	BS	179 59 59.0	266 19 00.0	0.00
0071	FS	224 38 57.0	266 00 04.0	846.92
0072	2 OCCUPY	407	5.02	406
0073	3 FS TP	408		5.31
0074	BS	00 00 00.0	86 07 44.0	0.00
0075	FS	5 20 41.0	88 20 59.0	461.00
0076	BS	179 59 59.0	273 59 05.0	0.00
0077	FS	185 20 44.0	271 38 53.0	461.00
0078	BS	00 00 00.0	86 04 34.0	0.00
0079	FS	5 20 42.0	88 21 04.0	461.00
0080	BS	179 59 58.0	273 57 58.0	0.00
0081	FS	185 20 39.0	271 38 57.0	461.00
0082	2 OCCUPY	408	5.15	407
0083	3 FS TP	409		5.57
0084	BS	00 00 00.0	91 39 43.0	0.00
0085	FS	116 54 01.0	92 08 39.0	337.04
0086	BS	179 59 54.0	268 20 40.0	0.00
0087	FS	296 54 02.0	267 51 14.0	337.04
0088	BS	00 00 00.0	91 39 26.0	0.00
0089	FS	116 54 02.0	92 08 36.0	337.04
0090	BS	179 59 55.0	268 20 01.0	0.00
0091	FS	296 54 01.0	267 51 22.0	337.04
0092	2 OCCUPY	409	5.32	408
0093	3 FS TP	410		4.79
0094	BS	00 00 00.0	87 55 40.0	0.00
0095	FS	278 11 12.0	78 39 29.0	471.16
0096	BS	179 59 53.0	272 06 01.0	0.00
0097	FS	98 11 10.0	281 20 39.0	471.16
0098	BS	00 00 00.0	87 55 28.0	0.00
0099	FS	278 11 12.0	78 39 20.0	471.16
0100	BS	180 00 00.0	272 09 20.0	0.00
0101	FS	98 11 09.0	281 20 44.0	471.16
0102	2 OCCUPY	410	5.04	409
0103	3 FS TP	411		4.33
0104	BS	00 00 00.0	101 26 44.0	0.00
0105	FS	60 49 17.0	89 37 05.0	1145.15
0106	BS	179 59 59.0	258 34 03.0	0.00
0107	FS	240 49 05.0	270 22 57.0	1145.14
0108	BS	00 00 00.0	101 26 35.0	0.00
0109	FS	60 49 10.0	89 37 04.0	1145.14
0110	BS	179 59 58.0	258 32 53.0	0.00
0111	FS	240 49 13.0	270 23 00.0	1145.14
0112	2 OCCUPY	411	4.86	410
0113	3 FS TP	412		5.35
0114	BS	00 00 00.0	90 29 51.0	0.00
0115	FS	266 42 13.0	98 57 33.0	798.90
0116	BS	179 59 57.0	269 31 34.0	0.00
0117	FS	86 42 10.0	261 02 34.0	798.90
0118	BS	00 00 01.0	90 30 23.0	0.00
0119	FS	266 42 13.0	98 57 37.0	798.90

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Rec.	Command	HZ	VT	SD
0120	BS	179 59 58.0	269 33 20.0	0.00
0121	FS	86 42 11.0	261 02 43.0	798.90
0122	4 CLOSE	10		N 00 00 00.0 E

Date: 11-18-92
 Time: 14:12:53
 Page: 1

ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV5.FLD
 Job No:
 Descr:
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	264	44	N 18 39 48.0 E
0002	2 OCCUPY	264	5.54	
0003	3 FS TP	413		5.21
0004	BS	00 00 00.0	89 07 31.0	0.00
0005	FS	180 21 48.0	87 43 26.0	577.11
0006	BS	179 59 59.0	270 52 15.0	0.00
0007	FS	00 21 49.0	272 16 31.0	577.11
0008	BS	00 00 00.0	89 07 49.0	0.00
0009	FS	180 21 50.0	87 43 27.0	577.11
0010	BS	180 00 00.0	270 52 13.0	0.00
0011	FS	00 21 48.0	272 16 25.0	577.11
0012	2 OCCUPY	413	5.32	264
0013	3 FS TP	414		4.93
0014	BS	00 00 00.0	92 19 12.0	0.00
0015	FS	179 34 07.0	90 25 47.0	420.86
0016	BS	180 00 00.0	267 41 17.0	0.00
0017	FS	359 34 04.0	269 34 04.0	420.86
0018	BS	00 00 00.0	92 19 02.0	0.00
0019	FS	179 34 06.0	90 25 46.0	420.86

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Rec.	Command	HZ	VT	SD
0020	BS	180 00 02.0	267 41 35.0	0.00
0021	FS	359 34 06.0	269 34 13.0	420.86
0022	4 CLOSE	45		N 00 00 00.0 E

Date: 11-18-92
 Time: 14:16:58
 Page: 1

ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV6.FLD
 Job No:
 Descr:
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	233	34	S 52 59 26.7 E
0002	2 OCCUPY	233	5.28	
0003	3 FS TP	415		5.09
0004	BS	00 00 00.0	89 18 27.0	0.00
0005	FS	328 17 51.0	90 06 28.0	96.86
0006	BS	179 59 58.0	270 41 21.0	0.00
0007	FS	148 17 47.0	269 53 24.0	96.86
0008	BS	00 00 00.0	89 18 48.0	0.00
0009	FS	328 17 45.0	90 06 18.0	96.86
0010	BS	179 59 58.0	270 41 20.0	0.00
0011	FS	148 17 48.0	269 53 29.0	96.86
0012	2 OCCUPY	415	5.28	233
0013	3 FS TP	416		4.96
0014	BS	00 00 00.0	90 00 10.0	0.00
0015	FS	274 38 28.0	87 52 01.0	330.73
0016	BS	180 00 06.0	269 59 24.0	0.00
0017	FS	94 38 31.0	272 07 47.0	330.73
0018	BS	00 00 00.0	90 00 13.0	0.00
0019	FS	274 38 26.0	87 52 02.0	330.73

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Rec.	Command	HZ	VT	SD
0020	BS	180 00 03.0	269 59 58.0	0.00
0021	FS	94 38 31.0	272 08 04.0	330.73
0022	4 CLOSE	33		N 00 00 00.0 E

Date: 11-18-92
 Time: 14:17:36
 Page: 1

ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV7.FLD
 Job No:
 Descr:
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	269	48	S 77 07 54.0 W
0002	2 OCCUPY	269	5.45	
0003	3 FS TP	417		5.54
0004	BS	00 00 00.0	88 31 57.0	0.00
0005	FS	298 26 56.0	90 53 50.0	384.04
0006	BS	180 00 00.0	271 29 00.0	0.00
0007	FS	118 26 53.0	269 06 10.0	384.04
0008	BS	00 00 01.0	88 32 00.0	0.00
0009	FS	298 26 53.0	90 53 52.0	384.04
0010	BS	180 00 00.0	271 27 43.0	0.00
0011	FS	118 26 50.0	269 06 12.0	0.00
0012	2 OCCUPY	417	5.23	269
0013	3 FS TP	418		5.41
0014	BS	00 00 00.0	89 00 01.0	0.00
0015	FS	159 12 18.0	91 43 42.0	326.27
0016	BS	180 00 00.0	270 59 16.0	0.00
0017	FS	339 12 15.0	268 16 20.0	326.26
0018	BS	00 00 00.0	89 00 11.0	0.00
0019	FS	159 12 17.0	91 43 38.0	326.27

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Rec.	Command	HZ	VT	SD
0020	BS	179 59 58.0	271 02 56.0	0.00
0021	FS	339 12 12.0	268 16 13.0	326.26
0022	2 OCCUPY	418	4.59	417
0023	3 FS TP	419		5.72
0024	BS	00 00 00.0	87 06 32.0	0.00
0025	FS	176 24 25.0	93 44 29.0	660.62
0026	BS	179 59 57.0	272 59 01.0	0.00
0027	FS	356 24 23.0	266 15 36.0	660.62
0028	BS	00 00 00.0	87 03 25.0	0.00
0029	FS	176 24 27.0	93 44 22.0	660.62
0030	BS	179 59 55.0	272 54 28.0	0.00
0031	FS	356 24 22.0	266 15 44.0	660.62
0032	2 OCCUPY	419	5.62	418
0033	3 FS TP	420		5.18
0034	BS	00 00 00.0	86 17 20.0	0.00
0035	FS	200 26 47.0	93 41 46.0	279.03
0036	BS	180 00 00.0	273 45 09.0	0.00
0037	FS	20 26 44.0	266 18 35.0	279.03
0038	BS	00 00 00.0	86 17 23.0	0.00
0039	FS	200 26 48.0	93 41 54.0	279.03
0040	BS	180 00 01.0	273 43 53.0	0.00
0041	FS	20 26 42.0	266 18 29.0	279.03
0042	2 OCCUPY	420	5.08	419
0043	3 FS TP	421		5.58
0044	BS	00 00 00.0	86 14 49.0	0.00
0045	FS	160 24 07.0	94 01 29.0	329.13
0046	BS	179 59 57.0	273 45 39.0	0.00
0047	FS	340 24 05.0	265 58 50.0	329.13
0048	BS	00 00 00.0	86 14 45.0	0.00
0049	FS	160 24 09.0	94 01 32.0	329.13
0050	BS	179 59 56.0	273 45 09.0	0.00
0051	FS	340 24 09.0	265 58 46.0	329.13
0052	2 OCCUPY	421	5.33	420
0053	3 FS TP	422		5.33
0054	BS	00 00 00.0	85 57 33.0	0.00
0055	FS	186 47 11.0	93 33 24.0	325.91
0056	BS	179 59 55.0	274 02 44.0	0.00
0057	FS	6 47 08.0	266 26 49.0	325.91
0058	BS	00 00 00.0	85 57 37.0	0.00
0059	FS	186 47 10.0	93 33 24.0	325.91
0060	BS	179 59 57.0	274 02 12.0	0.00
0061	FS	6 47 11.0	266 26 43.0	325.91
0062	4 CLOSE	31		N 00 00 00.0 E

Date: 11-18-92
 Time: 14:20:18
 Page: 1

ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV8.FLD
 Job No:
 Descr:
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	231	31	N 00 48 40.7 E
0002	2 OCCUPY	231	5.33	
0003	3 FS TP	423		5.00
0004	BS	00 00 00.0	91 38 02.0	0.00
0005	FS	181 04 18.0	87 28 55.0	1445.48
0006	BS	180 00 00.0	268 18 54.0	0.00
0007	FS	1 04 19.0	272 31 06.0	1445.48
0008	BS	00 00 01.0	91 36 34.0	0.00
0009	FS	181 04 13.0	87 28 46.0	1445.48
0010	BS	180 00 04.0	268 31 56.0	0.00
0011	FS	1 04 14.0	272 31 04.0	1445.48
0012	4 CLOSE	28		N 00 00 00.0 E

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Rec.	Command	HZ	VT	SD
0020	BS	180 00 00.0	270 45 19.0	0.00
0021	FS	286 37 05.0	260 22 51.0	198.28
0022	4 CLOSE	227		N 00 00 00.0 E

PALOS VERDES LANDFILL
GROUNDWATER MONITORING WELLS
USGS STATE PLANE COORDINATES
CALIFORNIA ZONE 7, NAD27

Date: 12-07-92
Time: 12:31:52
Page: 1

ACTIVE FILES:

Job File: PV.JOB
Job No:
Descr:
Coord File: PV.CRD
Job No:
Descr:
Field Data File: PV9.FLD
Job No:
Descr:
Plot File: WELL.PLT
Job No:
Descr:
Summary File: PV.CMD
Job No:
Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:

Angles: DDD.mmsss Distances: USFeet

Methods of Measurement:

Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	24	25	N 62 22 41.0 E
0002	2 OCCUPY	24	5.14	
0003	3 FS TP	424		5.29
0004	BS	00 00 00.0	90 35 22.0	0.00
0005	FS	354 24 00.0	90 51 56.0	453.11
0006	BS	180 00 03.0	269 37 08.0	0.00
0007	FS	174 24 02.0	269 07 48.0	453.11
0008	BS	00 00 00.0	90 29 00.0	0.00
0009	FS	354 24 04.0	90 52 00.0	453.11
0010	BS	180 00 02.0	269 39 31.0	0.00
0011	FS	174 24 03.0	269 07 55.0	453.11
0012	2 OCCUPY	424	5.26	24
0013	3 FS TP	425		2.12
0014	BS	00 00 00.0	89 26 24.0	0.00
0015	FS	106 37 02.0	99 37 11.0	198.28
0016	BS	180 00 02.0	270 46 37.0	0.00
0017	FS	286 37 05.0	260 22 52.0	198.28
0018	BS	00 00 00.0	89 20 42.0	0.00
0019	FS	106 37 04.0	99 37 08.0	198.28

Page: 2

Rec.	Command	HZ	VT	SD
0020	BS	180 00 00.0	270 45 19.0	0.00
0021	FS	286 37 05.0	260 22 51.0	198.28
0022	4 CLOSE	227		N 00 00 00.0 E

Date: 11-18-92
 Time: 14:24:03
 Page: 1

ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV10.FLD
 Job No:
 Descr:
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

=====

Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	229	30	S 1 22 04.1 W
0002	2 OCCUPY	229	4.90	
0003	3 FS TP	426		5.22
0004	BS	00 00 00.0	90 26 01.0	0.00
0005	FS	32 51 30.0	92 11 22.0	146.74
0006	BS	179 59 55.0	269 46 47.0	0.00
0007	FS	212 51 24.0	267 48 54.0	146.74
0008	BS	00 00 00.0	90 11 29.0	0.00
0009	FS	32 51 26.0	92 11 24.0	146.74
0010	BS	179 59 49.0	270 06 40.0	0.00
0011	FS	212 51 18.0	267 48 51.0	146.74
0012	2 OCCUPY	426	5.20	229
0013	3 FS TP	427		5.30
0014	BS	00 00 00.0	87 55 28.0	0.00
0015	FS	237 33 58.0	92 56 33.0	664.40
0016	BS	179 59 51.0	271 44 54.0	0.00
0017	FS	57 33 55.0	267 03 35.0	664.40
0018	BS	00 00 00.0	87 48 23.0	0.00
0019	FS	237 33 48.0	92 56 33.0	664.40

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Rec.	Command	HZ	VT	SD
0020	BS	179 59 54.0	272 10 35.0	0.00
0021	FS	57 33 54.0	267 03 36.0	664.40
0022	2 OCCUPY	427	5.11	426
0023	3 FS TP	428		4.84
0024	BS	00 00 00.0	87 08 41.0	0.00
0025	FS	211 50 18.0	92 50 33.0	332.10
0026	BS	179 59 58.0	272 55 51.0	0.00
0027	FS	31 50 10.0	267 09 50.0	332.10
0028	BS	00 00 00.0	87 05 11.0	0.00
0029	FS	211 50 15.0	92 50 34.0	332.10
0030	BS	179 59 58.0	273 03 19.0	0.00
0031	FS	31 50 13.0	267 09 44.0	332.10
0032	2 OCCUPY	428	4.78	427
0033	3 FS TP	429		4.84
0034	BS	00 00 00.0	87 13 00.0	0.00
0035	FS	180 46 05.0	90 29 02.0	143.41
0036	BS	179 59 55.0	272 54 13.0	0.00
0037	FS	00 46 05.0	269 31 14.0	143.41
0038	BS	00 00 00.0	87 23 43.0	0.00
0039	FS	180 46 09.0	90 29 00.0	143.41
0040	BS	180 00 00.0	272 47 52.0	0.00
0041	FS	00 46 09.0	269 31 13.0	143.41
0042	4 CLOSE	26		N 00 00 00.0 E

Date: 11-18-92
 Time: 14:25:40
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ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV11.FLD
 Job No:
 Descr:
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	224	303	S 87 58 27.1 E
0002	2 OCCUPY	224	4.76	
0003	3 FS TP	430		5.02
0004	BS	00 00 00.0	92 59 16.0	0.00
0005	FS	227 57 01.0	89 41 26.0	449.57
0006	BS	180 00 01.0	269 38 08.0	0.00
0007	FS	47 56 55.0	270 18 03.0	449.57
0008	BS	00 00 00.0	90 32 39.0	0.00
0009	FS	227 57 00.0	89 41 29.0	449.57
0010	BS	180 00 07.0	269 40 07.0	0.00
0011	FS	47 56 55.0	270 18 11.0	449.57
0012	4 CLOSE	21		N 00 00 00.0 E

Date: 11-18-92
Time: 14:28:38
Page: 1

ACTIVE FILES:
Job File: PV.JOB
Job No:
Descr:
Coord File: PV.CRD
Job No:
Descr:
Field Data File: PV12.FLD
Job No:
Descr:
Plot File: PV.PLT
Job No:
Descr:
Summary File: PV.CMD
Job No:
Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
Angles: DDD.mmsss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	222	19	N 54 04 34.4 W
0002	2 OCCUPY	222	4.76	
0003	3 FS TP	431		5.44
0004	BS	00 00 00.0	91 43 19.0	0.00
0005	FS	188 42 49.0	88 54 10.0	992.36
0006	BS	180 00 07.0	268 38 06.0	0.00
0007	FS	8 42 51.0	271 05 27.0	992.36
0008	BS	00 00 00.0	91 37 49.0	0.00
0009	FS	188 42 53.0	88 54 07.0	992.36
0010	BS	180 00 08.0	268 43 35.0	0.00
0011	FS	8 42 49.0	271 05 29.0	992.36
0012	4 CLOSE	20		N 00 00 00.0 E

Date: 11-18-92
 Time: 14:29:49
 Page: 1

ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV13.FLD
 Job No:
 Descr:
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	221	16	N 60 30 30.9 E
0002	2 OCCUPY	221	4.79	
0003	3 FS TP	432		5.34
0004	BS	00 00 00.0	94 33 20.0	0.00
0005	FS	4 52 29.0	94 23 52.0	432.73
0006	BS	180 00 01.0	265 35 47.0	0.00
0007	FS	184 52 29.0	265 35 47.0	432.73
0008	BS	00 00 00.0	94 37 10.0	0.00
0009	FS	4 52 30.0	94 23 49.0	432.73
0010	BS	179 59 58.0	265 35 17.0	0.00
0011	FS	184 52 26.0	265 35 45.0	432.73
0012	2 OCCUPY	432	5.05	221
0013	3 FS TP	433		5.11
0014	BS	00 00 00.0	85 32 58.0	0.00
0015	FS	105 26 59.0	90 29 12.0	797.27
0016	BS	180 00 04.0	274 31 55.0	0.00
0017	FS	285 27 03.0	269 30 26.0	797.27
0018	BS	00 00 00.0	85 38 22.0	0.00
0019	FS	105 27 00.0	90 29 15.0	797.27

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Rec.	Command	HZ	VT	SD
0020	BS	179 59 58.0	274 39 48.0	0.00
0021	FS	285 27 00.0	269 30 18.0	797.27
0022	4 CLOSE	15		N 00 00 00.0 E

Date: 11-18-92
 Time: 14:30:38
 Page: 1

ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV14.FLD
 Job No:
 Descr:
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	215	11	N 27 26 00.2 E
0002	2 OCCUPY	215	5.11	
0003	3 FS TP	434		3.17
0004	BS	00 00 01.0	93 20 06.0	0.00
0005	FS	95 08 03.0	88 13 06.0	216.87
0006	BS	179 59 56.0	266 45 40.0	0.00
0007	FS	275 07 57.0	271 46 39.0	216.87
0008	BS	00 00 00.0	93 24 09.0	0.00
0009	FS	95 08 01.0	88 13 05.0	216.87
0010	BS	180 00 00.0	266 52 32.0	0.00
0011	FS	275 07 53.0	271 46 40.0	216.87
0012	2 OCCUPY	434	5.16	215
0013	3 FS TP	435		5.35
0014	BS	359 59 59.0	86 54 36.0	1578.25
0015	FS	303 10 14.0	86 54 46.0	1578.26
0016	BS	180 00 00.0	267 37 49.0	0.00
0017	FS	123 10 17.0	273 05 01.0	1578.26
0018	BS	00 00 00.0	92 33 09.0	0.00
0019	FS	303 10 11.0	86 54 43.0	1578.25

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Rec.	Command	HZ	VT	SD
0020	BS	180 00 03.0	267 33 38.0	0.00
0021	FS	123 10 10.0	273 05 11.0	1578.25
0022	4 CLOSE	15		N 00 00 00.0 E

Date: 11-18-92
 Time: 14:33:12
 Page: 1

ACTIVE FILES:
 Job File: PV.JOB
 Job No:
 Descr:
 Coord File: PV.CRD
 Job No:
 Descr:
 Field Data File: PV15.FLD
 Job No:
 Descr:
 Plot File: PV.PLT
 Job No:
 Descr:
 Summary File: PV.CMD
 Job No:
 Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
 Angles: DDD.mmsss Distances: USFeet
 Methods of Measurement:
 Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	205	9	S 9 15 38.1 W
0002	2 OCCUPY	205	5.32	
0003	3 FS TP	436		4.78
0004	BS	00 00 00.0	87 24 14.0	0.00
0005	FS	166 22 30.0	92 39 28.0	201.84
0006	BS	179 59 59.0	272 41 32.0	0.00
0007	FS	346 22 30.0	267 20 07.0	201.84
0008	BS	359 59 59.0	87 26 35.0	0.00
0009	FS	166 22 32.0	92 39 24.0	201.84
0010	BS	180 00 03.0	272 44 01.0	0.00
0011	FS	346 22 30.0	267 20 06.0	201.84
0012	2 OCCUPY	436	5.17	205
0013	3 FS TP	437		4.23
0014	BS	00 00 00.0	87 33 44.0	0.00
0015	FS	20 46 07.0	87 30 09.0	482.84
0016	BS	179 59 56.0	272 40 08.0	0.00
0017	FS	200 45 59.0	272 29 22.0	482.83
0018	BS	00 00 00.0	87 29 29.0	0.00
0019	FS	20 46 08.0	87 30 16.0	482.83

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Rec.	Command	HZ	VT	SD
0020	BS	180 00 02.0	272 46 01.0	0.00
0021	FS	200 46 03.0	272 29 25.0	482.84
0022	2 OCCUPY	437	5.34	436
0023	3 FS TP	438		4.68
0024	BS	00 00 00.0	92 36 12.0	0.00
0025	FS	29 57 34.0	92 13 42.0	178.30
0026	BS	179 59 55.0	267 32 47.0	0.00
0027	FS	209 57 31.0	267 46 03.0	178.30
0028	BS	00 00 00.0	92 38 51.0	0.00
0029	FS	29 57 35.0	92 13 39.0	178.30
0030	BS	180 00 00.0	267 33 37.0	0.00
0031	FS	209 57 28.0	267 46 04.0	178.30
0032	4 CLOSE	9		N 00 00 00.0 E

Date: 11-18-92
Time: 14:34:45
Page: 1

ACTIVE FILES:
Job File: PV.JOB
Job No:
Descr:
Coord File: PV.CRD
Job No:
Descr:
Field Data File: PV16.FLD
Job No:
Descr:
Plot File: PV.PLT
Job No:
Descr:
Summary File: PV.CMD
Job No:
Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

=====

Field Data File Log

Units of Measurement:
Angles: DDD.mmsss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	202	8	S 3 20 03.1 E
0002	2 OCCUPY	202	4.99	
0003	3 FS TP	439		5.19
0004	BS	00 00 00.0	87 04 01.0	0.00
0005	FS	168 35 12.0	93 55 54.0	399.79
0006	BS	180 00 01.0	273 06 47.0	0.00
0007	FS	348 35 12.0	266 03 46.0	399.79
0008	BS	00 00 00.0	87 10 35.0	0.00
0009	FS	168 35 10.0	93 55 52.0	399.79
0010	BS	179 59 56.0	273 00 45.0	0.00
0011	FS	348 35 08.0	266 03 43.0	399.78
0012	4 CLOSE	7		N 00 00 00.0 E

Date: 11-18-92
Time: 14:35:07
Page: 1

ACTIVE FILES:
Job File: PV.JOB
Job No:
Descr:
Coord File: PV.CRD
Job No:
Descr:
Field Data File: PV17.FLD
Job No:
Descr:
Plot File: PV.PLT
Job No:
Descr:
Summary File: PV.CMD
Job No:
Descr:

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FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

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Field Data File Log

Units of Measurement:
Angles: DDD.mmsss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD
0001	1 START	234	10	N 83 38 06.9 W
0002	2 OCCUPY	234	6.09	
0003	3 FS TP	440		4.70
0004	BS	00 00 00.0	90 25 21.0	0.00
0005	FS	322 15 10.0	87 36 25.0	65.50
0006	BS	179 59 51.0	269 35 02.0	0.00
0007	FS	142 15 04.0	272 22 50.0	65.50
0008	BS	00 00 00.0	90 25 33.0	0.00
0009	FS	322 15 15.0	87 36 24.0	65.50
0010	BS	179 59 59.0	269 40 09.0	0.00
0011	FS	142 15 09.0	272 22 39.0	65.50
0012	2 OCCUPY	440	5.18	234
0013	3 FS TP	441		4.60
0014	BS	00 00 00.0	93 00 28.0	0.00
0015	FS	153 59 00.0	86 50 54.0	72.72
0016	BS	180 00 08.0	267 02 20.0	0.00
0017	FS	333 59 02.0	273 08 07.0	72.72
0018	BS	00 00 00.0	92 59 21.0	0.00
0019	FS	153 59 01.0	86 50 52.0	72.72

Page: 2

Rec.	Command	HZ	VT	SD
0020	BS	179 59 56.0	266 59 29.0	0.00
0021	FS	333 58 59.0	273 08 06.0	72.72
0022	4 CLOSE	39		N 00 00 00.0 E

Date: 12-01-92
 Time: 10:00:07
 Page: 1

 =====
 ELECTRONIC DATA COLLECTION
 =====

Collection File: PV1.EDT
 Field Data Log

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
1	1	+00000001	+02951721	+00000000	+05066909
2	11	+00000001	+81570.65	+41449.82	+00000080
3	-2-	+00000005	+00005160	+00000004	+00000000
4	3	+00000006			
5		00 00 00.0	90 14 15.0	0.00	+0015 +004
6		260 06 38.0	88 16 39.0	826.13	+0015 +004
7		80 06 45.0	271 43 42.0	826.13	+0015 +004
8		180 00 07.0	270 31 42.0	0.00	+0015 +004
9	-2-	+00000000	+00005110	+00000000	+00000000
10	31	+00000201	+00004940	+00000000	
11		00 00 00.0	91 55 17.0	0.00	+0015 +004
12		277 09 26.0	89 44 59.0	217.16	+0015 +004
13		97 09 31.0	270 15 34.0	217.16	+0015 +004
14		180 00 05.0	268 26 46.0	0.00	+0015 +004
15	3	+00000000	+00000000	+00000000	
16		00 00 00.0	91 50 17.0	0.00	+0015 +004
17		186 54 27.0	87 19 37.0	319.16	+0015 +004
18		6 54 33.0	272 40 52.0	319.16	+0015 +004
19		180 00 03.0	268 32 53.0	0.00	+0015 +004
20	-2-	+00000000	+00005210	+00000000	
21	31	+00000000	+00004780		
22		00 00 00.0	92 41 19.0	0.00	+0015 +004
23		158 07 36.0	86 06 30.0	399.76	+0015 +004
24		338 07 37.0	273 54 01.0	399.76	+0015 +004
25		180 00 00.0	267 35 41.0	0.00	+0015 +004
26	3	+00000000	+00005000	+00000000	
27		00 00 00.0	4 14 58.0	0.00	+0015 +004
28		160 07 18.0	86 17 19.0	483.30	+0015 +004
29		340 07 25.0	273 43 13.0	483.30	+0015 +004
30		179 59 57.0	267 29 39.0	0.00	+0015 +004
31	-2-	+00000000	+00005220	+00000000	
32	31	+00000000	+00004950		
33		00 00 00.0	93 43 01.0	0.00	+0015 +004
34		274 25 09.0	88 49 34.0	271.33	+0015 +004
35		94 25 20.0	271 11 06.0	271.33	+0015 +004
36		179 59 58.0	266 34 46.0	0.00	+0015 +004
37	3	+00000000	+00004890		
38		00 00 00.0	93 57 12.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
39		277 29 04.0	88 39 03.0	423.53	+0015 +004
40		97 29 09.0	271 21 38.0	423.53	+0015 +004
41		180 00 05.0	266 30 40.0	0.00	+0015 +004

42	-2-	+00000000	+00005040	+00000000	
43	31	+00000000	+00004800	+00000000	
44		00 00 00.0	91 26 45.0	0.00	+0015 +004
45		276 30 18.0	92 41 32.0	340.25	+0015 +004
46		96 30 16.0	267 19 04.0	340.25	+0015 +004
47		179 59 53.0	268 36 06.0	0.00	+0015 +004
48	31	+00000000	+00004900		
49		00 00 00.0	91 30 13.0	0.00	+0015 +004
50		284 32 04.0	92 50 30.0	140.80	+0015 +004
51		104 32 08.0	267 10 04.0	140.80	+0015 +004
52		180 00 04.0	268 51 44.0	0.00	+0015 +004
53	31	+00000000	+00005230		
54		00 00 00.0	91 36 02.0	0.00	+0015 +004
55		235 52 00.0	93 17 14.0	128.85	+0015 +004
56		55 52 01.0	266 43 21.0	128.85	+0015 +004
57		180 00 03.0	268 44 03.0	0.00	+0015 +004
58	31	+00000000	+00005410		
59		00 00 00.0	91 12 37.0	0.00	+0015 +004
60		141 38 22.0	87 52 43.0	178.27	+0015 +004
61		321 38 26.0	272 07 53.0	178.28	+0015 +004
62		180 00 01.0	268 37 25.0	0.00	+0015 +004
63	3	+00000000	+00004570		
64		00 00 00.0	91 12 12.0	0.00	+0015 +004
65		124 23 30.0	86 45 28.0	386.63	+0015 +004
66		304 23 23.0	273 15 09.0	386.63	+0015 +004
67		179 59 59.0	268 29 11.0	0.00	+0015 +004

68	-2-	+00000000	+00005280	+00000000	
69	31	+00000000	+00004880	+00000000	
70		00 00 00.0	93 08 38.0	0.00	+0015 +004
71		299 53 19.0	92 22 34.0	285.07	+0015 +004
72		119 53 22.0	267 38 02.0	285.07	+0015 +004
73		180 00 01.0	266 37 46.0	0.00	+0015 +004
74	31	+00000000	+00005130		
75		00 00 00.0	93 32 03.0	0.00	+0015 +004
76		304 21 24.0	93 52 50.0	195.12	+0015 +004
77		124 21 28.0	266 07 43.0	195.12	+0015 +004
78		179 59 53.0	266 44 43.0	0.00	+0015 +004
79	31	+00000000	+00005140		
80		00 00 00.0	93 23 05.0	0.00	+0015 +004
81		318 30 05.0	94 54 32.0	117.35	+0015 +004
82		138 30 12.0	265 06 07.0	117.35	+0015 +004
83		179 59 54.0	266 54 37.0	0.00	+0015 +004
84	31	+00000000	+00005110		
85		00 00 00.0	93 30 19.0	0.00	+0015 +004
86		281 53 23.0	93 02 05.0	55.01	+0015 +004
87		101 53 32.0	266 58 29.0	55.01	+0015 +004
88		179 59 57.0	266 49 02.0	0.00	+0015 +004
89	31	+00000000	+00005090		
90		00 00 00.0	93 29 57.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
91		205 21 57.0	87 15 41.0	135.35	+0015 +004
92		25 21 55.0	272 44 48.0	135.35	+0015 +004
93		179 59 56.0	266 46 22.0	0.00	+0015 +004
94	31	+00000000	+00005130		
95		00 00 00.0	93 31 07.0	0.00	+0015 +004
96		199 59 05.0	86 45 08.0	223.92	+0015 +004
97		19 59 06.0	273 15 24.0	223.92	+0015 +004
98		179 59 56.0	266 41 42.0	0.00	+0015 +004
99	31	+00000000	+00004640		
100		00 00 00.0	93 29 13.0	0.00	+0015 +004
101		200 40 31.0	86 35 38.0	394.53	+0015 +004
102		20 40 34.0	273 24 55.0	394.53	+0015 +004
103		180 00 04.0	266 50 08.0	0.00	+0015 +004
104	3	+00000000	+00004290		
105		00 00 00.0	93 29 28.0	0.00	+0015 +004
106		203 44 21.0	86 18 31.0	1320.92	+0015 +004
107		23 44 19.0	273 42 02.0	1320.92	+0015 +004
108		180 00 01.0	266 42 45.0	0.00	+0015 +004
109	-2-	+00000000	+00005020	+00000000	
110	31	+00000000	+00004930		
111		00 00 00.0	93 56 43.0	0.00	+0015 +004
112		154 34 46.0	86 43 22.0	447.32	+0015 +004
113		334 34 41.0	273 17 11.0	447.32	+0015 +004
114		180 00 04.0	266 19 58.0	0.00	+0015 +004
115	31	+00000000	+00004200	+00000000	+00000000
116		00 00 00.0	93 59 57.0	0.00	+0015 +004
117		228 00 57.0	82 17 11.0	325.30	+0015 +004
118		48 01 01.0	277 43 20.0	325.30	+0015 +004
119		179 59 56.0	266 17 21.0	0.00	+0015 +004
120	-2-	+00000000	+00005000	+00000000	
121	31	+00000216	+00004420	+00000000	+00000000
122		00 00 00.0	98 16 44.0	0.00	+0015 +004
123		261 47 08.0	92 07 00.0	144.08	+0015 +004
124		81 47 10.0	267 52 53.0	0.00	+0015 +004
125		180 00 09.0	262 02 07.0	0.00	+0015 +004
126	31	+00000013	+00004050	+00000000	+00000000
127		00 00 00.0	98 12 32.0	0.00	+0015 +004
128		252 31 40.0	90 25 26.0	524.30	+0015 +004
129		72 31 43.0	269 34 36.0	0.00	+0015 +004
130		180 00 04.0	262 08 06.0	0.00	+0015 +004
131	-2-	+00000000	+00005050	+00000000	
132	31	+00000014	+00003540	+00000000	+00000000
133		00 00 00.0	89 54 38.0	0.00	+0015 +004
134		207 07 50.0	94 58 47.0	203.35	+0015 +004
135		27 07 52.0	265 01 27.0	0.00	+0015 +004
136		180 00 01.0	270 26 13.0	0.00	+0015 +004
137	-2-	+00000013	+00005390	+00000012	
138	31	+00000217	+00005700	+00000000	+00000000
139		00 00 00.0	89 57 22.0	0.00	+0015 +004
140		178 56 41.0	100 53 56.0	549.46	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
141		358 56 41.0	259 06 27.0	0.00	+0015 +004
142		179 59 58.0	270 13 34.0	0.00	+0015 +004
143	-2-	+00000000	+00005020	+00000000	
144	31	+00000000	+00005600		
145		00 00 00.0	85 59 56.0	0.00	+0015 +004
146		67 56 40.0	95 27 08.0	676.96	+0015 +004
147		247 56 45.0	264 32 52.0	0.00	+0015 +004
148		180 00 03.0	274 15 37.0	0.00	+0015 +004
149	31	+00000000	+00005370	+00000000	
150		00 00 00.0	85 55 45.0	0.00	+0015 +004
151		105 15 35.0	95 11 12.0	975.59	+0015 +004
152		285 15 39.0	264 48 48.0	0.00	+0015 +004
153		179 59 57.0	274 15 18.0	0.00	+0015 +004
154	-2-	+00000011	+00005220	+00000010	+00000000
155	3	+00000015	+00004550	+00000000	
156		00 00 00.0	93 57 27.0	0.00	+0015 +004
157		178 39 26.0	86 21 52.0	1868.75	+0015 +004
158		358 39 21.0	273 38 15.0	0.00	+0015 +004
159		180 00 02.0	266 28 15.0	0.00	+0015 +004
160	-2-	+00000015	+00005110	+00000011	
161	3	+00000016	+00005060		
162		00 00 00.0	93 49 04.0	0.00	+0015 +004
163		118 48 44.0	89 33 52.0	755.72	+0015 +004
164		298 48 41.0	270 26 28.0	0.00	+0015 +004
165		180 00 01.0	266 29 44.0	0.00	+0015 +004
166	-2-	+00000015	+00005110	+00000011	
167	31	+00000017	+00005190	+00000000	+00000000
168		00 00 00.0	93 50 59.0	0.00	+0015 +004
169		201 22 14.0	84 32 50.0	565.31	+0015 +004
170		21 22 08.0	275 27 39.0	0.00	+0015 +004
171		180 00 09.0	266 33 28.0	0.00	+0015 +004
172	-2-	+00000017	+00004980		
173	31	+00000220	+00004080		
174		00 00 00.0	95 34 56.0	0.00	+0015 +004
175		153 22 29.0	87 43 47.0	77.40	+0015 +004
176		333 22 24.0	272 16 32.0	0.00	+0015 +004
177		180 00 06.0	264 50 21.0	0.00	+0015 +004
178	-2-	+00000016	+00005220	+00000015	
179	31	+00000221	+00004060		
180		00 00 00.0	90 37 16.0	0.00	+0015 +004
181		250 11 10.0	85 44 58.0	451.86	+0015 +004
182		70 11 12.0	274 15 22.0	0.00	+0015 +004
183		180 00 02.0	269 46 30.0	0.00	+0015 +004
184	3	+00000018	+00004600	+00000000	
185		00 00 00.0	90 34 50.0	0.00	+0015 +004
186		142 37 34.0	90 47 26.0	652.52	+0015 +004
187		322 37 31.0	269 12 57.0	652.52	+0015 +004
188		180 00 05.0	269 40 29.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
189	-2-	+00000018	+00005080	+00000016	
190	3	+00000019	+00004340		
191		00 00 00.0	89 18 58.0	0.00	+0015 +004
192		175 02 27.0	91 30 42.0	1405.31	+0015 +004
193		355 02 36.0	268 29 07.0	0.00	+0015 +004
194		180 00 05.0	270 57 28.0	0.00	+0015 +004
195	-2-	+00000019	+00005130	+00000018	
196	31	+00000000	+00004900		
197		00 00 00.0	88 43 29.0	0.00	+0015 +004
198		177 56 05.0	88 47 18.0	138.08	+0015 +004
199		357 56 07.0	271 12 48.0	0.00	+0015 +004
200		180 00 00.0	271 25 42.0	0.00	+0015 +004
201	50	+00000100	+00421715	+00005190	+00000000
202		77 30 12.0	89 53 40.0	55.16	+0015 +004
203		257 30 09.0	270 06 35.0	0.00	+0015 +004
204	3	+00000000	+00005100		
205		00 00 00.0	88 43 59.0	0.00	+0015 +004
206		185 35 09.0	88 54 49.0	1128.98	+0015 +004
207		5 35 08.0	271 05 32.0	0.00	+0015 +004
208		179 59 57.0	271 41 39.0	0.00	+0015 +004
209	-2-	+00000000	+00005040		
210	3	+00000000	+00004870		
211		00 00 00.0	91 13 11.0	0.00	+0015 +004
212		170 08 29.0	90 29 59.0	531.19	+0015 +004
213		350 08 25.0	269 30 17.0	0.00	+0015 +004
214		180 00 05.0	269 00 00.0	0.00	+0015 +004
215	-2-	+00000000	+00005100		
216	31	+00000223	+00004730		
217		00 00 00.0	89 47 32.0	0.00	+0015 +004
218		10 59 37.0	89 57 05.0	126.67	+0015 +004
219		190 59 34.0	270 02 55.0	0.00	+0015 +004
220		180 00 01.0	270 30 57.0	0.00	+0015 +004
221	31	+00000224	+00000450		
222		00 00 00.0	89 37 57.0	0.00	+0015 +004
223		196 14 27.0	90 53 26.0	449.61	+0015 +004
224		16 14 19.0	269 06 34.0	0.00	+0015 +004
225		180 00 07.0	270 35 18.0	0.00	+0015 +004
226	3	+00000000	+00004610		
227		00 00 00.0	89 49 47.0	0.00	+0015 +004
228		86 32 38.0	92 58 56.0	708.98	+0015 +004
229		266 32 39.0	267 01 04.0	0.00	+0015 +004
230		180 00 01.0	270 29 24.0	0.00	+0015 +004
231	-2-	+00000022	+00004930	+00000000	
232	31	+00000225	+00004460		
233		00 00 00.0	87 08 30.0	0.00	+0015 +004
234		105 27 47.0	86 14 00.0	119.35	+0015 +004
235		285 27 38.0	273 46 30.0	0.00	+0015 +004
236		179 59 57.0	273 16 57.0	0.00	+0015 +004
237	3	+00000000	+00004430		

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
238		00 00 01.0	87 16 15.0	0.00	+0015 +004
239		239 30 00.0	95 09 44.0	448.43	+0015 +004
240		59 29 59.0	264 50 16.0	0.00	+0015 +004
241		179 59 50.0	273 00 01.0	0.00	+0015 +004
242	-2-	+00000023	+00004930	+00000022	
243	31	+00000226	+00004800		
244		00 00 00.0	85 07 08.0	0.00	+0015 +004
245		297 45 30.0	92 32 34.0	172.79	+0015 +004
246		117 45 25.0	267 27 26.0	0.00	+0015 +004
247		179 59 51.0	274 58 35.0	0.00	+0015 +004
248	3	+00000000	+00005030		
249		00 00 00.0	85 09 25.0	0.00	+0015 +004
250		147 03 50.0	88 47 24.0	924.41	+0015 +004
251		327 03 46.0	271 13 07.0	924.41	+0015 +004
252		179 59 53.0	275 06 34.0	0.00	+0015 +004
253	-2-	+00000024	+00005030	+00000023	
254	3	+00000025	+00004830	+00000000	
255		00 00 00.0	91 34 13.0	0.00	+0015 +004
256		185 33 08.0	90 19 17.0	444.10	+0015 +004
257		5 33 04.0	269 41 02.0	0.00	+0015 +004
258		179 59 54.0	268 55 59.0	0.00	+0015 +004
259	-2-	+00000025	+00004750	+00000024	+00000000
260	31	+00000000	+00004150		
261		00 00 00.0	89 47 38.0	0.00	+0015 +004
262		100 38 27.0	99 15 08.0	243.47	+0015 +004
263		280 38 30.0	260 45 12.0	0.00	+0015 +004
264		180 00 00.0	270 23 57.0	0.00	+0015 +004
265	3	+00000000	+00003370		
266		00 00 00.0	89 52 53.0	0.00	+0015 +004
267		301 30 38.0	98 47 31.0	332.47	+0015 +004
268		121 30 37.0	261 12 49.0	0.00	+0015 +004
269		179 59 55.0	270 24 23.0	0.00	+0015 +004
270	-2-	+00000026	+00003650	+00000025	
271	31	+00000000	+00005290		
272		00 00 00.0	81 22 45.0	0.00	+0015 +004
273		184 50 08.0	84 55 07.0	86.69	+0015 +004
274		4 50 08.0	275 04 26.0	0.00	+0015 +004
275		179 59 58.0	278 46 23.0	0.00	+0015 +004
276	31	+00000027	+00004570	+00000000	+00000000
277		00 00 00.0	81 22 44.0	332.33	+0015 +004
278		119 19 34.0	87 56 56.0	444.55	+0015 +004
279		299 19 37.0	272 03 04.0	0.00	+0015 +004
280		180 00 05.0	278 37 16.0	0.00	+0015 +004
281		00 00 00.0	81 22 51.0	332.33	+0015 +004
282		119 19 38.0	87 56 51.0	444.55	+0015 +004
283		299 19 32.0	272 03 04.0	0.00	+0015 +004
284		180 00 02.0	278 37 16.0	0.00	+0015 +004
285	-2-	+00000026	+00003650	+00000025	
286	3	+00000028	+00003750	+00000000	

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
287		00 00 00.0	81 46 20.0	0.00	+0015 +004
288		39 34 44.0	91 52 16.0	449.09	+0015 +004
289		219 34 52.0	268 07 44.0	0.00	+0015 +004
290		180 00 00.0	278 42 19.0	0.00	+0015 +004
291		00 00 00.0	81 36 20.0	0.00	+0015 +004
292		39 34 47.0	91 52 20.0	449.09	+0015 +004
293		219 34 51.0	268 07 40.0	0.00	+0015 +004
294		180 00 05.0	278 52 27.0	0.00	+0015 +004
295	-2-	+00000027	+00005010	+00000026	
296	3	+00000029	+00004680		
297		00 00 00.0	92 08 04.0	444.57	+0015 +004
298		156 12 02.0	86 39 32.0	265.28	+0015 +004
299		336 11 57.0	273 20 28.0	0.00	+0015 +004
300		180 00 09.0	267 51 56.0	0.00	+0015 +004
301		00 00 00.0	92 08 04.0	444.57	+0015 +004
302		156 11 59.0	86 39 25.0	265.28	+0015 +004
303		336 12 00.0	273 20 28.0	0.00	+0015 +004
304		180 00 09.0	267 51 56.0	0.00	+0015 +004
305	-2-	+00000029	+00005100	+00000027	
306	3	+00000030	+00004580	+00004930	
307		00 00 00.0	93 26 41.0	265.31	+0015 +004
308		166 29 04.0	87 11 20.0	507.11	+0015 +004
309		346 29 06.0	272 48 40.0	0.00	+0015 +004
310		180 00 03.0	266 33 19.0	0.00	+0015 +004
311		00 00 00.0	93 26 42.0	265.31	+0015 +004
312		166 29 02.0	87 11 20.0	507.11	+0015 +004
313		346 29 05.0	272 48 40.0	0.00	+0015 +004
314		180 00 08.0	266 33 19.0	0.00	+0015 +004
315	-2-	+00000030	+00005290	+00000029	
316	31	+00000229	+00004290		
317		00 00 00.0	92 53 16.0	507.16	+0015 +004
318		95 28 18.0	89 44 11.0	86.19	+0015 +004
319		275 28 18.0	270 15 49.0	0.00	+0015 +004
320		180 00 02.0	267 06 44.0	0.00	+0015 +004
321		00 00 00.0	92 53 12.0	507.15	+0015 +004
322		95 28 24.0	89 44 10.0	86.19	+0015 +004
323		275 28 22.0	270 15 49.0	0.00	+0015 +004
324		180 00 03.0	267 06 44.0	0.00	+0015 +004
325	-2-	+00000028	+00004930	+00000026	
326	3	+00000031	+00004750		
327		00 00 00.0	88 17 42.0	449.05	+0015 +004
328		138 10 55.0	92 19 22.0	1834.85	+0015 +004
329		318 10 52.0	267 40 38.0	0.00	+0015 +004
330		180 00 03.0	271 42 18.0	0.00	+0015 +004
331		00 00 00.0	88 17 42.0	449.05	+0015 +004
332		138 10 54.0	92 19 19.0	1834.85	+0015 +004
333		318 10 52.0	267 40 38.0	0.00	+0015 +004
334		179 59 56.0	271 42 18.0	0.00	+0015 +004
335	-2-	+00000031	+00005150		

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
336	31	+00000000	+00004610		
337		00 00 01.0	87 42 20.0	1834.82	+0015 +004
338		56 45 58.0	86 32 22.0	325.87	+0015 +004
339		236 45 55.0	273 27 38.0	0.00	+0015 +004
340		180 00 01.0	272 17 40.0	0.00	+0015 +004
341		00 00 00.0	87 42 31.0	1834.82	+0015 +004
342		56 45 53.0	86 32 22.0	325.87	+0015 +004
343		236 45 48.0	273 27 38.0	0.00	+0015 +004
344		179 59 57.0	272 17 40.0	0.00	+0015 +004
345	31	+00000000	+00004380		
346		00 00 00.0	87 42 35.0	1834.82	+0015 +004
347		359 09 41.0	88 37 32.0	389.55	+0015 +004
348		179 09 37.0	271 22 28.0	0.00	+0015 +004
349		179 59 56.0	272 17 25.0	0.00	+0015 +004
350		00 00 00.0	87 52 11.0	0.00	+0015 +004
351		359 09 39.0	88 37 33.0	389.55	+0015 +004
352		179 09 36.0	271 22 28.0	0.00	+0015 +004
353		179 59 52.0	272 17 25.0	0.00	+0015 +004
354	31	+00000000	+00004440		
355		00 00 00.0	87 52 22.0	0.00	+0015 +004
356		266 58 28.0	81 58 54.0	295.49	+0015 +004
357		86 58 18.0	278 01 06.0	0.00	+0015 +004
358		179 59 53.0	272 31 16.0	0.00	+0015 +004
359		00 00 00.0	87 51 12.0	0.00	+0015 +004
360		266 58 32.0	81 58 55.0	295.49	+0015 +004
361		86 58 18.0	278 01 06.0	0.00	+0015 +004
362		179 59 54.0	272 29 38.0	0.00	+0015 +004
363	-2-	+00000031	+00004240	+00000028	+00000000
364	3	+00000000	+00004010		
365		00 00 00.0	87 55 43.0	0.00	+0015 +004
366		226 35 18.0	92 59 53.0	740.93	+0015 +004
367		46 35 09.0	267 00 07.0	0.00	+0015 +004
368		179 59 51.0	272 24 18.0	0.00	+0015 +004
369		00 00 00.0	87 48 57.0	0.00	+0015 +004
370		226 35 16.0	92 59 53.0	740.94	+0015 +004
371		46 35 07.0	267 00 07.0	0.00	+0015 +004
372		179 59 54.0	272 25 33.0	0.00	+0015 +004
373	-2-	+00000032	+00005090	+00000000	
374	3	+00000000	+00004740		
375		00 00 00.0	87 09 15.0	740.84	+0015 +004
376		184 01 10.0	91 24 39.0	437.21	+0015 +004
377		4 01 06.0	268 35 21.0	0.00	+0015 +004
378		179 59 54.0	272 50 45.0	0.00	+0015 +004
379		00 00 00.0	87 09 14.0	740.84	+0015 +004
380		184 01 14.0	91 24 41.0	437.21	+0015 +004
381		4 01 11.0	268 35 21.0	0.00	+0015 +004
382		180 00 02.0	272 50 45.0	0.00	+0015 +004
383	-2-	+00000033	+00005080		
384	31	+00000034	+00004760	+00000000	+00000000
385		00 00 00.0	88 39 22.0	437.20	+0015 +004
386		151 55 12.0	92 29 56.0	249.91	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
387		331 55 04.0	267 30 04.0	0.00	+0015 +004
388		179 59 59.0	271 20 38.0	0.00	+0015 +004
389		00 00 00.0	88 39 21.0	437.20	+0015 +004
390		151 55 07.0	92 29 55.0	249.91	+0015 +004
391		331 55 02.0	267 30 04.0	0.00	+0015 +004
392		179 59 53.0	271 20 38.0	0.00	+0015 +004
393	3	+00000035	+00004660	+00000000	+00000000
394		00 00 00.0	88 39 18.0	437.20	+0015 +004
395		148 34 37.0	92 01 07.0	1374.83	+0015 +004
396		328 34 37.0	267 58 53.0	0.00	+0015 +004
397		179 59 59.0	271 20 42.0	0.00	+0015 +004
398		00 00 00.0	88 39 20.0	437.20	+0015 +004
399		148 34 38.0	92 01 04.0	1374.83	+0015 +004
400		328 34 38.0	267 58 53.0	0.00	+0015 +004
401		179 59 59.0	271 20 42.0	0.00	+0015 +004
402	-2-	+00000034	+00005030	+00000033	
403	31	+00000233	+00004650	+00000000	+00000000
404		00 00 00.0	87 35 19.0	249.90	+0015 +004
405		102 49 57.0	90 48 57.0	177.33	+0015 +004
406		282 49 53.0	269 11 03.0	0.00	+0015 +004
407		179 59 50.0	272 24 41.0	0.00	+0015 +004
408		00 00 00.0	87 35 17.0	249.89	+0015 +004
409		102 49 57.0	90 48 58.0	177.33	+0015 +004
410		282 49 55.0	269 11 03.0	0.00	+0015 +004
411		179 59 51.0	272 24 41.0	0.00	+0015 +004
412	-2-	+00000035	+00005230	+00000033	
413	3	+00000036	+00005540		
414		00 00 00.0	88 00 52.0	1374.81	+0015 +004
415		113 03 30.0	90 18 45.0	3780.74	+0015 +004
416		293 03 31.0	269 40 50.0	0.00	+0015 +004
417		180 00 06.0	271 59 08.0	0.00	+0015 +004
418		00 00 00.0	88 00 52.0	1374.81	+0015 +004
419		113 03 26.0	90 18 38.0	3780.74	+0015 +004
420		293 03 15.0	269 41 15.0	0.00	+0015 +004
421		179 59 55.0	271 59 08.0	0.00	+0015 +004
422	-2-	+00000036	+00005120	+00000035	
423	3	+00000000	+00005320		
424		00 00 00.0	89 41 29.0	3780.73	+0015 +004
425		180 41 40.0	90 43 56.0	1472.09	+0015 +004
426		00 41 39.0	269 16 04.0	0.00	+0015 +004
427		179 59 49.0	270 18 30.0	0.00	+0015 +004
428		00 00 00.0	89 42 04.0	3780.73	+0015 +004
429		180 41 56.0	90 44 05.0	1472.09	+0015 +004
430		00 41 51.0	269 16 04.0	0.00	+0015 +004
431		180 00 12.0	270 18 31.0	0.00	+0015 +004
432	-2-	+00000037	+00005190	+00000000	
433	3	+00000038	+00006730	+00000000	+00000000
434		00 00 00.0	89 16 19.0	1472.09	+0015 +004
435		160 09 22.0	90 33 21.0	939.33	+0015 +004
436		340 09 19.0	269 26 39.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
437		179 59 56.0	270 43 40.0	0.00	+0015 +004
438		00 00 00.0	89 16 19.0	1472.09	+0015 +004
439		160 09 22.0	90 33 00.0	939.33	+0015 +004
440		340 09 23.0	269 27 00.0	0.00	+0015 +004
441		180 00 05.0	270 43 41.0	0.00	+0015 +004
442	4	+00000001	+00000000	+00000000	+00000000
443	-2-	+00000001	+00006590	+00000000	+00000000
444	31	+00000002	+00005190	+00000000	+00000000
445		00 00 00.0	90 29 46.0	2283.46	+0015 +004
446		00 00 00.0	269 40 19.0	0.00	+0015 +004
447	-2-	+00000001	+00006590	+00000000	+00000000
448	3	+00000004	+00003630	+00000000	+00000000
449		00 00 00.0	90 46 10.0	0.00	+0015 +004
450		243 49 53.0	88 27 28.0	2001.15	+0015 +004
451		63 49 54.0	271 32 32.0	0.00	+0015 +004
452		179 59 51.0	269 36 41.0	0.00	+0015 +004
453		00 00 00.0	90 43 56.0	0.00	+0015 +004
454		243 49 56.0	88 27 30.0	2001.15	+0015 +004
455		63 49 53.0	271 36 01.0	0.00	+0015 +004
456		179 59 52.0	269 32 32.0	0.00	+0015 +004
457	-2-	+00000004	+00005160	+00000001	
458	3	+00000005	+00005270		
459		00 00 00.0	91 36 23.0	0.00	+0015 +004
460		100 58 43.0	90 04 39.0	999.24	+0015 +004
461		280 58 43.0	269 55 20.0	0.00	+0015 +004
462		180 00 00.0	268 23 16.0	2001.21	+0015 +004
463		00 00 00.0	91 36 40.0	0.00	+0015 +004
464		100 58 42.0	90 04 40.0	999.24	+0015 +004
465		280 58 42.0	269 55 20.0	0.00	+0015 +004
466		180 00 02.0	268 23 20.0	2001.21	+0015 +004
467	1	+00000010	+00000000	+00000000	+00000000
468	-2-	+00000010	+00005410	+00000009	
469	3	+00000039	+00004690	+00005120	+00000000
470		00 00 01.0	93 21 28.0	386.67	+0015 +004
471		150 52 45.0	86 08 46.0	106.08	+0015 +004
472		330 52 46.0	273 51 14.0	0.00	+0015 +004
473		180 00 02.0	266 38 15.0	0.00	+0015 +004
474		00 00 00.0	93 21 29.0	386.67	+0015 +004
475		150 52 43.0	86 08 53.0	106.08	+0015 +004
476		330 52 45.0	273 51 14.0	0.00	+0015 +004
477		179 59 55.0	266 38 18.0	0.00	+0015 +004
478	31	+00000234	+00005730	+00000000	+00000000
479		00 00 00.0	93 21 29.0	386.67	+0015 +004
480		67 14 52.0	90 20 34.0	95.61	+0015 +004
481		247 14 53.0	269 39 08.0	0.00	+0015 +004
482		179 59 56.0	266 38 13.0	0.00	+0015 +004
483	31	+00000000	+00003820	+00000000	+00000000
484		00 00 00.0	93 21 31.0	386.67	+0015 +004
485		65 00 00.0	90 14 43.0	105.24	+0015 +004
486		244 59 52.0	269 45 03.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
487		179 59 52.0	266 38 12.0	0.00	+0015 +004
488	-2-	+00000039	+00005130	+00000010	
489	31	+00000000	+00006050	+00000000	+00000000
490		00 00 00.0	94 19 31.0	106.15	+0015 +004
491		38 23 28.0	93 38 57.0	70.72	+0015 +004
492		218 23 29.0	266 20 56.0	0.00	+0015 +004
493		180 00 02.0	265 40 23.0	0.00	+0015 +004
494	31	+00000000	+00006330	+00000000	+00000000
495		00 00 00.0	94 19 27.0	0.00	+0015 +004
496		40 21 26.0	93 40 04.0	64.84	+0015 +004
497		220 21 23.0	266 19 40.0	0.00	+0015 +004
498		180 00 06.0	265 40 15.0	0.00	+0015 +004
499	31	+00000000	+00006690	+00000000	+00000000
500		00 00 00.0	94 19 28.0	0.00	+0015 +004
501		95 26 33.0	91 16 24.0	10.94	+0015 +004
502		275 26 42.0	268 43 12.0	0.00	+0015 +004
503		180 00 06.0	265 40 17.0	0.00	+0015 +004
504	31	+00000000	+00004690	+00000000	+00000000
505		00 00 00.0	94 19 45.0	0.00	+0000 +000
506		232 46 26.0	85 24 31.0	20.19	+0015 +004
507		52 46 20.0	274 35 13.0	0.00	+0015 +004
508		180 00 02.0	265 40 15.0	0.00	+0015 +004
509	31	+00000000	+00004830	+00000000	+00000000
510		00 00 00.0	94 19 37.0	0.00	+0000 +000
511		231 48 35.0	85 11 38.0	25.97	+0015 +004
512		51 48 40.0	274 48 06.0	0.00	+0015 +004
513		179 59 56.0	265 40 23.0	0.00	+0015 +004
514	3	+00000000	+00004450	+00004950	
515		00 00 00.0	94 19 22.0	106.15	+0015 +004
516		220 31 41.0	86 38 13.0	175.38	+0015 +004
517		40 31 46.0	273 21 32.0	0.00	+0015 +004
518		180 00 04.0	265 40 18.0	0.00	+0015 +004
519		00 00 00.0	94 19 26.0	106.15	+0015 +004
520		220 31 45.0	86 38 09.0	175.38	+0015 +004
521		40 31 42.0	273 21 27.0	0.00	+0015 +004
522		180 00 03.0	265 40 18.0	0.00	+0015 +004

Date: 12-01-92
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ELECTRONIC DATA COLLECTION

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Collection File: PV2.EDT
 Field Data Log

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
1	-2-	+00000039	+00005100	+00000010	
2	31	+00000245	+00007250	+00000000	+00000000
3		00 00 00.0	94 41 37.0	0.00	+0015 +004
4		119 47 31.0	87 50 27.0	59.59	+0015 +004
5		299 47 28.0	272 09 33.0	0.00	+0015 +004
6		179 59 55.0	265 18 23.0	0.00	+0015 +004
7	31	+00000000	+00006980		
8		00 00 00.0	94 27 35.0	0.00	+0015 +004
9		146 37 12.0	84 12 35.0	30.00	+0015 +004
10		326 37 11.0	275 47 25.0	0.00	+0015 +004
11		179 59 57.0	265 32 25.0	0.00	+0015 +004
12	31	+00000000	+00006670		
13		00 00 00.0	94 37 21.0	0.00	+0015 +004
14		175 35 14.0	76 36 03.0	51.35	+0015 +004
15		355 35 13.0	283 23 57.0	0.00	+0015 +004
16		180 00 03.0	265 22 39.0	0.00	+0015 +004
17	-2-	+00000040	+00005000	+00000039	
18	31	+00000000	+00004470		
19		00 00 00.0	93 30 52.0	175.41	+0015 +004
20		355 34 48.0	94 07 00.0	65.46	+0015 +004
21		175 34 53.0	265 52 24.0	0.00	+0015 +004
22		180 00 05.0	266 29 08.0	0.00	+0015 +004
23	31	+00000000	+00004640		
24		00 00 00.0	93 35 32.0	0.00	+0015 +004
25		353 42 42.0	94 02 59.0	57.24	+0015 +004
26		173 42 46.0	265 57 00.0	0.00	+0015 +004
27		180 00 07.0	266 24 28.0	0.00	+0015 +004
28	31	+00000000	+00004410		
29		00 00 00.0	93 45 01.0	0.00	+0015 +004
30		242 36 53.0	94 20 51.0	12.43	+0015 +004
31		62 36 56.0	265 39 09.0	0.00	+0015 +004
32		180 00 06.0	266 14 59.0	0.00	+0015 +004
33	31	+00000000	+00004670		
34		00 00 00.0	93 42 41.0	0.00	+0015 +004
35		222 29 32.0	90 50 40.0	18.68	+0015 +004
36		42 29 35.0	269 09 20.0	0.00	+0015 +004
37		180 00 01.0	266 17 19.0	0.00	+0015 +004
38	31	+00000000	+00004760		
39		00 00 00.0	93 34 42.0	0.00	+0015 +004
40		196 29 28.0	87 36 39.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
41		196 29 28.0	87 36 39.0	85.49	+0015 +004
42		16 29 27.0	272 28 05.0	0.00	+0015 +004
43		180 00 02.0	266 39 39.0	0.00	+0015 +004
44	31	+00000000	+00004530		
45		00 00 00.0	93 41 20.0	0.00	+0015 +004
46		195 36 53.0	87 43 41.0	90.30	+0015 +004
47		15 36 58.0	272 26 42.0	0.00	+0015 +004
48		180 00 02.0	266 37 46.0	0.00	+0015 +004
49	31	+00000000	+00004640		
50		00 00 00.0	93 35 40.0	0.00	+0015 +004
51		194 56 15.0	87 18 13.0	158.54	+0015 +004
52		14 56 17.0	272 52 20.0	0.00	+0015 +004
53		180 00 01.0	266 34 47.0	0.00	+0015 +004
54	31	+00000000	+00004670		
55		00 00 00.0	93 34 32.0	0.00	+0015 +004
56		195 00 41.0	87 15 49.0	165.75	+0015 +004
57		15 00 42.0	272 55 26.0	0.00	+0015 +004
58		180 00 03.0	266 31 03.0	0.00	+0015 +004
59	3	+00000041	+00005430	+00005240	+00000000
60		00 00 00.0	93 30 51.0	175.41	+0015 +004
61		47 47 08.0	79 57 05.0	55.48	+0015 +004
62		227 47 10.0	280 02 55.0	0.00	+0015 +004
63		180 00 04.0	266 29 09.0	0.00	+0015 +004
64		00 00 00.0	93 30 52.0	175.41	+0015 +004
65		47 47 08.0	79 57 03.0	55.48	+0015 +004
66		227 47 10.0	280 02 55.0	0.00	+0015 +004
67		180 00 03.0	266 29 09.0	0.00	+0015 +004
68	-2-	+00000255	+00005020	+00000040	
69	31	+00000000	+00006170		
70		00 00 00.0	92 54 03.0	0.00	+0015 +004
71		48 53 49.0	75 28 41.0	29.33	+0015 +004
72		228 53 49.0	284 31 20.0	0.00	+0015 +004
73		180 00 08.0	267 24 41.0	0.00	+0015 +004
74	-2-	+00000041	+00004850	+00000040	
75	31	+00000000	+00007500		
76		00 00 00.0	99 07 55.0	0.00	+0015 +004
77		325 55 44.0	88 38 25.0	243.88	+0015 +004
78		145 55 45.0	271 21 35.0	0.00	+0015 +004
79		180 00 04.0	261 12 52.0	0.00	+0015 +004
80	31	+00000000	+00007460		
81		00 00 00.0	98 53 37.0	0.00	+0015 +004
82		323 05 33.0	90 08 40.0	135.83	+0015 +004
83		143 05 45.0	269 51 20.0	0.00	+0015 +004
84		180 00 00.0	261 23 00.0	0.00	+0015 +004
85	31	+00000000	+00006750		
86		00 00 00.0	98 55 27.0	0.00	+0015 +004
87		324 35 13.0	90 39 09.0	96.67	+0015 +004
88		144 35 18.0	269 20 51.0	0.00	+0015 +004
89		180 00 07.0	261 24 19.0	0.00	+0015 +004
90	31	+00000000	+00006930		
91		00 00 00.0	98 53 29.0	0.00	+0015 +004
92		318 59 06.0	96 56 54.0	42.45	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
93		138 59 15.0	263 03 06.0	0.00	+0015 +004
94		180 00 05.0	261 26 27.0	0.00	+0015 +004
95	31	+00000261	+00006580	+00000000	+00000000
96		00 00 00.0	99 08 23.0	0.00	+0015 +004
97		144 02 29.0	94 13 11.0	16.74	+0015 +004
98		324 02 31.0	265 54 14.0	0.00	+0015 +004
99		180 00 05.0	261 06 13.0	0.00	+0015 +004
100	31	+00000000	+00006930		
101		00 00 00.0	99 07 53.0	0.00	+0015 +004
102		130 13 15.0	94 50 43.0	63.80	+0015 +004
103		310 13 17.0	265 16 12.0	0.00	+0015 +004
104		180 00 05.0	261 06 10.0	0.00	+0015 +004
105	3	+00000000	+00004750	+00005450	+00000000
106		00 00 00.0	99 00 44.0	55.32	+0015 +004
107		165 25 08.0	85 55 41.0	336.73	+0015 +004
108		345 25 12.0	274 04 19.0	0.00	+0015 +004
109		180 00 04.0	260 59 16.0	0.00	+0015 +004
110		00 00 00.0	99 00 49.0	55.32	+0015 +004
111		165 25 09.0	85 55 37.0	336.73	+0015 +004
112		345 25 09.0	274 04 20.0	0.00	+0015 +004
113		180 00 04.0	260 59 16.0	0.00	+0015 +004
114	-2-	+00000042	+00005100	+00000041	
115	3	+00000000	+00005250	+00003750	+00000000
116		00 00 00.0	94 18 29.0	336.83	+0015 +004
117		246 00 24.0	85 38 36.0	363.85	+0015 +004
118		66 00 25.0	274 21 24.0	0.00	+0015 +004
119		180 00 00.0	265 41 30.0	0.00	+0015 +004
120		00 00 00.0	94 18 25.0	336.84	+0015 +004
121		246 00 24.0	85 38 39.0	363.85	+0015 +004
122		66 00 24.0	274 21 24.0	0.00	+0015 +004
123		180 00 03.0	265 41 30.0	0.00	+0015 +004
124	-2-	+00000043	+00004860	+00000042	
125	3	+00000000	+00004770	+00005750	+00000000
126		00 00 00.0	94 10 58.0	363.77	+0015 +004
127		171 19 57.0	92 26 52.0	325.03	+0015 +004
128		351 20 03.0	267 33 08.0	0.00	+0015 +004
129		180 00 09.0	265 49 02.0	0.00	+0015 +004
130		00 00 00.0	94 10 55.0	363.77	+0015 +004
131		171 19 58.0	92 26 59.0	325.03	+0015 +004
132		351 20 02.0	267 33 08.0	0.00	+0015 +004
133		180 00 02.0	265 49 02.0	0.00	+0015 +004
134	-2-	+00000044	+00005300	+00000043	
135	31	+00000000	+00004880		
136		00 00 00.0	87 37 48.0	325.01	+0015 +004
137		184 07 30.0	90 49 27.0	925.98	+0015 +004
138		4 07 30.0	269 10 33.0	0.00	+0015 +004
139		180 00 00.0	272 22 12.0	0.00	+0015 +004
140	31	+00000000	+00005080		
141		00 00 00.0	87 37 43.0	325.01	+0015 +004
142		184 10 19.0	90 54 15.0	911.40	+0015 +004
143		4 10 19.0	269 05 45.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
144		180 00 01.0	272 22 17.0	0.00	+0015 +004
145	3	+00000000	+00005710	+00004900	+00000000
146		00 00 00.0	87 37 54.0	325.01	+0015 +004
147		184 15 53.0	89 47 57.0	1908.76	+0015 +004
148		4 15 51.0	270 12 03.0	0.00	+0015 +004
149		179 59 59.0	272 22 06.0	0.00	+0015 +004
150		00 00 00.0	87 37 55.0	325.00	+0015 +004
151		184 15 52.0	89 48 04.0	1908.76	+0015 +004
152		4 15 48.0	270 12 03.0	0.00	+0015 +004
153		179 59 59.0	272 22 06.0	0.00	+0015 +004
154	-2-	+00000045	+00004900	+00000044	
155	31	+00000000	+00005610		
156		00 00 00.0	90 15 27.0	0.00	+0015 +004
157		00 09 31.0	89 17 18.0	312.64	+0015 +004
158		180 09 31.0	270 42 42.0	0.00	+0015 +004
159		179 59 58.0	269 53 36.0	0.00	+0015 +004
160	31	+00000000	+00005460		
161		00 00 00.0	90 18 33.0	0.00	+0015 +004
162		00 22 17.0	89 15 47.0	303.97	+0015 +004
163		180 22 10.0	270 44 13.0	0.00	+0015 +004
164		179 59 58.0	269 58 58.0	0.00	+0015 +004
165	3	+00000000	+00005500	+00005890	+00000000
166		00 00 00.0	90 09 34.0	1908.76	+0015 +004
167		180 42 12.0	101 00 07.0	245.78	+0015 +004
168		00 42 08.0	258 59 53.0	0.00	+0015 +004
169		179 59 55.0	269 50 26.0	0.00	+0015 +004
170		00 00 00.0	90 09 37.0	1908.76	+0015 +004
171		180 42 06.0	101 00 03.0	245.78	+0015 +004
172		00 42 09.0	258 59 53.0	0.00	+0015 +004
173		180 00 00.0	269 50 26.0	0.00	+0015 +004
174	-2-	+00000046	+00005230	+00000045	
175	31	+00000000	+00005050		
176		00 00 00.0	78 56 55.0	0.00	+0015 +004
177		274 48 57.0	86 09 14.0	361.17	+0015 +004
178		94 49 00.0	273 50 46.0	0.00	+0015 +004
179		180 00 00.0	281 29 43.0	0.00	+0015 +004
180	3	+00000000	+00004910	+00005640	+00000000
181		00 00 00.0	78 45 50.0	245.98	+0015 +004
182		274 46 51.0	86 12 27.0	1021.84	+0015 +004
183		94 46 39.0	273 47 33.0	0.00	+0015 +004
184		180 00 01.0	281 14 10.0	0.00	+0015 +004
185		00 00 00.0	78 45 55.0	245.98	+0015 +004
186		274 46 47.0	86 12 23.0	1021.84	+0015 +004
187		94 46 45.0	273 47 33.0	0.00	+0015 +004
188		180 00 00.0	281 14 10.0	0.00	+0015 +004
189	-2-	+00000047	+00005040	+00000046	
190	31	+00000000	+00005010		
191		00 00 00.0	93 59 09.0	0.00	+0015 +004
192		45 06 01.0	91 10 39.0	286.37	+0015 +004
193		225 06 00.0	268 49 21.0	0.00	+0015 +004
194		179 59 57.0	266 16 58.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
195	3	+00000000	+00004920	+00004930	+00000000
196		00 00 00.0	93 49 22.0	1021.87	+0015 +004
197		180 40 58.0	88 17 33.0	663.41	+0015 +004
198		00 40 53.0	271 42 27.0	0.00	+0015 +004
199		179 59 55.0	266 10 38.0	0.00	+0015 +004
200		00 00 00.0	93 49 32.0	1021.87	+0015 +004
201		180 40 57.0	88 17 36.0	663.41	+0015 +004
202		00 40 56.0	271 42 24.0	0.00	+0015 +004
203		179 59 59.0	266 10 28.0	0.00	+0015 +004

204	-2-	+00000048	+00005020	+00000047	
205	31	+00000000	+00003940		
206		00 00 00.0	91 28 34.0	0.00	+0015 +004
207		265 14 11.0	91 27 59.0	170.99	+0015 +004
208		85 14 07.0	268 32 01.0	0.00	+0015 +004
209		180 00 01.0	268 25 25.0	0.00	+0015 +004
210		00 00 00.0	91 48 26.0	0.00	+0015 +004
211		265 14 11.0	91 28 18.0	170.99	+0015 +004
212		85 14 11.0	268 32 00.0	0.00	+0015 +004
213		180 00 00.0	268 21 25.0	0.00	+0015 +004
214	31	+00000000	+00003280		
215		00 00 00.0	89 11 06.0	0.00	+0015 +004
216		206 39 13.0	89 10 57.0	804.23	+0015 +004
217		26 39 11.0	270 49 03.0	0.00	+0015 +004
218		180 00 00.0	268 21 47.0	0.00	+0015 +004
219		00 00 00.0	91 53 58.0	0.00	+0015 +004
220		206 39 18.0	89 10 57.0	804.23	+0015 +004
221		26 39 14.0	270 49 03.0	0.00	+0015 +004
222		179 59 59.0	268 23 46.0	0.00	+0015 +004
223	3	+00000000	+00004760	+00004790	+00000000
224		00 00 00.0	91 44 14.0	663.42	+0015 +004
225		210 33 49.0	88 07 38.0	1397.39	+0015 +004
226		30 33 48.0	271 52 22.0	0.00	+0015 +004
227		180 00 05.0	268 15 46.0	0.00	+0015 +004
228		00 00 00.0	91 44 10.0	663.42	+0015 +004
229		210 33 47.0	88 07 36.0	1397.39	+0015 +004
230		30 33 44.0	271 52 22.0	0.00	+0015 +004
231		179 59 58.0	268 15 46.0	0.00	+0015 +004

232	-2-	+00000049	+00004930	+00000048	
233	31	+00000000	+00004590		
234		00 00 00.0	90 34 29.0	0.00	+0015 +004
235		228 52 16.0	90 34 31.0	255.83	+0015 +004
236		48 52 23.0	269 25 30.0	0.00	+0015 +004
237		180 00 09.0	268 15 39.0	0.00	+0015 +004
238		00 00 00.0	91 57 27.0	0.00	+0015 +004
239		228 52 16.0	90 34 32.0	255.83	+0015 +004
240		48 52 21.0	269 25 30.0	0.00	+0015 +004
241		180 00 08.0	268 20 47.0	0.00	+0015 +004
242	3	+00000000	+00004710	+00005180	+00000000
243		00 00 00.0	91 52 00.0	1397.39	+0015 +004
244		150 17 52.0	87 49 41.0	270.39	+0015 +004
245		330 17 57.0	272 10 19.0	0.00	+0015 +004
246		180 00 09.0	268 08 00.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
247		00 00 00.0	91 52 07.0	1397.39	+0015 +004
248		150 17 50.0	87 49 39.0	270.39	+0015 +004
249		330 17 49.0	272 10 19.0	0.00	+0015 +004
250		180 00 04.0	268 08 00.0	0.00	+0015 +004

251	- - -2-	+00000050	+00005060	+00000049	- - - - -
252	3	+00000051	+00005030	+00005000	+00000000
253		00 00 00.0	92 13 10.0	270.40	+0015 +004
254		146 07 41.0	90 12 44.0	454.85	+0015 +004
255		326 07 51.0	269 47 16.0	0.00	+0015 +004
256		180 00 08.0	267 46 50.0	0.00	+0015 +004
257		00 00 00.0	92 13 11.0	270.40	+0015 +004
258		146 07 46.0	90 12 43.0	454.85	+0015 +004
259		326 07 48.0	269 47 16.0	0.00	+0015 +004
260		180 00 04.0	267 46 50.0	0.00	+0015 +004
261	4	+00000019	+00000000	+00000000	+00000000

Date: 12-01-92
 Time: 10:47:01
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ELECTRONIC DATA COLLECTION

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Collection File: PV3.EDT
 Field Data Log

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
1	1	+00000026			
2	-2-	+00000026	+00004960	+00000028	
3	31	+00000301	+00004430		
4		00 00 00.0	91 59 27.0	0.00	+0015 +004
5		144 32 32.0	86 39 02.0	442.34	+0015 +004
6		324 32 31.0	273 21 02.0	442.34	+0015 +004
7		180 00 00.0	268 04 01.0	0.00	+0015 +004
8		00 00 00.0	91 56 50.0	0.00	+0015 +004
9		144 32 29.0	86 39 03.0	442.34	+0015 +004
10		324 32 24.0	273 20 56.0	442.34	+0015 +004
11		179 59 56.0	268 06 14.0	0.00	+0015 +004
12	-2-	+00000301	+00005100	+00000026	
13	31	+00000000	+00004550		
14		00 00 00.0	93 29 00.0	0.00	+0015 +004
15		194 07 27.0	86 14 17.0	462.43	+0015 +004
16		14 07 29.0	273 45 35.0	462.43	+0015 +004
17		179 59 56.0	266 39 16.0	0.00	+0015 +004
18		00 00 00.0	93 28 25.0	0.00	+0015 +004
19		194 07 32.0	86 14 17.0	462.43	+0015 +004
20		14 07 30.0	273 45 39.0	462.43	+0015 +004
21		179 59 59.0	266 38 09.0	0.00	+0015 +004
22	-2-	+00000021	+00005050	+00000022	
23	31	+00000000	+00005180		
24		00 00 00.0	92 56 26.0	0.00	+0015 +004
25		100 05 12.0	90 20 33.0	538.19	+0015 +004
26		280 05 08.0	269 39 26.0	538.19	+0015 +004
27		179 59 56.0	267 03 57.0	0.00	+0015 +004
28		00 00 00.0	93 01 46.0	0.00	+0015 +004
29		100 05 14.0	90 20 29.0	538.19	+0015 +004
30		280 05 13.0	269 39 26.0	538.19	+0015 +004
31		180 00 00.0	267 08 20.0	0.00	+0015 +004
32	31	+00000000	+00005050		
33		00 00 00.0	92 58 13.0	0.00	+0015 +004
34		281 04 30.0	89 25 08.0	497.17	+0015 +004
35		101 04 28.0	270 35 06.0	497.17	+0015 +004
36		179 59 55.0	267 03 11.0	0.00	+0015 +004
37		00 00 00.0	93 02 52.0	0.00	+0015 +004
38		281 04 31.0	89 25 06.0	497.16	+0015 +004
39		101 04 25.0	270 35 03.0	497.16	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
40		179 59 56.0	267 04 07.0	0.00	+0015 +004
41	-2-	+00000303	+00005230	+00000021	
42	31	+00000000	+00004430		
43		00 00 00.0	89 42 13.0	0.00	+0015 +004
44		98 32 13.0	92 50 54.0	177.64	+0015 +004
45		278 32 11.0	267 09 17.0	177.64	+0015 +004
46		179 59 51.0	270 24 20.0	0.00	+0015 +004
47		00 00 00.0	89 48 11.0	0.00	+0015 +004
48		98 32 14.0	92 50 59.0	177.64	+0015 +004
49		278 32 06.0	267 09 12.0	177.64	+0015 +004
50		180 00 08.0	270 28 35.0	0.00	+0015 +004
51	-2-	+00000305	+00004670	+00000303	
52	31	+00000000	+00004670		
53		00 00 00.0	87 04 54.0	0.00	+0015 +004
54		141 19 07.0	95 44 19.0	376.40	+0015 +004
55		321 19 06.0	264 15 57.0	376.40	+0015 +004
56		179 59 51.0	272 46 46.0	0.00	+0015 +004
57		00 00 00.0	87 19 49.0	0.00	+0015 +004
58		141 19 04.0	95 44 20.0	376.40	+0015 +004
59		321 18 56.0	264 15 59.0	0.00	+0015 +004
60		179 59 58.0	272 44 27.0	0.00	+0015 +004
61	-2-	+00000304	+00005120	+00000021	
62	31	+00000000	+00005150		
63		00 00 00.0	90 35 06.0	0.00	+0015 +004
64		96 45 35.0	84 01 21.0	344.90	+0015 +004
65		276 45 26.0	275 58 52.0	344.90	+0015 +004
66		179 59 50.0	269 24 11.0	0.00	+0015 +004
67		00 00 00.0	90 39 57.0	0.00	+0015 +004
68		96 45 41.0	84 01 25.0	344.90	+0015 +004
69		276 45 31.0	275 59 07.0	344.90	+0015 +004
70		179 59 52.0	269 25 56.0	0.00	+0015 +004
71	-2-	+00000307	+00005250	+00000304	
72	31	+00000000	+00005000		
73		00 00 00.0	96 03 04.0	0.00	+0015 +004
74		122 10 06.0	90 05 04.0	95.69	+0015 +004
75		302 09 48.0	269 55 23.0	95.69	+0015 +004
76		179 59 55.0	263 57 28.0	0.00	+0015 +004
77		00 00 00.0	96 00 04.0	0.00	+0015 +004
78		122 10 02.0	90 04 57.0	95.69	+0015 +004
79		302 09 41.0	269 55 25.0	95.69	+0015 +004
80		179 59 56.0	264 00 52.0	0.00	+0015 +004
81	-2-	+00000018	+00005250	+00000016	
82	31	+00000000	+00002780		
83		00 00 00.0	89 18 18.0	0.00	+0015 +004
84		164 28 58.0	91 10 39.0	301.96	+0015 +004
85		344 28 58.0	268 49 18.0	301.96	+0015 +004
86		180 00 05.0	270 45 10.0	0.00	+0015 +004
87		00 00 00.0	89 15 44.0	0.00	+0015 +004
88		164 28 59.0	91 10 36.0	301.96	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
89		344 29 01.0	268 49 12.0	301.96	+0015 +004
90		180 00 02.0	270 52 06.0	0.00	+0015 +004
91	-2-	+00000309	+00004630	+00000018	
92	31	+00000000	+00004850		
93		00 00 00.0	90 11 38.0	0.00	+0015 +004
94		127 24 51.0	93 22 45.0	456.22	+0015 +004
95		307 24 58.0	266 37 15.0	456.22	+0015 +004
96		180 00 04.0	269 54 17.0	0.00	+0015 +004
97		00 00 00.0	90 11 31.0	0.00	+0015 +004
98		127 24 55.0	93 22 47.0	456.22	+0015 +004
99		307 24 53.0	266 37 10.0	456.22	+0015 +004
100		180 00 01.0	269 55 42.0	0.00	+0015 +004
101	-2-	+00000015	+00005260	+00000016	
102	31	+00000000	+00005230		
103		00 00 00.0	89 35 03.0	0.00	+0015 +004
104		162 37 04.0	86 54 06.0	278.22	+0015 +004
105		342 37 03.0	273 05 52.0	278.22	+0015 +004
106		180 00 00.0	270 27 19.0	0.00	+0015 +004
107		00 00 00.0	89 38 59.0	0.00	+0015 +004
108		162 36 59.0	86 53 57.0	278.22	+0015 +004
109		342 37 00.0	273 05 49.0	278.22	+0015 +004
110		180 00 01.0	270 26 31.0	0.00	+0015 +004
111	-2-	+00000311	+00004960	+00000015	
112	31	+00000000	+00009220		
113		00 00 00.0	92 54 21.0	0.00	+0015 +004
114		181 26 21.0	87 50 35.0	725.11	+0015 +004
115		1 26 20.0	272 09 29.0	725.11	+0015 +004
116		180 00 02.0	267 16 29.0	0.00	+0015 +004
117		00 00 00.0	92 41 24.0	0.00	+0015 +004
118		181 26 23.0	87 50 35.0	725.11	+0015 +004
119		1 26 27.0	272 09 32.0	725.11	+0015 +004
120		180 00 02.0	267 13 12.0	0.00	+0015 +004
121	-2-	+00000013	+00005080	+00000014	
122	31	+00000000	+00004840		
123		00 00 00.0	94 32 40.0	0.00	+0015 +004
124		153 40 05.0	88 47 58.0	118.23	+0015 +004
125		333 39 56.0	271 12 11.0	118.23	+0015 +004
126		179 59 55.0	265 29 21.0	0.00	+0015 +004
127		00 00 00.0	94 38 29.0	0.00	+0015 +004
128		153 40 05.0	88 48 01.0	118.23	+0015 +004
129		333 39 59.0	271 12 07.0	118.23	+0015 +004
130		179 59 55.0	265 14 13.0	0.00	+0015 +004
131	-2-	+00000313	+00005070	+00000013	
132	31	+00000000	+00004880		
133		00 00 00.0	91 18 07.0	0.00	+0015 +004
134		233 58 46.0	88 07 54.0	282.56	+0015 +004
135		53 58 46.0	271 52 16.0	282.56	+0015 +004
136		180 00 03.0	268 23 36.0	0.00	+0015 +004
137		00 00 00.0	91 18 03.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
138		233 58 47.0	88 07 55.0	282.56	+0015 +004
139		53 58 37.0	271 52 16.0	282.56	+0015 +004
140		180 00 00.0	268 25 02.0	0.00	+0015 +004
141	-2-	+00000314	+00004850	+00000313	
142	31	+00000000	+00002630		
143		00 00 00.0	91 49 00.0	0.00	+0015 +004
144		184 13 45.0	88 15 48.0	288.91	+0015 +004
145		4 13 50.0	271 44 07.0	288.91	+0015 +004
146		180 00 00.0	268 30 20.0	0.00	+0015 +004
147		00 00 00.0	91 54 30.0	0.00	+0015 +004
148		184 13 44.0	88 16 02.0	288.91	+0015 +004
149		4 13 49.0	271 44 10.0	288.91	+0015 +004
150		180 00 02.0	268 13 58.0	0.00	+0015 +004
151	-2-	+00000014	+00004880	+00000013	
152	31	+00000000	+00004580		
153		00 00 00.0	85 28 59.0	0.00	+0015 +004
154		81 29 18.0	87 48 57.0	889.00	+0015 +004
155		261 29 24.0	272 11 06.0	889.00	+0015 +004
156		179 59 58.0	274 41 01.0	0.00	+0015 +004
157		00 00 00.0	85 21 32.0	0.00	+0015 +004
158		81 29 21.0	87 48 56.0	889.00	+0015 +004
159		261 29 18.0	272 11 05.0	0.00	+0015 +004
160		180 00 01.0	274 53 00.0	0.00	+0015 +004
161	-2-	+00000012	+00005220	+00000013	
162	31	+00000000	+00004970		
163		00 00 00.0	90 20 18.0	0.00	+0015 +004
164		39 56 05.0	89 23 06.0	1756.66	+0015 +004
165		219 56 00.0	270 37 03.0	1756.66	+0015 +004
166		179 59 54.0	269 37 41.0	0.00	+0015 +004
167		00 00 00.0	90 22 35.0	0.00	+0015 +004
168		39 56 09.0	89 23 06.0	1756.66	+0015 +004
169		219 56 04.0	270 36 58.0	1756.66	+0015 +004
170		180 00 01.0	269 38 55.0	0.00	+0015 +004
171	-2-	+00000316	+00005100	+00000014	
172	31	+00000000	+00004890		
173		00 00 00.0	92 10 51.0	0.00	+0015 +004
174		199 26 06.0	88 03 36.0	281.45	+0015 +004
175		19 26 04.0	271 56 22.0	281.45	+0015 +004
176		180 00 03.0	267 48 15.0	0.00	+0015 +004
177		00 00 00.0	92 18 13.0	0.00	+0015 +004
178		199 26 03.0	88 03 45.0	281.45	+0015 +004
179		19 26 00.0	271 56 23.0	281.45	+0015 +004
180		180 00 02.0	267 47 06.0	0.00	+0015 +004
181	-2-	+00000318	+00005220	+00000316	
182	31	+00000000	+00005020		
183		00 00 00.0	93 09 09.0	0.00	+0015 +004
184		138 04 04.0	87 59 19.0	349.46	+0015 +004
185		318 03 53.0	272 01 04.0	349.46	+0015 +004
186		179 59 59.0	267 19 09.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
187		00 00 00.0	92 48 36.0	0.00	+0015 +004
188		138 03 58.0	87 59 26.0	349.46	+0015 +004
189		318 03 54.0	272 01 02.0	349.46	+0015 +004
190		180 00 01.0	267 17 48.0	0.00	+0015 +004
191	- - -2-	+00000317	+00004880	+00000012	
192	31	+00000000	+00005300		
193		00 00 00.0	90 40 00.0	0.00	+0015 +004
194		104 29 28.0	86 24 08.0	225.05	+0015 +004
195		284 29 16.0	273 36 19.0	225.05	+0015 +004
196		179 59 52.0	269 25 24.0	0.00	+0015 +004
197		00 00 00.0	90 37 50.0	0.00	+0015 +004
198		104 29 25.0	86 24 07.0	225.05	+0015 +004
199		284 29 13.0	273 36 14.0	225.05	+0015 +004
200		179 59 50.0	269 24 52.0	0.00	+0015 +004
201	31	+00000000	+00005300		
202		00 00 00.0	90 40 20.0	0.00	+0015 +004
203		103 02 19.0	86 29 32.0	285.20	+0015 +004
204		283 02 00.0	273 30 50.0	285.20	+0015 +004
205		179 59 49.0	269 22 27.0	0.00	+0015 +004
206		00 00 00.0	90 36 48.0	0.00	+0015 +004
207		103 02 16.0	86 29 33.0	285.20	+0015 +004
208		283 01 58.0	273 30 54.0	285.20	+0015 +004
209		179 59 45.0	269 25 27.0	0.00	+0015 +004
210	31	+00000000	+00005100		
211		00 00 00.0	90 38 55.0	0.00	+0015 +004
212		272 32 31.0	96 49 50.0	1222.24	+0015 +004
213		92 32 22.0	263 10 38.0	1222.24	+0015 +004
214		179 59 45.0	269 23 06.0	0.00	+0015 +004
215		00 00 00.0	90 46 08.0	0.00	+0015 +004
216		272 32 35.0	96 49 47.0	1222.24	+0015 +004
217		92 32 26.0	263 10 38.0	1222.24	+0015 +004
218		179 59 51.0	269 26 42.0	0.00	+0015 +004
219	31	+00000000	+00005360		
220		00 00 00.0	90 39 03.0	0.00	+0015 +004
221		281 11 58.0	93 39 43.0	1673.36	+0015 +004
222		101 11 46.0	266 20 58.0	1673.36	+0015 +004
223		179 59 58.0	269 25 28.0	0.00	+0015 +004
224		00 00 00.0	90 39 13.0	0.00	+0015 +004
225		281 12 06.0	93 39 37.0	1673.36	+0015 +004
226		101 11 56.0	266 21 04.0	1673.36	+0015 +004
227		180 00 02.0	269 26 23.0	0.00	+0015 +004
228	31	+00000000	+00005390		
229		00 00 00.0	90 40 00.0	0.00	+0015 +004
230		276 36 18.0	92 14 46.0	3126.37	+0015 +004
231		96 36 10.0	267 45 45.0	3126.36	+0015 +004
232		179 59 50.0	269 25 40.0	0.00	+0015 +004
233		00 00 00.0	90 40 26.0	0.00	+0015 +004
234		276 36 32.0	92 14 32.0	3126.36	+0015 +004
235		96 36 18.0	267 45 43.0	3126.37	+0015 +004
236		179 59 52.0	269 25 50.0	0.00	+0015 +004
237	31	+00000000	+00005240		
238		359 59 58.0	90 42 29.0	0.00	+0015 +004
239		256 32 37.0	94 34 56.0	2702.91	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
240		76 32 35.0	265 25 44.0	2702.91	+0015 +004
241		179 59 56.0	269 26 55.0	0.00	+0015 +004
242		00 00 00.0	90 44 37.0	0.00	+0015 +004
243		256 32 40.0	94 34 57.0	2702.91	+0015 +004
244		76 32 34.0	265 25 47.0	2702.91	+0015 +004
245		179 59 52.0	269 28 23.0	0.00	+0015 +004
246	31	+00000000	+00005900		
247		00 00 00.0	90 41 17.0	0.00	+0015 +004
248		271 17 29.0	91 26 43.0	4822.66	+0015 +004
249		91 17 16.0	268 33 53.0	4822.66	+0015 +004
250		179 59 57.0	269 29 01.0	0.00	+0015 +004
251		00 00 00.0	90 42 30.0	0.00	+0015 +004
252		271 17 31.0	91 26 37.0	4822.66	+0015 +004
253		91 17 14.0	268 34 01.0	4822.66	+0015 +004
254		179 59 53.0	269 26 55.0	0.00	+0015 +004
255	-2-	+00000325	+00004940	+00000317	
256	31	+00000000	+00005300		
257		00 00 00.0	85 30 34.0	0.00	+0015 +004
258		194 15 29.0	89 56 03.0	605.33	+0015 +004
259		14 15 30.0	270 03 45.0	605.33	+0015 +004
260		180 00 05.0	274 34 57.0	0.00	+0015 +004
261		00 00 00.0	85 32 37.0	0.00	+0015 +004
262		194 15 34.0	89 55 57.0	605.33	+0015 +004
263		14 15 29.0	270 03 47.0	605.33	+0015 +004
264		179 59 59.0	274 32 27.0	0.00	+0015 +004
265	-2-	+00000324	+00005400	+00000317	
266	31	+00000000	+00005280		
267		00 00 00.0	87 52 54.0	0.00	+0015 +004
268		353 26 36.0	91 44 28.0	472.12	+0015 +004
269		173 26 32.0	268 15 18.0	472.11	+0015 +004
270		179 59 58.0	272 12 11.0	0.00	+0015 +004
271		00 00 00.0	87 58 06.0	0.00	+0015 +004
272		353 26 37.0	91 44 29.0	472.12	+0015 +004
273		173 26 33.0	268 15 24.0	472.11	+0015 +004
274		179 59 56.0	272 12 48.0	0.00	+0015 +004
275	31	+00000000	+00004860		
276		00 00 00.0	87 55 21.0	0.00	+0015 +004
277		249 13 12.0	85 53 06.0	216.15	+0015 +004
278		69 13 11.0	274 06 39.0	216.15	+0015 +004
279		179 59 53.0	272 20 23.0	0.00	+0015 +004
280		00 00 00.0	87 52 37.0	0.00	+0015 +004
281		249 13 10.0	85 53 26.0	216.15	+0015 +004
282		69 13 11.0	274 06 41.0	216.15	+0015 +004
283		179 59 52.0	272 11 24.0	0.00	+0015 +004
284	-2-	+00000011	+00005220	+00000010	
285	31	+00000000	+00004750		
286		00 00 00.0	93 49 04.0	0.00	+0015 +004
287		318 40 33.0	93 32 15.0	67.31	+0015 +004
288		138 40 26.0	266 27 40.0	67.31	+0015 +004
289		179 59 53.0	266 20 49.0	0.00	+0015 +004
290		00 00 00.0	93 50 44.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
291		318 40 35.0	93 32 15.0	67.31	+0015 +004
292		138 40 32.0	266 27 37.0	67.31	+0015 +004
293		179 59 53.0	266 19 32.0	0.00	+0015 +004
294	-2-	+00000325	+00005090	+00000317	
295	31	+00000000	+00005220		
296		00 00 00.0	85 33 21.0	0.00	+0015 +004
297		30 16 32.0	91 43 42.0	509.13	+0015 +004
298		210 16 25.0	268 16 10.0	509.13	+0015 +004
299		179 59 53.0	274 31 43.0	0.00	+0015 +004
300		00 00 00.0	85 39 42.0	0.00	+0015 +004
301		30 16 36.0	91 43 45.0	509.13	+0015 +004
302		210 16 28.0	268 16 16.0	509.13	+0015 +004
303		179 59 58.0	274 38 58.0	0.00	+0015 +004
304	-2-	+00000009	+00005200	+00000010	
305	31	+00000000	+00005000		
306		00 00 00.0	86 47 40.0	0.00	+0015 +004
307		141 26 11.0	92 34 01.0	692.66	+0015 +004
308		321 26 07.0	267 26 09.0	692.68	+0015 +004
309		179 59 59.0	273 14 08.0	0.00	+0015 +004
310		00 00 00.0	86 47 20.0	0.00	+0015 +004
311		141 26 04.0	92 34 08.0	692.64	+0015 +004
312		321 26 07.0	267 26 00.0	692.63	+0015 +004
313		180 00 03.0	273 18 15.0	0.00	+0015 +004
314	-2-	+00000008	+00005250	+00000009	
315	31	+00000000	+00005000		
316		00 00 00.0	88 46 17.0	0.00	+0015 +004
317		220 30 32.0	90 49 07.0	774.07	+0015 +004
318		40 30 29.0	269 10 54.0	774.06	+0015 +004
319		179 59 53.0	271 20 17.0	0.00	+0015 +004
320		00 00 00.0	88 47 30.0	0.00	+0015 +004
321		220 30 36.0	90 49 00.0	774.06	+0015 +004
322		40 30 37.0	269 10 58.0	774.04	+0015 +004
323		179 59 58.0	271 19 59.0	0.00	+0015 +004
324	-2-	+00000322	+00005170	+00000317	
325	31	+00000000	+00004870		
326		00 00 00.0	83 12 02.0	0.00	+0015 +004
327		296 58 31.0	86 43 25.0	50.27	+0015 +004
328		116 58 17.0	273 16 43.0	50.27	+0015 +004
329		179 59 58.0	276 49 04.0	0.00	+0015 +004
330		00 00 00.0	83 11 06.0	0.00	+0015 +004
331		296 58 26.0	86 43 19.0	50.27	+0015 +004
332		116 58 36.0	273 16 39.0	50.27	+0015 +004
333		179 59 53.0	276 50 25.0	0.00	+0015 +004
334	-2-	+00000032	+00005300	+00000033	
335	31	+00000000	+00004240		
336		00 00 00.0	91 29 33.0	0.00	+0015 +004
337		26 02 21.0	89 38 20.0	348.50	+0015 +004
338		206 02 06.0	270 21 33.0	348.50	+0015 +004
339		179 59 49.0	268 41 10.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
340		00 00 00.0	91 25 43.0	0.00	+0015 +004
341		26 02 14.0	89 38 27.0	348.50	+0015 +004
342		206 02 05.0	270 21 37.0	348.50	+0015 +004
343		179 59 48.0	268 40 10.0	0.00	+0015 +004
344	-2-	+00000034	+00005130	+00000033	
345	31	+00000000	+00005010		
346		00 00 00.0	87 34 05.0	0.00	+0015 +004
347		108 15 15.0	90 31 52.0	214.87	+0015 +004
348		288 15 08.0	269 28 24.0	214.87	+0015 +004
349		179 59 52.0	272 26 07.0	0.00	+0015 +004
350		00 00 00.0	87 30 35.0	0.00	+0015 +004
351		108 15 09.0	90 31 52.0	214.87	+0015 +004
352		288 14 59.0	269 28 26.0	214.87	+0015 +004
353		179 59 51.0	272 27 48.0	0.00	+0015 +004
354	-2-	+00000336	+00004930	+00000034	
355	31	+00000000	+00004750		
356		00 00 00.0	89 19 57.0	0.00	+0015 +004
357		78 53 02.0	88 53 08.0	477.20	+0015 +004
358		258 52 54.0	271 07 11.0	477.20	+0015 +004
359		179 59 49.0	270 33 47.0	0.00	+0015 +004
360		359 59 56.0	89 20 08.0	0.00	+0015 +004
361		78 53 12.0	88 53 10.0	477.20	+0015 +004
362		258 52 55.0	271 07 18.0	477.20	+0015 +004
363		179 59 54.0	270 37 57.0	0.00	+0015 +004
364	-2-	+00000337	+00004940	+00000336	
365	31	+00000000	+00004830		
366		00 00 00.0	91 07 43.0	0.00	+0015 +004
367		214 37 09.0	88 55 02.0	306.49	+0015 +004
368		34 37 07.0	271 05 28.0	306.49	+0015 +004
369		179 59 50.0	269 19 33.0	0.00	+0015 +004
370		00 00 00.0	91 07 25.0	0.00	+0015 +004
371		214 37 14.0	88 55 03.0	306.49	+0015 +004
372		34 37 05.0	271 05 27.0	306.49	+0015 +004
373		179 59 50.0	269 18 55.0	0.00	+0015 +004
374	-2-	+00000031	+00005070	+00000032	
375	31	+00000000	+00008030		
376		00 00 00.0	90 03 55.0	0.00	+0015 +004
377		269 48 44.0	90 04 42.0	422.93	+0015 +004
378		89 48 02.0	269 54 36.0	422.95	+0015 +004
379		179 59 59.0	266 40 52.0	0.00	+0015 +004
380		359 59 59.0	93 29 20.0	0.00	+0015 +004
381		269 48 34.0	90 04 48.0	422.98	+0015 +004
382		89 48 24.0	269 54 32.0	423.03	+0015 +004
383		179 59 57.0	266 44 42.0	0.00	+0015 +004

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ELECTRONIC DATA COLLECTION

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Collection File: PV4.EDT
 Field Data Log

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
1	1	+00000011	+00000000	+00000010	+00000000
2	-2-	+00000011	+00005400	+00000010	+00000000
3	3	+00000401	+00004720	+00000000	+00000000
4		00 00 00.0	93 48 55.0	0.00	+0015 +004
5		167 52 28.0	86 53 44.0	163.11	+0015 +004
6		347 52 31.0	273 05 56.0	163.11	+0015 +004
7		180 00 04.0	266 14 53.0	0.00	+0015 +004
8		00 00 00.0	93 47 45.0	0.00	+0015 +004
9		167 52 28.0	86 53 35.0	163.11	+0015 +004
10		347 52 28.0	273 05 50.0	163.11	+0015 +004
11		180 00 01.0	266 14 28.0	0.00	+0015 +004
12	-2-	+00000401	+00004960	+00000011	+00000000
13	3	+00000402	+00005350	+00000000	+00000000
14		00 00 00.0	93 17 56.0	0.00	+0015 +004
15		275 56 10.0	83 04 17.0	270.85	+0015 +004
16		95 56 08.0	276 55 33.0	270.85	+0015 +004
17		179 59 58.0	266 44 03.0	0.00	+0015 +004
18		00 00 00.0	93 16 34.0	0.00	+0015 +004
19		275 56 15.0	83 04 17.0	270.86	+0015 +004
20		95 56 12.0	276 55 29.0	270.86	+0015 +004
21		179 59 59.0	266 46 41.0	0.00	+0015 +004
22	-2-	+00000402	+00005310	+00000401	+00000000
23	3	+00000403	+00005240	+00000000	+00000000
24		00 00 00.0	96 52 40.0	0.00	+0015 +004
25		215 18 57.0	90 07 39.0	523.51	+0015 +004
26		35 19 00.0	269 52 13.0	523.51	+0015 +004
27		180 00 00.0	263 05 02.0	0.00	+0015 +004
28		00 00 00.0	96 52 49.0	0.00	+0015 +004
29		215 18 57.0	90 07 38.0	523.51	+0015 +004
30		35 18 58.0	269 52 05.0	523.51	+0015 +004
31		180 00 01.0	263 06 31.0	0.00	+0015 +004
32	-2-	+00000403	+00005340	+00000402	+00000000
33	3	+00000404	+00005170	+00000000	+00000000
34		00 00 00.0	89 53 39.0	0.00	+0015 +004
35		205 29 57.0	95 19 10.0	169.20	+0015 +004
36		25 29 54.0	264 40 31.0	169.20	+0015 +004
37		179 59 56.0	270 04 35.0	0.00	+0015 +004
38		00 00 00.0	89 54 48.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
39		205 29 51.0	95 19 09.0	169.20	+0015 +004
40		25 29 52.0	264 40 22.0	169.20	+0015 +004
41		179 59 58.0	270 04 38.0	0.00	+0015 +004
42	-2-	+00000404	+00005120	+00000403	+00000000
43	3	+00000405	+00005340	+00000000	+00000000
44		00 00 00.0	84 45 31.0	0.00	+0015 +004
45		72 41 34.0	95 30 49.0	669.44	+0015 +004
46		252 41 35.0	264 29 21.0	669.44	+0015 +004
47		180 00 04.0	275 18 08.0	0.00	+0015 +004
48		00 00 00.0	84 44 05.0	0.00	+0015 +004
49		72 41 37.0	95 30 46.0	669.44	+0015 +004
50		252 41 34.0	264 29 15.0	669.44	+0015 +004
51		180 00 01.0	275 20 48.0	0.00	+0015 +004
52	-2-	+00000405	+00005190	+00000403	+00000000
53	3	+00000406	+00004840	+00000000	+00000000
54		359 59 59.0	84 30 03.0	0.00	+0015 +004
55		354 59 51.0	86 18 22.0	537.40	+0015 +004
56		174 59 46.0	273 41 57.0	537.40	+0015 +004
57		179 59 54.0	275 40 05.0	0.00	+0015 +004
58		00 00 00.0	84 25 26.0	0.00	+0015 +004
59		354 59 50.0	86 18 21.0	537.40	+0015 +004
60		174 59 52.0	273 41 45.0	537.40	+0015 +004
61		180 00 00.0	275 35 51.0	0.00	+0015 +004
62	-2-	+00000406	+00005220	+00000405	+00000000
63	3	+00000407	+00004800	+00000000	+00000000
64		00 00 00.0	93 47 28.0	0.00	+0015 +004
65		44 38 59.0	94 00 01.0	846.92	+0015 +004
66		224 38 58.0	266 00 10.0	846.92	+0015 +004
67		179 59 58.0	266 13 46.0	0.00	+0015 +004
68		00 00 00.0	93 46 06.0	0.00	+0015 +004
69		44 39 00.0	94 00 04.0	846.92	+0015 +004
70		224 38 57.0	266 00 04.0	846.92	+0015 +004
71		179 59 59.0	266 19 00.0	0.00	+0015 +004
72	-2-	+00000407	+00005020	+00000406	+00000000
73	3	+00000408	+00005310	+00000000	+00000000
74		00 00 00.0	86 07 44.0	0.00	+0015 +004
75		5 20 41.0	88 20 59.0	461.00	+0015 +004
76		185 20 44.0	271 38 53.0	461.00	+0015 +004
77		179 59 59.0	273 59 05.0	0.00	+0015 +004
78		00 00 00.0	86 04 34.0	0.00	+0015 +004
79		5 20 42.0	88 21 04.0	461.00	+0015 +004
80		185 20 39.0	271 38 57.0	461.00	+0015 +004
81		179 59 58.0	273 57 58.0	0.00	+0015 +004
82	-2-	+00000408	+00005150	+00000407	+00000000
83	3	+00000409	+00005570	+00000000	+00000000
84		00 00 00.0	91 39 43.0	0.00	+0015 +004
85		116 54 01.0	92 08 39.0	337.04	+0015 +004
86		296 54 02.0	267 51 14.0	337.04	+0015 +004
87		179 59 54.0	268 20 40.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
88		00 00 00.0	91 39 26.0	0.00	+0015 +004
89		116 54 02.0	92 08 36.0	337.04	+0015 +004
90		296 54 01.0	267 51 22.0	337.04	+0015 +004
91		179 59 55.0	268 20 01.0	0.00	+0015 +004
92	-2-	+00000409	+00005320	+00000408	+00000000
93	3	+00000410	+00004790	+00000000	+00000000
94		00 00 00.0	87 55 40.0	0.00	+0015 +004
95		278 11 12.0	78 39 29.0	471.16	+0015 +004
96		98 11 10.0	281 20 39.0	471.16	+0015 +004
97		179 59 53.0	272 06 01.0	0.00	+0015 +004
98		00 00 00.0	87 55 28.0	0.00	+0015 +004
99		278 11 12.0	78 39 20.0	471.16	+0015 +004
100		98 11 09.0	281 20 44.0	471.16	+0015 +004
101		180 00 00.0	272 09 20.0	0.00	+0015 +004
102	-2-	+00000410	+00005040	+00000409	+00000000
103	3	+00000411	+00004330	+00000000	+00000000
104		00 00 00.0	101 26 44.0	0.00	+0015 +004
105		60 49 17.0	89 37 05.0	1145.15	+0015 +004
106		240 49 05.0	270 22 57.0	1145.14	+0015 +004
107		179 59 59.0	258 34 03.0	0.00	+0015 +004
108		00 00 00.0	101 26 35.0	0.00	+0015 +004
109		60 49 10.0	89 37 04.0	1145.14	+0015 +004
110		240 49 13.0	270 23 00.0	1145.14	+0015 +004
111		179 59 58.0	258 32 53.0	0.00	+0015 +004
112	-2-	+00000411	+00004860	+00000410	+00000000
113	3	+00000412	+00005350	+00000000	+00000000
114		00 00 00.0	90 29 51.0	0.00	+0015 +004
115		266 42 13.0	98 57 33.0	798.90	+0015 +004
116		86 42 10.0	261 02 34.0	798.90	+0015 +004
117		179 59 57.0	269 31 34.0	0.00	+0015 +004
118		00 00 01.0	90 30 23.0	0.00	+0015 +004
119		266 42 13.0	98 57 37.0	798.90	+0015 +004
120		86 42 11.0	261 02 43.0	798.90	+0015 +004
121		179 59 58.0	269 33 20.0	0.00	+0015 +004
122	4	+00000010			
123	1	+00000264	+00000000	+00000044	+00000000
124	-2-	+00000264	+00005540	+00000044	+00000000
125	3	+00000413	+00005210	+00000000	+00000000
126		00 00 00.0	89 07 31.0	0.00	+0015 +004
127		180 21 48.0	87 43 26.0	577.11	+0015 +004
128		00 21 49.0	272 16 31.0	577.11	+0015 +004
129		179 59 59.0	270 52 15.0	0.00	+0015 +004
130		00 00 00.0	89 07 49.0	0.00	+0015 +004
131		180 21 50.0	87 43 27.0	577.11	+0015 +004
132		00 21 48.0	272 16 25.0	577.11	+0015 +004
133		180 00 00.0	270 52 13.0	0.00	+0015 +004
134	-2-	+00000413	+00005320	+00000264	+00000000
135	3	+00000414	+00004930	+00000000	+00000000
136		00 00 00.0	92 19 12.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
137		179 34 07.0	90 25 47.0	420.86	+0015 +004
138		359 34 04.0	269 34 04.0	420.86	+0015 +004
139		180 00 00.0	267 41 17.0	0.00	+0015 +004
140		00 00 00.0	92 19 02.0	0.00	+0015 +004
141		179 34 06.0	90 25 46.0	420.86	+0015 +004
142		359 34 06.0	269 34 13.0	420.86	+0015 +004
143		180 00 02.0	267 41 35.0	0.00	+0015 +004
144	4	+00000045	+00000000		
145	1	+00000233	+00000000	+00000034	
146	-2-	+00000233	+00005280	+00000034	+00000000-
147	3	+00000415	+00005090	+00000000	+00000000
148		00 00 00.0	89 18 27.0	0.00	+0015 +004
149		328 17 51.0	90 06 28.0	96.86	+0015 +004
150		148 17 47.0	269 53 24.0	96.86	+0015 +004
151		179 59 58.0	270 41 21.0	0.00	+0015 +004
152		00 00 00.0	89 18 48.0	0.00	+0015 +004
153		328 17 45.0	90 06 18.0	96.86	+0015 +004
154		148 17 48.0	269 53 29.0	96.86	+0015 +004
155		179 59 58.0	270 41 20.0	0.00	+0015 +004
156	-2-	+00000415	+00005280	+00000233	+00000000-
157	3	+00000416	+00004960	+00000000	+00000000
158		00 00 00.0	90 00 10.0	0.00	+0015 +004
159		274 38 28.0	87 52 01.0	330.73	+0015 +004
160		94 38 31.0	272 07 47.0	330.73	+0015 +004
161		180 00 06.0	269 59 24.0	0.00	+0015 +004
162		00 00 00.0	90 00 13.0	0.00	+0015 +004
163		274 38 26.0	87 52 02.0	330.73	+0015 +004
164		94 38 31.0	272 08 04.0	330.73	+0015 +004
165		180 00 03.0	269 59 58.0	0.00	+0015 +004
166	4	+00000033	+00000000	+00000000	
167	1	+00000269	+00000000	+00000048	+00000000
168	-2-	+00000269	+00005450	+00000048	+00000000-
169	3	+00000417	+00005540	+00000000	+00000000
170		00 00 00.0	88 31 57.0	0.00	+0015 +004
171		298 26 56.0	90 53 50.0	384.04	+0015 +004
172		118 26 53.0	269 06 10.0	384.04	+0015 +004
173		180 00 00.0	271 29 00.0	0.00	+0015 +004
174		00 00 01.0	88 32 00.0	0.00	+0015 +004
175		298 26 53.0	90 53 52.0	384.04	+0015 +004
176		118 26 50.0	269 06 12.0	0.00	+0015 +004
177		180 00 00.0	271 27 43.0	0.00	+0015 +004
178	-2-	+00000417	+00005230	+00000269	+00000000-
179	3	+00000418	+00005410	+00000000	+00000000
180		00 00 00.0	89 00 01.0	0.00	+0015 +004
181		159 12 18.0	91 43 42.0	326.27	+0015 +004
182		339 12 15.0	268 16 20.0	326.26	+0015 +004
183		180 00 00.0	270 59 16.0	0.00	+0015 +004
184		00 00 00.0	89 00 11.0	0.00	+0015 +004
185		159 12 17.0	91 43 38.0	326.27	+0015 +004
186		339 12 12.0	268 16 13.0	326.26	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
187		179 59 58.0	271 02 56.0	0.00	+0015 +004
188	-2-	+00000418	+00004590	+00000417	+00000000-
189	3	+00000419	+00005720	+00000000	+00000000
190		00 00 00.0	87 06 32.0	0.00	+0015 +004
191		176 24 25.0	93 44 29.0	660.62	+0015 +004
192		356 24 23.0	266 15 36.0	660.62	+0015 +004
193		179 59 57.0	272 59 01.0	0.00	+0015 +004
194		00 00 00.0	87 03 25.0	0.00	+0015 +004
195		176 24 27.0	93 44 22.0	660.62	+0015 +004
196		356 24 22.0	266 15 44.0	660.62	+0015 +004
197		179 59 55.0	272 54 28.0	0.00	+0015 +004
198	-2-	+00000419	+00005620	+00000418	+00000000-
199	3	+00000420	+00005180	+00000000	+00000000
200		00 00 00.0	86 17 20.0	0.00	+0015 +004
201		200 26 47.0	93 41 46.0	279.03	+0015 +004
202		20 26 44.0	266 18 35.0	279.03	+0015 +004
203		180 00 00.0	273 45 09.0	0.00	+0015 +004
204		00 00 00.0	86 17 23.0	0.00	+0015 +004
205		200 26 48.0	93 41 54.0	279.03	+0015 +004
206		20 26 42.0	266 18 29.0	279.03	+0015 +004
207		180 00 01.0	273 43 53.0	0.00	+0015 +004
208	-2-	+00000420	+00005080	+00000419	+00000000-
209	3	+00000421	+00005580	+00000000	+00000000
210		00 00 00.0	86 14 49.0	0.00	+0015 +004
211		160 24 07.0	94 01 29.0	329.13	+0015 +004
212		340 24 05.0	265 58 50.0	329.13	+0015 +004
213		179 59 57.0	273 45 39.0	0.00	+0015 +004
214		00 00 00.0	86 14 45.0	0.00	+0015 +004
215		160 24 09.0	94 01 32.0	329.13	+0015 +004
216		340 24 09.0	265 58 46.0	329.13	+0015 +004
217		179 59 56.0	273 45 09.0	0.00	+0015 +004
218	-2-	+00000421	+00005330	+00000420	+00000000-
219	3	+00000422	+00005330	+00000000	+00000000
220		00 00 00.0	85 57 33.0	0.00	+0015 +004
221		186 47 11.0	93 33 24.0	325.91	+0015 +004
222		6 47 08.0	266 26 49.0	325.91	+0015 +004
223		179 59 55.0	274 02 44.0	0.00	+0015 +004
224		00 00 00.0	85 57 37.0	0.00	+0015 +004
225		186 47 10.0	93 33 24.0	325.91	+0015 +004
226		6 47 11.0	266 26 43.0	325.91	+0015 +004
227		179 59 57.0	274 02 12.0	0.00	+0015 +004
228	4	+00000031			
229	1	+00000231	+00000000	+00000031	
230	-2-	+00000000	+00005330		
231	3	+00000423			
232		00 00 00.0	91 38 02.0	0.00	+0015 +004
233		181 04 18.0	87 28 55.0	1445.48	+0015 +004
234		1 04 19.0	272 31 06.0	1445.48	+0015 +004
235		180 00 00.0	268 18 54.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
236		00 00 01.0	91 36 34.0	0.00	+0015 +004
237		181 04 13.0	87 28 46.0	1445.48	+0015 +004
238		1 04 14.0	272 31 04.0	1445.48	+0015 +004
239		180 00 04.0	268 31 56.0	0.00	+0015 +004
240	4	+00000028			
241	1	+00000024	+00000000	+00000025	
242	-2-	+00000000	+00005140		
243	3	+00000424	+00005290		
244		00 00 00.0	90 35 22.0	0.00	+0015 +004
245		354 24 00.0	90 51 56.0	453.11	+0015 +004
246		174 24 02.0	269 07 48.0	453.11	+0015 +004
247		180 00 03.0	269 37 08.0	0.00	+0015 +004
248		00 00 00.0	90 29 00.0	0.00	+0015 +004
249		354 24 04.0	90 52 00.0	453.11	+0015 +004
250		174 24 03.0	269 07 55.0	453.11	+0015 +004
251		180 00 02.0	269 39 31.0	0.00	+0015 +004
252	-2-	+00000424	+00005260	+00000024	
253	3	+00000425	+00002120		
254		00 00 00.0	89 26 24.0	0.00	+0015 +004
255		106 37 02.0	99 37 11.0	198.28	+0015 +004
256		286 37 05.0	260 22 52.0	198.28	+0015 +004
257		180 00 02.0	270 46 37.0	0.00	+0015 +004
258		00 00 00.0	89 20 42.0	0.00	+0015 +004
259		106 37 04.0	99 37 08.0	198.28	+0015 +004
260		286 37 05.0	260 22 51.0	198.28	+0015 +004
261		180 00 00.0	270 45 19.0	0.00	+0015 +004
262	4	+00000227			
263	1	+00000229	+00000000	+00000030	
264	-2-	+00000000	+00004900		
265	3	+00000426	+00005220		
266		00 00 00.0	90 26 01.0	0.00	+0015 +004
267		32 51 30.0	92 11 22.0	146.74	+0015 +004
268		212 51 24.0	267 48 54.0	146.74	+0015 +004
269		179 59 55.0	269 46 47.0	0.00	+0015 +004
270		00 00 00.0	90 11 29.0	0.00	+0015 +004
271		32 51 26.0	92 11 24.0	146.74	+0015 +004
272		212 51 18.0	267 48 51.0	146.74	+0015 +004
273		179 59 49.0	270 06 40.0	0.00	+0015 +004
274	-2-	+00000426	+00005200	+00000229	
275	3	+00000427	+00005300		
276		00 00 00.0	87 55 28.0	0.00	+0015 +004
277		237 33 58.0	92 56 33.0	664.40	+0015 +004
278		57 33 55.0	267 03 35.0	664.40	+0015 +004
279		179 59 51.0	271 44 54.0	0.00	+0015 +004
280		00 00 00.0	87 48 23.0	0.00	+0015 +004
281		237 33 48.0	92 56 33.0	664.40	+0015 +004
282		57 33 54.0	267 03 36.0	664.40	+0015 +004
283		179 59 54.0	272 10 36.0	0.00	+0015 +004
284	-2-	+00000427	+00005110	+00000426	

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
285	3	+00000428	+00004840		
286		00 00 00.0	87 08 41.0	0.00	+0015 +004
287		211 50 18.0	92 50 33.0	332.10	+0015 +004
288		31 50 10.0	267 09 50.0	332.10	+0015 +004
289		179 59 58.0	272 55 51.0	0.00	+0015 +004
290		00 00 00.0	87 05 11.0	0.00	+0015 +004
291		211 50 15.0	92 50 34.0	332.10	+0015 +004
292		31 50 13.0	267 09 44.0	332.10	+0015 +004
293		179 59 58.0	273 03 19.0	0.00	+0015 +004
294	-2-	+00000428	+00004780	+00000427	
295	3	+00000429	+00004840		
296		00 00 00.0	87 13 00.0	0.00	+0015 +004
297		180 46 05.0	90 29 02.0	143.41	+0015 +004
298		00 46 05.0	269 31 14.0	143.41	+0015 +004
299		179 59 55.0	272 54 13.0	0.00	+0015 +004
300		00 00 00.0	87 23 43.0	0.00	+0015 +004
301		180 46 09.0	90 29 00.0	143.41	+0015 +004
302		00 46 09.0	269 31 13.0	143.41	+0015 +004
303		180 00 00.0	272 47 52.0	0.00	+0015 +004
304	4	+00000026			
305	1	+00000224	+00000000	+00000303	
306	-2-	+00000224	+00004760	+00000303	
307	3	+00000430	+00005020		
308		00 00 00.0	92 59 16.0	0.00	+0015 +004
309		227 57 01.0	89 41 26.0	449.57	+0015 +004
310		47 56 55.0	270 18 03.0	449.57	+0015 +004
311		180 00 01.0	269 38 08.0	0.00	+0015 +004
312		00 00 00.0	90 32 39.0	0.00	+0015 +004
313		227 57 00.0	89 41 29.0	449.57	+0015 +004
314		47 56 55.0	270 18 11.0	449.57	+0015 +004
315		180 00 07.0	269 40 07.0	0.00	+0015 +004
316	4	+00000021			
317	1	+00000222	+00000000	+00000019	
318	-2-	+00000222	+00004760	+00000019	
319	3	+00000431	+00005440		
320		00 00 00.0	91 43 19.0	0.00	+0015 +004
321		188 42 49.0	88 54 10.0	992.36	+0015 +004
322		8 42 51.0	271 05 27.0	992.36	+0015 +004
323		180 00 07.0	268 38 06.0	0.00	+0015 +004
324		00 00 00.0	91 37 49.0	0.00	+0015 +004
325		188 42 53.0	88 54 07.0	992.36	+0015 +004
326		8 42 49.0	271 05 29.0	992.36	+0015 +004
327		180 00 08.0	268 43 35.0	0.00	+0015 +004
328	4	+00000020			
329	1	+00000221	+00000000	+00000016	
330	-2-	+00000221	+00004790	+00000016	
331	3	+00000432	+00005340		
332		00 00 00.0	94 33 20.0	0.00	+0015 +004
333		4 52 29.0	94 23 52.0	432.73	+0015 +004
334		184 52 29.0	265 35 47.0	432.73	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
335		180 00 01.0	265 35 47.0	0.00	+0015 +004
336		00 00 00.0	94 37 10.0	0.00	+0015 +004
337		4 52 30.0	94 23 49.0	432.73	+0015 +004
338		184 52 26.0	265 35 45.0	432.73	+0015 +004
339		179 59 58.0	265 35 17.0	0.00	+0015 +004
340	-2-	+00000432	+00005050	+00000221	
341	3	+00000433	+00005110		
342		00 00 00.0	85 32 58.0	0.00	+0015 +004
343		105 26 59.0	90 29 12.0	797.27	+0015 +004
344		285 27 03.0	269 30 26.0	797.27	+0015 +004
345		180 00 04.0	274 31 55.0	0.00	+0015 +004
346		00 00 00.0	85 38 22.0	0.00	+0015 +004
347		105 27 00.0	90 29 15.0	797.27	+0015 +004
348		285 27 00.0	269 30 18.0	797.27	+0015 +004
349		179 59 58.0	274 39 48.0	0.00	+0015 +004
350	4	+00000015			
351	1	+00000215	+00000000	+00000011	
352	-2-	+00000215	+00005110	+00000011	
353	3	+00000434	+00003170		
354		00 00 01.0	93 20 06.0	0.00	+0015 +004
355		95 08 03.0	88 13 06.0	216.87	+0015 +004
356		275 07 57.0	271 46 39.0	216.87	+0015 +004
357		179 59 56.0	266 45 40.0	0.00	+0015 +004
358		00 00 00.0	93 24 09.0	0.00	+0015 +004
359		95 08 01.0	88 13 05.0	216.87	+0015 +004
360		275 07 53.0	271 46 40.0	216.87	+0015 +004
361		180 00 00.0	266 52 32.0	0.00	+0015 +004
362	-2-	+00000434	+00005160	+00000215	
363	3	+00000435	+00005350		
364		359 59 59.0	86 54 36.0	1578.25	+0015 +004
365		303 10 14.0	86 54 46.0	1578.26	+0015 +004
366		123 10 17.0	273 05 01.0	1578.26	+0015 +004
367		180 00 00.0	267 37 49.0	0.00	+0015 +004
368		00 00 00.0	92 33 09.0	0.00	+0015 +004
369		303 10 11.0	86 54 43.0	1578.25	+0015 +004
370		123 10 10.0	273 05 11.0	1578.25	+0015 +004
371		180 00 03.0	267 33 38.0	0.00	+0015 +004
372	4	+00000015			
373	1	+00000205	+00000000	+00000009	
374	-2-	+00000205	+00005320	+00000009	
375	3	+00000436	+00004780		
376		00 00 00.0	87 24 14.0	0.00	+0015 +004
377		166 22 30.0	92 39 28.0	201.84	+0015 +004
378		346 22 30.0	267 20 07.0	201.84	+0015 +004
379		179 59 59.0	272 41 32.0	0.00	+0015 +004
380		359 59 59.0	87 26 35.0	0.00	+0015 +004
381		166 22 32.0	92 39 24.0	201.84	+0015 +004
382		346 22 30.0	267 20 06.0	201.84	+0015 +004
383		180 00 03.0	272 44 01.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
384	-2-	+00000436	+00005170	+00000205	
385	3	+00000437	+00004230		
386		00 00 00.0	87 33 44.0	0.00	+0015 +004
387		20 46 07.0	87 30 09.0	482.84	+0015 +004
388		200 45 59.0	272 29 22.0	482.83	+0015 +004
389		179 59 56.0	272 40 08.0	0.00	+0015 +004
390		00 00 00.0	87 29 29.0	0.00	+0015 +004
391		20 46 08.0	87 30 16.0	482.83	+0015 +004
392		200 46 03.0	272 29 25.0	482.84	+0015 +004
393		180 00 02.0	272 46 01.0	0.00	+0015 +004
394	-2-	+00000437	+00005340	+00000436	
395	3	+00000438	+00004680		
396		00 00 00.0	92 36 12.0	0.00	+0015 +004
397		29 57 34.0	92 13 42.0	178.30	+0015 +004
398		209 57 31.0	267 46 03.0	178.30	+0015 +004
399		179 59 55.0	267 32 47.0	0.00	+0015 +004
400		00 00 00.0	92 38 51.0	0.00	+0015 +004
401		29 57 35.0	92 13 39.0	178.30	+0015 +004
402		209 57 28.0	267 46 04.0	178.30	+0015 +004
403		180 00 00.0	267 33 37.0	0.00	+0015 +004
404	4	+00000009			
405	1	+00000202	+00000000	+00000008	
406	-2-	+00000202	+00004990	+00000008	
407	3	+00000439	+00005190		
408		00 00 00.0	87 04 01.0	0.00	+0015 +004
409		168 35 12.0	93 55 54.0	399.79	+0015 +004
410		348 35 12.0	266 03 46.0	399.79	+0015 +004
411		180 00 01.0	273 06 47.0	0.00	+0015 +004
412		00 00 00.0	87 10 35.0	0.00	+0015 +004
413		168 35 10.0	93 55 52.0	399.79	+0015 +004
414		348 35 08.0	266 03 43.0	399.78	+0015 +004
415		179 59 56.0	273 00 45.0	0.00	+0015 +004
416	4	+00000007			
417	1	+00000234	+00000000	+00000010	+00000000
418	-2-	+00000234	+00006090	+00000010	+00000000
419	3	+00000440	+00004700	+00000000	+00000000
420		00 00 00.0	90 25 21.0	0.00	+0015 +004
421		322 15 10.0	87 36 25.0	65.50	+0015 +004
422		142 15 04.0	272 22 50.0	65.50	+0015 +004
423		179 59 51.0	269 35 02.0	0.00	+0015 +004
424		00 00 00.0	90 25 33.0	0.00	+0015 +004
425		322 15 15.0	87 36 24.0	65.50	+0015 +004
426		142 15 09.0	272 22 39.0	65.50	+0015 +004
427		179 59 59.0	269 40 09.0	0.00	+0015 +004
428	-2-	+00000440	+00005180	+00000234	+00000000
429	3	+00000441	+00004600	+00000000	+00000000
430		00 00 00.0	93 00 28.0	0.00	+0015 +004
431		153 59 00.0	86 50 54.0	72.72	+0015 +004
432		333 59 02.0	273 08 07.0	72.72	+0015 +004
433		180 00 08.0	267 02 20.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
434		00 00 00.0	92 59 21.0	0.00	+0015 +004
435		153 59 01.0	86 50 52.0	72.72	+0015 +004
436		333 58 59.0	273 08 06.0	72.72	+0015 +004
437		179 59 56.0	266 59 29.0	0.00	+0015 +004
438	4	+00000039			

Date: 12-01-92
 Time: 9:54:11
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ELECTRONIC DATA COLLECTION

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Collection File: PV1.COL
 Field Data Log

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
1	1	+00000001	+02951721	+00000000	+05066909
2	-2-	+00000005	+00005160	+00000004	
3	3	+00000006			
4		00 00 00.0	90 14 15.0	0.00	+0015 +004
5		260 06 38.0	88 16 39.0	826.13	+0015 +004
6		80 06 45.0	271 43 42.0	826.13	+0015 +004
7		180 00 07.0	270 31 42.0	0.00	+0015 +004
8	-2-	+00000000	+00005110	+00000000	
9	31	+00000201	+00004940	+00000000	
10		00 00 00.0	91 55 17.0	0.00	+0015 +004
11		277 09 26.0	89 44 59.0	217.16	+0015 +004
12		97 09 31.0	270 15 34.0	217.16	+0015 +004
13		180 00 05.0	268 26 46.0	0.00	+0015 +004
14	3	+00000000	+00000000	+00000000	
15		00 00 00.0	91 50 17.0	0.00	+0015 +004
16		186 54 27.0	87 19 37.0	319.16	+0015 +004
17		6 54 33.0	272 40 52.0	319.16	+0015 +004
18		180 00 03.0	268 32 53.0	0.00	+0015 +004
19	-2-	+00000000	+00005210	+00000000	
20	31	+00000000	+00004780		
21		00 00 00.0	92 41 19.0	0.00	+0015 +004
22		158 07 36.0	86 06 30.0	399.76	+0015 +004
23		338 07 37.0	273 54 01.0	399.76	+0015 +004
24		180 00 00.0	267 35 41.0	0.00	+0015 +004
25	3	+00000000	+00005000	+00000000	
26		00 00 00.0	4 14 58.0	0.00	+0015 +004
27		160 07 18.0	86 17 19.0	483.30	+0015 +004
28		340 07 25.0	273 43 13.0	483.30	+0015 +004
29		179 59 57.0	267 29 39.0	0.00	+0015 +004
30	-2-	+00000000	+00005220	+00000000	
31	31	+00000000	+00004950		
32		00 00 00.0	93 43 01.0	0.00	+0015 +004
33		274 25 09.0	88 49 34.0	271.33	+0015 +004
34		94 25 20.0	271 11 06.0	271.33	+0015 +004
35		179 59 58.0	266 34 46.0	0.00	+0015 +004
36	3	+00000000	+00004890		
37		00 00 00.0	93 57 12.0	0.00	+0015 +004
38		277 29 04.0	88 39 03.0	423.53	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
39		97 29 09.0	271 21 38.0	423.53	+0015 +004
40		180 00 05.0	266 30 40.0	0.00	+0015 +004
41	-2-	+00000000	+00005040	+00000000	
42	31	+00000000	+00004800	+00000000	
43		00 00 00.0	91 26 45.0	0.00	+0015 +004
44		276 30 18.0	92 41 32.0	340.25	+0015 +004
45		96 30 16.0	267 19 04.0	340.25	+0015 +004
46		179 59 53.0	268 36 06.0	0.00	+0015 +004
47	31	+00000000	+00004900		
48		00 00 00.0	91 30 13.0	0.00	+0015 +004
49		284 32 04.0	92 50 30.0	140.80	+0015 +004
50		104 32 08.0	267 10 04.0	140.80	+0015 +004
51		180 00 04.0	268 51 44.0	0.00	+0015 +004
52	31	+00000000	+00005230		
53		00 00 00.0	91 36 02.0	0.00	+0015 +004
54		235 52 00.0	93 17 14.0	128.85	+0015 +004
55		55 52 01.0	266 43 21.0	128.85	+0015 +004
56		180 00 03.0	268 44 03.0	0.00	+0015 +004
57	31	+00000000	+00005410		
58		00 00 00.0	91 12 37.0	0.00	+0015 +004
59		141 38 22.0	87 52 43.0	178.27	+0015 +004
60		321 38 26.0	272 07 53.0	178.28	+0015 +004
61		180 00 01.0	268 37 25.0	0.00	+0015 +004
62	3	+00000000	+00004570		
63		00 00 00.0	91 12 12.0	0.00	+0015 +004
64		124 23 30.0	86 45 28.0	386.63	+0015 +004
65		304 23 23.0	273 15 09.0	386.63	+0015 +004
66		179 59 59.0	268 29 11.0	0.00	+0015 +004
67		346 08 21.0	1 03 04.0	0.00	+0015 +004
68	-2-	+00000000	+00005280	+00000000	
69	31	+00000000	+00004880	+00000000	
70		00 00 00.0	93 08 38.0	0.00	+0015 +004
71		299 53 19.0	92 22 34.0	285.07	+0015 +004
72		119 53 22.0	267 38 02.0	285.07	+0015 +004
73		180 00 01.0	266 37 46.0	0.00	+0015 +004
74	31	+00000000	+00005130		
75		00 00 00.0	93 32 03.0	0.00	+0015 +004
76		304 21 24.0	93 52 50.0	195.12	+0015 +004
77		124 21 28.0	266 07 43.0	195.12	+0015 +004
78		179 59 53.0	266 44 43.0	0.00	+0015 +004
79	31	+00000000	+00005140		
80		00 00 00.0	93 23 05.0	0.00	+0015 +004
81		318 30 05.0	94 54 32.0	117.35	+0015 +004
82		138 30 12.0	265 06 07.0	117.35	+0015 +004
83		179 59 54.0	266 54 37.0	0.00	+0015 +004
84	31	+00000000	+00005110		
85		00 00 00.0	93 30 19.0	0.00	+0015 +004
86		281 53 23.0	93 02 05.0	55.01	+0015 +004
87		101 53 32.0	266 58 29.0	55.01	+0015 +004
88		179 59 57.0	266 49 02.0	0.00	+0015 +004
89	31	+00000000	+00005090		
90		00 00 00.0	93 29 57.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
91		205 21 57.0	87 15 41.0	135.35	+0015 +004
92		25 21 55.0	272 44 48.0	135.35	+0015 +004
93		179 59 56.0	266 46 22.0	0.00	+0015 +004
94	31	+00000000	+00005130		
95		00 00 00.0	93 31 07.0	0.00	+0015 +004
96		199 59 05.0	86 45 08.0	223.92	+0015 +004
97		19 59 06.0	273 15 24.0	223.92	+0015 +004
98		179 59 56.0	266 41 42.0	0.00	+0015 +004
99	31	+00000000	+00004640		
100		00 00 00.0	93 29 13.0	0.00	+0015 +004
101		200 40 31.0	86 35 38.0	394.53	+0015 +004
102		20 40 34.0	273 24 55.0	394.53	+0015 +004
103		180 00 04.0	266 50 08.0	0.00	+0015 +004
104	3	+00000000	+00004290		
105		00 00 00.0	93 29 28.0	0.00	+0015 +004
106		203 44 21.0	86 18 31.0	1320.92	+0015 +004
107		23 44 19.0	273 42 02.0	1320.92	+0015 +004
108		180 00 01.0	266 42 45.0	0.00	+0015 +004

109	-2-	+00000000	+00005020	+00000000	
110	31	+00000000	+00004930		
111		00 00 00.0	93 56 43.0	0.00	+0015 +004
112		154 34 46.0	86 43 22.0	447.32	+0015 +004
113		334 34 41.0	273 17 11.0	447.32	+0015 +004
114		180 00 04.0	266 19 58.0	0.00	+0015 +004
115	3	+00000000	+00004200		
116		00 00 00.0	93 59 57.0	0.00	+0015 +004
117		228 00 57.0	82 17 11.0	325.30	+0015 +004
118		48 01 01.0	277 43 20.0	325.30	+0015 +004
119		179 59 56.0	266 17 21.0	0.00	+0015 +004

120	-2-	+00000000	+00005000	+00000000	
121	31	+00000000	+00004420		
122		00 00 00.0	98 16 44.0	0.00	+0015 +004
123		261 47 08.0	92 07 00.0	144.08	+0015 +004
124		81 47 10.0	267 52 53.0	0.00	+0015 +004
125		180 00 09.0	262 02 07.0	0.00	+0015 +004
126	3	+00000000	+00004050	+00000000	
127		00 00 00.0	98 12 32.0	0.00	+0015 +004
128		252 31 40.0	90 25 26.0	524.30	+0015 +004
129		72 31 43.0	269 34 36.0	0.00	+0015 +004
130		180 00 04.0	262 08 06.0	0.00	+0015 +004

131	-2-	+00000000	+00005050	+00000000	
132	3	+00000000	+00003540	+00000000	
133		00 00 00.0	89 54 38.0	0.00	+0015 +004
134		207 07 50.0	94 58 47.0	203.35	+0015 +004
135		27 07 52.0	265 01 27.0	0.00	+0015 +004
136		180 00 01.0	270 26 13.0	0.00	+0015 +004

137	-2-	+00000013	+00005390	+00000012	
138	31	+00000000	+00005700		
139		00 00 00.0	89 57 22.0	0.00	+0015 +004
140		178 56 41.0	100 53 56.0	549.46	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
141		358 56 41.0	259 06 27.0	0.00	+0015 +004
142		179 59 58.0	270 13 34.0	0.00	+0015 +004
143	-2-	+00000000	+00005020	+00000000	
144	31	+00000000	+00005600		
145		00 00 00.0	85 59 56.0	0.00	+0015 +004
146		67 56 40.0	95 27 08.0	676.96	+0015 +004
147		247 56 45.0	264 33 30.0	0.00	+0015 +004
148		180 00 03.0	274 15 37.0	0.00	+0015 +004
149	31	+00000000	+00005370	+00000000	
150		00 00 00.0	85 55 45.0	0.00	+0015 +004
151		105 15 35.0	95 11 12.0	975.59	+0015 +004
152		285 15 39.0	264 49 22.0	0.00	+0015 +004
153		179 59 57.0	274 15 18.0	0.00	+0015 +004
154	-2-	+00000011	+00005220	+00000010	+00000000
155	3	+00000015	+00004550	+00000000	
156		00 00 00.0	93 57 27.0	0.00	+0015 +004
157		178 39 26.0	86 21 52.0	1868.75	+0015 +004
158		358 39 21.0	273 38 15.0	0.00	+0015 +004
159		180 00 02.0	266 28 15.0	0.00	+0015 +004
160	-2-	+00000015	+00005110	+00000011	
161	3	+00000016	+00005060		
162		00 00 00.0	93 49 04.0	0.00	+0015 +004
163		118 48 44.0	89 33 52.0	755.72	+0015 +004
164		298 48 41.0	270 26 28.0	0.00	+0015 +004
165		180 00 01.0	266 29 44.0	0.00	+0015 +004
166	-2-	+00000015	+00005110	+00000011	
167	3	+00000017	+00005040		
168		00 00 00.0	94 05 42.0	0.00	+0015 +004
169	3	+00000017	+00005190		
170		00 00 00.0	93 50 59.0	0.00	+0015 +004
171		201 22 14.0	84 32 50.0	565.31	+0015 +004
172		21 22 08.0	275 27 39.0	0.00	+0015 +004
173		180 00 09.0	266 33 28.0	0.00	+0015 +004
174	-2-	+00000017	+00004980		
175	31	+00000220	+00004080		
176		00 00 00.0	95 34 56.0	0.00	+0015 +004
177		153 22 29.0	87 43 47.0	77.40	+0015 +004
178		333 22 24.0	272 16 32.0	0.00	+0015 +004
179		180 00 06.0	264 50 21.0	0.00	+0015 +004
180	-2-	+00000016	+00005220	+00000015	
181	31	+00000221	+00004060		
182		00 00 00.0	90 37 16.0	0.00	+0015 +004
183		250 11 10.0	85 44 58.0	451.86	+0015 +004
184		70 11 12.0	274 15 22.0	0.00	+0015 +004
185		180 00 02.0	269 46 30.0	0.00	+0015 +004
186	3	+00000018	+00004600	+00000000	
187		00 00 00.0	90 34 50.0	0.00	+0015 +004
188		142 37 34.0	90 47 26.0	652.52	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
189		322 37 31.0	269 12 57.0	652.52	+0015 +004
190		180 00 05.0	269 40 29.0	0.00	+0015 +004
191	-2-	+00000018	+00005080	+00000016	
192	3	+00000019	+00004340		
193		00 00 00.0	89 18 58.0	0.00	+0015 +004
194		175 02 27.0	91 30 42.0	1405.31	+0015 +004
195		355 02 36.0	268 29 07.0	0.00	+0015 +004
196		180 00 05.0	270 57 28.0	0.00	+0015 +004
197	-2-	+00000019	+00005130	+00000018	
198	31	+00000000	+00004900		
199		00 00 00.0	88 43 29.0	0.00	+0015 +004
200		177 56 05.0	88 47 18.0	138.08	+0015 +004
201		357 56 07.0	271 12 48.0	0.00	+0015 +004
202		180 00 00.0	271 25 42.0	0.00	+0015 +004
203	53	+00421715	+00005190		
204		00 00 00.0	88 48 10.0	0.00	+0015 +004
205		77 30 12.0	89 53 40.0	55.16	+0015 +004
206		257 30 09.0	270 06 35.0	0.00	+0015 +004
207		180 00 01.0	271 31 20.0	0.00	+0015 +004
208	3	+00000000	+00005100		
209		00 00 00.0	88 43 59.0	0.00	+0015 +004
210		185 35 09.0	88 54 49.0	1128.98	+0015 +004
211		5 35 08.0	271 05 32.0	0.00	+0015 +004
212		179 59 57.0	271 41 39.0	0.00	+0015 +004
213	-2-	+00000000	+00005040		
214	3	+00000000	+00004870		
215		00 00 00.0	91 13 11.0	0.00	+0015 +004
216		170 08 29.0	90 29 59.0	531.19	+0015 +004
217		350 08 25.0	269 30 17.0	0.00	+0015 +004
218		180 00 05.0	269 00 00.0	0.00	+0015 +004
219	-2-	+00000000	+00005100		
220	31	+00000223	+00004730		
221		00 00 00.0	89 47 32.0	0.00	+0015 +004
222		10 59 37.0	89 57 05.0	126.67	+0015 +004
223		190 59 34.0	270 03 20.0	0.00	+0015 +004
224		180 00 01.0	270 30 57.0	0.00	+0015 +004
225	31	+00000224			
226	31	+00000224	+00000450		
227		00 00 00.0	89 37 57.0	0.00	+0015 +004
228		196 14 27.0	90 53 26.0	449.61	+0015 +004
229		16 14 19.0	269 07 07.0	0.00	+0015 +004
230		180 00 07.0	270 35 18.0	0.00	+0015 +004
231	3	+00000000	+00004610		
232		00 00 00.0	89 49 47.0	0.00	+0015 +004
233		86 32 38.0	92 58 56.0	708.98	+0015 +004
234		266 32 39.0	267 01 38.0	0.00	+0015 +004
235		180 00 01.0	270 29 24.0	0.00	+0015 +004
236	-2-	+00000022	+00004930	+00000000	
237	31	+00000225	+00004460		

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
238		00 00 00.0	87 08 30.0	0.00	+0015 +004
239		105 27 47.0	86 14 00.0	119.35	+0015 +004
240		285 27 38.0	273 46 30.0	0.00	+0015 +004
241		179 59 57.0	273 16 57.0	0.00	+0015 +004
242	3	+00000000	+00004430		
243		00 00 01.0	87 16 15.0	0.00	+0015 +004
244		239 30 00.0	95 09 44.0	448.43	+0015 +004
245		59 29 59.0	264 50 56.0	0.00	+0015 +004
246		179 59 50.0	273 00 01.0	0.00	+0015 +004
247	-2-	+00000023	+00004930	+00000022	
248	31	+00000226	+00004800		
249		00 00 00.0	85 07 08.0	0.00	+0015 +004
250		297 45 30.0	92 32 34.0	172.79	+0015 +004
251		117 45 25.0	267 27 53.0	0.00	+0015 +004
252		179 59 51.0	274 58 35.0	0.00	+0015 +004
253	3	+00000000	+00005030		
254		00 00 00.0	85 09 25.0	0.00	+0015 +004
255		147 03 50.0	88 47 24.0	924.41	+0015 +004
256		327 03 46.0	271 13 07.0	924.41	+0015 +004
257		179 59 53.0	275 06 34.0	0.00	+0015 +004
258	-2-	+00000024	+00005030	+00000023	
259	3	+00000025	+00004830	+00000000	
260		00 00 00.0	91 34 13.0	0.00	+0015 +004
261		185 33 08.0	90 19 17.0	444.10	+0015 +004
262		5 33 04.0	269 41 02.0	0.00	+0015 +004
263		179 59 54.0	268 55 59.0	0.00	+0015 +004
264	-2-	+00000025	+00004750	+00000025	
265	31	+00000000	+00004150		
266		00 00 00.0	89 47 38.0	0.00	+0015 +004
267		100 38 27.0	99 15 08.0	243.47	+0015 +004
268		280 38 30.0	260 45 12.0	0.00	+0015 +004
269		180 00 00.0	270 23 57.0	0.00	+0015 +004
270	3	+00000000	+00003370		
271		00 00 00.0	89 52 53.0	0.00	+0015 +004
272		301 30 38.0	98 47 31.0	332.47	+0015 +004
273		121 30 37.0	261 12 49.0	0.00	+0015 +004
274		179 59 55.0	270 24 23.0	0.00	+0015 +004
275	-2-	+00000026	+00003650	+00000025	
276	31	+00000000	+00005290		
277		00 00 00.0	81 22 45.0	0.00	+0015 +004
278		184 50 08.0	84 55 07.0	86.69	+0015 +004
279		4 50 08.0	275 04 26.0	0.00	+0015 +004
280		179 59 58.0	278 46 23.0	0.00	+0015 +004
281	3	+00000000	+00004570	+00004000	
282		00 00 00.0	81 22 44.0	0.00	+0015 +004
283		00 00 00.0	81 22 44.0	332.33	+0015 +004
284		119 19 34.0	87 56 56.0	444.55	+0015 +004
285		299 19 37.0	272 10 55.0	0.00	+0015 +004
286		180 00 05.0	278 50 41.0	0.00	+0015 +004
287		00 00 00.0	81 22 51.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
288		00 00 00.0	81 22 51.0	332.33	+0015 +004
289		119 19 38.0	87 56 51.0	444.55	+0015 +004
290		299 19 32.0	272 10 36.0	0.00	+0015 +004
291		180 00 02.0	278 53 30.0	0.00	+0015 +004
292	-2-	+00000026	+00003650	+00000025	
293	3	+00000028	+00003750	+00000000	
294		00 00 00.0	268 07 33.0	449.09	+0015 +004
295		39 34 44.0	91 52 16.0	449.09	+0015 +004
296		219 34 52.0	268 17 30.0	0.00	+0015 +004
297		180 00 00.0	278 42 19.0	0.00	+0015 +004
298		00 00 00.0	81 36 20.0	0.00	+0015 +004
299		39 34 47.0	91 52 20.0	449.09	+0015 +004
300		219 34 51.0	268 19 37.0	0.00	+0015 +004
301		180 00 05.0	278 52 27.0	0.00	+0015 +004
302	-2-	+00000027	+00005010	+00000026	
303	3	+00000029	+00004680		
304		00 00 00.0	92 08 04.0	0.00	+0015 +004
305		00 00 00.0	92 08 04.0	444.57	+0015 +004
306		156 12 02.0	86 39 32.0	265.28	+0015 +004
307		336 11 57.0	273 30 16.0	0.00	+0015 +004
308		180 00 09.0	268 12 54.0	0.00	+0015 +004
309		00 00 00.0	92 08 04.0	0.00	+0015 +004
310		00 00 00.0	92 08 04.0	444.57	+0015 +004
311		156 11 59.0	86 39 25.0	265.28	+0015 +004
312		336 12 00.0	273 26 28.0	0.00	+0015 +004
313		180 00 09.0	268 01 13.0	0.00	+0015 +004
314	-2-	+00000029	+00005100	+00000027	
315	3	+00000030	+00004580	+00004930	
316		00 00 00.0	93 32 40.0	0.00	+0015 +004
317		00 00 00.0	93 26 41.0	265.31	+0015 +004
318		166 29 04.0	87 11 20.0	507.11	+0015 +004
319		346 29 06.0	272 55 22.0	0.00	+0015 +004
320		180 00 03.0	266 37 58.0	0.00	+0015 +004
321		00 00 00.0	93 26 42.0	0.00	+0015 +004
322		00 00 00.0	93 26 42.0	265.31	+0015 +004
323		166 29 02.0	87 11 20.0	507.11	+0015 +004
324		346 29 05.0	272 56 53.0	0.00	+0015 +004
325		180 00 08.0	266 37 43.0	0.00	+0015 +004
326	-2-	+00000030	+00005290	+00000029	
327	31	+00000229	+00004290		
328		00 00 00.0	92 56 32.0	0.00	+0015 +004
329		00 00 00.0	92 53 16.0	507.16	+0015 +004
330		95 28 18.0	89 44 11.0	86.19	+0015 +004
331		275 28 18.0	270 24 15.0	0.00	+0015 +004
332		180 00 02.0	267 09 23.0	0.00	+0015 +004
333		00 00 00.0	92 53 12.0	0.00	+0015 +004
334		00 00 00.0	92 53 12.0	507.15	+0015 +004
335		95 28 24.0	89 44 10.0	86.19	+0015 +004
336		275 28 22.0	270 18 55.0	0.00	+0015 +004
337		180 00 03.0	267 13 46.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
338	-2-	+00000028	+00004930	+00000026	
339	3	+00000031	+00004750		
340		00 00 00.0	88 17 43.0	0.00	+0015 +004
341		00 00 00.0	88 17 42.0	449.05	+0015 +004
342		138 10 55.0	92 19 22.0	1834.85	+0015 +004
343		318 10 52.0	267 47 17.0	0.00	+0015 +004
344		180 00 03.0	271 50 31.0	0.00	+0015 +004
345		00 00 00.0	88 17 42.0	449.05	+0015 +004
346		00 00 00.0	88 17 42.0	0.00	+0015 +004
347		138 10 54.0	92 19 19.0	1834.85	+0015 +004
348		318 10 52.0	267 50 54.0	0.00	+0015 +004
349		179 59 56.0	271 52 07.0	0.00	+0015 +004
350	-2-	+00000031	+00005150		
351	31	+00000000	+00004610		
352		00 00 00.0	87 42 35.0	0.00	+0015 +004
353		00 00 00.0	87 42 20.0	0.00	+0015 +004
354		00 00 01.0	87 42 20.0	1834.82	+0015 +004
355		56 45 58.0	86 32 22.0	325.87	+0015 +004
356		236 45 55.0	273 41 03.0	0.00	+0015 +004
357		180 00 01.0	272 30 14.0	0.00	+0015 +004
358		00 00 00.0	87 42 32.0	0.00	+0015 +004
359		00 00 00.0	87 42 31.0	1834.82	+0015 +004
360		56 45 53.0	86 32 22.0	325.87	+0015 +004
361		236 45 48.0	273 31 37.0	0.00	+0015 +004
362		179 59 57.0	272 30 36.0	0.00	+0015 +004
363	31	+00000000	+00004380		
364		00 00 00.0	87 42 35.0	1834.82	+0015 +004
365		359 09 41.0	88 37 32.0	389.55	+0015 +004
366		179 09 37.0	271 30 12.0	0.00	+0015 +004
367		179 59 56.0	272 21 25.0	0.00	+0015 +004
368		00 00 00.0	87 52 11.0	0.00	+0015 +004
369		359 09 39.0	88 37 33.0	389.55	+0015 +004
370		179 09 36.0	271 29 12.0	0.00	+0015 +004
371		179 59 52.0	272 28 03.0	0.00	+0015 +004
372	31	+00000000	+00004440		
373		00 00 00.0	87 52 22.0	0.00	+0015 +004
374		266 58 28.0	81 58 54.0	295.49	+0015 +004
375		86 58 18.0	278 06 48.0	0.00	+0015 +004
376		179 59 53.0	272 31 16.0	0.00	+0015 +004
377		00 00 00.0	87 51 12.0	0.00	+0015 +004
378		266 58 32.0	81 58 55.0	295.49	+0015 +004
379		86 58 18.0	278 06 34.0	0.00	+0015 +004
380		179 59 54.0	272 29 38.0	0.00	+0015 +004
381	-2-	+00000031	+00004240	+00000000	
382	3	+00000000	+00004010		
383		00 00 00.0	87 55 43.0	0.00	+0015 +004
384		226 35 18.0	92 59 53.0	740.93	+0015 +004
385		46 35 09.0	267 08 46.0	0.00	+0015 +004
386		179 59 51.0	272 24 18.0	0.00	+0015 +004
387		00 00 00.0	87 48 57.0	0.00	+0015 +004
388		226 35 16.0	92 59 53.0	740.94	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
389		46 35 07.0	267 06 56.0	0.00	+0015 +004
390		179 59 54.0	272 25 33.0	0.00	+0015 +004
391	-2-	+00000032	+00005090	+00000000	
392	3	+00000000	+00004740		
393		00 00 00.0	87 09 16.0	0.00	+0015 +004
394		00 00 00.0	87 09 15.0	740.84	+0015 +004
395		184 01 10.0	91 24 39.0	437.21	+0015 +004
396		4 01 06.0	268 41 07.0	0.00	+0015 +004
397		179 59 54.0	273 04 03.0	0.00	+0015 +004
398		00 00 00.0	87 09 14.0	0.00	+0015 +004
399		00 00 00.0	87 09 14.0	740.84	+0015 +004
400		184 01 14.0	91 24 41.0	437.21	+0015 +004
401		4 01 11.0	268 40 10.0	0.00	+0015 +004
402		180 00 02.0	272 56 20.0	0.00	+0015 +004
403	-2-	+00000033	+00005080		
404	3	+00000000	+00004760		
405		00 00 00.0	88 39 23.0	0.00	+0015 +004
406		00 00 00.0	88 39 22.0	437.20	+0015 +004
407		151 55 12.0	92 29 56.0	249.91	+0015 +004
408		331 55 04.0	267 36 35.0	0.00	+0015 +004
409		179 59 59.0	271 29 40.0	0.00	+0015 +004
410		00 00 00.0	88 39 21.0	0.00	+0015 +004
411		00 00 00.0	88 39 21.0	437.20	+0015 +004
412		151 55 07.0	92 29 55.0	249.91	+0015 +004
413		331 55 02.0	267 33 59.0	0.00	+0015 +004
414		179 59 53.0	271 23 31.0	0.00	+0015 +004
415	3	+00000035	+00004660		
416		00 00 00.0	88 44 24.0	0.00	+0015 +004
417		00 00 00.0	88 39 18.0	437.20	+0015 +004
418		148 34 37.0	92 01 07.0	1374.83	+0015 +004
419		328 34 37.0	268 04 39.0	0.00	+0015 +004
420		179 59 59.0	271 23 43.0	0.00	+0015 +004
421		00 00 00.0	88 39 21.0	0.00	+0015 +004
422		00 00 00.0	88 39 20.0	437.20	+0015 +004
423		148 34 39.0	92 06 44.0	0.00	+0015 +004
424		148 34 38.0	92 01 04.0	1374.83	+0015 +004
425		328 34 38.0	268 05 17.0	0.00	+0015 +004
426		179 59 59.0	271 31 07.0	0.00	+0015 +004
427	-2-	+00000034	+00005030	+00000033	
428	31	+00000000	+00004650		
429		187 58 47.0	87 35 18.0	249.89	+0015 +004
430		00 00 00.0	87 35 19.0	0.00	+0015 +004
431		00 00 00.0	87 35 19.0	249.90	+0015 +004
432		102 49 57.0	90 48 57.0	177.33	+0015 +004
433		282 49 53.0	269 15 33.0	0.00	+0015 +004
434		179 59 50.0	272 36 23.0	0.00	+0015 +004
435		00 00 00.0	87 35 17.0	0.00	+0015 +004
436		00 00 00.0	87 35 17.0	249.89	+0015 +004
437		102 49 57.0	90 48 58.0	177.33	+0015 +004
438		282 49 55.0	269 16 46.0	0.00	+0015 +004
439		179 59 51.0	272 34 33.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
440	-2-	+00000035	+00005230	+00000033	
441	3	+00000036	+00005540		
442		359 59 59.0	88 00 51.0	0.00	+0015 +004
443		00 00 00.0	88 00 51.0	0.00	+0015 +004
444		00 00 00.0	88 00 52.0	1374.81	+0015 +004
445		113 03 30.0	90 18 45.0	3780.74	+0015 +004
446		293 03 31.0	269 40 50.0	0.00	+0015 +004
447		180 00 06.0	272 09 39.0	0.00	+0015 +004
448		00 00 00.0	88 00 53.0	0.00	+0015 +004
449		00 00 00.0	88 00 52.0	1374.81	+0015 +004
450		113 03 26.0	90 18 38.0	3780.74	+0015 +004
451		293 03 15.0	269 47 40.0	0.00	+0015 +004
452		179 59 55.0	272 06 10.0	0.00	+0015 +004
453	-2-	+00000036	+00005120	+00000035	
454	3	+00000000	+00005320		
455		00 00 01.0	89 41 48.0	3780.73	+0015 +004
456		00 00 00.0	89 41 29.0	3780.73	+0015 +004
457		00 00 00.0	89 41 29.0	3780.73	+0015 +004
458		180 41 40.0	90 43 56.0	1472.09	+0015 +004
459		00 41 39.0	269 28 22.0	0.00	+0015 +004
460		179 59 49.0	270 26 24.0	0.00	+0015 +004
461		00 00 00.0	89 42 05.0	0.00	+0015 +004
462		00 00 00.0	89 42 04.0	3780.73	+0015 +004
463		180 41 56.0	90 44 05.0	1472.09	+0015 +004
464		00 41 51.0	269 23 09.0	0.00	+0015 +004
465		180 00 12.0	270 23 39.0	0.00	+0015 +004
466	-2-	+00000037	+00005190	+00000000	
467	4	+00000038	+00000000	+00000001	
468		00 00 00.0	89 16 07.0	0.00	+0015 +004
469		00 00 01.0	89 16 06.0	1472.09	+0015 +004
470	3	+00000000	+00006730	+00000000	
471	4	+00000038	+00000000	+00000001	
472		00 00 00.0	89 16 19.0	0.00	+0015 +004
473		00 00 00.0	89 16 19.0	1472.09	+0015 +004
474		160 09 22.0	90 33 21.0	939.33	+0015 +004
475		340 09 19.0	269 30 14.0	0.00	+0015 +004
476		179 59 56.0	270 47 43.0	0.00	+0015 +004
477		00 00 00.0	89 16 19.0	0.00	+0015 +004
478		00 00 00.0	89 16 19.0	1472.09	+0015 +004
479		160 09 22.0	90 33 00.0	939.33	+0015 +004
480		340 09 23.0	269 30 42.0	0.00	+0015 +004
481		180 00 05.0	270 47 53.0	0.00	+0015 +004
482	-2-	+00000038	+00006590	+00000000	
483	41	+00000000			
484	4	+00000000	+02591721		
485		00 00 00.0	89 26 58.0	0.00	+0015 +004
486		00 00 00.0	89 26 56.0	939.32	+0015 +004
487		180 32 40.0	90 29 46.0	2283.46	+0015 +004
488		00 32 43.0	269 34 10.0	0.00	+0015 +004
489		179 59 54.0	270 36 52.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
490		00 00 00.0	89 27 07.0	0.00	+0015 +004
491		00 00 01.0	89 27 09.0	939.32	+0015 +004
492		180 32 47.0	90 29 56.0	2283.46	+0015 +004
493		00 32 31.0	269 40 19.0	0.00	+0015 +004
494		180 00 01.0	270 41 19.0	0.00	+0015 +004

495	-2-	+00000001	+00006590	+00000002	
496	73	+00000004	+00003630		
497		00 00 00.0	90 46 10.0	0.00	+0015 +004
498		243 49 53.0	88 27 28.0	2001.15	+0015 +004
499		63 49 54.0	271 37 18.0	0.00	+0015 +004
500		179 59 51.0	269 36 41.0	0.00	+0015 +004
501		00 00 00.0	90 43 56.0	0.00	+0015 +004
502		243 49 56.0	88 27 30.0	2001.15	+0015 +004
503		63 49 53.0	271 36 01.0	0.00	+0015 +004
504		179 59 40.0	269 37 06.0	0.00	+0015 +004

505	-2-	+00000004	+00005160	+00000001	
506	3	+00000005	+00005270		
507		00 00 00.0	91 36 22.0	0.00	+0015 +004
508		00 00 00.0	91 36 23.0	0.00	+0015 +004
509		100 58 43.0	90 04 39.0	999.24	+0015 +004
510		280 58 43.0	269 58 05.0	0.00	+0015 +004
511		180 00 00.0	268 23 16.0	2001.21	+0015 +004
512		00 00 00.0	91 43 58.0	0.00	+0015 +004
513		100 58 42.0	90 04 40.0	999.24	+0015 +004
514		280 58 42.0	269 57 35.0	0.00	+0015 +004
515		180 00 02.0	268 23 20.0	2001.21	+0015 +004

516	-2-	+00000010	+00005410	+00000009	
517	3	+00000039	+00004690		
518		00 00 00.0	93 21 26.0	0.00	+0015 +004
519		00 00 01.0	93 21 28.0	386.67	+0015 +004
520		150 52 45.0	86 08 46.0	106.08	+0015 +004
521		330 52 46.0	273 50 49.0	0.00	+0015 +004
522		180 00 02.0	266 38 15.0	0.00	+0015 +004
523		00 00 00.0	93 21 29.0	386.67	+0015 +004
524		150 52 43.0	86 08 53.0	106.08	+0015 +004
525		330 52 45.0	273 50 40.0	0.00	+0015 +004
526		179 59 55.0	266 38 18.0	0.00	+0015 +004
527	31	+00000000	+00005730		
528		00 00 00.0	93 21 29.0	386.67	+0015 +004
529		67 14 52.0	90 20 34.0	95.61	+0015 +004
530		247 14 53.0	269 39 08.0	0.00	+0015 +004
531		179 59 56.0	266 38 13.0	0.00	+0015 +004
532	31	+00000000	+00003820	+00000000	+00000000
533		00 00 00.0	93 21 31.0	386.67	+0015 +004
534		65 00 00.0	90 14 43.0	105.24	+0015 +004
535		244 59 52.0	269 45 03.0	0.00	+0015 +004
536		179 59 52.0	266 38 12.0	0.00	+0015 +004

537	-2-	+00000039	+00005130	+00000010	
538	31	+00000000	+00006050	+00000000	+00000000
539		00 00 00.0	94 19 31.0	106.15	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
540		38 23 28.0	93 38 57.0	70.72	+0015 +004
541		218 23 29.0	266 20 56.0	0.00	+0015 +004
542		180 00 02.0	265 40 23.0	0.00	+0015 +004
543	31	+00000000	+00006330	+00000000	+00000000
544		00 00 00.0	94 19 27.0	0.00	+0015 +004
545		40 21 26.0	93 40 04.0	64.84	+0015 +004
546		220 21 23.0	266 19 40.0	0.00	+0015 +004
547		180 00 06.0	265 40 15.0	0.00	+0015 +004
548	31	+00000000	+00006690	+00000000	+00000000
549		00 00 00.0	94 19 28.0	0.00	+0015 +004
550		95 26 33.0	91 16 24.0	10.94	+0015 +004
551		275 26 42.0	268 43 12.0	0.00	+0015 +004
552		180 00 06.0	265 40 17.0	0.00	+0015 +004
553	31	+00000000	+00006400	+00000000	+00000000
554		00 00 00.0	94 19 28.0	0.00	+0015 +004
555		175 35 35.0	76 55 28.0	0.00	+0015 +004
556		355 35 26.0	283 04 18.0	0.00	+0015 +004
557		180 00 01.0	265 40 12.0	0.00	+0015 +004
558	31	+00000000	+00006600	+00000000	+00000000
559		00 00 00.0	94 19 33.0	0.00	+0015 +004
560		146 37 20.0	84 51 05.0	0.00	+0015 +004
561		326 37 25.0	275 08 34.0	0.00	+0015 +004
562		180 00 08.0	265 40 16.0	0.00	+0015 +004
563	31	+00000000	+00007300	+00000000	+00000000
564		00 00 00.0	94 19 31.0	0.00	+0015 +004
565		119 46 12.0	87 48 06.0	0.00	+0015 +004
566		299 46 14.0	272 11 40.0	0.00	+0015 +004
567		179 59 54.0	265 40 26.0	0.00	+0015 +004
568	31	+00000000	+00004690	+00000000	+00000000
569		232 46 26.0	85 24 31.0	20.19	+0015 +004
570		52 46 20.0	274 35 13.0	0.00	+0015 +004
571		180 00 02.0	265 40 15.0	0.00	+0015 +004
572	31	+00000000	+00004830	+00000000	+00000000
573		231 48 35.0	85 11 38.0	25.97	+0015 +004
574		51 48 40.0	274 48 06.0	0.00	+0015 +004
575		179 59 56.0	265 40 23.0	0.00	+0015 +004
576	3	+00000000	+00004450	+00004950	
577		00 00 00.0	94 19 22.0	106.15	+0015 +004
578		220 31 41.0	86 38 13.0	175.38	+0015 +004
579		40 31 46.0	273 21 32.0	0.00	+0015 +004
580		180 00 04.0	265 40 18.0	0.00	+0015 +004
581		00 00 00.0	94 19 26.0	106.15	+0015 +004
582		220 31 45.0	86 38 09.0	175.38	+0015 +004
583		40 31 42.0	273 21 27.0	0.00	+0015 +004
584		180 00 03.0	265 40 18.0	0.00	+0015 +004

Date: 12-01-92

Time: 10:15:23

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 =====
 ELECTRONIC DATA COLLECTION
 =====

Collection File: PV2.COL

Field Data Log

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
1		00 00 00.0	94 34 49.0	0.00	+0015 +004
2	-2-	+00000039	+00005100	+00000010	
3	31	+00000000	+00007250		
4		00 00 00.0	94 41 37.0	0.00	+0015 +004
5		119 47 31.0	87 50 27.0	59.59	+0015 +004
6		299 47 28.0	272 14 35.0	0.00	+0015 +004
7		179 59 55.0	265 46 18.0	0.00	+0015 +004
8	31	+00000000	+00006980		
9		00 00 00.0	94 27 35.0	0.00	+0015 +004
10		146 37 12.0	84 12 35.0	30.00	+0015 +004
11		326 37 11.0	275 55 51.0	0.00	+0015 +004
12		179 59 57.0	265 49 10.0	0.00	+0015 +004
13	31	+00000000	+00006670		
14		00 00 00.0	94 37 21.0	0.00	+0015 +004
15		175 35 14.0	76 36 03.0	51.35	+0015 +004
16		355 35 13.0	283 28 50.0	0.00	+0015 +004
17		180 00 03.0	265 44 25.0	0.00	+0015 +004
18	-2-	+00000040	+00005000	+00000039	
19	31	+00000000	+00004470		
20		00 00 00.0	93 30 52.0	175.41	+0015 +004
21		355 34 48.0	94 07 00.0	65.46	+0015 +004
22		175 34 53.0	265 52 24.0	0.00	+0015 +004
23		180 00 05.0	266 34 21.0	0.00	+0015 +004
24	31	+00000000	+00004640		
25		00 00 00.0	93 35 32.0	0.00	+0015 +004
26		353 42 42.0	94 02 59.0	57.24	+0015 +004
27		173 42 46.0	266 03 35.0	0.00	+0015 +004
28		180 00 07.0	266 37 15.0	0.00	+0015 +004
29		00 00 00.0	93 37 54.0	0.00	+0015 +004
30	31	+00000000	+00004410		
31		00 00 00.0	93 45 01.0	0.00	+0015 +004
32		242 36 53.0	94 20 51.0	12.43	+0015 +004
33		62 36 56.0	265 50 55.0	0.00	+0015 +004
34		180 00 06.0	266 34 21.0	0.00	+0015 +004
35	31	+00000000	+00004670		
36		00 00 00.0	93 42 41.0	0.00	+0015 +004
37		222 29 32.0	90 50 40.0	18.68	+0015 +004
38		42 29 35.0	269 16 56.0	0.00	+0015 +004
39		180 00 01.0	266 41 32.0	0.00	+0015 +004
40	31	+00000000	+00004760		

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
41		00 00 00.0	93 34 42.0	0.00	+0015 +004
42		196 29 28.0	87 36 39.0	0.00	+0015 +004
43		196 29 28.0	87 36 39.0	85.49	+0015 +004
44		16 29 27.0	272 28 05.0	0.00	+0015 +004
45		180 00 02.0	266 39 39.0	0.00	+0015 +004
46	31	+00000000	+00004530		
47		00 00 00.0	93 41 20.0	0.00	+0015 +004
48		195 36 53.0	87 43 41.0	90.30	+0015 +004
49		15 36 58.0	272 26 42.0	0.00	+0015 +004
50		180 00 02.0	266 37 46.0	0.00	+0015 +004
51	31	+00000000	+00004640		
52		00 00 00.0	93 35 40.0	0.00	+0015 +004
53		194 56 15.0	87 18 13.0	158.54	+0015 +004
54		14 56 17.0	272 52 20.0	0.00	+0015 +004
55		180 00 01.0	266 34 47.0	0.00	+0015 +004
56	31	+00000000	+00004670		
57		00 00 00.0	93 34 32.0	0.00	+0015 +004
58		195 00 41.0	87 15 49.0	165.75	+0015 +004
59		15 00 42.0	272 55 26.0	0.00	+0015 +004
60		180 00 03.0	266 31 03.0	0.00	+0015 +004
61	3	+00000041	+00005430	+00000000	
62		00 00 00.0	93 30 51.0	175.41	+0015 +004
63		47 47 08.0	79 57 05.0	55.48	+0015 +004
64		227 47 10.0	280 11 00.0	0.00	+0015 +004
65		180 00 04.0	266 31 16.0	0.00	+0015 +004
66		00 00 00.0	93 30 52.0	175.41	+0015 +004
67		47 47 08.0	79 57 03.0	55.48	+0015 +004
68		227 47 10.0	280 07 19.0	0.00	+0015 +004
69		180 00 03.0	266 35 20.0	0.00	+0015 +004
70	-2-	+00000255	+00005020	+00000040	
71	31	+00000000	+00006170		
72		00 00 00.0	92 54 03.0	0.00	+0015 +004
73		48 53 49.0	75 28 41.0	29.33	+0015 +004
74		228 53 49.0	284 41 36.0	0.00	+0015 +004
75		180 00 08.0	267 24 41.0	0.00	+0015 +004
76	-2-	+00000041	+00004850	+00000040	
77	31	+00000000	+00007500		
78		00 00 00.0	99 07 55.0	0.00	+0015 +004
79		325 55 44.0	88 38 25.0	243.88	+0015 +004
80		145 55 45.0	271 23 21.0	0.00	+0015 +004
81		180 00 04.0	261 12 52.0	0.00	+0015 +004
82	31	+00000000	+00007460		
83		00 00 00.0	99 03 02.0	0.00	+0015 +004
84		323 01 46.0	90 08 41.0	135.83	+0015 +004
85		143 01 51.0	269 55 15.0	0.00	+0015 +004
86		180 00 04.0	261 17 25.0	0.00	+0015 +004
87		00 00 00.0	98 53 37.0	0.00	+0015 +004
88		323 05 33.0	90 08 40.0	135.83	+0015 +004
89		143 05 45.0	269 52 34.0	0.00	+0015 +004
90		180 00 24.0	261 23 00.0	0.00	+0015 +004
91	31	+00000000	+00006750		
92		00 00 00.0	98 55 27.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
93		324 35 13.0	90 39 09.0	96.67	+0015 +004
94		144 35 18.0	269 26 43.0	0.00	+0015 +004
95		180 00 07.0	261 24 19.0	0.00	+0015 +004
96	31	+00000000	+00006930		
97		00 00 00.0	98 53 29.0	0.00	+0015 +004
98		318 59 06.0	96 56 54.0	42.45	+0015 +004
99		138 59 15.0	263 14 49.0	0.00	+0015 +004
100		180 00 05.0	261 26 27.0	0.00	+0015 +004
101	31	+00006580			
102		00 00 00.0	99 08 23.0	0.00	+0015 +004
103		144 02 29.0	94 13 11.0	16.74	+0015 +004
104		324 02 31.0	265 54 14.0	0.00	+0015 +004
105		180 00 05.0	261 06 13.0	0.00	+0015 +004
106	31	+00000000	+00006930		
107		00 00 00.0	99 07 53.0	0.00	+0015 +004
108		130 13 15.0	94 50 43.0	63.80	+0015 +004
109		310 13 17.0	265 16 12.0	0.00	+0015 +004
110		180 00 05.0	261 06 10.0	0.00	+0015 +004
111	3	+00000000	+00004750		
112		00 00 00.0	99 22 32.0	0.00	+0015 +004
113		00 00 00.0	99 00 44.0	55.32	+0015 +004
114		165 25 08.0	85 55 41.0	336.73	+0015 +004
115		345 25 12.0	274 11 14.0	0.00	+0015 +004
116		180 00 12.0	261 17 24.0	0.00	+0015 +004
117		00 00 00.0	99 00 49.0	55.32	+0015 +004
118		165 25 09.0	85 55 37.0	336.73	+0015 +004
119		345 25 09.0	274 11 04.0	0.00	+0015 +004
120		180 00 04.0	261 01 19.0	0.00	+0015 +004
121	-2-	+00000042	+00005100	+00000041	
122	3	+00000000	+00005250		
123		00 00 00.0	94 18 29.0	336.83	+0015 +004
124		246 00 24.0	85 38 36.0	363.85	+0015 +004
125		66 00 25.0	274 27 49.0	0.00	+0015 +004
126		180 00 00.0	265 45 17.0	0.00	+0015 +004
127		00 00 00.0	94 18 25.0	336.84	+0015 +004
128		246 00 24.0	85 37 57.0	363.86	+0015 +004
129		246 00 24.0	85 38 39.0	363.85	+0015 +004
130		66 00 24.0	274 30 33.0	0.00	+0015 +004
131		180 00 03.0	265 49 38.0	0.00	+0015 +004
132	-2-	+00000043	+00005020	+00000000	
133	-2-	+00000043	+00004860	+00000042	
134	3	+00000000	+00004740		
135		00 00 00.0	94 10 58.0	0.00	+0015 +004
136		00 00 00.0	94 10 58.0	363.77	+0015 +004
137		171 19 57.0	92 26 52.0	325.03	+0015 +004
138		351 20 03.0	267 36 11.0	0.00	+0015 +004
139		180 00 09.0	265 57 28.0	0.00	+0015 +004
140		00 00 00.0	94 10 55.0	363.77	+0015 +004
141		171 19 58.0	92 26 59.0	325.03	+0015 +004
142		351 20 02.0	267 40 21.0	0.00	+0015 +004
143		180 00 02.0	266 01 43.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
144	-2-	+00000044	+00005300	+00000043	
145	31	+00000000	+00004880		
146		00 00 00.0	87 37 48.0	325.01	+0015 +004
147		184 07 30.0	90 49 27.0	925.98	+0015 +004
148		4 07 30.0	269 21 00.0	0.00	+0015 +004
149		180 00 00.0	272 32 15.0	0.00	+0015 +004
150		00 00 00.0	87 37 54.0	325.01	+0015 +004
151	31	+00000000	+00005080		
152		00 00 00.0	87 37 43.0	325.01	+0015 +004
153		184 10 19.0	90 54 15.0	911.40	+0015 +004
154		4 10 19.0	269 15 32.0	0.00	+0015 +004
155		180 00 01.0	272 30 53.0	0.00	+0015 +004
156	3	+00000000	+00005710		
157		00 00 00.0	87 37 54.0	325.01	+0015 +004
158		184 15 53.0	89 47 57.0	1908.76	+0015 +004
159		4 15 51.0	270 21 11.0	0.00	+0015 +004
160		179 59 59.0	272 25 39.0	0.00	+0015 +004
161		00 00 00.0	87 37 55.0	325.00	+0015 +004
162		184 15 52.0	89 48 04.0	1908.76	+0015 +004
163		4 15 48.0	270 18 03.0	0.00	+0015 +004
164		179 59 59.0	272 32 46.0	0.00	+0015 +004
165	-2-	+00000045	+00004900	+00000044	
166	31	+00000000	+00005610		
167		00 00 00.0	90 15 27.0	0.00	+0015 +004
168		00 09 31.0	89 17 18.0	312.64	+0015 +004
169		180 09 31.0	270 47 34.0	0.00	+0015 +004
170		179 59 58.0	269 53 36.0	0.00	+0015 +004
171	31	+00000000	+00005460		
172		00 00 00.0	90 18 33.0	0.00	+0015 +004
173		00 22 17.0	89 15 47.0	303.97	+0015 +004
174		180 22 10.0	270 47 07.0	0.00	+0015 +004
175		179 59 58.0	269 58 58.0	0.00	+0015 +004
176	3	+00000000	+00005500		
177		00 00 00.0	90 09 34.0	1908.76	+0015 +004
178		180 42 12.0	101 00 07.0	245.78	+0015 +004
179		00 42 08.0	259 05 21.0	0.00	+0015 +004
180		179 59 55.0	270 01 29.0	0.00	+0015 +004
181		00 00 00.0	90 09 37.0	1908.76	+0015 +004
182		180 42 06.0	101 00 03.0	245.78	+0015 +004
183		00 42 09.0	259 03 29.0	0.00	+0015 +004
184		180 00 00.0	270 00 43.0	0.00	+0015 +004
185	-2-	+00000046	+00005230	+00000045	
186	31	+00000000	+00005050		
187		00 00 00.0	78 56 55.0	0.00	+0015 +004
188		274 48 57.0	86 09 14.0	361.17	+0015 +004
189		94 49 00.0	273 55 42.0	0.00	+0015 +004
190		180 00 00.0	281 29 43.0	0.00	+0015 +004
191	3	+00000000	+00004910		
192		00 00 00.0	78 45 50.0	245.98	+0015 +004
193		274 46 51.0	86 12 27.0	1021.84	+0015 +004
194		94 46 39.0	273 52 11.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
195		180 00 01.0	281 25 17.0	0.00	+0015 +004
196		00 00 00.0	78 45 55.0	245.98	+0015 +004
197		274 46 47.0	86 12 23.0	1021.84	+0015 +004
198		94 46 45.0	273 57 24.0	0.00	+0015 +004
199		180 00 00.0	281 27 18.0	0.00	+0015 +004
200	-2-	+00000047	+00005040	+00000046	
201	31	+00000000	+00005010		
202		00 00 00.0	93 59 09.0	0.00	+0015 +004
203		45 06 01.0	91 10 39.0	286.37	+0015 +004
204		225 06 00.0	268 53 12.0	0.00	+0015 +004
205		179 59 57.0	266 16 58.0	0.00	+0015 +004
206		00 00 00.0	93 59 02.0	0.00	+0015 +004
207		45 05 59.0	91 10 35.0	286.37	+0015 +004
208		225 05 58.0	268 59 44.0	0.00	+0015 +004
209	3	+00000000	+00004920		
210		00 00 00.0	93 49 22.0	1021.87	+0015 +004
211		180 40 58.0	88 17 33.0	663.41	+0015 +004
212		00 40 53.0	271 49 46.0	0.00	+0015 +004
213		179 59 55.0	266 19 54.0	0.00	+0015 +004
214		00 00 00.0	93 49 32.0	1021.87	+0015 +004
215		180 40 57.0	88 17 36.0	663.41	+0015 +004
216		00 40 56.0	271 54 53.0	0.00	+0015 +004
217		179 59 59.0	266 18 28.0	0.00	+0015 +004
218	-2-	+00000048	+00005020	+00000047	
219	31	+00000000	+00003940		
220		00 00 00.0	91 28 34.0	170.99	+0015 +004
221		265 14 11.0	91 27 59.0	170.99	+0015 +004
222		85 14 07.0	268 38 18.0	0.00	+0015 +004
223		180 00 01.0	268 25 25.0	0.00	+0015 +004
224		00 00 00.0	91 48 26.0	0.00	+0015 +004
225		265 14 11.0	91 28 18.0	170.99	+0015 +004
226		85 14 11.0	268 39 56.0	0.00	+0015 +004
227		180 00 00.0	268 21 25.0	0.00	+0015 +004
228	31	+00000000	+00003280		
229		00 00 00.0	89 11 06.0	804.24	+0015 +004
230		206 39 13.0	89 10 57.0	804.23	+0015 +004
231		26 39 11.0	270 54 10.0	0.00	+0015 +004
232		180 00 00.0	268 21 47.0	0.00	+0015 +004
233		00 00 00.0	91 53 58.0	0.00	+0015 +004
234		206 39 18.0	89 10 57.0	804.23	+0015 +004
235		26 39 14.0	270 54 55.0	0.00	+0015 +004
236		179 59 59.0	268 23 46.0	0.00	+0015 +004
237	3	+00000000	+00004760		
238		00 00 00.0	91 44 14.0	663.42	+0015 +004
239		210 33 49.0	88 07 38.0	1397.39	+0015 +004
240		30 33 48.0	271 57 51.0	0.00	+0015 +004
241		180 00 05.0	268 24 14.0	0.00	+0015 +004
242		00 00 00.0	91 44 10.0	663.42	+0015 +004
243		210 33 47.0	88 07 36.0	1397.39	+0015 +004
244		30 33 44.0	271 58 47.0	0.00	+0015 +004
245		179 59 58.0	268 22 39.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
246	-2-	+00000049	+00004930	+00000048	
247	31	+00000000	+00004590		
248		00 00 00.0	90 34 29.0	255.83	+0015 +004
249		228 52 16.0	90 34 31.0	255.83	+0015 +004
250		48 52 23.0	269 31 20.0	0.00	+0015 +004
251		180 00 09.0	268 15 39.0	0.00	+0015 +004
252		00 00 00.0	91 57 27.0	0.00	+0015 +004
253		228 52 16.0	90 34 32.0	255.83	+0015 +004
254		48 52 21.0	269 31 45.0	0.00	+0015 +004
255		180 00 08.0	268 20 47.0	0.00	+0015 +004
256	3	+00000000	+00004710		
257		00 00 00.0	91 52 00.0	1397.39	+0015 +004
258		150 17 52.0	87 49 41.0	270.39	+0015 +004
259		330 17 57.0	272 14 58.0	0.00	+0015 +004
260		180 00 09.0	268 10 03.0	0.00	+0015 +004
261		00 00 00.0	91 52 07.0	1397.39	+0015 +004
262		150 17 50.0	87 49 39.0	270.39	+0015 +004
263		330 17 49.0	272 18 50.0	0.00	+0015 +004
264		180 00 04.0	268 17 27.0	0.00	+0015 +004
265	-2-	+00000050	+00005060	+00000049	
266	3	+00000019	+00005030		
267		00 00 00.0	92 13 10.0	270.40	+0015 +004
268		146 07 41.0	90 12 44.0	454.85	+0015 +004
269		326 07 51.0	270 00 12.0	0.00	+0015 +004
270		180 00 08.0	267 51 34.0	0.00	+0015 +004
271		00 00 00.0	92 13 11.0	270.40	+0015 +004
272		146 07 46.0	90 12 43.0	454.85	+0015 +004
273		326 07 48.0	269 52 23.0	0.00	+0015 +004
274		180 00 04.0	267 49 11.0	0.00	+0015 +004
275	4	+00000019	+00000000		

Date: 12-01-92
 Time: 11:06:14
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ELECTRONIC DATA COLLECTION

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Collection File: PV3.COL
 Field Data Log

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
1	1	+00000026			
2	-2-	+00000026	+00004960	+00000028	
3	31	+00000301	+00004430		
4		00 00 00.0	91 59 27.0	0.00	+0015 +004
5		144 32 32.0	86 39 02.0	442.34	+0015 +004
6		324 32 31.0	273 21 02.0	442.34	+0015 +004
7		180 00 00.0	268 04 01.0	0.00	+0015 +004
8		00 00 00.0	91 56 50.0	0.00	+0015 +004
9		144 32 29.0	86 39 03.0	442.34	+0015 +004
10		324 32 24.0	273 20 56.0	442.34	+0015 +004
11		179 59 56.0	268 06 14.0	0.00	+0015 +004
12	-2-	+00000301	+00005100	+00000026	
13	31	+00000000	+00004550		
14		00 00 00.0	93 29 00.0	0.00	+0015 +004
15		194 07 27.0	86 14 17.0	462.43	+0015 +004
16		14 07 29.0	273 45 35.0	462.43	+0015 +004
17		179 59 56.0	266 39 16.0	0.00	+0015 +004
18		00 00 00.0	93 28 25.0	0.00	+0015 +004
19		194 07 32.0	86 14 17.0	462.43	+0015 +004
20		14 07 30.0	273 45 39.0	462.43	+0015 +004
21		179 59 59.0	266 38 09.0	0.00	+0015 +004
22	-2-	+00000021	+00005050	+00000022	
23	31	+00000000	+00005180		
24		00 00 00.0	92 56 26.0	0.00	+0015 +004
25		100 05 12.0	90 20 33.0	538.19	+0015 +004
26		280 05 08.0	269 39 26.0	538.19	+0015 +004
27		179 59 56.0	267 03 57.0	0.00	+0015 +004
28		00 00 00.0	93 01 46.0	0.00	+0015 +004
29		100 05 14.0	90 20 29.0	538.19	+0015 +004
30		280 05 13.0	269 39 26.0	538.19	+0015 +004
31		180 00 00.0	267 08 20.0	0.00	+0015 +004
32	31	+00000000	+00005050		
33		00 00 00.0	92 58 13.0	0.00	+0015 +004
34		281 04 30.0	89 25 08.0	497.17	+0015 +004
35		101 04 28.0	270 35 06.0	497.17	+0015 +004
36		179 59 55.0	267 03 11.0	0.00	+0015 +004
37		00 00 00.0	93 02 52.0	0.00	+0015 +004
38		281 04 31.0	89 25 06.0	497.16	+0015 +004
39		101 04 25.0	270 35 03.0	497.16	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
40		179 59 56.0	267 04 07.0	0.00	+0015 +004
41	-2-	+00000303	+00005230	+00000021	
42	31	+00000000	+00004430		
43		00 00 00.0	89 42 13.0	0.00	+0015 +004
44		98 32 13.0	92 50 54.0	177.64	+0015 +004
45		278 32 11.0	267 09 17.0	177.64	+0015 +004
46		179 59 51.0	270 24 20.0	0.00	+0015 +004
47		00 00 00.0	89 48 11.0	0.00	+0015 +004
48		98 32 14.0	92 50 59.0	177.64	+0015 +004
49		278 32 06.0	267 09 12.0	177.64	+0015 +004
50		180 00 08.0	270 28 35.0	0.00	+0015 +004
51	-2-	+00000305	+00004670	+00000303	
52	31	+00000000	+00004670		
53		00 00 00.0	87 04 54.0	0.00	+0015 +004
54		141 19 07.0	95 44 19.0	376.40	+0015 +004
55		321 19 06.0	264 15 57.0	376.40	+0015 +004
56		179 59 51.0	272 46 46.0	0.00	+0015 +004
57		00 00 00.0	87 19 49.0	0.00	+0015 +004
58		141 19 04.0	95 44 20.0	376.40	+0015 +004
59		321 18 56.0	264 15 59.0	0.00	+0015 +004
60		179 59 58.0	272 44 27.0	0.00	+0015 +004
61	-2-	+00000304	+00005120	+00000021	
62	31	+00000000	+00005150		
63		00 00 00.0	90 35 06.0	0.00	+0015 +004
64		96 45 35.0	84 01 21.0	344.90	+0015 +004
65		276 45 26.0	275 58 52.0	344.90	+0015 +004
66		179 59 50.0	269 24 11.0	0.00	+0015 +004
67		00 00 00.0	90 39 57.0	0.00	+0015 +004
68		96 45 41.0	84 01 25.0	344.90	+0015 +004
69		276 45 31.0	275 59 07.0	344.90	+0015 +004
70		179 59 52.0	269 25 56.0	0.00	+0015 +004
71	-2-	+00000307	+00005250	+00000304	
72	31	+00000000	+00005000		
73		00 00 00.0	96 03 04.0	0.00	+0015 +004
74		122 10 06.0	90 05 04.0	95.69	+0015 +004
75		302 09 48.0	269 55 23.0	95.69	+0015 +004
76		179 59 55.0	263 57 28.0	0.00	+0015 +004
77		00 00 00.0	96 00 04.0	0.00	+0015 +004
78		122 10 02.0	90 04 57.0	95.69	+0015 +004
79		302 09 41.0	269 55 25.0	95.69	+0015 +004
80		179 59 56.0	264 00 52.0	0.00	+0015 +004
81	-2-	+00000018	+00005250	+00000016	
82	31	+00000000	+00002780		
83		00 00 00.0	89 18 18.0	0.00	+0015 +004
84		164 28 58.0	91 10 39.0	301.96	+0015 +004
85		344 28 58.0	268 49 18.0	301.96	+0015 +004
86		180 00 05.0	270 45 10.0	0.00	+0015 +004
87		00 00 00.0	89 15 44.0	0.00	+0015 +004
88		164 28 59.0	91 10 36.0	301.96	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
89		344 29 01.0	268 49 12.0	301.96	+0015 +004
90		180 00 02.0	270 52 06.0	0.00	+0015 +004
91	-2-	+00000309	+00004630	+00000018	
92	31	+00000000	+00004850		
93		00 00 00.0	90 11 38.0	0.00	+0015 +004
94		127 24 51.0	93 22 45.0	456.22	+0015 +004
95		307 24 58.0	266 37 15.0	456.22	+0015 +004
96		180 00 04.0	269 54 17.0	0.00	+0015 +004
97		8 00 00.0	90 11 30.0	0.00	+0015 +004
98		00 00 00.0	90 11 31.0	0.00	+0015 +004
99		127 24 55.0	93 22 47.0	456.22	+0015 +004
100		307 24 53.0	266 37 10.0	456.22	+0015 +004
101		180 00 01.0	269 55 42.0	0.00	+0015 +004
102	-2-	+00000015	+00005260	+00000016	
103	31	+00000000	+00005230		
104		00 00 00.0	89 35 03.0	0.00	+0015 +004
105		162 37 04.0	86 54 06.0	278.22	+0015 +004
106		342 37 03.0	273 05 52.0	278.22	+0015 +004
107		180 00 00.0	270 27 19.0	0.00	+0015 +004
108		00 00 00.0	89 38 59.0	0.00	+0015 +004
109		162 36 59.0	86 53 57.0	278.22	+0015 +004
110		342 37 00.0	273 05 49.0	278.22	+0015 +004
111		180 00 01.0	270 26 31.0	0.00	+0015 +004
112	-2-	+00000311	+00004960	+00000015	
113	31	+00000000	+00009220		
114		00 00 00.0	92 54 21.0	0.00	+0015 +004
115		181 26 21.0	87 50 35.0	725.11	+0015 +004
116		1 26 20.0	272 09 29.0	725.11	+0015 +004
117		180 00 02.0	267 16 29.0	0.00	+0015 +004
118		00 00 00.0	92 41 24.0	0.00	+0015 +004
119		181 26 23.0	87 50 35.0	725.11	+0015 +004
120		1 26 27.0	272 09 32.0	725.11	+0015 +004
121		180 00 02.0	267 13 12.0	0.00	+0015 +004
122	-2-	+00000013	+00005080	+00000014	
123	31	+00000000	+00004840		
124		00 00 00.0	94 32 40.0	0.00	+0015 +004
125		153 40 05.0	88 47 58.0	118.23	+0015 +004
126		333 39 56.0	271 12 11.0	118.23	+0015 +004
127		179 59 55.0	265 29 21.0	0.00	+0015 +004
128		00 00 00.0	94 38 29.0	0.00	+0015 +004
129		153 40 05.0	88 48 01.0	118.23	+0015 +004
130		333 39 59.0	271 12 07.0	118.23	+0015 +004
131		179 59 55.0	265 14 13.0	0.00	+0015 +004
132	-2-	+00000313	+00005070	+00000013	
133	31	+00000000	+00004880		
134		00 00 00.0	91 18 07.0	0.00	+0015 +004
135		00 00 00.0	91 18 07.0	0.00	+0015 +004
136		233 58 46.0	88 07 54.0	282.56	+0015 +004
137		53 58 46.0	271 52 16.0	282.56	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
138		180 00 03.0	268 23 36.0	0.00	+0015 +004
139		00 00 00.0	91 18 03.0	0.00	+0015 +004
140		233 58 47.0	88 07 55.0	282.56	+0015 +004
141		53 58 37.0	271 52 16.0	282.56	+0015 +004
142		180 00 00.0	268 25 02.0	0.00	+0015 +004
143	-2-	+00000314	+00004850	+00000313	
144	31	+00000000	+00002630		
145		00 00 00.0	91 49 00.0	0.00	+0015 +004
146		184 13 45.0	88 15 48.0	288.91	+0015 +004
147		4 13 50.0	271 44 07.0	288.91	+0015 +004
148		180 00 00.0	268 30 20.0	0.00	+0015 +004
149		00 00 00.0	91 54 30.0	0.00	+0015 +004
150		184 13 44.0	88 16 02.0	288.91	+0015 +004
151		4 13 49.0	271 44 10.0	288.91	+0015 +004
152		180 00 02.0	268 13 58.0	0.00	+0015 +004
153	-2-	+00000014	+00004880	+00000013	
154	31	+00000000	+00004580		
155		00 00 00.0	85 28 59.0	0.00	+0015 +004
156		81 29 18.0	87 48 57.0	889.00	+0015 +004
157		261 29 24.0	272 11 06.0	889.00	+0015 +004
158		179 59 58.0	274 41 01.0	0.00	+0015 +004
159		00 00 00.0	85 21 32.0	0.00	+0015 +004
160		81 29 21.0	87 48 56.0	889.00	+0015 +004
161		261 29 18.0	272 11 05.0	0.00	+0015 +004
162		180 00 01.0	274 53 00.0	0.00	+0015 +004
163	-2-	+00000012	+00005220	+00000013	
164	31	+00000000	+00004970		
165		00 00 00.0	90 20 18.0	0.00	+0015 +004
166		39 56 05.0	89 23 06.0	1756.66	+0015 +004
167		219 56 00.0	270 37 03.0	1756.66	+0015 +004
168		179 59 54.0	269 37 41.0	0.00	+0015 +004
169		00 00 00.0	90 22 35.0	0.00	+0015 +004
170		39 56 09.0	89 23 06.0	1756.66	+0015 +004
171		219 56 04.0	270 36 58.0	1756.66	+0015 +004
172		180 00 01.0	269 38 55.0	0.00	+0015 +004
173	-2-	+00000316	+00005100	+00000014	
174	31	+00000000	+00004890		
175		00 00 00.0	92 10 51.0	0.00	+0015 +004
176		199 26 06.0	88 03 36.0	281.45	+0015 +004
177		19 26 04.0	271 56 22.0	281.45	+0015 +004
178		180 00 03.0	267 48 15.0	0.00	+0015 +004
179		00 00 00.0	92 18 13.0	0.00	+0015 +004
180		199 26 03.0	88 03 45.0	281.45	+0015 +004
181		19 26 00.0	271 56 23.0	281.45	+0015 +004
182		180 00 02.0	267 47 06.0	0.00	+0015 +004
183	-2-	+00000318	+00005220	+00000316	
184	31	+00000000	+00005020		
185		00 00 00.0	93 09 09.0	0.00	+0015 +004
186		138 04 04.0	87 59 19.0	349.46	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
187		318 03 53.0	272 01 04.0	349.46	+0015 +004
188		179 59 59.0	267 19 09.0	0.00	+0015 +004
189		00 00 00.0	92 48 36.0	0.00	+0015 +004
190		138 03 58.0	87 59 26.0	349.46	+0015 +004
191		318 03 54.0	272 01 02.0	349.46	+0015 +004
192		180 00 01.0	267 17 48.0	0.00	+0015 +004
193	-2-	+00000317	+00004880	+00000012	
194	31	+00000000	+00005300		
195		00 00 00.0	90 40 00.0	0.00	+0015 +004
196		104 29 28.0	86 24 08.0	225.05	+0015 +004
197		284 29 16.0	273 36 19.0	225.05	+0015 +004
198		179 59 52.0	269 25 24.0	0.00	+0015 +004
199		00 00 00.0	90 37 50.0	0.00	+0015 +004
200		104 29 25.0	86 24 07.0	225.05	+0015 +004
201		284 29 13.0	273 36 14.0	225.05	+0015 +004
202		179 59 50.0	269 24 52.0	0.00	+0015 +004
203	31	+00000000	+00005300		
204		00 00 00.0	90 40 20.0	0.00	+0015 +004
205		103 02 19.0	86 29 32.0	285.20	+0015 +004
206		283 02 00.0	273 30 50.0	285.20	+0015 +004
207		179 59 49.0	269 22 27.0	0.00	+0015 +004
208		00 00 00.0	90 36 48.0	0.00	+0015 +004
209		103 02 16.0	86 29 33.0	285.20	+0015 +004
210		283 01 58.0	273 30 54.0	285.20	+0015 +004
211		179 59 45.0	269 25 27.0	0.00	+0015 +004
212	31	+00000000	+00005100		
213		00 00 00.0	90 38 55.0	0.00	+0015 +004
214		272 32 31.0	96 49 50.0	1222.24	+0015 +004
215		92 32 22.0	263 10 38.0	1222.24	+0015 +004
216		179 59 45.0	269 23 06.0	0.00	+0015 +004
217		00 00 00.0	90 46 08.0	0.00	+0015 +004
218		272 32 35.0	96 49 47.0	1222.24	+0015 +004
219		92 32 26.0	263 10 38.0	1222.24	+0015 +004
220		179 59 51.0	269 26 42.0	0.00	+0015 +004
221	31	+00000000	+00005360		
222		00 00 00.0	90 39 03.0	0.00	+0015 +004
223		281 11 58.0	93 39 43.0	1673.36	+0015 +004
224		101 11 46.0	266 20 58.0	1673.36	+0015 +004
225		179 59 58.0	269 25 28.0	0.00	+0015 +004
226		00 00 00.0	90 39 13.0	0.00	+0015 +004
227		281 12 06.0	93 39 37.0	1673.36	+0015 +004
228		101 11 56.0	266 21 04.0	1673.36	+0015 +004
229		180 00 02.0	269 26 23.0	0.00	+0015 +004
230	31	+00000000	+00005390		
231		00 00 00.0	90 40 00.0	0.00	+0015 +004
232		276 36 18.0	92 14 46.0	3126.37	+0015 +004
233		96 36 10.0	267 45 45.0	3126.36	+0015 +004
234		179 59 50.0	269 25 40.0	0.00	+0015 +004
235		00 00 00.0	90 40 26.0	0.00	+0015 +004
236		276 36 32.0	92 14 32.0	3126.36	+0015 +004
237		96 36 18.0	267 45 43.0	3126.37	+0015 +004
238		179 59 52.0	269 25 50.0	0.00	+0015 +004
239	31	+00000000	+00005240		

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offsets
240		359 59 58.0	90 42 29.0	0.00	+0015 +004
241		256 32 37.0	94 34 56.0	2702.91	+0015 +004
242		76 32 35.0	265 25 44.0	2702.91	+0015 +004
243		179 59 56.0	269 26 55.0	0.00	+0015 +004
244		00 00 00.0	90 44 37.0	0.00	+0015 +004
245		256 32 40.0	94 34 57.0	2702.91	+0015 +004
246		76 32 34.0	265 25 47.0	2702.91	+0015 +004
247		179 59 52.0	269 28 23.0	0.00	+0015 +004
248	31	+00000000	+00005900		
249		00 00 00.0	90 41 17.0	0.00	+0015 +004
250		271 17 29.0	91 26 43.0	4822.66	+0015 +004
251		91 17 16.0	268 33 53.0	4822.66	+0015 +004
252		179 59 57.0	269 29 01.0	0.00	+0015 +004
253		00 00 00.0	90 42 30.0	0.00	+0015 +004
254		271 17 31.0	91 26 37.0	4822.66	+0015 +004
255		91 17 14.0	268 34 01.0	4822.66	+0015 +004
256		179 59 53.0	269 26 55.0	0.00	+0015 +004
257	-2-	+00000325	+00004940	+00000317	
258	31	+00000000	+00005300		
259		00 00 00.0	85 30 34.0	0.00	+0015 +004
260		194 15 29.0	89 56 03.0	605.33	+0015 +004
261		14 15 30.0	270 03 45.0	605.33	+0015 +004
262		180 00 05.0	274 34 57.0	0.00	+0015 +004
263		00 00 00.0	85 32 37.0	0.00	+0015 +004
264		194 15 34.0	89 55 57.0	605.33	+0015 +004
265		14 15 29.0	270 03 47.0	605.33	+0015 +004
266		179 59 59.0	274 32 27.0	0.00	+0015 +004
267	-2-	+00000322	+00005180	+00000317	
268	31	+00000000	+00004740		
269	-2-	+00000324	+00005400	+00000317	
270	31	+00000000	+00005280		
271		00 00 00.0	87 52 54.0	0.00	+0015 +004
272		353 26 36.0	91 44 28.0	472.12	+0015 +004
273		173 26 32.0	268 15 18.0	472.11	+0015 +004
274		179 59 58.0	272 12 11.0	0.00	+0015 +004
275		00 00 00.0	87 58 06.0	0.00	+0015 +004
276		353 26 37.0	91 44 29.0	472.12	+0015 +004
277		173 26 33.0	268 15 24.0	472.11	+0015 +004
278		179 59 56.0	272 12 48.0	0.00	+0015 +004
279	31	+00000000	+00004860		
280		00 00 00.0	87 55 21.0	0.00	+0015 +004
281		249 13 12.0	85 53 06.0	216.15	+0015 +004
282		69 13 11.0	274 06 39.0	216.15	+0015 +004
283		179 59 53.0	272 20 23.0	0.00	+0015 +004
284		00 00 00.0	87 52 37.0	0.00	+0015 +004
285		249 13 10.0	85 53 26.0	216.15	+0015 +004
286		69 13 11.0	274 06 41.0	216.15	+0015 +004
287		179 59 52.0	272 11 24.0	0.00	+0015 +004
288	-2-	+00000011	+00005220	+00000010	
289	31	+00000000	+00004750		

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
290		00 00 00.0	93 49 04.0	0.00	+0015 +004
291		318 40 33.0	93 32 15.0	67.31	+0015 +004
292		138 40 26.0	266 27 40.0	67.31	+0015 +004
293		179 59 53.0	266 20 49.0	0.00	+0015 +004
294		00 00 00.0	93 50 44.0	0.00	+0015 +004
295		318 40 35.0	93 32 15.0	67.31	+0015 +004
296		138 40 32.0	266 27 37.0	67.31	+0015 +004
297		179 59 53.0	266 19 32.0	0.00	+0015 +004
298	-2-	+00000325	+00005090	+00000317	
299	31	+00000000	+00005220		
300		00 00 00.0	85 33 21.0	0.00	+0015 +004
301		30 16 32.0	91 43 42.0	509.13	+0015 +004
302		210 16 25.0	268 16 10.0	509.13	+0015 +004
303		179 59 53.0	274 31 43.0	0.00	+0015 +004
304		00 00 00.0	85 39 42.0	0.00	+0015 +004
305		30 16 36.0	91 43 45.0	509.13	+0015 +004
306		210 16 28.0	268 16 16.0	509.13	+0015 +004
307		179 59 58.0	274 38 58.0	0.00	+0015 +004
308	-2-	+00000009	+00005200	+00000010	
309	31	+00000000	+00005000		
310		00 00 00.0	86 47 40.0	0.00	+0015 +004
311		141 26 11.0	92 34 01.0	692.66	+0015 +004
312		321 26 07.0	267 26 09.0	692.68	+0015 +004
313		179 59 59.0	273 14 08.0	0.00	+0015 +004
314		00 00 00.0	86 47 20.0	0.00	+0015 +004
315		141 26 04.0	92 34 08.0	692.64	+0015 +004
316		321 26 07.0	267 26 00.0	692.63	+0015 +004
317		180 00 03.0	273 18 15.0	0.00	+0015 +004
318	-2-	+00000008	+00005250	+00000009	
319	31	+00000000	+00005000		
320		00 00 00.0	88 46 17.0	0.00	+0015 +004
321		220 30 32.0	90 49 07.0	774.07	+0015 +004
322		40 30 29.0	269 10 54.0	774.06	+0015 +004
323		179 59 53.0	271 20 17.0	0.00	+0015 +004
324		00 00 00.0	88 47 30.0	0.00	+0015 +004
325		220 30 36.0	90 49 00.0	774.06	+0015 +004
326		40 30 37.0	269 10 58.0	774.04	+0015 +004
327		179 59 58.0	271 19 59.0	0.00	+0015 +004
328	-2-	+00000322	+00005170	+00000317	
329	31	+00000000	+00004870		
330		00 00 00.0	83 12 02.0	0.00	+0015 +004
331		296 58 31.0	86 43 25.0	50.27	+0015 +004
332		116 58 17.0	273 16 43.0	50.27	+0015 +004
333		179 59 58.0	276 49 04.0	0.00	+0015 +004
334		00 00 00.0	83 11 06.0	0.00	+0015 +004
335		296 58 26.0	86 43 19.0	50.27	+0015 +004
336		116 58 36.0	273 16 39.0	50.27	+0015 +004
337		179 59 53.0	276 50 25.0	0.00	+0015 +004
338	-2-	+00000032	+00005300	+00000033	

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
339	31	+00000000	+00004240		
340		00 00 00.0	91 29 33.0	0.00	+0015 +004
341		26 02 21.0	89 38 20.0	348.50	+0015 +004
342		206 02 06.0	270 21 33.0	348.50	+0015 +004
343		179 59 49.0	268 41 10.0	0.00	+0015 +004
344		00 00 00.0	91 25 43.0	0.00	+0015 +004
345		26 02 14.0	89 38 27.0	348.50	+0015 +004
346		206 02 05.0	270 21 37.0	348.50	+0015 +004
347		179 59 48.0	268 40 10.0	0.00	+0015 +004
348	-2-	+00000034	+00005130	+00000033	
349	31	+00000000	+00005010		
350		00 00 00.0	87 34 05.0	0.00	+0015 +004
351		108 15 15.0	90 31 52.0	214.87	+0015 +004
352		288 15 08.0	269 28 24.0	214.87	+0015 +004
353		179 59 52.0	272 26 07.0	0.00	+0015 +004
354		00 00 00.0	87 30 35.0	0.00	+0015 +004
355		108 15 09.0	90 31 52.0	214.87	+0015 +004
356		288 14 59.0	269 28 26.0	214.87	+0015 +004
357		179 59 51.0	272 27 48.0	0.00	+0015 +004
358	-2-	+00000336	+00004930	+00000034	
359	31	+00000000	+00004750		
360		00 00 00.0	89 19 57.0	0.00	+0015 +004
361		78 53 02.0	88 53 08.0	477.20	+0015 +004
362		258 52 54.0	271 07 11.0	477.20	+0015 +004
363		179 59 49.0	270 33 47.0	0.00	+0015 +004
364		359 59 56.0	89 20 08.0	0.00	+0015 +004
365		78 53 12.0	88 53 10.0	477.20	+0015 +004
366		258 52 55.0	271 07 18.0	477.20	+0015 +004
367		179 59 54.0	270 37 57.0	0.00	+0015 +004
368	-2-	+00000337	+00004940	+00000336	
369	31	+00000000	+00004830		
370		00 00 00.0	91 07 43.0	0.00	+0015 +004
371		214 37 09.0	88 55 02.0	306.49	+0015 +004
372		34 37 07.0	271 05 28.0	306.49	+0015 +004
373		179 59 50.0	269 19 33.0	0.00	+0015 +004
374		00 00 00.0	91 07 25.0	0.00	+0015 +004
375		214 37 14.0	88 55 03.0	306.49	+0015 +004
376		34 37 05.0	271 05 27.0	306.49	+0015 +004
377		179 59 50.0	269 18 55.0	0.00	+0015 +004
378	-2-	+00000031	+00005070	+00000032	
379	31	+00000000	+00008030		
380		00 00 00.0	90 03 55.0	423.57	+0015 +004
381		269 48 44.0	90 04 42.0	422.93	+0015 +004
382		89 48 02.0	269 54 36.0	422.95	+0015 +004
383		179 59 59.0	266 40 52.0	0.00	+0015 +004
384		359 59 59.0	93 29 20.0	0.00	+0015 +004
385		269 48 34.0	90 04 48.0	422.98	+0015 +004
386		89 48 24.0	269 54 32.0	423.03	+0015 +004
387		179 59 57.0	266 44 42.0	0.00	+0015 +004

Date: 12-01-92
 Time: 11:07:27
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ELECTRONIC DATA COLLECTION

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Collection File: PV4.COL
 Field Data Log

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
1	1	+00000011	+00000000	+00000010	+00000000
2	-2-	+00000011	+00000540	+00000010	
3	3	+00000401	+00000472		
4		00 00 00.0	93 48 55.0	0.00	+0015 +004
5		167 52 28.0	86 53 44.0	163.11	+0015 +004
6		347 52 31.0	273 05 56.0	163.11	+0015 +004
7		180 00 04.0	266 14 53.0	0.00	+0015 +004
8		00 00 00.0	93 47 45.0	0.00	+0015 +004
9		167 52 28.0	86 53 35.0	163.11	+0015 +004
10		347 52 28.0	273 05 50.0	163.11	+0015 +004
11		180 00 01.0	266 14 28.0	0.00	+0015 +004
12	-2-	+00000401	+00000496	+00000011	
13	3	+00000402	+00000535		
14		00 00 00.0	93 17 56.0	0.00	+0015 +004
15		275 56 10.0	83 04 17.0	270.85	+0015 +004
16		95 56 08.0	276 55 33.0	270.85	+0015 +004
17		179 59 58.0	266 44 03.0	0.00	+0015 +004
18		00 00 00.0	93 16 34.0	0.00	+0015 +004
19		275 56 15.0	83 04 17.0	270.86	+0015 +004
20		95 56 12.0	276 55 29.0	270.86	+0015 +004
21		179 59 59.0	266 46 41.0	0.00	+0015 +004
22	-2-	+00000402	+00000531	+00000401	
23	3	+00000403	+00000524		
24		00 00 00.0	96 52 40.0	0.00	+0015 +004
25		215 18 57.0	90 07 39.0	523.51	+0015 +004
26		35 19 00.0	269 52 13.0	523.51	+0015 +004
27		180 00 00.0	263 05 02.0	0.00	+0015 +004
28		00 00 00.0	96 52 49.0	0.00	+0015 +004
29		215 18 57.0	90 07 38.0	523.51	+0015 +004
30		35 18 58.0	269 52 05.0	523.51	+0015 +004
31		180 00 01.0	263 06 31.0	0.00	+0015 +004
32	-2-	+00000403	+00000534	+00000402	
33	3	+00000404	+00000517	+00000000	
34		00 00 00.0	89 53 39.0	0.00	+0015 +004
35		205 29 57.0	95 19 10.0	169.20	+0015 +004
36		25 29 54.0	264 40 31.0	169.20	+0015 +004
37		179 59 56.0	270 04 35.0	0.00	+0015 +004
38		00 00 00.0	89 54 48.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
39		205 29 51.0	95 19 09.0	169.20	+0015 +004
40		25 29 52.0	264 40 22.0	169.20	+0015 +004
41		179 59 58.0	270 04 38.0	0.00	+0015 +004
42	-2-	+00000404	+00000512	+00000403	
43	3	+00000405	+00000534	+00000000	+00000000
44		00 00 00.0	84 45 31.0	0.00	+0015 +004
45		72 41 34.0	95 30 49.0	669.44	+0015 +004
46		252 41 35.0	264 29 21.0	669.44	+0015 +004
47		180 00 04.0	275 18 08.0	0.00	+0015 +004
48		00 00 00.0	84 44 05.0	0.00	+0015 +004
49		72 41 37.0	95 30 46.0	669.44	+0015 +004
50		252 41 34.0	264 29 15.0	669.44	+0015 +004
51		180 00 01.0	275 20 48.0	0.00	+0015 +004
52	-2-	+00000405	+00000519	+00000403	
53	3	+00000406	+00000484	+00000000	
54		359 59 59.0	84 30 03.0	0.00	+0015 +004
55		354 59 51.0	86 18 22.0	537.40	+0015 +004
56		174 59 46.0	273 41 57.0	537.40	+0015 +004
57		179 59 54.0	275 40 05.0	0.00	+0015 +004
58		00 00 00.0	84 25 26.0	0.00	+0015 +004
59		354 59 50.0	86 18 21.0	537.40	+0015 +004
60		174 59 52.0	273 41 45.0	537.40	+0015 +004
61		180 00 00.0	275 35 51.0	0.00	+0015 +004
62	-2-	+00000406	+00000522	+00000405	
63	3	+00000407	+00000480		
64		00 00 00.0	93 47 28.0	0.00	+0015 +004
65		44 38 59.0	94 00 01.0	846.92	+0015 +004
66		224 38 58.0	266 00 10.0	846.92	+0015 +004
67		179 59 58.0	266 13 46.0	0.00	+0015 +004
68		00 00 00.0	93 46 06.0	0.00	+0015 +004
69		44 39 00.0	94 00 04.0	846.92	+0015 +004
70		224 38 57.0	266 00 04.0	846.92	+0015 +004
71		179 59 59.0	266 19 00.0	0.00	+0015 +004
72	-2-	+00000407	+00000502	+00000406	
73	3	+00000408	+00000531	+00000000	
74		00 00 00.0	86 07 44.0	0.00	+0015 +004
75		5 20 41.0	88 20 59.0	461.00	+0015 +004
76		185 20 44.0	271 38 53.0	461.00	+0015 +004
77		179 59 59.0	273 59 05.0	0.00	+0015 +004
78		00 00 00.0	86 04 34.0	0.00	+0015 +004
79		5 20 42.0	88 21 04.0	461.00	+0015 +004
80		185 20 39.0	271 38 57.0	461.00	+0015 +004
81		179 59 58.0	273 57 58.0	0.00	+0015 +004
82	-2-	+00000408	+00000515	+00000407	
83	3	+00000409	+00000557	+00000000	
84		00 00 00.0	91 39 43.0	0.00	+0015 +004
85		116 54 01.0	92 08 39.0	337.04	+0015 +004
86		296 54 02.0	267 51 14.0	337.04	+0015 +004
87		179 59 54.0	268 20 40.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
88		00 00 00.0	91 39 26.0	0.00	+0015 +004
89		116 54 02.0	92 08 36.0	337.04	+0015 +004
90		296 54 01.0	267 51 22.0	337.04	+0015 +004
91		179 59 55.0	268 20 01.0	0.00	+0015 +004

92	-2-	+00000409	+00000532	+00000408	
93	3	+00000410	+00000479		
94		00 00 00.0	87 55 40.0	0.00	+0015 +004
95		278 11 12.0	78 39 29.0	471.16	+0015 +004
96		98 11 10.0	281 20 39.0	471.16	+0015 +004
97		179 59 53.0	272 06 01.0	0.00	+0015 +004
98		00 00 00.0	87 55 28.0	0.00	+0015 +004
99		278 11 12.0	78 39 20.0	471.16	+0015 +004
100		98 11 09.0	281 20 44.0	471.16	+0015 +004
101		180 00 00.0	272 09 20.0	0.00	+0015 +004

102	-2-	+00000410	+00000504	+00000409	
103	3	+00000411	+00000433		
104		00 00 00.0	101 26 44.0	0.00	+0015 +004
105		60 49 17.0	89 37 05.0	1145.15	+0015 +004
106		240 49 05.0	270 22 57.0	1145.14	+0015 +004
107		179 59 59.0	258 34 03.0	0.00	+0015 +004
108		00 00 00.0	101 26 35.0	0.00	+0015 +004
109		60 49 10.0	89 37 04.0	1145.14	+0015 +004
110		240 49 13.0	270 23 00.0	1145.14	+0015 +004
111		179 59 58.0	258 32 53.0	0.00	+0015 +004

112	-2-	+00000411	+00000486	+00000410	
113	3	+00000412	+00000535		
114		00 00 00.0	90 29 51.0	0.00	+0015 +004
115		266 42 13.0	98 57 33.0	798.90	+0015 +004
116		86 42 10.0	261 02 34.0	798.90	+0015 +004
117		179 59 57.0	269 31 34.0	0.00	+0015 +004
118		00 00 01.0	90 30 23.0	0.00	+0015 +004
119		266 42 13.0	98 57 37.0	798.90	+0015 +004
120		86 42 11.0	261 02 43.0	798.90	+0015 +004
121		179 59 58.0	269 33 20.0	0.00	+0015 +004
122	4	+00000010			
123	1	+00000264	+00000000	+00000044	+00000000

124	-2-	+00000264	+00000554	+00000044	
125	3	+00000413	+00000521		
126		00 00 00.0	89 07 31.0	0.00	+0015 +004
127		180 21 48.0	87 43 26.0	577.11	+0015 +004
128		00 21 49.0	272 16 31.0	577.11	+0015 +004
129		179 59 59.0	270 52 15.0	0.00	+0015 +004
130		00 00 00.0	89 07 49.0	0.00	+0015 +004
131		180 21 50.0	87 43 27.0	577.11	+0015 +004
132		00 21 48.0	272 16 25.0	577.11	+0015 +004
133		180 00 00.0	270 52 13.0	0.00	+0015 +004

134	-2-	+00000413	+00000532	+00000264	
135	3	+00000414	+00000493		
136		00 00 00.0	92 19 12.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
137		179 34 07.0	90 25 47.0	420.86	+0015 +004
138		359 34 04.0	269 34 04.0	420.86	+0015 +004
139		180 00 00.0	267 41 17.0	0.00	+0015 +004
140		00 00 00.0	92 19 02.0	0.00	+0015 +004
141		179 34 06.0	90 25 46.0	420.86	+0015 +004
142		359 34 06.0	269 34 13.0	420.86	+0015 +004
143		180 00 02.0	267 41 35.0	0.00	+0015 +004
144	4	+00000045	+00000000		
145	1	+00000233	+00000000	+00000034	
146	-2-	+00000233	+00000528	+00000034	
147	3	+00000415	+00000509	+00000000	
148		00 00 00.0	89 18 27.0	0.00	+0015 +004
149		328 17 51.0	90 06 28.0	96.86	+0015 +004
150		148 17 47.0	269 53 24.0	96.86	+0015 +004
151		179 59 58.0	270 41 21.0	0.00	+0015 +004
152		00 00 00.0	89 18 48.0	0.00	+0015 +004
153		328 17 45.0	90 06 18.0	96.86	+0015 +004
154		148 17 48.0	269 53 29.0	96.86	+0015 +004
155		179 59 58.0	270 41 20.0	0.00	+0015 +004
156	-2-	+00000415	+00000528	+00000233	
157	3	+00000416	+00000496		
158		00 00 00.0	90 00 10.0	0.00	+0015 +004
159		274 38 28.0	87 52 01.0	330.73	+0015 +004
160		94 38 31.0	272 07 47.0	330.73	+0015 +004
161		180 00 06.0	269 59 24.0	0.00	+0015 +004
162		00 00 00.0	90 00 13.0	0.00	+0015 +004
163		274 38 26.0	87 52 02.0	330.73	+0015 +004
164		94 38 31.0	272 08 04.0	330.73	+0015 +004
165		180 00 03.0	269 59 58.0	0.00	+0015 +004
166	4	+00000033	+00000000	+00000000	
167	1	+00000269	+00000000	+00000048	+00000000
168	-2-	+00000269	+00000545	+00000048	
169	3	+00000417	+00000554		
170		00 00 00.0	88 31 57.0	0.00	+0015 +004
171		298 26 56.0	90 53 50.0	384.04	+0015 +004
172		118 26 53.0	269 06 10.0	384.04	+0015 +004
173		180 00 00.0	271 29 00.0	0.00	+0015 +004
174		00 00 01.0	88 32 00.0	0.00	+0015 +004
175		298 26 53.0	90 53 52.0	384.04	+0015 +004
176		118 26 50.0	269 06 12.0	0.00	+0015 +004
177		180 00 00.0	271 27 43.0	0.00	+0015 +004
178	-2-	+00000417	+00000523	+00000269	
179	3	+00000418	+00000541		
180		00 00 00.0	89 00 01.0	0.00	+0015 +004
181		159 12 18.0	91 43 42.0	326.27	+0015 +004
182		339 12 15.0	268 16 20.0	326.26	+0015 +004
183		180 00 00.0	270 59 16.0	0.00	+0015 +004
184		00 00 00.0	89 00 11.0	0.00	+0015 +004
185		159 12 17.0	91 43 38.0	326.27	+0015 +004
186		339 12 12.0	268 16 13.0	326.26	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
187		179 59 58.0	271 02 56.0	0.00	+0015 +004
188	-2-	+00000418	+00000459	+00000417	
189	3	+00000419	+00000572	+00000000	
190		00 00 00.0	87 06 32.0	0.00	+0015 +004
191		176 24 25.0	93 44 29.0	660.62	+0015 +004
192		356 24 23.0	266 15 36.0	660.62	+0015 +004
193		179 59 57.0	272 59 01.0	0.00	+0015 +004
194		00 00 00.0	87 03 25.0	0.00	+0015 +004
195		176 24 27.0	93 44 22.0	660.62	+0015 +004
196		356 24 22.0	266 15 44.0	660.62	+0015 +004
197		179 59 55.0	272 54 28.0	0.00	+0015 +004
198	-2-	+00000419	+00000562	+00000418	
199	3	+00000420	+00000518		
200		00 00 00.0	86 17 20.0	0.00	+0015 +004
201		200 26 47.0	93 41 46.0	279.03	+0015 +004
202		20 26 44.0	266 18 35.0	279.03	+0015 +004
203		180 00 00.0	273 45 09.0	0.00	+0015 +004
204		00 00 00.0	86 17 23.0	0.00	+0015 +004
205		200 26 48.0	93 41 54.0	279.03	+0015 +004
206		20 26 42.0	266 18 29.0	279.03	+0015 +004
207		180 00 01.0	273 43 53.0	0.00	+0015 +004
208	-2-	+00000420	+00000508	+00000419	
209	3	+00000421	+00000558	+00000000	
210		00 00 00.0	86 14 49.0	0.00	+0015 +004
211		160 24 07.0	94 01 29.0	329.13	+0015 +004
212		340 24 05.0	265 58 50.0	329.13	+0015 +004
213		179 59 57.0	273 45 39.0	0.00	+0015 +004
214		00 00 00.0	86 14 45.0	0.00	+0015 +004
215		160 24 09.0	94 01 32.0	329.13	+0015 +004
216		340 24 09.0	265 58 46.0	329.13	+0015 +004
217		179 59 56.0	273 45 09.0	0.00	+0015 +004
218	-2-	+00000421	+00000533	+00000420	
219	3	+00000422	+00000533	+00000000	
220		00 00 00.0	85 57 33.0	0.00	+0015 +004
221		186 47 11.0	93 33 24.0	325.91	+0015 +004
222		6 47 08.0	266 26 49.0	325.91	+0015 +004
223		179 59 55.0	274 02 44.0	0.00	+0015 +004
224		00 00 00.0	85 57 37.0	0.00	+0015 +004
225		186 47 10.0	93 33 24.0	325.91	+0015 +004
226		6 47 11.0	266 26 43.0	325.91	+0015 +004
227		179 59 57.0	274 02 12.0	0.00	+0015 +004
228	4	+00000031			
229	1	+00000231	+00000000	+00000031	
230	-2-	+00000000	+00005330		
231	3	+00000423			
232		00 00 00.0	91 38 02.0	0.00	+0015 +004
233		181 04 18.0	87 28 55.0	1445.48	+0015 +004
234		1 04 19.0	272 31 06.0	1445.48	+0015 +004
235		180 00 00.0	268 18 54.0	0.00	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
236		00 00 01.0	91 36 34.0	0.00	+0015 +004
237		181 04 13.0	87 28 46.0	1445.48	+0015 +004
238		1 04 14.0	272 31 04.0	1445.48	+0015 +004
239		180 00 04.0	268 31 56.0	0.00	+0015 +004
240	4	+00000028			
241	1	+00000024	+00000000	+00000025	
242	-2-	+00000000	+00005140		
243	3	+00000424	+00005290		
244		00 00 00.0	90 35 22.0	0.00	+0015 +004
245		354 24 00.0	90 51 56.0	453.11	+0015 +004
246		174 24 02.0	269 07 48.0	453.11	+0015 +004
247		180 00 03.0	269 37 08.0	0.00	+0015 +004
248		00 00 00.0	90 29 00.0	0.00	+0015 +004
249		354 24 04.0	90 52 00.0	453.11	+0015 +004
250		174 24 03.0	269 07 55.0	453.11	+0015 +004
251		180 00 02.0	269 39 31.0	0.00	+0015 +004
252	-2-	+00000424	+00005260	+00000024	
253	3	+00000425	+00002120		
254		00 00 00.0	89 26 24.0	0.00	+0015 +004
255		106 37 02.0	99 37 11.0	198.28	+0015 +004
256		286 37 05.0	260 22 52.0	198.28	+0015 +004
257		180 00 02.0	270 46 37.0	0.00	+0015 +004
258		00 00 00.0	89 20 42.0	0.00	+0015 +004
259		106 37 04.0	99 37 08.0	198.28	+0015 +004
260		286 37 05.0	260 22 51.0	198.28	+0015 +004
261		180 00 00.0	270 45 19.0	0.00	+0015 +004
262	4	+00000227			
263	1	+00000229	+00000000	+00000030	
264	-2-	+00000000	+00004900		
265	3	+00000426	+00005220		
266		00 00 00.0	90 26 01.0	0.00	+0015 +004
267		32 51 30.0	92 11 22.0	146.74	+0015 +004
268		212 51 24.0	267 48 54.0	146.74	+0015 +004
269		179 59 55.0	269 46 47.0	0.00	+0015 +004
270		00 00 00.0	90 11 29.0	0.00	+0015 +004
271		32 48 06.0	92 15 29.0	0.00	+0015 +004
272		32 51 26.0	92 11 24.0	146.74	+0015 +004
273		212 51 18.0	267 48 51.0	146.74	+0015 +004
274		179 59 49.0	270 06 40.0	0.00	+0015 +004
275	-2-	+00000426	+00005200	+00000229	
276	3	+00000427	+00005300		
277		00 00 00.0	87 55 28.0	0.00	+0015 +004
278		237 33 58.0	92 56 33.0	664.40	+0015 +004
279		57 33 55.0	267 03 35.0	664.40	+0015 +004
280		179 59 51.0	271 44 54.0	0.00	+0015 +004
281		00 00 00.0	87 48 23.0	0.00	+0015 +004
282		237 33 48.0	92 56 33.0	664.40	+0015 +004
283		57 33 54.0	267 03 36.0	664.40	+0015 +004
284		179 59 54.0	272 10 36.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
285	-2-	+00000427	+00005110	+00000426	
286	3	+00000428	+00004840		
287		00 00 00.0	87 08 41.0	0.00	+0015 +004
288		211 50 18.0	92 50 33.0	332.10	+0015 +004
289		31 50 10.0	267 09 50.0	332.10	+0015 +004
290		179 59 58.0	272 55 51.0	0.00	+0015 +004
291		00 00 00.0	87 05 11.0	0.00	+0015 +004
292		211 50 15.0	92 50 34.0	332.10	+0015 +004
293		31 50 13.0	267 09 44.0	332.10	+0015 +004
294		179 59 58.0	273 03 19.0	0.00	+0015 +004
295	-2-	+00000428	+00004780	+00000427	
296	3	+00000429	+00004840		
297		00 00 00.0	87 13 00.0	0.00	+0015 +004
298		180 46 05.0	90 29 02.0	143.41	+0015 +004
299		00 46 05.0	269 31 14.0	143.41	+0015 +004
300		179 59 55.0	272 54 13.0	0.00	+0015 +004
301		00 00 00.0	87 23 43.0	0.00	+0015 +004
302		180 46 09.0	90 29 00.0	143.41	+0015 +004
303		00 46 09.0	269 31 13.0	143.41	+0015 +004
304		180 00 00.0	272 47 52.0	0.00	+0015 +004
305	4	+00000026			
306	1	+00000224	+00000000	+00000303	
307	-2-	+00000224	+00004760	+00000303	
308	3	+00000430	+00005020		
309		00 00 00.0	92 59 16.0	0.00	+0015 +004
310		227 57 01.0	89 41 26.0	449.57	+0015 +004
311		47 56 55.0	270 18 03.0	449.57	+0015 +004
312		180 00 01.0	269 38 08.0	0.00	+0015 +004
313		00 00 00.0	90 32 39.0	0.00	+0015 +004
314		227 57 00.0	89 41 29.0	449.57	+0015 +004
315		47 56 55.0	270 18 11.0	449.57	+0015 +004
316		180 00 07.0	269 40 07.0	0.00	+0015 +004
317	4	+00000021			
318	1	+00000222	+00000000	+00000019	
319	-2-	+00000222	+00004760	+00000019	
320	3	+00000431	+00005440		
321		00 00 00.0	91 43 19.0	0.00	+0015 +004
322		188 42 49.0	88 54 10.0	992.36	+0015 +004
323		8 42 51.0	271 05 27.0	992.36	+0015 +004
324		180 00 07.0	268 38 06.0	0.00	+0015 +004
325		00 00 00.0	91 37 49.0	0.00	+0015 +004
326		188 42 53.0	88 54 07.0	992.36	+0015 +004
327		8 42 49.0	271 05 29.0	992.36	+0015 +004
328		180 00 08.0	268 43 35.0	0.00	+0015 +004
329	4	+00000020			
330	1	+00000221	+00000000	+00000016	
331	-2-	+00000221	+00004790	+00000016	
332	3	+00000432	+00005340		
333		00 00 00.0	94 33 20.0	0.00	+0015 +004
334		4 52 29.0	94 23 52.0	432.73	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
335		184 52 29.0	265 35 47.0	432.73	+0015 +004
336		180 00 01.0	265 35 47.0	0.00	+0015 +004
337		00 00 00.0	94 37 10.0	0.00	+0015 +004
338		4 52 30.0	94 23 49.0	432.73	+0015 +004
339		184 52 26.0	265 35 45.0	432.73	+0015 +004
340		179 59 58.0	265 35 17.0	0.00	+0015 +004
341	-2-	+00000432	+00005050	+00000221	
342	3	+00000433	+00005110		
343		00 00 00.0	85 32 58.0	0.00	+0015 +004
344		105 26 59.0	90 29 12.0	797.27	+0015 +004
345		285 27 03.0	269 30 26.0	797.27	+0015 +004
346		180 00 04.0	274 31 55.0	0.00	+0015 +004
347		00 00 00.0	85 38 22.0	0.00	+0015 +004
348		105 27 00.0	90 29 15.0	797.27	+0015 +004
349		285 27 00.0	269 30 18.0	797.27	+0015 +004
350		179 59 58.0	274 39 48.0	0.00	+0015 +004
351	4	+00000015			
352	1	+00000215	+00000000	+00000011	
353	-2-	+00000215	+00005110	+00000011	
354	3	+00000434	+00003170		
355		00 00 01.0	93 20 06.0	0.00	+0015 +004
356		95 08 03.0	88 13 06.0	216.87	+0015 +004
357		275 07 57.0	271 46 39.0	216.87	+0015 +004
358		179 59 56.0	266 45 40.0	0.00	+0015 +004
359		00 00 00.0	93 24 09.0	0.00	+0015 +004
360		95 08 01.0	88 13 05.0	216.87	+0015 +004
361		275 07 53.0	271 46 40.0	216.87	+0015 +004
362		180 00 00.0	266 52 32.0	0.00	+0015 +004
363	-2-	+00000434	+00005160	+00000215	
364	3	+00000435	+00005350		
365		359 59 59.0	86 54 36.0	1578.25	+0015 +004
366		303 10 14.0	86 54 46.0	1578.26	+0015 +004
367		123 10 17.0	273 05 01.0	1578.26	+0015 +004
368		180 00 00.0	267 37 49.0	0.00	+0015 +004
369		00 00 00.0	92 33 09.0	0.00	+0015 +004
370		303 10 11.0	86 54 43.0	1578.25	+0015 +004
371		123 10 10.0	273 05 11.0	1578.25	+0015 +004
372		180 00 03.0	267 33 38.0	0.00	+0015 +004
373	4	+00000015			
374	1	+00000205	+00000000	+00000009	
375	-2-	+00000205	+00005320	+00000009	
376	3	+00000436	+00004780		
377		00 00 00.0	87 24 14.0	0.00	+0015 +004
378		166 22 30.0	92 39 28.0	201.84	+0015 +004
379		346 22 30.0	267 20 07.0	201.84	+0015 +004
380		179 59 59.0	272 41 32.0	0.00	+0015 +004
381		359 59 59.0	87 26 35.0	0.00	+0015 +004
382		166 22 32.0	92 39 24.0	201.84	+0015 +004
383		346 22 30.0	267 20 06.0	201.84	+0015 +004
384		180 00 03.0	272 44 01.0	0.00	+0015 +004

Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offset
385	-2-	+00000436	+00005170	+00000205	
386	3	+00000437	+00004230		
387		00 00 00.0	87 33 44.0	0.00	+0015 +004
388		20 46 07.0	87 30 09.0	482.84	+0015 +004
389		200 45 59.0	272 29 22.0	482.83	+0015 +004
390		179 59 56.0	272 40 08.0	0.00	+0015 +004
391		00 00 00.0	87 29 29.0	0.00	+0015 +004
392		20 46 08.0	87 30 16.0	482.83	+0015 +004
393		200 46 03.0	272 29 25.0	482.84	+0015 +004
394		200 46 04.0	272 29 27.0	482.83	+0015 +004
395		180 00 02.0	272 46 01.0	0.00	+0015 +004
396	-2-	+00000437	+00005340	+00000436	
397	3	+00000438	+00004680		
398		00 00 00.0	92 36 12.0	0.00	+0015 +004
399		29 57 34.0	92 13 42.0	178.30	+0015 +004
400		209 57 31.0	267 46 03.0	178.30	+0015 +004
401		179 59 55.0	267 32 47.0	0.00	+0015 +004
402		00 00 00.0	92 38 51.0	0.00	+0015 +004
403		29 57 35.0	92 13 39.0	178.30	+0015 +004
404		209 57 28.0	267 46 04.0	178.30	+0015 +004
405		180 00 00.0	267 33 37.0	0.00	+0015 +004
406	4	+00000009			
407	1	+00000202	+00000000	+00000008	
408	-2-	+00000202	+00004990	+00000008	
409	3	+00000439	+00005190		
410		00 00 00.0	87 04 01.0	0.00	+0015 +004
411		168 35 12.0	93 55 54.0	399.79	+0015 +004
412		348 35 12.0	266 03 46.0	399.79	+0015 +004
413		180 00 01.0	273 06 47.0	0.00	+0015 +004
414		00 00 00.0	87 10 35.0	0.00	+0015 +004
415		168 35 10.0	93 55 52.0	399.79	+0015 +004
416		348 35 08.0	266 03 43.0	399.78	+0015 +004
417		179 59 56.0	273 00 45.0	0.00	+0015 +004
418	4	+00000007			
419	-2-	+00000234	+00000609	+00000010	+00000000
420	3	+00000440	+00000470	+00000000	
421		00 00 00.0	90 25 21.0	0.00	+0015 +004
422		322 15 10.0	87 36 25.0	65.50	+0015 +004
423		142 15 04.0	272 22 50.0	65.50	+0015 +004
424		179 59 51.0	269 35 02.0	0.00	+0015 +004
425		00 00 00.0	90 25 33.0	0.00	+0015 +004
426		322 15 15.0	87 36 24.0	65.50	+0015 +004
427		142 15 09.0	272 22 39.0	65.50	+0015 +004
428		179 59 59.0	269 40 09.0	0.00	+0015 +004
429	-2-	+00000440	+00000518	+00000234	
430	3	+00000441	+00000460	+00000000	
431		00 00 00.0	93 00 28.0	0.00	+0015 +004
432		153 59 00.0	86 50 54.0	72.72	+0015 +004
433		333 59 02.0	273 08 07.0	72.72	+0015 +004

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Record	Code	INFO 1 Hz Circle	INFO 2 Vt Circle	INFO 3 Distance	INFO 4 PPM Prism Offse
434		180 00 08.0	267 02 20.0	0.00	+0015 +004
435		00 00 00.0	92 59 21.0	0.00	+0015 +004
436		153 59 01.0	86 50 52.0	72.72	+0015 +004
437		333 58 59.0	273 08 06.0	72.72	+0015 +004
438		179 59 56.0	266 59 29.0	0.00	+0015 +004
439	4	+00000039			

**PALOS VERDES LANDFILL REMEDIAL INVESTIGATION/FEASIBILITY STUDY
WELLS TO BE RE-SURVEYED**

<u>WELL NUMBER</u>	<u>LOCATION</u>
M07A	Northern corner of the Main Site
M24A M26A M49A M51A PV-3	Off site near Hawthorne Boulevard in the City of Torrance
M32B	On the Main Site along the northeast border
M36A M37A M52B	Off site near Crenshaw Boulevard in the City of Torrance
M44A M53B	On the Main Site along Crenshaw Boulevard
M39A	Eastern corner of the South Coast Botanic Garden
M62B	Off site to the east of the South Coast Botanic Garden in the City of Rolling Hills Estates
M48A	Along the western boundary of Ernie Howlett Park
M54B M55B	Off site on the horse trails west of Ernie Howlett Park in the City of Rolling Hills Estates
M46A	On the Main Site in the western corner near Hawthorne Boulevard
M57B M58B M61B	Off site to the southwest of the landfill in the City of Rolling Hills Estates

Post-It™ brand fax transmittal memo 7671		# of pages > 1	
To Paul Perkins	From Mary Jacobs		
Co. CSD	Co. CSD		
Dept. Compton Fld. Gc	Phone #		
Fax #	Fax #		

01/31/91

LOS ANGELES COUNTY PUBLIC WORKS
SURVEY DIVISION

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QUAD-YEAR	ELEV	DESCRIPTION (INCLUDE QUAD AND YEAR IN DESCRIPTION)	BM NUMBER
PAL VRDS (1990)	501.854	RDBM TAG NR NE COR C B 42FT S/O C/L PALOS VERDES DR N & 415FT W/O C/L SILVER SPUR RD 14FT E/O C/L PROD MASONGATE DR	DY 4425
PAL VRDS (1990)	421.715	CE BR CAP MON STMPD (RE 586) FL IN CONC 86FT N/O C/L PALOS VERDES DR N & 49FT E/O C/L CRENSHAW BLVD 31FT N/O BCR & 6FT BK OF CB	DY 4857
PAL VRDS (1990)	177.489	RDBM TAG CONC SLAB S SIDE S DRWY ENT GREEN HILLS CEMETERY 70FT W C/L WESTERN AVE 0.55MI S PALOS VERDES DR N 3FT E OF GATE	DY 5672
PAL VRDS (1990)	141.334	L&SCREW @ SW COR CATCH BASIN W CB SERVICE RD W SIDE WESTERN AVE 95FT W C/L WESTERN AVE & 90FT N C/L AVENIDA APRENDA	DY 5674
PAL VRDS (1990)	185.771	L & BN 50FT N BCR @ NW COR DELASONDE DR & WESTERN AVE 110FT N & 40FT W C/L INT	DY 5675
PAL VRDS (1990)	191.950	L&BN CTR CATCH BASIN W CB WESTERN AVE 9FT S CB RET @ SW COR DELASONDE DR 40FT W & 69FT S C/L INT	DY 5676
PAL VRDS (1990)	336.411	L&T W CB WESTERN AVE 40FT W C/L STA 348&03 1FT N/O S DRWY TO BLDG #29601 (TASMAN SEA MOTEL) 500FT N/O LACE BOUNDARY 716FT S/O C/L CRESTWOOD ST	DY 5681
PAL VRDS (1990)	344.080	L&BN E CB 47FT S/O BCR 40FT E/O C/L WESTERN AVE & 110FT S/O C/L SUMMERLAND AVE	DY 5682
BASELINE (1990)	137.050	L&BN S CB 20FT W C/L REED DR & 38FT S C/L PACIFIC COAST HWY MKD (BM)	DY 5794
BASELINE (1990)	139.118	L&PHILLIPS SCREW N CB 1FT E/O BCR @ NE COR PACIFIC COAST HWY & CRENSHAW BLVD 40FT N & 65FT E/O C/L INT	DY 5795
BASELINE (1990)	140.541	RDBM TAG N CB 1FT E BCR @ NW COR PACIFIC COAST HWY & CRENSHAW BLVD 40FT N & 65FT W C/L INT	DY 5796
BASELINE (1990)	94.847	CS BR CAP MON IN WELL @ C/L INT PACIFIC COAST HWY & HAWTHORNE BL MKD (TOR K-12 1942 RE 2177)	DY 5799
PAL VRDS (1990)	282.968	RDBM TAG N CB PALOS VERDES DR N 56FT N C/L & 1000FT W/O WESTERN AVE	DY 5949
PAL VRDS (1990)	280.986	RDBM TAG S CB PALOS VERDES DR N 2FT E CATCH BASIN 56FT S C/L & 1000FT W C/L WESTERN AVE	DY 5950

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LOS ANGELES COUNTY PUBLIC WORKS
SURVEY DIVISION

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QUAD-YEAR	ELEV	DESCRIPTION (INCLUDE QUAD AND YEAR IN DESCRIPTION)	BH NUMBER
PAL VRDS (1990)	301.250	RDBM TAG S CB 1FT E CATCH BASIN 56FT S C/L PALOS VERDES DR N & 0.2MI W/O ROLLING VISTA DR	DY 5954
PAL VRDS (1990)	316.794	L&BR E CB MONTECILLO DR @ NE COR PALOS VERDES DR N & 122FT N & 30FT E C/L INT	DY 5955
PAL VRDS (1990)	317.332	L&BR W CB MONTECILLO DR @ NW COR PALOS VERDES DR N 132FT N & 30FT W C/L INT	DY 5956
PAL VRDS (1990)	361.933	R D MON IN WELL 8IN DN @ OR NR C/L INT PALOS VERDES DR N & PALOS VERDES DR E (NARBONNE AVE)	DY 5957
PAL VRDS (1990)	435.256	RDBM TAG E CB DOBBIN LANE 1FT N BCR @ NE COR PALOS VERDES DR N 70FT N & 13FT E C/L INT	DY 5967
PAL VRDS (1990)	434.878	RDBM TAG W CB DOBBIN LANE 1FT N BCR @ NW COR PALOS VERDES DR N 70FT N & 13FT W C/L INT	DY 5968
PAL VRDS (1990)	457.935	RDBM TAG E CB 1FT N BCR @ NE COR PALOS VERDES DR N & ROANWOOD DR 73FT N & 15FT E C/L INT	DY 5970
PAL VRDS (1990)	460.452	L&BR NR MCR @ NW COR PALOS VERDES DR N & ROANWOOD DR 40FT N & 30FT W C/L INT MKD (BM)	DY 5971
PAL VRDS (1990)	466.085	L&BN NR MCR @ SE COR PALOS VERDES DR N & HAWTHORNE BLVD 60FT S & 57FT E C/L INT MKD (BM 16)	DY 5973 START
PAL VRDS (1990)	503.467	RDBM TAG CONC FOOTING ON E SIDE OF LARGE STONE MON @ NE COR PALOS VERDES DR N & HIDDEN VALLEY RD 35FT N & 60FT E C/L INT	DY 5976
PAL VRDS (1990)	397.377	RDBM TAG N CB SPINNING WHEEL LANE 13FT N C/L & 35FT E C/L PALOS VERDES DR E	DY 5977
PAL VRDS (1990)	397.323	CS TAG S CB SPINNING WHEEL LANE 13FT S C/L & 35FT E C/L PALOS VERDES DR N	DY 5978
PAL VRDS (1990)	414.746	RDBM TAG N CB @ NE COR PALOS VERDES DR E & CONESTOGA DR 70FT E & 30FT N C/L INT	DY 5979
PAL VRDS (1990)	621.286	RDBM TAG CONC FOOTING OF N ENT TO SUNNYSIDE RIDGE RD 26FT N C/L & 41FT E C/L PALOS VERDES DR E	DY 5983
PAL VRDS (1990)	622.278	RDBM TAG CONC FOOTING OF S ENT TO SUNNYSIDE RIDGE RD 26FT S C/L & 41FT E C/L PALOS VERDES DR E	DY 5984

QUAD-YEAR	ELEV	DESCRIPTION (INCLUDE QUAD AND YEAR IN DESCRIPTION)	BM NUMBER
BASELINE (1990)	68.171	RDBM TAG 2FT E BCR @ SE COR LOMITA BL & NORMANDIE AVE 42FT S & 79FT E C/L INT	DY 8420
BASELINE (1990)	69.532	CITY OF LA MON FL @ SW COR LOMITA BL & NORMANDIE AVE 44FT S & 81FT W C/L INT MKD (PBM 21-06769 1967)	DY 8421
BASELINE (1990)	69.220	HEX DRILL IN WELL 15FT S C/L INT LOMITA BLVD & ON C/L OF BELLE PORTE AVE	DY 8422
BASELINE (1990)	137.960	USC&GS MON 2FT W BCR @ SW COR PACIFIC COAST HWY & VIANA AVE 38FT S & 40FT W/O C/L INT MKD (E767 RESET 1960)	DY 8424
PAL VRDS (1990)	294.696	CS BUTTON BR CAP MON FL 2FT W/O W CB NW COR PALOS VERDES DR W & PASEO DEL MAR 80FT W/O C/L W BARREL 132FT N/O C/L INT MKD (BM 34-33A 1970)	DY 8516
PAL VRDS (1990)	268.715	CS BUTTON BR CAP MON IN LARGE ROCK NR C/L PALOS VERDES DR W & 100FT SLY OF BOUNDARY PALOS VERDES ESTATES MKD (BM 34-29A 1964 RE 5869)	DY 8517
PAL VRDS (1990)	199.868	CS BUTTON BR CAP MON 4IN UP 30FT S/O C/L PALOS VERDES DR S & 0.75MI E/O HAWTHORNE BLVD ON CREST OF HILL MKD (BM 34-24B 1964 RE 5869)	DY 8519
PAL VRDS (1990)	233.135	CS BR CAP MON IN WELL AT PI PACKET RD 153FT S/O C/L PALOS VERDES DR S FT HSE #1 PACKET RD USE S EDGE MKD (RE 5869)	DY 8523
PAL VRDS (1990)	181.585	RDBM TAG IN NW COR C B 23FT N/O C/L PALOS VERDES DR S (N BARREL) & 773FT W/O ENT TO WAYFARERS CHAPEL	DY 8525
PAL VRDS (1990)	207.990	CS BUTTON BR CAP MON 12IN DN 53FT N/O C/L MAC PVMT PALOS VERDES DR S & 300FT E/O C/L CRENSHAW BLVD 0.7MI E/O INT PEPPERTREE DR 32FT E/O TP NO A8633Y MKD (BM 50-13 1956 RE 5869)	DY 8526
PAL VRDS (1990)	259.707	CS BR CAP MON FLUSH @ NW COR 25TH ST & LELAND ST 40FT W & 26FT N/O C/L INT MKD (BM 34-5A 1964 RE 5869)	DY 8527
PAL VRDS (1990)	152.074	FLAT HD SPK 17FT W BCR @ NW COR PALOS VERDES DR N & SENATOR AVE 42FT N & 62FT W C/L INT	DY 8529
PAL VRDS (1990)	321.798	L S TAG NO 2602 2FT E BCR @ NE COR PALOS VERDES DR N & ROLLING VISTA DR 57FT N/O C/L INT	DY 8530
PAL VRDS (1990)	421.571	L&BR 3FT N/O BCR @ NW COR 92FT N/O C/L PALOS VERDES DR N & 42FT W/O C/L CRENSHAW BLVD STMPD (BM - IN LEAD)	DY 8532 +

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QUAD-YEAR	ELEV	DESCRIPTION (INCLUDE QUAD AND YEAR IN DESCRIPTION)	BM NUMBER
PAL VRDS (1990)	244.467	RDBM TAG 1FT S/O BCR @ SW COR WESTERN AVE & PALOS VERDES DR N 108FT S & 40FT W/O C/L INT	DY 9914
PAL VRDS (1990)	149.102	LACE BR CAP MON IN WELL 8IN DN @ C/L INT PALOS VERDES DR N & SENATOR AVE MKD (CITY LA SURVEY DIV 4-73)	DY 9915
PAL VRDS (1990)	1080.509	RDBM TAG 1FT E/O BCR @ NE COR 40FT NLY C/L HAWTHORNE BLVD & 64FT ELY C/L GRANVIA ALTA MIRA	DY 9916
PAL VRDS (1990)	1077.399	RDBM TAG 1FT E/O BCR @ SE COR 40FT SLY C/L HAWTHORNE BLVD & 52FT ELY C/L GRANVIA ALTA MIRA	DY 9917
PAL VRDS (1990)	496.135	L&BN 7FT N/O CB END 87FT N & 16FT E/O C/L INT PALOS VERDES DR N & HIDDEN VALLEY RD	DY 9918
PAL VRDS (1990)	196.217	L&T 5FT N/O BCR @ NE COR CRENSHAW BLVD & CREST RD 49FT N & 42FT E/O C/L INT	DY 9919
PAL VRDS (1990)	197.745	L&T 1FT S/O BCR @ SE COR CRENSHAW BLVD & CREST RD 45FT S & 42FT E/O C/L INT	DY 9920
PAL VRDS (1990)	240.551	L&BN 1FT N/O BCR @ NE COR CRENSHAW BLVD & ROLLING HILLS RD 63FT N & 42FT E/O C/L INT	DY 9921
PAL VRDS (1990)	248.593	L&T 6FT N/O BCR @ SE COR CRENSHAW BLVD & ROLLING HILLS RD 53FT S & 43FT E/O C/L INT	DY 9922
PAL VRDS (1990)	520.020	RDBM TAG IN ELY CB 1FT S/O SELY BCR 75FT SLY C/L SILVER SPUR RD & 15FT ELY C/L MARINA DR	DY 9925
PAL VRDS (1990)	602.052	RDBM TAG IN NWLY COR CONC VAULT 22FT NLY C/L SILVER SPUR RD & 163FT ELY C/L RANGE HORSE LANE	DY 9926
PAL VRDS (1990)	765.444	RDBM TAG IN CB 5FT N/O NW BCR 30FT W/O C/L SILVER SPUR RD & 75FT N/O C/L MONTEMALAGA DR	DY 9927
PAL VRDS (1990)	770.155	RDBM TAG IN CB 10FT W/O SW BCR 80FT W/O C/L SILVER SPUR RD & 32FT S/O C/L MONTEMALAGA DR	DY 9928
PAL VRDS (1990)	804.515	RDBM TAG IN CB 10FT E/O SE BCR 80FT E/O C/L SILVER SPUR RD & 18FT S/O C/L WILLOW WOOD RD	DY 9929
PAL VRDS (1990)	872.079	RDBM TAG IN CB 18FT N/O NE BCR 30FT E/O C/L SILVER SPUR RD & 75FT N/O C/L VIA DE LA VISTA	DY 9930
PAL VRDS (1990)	966.307	RDBM TAG IN CB 28FT E/O C/L SILVER SPUR RD & 750FT N/O C/L BASSWOOD AVE	DY 9931
PAL VRDS (1990)	956.613	RDBM TAG IN BOX CULVERT 6FT W/O SW BCR 73FT W/O C/L SILVER SPUR RD & 18FT S/O C/L BASSWOOD AVE	DY 9932

QUAD-YEAR	ELEV	DESCRIPTION (INCLUDE QUAD AND YEAR IN DESCRIPTION)	BM NUMBER
PAL VRDS (1990)	757.060	L&SPK IN N CB CROWNVIEW DR 34FT N/O C/L & 92FT W/O C/L PALOS VERDES DR E MKD (BM)	DY 9938
PAL VRDS (1990)	735.354	RDBM TAG IN C B S CB BRONCO DR 24FT S/O C/L & 50FT W/O C/L PALOS VERDES DR E	DY 9939
PAL VRDS (1990)	735.998	RDBM TAG IN C B N CB BRONCO DR 16FT N/O C/L & 89FT W/O C/L PALOS VERDES DR E	DY 9940
PAL VRDS (1990)	497.292	RDBM TAG 2FT N/O CB END 17FT W/O C/L LATIGO LN & 95FT N/O C/L PALOS VERDES DR N	DY 10078
PAL VRDS (1990)	259.219	L&BN 1FT E/O BCR 23FT S/O C/L 25TH ST & 39FT E/O C/L LELAND ST	DY 10079
PAL VRDS (1990)	367.490	USC&GS MON FL @ N END C B 48FT E/O C/L WESTERN AVE & 100FT S/O C/L 25TH ST 47FT S/O BCR MKD (Z 1217 1971)	DY 10080
PAL VRDS (1990)	291.344	L&BN N CB SERV RD @ W END C B 80FT N/O C/L PALOS VERDES DR S & 50FT E/O C/L CONQUEROR DR	DY 10081
PAL VRDS (1990)	497.510	RDBM TAG ELY EDGE CONC DR TO HSE #27840 35FT SLY C/L PALOS VERDES DR E & 0.8MI SLY PALOS VERDES DR N	DY 10082
PAL VRDS (1990)	328.449	SPK IN CONC CB 47FT S/O BCR 40FT W/O C/L WESTERN AVE & 102FT S/O C/L CRESTWOOD ST	DY 10083
PAL VRDS (1990)	393.591	L&T IN CONC CB 6FT N/O BCR 42FT W/O C/L WESTERN AVE & 34FT S/O BYNNER DR	DY 10084
PAL VRDS (1990)	380.446	L&SPK 1FT E/O BCR 18FT N/O C/L DODSON AVE & 80FT E/O C/L WESTERN AVE	DY 10085
PAL VRDS (1990)	329.496	L&BD IN CONC CB @ NLY END C B 42FT ELY C/L CRENSHAW BLVD & 30FT SLY C/L OF SLY DR TO THE ESTATES APTS 0.5MI NLY C/L PALOS VERDES DR N	DY 10086
PAL VRDS (1990)	567.575	RDBM TAG IN CONC CB 2FT N/O BCR 40FT W/O C/L HAWTHORNE BLVD & 49FT N/O C/L VALLON DR	DY 10087
PAL VRDS (1990)	1055.212	L&RCE TAG #5335 2FT E/O BCR 40FT S/O C/L CREST RD & 51FT W/O C/L LA CROIX DR	DY 10088
PAL VRDS (1990)	1051.896	L&RCE TAG #5335 1FT E/O BCR 40FT S/O C/L CREST RD & 51FT W/O C/L LA CROIX DR	DY 10089
BASELINE (1990)	16.712	L&SPK E CB HARBOR BLVD 25FT N & 42FT E/O C/L INT HARBOR BLVD & 2ND ST (S END CB)	DY 10134

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION PALOS VERDES LANDFILL
ELEVATION CHECK
 DISTRICT No. GROUNDWATER WELLS

F.B. No. _____ Page 306
 SURVEY BY GREG TOWNER
 DATE 10-7-92

LEVEL PEG LEVEL SHEET TEST

STA.	OFFSET	B.S.	H.I.	F.S.	ELEV.	DESCRIPTION
		INST.	OPER. =	ALRIC	JOHNSON	
		POSITION		1	(CENTER)	
A				4.685		
B				1.978		
DIF.				2.707		
		POSITION		2	(END)	
A				7.939		
B				5.234		
DIF.				2.705		
		INST. ERROR =		0.002'		
		INST.	OPER. =	ROB GARDNER		
		POSITION		1		
A				4.409		
B				1.701		
DIF.				2.708		
		POSITION		2		
A				7.939		
B				5.234		
DIF.				2.705		
		INST. ERROR =		0.003'		
		NO ADJUSTMENT MADE				

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION PALOS VERDES LANDFILL
MONITORING WELLS

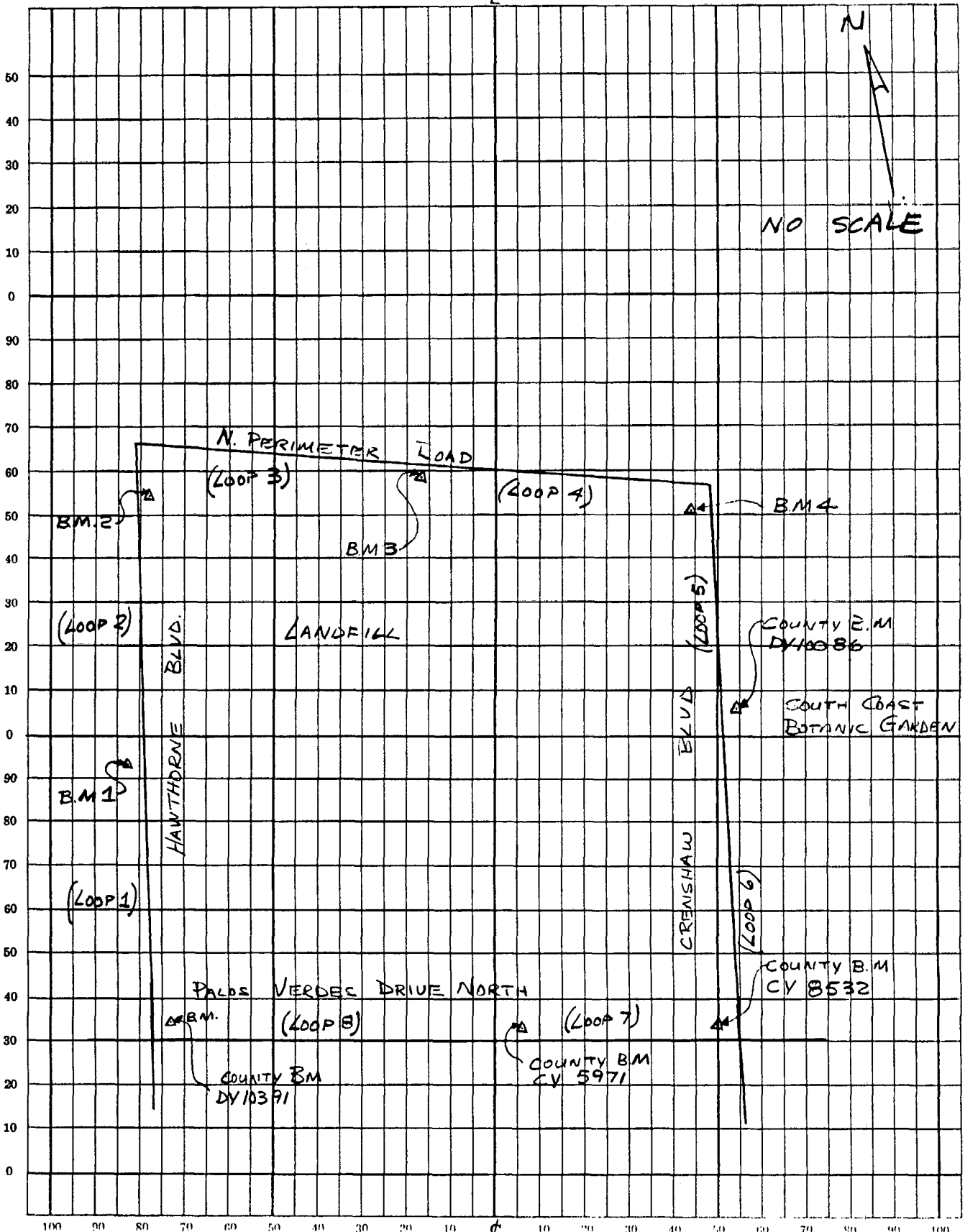
F.B. No. _____ Page 307

SURVEY BY G. TOWNER

DISTRICT No. _____

DATE 11-92

ELEV. CHECK TOPO SHEET SKETCH
100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100



FORM 107 2-73 62 U.S.A.

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
GROUNDWATER MONITORING WELLS
 DISTRICT No. B.I.L. # 5066009

F.B. No. _____ Page 308
 SURVEY BY G. TOWNER
 DATE 10-7-92

ELEVATION CHECK LEVEL SHEET CONTROL LOOP

STA.	OFFSET	+ B.S.	H.I.	- F.S.	ELEV.	DESCRIPTION
CO. B.M.		BENCH	CHECK		466.085	DY 5973 (1990) MKS BM16
CO. B.M.		0.160		4.237	462.008	DY 10391 (1990) DWP BM TAG ELV. 462.00 CHECK 0.005' HIGH
FIRST LOOP						
CO. B.M.	(ASSUMED)	CORRECT)			462.003	DY 10391 (1990) P.V. BENCH W/ DWP BM TAG HAWTHORNE
	2.403	464.406		11.838	452.568	T.P. 1 H.P. CURB
	0.528	453.096		10.985	442.111	T.P. 2 C NAIL A.C. W. SIDEWALK
	0.778	442.889		10.062	432.827	T.P. 3 C NAIL A.C. "
	0.637	433.464		9.641	423.823	T.P. 4 H.P. CURB W. SIDE
	0.502	424.325		10.220	414.105	T.P. 5 C NAIL A.C. W. SIDEWALK
	0.758	414.863		11.001	403.862	T.P. 6 C NAIL A.C. W. ROAD
	0.281	404.143		17.425	392.718	T.P. 7 N. BCR H.P. COLINA LANE
	0.718	393.436		10.342	383.094	T.P. 8 C NAIL A.C.
	0.232	383.326		10.382	372.944	T.P. 9 H.P. CURB
	0.115	373.059		11.338	361.721	T.P. 10 " "
	1.060	362.781		8.338	354.443	B.M. 1 S. BCR ISLAND @ ENT. HOWLETT PARK
					354.447	CORRECTED H.P. CURB
RETURN LOOP						
					354.443	B.M. 1
	8.285	362.728		1.010	361.718	T.P. 10
	11.320	373.038				T.P. 9

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. B.U.# 5066009

F.B. No. _____ Page 309
 SURVEY BY G. TOWNER
 DATE 10-7-92

ELEVATION CHECK LEVEL SHEET CONTROL LOOP

STA.	OFFSET	B.S.	H.I.	F.S.	ELEV.	DESCRIPTION
RETURN LOOP						
					372.940	T.P. 9
		10.432	383.372			
				0.282	383.090	T.P. 8
		10.485	393.575			
				0.862	392.713	T.P. 7
		11.682	404.395			
				0.540	403.855	T.P. 6
		12.340	416.195			
				2.080	414.105	T.P. 5
		10.627	424.732			
				0.910	423.822	T.P. 4
		9.872	433.694			
				0.867	432.827	T.P. 3
		10.478	443.305			
				1.190	442.115	T.P. 2
		11.312	453.427			
				0.862	452.565	T.P. 1
		12.751	465.316			
CO. B.M.				3.321	461.995	DY 10391 DWP TAG BM (ELEV. 462.003) CLOSE 0.008' LOW
2ND LOOP						
					354.447	TBM 1
		0.763	354.710			
				14.805	339.905	T.P. 11 H.P. CURB GEN. ISLAND E. SIDE
		0.112	340.017			
				15.968	324.049	T.P. 12 H.P. CURB "
		0.204	324.253			
				16.738	307.515	T.P. 13 " "
		0.073	307.533			
				15.255	292.333	T.P. 14 " "
		0.305	292.628			
				16.890	275.742	T.P. 15 " "

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. B.U. #5066009

F.B. No. _____ Page 310
 SURVEY BY G. TOWNER
 DATE 10-7-92

ELEVATION CHECK LEVEL SHEET CONTROL LOOP

STA.	OFFSET	B.S.	I.I.	F.S.	ELEV.	DESCRIPTION
		<u>2nd</u>	<u>LOOP</u>			
					<u>275.748</u>	<u>H.P. CURB</u> <u>T.P. 15 C. ISLAND E. SIDE</u>
	<u>0.050</u>	<u>275.798</u>				
			<u>14.668</u>		<u>261.130</u>	<u>TBM 2</u> <u>Painted yellow DOT " "</u>
					<u>261.133</u>	<u>CORRECTED</u>
<u>RETURN LOOP:</u>						
					<u>261.130</u>	<u>TBM 2</u>
	<u>x14.925</u>	<u>276.055</u>				
			<u>0.311</u>		<u>275.744</u>	<u>T.P. 15</u>
	<u>17.290</u>	<u>293.034</u>				
			<u>0.710</u>		<u>292.324</u>	<u>T.P. 14</u>
	<u>15.900</u>	<u>308.224</u>				
			<u>0.715</u>		<u>307.509</u>	<u>T.P. 13</u>
	<u>17.860</u>	<u>325.369</u>				
			<u>1.328</u>		<u>324.041</u>	<u>T.P. 12</u>
	<u>16.042</u>	<u>340.063</u>				
			<u>0.188</u>		<u>339.895</u>	<u>T.P. 11</u>
	<u>15.440</u>	<u>355.335</u>				
			<u>0.895</u>		<u>354.440</u>	<u>TBM 1</u> <u>CLOSE 0.007 LOW</u>
<u>3rd LOOP</u>						
					<u>261.133</u>	<u>T.B.M. 2</u>
	<u>21.36</u>	<u>282.493</u>				
			<u>1.045</u>		<u>281.448</u>	<u>T.P. 16</u> <u>C NAIL A.C. ROAD</u>
	<u>23.38</u>	<u>304.828</u>				
			<u>0.543</u>		<u>304.285</u>	<u>T.P. 17</u> <u>" "</u>
	<u>22.325</u>	<u>326.610</u>				
			<u>0.130</u>		<u>326.480</u>	<u>T.P. 18</u> <u>" "</u>
	<u>2.385</u>	<u>328.365</u>				
			<u>14.340</u>		<u>314.525</u>	<u>T.P. 19</u> <u>" "</u>
	<u>0.450</u>	<u>314.975</u>				
			<u>23.92</u>		<u>321.055</u>	<u>T.P. 20</u> <u>" "</u>

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. B.U. # 5066009

F.B. No. _____ Page 311
 SURVEY BY G. TOWNER
 DATE 10-8-92

ELEVATION CHECK LEVEL SHEET CONTROL LOOP

STA.	OFFSET	B.S.	I.I.	F.S.	ELEV.	DESCRIPTION
					291.055	T.P. 20 C NAIL A.C. RD.
	2.762	293.817				
			1.053	292.764		TBM 3 SE COR. CON. WALL ABOUT STORAGE TANK
	72.142			292.748		CORRECTED
<u>RETURN LOOP</u> ^{3RD}						
				292.764		T.B.M. 3
	1.005	293.769				
			2.715	291.054		T.P. 20
	24.960	316.014				
			1.488	314.526		T.P. 19
	14.548	329.074				
			2.585	326.489		T.P. 18
	0.625	327.114				
			22.805	304.309		T.P. 17
	0.806	305.115				
			23.642	281.473		T.P. 16
	1.443	282.916				
			21.750	261.166		T.B.M. 2
<u>4TH LOOP</u>						
				292.748		T.B.M. 3
	12.770	305.518				
			0.698	304.820		T.P. 21 C NAIL A.C. RD.
	20.675	325.495				
			0.222	325.273		T.P. 22 " "
	9.925	335.198				
			5.070	330.128		T.P. 23 " "
	0.165	330.293				
			14.548	315.745		T.P. 24 " "
	0.157	315.902				
			15.270	300.632		T.P. 25 " "

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. B.U.# 5066009

F.B. No. _____ Page 312
 SURVEY BY G. TOWNER
 DATE 10-8-92

ELEVATION CHECK LEVEL SHEET CONTROL LOOP

STA.	OFFSET	B.S.	H.I.	F.S.	ELEV.	DESCRIPTION
					300.632	T.P. 25 C. NAIL A.C. ROAD
	0.443	301.075				
			23.170	277.905		T.B.M. 4 CRENSHAW & ESTATES W-SIDE H.P. CURB 6' S OF NE COR. LANDFILL
				277.893		CORRECTED
	~~~~~		RETURN	LOOP	4 th	RUN ~~~~~
					277.905	T.B.M. 4
	23.270	301.175				
			0.542	300.633		T.P. 25
	15.922	316.555				
			0.807	315.748		T.P. 24
	14.660	330.408				
			0.270	330.138		T.P. 23
	5.428	335.566				
			10.270	325.296		T.P. 22
	1.578	326.874				
			22.030	304.244		T.P. 21
	0.710	305.554				
			12.782	292.772		T.B.M. 3 CLOSE 0.024 HIGH
	~~~~~		5 th	LOOP		~~~~~
					277.893	T.B.M. 4 6' S OF NE COR. LANDFILL
	14.910	292.803				
			0.590	292.213		T.P. 26 H.P. CURB E-SIDE
			0.569	311.962		T.P. 27
	17.768	329.730				
			0.363	329.367		DY100EG C. BM 43D IN C.B. ELEV. - 329.496
					329.362	CORRECTED

ERR - CORRECTED 20.318
 NEXT PAGE 20.270 312.531
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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILLS
MONITORING WELLS
 DISTRICT No. B.U. #5066009

F.B. No. _____ Page 313
 SURVEY BY G. TOWNER
 DATE 10-8-92

ELEVATION CHECK LEVEL SHEET CONTROL LOOP

STA.	OFFSET	B.S.	M.I.	F.S.	ELEV.	DESCRIPTION	
		RETURN LOOP 5 th					
					329.367	DY 10086 C&B.M. ON C.B. Elev = 329.496	
		0.380	329.747				
				17.782	311.965	T.P. 27 ELEV. CHANGE	
		0.750	312.715			19.740	
				20.490	292.225	TP 26	
		0.567	292.792				
				14.890	277.902	T.B.M. 4	
						CLOSE 0.009 HIGH	
						CORRECT ERROR - PREVIOUS PAGE	
						T.P. 26	
		20.385				19.757	
				0.628		T.P. 27	
						T.P. 27	
		0.586				19.749	
				20.335		T.P. 26	
		AVERAGE ELEV. CH. BETWEEN					
		T.P. #26 & T.P. #27 = 19.749					
					19.747		
					19.757	19.749	
					19.749		
					59.246	= 59.246	
		59.246					

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. B.I.L. # 5066009

F.B. No. _____ Page 314
 SURVEY BY G. TOWNER
 DATE 10-8-92

ELEVATION CHECK LEVEL SHEET CONTROL LOOP

STA.	OFFSET	B.S.	H.I.	F.S.	ELEV.	DESCRIPTION	
		6TH LOOP					
					329.362	CY 10086 C. B.M. on C.B. Elev-329.496	
		11.580	340.942				
				0.648	340.294	T.P. 28 C NAIL-AC WALK E-SIDE CRENSHAW	
		11.318	351.612				
				0.672	350.940	T.P. 29 " "	
		9.662	360.602				
				2.130	358.472	T.P. 30 " "	
		8.290	366.762				
				4.418	362.344	T.P. 31 " "	
		5.470	367.814				
				3.710	364.104	T.P. 32 " "	
		7.220	371.324				
				2.340	368.984	T.P. 33 " "	
		8.360	377.344				
				1.438	375.906	T.P. 34 " "	
		10.492	386.398				
				0.228	386.170	T.P. 35 " "	
		12.770	398.940				
				0.450	398.490	T.P. 36 " "	
		10.810	409.300				
				0.400	408.900	T.P. 37 " "	
		11.068	419.968				
				0.140	419.828	T.P. 38 H.P. CURB	
		7.610	427.438				
CO. B.M.				5.820	421.618	CY-8532 B.M. Elev-421.571	
					421.609	CORRECTED	
		RETURN LOOP 6TH					
						CY-8532 B.M.	
		5.745	427.363				
				7.530	419.833	T.P. 38	
		0.342	420.175				
				11.268	408.907	T.P. 37	

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. B.U. #5066009

F.B. No. _____ Page 315
 SURVEY BY G. TOWNER
 DATE 10-9-92

ELEVATION CHECK LEVEL SHEET CONTROL LOOP

STA.	OFFSET	B.S.	H.I.	F.S.	ELEV.	DESCRIPTION
		RETURN LOOP			6 TH LOOP	
					408.907	T.P. 37
	0.187	409.094				
				10.595	398.499	T.P. 36
	0.898	399.397				
				13.222	386.175	T.P. 35
	0.260	386.435				
				10.525	375.910	T.P. 34
	1.512	377.422				
				8.430	368.992	T.P. 33
	2.710	371.702				
				7.590	364.112	T.P. 32
	3.830	367.942				
				5.590	362.352	T.P. 31
	4.185	366.537				
				8.060	358.477	T.P. 30
	1.360	359.337				
				8.890	350.947	T.P. 29
	0.092	351.039				
				10.732	340.307	T.P. 28
	0.045	340.352				
				10.972	329.380	CY-10086 6LV-329.496
						CLOSE 0.018' HIGH

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. B.U. # 5066009

F.B. No. _____ Page 316
 SURVEY BY G. TOWNER
 DATE 10-9-92

ELEVATION CHECK LEVEL SHEET CONTROL LOOP

STA.	OFFSET	B.S.	H.I.	F.S.	ELEV.	DESCRIPTION
~ 7 TH LOOP ~						
					421.609	CY-8532 BM FLV-421.571 COR. CRENSHAW & P.V. DRIVE N
	3.028	424.637		4162	420.475	T.P. 39 C NAIL N CURB CEN. ISLIP P.V. DRIVE N.
	6.840	427.315		2.202	425.113	T.P. 40 H.P. CURB S SIDE P.V. DRIVE N.
	8.760	433.873		0.705	433.168	T.P. 41 C NAIL A.C. N SIDE
	8.390	441.558		0.385	441.173	T.P. 42 " "
	9.060	450.233		0.785	449.448	T.P. 43 " "
	10.178	459.626		0.745	458.881	T.P. 44
	7.210	466.091		5.607	460.484	CY-5971 FLV-460.452 P.V. DRIVE N & ROANWOOD
~ RETURN LOOP 7 TH ~						
					460.487	CORRECTED
					460.484	CY-5971
	5.565	466.049		7.170	458.879	T.P. 44
	0.900	459.779		10.330	449.449	T.P. 43
	0.970	450.419		9.247	441.172	T.P. 42
	0.710	441.882		8.715	433.167	T.P. 41
	0.758	433.925		3.810	425.115	T.P. 40
	1.970	427.035		6.570	420.465	T.P. 39
	4.202	424.667			421.602	

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.L. LANDELL
MONITORING WELLS
 DISTRICT No. B.U. #5066009

F.B. No. _____ Page 317
 SURVEY BY G. TOWNER
 DATE 10-9-92

ELEVATION CHECK LEVEL SHEET CONTROL LOOP

STA.	OFFSET	B.S.	I.I.	F.S.	ELEV.	DESCRIPTION
~~~~~		8TH	LOOP		~~~~~	
					460.487	CY-5971 ELV-460.452
		8.702	469.189			
				5.760	463.429	T.P. 45 C NAIL N SIDE P.V. DRIVE N.
		4.968	468.397			
				5.048	463.349	T.P. 46 " "
		4.343	467.692			
				3.140	464.552	T.P. 47 FIRE HYD. N SIDE
		1.730	466.282			
CO. B.M.	(BEGINNING POINT)			4.250	462.032	DY-10391 C B.M. ELV-462.003
					462.032 CORRECTED	P.V. DRIVE N + HATHORNE
~~~~~		8TH	RETURN LOOP		~~~~~	
					462.032	DY-10391 C. B.M.
		4.390	466.422			
				1.968	464.554	T.P. 47
		2.905	467.459			
				4.108	463.351	T.P. 46
		4.740	468.091			
				4.662	463.429	T.P. 45
		5.902	469.331			
				8.345	460.486	CY-5971
						CLOSE 0.001' LOW
TOTAL ERROR AFTER RETURNING TO ORIGINAL BEGINNING POINT = 0.03' IN 39 TURNS IN ONE DIRECTION. NO FURTHER CORRECTIONS MADE DUE TO ACCURACY REQUIRED HAS ALREADY BEEN MET.						

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDELL

F.B. No. _____ Page 318

MONITORING WELLS

SURVEY BY G. TOWNER

DISTRICT No. _____

DATE 10-13-92

ELEVATION LEVEL SHEET CHECK

STA.	OFFSET	B.S.	I.I.	F.S.	ELEV.	DESCRIPTION
B.M. 1					354.447	TOP CURB - HAWTHORNE AT W. ENTRANCE LANDELL
		6.030	360.477			
T.P. 1				4.250	356.227	
		4.050	360.277			
T.P. 2				1.450	358.827	
		6.105	364.932			
T.P. 3				2.280	362.692	
		4.548	367.200			
T.P. 4				6.845	360.355	
		0.047	360.402			
T.P. 5				12.185	348.217	
		0.114	348.331			
T.P. 6				8.892	339.439	
		0.414	339.853			
7				10.232	329.621	
		0.188	329.809			
8				10.650	319.159	
		1.808	320.967			
9				7.858	313.109	
		1.668	314.777			
10				12.080	302.697	
		0.195	302.892			
B.M. ROCK				15.095	287.797	CORRECTED = 287.801
		5.945	293.742			
B.M. A				15.100	278.642	NE COR CONC. HOUSING FOR MONITORING WELL M. 48A CORRECTED = 278.646
		RET				
		15.005	293.647			
B.M. ROCK				5.850	287.797	
		15.480	303.277			
T.P. 10				0.578	302.699	
		13.415	316.114			
T.P. 9				3.010	313.104	
		8.650	321.754			
T.P. 8				2.600	319.154	
		10.848	330.002			
T.P. 7				0.385	329.617	

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. _____

F.B. No. _____ Page 320
 SURVEY BY G. TOWNER
 DATE 10-14-92

ELEVATION LEVEL SHEET CHECK

STA.	OFFSET	B.S.	H.I.	F.S.	ELEV.	DESCRIPTION
B.M. 2					261.133	TOP CURB - HAWTHORNE AVE. AT NW COR. LANDFILL
		0.058	261.191			
T.P. 1				12.105	249.086	
		1.225	250.311			
M 49A				11.587	238.724	E SIDE TOP O WELL M 49A HIGH POINT
		0.820	239.544			
TP 2				11.482	228.062	
		3.413	231.475			
P.V. 3				5.865	225.610	E. SIDE TOP WELL P.V. 3 HIGH POINT
		1.118	226.728			
M-24A				9.940	216.788	NE EDGE TOP WELL SHAFT COVER M 24-A HIGH POINT
		8.250	225.038			
TP 3				10.345	214.693	
		5.498	220.191			
TP 4				7.000	213.191	
		0.630	213.821			
TP 5				11.430	202.391	
		0.043	202.434			
M 26A				11.882	190.552	N. EDGE TOP WELL SHAFT COVER M 26A HIGH POINT
		11.944	202.496			
TP 5				0.104	202.392	
		11.448	213.840			
TP 4				0.650	213.190	
		6.582	219.772			
M 51 B				2.360	217.412	N RIM TOP WELL SHAFT M-51 B
		12.775	230.187			
COMPARISON SHOT				12.020	218.167	COMPARISON SHOT TOP WELL CASING
TP 6			↓	1.090	229.097	
		9.740	238.837			
TP 7				1.450	237.387	
		13.505	250.892			
TP 1				1.802	249.090	
		12.798	261.888			
B.M. 2				0.750	261.138	CLOSE 0.005' HIGH

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. B.U. # 5066

F.B. No. _____ Page 321
 SURVEY BY G. TOWNER
 DATE 10-16-92

ELEVATION LEVEL SHEET CHECK

STA.	OFFSET	B.S.	I.I.	F.S.	ELEV.	DESCRIPTION
B.M. DY-10086					329.362	CO. B.M. CRENSHAW & ESTATES CONDOS
		17.742	347.104			
T.P. 1				1.795	345.309	
		12.550	357.859			
T.P. 2				0.145	357.714	
		8.865	366.579			
T.P. 3				12.580	353.999	
		4.263	358.262			
COMPARISON M-39A				13.145	345.117	CENTER 4" ϕ WELL SHAFT 2.5' ABOVE GROUND M 39A (CENTER COVER)
						NOTE: WELL COVER HAS BEEN REPLACED SINCE PREVIOUS SURVEY.
M 39A			v	13.268	344.994	N. EDGE WELL SHAFT 4" ϕ PIPE 2.5' ABOVE GRND M 39A
		12.935	357.929			
TP 4				4.402	353.527	
		0.207	353.734			
T.P. 5				16.010	337.724	
		1.207	338.931			
TP 6				9.140	329.791	
		4.024	333.815			
B.M. "Z"				8.610	325.205	N. RIM DR CUMP W. ROLLING HILLS & SHADOW LANE CORRECTED = 325.202
		8.347	333.552			
TP 6				3.762	329.790	
		9.023	338.813			
TP 5				1.091	337.722	
		16.163	353.885			
TP 4				0.363	353.522	
		4.720	358.242			
TP				3.945	354.297	
		12.140	366.437			
TP				8.326	358.111	
		0.280	358.391			
TP 1				13.080	345.311	
		2.086	347.397			
B.M.				18.030	329.367	CLOSE 0.005' HIGH

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION PV LANDFILL
MONITORING WELLS
 DISTRICT No. _____

F.B. No. _____ Page 322
 SURVEY BY G. TOWNER
 DATE 10-19-92

ELEVATION LEVEL SHEET CHECK

STA.	OFFSET	B.S.	I.I.	F.S.	ELEV.	DESCRIPTION
BM CY- B532					421.609	COUNTY B.M. - CRENSHAW & PV. DR. NO.
		6.205	427.814			
TP				0.420	427.394	TP 1 C.N.F. P.C.
		2.724	430.118			
WELL M58B				5.263	424.855	TOP LIC COMPARE M58B
				6.148	423.970	WELL M58B SOUTH SIDE
		8.680	432.650			
TP				0.370	432.330	TP. 2 - 11A - A
		9.922	442.252			
TP				0.515	441.737	T.P. 3
		5.520	447.257			
TP				3.795	443.262	T.P. 4 " "
		3.220	446.482			
TP				3.562	437.920	T.P. 5
		3.564	441.484			
WELL M61B				4.742	436.542	M61B CORRECTED = 436.531
				3.200	436.284	CORRECTED = 436.273
			RETURN LOOP			
		6.120	441.404			M61B S. TOP CASE 11-
TP				3.492	437.924	T.P. 5
		3.480	446.404			
TP				3.130	443.274	T.P. 4
		4.430	447.754			
TP				6.002	441.752	T.P. 3
		0.905	442.660			
TP				10.310	432.350	T.P. 2
		2.098	434.448			
TP				7.027	427.421	T.P. 1
		0.232	427.653			
B.M.				6.022	421.631	CY 8532 CLOSE 0.022 HK

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. _____

F.B. No. _____ Page 323
 SURVEY BY G. TOWNER
 DATE 10-15-92

ELEVATION LEVEL SHEET CHECK

STA.	OFFSET	B.S.	I.I.	F.S.	ELEV.	DESCRIPTION
B.M. 4					277.893	M# COVER - NE COR. LANDFILL CRENSHAW BLVD.
		0.355	278.248			
M 37 A				16.348	261.900	N EDGE WELL SHAFT COVER M-37A
		0.810	262.710			
T.P. 1				13.120	249.590	
		6.955	256.545			
COMPARISON M 36 A				4.758	251.787	TOP 2" X 1" WELL COVER LID M 36 A
M 36 A				4.897	251.648	S EDGE WELL SHAFT COVER M 36 A
		0.593	252.241			
T.P. 2				15.950	236.291	
		0.045	236.336			
T.P. 3				11.235	225.101	
		0.600	225.701			
T.P. 4				11.565	214.136	
		0.965	215.101			
TP 5				8.063	207.038	
		2.270	209.308			
TP 6				8.250	201.058	
		0.513	201.571			
TP 7				13.230	188.341	
		2.762	191.103			
TP 8				9.003	182.100	
		2.980	185.080			
COMPARISON M 52 B				4.955	180.125	CENTER 1" W WELL LID M 52 B - CORRECTED = 180.119
M 52 B				5.245	179.835	N. EDGE WELL SHAFT M 52 B - CORRECTED = 179.829
		5.153	184.988			
TP 8				2.887	182.101	
		8.307	190.408			
T.P. 7				2.068	188.340	
		11.650	199.990			
T.D. A				1.828	198.162	
		6.667	204.829			
TP 6				3.770	201.059	

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. _____

F.B. No. _____ Page 325
 SURVEY BY G. TOWNER
 DATE _____

ELEVATION LEVEL SHEET CHECK

STA.	ELEVATION		LEVEL SHEET		CHECK	DESCRIPTION
	OFFSET	B.S.	H.I.	F.S.		
B.M. "Z"					325.202	TOP RIM SUMP AT ROLLING HILLS RD. & SHADOW LANE
		7.410	332.612			
TP 1				0.582	332.030	
		10.550	342.580			
TP 2				0.300	342.280	
		13.110	355.390			
TP 3				0.268	355.122	
		14.330	369.452			
TP 4				0.470	368.982	
		13.135	382.117			
TP 5				0.284	381.833	
		10.546	392.379			
COMPARISON M. 62 A				4.410	387.969	CENTER T ^o METAL WELL COVER CORRECTED = 387.966
M. 62 A				5.440	386.939	S. EDGE WELL SHAFT M. 62 A CORRECTED = 386.936
		5.314	392.253			
TP 5				10.420	381.833	
		0.557	382.390			
TP 4				13.402	368.988	
		0.818	369.806			
TP 3				14.680	355.126	
		0.480	355.606			
T.P. "A"				13.86	341.746	
		1.017	342.763			
T.P. 1				10.725	332.038	
		0.540	332.578			
B.M.				7.370	325.208	CLOSE 0.006' HIGH

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. _____

F.B. No. _____ Page 326
 SURVEY BY G. TOWNER
 DATE 10-13-92

ELEVATION LEVEL SHEET CHECK

STA.	OFFSET	B.S.	H.I.	F.S.	ELEV.	DESCRIPTION
B.M. ROCK					287.80	IN GULLY W. OF ERNIE HOWLET PARK
		3.87	291.671			
WELL M. 48A				13.530	278.141	HIGH Pt. ON W. RIM M-48A IN VAULT (TOP)
		13.440	291.581			
B.M. ROCK				3.780	287.801	CLOSE 0.00'
						10-14-92
B.M. "A"					278.642	WELL M48A
		1.068	279.710			
TP.				3.365	276.345	
		4.855	281.200			
M 54 B				3.590	277.610	E SIDE WELL CASING (TOP) M 54 B
		3.485	281.095			
TP.				4.750	276.345	
		3.360	279.705			
B.M. "A"				1.062	278.643	CLOSE 0.001' HIGH
B.M. "A"					278.642	WELL M48A
		4.150	282.792			
TP.				0.282	282.510	
		23.140	305.650			
M 55 B				4.420	301.230	W. SIDE WELL CASING (TOP) M. 55B HIGH POINT
		4.265	305.495			
				22.985	282.510	
		0.315	282.825			
B.M. "A"				4.180	278.645	CLOSE 0.003' HIGH

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION P.V. LANDFILL
MONITORING WELLS
 DISTRICT No. _____

F.B. No. _____ Page 327
 SURVEY BY G. TOWNER
 DATE 10-15-92

ELEVATION LEVEL SHEET CHECK

STA.	OFFSET	B.S.	H.I.	F.S.	ELEV.	DESCRIPTION
M 54 B					277.610	E. EDGE WELL SHAFT
		5.193	282.803			
COMPARISON CENT. COVER				4.615	278.188	CENTER 1' Ø MONITORING WELL COVER M 54 B
M 55 B					301.230	W. EDGE WELL SHAFT
		4.555	305.785			
COMPARISON CENT. COVER				4.000	301.785	CENT. 1' Ø MONITORING WELL COVER COVER M 55 B
BM 3					292.748	TOP WALL - NO. LANDFILL RD.
		16.450	309.198			
M 32 B				2.865	306.333	E. EDGE WELL SHAFT COVER - M 32 B
		2.580	308.913			
BM 3				16.165	292.748	CLOSE 0.000'
BM 1					354.447	TOP CURB - ENTRANCE TO LANDFILL - W. SIDE
		8.810	363.257			
TP 1				0.222	363.035	
		7.270	370.305			
M 46 A				3.470	366.835	S. EDGE WELL SHAFT COVER M 46 A
		3.343	370.178			
TP 1				7.142	363.036	
		0.597	363.603			
BM 1				9.185	354.418	CLOSE 0.029' LOW

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COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

LOCATION PV LANDFILL
MONITORING WELLS
 DISTRICT No. _____

F.B. No. _____ Page 328
 SURVEY BY G. TOWNER
 DATE 10-19-92

ELEVATION LEVEL SHEET CHECK

STA.	OFFSET	B.S.	H.I.	F.S.	ELEV.	DESCRIPTION
B.M. DY-10391					462.003	D.P.W. B.M. TAG NE COR HAWTHORNE & P.V. DR.
		5.465	467.468			
				4.380	463.088	T.P. 1
		6.722	469.810			
				0.494	469.316	T.P. 2
		14.220	483.536			
				1.393	482.153	T.P. 3
		14.013	496.171			
				0.295	495.876	T.P. 4
		7.144	503.020			
WELL M57B				1.936	501.034	MET 3 CORRECTION CORRECTED = 501.030
"				2.710	500.310	M57B CORRECTION CORRECTED = 500.306
~~~~~ RETURN LOOP ~~~~~						
		2.463	502.778			M57B WELL
				6.903	495.875	T.P. 4
		0.433	496.333			
				14.180	482.153	T.P. 3
		1.570	483.723			
				14.402	469.321	T.P. 3
		3.137	472.478			
				9.382	463.096	T.P. 1
		4.340	467.436			
B.M.				5.425	462.011	CLOSE 0.008' HIGH

FORM 107

**COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY**

LOCATION P.V. LANDFILL  
MONITORING WELLS  
 DISTRICT No. _____

F.B. No. _____ Page 329  
 SURVEY BY G. TOWNER  
 DATE 10-19-92

**ELEVATION                      LEVEL SHEET                      CHECK**

STA.	OFFSET	B.S.	H.I.	F.S.	ELEV.	DESCRIPTION
B.M. DY-10086					329.362	CRENSHAW BLVD & ESTATES CONDOS
		11.404	340.766			
				0.478	340.288	T.P. "29"
		14.330	354.618			
				0.718	353.900	T.P. 1
		13.595	367.495			
WELL M44A				4.210	363.285	TOP COVER EAST SIDE M 44A CORRECTED = 363.289
~ ~ ~ RETURN LOOP ~ ~ ~						
		3.965	367.250			
				13.355	353.895	T.P. 1
		0.735	354.630			
				14.350	340.280	T.P. "29"
		0.403	340.688			
B.M.				11.335	329.353	CLOSE 0.009' LOW
B.M. DY-10086					329.362	CRENSHAW & ESTATES CONDOS
		0.472	329.834			
TP 1				17.870	311.964	
		0.754	312.718			
COMPARE M53B				9.048	303.670	CORRECTED = 303.668
WELL M53B				9.722	302.996	COMPARISON #HOT-CTR. 1" METAL WELL COVER M53B W. EDGE WELL SHAFT M53B
TP M53B						CORRECTED = 302.994
		9.628	312.624			
TP 1				0.688	311.966	
		18.102	330.068			
B.M.				0.702	329.366	CLOSE 0.004' HIGH

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