

DATE: 12-20-78  
 INSTRUMENT MAN: G. Cotcamp  
 PARTY NUMBER: 6834  
 NOTES CHECKED BY: RS Flower  
 LINE NO.: 1  
 PAGE: 1 OF 108

AREA: TENNESSEE  
 TOPO MAP: McDaniel Bald 7 1/2  
 STATE: North Carolina  
 COUNTY: Cherokee  
 TWP: [blank]  
 RANGE: [blank]  
 PPM: [blank]  
 PARTY MANAGER: L. O. Davis

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
														Y	X	
										3336.0				313370	2578415	instrument - wild TIA
	460	86° 459	129°43' +180°	-2.0°	+8.0	85°	-39.9	+31.9	3304.1		BS	+281	-363			scaled Tenn. zone
	460				+5.3	85°20'	-37.2	-31.9			BS					Y-intersect. Harshaw Gap
1	439	438	127°36'	-2.0°	0.9	86°	+30.6	+29.7		3333.8		-255	+356	313396	2578408	
2	220		" "	-2.0°	3.4	-		-3.4		3300.7		-128	+179	313523	2578231	↓
3	0				5.4	-		-5.4		3298.7	TP	0	0	313681	2578052	
4	209		343°57.6'	-2.0°	1.2	87°30'	+9.1	+7.9		3312.0	TP	+199	-65	313850	2577987	curve
4	209				0.6	87°40'	+8.5	+7.9			TP					
	65		168°29' +180°	-2.0°	+5.7	-		+5.7	3317.7		BS	+63	-15			
	65				+6.0	TH	-0.3	+5.7			BS					
π	0				5.4	-		-5.4		<del>3312.3</del>	TP	0	0	313913	2577972	
5	150	98° 149	294°24'	-2.0°	15.0	93°	-7.8	-22.8		3294.9		+57	-138	313970	2577834	
6	368	366	300°12.5'	-2.0°	2.8	95°	-31.9	-34.7		3283.0	TP	+173	-322	314086	2577650	
6	368				5.9	94°30'	-28.8	-34.7			TP					
	219	218	107°57.5' +180°	-2.0°	+3.6	85°	-19.0	-15.4	3267.6		BS	+60	-209			
	219				+1.1	85°40'	-16.5	-15.4			BS					
7	0				5.4	-		-5.4		3262.2	TP	0	0	314146	2577441	
8	192		247°50.5'	-2.0°	14.7	92°30'	-8.4	-23.1		3244.5	TP	-79	-175	314067	2577266	curve
8	192				14.1	92°40'	-8.9	-23.0			TP					
	220	219	113°8' +180°	-2.0°	+2.9	84°30'	-21.0	-18.1	3226.4		BS	+79	-204			
	220				+3.6	84°20'	-21.6	-18.0			BS					

2Y NOTES-HIGH RESOLUTION DATA

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
12-20-78		G. Cotcamp		R. Hulsey		6834		RS Johnson		1	2				
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		McDaniel Bald		North Carolina	Cherokee					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									3226.4						
9	0				5.4	-		-5.4		3221.0	TP	0	0	314146	2577062
10	219	218	287°57.3'	-2.0°	14.9	94°30'	-17.1	-32.0		3194.4	TP	+60	-210	314206	2576852
10	219				14.3	94°40'	-17.8	-32.0			TP				
	213	212	134°23.2' + 180°	-2.0°	+5.9	82°40'	-27.0	-21.1	3173.3		BS	+143	-156		curve
	213	84°			+5.2	82°50'	-26.4	-21.2			BS				
11	0				5.4	-		-5.4		3167.9	TP	0	0	314349	2576696
12	216	215	303°20.6'	-2.0°	8.0	96°26'	-24.0	-32.0		3141.3	TP	+112	-184	314461	2576512
12	216				7.1	96°40'	-24.9	-32.0			TP				
	205	204	166°59' + 180°	-2.0°	+10.9	82°40'	-26.0	-15.1	3126.2		BS	+197	-53		curve
	205	85°			+8.0	83°30'	-23.1	-15.1			BS				
13	0				5.4	-		-5.4		3120.8	TP	0	0	314658	2576459
14	218	217	303°0.6'	-2.0°	14.1	93°	-11.4	-25.5		3100.7	TP	+112	-186	314770	2576273
14	218	96°			14.8	92°50'	-10.8	-25.6			TP				
	220		112° + 180°	-2.0°	+2.0	TH	-1.1	+0.9	3101.6		BS	+75	-207		
	220				+2.1	89°40'	-1.3	+0.8			BS				
15	0				5.4	-		-5.4		3096.2	TP	0	0	314845	2576066
16	214		315°5'	-2.0°	10.6	-		-10.6		3091.0		+146	-156	314991	2575910
TP	320		313°47'	-2.0°	12.7	-		-12.7		3088.9	TP	+213	-239	315058	2575827 split sta. due to sharp
TP	320				14.3	TH	+1.6	-12.7			TP				curve

SURVEY NOTES-HIGH RESOLUTION DATA

Geosource Inc.

GEO-445

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
12-20-78		G. Cotcamp		R. Hulsey		6834		R.B. Jansen		1		3				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
Tennessee		McDaniel Bald		North Carolina		Cherokee								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH+ SOUTH - LAT.	EAST+ WEST - DEP.		Y	X
TP 320										3088.9				315058	2575827	
	115		102°52' +180°	-2.0°	+6.2	-		+6.2	3095.1		BS	+22	-113-			
	115				+5.6	84	+0.6	+6.2			BS					
17	0			r	5.4	-		-5.4		3089.7	TP	0	0	315080	2575714	
TP	203		250° 0.5'	-2.0°	6.1	-		-6.1		3089.0	TP	-76	-188.	315004	2575526	split sta. due to curve
TP	203				5.1	84	-1.0	-6.1			TP					
	234		165° 27.3' +180°	-2.0°	+5.7	87°	-12.2	-6.5	3082.5		BS	+224.	-67			
	234				+7.1	86°40'	-13.6	-6.5			BS					
18	220		167° -	-2.0°	3.9	87°30'	+9.6	+5.7		3088.2		-213	+57	315015	2575516	
19	0				5.4	-		-5.4		3077.1	TP	0	0	315228	2575459	
TP	178		323° 43.5'	-2.0°	5.2	93°	-9.3	-14.5		3068.0	TP	+140.	-110	315368	2575349	split sta. due to curve
TP	178				6.0	92°46'	-8.6	-14.6			TP					
	262		158° 13.6' +180°	-2.0°	+3.8	88°	-9.1	-5.3	3062.7		BS	+240	-106			
	262				+0.8	88°40'	-6.1	-5.3			BS					
20	220		158° 13.6'	-2.0°	0.4	89°	+3.8	+3.4		3066.1		-201	+89	315407	2575332	
21	0				5.4	-		-5.4		3057.3	TP	0	0	315608	2575243	
	66		327° 42'	-2.0°	8.3	-		-8.3		3054.4		+55	-37	315663	2575206	Y-intersect.
22	216	215	340° 10.2'	-2.0°	14.1	91°20'	-5.0	-19.1		3043.6	TP	+199	-80	315807	2575163	E.O.D.
22	216	95°			13.5	91°30'	-5.7	-19.2			TP					
	650	649	198° 13.5' -180°	-2.0°	+13.4	86°30'	-39.6	-26.2	3017.4		BS	+623	+181			
	650	87°30'			+14.5	86°24'	-40.7	-26.2			BS					

SURVEY NOTES-HIGH RESOLUTION DATA

Geosource Inc.

GEO-445

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
1/3/79		G. Cotcamp		R. Hulsey		6834		RS. Jansen		1	4				
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		McDaniel Bald		North Carolina	Cherokee					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									3017.4						
23	437		201°40'	-2.0°	2.2	89°	+7.6	+5.4		3022.8		-412	-147	316018	2575197
24	220		'	-2.0°	6.3	-	-	-6.3		3011.1		-207	-74	316223	2575270
	128		199°25'	-2.0°	4.1	-	-	-4.1		3007		-122	-38	316308	2575306
25	0				5.4	-	-	-5.4		3012	X	0	0	316430	2575344
26	220		24°43.5'	-1.7°	13.0	-	-	-13.0		3004.4	TP	+202+3	+86-1	316635	2575429
26	220				14.1	TH	+1.1	-13.0			TP				
	440	439	193°59'-180°	-1.7°	+4.8	87°	-23.0	-18.2	2986.2		BS	+429+3	+93-1		
	440				+2.2	87°20'	-20.4	-18.2			BS				
27	220		193°59'	-1.7°	2.4	88°	+7.7	+5.3		2991.5		-215	-47	316852	2575474
28	0				5.4	-	-	-5.4		2980.8	X	0	0	317067	2575521
29	220		4°31.6'	-1.7°	11.5	-	-	-11.5		2974.7	TP	+220+3	+11-1	317290	2575531
29	220				12.6	TH	+1.1	-11.5			TP				
	216		154°47'+180°	-1.7°	+4.9	88°30'	-5.7	-0.8	2973.9		BS	+193+3	-98-1		
	216				5.5	88°20'	-6.3	-0.8			BS				
30	0				5.4	-	-	-5.4		2968.5	X	0	0	317486	2575432
TP	192		11°12.5'	-1.7°	13.6	91°30'	-5.0	-18.6		2955.3	TP	+189+3	+32-1	317678	2575463
TP	192				14.2	91°20'	-4.5	-18.7			TP				split sta due to curve
	197		210°35'-180°	-1.7°	+14.5	84°52'	-17.6	-3.1	2952.2		BS	+172+2	+95-1		
	197	88.5			+14.0	85°	-17.1	-3.1			BS				
31	169		206°12'	-1.7°	0.5	TH	+0.8	+0.3		2952.5		-154	-70	317698	2575487

y=+13 x=-14  
316,295 + 2,575,320 (scaled)  
Y-in force

DATE 1/3/79	INSTRUMENT MAN G. Cotcamp	ROD MAN R. Hulsey	PARTY NUMBER 6839	NOTES CHECKED BY M.R. Flower	LINE NO. 1	PAGE 5
AREA Tennessee	TOPO MAP McDaniel Bald	COUNTY North Carolina	TWP Cherokee	RANGE	PPM	PARTY MANAGER L.O. Davis

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									2952.2						
π	0				54	-		-5.4		2946.8	π	0	0	317,852	2,575,557 split sta - curve ↑
32	51		358°36'	-1.7°	5.1	-		-5.1		2942.1		+51	-3	317,903	2,575,554 McDaniel - Bald Quad.
33	270		349°29'	-1.7°	14.5	84	-1.4	-15.9		2936.3	TP	+264+2	-57-1	318,118	2,575,499 Big Junction
33	270	73°			6.5	92°	-9.4	-15.9			TP				↓
	220		172°20' +180°	-1.7°	+2.0	87°	-11.5	-9.5	2926.8		BS	+217+2	-36-1		
	220				+0.8	87°20'	-10.2	-9.4			BS				
34	0				54	-		-5.4		2921.4	π	0	0	318,337	2,575,462
35	225	223	10°35'	-1.7°	9.6	95°	-19.5	-29.1		2897.7	TP	+220+2	+34-1	318,559	2,575,495 T.P. opposite station
35	225	97°			13.5	94°	-15.7	-29.2			TP				
	220		210°38' -180°	-1.7°	+5.9	86°	-15.3	-9.4	2888.3		BS	+193+2	+106-1		
	220	87°5'			+2.0	87°	-11.5	-9.5			BS				
36	0				54	-		-5.4		2882.9	π	0	0	318,754	2,575,600
37	210	208	4°12'	-1.7°	4.2	97°	-25.4	-29.6		2858.7	TP	+208+2	+9-1	318,964	2,575,608 curve
37	210	97°6'			4.5	96°54'	-25.0	-29.5			TP				
	440	438	166°9' +180°	-1.7°	+104	83°30'	-49.5	-39.1	2819.6		BS	+422+2	-117-1		
	440	89°7'			+8.1	83°48'	-47.2	-39.1			BS				
38	220		166°9'	-1.7°	2.9	87°	+11.5	+8.6		2828.2		-212	+59	319,176	2,575,549
39	0				54	-		-5.4		2814.2	π	0	0	319,388	2,575,490
40	219	218	326°24.3'	-1.7°	9.6	94°	-15.2	-24.8		2794.8	TP	+178+2	-126-1	319,568	2,575,363
40	219	96°			13.4	93°	-11.4	-24.8			TP				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
1/3/79		G. Cotcamp		R. Hulsey		6834		R. Hulsey		1	6			
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
Tennessee		Big Junction		North Carolina	Cherokee					L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
40										2794.8				
	132	131	147°5' +180°	-1.7°	+4.0	83°-	-16.0	-12.0	2782.8		BS	+108+2	-74-1	
	132	94.5'			+1.7	84°-	-13.7	-12.0			BS			
π	0				54	-		-5.4		2777.4	π	0	0	319,678 2,575,288 split sta. - curve
41	87		345°6'	-1.7°	12.0	-		-12.0		2770.8		+83	-25	319,761 2,575,263
42	309	307	345°6'	-1.7°	10.2	94°30'	-24.2	-34.4		2748.4	TP	+294+2	-88-1	319,974 2,575,199
42	309	96°			7.5	95°-	-26.8	-34.3			TP			
	219	218	149°56' +180°	-1.7°	+1.1	85°-	-19.0	-17.9	2730.5		BS	+185+2	-115-1	
	219				+2.4	84°40'	-20.3	-17.9			BS			
43	0				5.4	-		-5.4		2725.1	π	0	0	320,161 2,575,083
44	220	218	314° 2.3'	-1.7°	14.2	93°30'	-13.4	-27.6		2702.9	TP	+147+2	-161-1	320,310 2,574,921
44	220	97°			12.3	94°-	-15.3	-27.6			TP			
	260	259	140°33.4' +180°	-1.7°	+1.9	84°-	-27.0	-25.1	2677.8		BS	+195+2	-170-1	
	260				+1.1	84°10'	-26.2	-25.1			BS			
45	40		140°33.4°	-1.7°	3.0	-		-3.0		2674.8		-30	+26	320,477 2,574,776
π	0				5.4	-		-5.4		2672.4	π	0	0	320,507 2,574,750 split sta. - curve
46	196	195	21°45'	-1.7°	14.8	92°-	-6.8	-21.6		2656.2	TP	+183+2	+67-1	320,692 2,574,816
46	196	96°			14.2	92°10'	-7.4	-21.6			TP			
	211		216°24.2' +180°	-1.7°	+1.5	88°-	-7.4	-5.9	2650.3		BS	+173+2	+120-1	
	211				+0.6	88°16'	-6.4	-5.8			BS			
π	143		226°40'	-1.7°	4.8	88°-	+5.0	-0.2		2650.1	π	-111	-90	320,756 2,574,845 bridge

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
1/3/79		G. Cotcamp		R. Hulsey		6839		R.S. Flouren		1	7						
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
Tennessee		Big Junction 7.5		North Carolina	Cherokee					L.O. Davis							
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									2650.3								
47	0				5.4	-		-5.4		2644.9	TP	0	0	320,867	2,574,935		
+8	218		59° 58.6'	-1.7°	7.2	92° -	-7.6	-14.8		2635.5	TP	+130+2	+175-1	320,999	2,575,109		
48	218				6.0	92° 26'	-8.9	-14.9			TP						
	225		220° 20.4' - 180°	-1.7°	+3.3	88° -	-7.8	-4.5	2631.0		BS	+176+2	+140-1				
	225				+1.4	88° 30'	-5.9	-4.5			BS						
49	0				5.4	-		-5.4		2625.6	TP	0	0	321,177	2,575,248	set up opposite sta	
TP	95		47° 37'	-1.7°	7.2	92° -	-3.3	-10.5		2620.5	TP	+66+2	+68-1	321,245	2,575,315	split sta - curve	
TP	95	95°			7.6	91° 46'	-2.9	-10.5			TP						
	110		162° 33' + 180°	-1.7°	+1.4	86° 30'	-6.7	-5.3	2615.2		BS	+104+2	-36-				
	110				+1.7	86° 20'	-7.0	-5.3			BS						
50	0				5.4	-		-5.4		2609.8	TP	0	0	321,351	2,575,279		
TP	96		336° 46'	-1.7°	10.2	-		-10.2		2605	TP	+87	-40	321,438	2,575,239	bridge	
51	204		327° 35.3'	-1.7°	13.0	-		-13.0		2602.2	TP	+169+2	-114	321,522	2,575,165	EOG	
51	204	99°			13.6	89° 50'	+0.6	-13.0			TP					curve	
	223		126° 52.6' + 180°	-1.7°	+7.0	88° 40'	-5.2	+1.8	2604.0		BS	+128+2	-18.2				
	223				+7.7	88° 30'	-5.8	+1.9			BS						
52	0				5.4	-		-5.4		2598.6	TP	0	0	321,652	2,574,983		
53	217		295° 31'	-1.7°	6.3	89° -	+3.8	-2.5		2601.5	TP	+88+2	-199	321,742	2,574,704		
53	217				6.0	89° 04'	+3.5	-2.5			TP						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
1/4/79		G. Cotcamp		R. Hulsey		6834		R.S. Flowers		1	8			
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		Big Junction 7.5	North Carolina	Cherokee					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH+ SOUTH - LAT.	EAST+ WEST - DEP.	
53										2601.5				
	220		88° 57.5' +180°	-1.7°	+5.9	92° -	+7.7	+13.6	2615.1		BS	-11+2	-220	
	220				+4.9	92° 16'	+8.7	+13.6			BS			
54	0				5.4	-		-5.4	2609.7		X	0	0	321,733 2,574,564
TP	160		286° 19.3'	-1.7°	3.4	-		-3.4	-3.5	2611.6	TP	+40+2	-155	321,775 2,574,409
TP	160				4.4	TH	+0.8	-3.6			TP			split sta. - curve
	224		84° 41.2' +180°	-1.7°	+8.6	-		+8.6	2620.2		BS	-27+2	-222	
	224				+9.7	TH	-1.1	+8.6			BS			
55	169		84° 41.2'	-1.7°	8.8	-		-8.8	2611.4			+21	+168	321,771 2,574,355
X	0				5.4	-		-5.4	2614.8		X	0	0	321,750 2,574,187 split sta. - curve
56	53		298° 54'	-1.7°	7.2	-		-7.2	2613.			+24	-47	321,774 2,574,140
57	264		282° 53.7'	-1.7°	3.0	-		-3.0	2617.2		TP	+51+2	-259	321,803 2,573,928
57	264				1.7	BT	-1.3	-3.0			TP			
	220		94° 1' +180°	-1.7°	+2.1	-		+2.1	2619.3		BS	+9+2	-220	
	220				+3.2	TH	-1.1	+2.1			BS			
58	0				5.4	-		-5.4	2613.9		X	0	0	321,814 2,573,708
59	221	220	270° 10.6'	-1.7°	4.7	93° -	-11.5	-16.2	2603.1		TP	-6+2	-220	321,810 2,573,488
59	221	99°			7.2	92° 20'	-9.0	-16.2			TP			
	220		108° 18.7' +180°	-1.7°	+2.2	-		+2.2	2605.3		BS	+63+2	-211	
	220				+3.3	TH	-1.1	+2.2			BS			
60	0				5.4	-		-5.4	2599.9		X	0	0	321,875 2,573,277

**Geosource Inc.**

DATE 1/4/79	INSTRUMENT MAN G.C. Camp	ROD MAN R. Hulsey	PARTY NUMBER 6834	NOTES CHECKED BY R.S. [Signature]	LINE NO. 1	PAGE 9
AREA Tennessee	TOPO MAP Big Junction 7.5	STATE N. Carolina / Tennessee	COUNTY Cherokee / Monroe	TWP	RANGE	PPM
					PARTY MANAGER L.O. Davis	

STATION NO.	SLOPE DISTANCE 	PLOTTING DISTANCE 	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS	
														Y	X		
									2605.3								
61	220		301° 12'	-1.7°	9.6	92° 30'	-9.6	-19.2	2586.1		TP	+108+2	-191	321,985	2573,086		
61	220				9.0	92° 40'	-10.2	-19.2									TP
	219		130° 48' +180	-1.7°	+12.2	86° 42'	-12.6	-0.4	2585.7		BS	+138+2	-170			↑	
	219	90°			+11.8	86° 48'	-12.2	-0.4									BS
□	155		128° 5'	-1.7°	2.2	-	-	-2.2	2583.5	-	X	-92	+125	322,033	2573,041	State Line post (unable to locate)	
≡	27		130° 48'	-1.7°	6.4	-	-	-6.4	2579.3	-	X	-17	+21	322,108	2572,937	concrete bridge (BM)	
62	0				5.4	-	-	-5.4	2580.3		X	0	0	322,125	2572,916	Tennessee / Monroe Co.	
63	220		289° 55'	-1.7°	4.7	91° -	-3.8	-8.5	2577.2			+69	-209	322,194	2572,707	paved road	
64	432		277° 27.5'	-1.7°	5.3	91° -	-7.5	-12.8	2572.9		TP	+43+2	-430	322,170	2572,486	curve	
64	432				7.9	90° 40'	-5.0	-12.9									TP
	220		54° 32.6' +180°	-1.7°	+3.5	-	-	+3.5	2576.4		BS	-133+2	-175				
	220				+4.6	TH	-1.1	+3.5									BS
65	0				5.4	-	-	-5.4	2571		X	0	0	322,039	2572,311		
66	222		238° 1.5'	-1.7°	8.6	-	-	-8.6	2567.8		TP	-123+2	-185	321,918	2572,126	T.P. opposite sta.	
66	222				7.5	BH	-1.1	-8.6									TP
	228		95° 9.7' +180°	-1.7°	+0.7	TH	-1.1	-0.4	2567.4		BS	+14+2	-228				
	228				+0.9	89° 40'	-1.3	-0.4									BS
67	0				5.4	-	-	-5.4	2562		X	0	0	321,934	2571,898	set up opposite station	
68	223		309° 33.5'	-1.7°	10.0	-	-	-10.0	2557.4		TP	+137+2	-176	322,073	2571,722		
68	223				8.0	90° 30'	-1.9	-9.9									TP

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
1/4/79		G. Cotcamp		R. Hulsey		6834		R. Hulsey		1	10			
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER			
Tennessee		Big Junction 7.5		Tennessee		Monroe					L.O. Davis			
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS T P	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
68										2557.4				
	660		146° 5' +180°	-1.7°	+2.7	89°	-11.5	-8.8	2548.6		BS	+537+2	-384	
	660				+4.7	88° 30'	73.4	-8.7			BS			
69	440		146° 5'	-1.7°	4.6	89°	+7.7	+3.1		2551.7		-358	+256	322,254 2571,594
70	220		" "	-1.7°	2.8	-		-2.8		2544.8		-179	+128	322,433 2571,466
71	0				5.4	-		-5.4		2543.2	T	○	○	322,612 2571,338
72	224		317° 0.7'	-1.7°	9.5	-		-9.5		2539.1	TP	+159+2	-158	322,723 2571,180 T.P. opposite sta.
72	224				10.6	FH	+1.1	-9.5			TP			curve
	224		187° 17.5' -180°	-1.7°	+13.3	87° 40'	-9.1	+4.2	2543.3		BS	+223+2	+22	
	224				+12.6	87° 30'	-8.5	+4.1			BS			
73	0				5.4	-		-5.4		2537.9	T	○	○	322,998 2571,202 set up opposite sta.
74	229		74° 39.2'	-1.7°	10.0	-		-10.0		2533.3	TP	+67+2	+219	323,067 2571,421 T.P. opposite sta.
74	229				8.9	BH	-1.1	-10.0			TP			
	222		276° 52.6' -180°	-1.7°	+1.1	89°	-3.9	-2.8	2530.5		BS	-20+2	+221	
	222				+0.4	89° 10'	-3.2	-2.8			BS			
75	0				5.4	-		-5.4		2526.1	T	○	○	323,049 2571,642 Horiz. Corr. - y-97' x-23' 323,095 + 2,571,700 chiseled square el. 2521.6
□	74		53° 14.6'	-1.7°	9.5	-		-9.5		2521.0		+46	+58	323,095 2571,700
≡	126		49° 24'	-1.7°	11.0	-		-11.0		2519.5		+85	+93	323,134 2571,735 bridge
76	216		46° 58.4'	-1.1°	15.0	-		-15.0		2515.5	TP	+150-1	+155+2	323,198 2571,799
76	216				13.9	BH	-1.1	-15.0			TP			curve

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
1/4/79		G. Cotcamp		R. Hulsey		6834		RS [Signature]		1	11						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
Tennessee		Big Junction 7.5		Tennessee		Monroe					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTER DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
76										2515.5							
	160		209°30' -180°	-1.1°	+1.2	89°	-2.8	-1.6	2513.9		BS	+147	+64+2				
	160				+0.7	89°10'	-2.3	-1.6			BS						
	147		206°42'	-1.1°	1.0	89°	+2.6	+1.6		2515.5		-133	-64	323,212	2,571,801	T-intersect.	
π	0				5.4	-		-5.4		2508.5	π	0	0	323,345	2,571,865	split sta. - sharp curve	
77	58		354°5'	-1.1°	8.7	-		-8.7		2505.2		+58	-7	323,403	2,571,858		
78	278		" "	-1.1°	13.0	8H	-1.4	-14.4		2499.5		+276	-34	323,621	2,571,831		
79	498		350°40'	-1.1°	10.0	91°	-8.7	-18.7		2495.2		+490	-90	323,835	2,571,775		
80	716		350°1'	-1.1°	11.8	91°	-12.5	-24.3		2489.6		+703	-138	324,048	2,571,727		
81	934		350°1'	-1.1°	14.2	91°	-16.3	-30.5		2483.4	TP	+917-1	-180+2	324,261	2,571,687		
81	934				11.5	91°10'	-19.0	-30.5			TP						
	220		158°31' +180°	-1.1°	+1.6	-		+1.6	2485.0		BS	+203	-84+2				
	220				+2.7	TH	-1.1	+1.6			BS						
82	0				5.4	-		-5.4		2479.6	π	0	0	324,464	2,571,605		
83	220		309°13'	-1.1°	9.1	-		-9.1		2575.9		+136	-173	324,600	2,571,432		
84	432		301°7.6'	-1.1°	13.8	-		-13.8		2471.2	TP	+216-1	-374+2	324,679	2,571,233	curve	
84	432				11.6	8H	-2.2	-13.8			TP						
	220		97°11.2' +180°	-1.1°	+1.4	-		+1.4	2472.6		BS	+23	-219+2				
	220				+2.5	TH	-1.1	+1.4			BS						
85	0				5.4	-		-5.4		2467.2	π	0	0	324,702	2,571,016		

DATE		INSTRUMENT MAN			ROD MAN		PARTY NUMBER		NOTES CHECKED BY			LINE NO.	PAGE		
1/4/79		G. Cotcamp			R. Hulsey		6834		R. J. Linn			1	12		
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		Big Junction 7.5		Tennessee	Monroe					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									2472.6						
86	230		294° 16.3'	-1.1°	4.8	-		-4.8		2467.8	TP	+91-1	-211+2	324,792	2,570,807 P. opposite station
86	230				3.5	90° 20'	-1.3	-4.8			TP				
	220		179° 41' +180°	-1.1°	+3.0	-		+3.0	2470.8		BS	+220	-5+2		
	220				+4.1	TH	-1.1	+3.0			BS				
87	0				5.4	-		-5.4		2465.4	X	0	0	325,012	2,570,804
88	220		23° 48.7'	-1.1°	11.1	-		-11.1		2459.7		+203	+85	325,215	2,570,889
89	442		23° 48.7'	-1.1°	13.5	90° 30'	-3.9	-17.4			TP	+408-1	+171+2	325,419	2,570,977 P. opposite sta.
89	442		^		12.2	90° 40'	-5.1	-17.3		2453.5	TP				
	225		228° 36.5' -180°	-1.1°	+1.2	-		+1.2	2454.7		BS	+152	+166+2		
	225				+2.3	TH	-1.1	+1.2			BS				
90	0				5.4	-		-5.4		2449.3	X	0	0	325,571	2,571,145
91	218		39° 5.3'	-1.1°	10.8	-		-10.8	2443.3	2443.9	TP	+172-1	+134+2	325,742	2,571,281
91	218				11.9	TH	+1.1	-10.8			TP				
	440		191° 1.2' -180°	-1.1°	+3.4	88°	-15.3	-11.9	2432.0		BS	+433	+76+2		
	440				+0.9	88° 20'	-12.8	-11.9			BS				
92	220		191° 1.2'	-1.1°	3.1	88°	+7.7	+4.6		2436.6		-217	-38	325,958	2,571,321
93	0				5.4	-		-5.4		2426.6	X	0	0	326,175	2,571,359
94	210		336° 40.5'	-1.1°	14.7	8H	-1.1	-15.8		2416.2	TP	+191-1	-87+2	326,365	2,571,274 curve
94	210				13.9	90° 30'	-1.8	-15.75		2416.3	TP				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/4/79		G. Cotcamp		R. Hulsey		6834		R. S. Howen		1		13			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee				Tennessee		Monroe								L. O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
94									2416.3						
	440		101° 17.2' +180°	-1.1°	+2.8	88°	-15.3	-12.5	2403.8		BS	+78	-433+2		
	440				+1.0	88° 14'	-13.6	-12.6			BS				
95	220		101° 17.2'	-1.1°	3.7	88°	+7.7	+4.0	2407.8			-39	+217	326,404	2,571,060
96	0				5.4	-		-5.4	2398.4		TP	0	0	326,443	2,570,843
97	220		302° 38'	-1.1°	12.3	91°	-3.8	-16.1	2387.7			+115	-188	326,558	2,570,655
98	440		"	-1.1°	11.3	92°	-15.3	-26.6	2377.2			+230	-375	326,673	2,570,468
99	660		300° 27'	-1.1°	11.0	92°	-23.0	-34.0	2369.8		TP	+323-1	-575+1	326,765	2,570,269
99	660				9.1	92° 10'	-24.9	-34.0			TP				
	221		129° 22' +180°	-1.1°	+0.2	TH	-1.1	-0.9			BS	+137	-174+1		
	221				+1.1	89° 30'	-1.9	-0.8	2369.0		BS				
100	0				5.4	-		-5.4	2363.6		TP	0	0	326,902	2,570,096
101	215		311° 22'	-1.1°	8.9	92°	-7.5	-16.4	2352.6		TP	+139-1	-164+1	327,040	2,569,933 TP opposite sta.
101	215				8.3	92° 10'	-8.1	-16.4			TP				
	658	657	109° 34.3' +180°	-1.1°	+3.7	87°	-34.4	-30.7	2321.9		BS	+208	-623+1		
	658				+5.6	86° 56'	-36.3	-30.7			BS				
102	440	439	109° 34.3'	-1.1°	4.9	87°	+23.0	+18.1	2340.0			-139	+416	327,109	2,569,727
103	220		"	-1.1°	2.8	88°	+7.7	+4.9	2326.8			-70	+209	327,178	2,569,520
104	0				5.4	-		-5.4	2316.5		TP	0	0	327,248	2,569,311
105	220		307° 55.3'	-1.1°	14.0	-		-11.0	2310.9		TP	+132-1	-176+1	327,379	2,569,136
105	220				12.1	TH	+1.1	-11.0			TP				

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
1/4/79		G. Cotcamp		R. Hulsey		6834		V. B. Flowers		1	14			
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
Tennessee		Big Junction 7.5		Tennessee	Monroe					L. O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
105										2310.9				
	660		138° 4.2' +180°	-1.1°	+6.1	88° -	-23.0	-16.9	2294.0		BS	+482	-450+1	
	660				+2.2	88° 20'	-19.2	-17.0			BS			
106	440		138° 4.2'	-1.1°	4.4	88° -	+15.3	+10.9	2304.9			-322	+300	327,539 2,568,987
107	220		" "	-1.1°	1.9	89° -	+3.8	+1.9	2295.9			-161	+150	327,700 2,568,837
108	0				5.4	-		-5.4	2288.6		X	0	0	327,861 2,568,687
109	220		327° 43.6'	-1.1°	11.6	91° -	-3.8	-15.4	2278.6			+184	-121	328,045 2,568,566
110	440		327° 43.6'	-1.1°	12.2	91° 30'	-11.5	-23.7	2270.3		TP	+367-1	-242+1	328,227 2,568,446
110	440				11.0	91° 40'	-12.8	-23.8			TP			
	219		123° 20.3' +180°	-1.1°	+3.1	88° -	-7.6	-4.5	2265.8		BS	+117	-185+1	
	219				+1.2	88° 30'	-5.7	-4.5			BS			
111	0				5.4	-		-5.4	2260.4		X	0	0	328,344 2,568,762
112	220		278° 14'	-1.1°	12.8	91° -	-3.8	-16.6	2249.2			+27	-218	328,371 2,568,044
113	440		" "	-1.1°	11.9	91° -	-7.7	-19.6	2246.2			+55	-437	328,399 2,567,825
X	500		277° 17'	-1.1°	11.2	91° -	-8.7	-19.9	2245.9			+54	-497	328,398 2,567,765 bridge
114	660		278° 14'	-1.1°	12.3	91° 10'	-13.4	-25.7	2240.1			+82	-655	328,426 2,567,607
115	880		277° 6'	-1.1°	10.3	91° 40'	-25.6	-35.9	2229.9		TP	+92-1	-875+1	328,435 2,567,388
115	880				7.8	91° 50'	-28.1	-35.9			TP			
	222		109° 3' +180°	-1.1°	+2.1	-		+2.1	2232.0		BS	+68	-211+1	
	222				+3.2	TH	-1.1	+2.1			BS			
116	0				5.4	-		-5.4	2226.6		X	0	0	328,503 2,567,178

**SURVEY NOTES-HIGH RESOLUTION DATA**

GEO-445

**Geosource Inc.**

DATE		INSTRUMENT MAN			ROD MAN		PARTY NUMBER		NOTES CHECKED BY			LINE NO.	PAGE				
1/4/79		G. Cotcamp			R. Hulsey		6834		✓ RSF			1	15				
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE		PPM	PARTY MANAGER						
Tennessee		Big Junction		Tennessee	Monroe						L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									2232.0								(scaled) 328,580 + 2,567,015 21,22281
BM	180		296° 21'	-1.1°	3.3	-		-3.3		2228.7		+77	-163	328,580	2,567,015	U.S.G.S R24 1931	
117	226		295° 32.6'	-1.6°	4.1	-		-4.1		2227.9	TP	+92-3	-207	328,592	2,566,971	T.P. opposite sta. Horiz. Corr. 4-12' X-38'	
117	226				5.2	74	+1.1	-4.1			TP						
	222		163° 21.2' - 180°	-1.6°	+5.3	-		+5.3	2233.2		BS	+211-3	-70				
	222				+6.4	74	-1.1	+5.3			BS						
118	0				5.4	-		-5.4		2227.8	T	0	0	328,800	2,566,901		
119	222		1° 53'	-1.6°	9.1	-		-9.1		2224.1	TP	+222-3	+1	329,019	2,566,902		
119	222				8.0	84	-1.1	-9.1			TP						
	220		227° 53' - 180°	-1.6°	+6.8	87°	-11.5	-4.7	2219.4		BS	+152-3	+159				
	220				+3.0	88°	-7.7	-4.7			BS						
120	0				5.4	-		-5.4		2214.0	T	0	0	329,168	2,567,061		
121	220		62° 12.6'	-1.6°	11.8	91°	-3.8	-15.6		2203.8		+108	+192	329,276	2,567,253		
122	440		62° 12.6'	-1.6°	13.4	91° 30'	-11.5	-24.9		2194.5	TP	+216-3	+383	329,381	2,567,444		
122	440				14.6	91° 20'	-10.2	-24.8			TP						
	440		237° 59.5' - 180°	-1.6°	+2.1	87° 40'	-17.9	-15.8	2178.7		BS	+244-3	+366				
	440				+3.4	87° 30'	-19.2	-15.8			BS						
123	220		237° 59.5'	-1.6°	3.4	88°	+7.7	+4.3		2183.0		-122	-183	329,498	2,567,627		
124	0				5.4	-		-5.4		2173.3	T	0	0	329,620	2,567,810		
125	220		27° 59.7'	-1.6°	13.7	-		-13.7		2165.0		+197	+98	329,817	2,567,908		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
1/5/79		G. Cotcamp		R. Hulsey		6834		✓ RSF		1	16						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
Tennessee		Big Junction		Tennessee		Marion					L.D. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH +	EAST +	COORDINATES		REMARKS	
												SOUTH -	WEST -	Y	X		
									2178.7								
126	440		27° 59.7'	-16°	3.3	92°	-15.3	-18.6	2160.1	TP	+394-3	+196	330,011	2,568,006			
126	440				0.7	92° 20'	-17.9	-18.6							TP		
	222		209° 32' -180°	-16°	+3.1			+3.1	2163.2	BS	+196-3	+104					
	222				+4.2	TH	-1.1	+3.1					BS				
127	0				5.4	-		-5.4	2157.8	TP	0	0	330,204	2,568,110	set up opposite sta.		
128	220		51° 51.2'	-16°	10.6	-		-10.6	2152.6		+141	+169	330,345	2,568,279			
129	440		" "	-16°	11.4	-		-11.4	2151.8		+281	+338	330,485	2,568,448			
130	660		51° 51.2'	-16°	13.3	91° 20'	-15.4	-28.7	2134.5	TP	+422-3	+507	330,623	2,568,617			
130	660				14.9	91° 12'	-13.8	-28.7							TP		
	220		208° 23.2' -180°	-16°	+3.3	89°	-3.8	-0.5	2134.0	BS	+196-3	+99					
	220				+1.4	89° 30'	-1.9	-0.5					BS				
131	0				5.4	-		-5.4	2128.6	TP	0	0	330,816	2,568,716			
132	220		3° 29.5'	-16°	9.5	-		-9.5	2124.5		+220	+7	331,036	2,568,723			
133	440		3° 29.5'	-16°	13.4	-		-13.4	2120.6	TP	+440-3	+15	331,253	2,568,731			
133	440				11.2	BH	-2.2	-13.4							TP		
	214		153° 38.7' +180°	-16°	+1.5	88° 30'	-5.6	-4.1	2116.5	BS	+189-3	-100				curve	
	214				+0.9	88° 40'	-5.0	-4.1					BS				
134	0				5.4	-		-5.4	2111.1	TP	0	0	331,439	2,568,631			
135	220		293° 6'	-16°	12.4	-		-12.4	2104.1		+81	-205	331,520	2,568,426			
<u>IL</u>	248		298° 2'	-16°	13.3	-		-13.3	2103.2		+70	-238	331,509	2,568,393	T-intersect. (north)		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
1/5/79		G. Co. Camp		R. Hulsey		6834		✓ RSF		1	17						
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
Tennessee		Big Junction		Tennessee	Monroe					C. O. Davis							
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									2116.5								
136	430		282° 43.5'	-1.6°	10.2	91° -	-7.5	-17.7	2098.8	TP	TP	+83.2	-422	331,520	2,568,209	curve	
136	430				5.2	91° 40'	-12.5	-17.7									
	440		93° 47.4' +180°	-1.6°	+1.5	89° -	-7.7	-6.2	2092.6	BS	BS	+17.2	-440				
	440				+0.2	89° 10'	-6.4	-6.2									
137	220		93° 47.4'	-1.6°	0.2	-	-0.2		2092.4			-8	+220	331,527	2,567,989		
138	0				5.4	-	-5.4		2087.2		TP	0	0	331,535	2,567,769		
139	220		294° 46.4'	-1.6°	10.3	-	-10.3		2082.3			+87	-202	331,622	2,567,567		
140	440		" "	-1.6°	10.6	91° -	-7.7	-18.3	2074.3			+173	-405	331,708	2,567,364		
141	660		" "	-1.6°	13.7	91° -	-11.5	-25.2	2067.4			+260	-607	331,795	2,567,162		
142	880		" "	-1.6°	13.8	90° 40'	-10.2	-24.0	2068.6			+346	-809	331,881	2,565,960		
143	1100		294° 46.4'	-1.6°	0.6	91° -	-19.2	-19.8	2072.7	TP	TP	+433.2	-1011	331,966	2,566,758		
143	1100				7.1	90° 40'	-12.8	-19.9									
	220		82° 30.2' +180°	-1.6°	+3.7	87° -	-11.5	-7.8	2064.9	BS	BS	-35.2	-217				
	220				+1.1	87° 40'	-8.9	-7.8									
144	0				5.4	-	-5.4		2059.5		TP	0	0	331,929	2,566,541		
145	220		275° 18'	-1.6°	10.9	-	-10.9		2054.0			+14	-220	331,943	2,566,321		
146	440		" "	-1.6°	4.2	92° -	-15.3	-19.5	2045.4			+28	-439	331,957	2,566,102		
147	660		" "	-1.6°	6.8	91° 30'	-17.3	-24.1	2040.8			+43	-659	331,972	2,565,882		
148	880		273° 36'	-1.6°	5.1	91° 40'	-25.6	-30.7	2034.2	TP	TP	+31.2	-879	331,958	2,565,662		
148	880				2.6	91° 50'	-28.1	-30.7									

DATE 1/5/79	INSTRUMENT MAN G. Cotcamp	ROD MAN R. Hulsey	PARTY NUMBER 6834	NOTES CHECKED BY RSF	LINE NO. 1	PAGE 18
AREA Tennessee	TOPO MAP Big Junction	STATE Tennessee	COUNTY Monroe	TWP	RANGE	PPM
				PARTY MANAGER L.O. Davis		

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
148										2034.2				
	445		113° 0.2' +180°	-1.6°	+2.6	89°	-7.8	-5.2	2029.0		BS	+162.2	-414	
	445				+5.2	88°40'	-10.4	-5.2			BS			
149	220		113° 0.2'	-1.6°	2.2	-		-2.2	2026.8			-80	+205	332,038 2,565,453
150	0				5.4	-		-5.4	2023.6		TP	0	0	332,118 2,565,248 set up opposite sta.
151	220		315° 20.6'	-1.6°	7.7	-		-7.9	2021.1			+152	-159	332,270 2,565,089
152	442		315° 20.6'	-1.6°	13.1	BH	-2.2	-15.3	2013.7		TP	+306.2	-319	332,422 2,564,929
152	442				14.0	90°10'	-1.3	-15.3			TP			
	442		166° 51' +180°	-1.6°	+7.2	89°	-7.7	-0.5	2013.2		BS	+427.2	-112	
	442				+8.5	88°50'	-9.0	-0.5			BS			
153	220		166° 51'	-1.6°	4.1	-		-4.1	2009.1			-213	+56	332,634 2,564,873
154	0				5.4	-		-5.4	2007.8		TP	0	0	332,847 2,564,817
155	220		325° 7.7'	-1.6°	10.6	-		-10.6	2002.6		TP	+177.2	-131	333,022 2,564,686
155	220				11.7	TH	+1.1	-10.6			TP			
	219		128° 53.6' +180°	-1.6°	+0.4	TH	-1.1	-0.7	2001.9		BS	+133.2	-174	
	219				4.2	89°30'	-1.9	-0.7			BS			
⇒	65		121° 27'	-1.6°	3.9	-		-3.9	1998.0			-32	+56	333,121 2,564,568 333,100 + 2,564,595 (scaled) T-intersect. (southwest)
156	0				5.4	-		-5.4	1996.5		TP	0	0	333,153 2,564,512
157	220		270° 29'	-1.6°	13.0	-		-13.0	1988.9			-4	-220	333,149 2,564,292
158	440		"	-1.6°	11.7	91°	-7.7	-19.4	1982.5			-9	-440	333,144 2,564,072
159	660		270° 29'	-1.6°	12.1	91°	-11.5	-23.6	1978.3		TP	-13.2	-660	333,138 2,563,852
159	660				10.2	91°10'	-13.4	-23.6			TP			

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
11/5/79		G. Cotcamp		R. Hulsey		6834		✓ RSF		1		19				
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER				
Tennessee		Big Junction		Tennessee		Monroe						L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
														Y	X	
159										1978.3				333,138	2,563,852	
	213		114°30.2'+180°	-1.6°	+12.0	88°-	-7.4	+4.6			BS	+83	-196+2			curve
	213				+10.7	88°20'	-6.2	+4.5	1982.8		BS					
160	0				5.4	-		-5.4		1977.4	X	0	0	333,221	2,563,658	
□	80		320°7'	-1.6°	4.4	-		-4.4		1978.4		+60	-53	333,281	2,563,605	chiseled square
≡	109		331°55'	-1.6°	4.0	-		-4.0		1978.8		+94	-54	333,315	2,563,604	bridge
161	222		332°3.7'	-1.6°	3.6	-		-3.6		1979.2	TP	+193	-109+2	333,414	2,563,551	
161	222				4.7	TH	+1.1	-3.6			TP					
	444		173°23.4'+180°	-1.6°	+3.8	88°-	-15.5	-11.7	1967.5		BS	+439	-63+2			
	444				+1.3	88°20'	-12.9	-11.6			BS					
162	221		173°23.4'	-1.6°	1.6	89°-	+3.9	+2.3		1969.8		-219	+32	333,634	2,563,522	
163	0				5.4	-		-5.4		1962.1	X	0	0	333,853	2,563,490	set up opposite station
164	220		5°14'	-1.6°	12.0	91°-	-3.8	-15.8		1951.7		+220	+14	334,073	2,563,504	
165	441		5°14'	-1.6°	14.2	91°10'	-9.0	-23.2			TP	+440	+28+2	334,293	2,563,520	
165	441				13.0	91°20'	-10.3	-23.3		1944.2	TP					
	220		195°52.5'-180°	-1.6°	+2.8	-		+2.8	1947.0		BS	+213	+54+2			
	220				+3.9	TH	-1.1	+2.8			BS					
166	0				5.4	-		-5.4		1941.6	X	0	0	334,506	2,563,576	
167	211		1°14'	-1.6°	5.2	-		-5.2		1941.8	TP	+211	-1+2	334,717	2,563,577	curve
167	211				6.3	TH	+1.1	-5.2			TP					

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/5/79		G. Cotcamp		R. Husley		6834		✓ RSF		1		20			
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER			
Tennessee		Big Junction		Tennessee		Monroe						L.O. Davis			
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
167									1941.8			334,717	2,563,277		
	202		107°19'+180°	-1.6°	+3.5	TH	-1.1	+2.5	1944.3		BS	+55	-194+2	shooting across curve	
	202				+4.8	89°20'	-2.3	+2.5		BS					
168	0				5.4	-		-5.4	1938.9	π	0	0	334,772	2,563,385	
169	220		265°48.5'	-1.6°	10.8	-		-10.8	1933.5		-22	-219	334,750	2,563,166	
170	443		265°48.5'	-1.6°	10.3	91°-		-7.7	1926.2		TP	-45	-441+2	T.P. opposite station	
170	443				14.2	90°30'		-3.9		TP					
	228		123°1.3'+180°	-1.6°	+0.6	-		+0.6	1926.8		BS	+119	-194+1		
	228				+1.7	TH		-1.1			BS				
171	0				5.4	-		-5.4	1921.4	π	0	0	334,846	2,562,753	
172	220		313°54.7'	-1.6°	7.7	-		-7.7	1919.1		+148	-163	334,994	2,562,590	
173	440		"	-1.6°	9.8	-		-9.8	1917.0		+296	-325	335,142	2,562,428	
174	660		"	-1.6°	12.8	-		-12.8	1914.0		+444	-488	335,290	2,562,265	
175	880		313°54.7'	-1.6°	14.3	-		-14.3	1912.5		TP	+592	-651+2	335,438	2,562,104
175	880				9.9	OH		-4.4		-14.3	TP				
	220		143°40.5'+180°	-1.6°	+3.9	-		+3.9	1916.4		BS	+174	-135+2		
	220				+5.0	TH		-1.1			BS				
176	0				5.4	-		-5.4	1911.0	π	0	0	335,612	2,561,971	
177	220		336°3'	-1.6°	8.2	-		-8.2	1908.2		+197	-98	335,809	2,561,873	
178	440		338°25'	-1.6°	11.9	-		-11.9	1904.5		TP	+404	-173+2	336,016	2,561,800
178	440				14.1	TH		+2.2		-11.9	TP				



DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
1/5/79		G. Catcamp		R. Hulsey		6834		R. J. H.		1	22				
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		Big Junction		Tennessee	Monroe					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									1870.2						
189	0				54	-		-5.4		1864.8	TP	0	0	337898	2,560,465 T-rd
190	220		17°26.4'	-1.6°	9.2	-		-9.2		1861.0		+212	+60	338,110	2,560,525
191	441		17°26.4'	-1.6°	9.5	-		-9.5			TP	+424 -1	+120 -1	338,321	2,560,584 EOD
191	441				11.8	TH	+2.2	-9.6		1860.6	TP				
	660		176°40.5'+180°	-1.6°	+8.0	89°-	-11.5	-3.5			BS	+657 -1	-57 -1		
	660				+2.2	89°30'	-5.8	-3.6	1857.0		BS				
192	440		173°48'	-1.6°	1.9	TH	+2.2	+0.3		1857.3		-436	+60	338,541	2,560,586
193	220		" "	-1.6°	1.6	-		-1.6		1855.4		-218	+30	338,759	2,560,556
194	0				5.4	-		-5.4		1851.6	TP	0	0	338,977	2,560,526
195	220		345°28'	-1.6°	7.5	-		-7.5		1849.5	TP	+211 -1	-61	339,187	2,560,465
195	220				8.6	TH	+1.1	-7.5			TP				
	438		143°6.4'+180°	-1.6°	+1.0	TH	-2.2	-1.2	1848.3		BS	+343 -1	-273		curve
	438				+1.4	89°40'	-2.5	-1.1			BS				
196	220		138°29'	-1.6°	1.6	-		-1.6		1846.7		-160	+150	339,369	2,560,392
197	0				5.4	-		-5.4		1842.9	TP	0	0	339,529	2,560,192
198	221		314°11.4'	-1.6°	11.9	-		-11.9		1836.4	TP	+149 -1	-163	339,677	2,560,029
198	221				13.0	TH	+1.1	-11.9			TP				
	440		147°7.7'+180°	-1.6°	+5.1	89°-	-7.7	-2.6	1833.8		BS	+363 -1	-249	340,039	2,559,780
	440				+1.3	89°30'	-3.8	-2.5			BS				
199	220		141°59'	-1.6°	3.2	-		-3.2		1830.6		-169	+140	339,870	2,559,920

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY			LINE NO.	PAGE								
1/8/79		G. Cotcamp		R. Hulsey		6834		R. J. H.			1	23								
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER											
Tennessee		Big Junction/Bald River Falls	Tennessee	Monroe					L. O. Davis											
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS		
												LAT.	DEP.	Y	X					
				-1.6					1833.8											
200	0				5.4	-		-5.4		1828.4	TP	0	0	340,039	2,559,780					
201	220		312° 51' 4"		6.8	-		-6.8		1827.0		+145	-165	340,184	2,559,615				↑	
202	440		"		10.2	-		-10.2		1823.6		+290	-330	340,329	2,559,450				Big Junction quad.	
203	660		312° 51' 4"		13.3	-		-13.3		1820.5	TP	+435	-1	-496	340,473	2,559,284			T.P. opposite station	
203	660				10.0	OH	-3.3	-13.3			TP								Bald River Falls	
	665		144° 32.3' +180°		+7.8	89°	-11.6	-3.8	1816.7		BS	+531	-1	-401					↓	
	665				+2.0	89° 30'	-5.8	-3.8			BS									
204	440		143° 38'		0.2	-		-0.2		1816.5		-347	+271	340,656	2,559,154					
204	410		145° 1'		0.3	-		-0.3		1816.4	✓	-329	+244	340,674	2,559,127				T-intersect.	
205	220		143° 38'		2.9	-		-2.9		1813.8		-173	+135	340,830	2,559,018					
206	0				5.4	-		-5.4		1811.3	TP	0	0	341,003	2,558,883					
207	220		330° 5'		10.2	-		-10.2		1806.5		+187	-115	341,190	2,558,788					
208	440		326° 20'		11.8	-		-11.8		1804.9	TP	+359	-1	-254	341,361	2,558,629				
208	440				9.6	OH	-2.2	-11.8			TP									
	438		111° 56' +180°		+13.7	88°	75.3	-1.6	1803.3		BS	+152	-1	-411					curve	
	438				+14.5	87° 54'	-16.0	-1.5			BS									
209	220		104° 15'		2.3	-		-2.3		1801.0		-48	+215	341,464	2,558,433					
210	0				5.4	-		-5.4		1797.9	TP	0	0	341,512	2,558,218					
211	220		280° 31'		8.3	-		-8.3		1795.0		+34	-217	341,546	2,558,001					

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE								
1/8/79		G. Cotcamp		R. Hulsey		6834		R.J.H.		1	24								
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER									
Tennessee		Bald River Falls		Tennessee	Monroe					L.O. Davis									
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
									1803.3										
212	440		280°24'	-1.6°	13.5	-		-13.5		1789.8	TP	+67-1	-435	341,578	2,557,783			T.P. opposite sta	
212	440				11.3	BH	-2.2	-13.5			TP								
	223		113°4.4'+180°	-1.6°	14.4			+4.4	1794.2		BS	+82-1	-207						
	223				+5.5	TH	-1.1	-4.4			BS								
213	0				5.4	-		-5.4		1788.8	π	0	0	341,659	2,557,576				
214	220		302°48.7'	-1.6°	4.6	-		-4.6		1789.6		+114	-188	341,773	2,557,388				
215	440		302°48.7'	-1.6°	4.3	-		-4.3		1789.9	TP	+228-1	-376	341,886	2,557,200				
215	440				2.1	BH	-2.2	-4.3			TP								
	440		110°42'+180°	-1.6°	+0.6	TH	-2.2	-1.6	1788.3		BS	+144-1	-416						
	440				+1.0	89°40'	-2.6	-1.6			BS								
216	220		110°42'	-1.6°	1.8	-		-1.8		1786.5		-72	+208	341,957	2,556,992				
217	0				5.4	-		-5.4		1782.9	π	0	0	342,029	2,556,784				
218	220		295°7.1'	-1.6°	8.2	-		-8.2		1780.1		+88	-202	342,117	2,556,582				
219	440		"	-1.6°	10.9	-		-10.9		1777.4		+176	-403	342,205	2,556,381				
220	654		295°7.1'	-1.6°	13.3	-		-13.3		1775.0	TP	+26-1	-600	342,289	2,556,184			curve	
220	654				10.0	BH	-3.3	-13.3			TP								
	220		120°36'+180°	-1.6°	+4.1	89°	-3.8	+0.3	1775.3		BS	+106-1	-193						
	220				+5.4	88°40'	-5.1	+0.3			BS								
221	0				5.4	-		-5.4		1769.9	π	0	0	342,394	2,555,991				
222	220		306°11'	-1.6°	9.2	-		-9.2		1766.1		+125	-181	342,519	2,555,810				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
1/8/79		G. Cotcamp		R. Hulsey		6834		R. S. H.		1		25				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
Tennessee		Bald River Falls		Tennessee		Monroe								L. O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
223	440		302° -	-1.6°	12.6	-		-12.6		1762.7	TP	+223-1	-380	342,616	2,555,611	
223	440				148	74	+2.2	-12.6			TP					T.P. opposite station
	224		131° 40.8' +180°	-1.6°	+3.8	89° -	-3.9	-0.1			BS	+144-1	-171			
	224				+1.8	89° 30'	-2.0	-0.2	1762.5		BS					
224	0				5.4	-		-5.4		1757.1	X	0	0	342,759	2,555,440	
225	220		320° 45'	-1.6°	8.8	-		8.8		1753.7		+166	-144	342,925	2,555,296	
226	440		" "	-1.6°	9.5	-		-9.5		1753.0		+333	-288	343,092	2,555,152	
227	656		318° 22.1'	-1.6°	9.3	-		-9.3		1753.2	TP	+478-1	-449	343,236	2,554,991	curve
227	656				6.0	84	-3.3	-9.3			TP					
	218		83° 4' +180°	-1.6°	+4.6	-		+4.6	1757.8		BS	-32-1	-216			
	218				+5.7	74	-1.1	+4.6			BS					
228	0				5.4	-		-5.4		1752.4	X	0	0	343,203	2,554,775	set up opposite station
229	228		292° 1'	-1.6°	14.3	-		-14.3		1743.5	TP	+80-1	-214	343,282	2,554,561	T.P. opposite station
229	228				12.3	90° 30'	-2.0	-14.3			TP					
	222		139° 30.7' +180°	-1.6°	+2.5	88° -	-7.7	-5.2	1738.2		BS	+165-1	-149			
	222				+1.2	88° 20'	-6.5	-5.3			BS					
230	0				5.4	-		-5.4		1732.8	X	0	0	343,446	2,554,912	
231	220		293° -	-1.6°	11.7	91° -	-3.8	-15.5		1722.7		+80	-205	343,526	2,554,207	
232	440		285° 23.2'	-1.6°	11.1	92° -	-15.3	-26.4		1711.8	TP	+105-1	-427	343,550	2,553,985	
232	440				14.9	91° 30'	-11.5	-26.4			TP					

DATE: 1/8/79  
 AREA: Tennessee  
 INSTRUMENT MAN: G. Cotcamp  
 TOPO MAP: Bald River Falls  
 STATE: Tennessee  
 COUNTY: Monroe  
 ROD MAN: R. Hulsey  
 PARTY NUMBER: 6834  
 TWP:  
 NOTES CHECKED BY: R. J. H.  
 RANGE:  
 PPM:  
 LINE NO.: 1  
 PAGE: 26  
 PARTY MANAGER: L.O.

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH+ SOUTH - LAT.	EAST+ WEST - DEP.	COORDINATES		REMARKS
														Y	X	
232										1711.8	-					
	140		104°48'+180°	-1.6°	+3.1	89°	-2.4	+0.7	1712.5		BS	+32	-1	-136		
	140				+2.3	89°20'	-1.6	+0.7			BS					
π	0				5.4	-		-5.4		1707.1	π	0	0	343,581	2,553,849	split sta. - sharp curve
237	100		330°13.4'	-1.6°	8.6	-		-8.6		1703.9	TP	+85	-52	343,666	2,553,797	TP opposite station
233	100				9.1	TH	+0.5	-8.6			TP					
	444		197°47.5'+180°	-1.6°	+3.0	89°	-7.7	-4.7	1699.2		BS	+426	+124			
	444				+0.5	89°20'	-5.2	-4.7			BS					
234	220		197°47.5'	-1.6°	1.0	-		-1.0		1698.2		-211	-61	343,881	2,553,860	
235	0				5.4	-		-5.4		1693.8	π	0	0	344,092	2,553,921	
236	214		346°51.2'	-1.6°	8.9	-		-8.9		1690.3	TP	+207	-54	344,299	2,553,867	
236	214				10.0	TH	+1.1	-8.9			TP					
	226		155°12.2'+180°	-1.6°	+3.3	-		+3.3	1693.6		BS	+202	-100			
	226				+4.4	TH	-1.1	+3.3			BS					
237	0				5.4	-		-5.4		1688.2	π	0	0	344,501	2,553,767	set-up opposite station
TP	190		27°13.4'	-1.6°	9.7	-		-9.7		1683.9	TP	+171	+82	344,672	2,553,849	split sta. - sharp curve
TP	190				8.7	BH	-1.0	-9.7			TP					
	229		267°16.7'+180°	-1.6°	+4.5	89°	-4.0	+0.5	1684.4		BS	+17	+228			
	229				+0.6	-		+0.6			BS					
238	173		265°33'	-1.6°	3.5	-		-3.5		1680.9		-18	-172	344,671	2,553,905	
π	0				5.4	-		-5.4		1679.0	π	0	0	344,689	2,554,077	split sta. - curve

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
1/8/79		G. Cotcamp		R. Hulsey		6834		RS. Glavin		1	27				
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		Bald River Falls		Tennessee	Monroe					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									1684.4						
239	57		130°38.9'	-1.6°	7.8	-		-7.8		1676.6		-36	+44	344,653	2,554,121
240	277		"	-1.6°	10.4	-		-10.4		1674.0		-175	+215	344,514	2,554,292
241	496		130°38.9'	-1.6°	9.9	TH	2.5	-12.4		1672.0	TP	-312	+385	344,377	2,554,462
241	496				12.4	-		-12.4			TP				
	208		286°45.5'-180°	-1.6°	+5.0	-		+5.0	1677.0		BS	-54	+201		curve
	208				+6.1	TH	1.0	+5.1			BS				
242	0				5.4	-		-5.4		1671.6	X	0	0	344,323	2,554,663
243	211		44°38'	-1.6°	5.0	-		-5.0		1672.0	TP	+154	+144	344,477	2,554,807
243	211				6.1	TH	+1.1	-5.0			TP				
	440		171°21.3'+180°	-1.6°	+1.7	89°30'	-3.8	-2.1			BS	+433	-78		
	440				+2.9	89°20'	-5.1	-2.2	1669.8		BS				
244	220		171°21.3'	-1.6°	1.5	-		-1.5		1668.3		-216	+39	344,694	2,554,748
245	0				5.4	-		-5.4		1664.4	X	0	0	344,910	2,554,729
246	220		8°40'	-1.6°	10.4	-		-10.4		1659.4	TP	+218	+27	345,128	2,554,756
246	220				11.5	TH	+1.1	-10.4			TP				
	219		159°5'+180°	-1.6°	+0.7	-		+0.7	1660.1		BS	+202	-84		
	219				+1.8	TH	+1.1	+0.7			BS				
247	0				5.4	-		-5.4		1654.7	X	0	0	345,330	2,554,672
248	219		318°57'	-1.6°	8.3	-		-8.3		1651.8	TP	+161	-148	345,491	2,554,524
248	219				9.4	TH	+1.1	-8.3			TP				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
1/8/79		G. Cotcamp		R. Hulsey		6834		R. Fowler		1		28		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Bald River Falls		Tennessee		Monroe						L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH+ SOUTH - LAT.	EAST+ WEST - DEP.	
248										1651.8				
	218		96°42.5'+180°	-1.6°	+1.5	-		+1.5	1653.3		BS	+19	-217.2	
	218				+2.6	TH	-1.1	+1.5			BS			
249	0				5.4	-		-5.4	1647.9		X	0	0	345,510 2,554,309 set-up opposite sta.
250	228		286°37.3'	-1.6°	8.1	-		-8.1	1645.2		TP	+59	-220	345,569 2,554,090
250	228				9.2	TH	+1.1	-8.1			TP			T.P. opposite station
	444		139°59.6'+180°	-1.6°	+1.9	TH	-2.2	-0.3			BS	+332	-295	
	444				+2.2	39°40'	-2.6	-0.9	1644.8		BS			
251	220		139°59.6'	-1.6°	3.7	-		-3.7	1641.1			-164	+146	345,737 2,553,941
252	0				5.4	-		-5.4	1639.4		X	0	0	345,901 2,553,795
253	220		308°23'	-1.6°	7.1	-		-7.1	1637.7		TP	+132	-176	346,033 2,553,620
253	220				8.2	TH	+1.1	-7.1			TP			
	440		101°54.7'+180°	-1.6°	+0.6	-		+0.6	1638.3		BS	+79	-433	
	440				+2.8	TH	-2.2	-0.6			BS			
254	220		97°29'	-1.6°	4.6	-		-4.6	1633.7			-23	+219	346,089 2,553,406
255	0				5.4	-		-5.4	1632.9		X	0	0	346,112 2,553,187
	75		257°49'	-1.6°	5.7	-		-5.7	1632.6			-18	-73	346,094 2,553,114
BM	112		261°52'	-1.6°	5.7	-		-5.7	1632.6			-19	-110	346,093 2,553,077 <sup>v. 5.65</sup> R22 193' el. 1632.3
	147		257°11'	-1.6°	7.5	-		-7.5	1630.8			-37	-142	346,075 2,553,045 T-rod (north)
256	217		249°35'	-1.4°	10.1	-		-10.1	1628.2		TP	-81	-201	346,032 2,552,985 <sup>v. 5.65</sup> 346,075 + 2,553,045 (scaled) y = -28
256	217				11.2	TH	+1.1	-10.1			TP			x = +2'

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
1/9/79		R. Flowers		R. Hulsey		6834		GWC		1	29			
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
Tennessee		Bald River Falls		Tennessee	Monroe					L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
256										1629.2				
	225		81°19.4' +180°	-1.4°	+3.0	-		+3.0	1631.2		BS	-39 +1	-221 -1	
	225				+4.1	TH	-1.1	+3.0		BS				
257	0				5.4	-		-5.4		1625.8	π	0	0	345,994 2,552,763 set up opposite sta.
258	220		293°21.7'	-1.4°	9.1	-		-9.1		1622.1		+82	-204	346,076 2,552,559
259	440		293°21.7'	-1.4°	13.1	89°42'	+2.3	-10.8	1620.4		TP	+164 +1	-408 -1	346,159 2,552,354
259	440				13.3	89°40'	+2.5	-10.8		TP				
	215		96°52.3' +180°	-1.4°	+4.8	-		+4.8	1625.2		BS	+21 +1	-214 -1	curve
	215				+3.7	BH	+1.1	+4.8		BS				
260	0				5.4	-		-5.4		1619.8	π	0	0	346,181 2,552,139
261	210		229°54.2'	-1.4°	33.43	BH	-7.1	-5.4	1619.8		TP	-139 +1	-157 -1	346,043 2,551,981
261	210				5.3	-		-5.3		TP				
	440		12°55.6' +180°	-1.4°	+5.6	89°	-7.7	-2.1	1617.7		BS	-431 +1	-88 -1	
	440				+3.0	89°20'	-5.1	-2.1		BS				
262	220		5°39'	-1.4	1.3	-		-1.3		1616.4		+219	+16	345,832 2,551,908
263	0				5.4	-		-5.4		1612.3	π	0	0	345,613 2,551,892
264	219		173°29.2'	-1.4°	6.5	-		-6.5	1611.2		TP	-218 +1	+30	345,396 2,551,922
264	219				5.4	BH	-1.1	-6.5		TP				
	434		324°47' -180°	-1.4°	+6.0	89°30'	-3.8	+2.2	1613.4		BS	-348 +1	+259	curve
	434				+7.3	89°20'	-5.0	+2.3		BS				
265	220		317°36'	-1.4°	3.8	-		-3.8		1609.6		+159	-152	345,208 2,552,029

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
11/9/79		G. Cotcamp		R. Hulsey		6834		G.W.C.		1	30				
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		Bald River Falls		Tennessee	Monroe					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									1613.4						
266	0				5.4	-		-5.4		1608.0	TP	0	0	345,049	2,552,181
267	226		126° 1'	-1.4°	7.6	-		-7.6		1605.8	TP	-128''	+185	344,922	2,552,366
267	226				8.7	TH	+1.1	-7.6			TP				T.P. opposite station
	145		354° 0.2' -180°	-1.4°	+3.9	-		+3.9	1609.7		BS	-143''	+18		
	145				+4.6	TH	-0.7	+3.9			BS				
π	0				5.4	-		-5.4		1604.3	TP	0	0	344,780	2,552,381
268	100		223° 8'	-1.4°	8.0	-		-8.0		1601.7	TP	-75''	-67	344,706	2,552,317
268	100				8.5	TH	+0.5	-8.0			TP				T.P. opposite station
	144		85° 30.2' +180°	-1.4°	+1.1	-		+1.1	16028		BS	-14''	-143		
	144				+1.8	TH	-0.7	+1.1			BS				
π	0				5.4	-		-5.4		1597.4	TP	0	0	344,693	2,552,174
269	80		291° 31.5'	-1.4°	6.7	-		-6.7		1596.1		+27	-25	344,720	2,552,099
270	300		291° 31.5'	-1.4°	9.7	-		-9.7		1593.1	TP	+103''	-282	344,797	2,551,892
270	300				11.2	TH	+1.5	-9.7			TP				
	437		92° 34.8' +180°	-1.4°	7.4	89°	-7.6	-0.2	1592.9		BS	+9''	-437		curve
	437				+6.1	89° 16'	-6.3	-0.2			BS				
271	220		87° 8'	-1.4°	2.3	-		-2.3		1590.6		+16	+219	344,823	2,551,674
272	0				5.4	-		-5.4		1587.5	TP	0	0	344,807	2,551,455
273	222		265° 28.2'	-1.4°	7.1	-		-7.1		1585.8	TP	-23''	-221	344,785	2,551,234
273	222				8.2	TH	+1.1	-7.1			TP				T.P. opposite station

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY			LINE NO.	PAGE						
1/9/79		S. Cotcamp		R. Hulsey		6834		Gul.			1	31						
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER									
Tennessee		Bald River Falls	Tennessee	Monroe					L.O. Davis									
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS
												LAT.	DEP.	Y	X			
273	445		118°29.5' + 180°	-1.4°	+0.2	-		+0.2	1586.0	1585.8	BS	+208 <sup>+</sup>	-396					
	445				+2.4	TH	-2.2	+0.2			BS							
274	220		118°29.5'	-1.4°	3.2	-		-3.2		1582.8		-100	+196	344,889	2,551,034			
275	0				5.4	-		-5.4		1580.6	TP	0	0	344,989	2,550,838			
276	220		303°26.8'	-1.4°	7.7	-		-7.7		1578.3	TP	+117 <sup>+</sup>	-186	345,107	2,550,652			
276	220				8.8	TH	+1.1	-7.7			TP							
	222		140°45' + 180°	-1.4°	+3.2	-		+3.2	1581.5		BS	+168 <sup>+</sup>	-145					
	222				+4.3	TH	-1.1	+3.2			BS							
277	0				5.4	-		-5.4		1576.1	TP	0	0	345,276	2,550,507			
278	220		330°45'	-1.4°	6.9	-		-6.9		1574.6		+189	-112	345,465	2,550,395			
279	440		328°22'	-1.4°	9.5	-		-9.5		1572.0	TP	+369 <sup>+</sup>	-240	345,646	2,550,267			
279	440				11.7	TH	+2.2	-9.5			TP							
	225		161°5.3' + 180°	-1.4°	+0.9	-		+0.9	1572.9		BS	+211 <sup>+</sup>	-78					T.P. opposite station
	225				+2.0	TH	-1.1	+0.9			BS							
280	0				5.4	-		-5.4		1567.5	TP	0	0	345,858	2,550,189			
281	220		357°30'	-1.4°	8.2	-		-8.2		1564.7		+219	-17	346,077	2,550,172			
282	440		350°33'	-1.4°	6.6	-		-6.6		1566.3	TP	+432 <sup>+</sup>	-83	346,291	2,550,106			
282	440				8.8	TH	+2.2	-6.6			TP							
	221		167°23.3' + 180°	-1.4°	+7.4	-		+7.4	1573.7		BS	+214 <sup>+</sup>	-53					
	221				+8.5	TH	-1.1	+7.4			BS							

DATE 1/9/79		INSTRUMENT MAN G. Cotcamp		ROD MAN R. Flowers		PARTY NUMBER 6834		NOTES CHECKED BY C.W.C.		LINE NO. 1	PAGE 32					
AREA Tennessee		TOPO MAP Bald River Falls		STATE Tennessee		COUNTY Monroe		RANGE	PPM	PARTY MANAGER L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES Y X		REMARKS
									1573.7							
283	0				5.4	-		-5.4		1568.3	TP	0	0	346,506	2,550,053	
284	219		7°43'	-1.4°	7.0	-		-7.0		1566.7	TP	+218+1	+24	346,725	2,550,077	
284	219				8.1	TH	+1.1	-7.0			TP					
	216		158°49.7'+180°	-1.4°	+4.1	-		+4.1	1570.8		BS	+199+1	-83			curve
	216				+5.2	TH	-1.1	+4.1			BS					
285	0				5.4	-		-5.4		1565.4	TP	0	0	346,925	2,549,994	
286	219		305°36.6'	-1.4°	7.9	-		-7.9		1562.9	TP	+123+1	-181	347,049	2,549,813	
286	219				9.0	TH	+1.1	-7.9			TP					
	210		89°49'+180°	-1.4°	+2.1	-		+2.1	1565.0		BS	-6+1	-210			curve
	210				+1.0	BH	+1.1	+2.1			BS					
287	0				5.4	-		-5.4		1559.6	TP	0	0	347,044	2,549,603	
288	220		245°10'	-1.4°	7.8	-		-7.8		1557.2		-97	-197	346,947	2,549,406	
289	447		246°24.5'	-1.4°	9.9	-		-9.9		1555.1	TP	-189+1	-405	346,856	2,549,198	
289	447				12.1	TH	+2.2	-9.9			TP					
	224		98°30'+180°	-1.4°	+4.1	TH	-1.1	+3.0	1558.1		BS	+28+1	-222			
	224				+1.8	BH	+1.1	+2.9			BS					
H	147		101°39'	-1.4°	3.4	-		-3.4		1554.7	TP	-26	+145	346,859	2,549,121	bridge
290	0				5.4	-		-5.4		1552.7	TP	0	0	346,885	2,548,976	
291	220		305°13'	-1.4°	8.0	-		-8.0		1550.1	TP	+122+1	-183	347,008	2,548,793	
291	220				9.1	TH	+1.1	-8.0			TP					

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
1-9-7		R. H. Hulse		R. Flowers		6834		G.W.C.		1	33			
AREA		TOPO MAP		STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		Bald River Falls		Tennessee	Monroe				L. O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
291										1550.1				
	219		87° 18.9' ± 180	-1.4°	+4.1	-	+4.1		1554.2		BS	-16+1	-218	
	219				+5.1	TH	-1.1	+4.0			BS			
292	0				5.4	-	-5.4		1548.8		TP	0	0	346,993 2,548,575
293	220		224° 46'	-1.4°	7.5	-	-7.5		1546.7			-160	-151	346,833 2,548,929
294	435		216° 58.7'	-1.4°	9.2	-	-9.2		1545.0		TP	-354+1	-253	346,640 2,548,322
294	435				7.1	BH	-2.2	-9.3			TP			
	220		15° 43.4' ± 180	-1.4°	+4.1	-	+4.1		1549.1		BS	-213+1	-54	
	220				+3.0	BH	+1.1	+4.1			BS			
295	0				5.4	-	-5.4		1543.7		TP	0	0	346,428 2,548,268
296	219		168° 20.8'	-1.4°	6.6	-	-6.6		1542.5		TP	-213+1	+49	346,216 2,548,317
296	219				5.5	BH	-1.1	-6.6			TP			
	221		323° 5' ± 180	-1.4°	+3.3	-	+3.3		1545.8		BS	-173+1	+137	Set-up opp. sta.
	221				+2.2	BH	+1.1	+3.3			BS			
297	0				5.3	-	-5.3		1540.5		TP	0	0	346,044 2,548,454
298	229		163° 23.7'	-1.4°	5.1	-	-5.1		1540.7		TP	-218+1	+71	345,827 2,548,525 T.P. across road
298	229				4.0	BH	-1.1	-5.1			TP			
	224		15° 37' ± 180	-1.4°	+2.1	-	+2.1				BS	-217+1	-55	
	224				+1.1	BH	+1.1	+2.2	1542.9		BS			
299	0				5.4	-	-5.4		1537.5		TP	0	0	345,611 2,548,470

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
1-9-79		R. Hulsey		R. Flowers		6834		G.M.C.		1	34				
AREA		TOPO MAP		STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER						
Tennessee		Bald River Falls		Tennessee	Monroe				L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									1542.9						
300	221		230° 7.8'	-1.4°	9.4	-		-9.4		1533.5	TP	-146+1	-166	345,466	2,548,304
300	221				8.3	BH	-1.1	-9.4			TP				
	440		63° 9.2' +180°	-1.4°	+1.7	-		+1.7	1535.2		BS	-208+1	-388		
	440				+3.9	TH	-2.2	+1.7			BS				
301	220		60° 20'	-1.4°	5.6	-		-5.6		1529.6		+114	+188	345,373	2,548,104
302	0				5.4	-		-5.4		1529.8	TP	0	0	345,259	2,547,916
303	220		231° 25'	-1.4°	3.8	-		-3.8		1531.4		-141	-169	345,118	2,547,747
304	439		225° 20.1'	-1.4°	3.4	-		-3.4		1531.8	TP	-316+1	-305	344,944	2,547,611
304	439				1.2	BH	-2.2	-3.4			TP				
	441		27° 21.7' +180°	-1.4°	+4.3	-		+4.3	1536.1		BS	-396+1	-193		
	441				+2.1	BH	+2.2	+4.3			BS				
305	220		24° 28'	-1.4°	4.0	-		-4.0		1532.1		+202	+86	344,751	2,547,504
306	0				5.4	-		-5.4		1530.7	TP	0	0	344,549	2,547,918
307	220		214° 8.7'	-1.4°	9.2	-		-9.2		1526.9	TP	-185+1	-119	344,365	2,547,299
307	220				8.1	BH	-1.1	-9.2			TP				TP across road
	220		51° 13.3' +180°	-1.4°	+1.9	-		+1.9	1528.8		BS	-142+1	-168		
	220				+3.0	TH	-1.1	+1.9			BS				
308	0				5.4	-		-5.4		1523.4	TP	0	0	344,224	2,547,131
309	220		128° 4' 28'	-1.4°	8.8	-		-8.8		1520.0		-220	-12	344,004	2,547,119



DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
1-9-79		R. Hulsey		R. Flowers		6834		G.W.C.		1	36					
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER				
Tennessee		Bald River Falls		Tennessee		Monroe						L. O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTting DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS π TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									1505.1						343,770 + 2,546,340 (scale)	
11	210		138° 56'	-1.4°	2.9	-		-2.9		1502.2	π	-155	+142	343,770	2,546,340	Trail (south)
316	0				5.4	-		-5.4		1499.7	π	0	0	343,925	2,546,198	horiz. correct. y = +44'
317	220		312° 49'	-1.4°	10.3	-		-10.3		1494.8		+146	-165	344,071	2,546,033	x = -6'
318	440		" "	-1.4°	12.4	-		-12.4		1492.7		+291	-330	344,216	2,545,868	
319	657		311° 23.9'	-1.6°	8.5	91° 10'	-13.4	-21.9		1483.2	TP	+421-2	-505-1	344,344	2,545,692	
319	657				7.8	91° 14'	-14.1	-21.9			TP					
	220		123° 38.3' + 180°	-1.6°	+0.3	-		+0.3	1483.5		BS	+117-2	-186-1			
	220				+1.4	TH	-1.1	+0.3			BS					
320	0				5.4	-		-5.4		1478.1	π	0	0	344,459	2,545,505	
321	220		326° 53.2'	-1.6°	10.4	-		-10.4		1473.1	TP	+181-2	-125-1	344,638	2,545,379	
321	220				9.3	BH	-1.1	-10.4			TP					
	214		176° 12.2' + 180°	-1.6°	+1.5	-		+1.5	1474.6		BS	+213-2	-20-1			
	214				+2.6	TH	-1.1	+1.5			BS					
322	0				5.4	-		-5.4		1469.2	π	0	0	344,849	2,545,358	
323	219		343° 3'	-1.6°	12.1	-		-12.1		1462.5	TP	+208-2	-70-1	345,055	2,545,287	curve
323	219				13.2	TH	+1.1	-12.1			TP					
	438		125° 10.6' + 180°	-1.6°	5.1	88° 24'	-12.2	-7.1	1455.4		BS	+242-2	-365-1			
	438				+4.1	88° 32'	-11.2	-7.1			BS					
324	220		118° -	-1.6°	2.8	89° -	+3.8	+1.0		1456.4		-98	+197	345,197	2,545,118	
325	0				5.4	-		-5.4		1450.0	π	0	0	345,295	2,544,921	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
1/10/78		G. Cotcamp		R. Flowers		6834		Gwl.		1	37				
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		Bald River Falls		Tennessee	Monroe					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									1455.4						
326	220		300° 40'	-1.6°	12.1	89° -	+3.8	-8.3		1447.1		+107	-192	345,402	2,544,729
327	440		302° 45.4	-1.6°	3.3	91° 58'	-15.1	-18.4		1437.0	TP	+228-2	-377-1	345,521	2,544,543
327	440				10.7	91° -	-7.7	-18.4			TP				
	440		109° 28' +180°	-1.6°	+0.4	89° -	-7.7	-7.3	1429.7		BS	+136-2	-418-1		
	440				+2.9	88° 40'	-10.2	-7.3			BS				
328	220		109° 28'	-1.6°	2.9	89° -	+3.8	+0.9		1430.6		-67	+209	345,588	2,544,333
329	0				5.4	-		-5.4		1424.3	X	0	0	345,655	2,544,124
330	220		272° 11'	-1.6°	9.3	-		-9.3		1420.4	TP	+2-2	-220-1	345,655	2,543,903
330	220				8.2	814	-1.1	-9.3			TP				
	209		19° 36' +180°	-1.6°	+8.1	87° 20'	-9.7	-1.6	1418.8		BS	-199-2	-65-1		sharp curve
	209				+9.3	87° -	-10.9	-1.6			BS				
331	0				5.4	-		-5.4		1413.4	X	0	0	345,454	2,543,837
332	220		141° 50.6'	-1.6°	8.2	91° -	-3.8	-12.0		1406.8		-169	+141	345,285	2,543,978
333	440		141° 50.6'	-1.6°	8.3	91° -	-7.7	-16.0			TP	-338-2	+281-1	345,114	2,544,117
333	440				13.7	814	-2.2	-15.9		1402.9	TP				T.P. opposite station
	225		337° 46' +180°	-1.6°	+0.5	89° 30'	-2.0	-1.5	1401.4		BS	-206-2	+91-1		
	225				+1.8	89° 10'	-3.3	-1.5			BS				
334	0				5.4	-		-5.4		1396.0	X	0	0	344,906	2,544,207
335	222		172° 36.3	-1.6°	10.4	-		-10.4		1391.0	TP	-219-1	+35-1	344,686	2,544,241 T.P. opposite sta.
335	222				11.5	TH	+1.1	-10.4			TP				

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/10/79		G. CoCamp		R. Flowers		6834		GWC		1		38			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Bald River Falls		Tennessee		Monroe								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH+ SOUTH-	EAST+ WEST-		Y
335										1391.0					
	221		33° 51.3' +180°	-1.6°	+3.1	88°30'	-5.8	-2.7			BS	-187-1	-118-1		
	221				+2.5	88°40'	-5.1	-2.6	13884		BS				
336	0				5.4			-5.4		1383.0	X	0	0	344,498 2,544,122	
337	219		258° 59.1'	-1.6°	10.5	-		-10.5		1377.9	TP	-48-1	-214-1	344,449 2,543,907	
337	219				11.6	TH	-1.1	-10.5			TP				
	220		99° 33' +180°	-1.6°	+0.2	-		+0.2	1378.1		BS	+30-1	-218-1		
	220				+1.3	TH	-1.1	+0.2			BS				
	150		104° 16'	-1.6°	1.8	-		-1.8		1376.3	-	-33	+146	344,445 2,543,834 foot trail (south)	
338	0				5.4	-		-5.4		1372.7	X	0	0	344,478 2,543,688	
	206		288° 20'	-1.6°	6.6	-		-6.6		1371.5	-	+59	-197	344,537 2,543,491 bridge (Bald River Falls)	
339	220		290° 50'	-1.6°	6.8	-		-6.8		1371.3		+72	-208	344,550 2,543,480	
340	440		291° 26.7'	-1.6°	5.1	-		-5.1		1373.0	TP	+149-1	-414-1	344,626 2,543,273	
340	440				7.3	TH	+2.2	-5.1			TP				
	880		119° 8.9' +180°	-1.6°	+11.7	BH	+4.4	+16.1			BS	+407-1	-780-1		
	880				+13.6	90°0'	+2.6	+16.2	1389.2		BS				
341	660		119° 8.9'	-1.6°	13.0	-		-13.0		1376.2		-305	+585	344,727 2,543,077	
342	440		'	-1.6°	9.3	-		-9.3		1379.9		-203	+390	344,829 2,542,882	
343	220		'	-1.6°	7.0	-		-7.0		1382.2		-102	+195	344,930 2,542,687	
344	0				5.4	-		-5.4		1383.8	X	0	0	345,032 2,542,492	
345	220		307° 17'	-1.6°	2.3	-		-2.3		1386.9		+128	-179	345,160 2,542,313	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
11/07/79		G. Cotcamp		R. Flowers		6834		C. C.		1	39				
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER			
Tennessee		Bald River Falls		Tennessee		Monroe						L. O. Davis			
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									1389.2						
346	440		307° 8.2'	-1.6°	2.3	-		-2.3		1386.9	TP	+256-1	-358-1	345,287	2,542,133
346	440				4.5	TH	+2.2	-2.3			TP				
	220		131° 28.5' + 180°	-1.6°	2.1	89°	-3.8	-1.7	1385.2		BS	+141-1	-169-1		
	220				+1.4	89° 90'	-3.2	-1.8			BS				
347	0				5.4	-		-5.4		1379.8	X	0	0	345,427	2,541,963
348	212		339° 12.8'	-1.6°	14.8	90° 30'	-1.9	-16.7		1368.5	TP	+196-1	-81-1	345,622	2,541,881 curve
348	212				14.2	90° 40'	-2.5	-16.7			TP				
	219		217° 16' - 180°	-1.6°	+3.9	88° 30'	-5.7	-1.8	1366.7		BS	+178-1	+128		
	219				+5.2	88° 10'	-7.0	-1.8			BS				
349	0				5.4	-		-5.4		1361.3	X	0	0	345,799	2,542,009
350	220		48° 4'	-1.6°	10.1	91°	-3.8	-13.9		1352.8		+152	+159	345,951	2,542,168
351	440		48° 4'	-1.6°	14.6	91° 10'	-9.0	-23.6		1343.1	TP	+303-1	+319	346,101	2,542,328
351	440				13.4	91° 20'	-10.2	-23.6			TP				
	660		240° 46' - 180°	-1.6°	+3.9	87° 52'	-24.6	-20.7	1322.4		BS	+338-1	+567		
	660				+3.5	87° 54'	-24.2	-20.7			BS				
352	440		240° 46'	-1.6°	7.2	87° 30'	+19.2	+12.0		1334.4		-226	-378	346,212	2,542,517
353	220		235° 32'	-1.6°	3.2	89°	+3.8	+0.6		1323.0		-130	-178	346,308	2,542,717
354	0				5.4	-		-5.4		1317.0	X	0	0	346,438	2,542,895
TP	189		2° 11'	-1.6°	5.2	-		-5.2		1317.2	TP	+189-1	+2	346,626	2,542,897 split sta. - sharp curve
TP	189				6.2	TH	+0.9	-5.3			TP				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY			LINE NO.	PAGE				
1/10/79		G. Cotcamp		R. Flowers		6834		G.W.C.			1	40				
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
Tennessee		Bald River Falls		Tennessee	Monroe					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
354										1317.2						
	185		96°39' +180°	-1.6	+0.5	89°	-3.2	-2.7	1314.5		BS	+16	-1	-184		
	185				+1.6	88°40'	-4.3	-2.7		BS						
355	160		93°7'	-1.6	2.2	88°30'	+4.2	+2.0		1316.5		-4	+160	346,637	2,542,873	
	π	0			5.4	-		-5.4		1309.1	TP	○	○	346,641	2,542,713	
356	57		248°8'	-1.6	8.2	-		-8.2		1306.3		-23	-52	346,618	2,542,661	
357	277		249°29'		13.1	-		-13.1		1301.4	TP	-104	-1	-257	346,536	2,542,456
357	277				14.5	TH	+1.4	-13.1			TP					TP opposite station
	445		102°33.3' +180°	-1.6	+1.0	89°	-7.8	-6.8	1294.6		BS	+84	-1	-437		
	445				+3.6	88°40'	-10.4	-6.8		BS						
358	220		102°33.3'	-1.6	3.9	89°	+3.8	-0.1		1294.5		-42	+216	346,577	2,542,235	
359	0				5.4	-		-5.4		1289.2	π	○	○	346,619	2,542,019	
360	220		288°25'	-1.6	11.8	-		-11.8		1282.8		+64	-210	346,683	2,541,809	
361	444		287°16.8'		14.0	90°30'	-3.9	-17.9	1276.7		TP	+119	-1	-427	346,737	2,541,592
361	444				12.7	90°40'	-5.2	-17.9		TP						
	440		144°20' +180°	-1.6	+1.2	TH	-2.2	-1.0	1275.7		BS	+350	-1	-266		
	440				+1.6	89°40'	-2.6	-1.0		BS						
□	252		153°27'	-1.6	4.6	-		-4.6		1271.1	-	-222	+119	346,864	2,541,445	chiseled □ el. 1272.4
362	220		150°50'	-1.6	4.3	-		-4.3		1271.4		-189	+112	346,897	2,541,438	
⌋	195		" "	-1.6	4.3	-		-4.3		1271.4	-	-167	+100	346,919	2,541,426	bridge
363	0				5.4	-		-5.4		1270.3	π	○	○	347,086	2,541,326	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
11/10/79		G. Cotcamp		R. Flowers		6834		G.W.C.		1	41						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
Tennessee		Bald River Falls		Tennessee		Monroe					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH +	EAST +	COORDINATES		REMARKS	
												SOUTH -	WEST -	Y	X		
									1275.7								
364	220		353°35'	-1.6	8.7	-		-8.7		1267.0		+218	-31	347,304	2,541,295		
365	442		353°35'	-1.6	11.5	-		-11.5		1264.2	TP	+437-1	-62	347,522	2,541,264		
365	442				13.7	TH	+2.2	-11.5			TP						
	440		154°40.7'+180°	-1.6	+1.6	89°30'	-3.8	-2.2	1262.0		BS	+392-1	-199				
	440				+4.2	89°10'	-6.4	-2.2			BS						
366	220		147°51'	-1.6	2.5	-		-2.5		1259.5		-183	+122	347,730	2,541,187		
367	0				5.4	-		-5.4		1256.6	π	○	○	347,913	2,541,065		
368	220		309°51.8'	-1.6	8.0	-		-8.0		1254.0		+136	-173	348,049	2,540,892		
369	440		309°51.8'	-1.6	11.1	-		-11.1		1250.9	TP	+272-1	-345	348,184	2,540,720		
369	440				13.3	TH	+2.2	-11.1			TP						
	660		140°50.7'+180°	-1.6	+4.0	89°	-11.5	-7.5	1243.4		BS	+499-1	-431				
	660				+2.1	89°10'	-9.6	-7.5			BS						
370	440		140°50.7'	-1.6	4.3	89°	+7.7	+3.4		1246.8		-333	+287	348,349	2,540,576		
371	220		"	-1.6	2.1	-		-2.1		1241.3		-167	+144	348,515	2,540,433		
372	0				5.4	-		-5.4		1238.0	π	○	○	348,682	2,540,289		
373	222		325°39.5'	-1.6	9.0	-		-9.0		1234.4	TP	+179-1	-130	348,860	2,540,159	T.P. opposite station	
373	222				10.1	TH	+1.1	-9.0			TP						
	664		171°17.1'+180°	-1.6	+3.0	89°	-11.6	-8.6	1225.8		BS	+653-1	-119				
	664				+1.1	89°10'	-9.7	-8.6			BS						
374	440		170°3'	-1.6	5.0	89°	+7.7	+2.7		1228.5		-431	+88	349,081	2,540,128		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
1/10/79		G. C. Camp		R. Flowers		6834		G.W.C.		1	42						
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER								
Tennessee		Bald River Falls	Tennessee	Monroe					L.O. Davis								
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									1225.8								
375	220		170° 3'	-1.6	1.6	-		-1.6		1224.2		-216	+44	349,296	2,540,684		
376	0				5.4	-		-5.4		1220.4	π	0	0	349,512	2,540,040		
377	220		335° 32'	-1.6	9.7	-		-9.7		1216.1	TP	+197-1	-97	349,708	2,539,943		
377	220				10.8	TH	+1.1	-9.7			TP						
	212		131° 24' + 180°	-1.6	+0.9	-		+0.9	1217.0		BS	+135-1	-163			Curve	
	212				+1.9	TH	-1.1	+0.8			BS						
378	0				5.4	-		-5.4		1211.6	π	0	0	349,842	2,539,780		
379	221		294° 31'	-1.6	9.5	-		-9.5		1207.5	TP	+86-1	-204	349,927	2,539,576	T.P. opposite station	
379	221				10.6	TH	+1.1	-9.5			TP						
	222		134° 24' + 180°	-1.6	+1.2	-		+1.2	1208.7		BS	+150-1	-163				
	222				+2.3	TH	-1.1	+1.2			BS						
380	0				5.4	-		-5.4		1203.3	π	0	0	350,076	2,539,413		
381	220		330° 47'	-1.6	7.9	-		-7.9		1200.8		+189	-113	350,265	2,539,300		
381	360		330° 27'	-1.6	8.8	-		-8.8		1199.9	✓	+308	-186	350,384	2,539,227	bridge	
382	440		330° 47'	-1.6	9.8	-		-9.8		1198.9		+378	-225	350,454	2,539,188	unable to locate B.M.	
383	656		328° 35.4'	-1.6	12.5	-		-12.5		1196.2	TP	+550-1	-357	350,625	2,539,056		
383	656				9.2	BH	-3.3	-12.5			TP						
	660		130° 53' + 180°	-1.6	+3.5	-		+3.5	1199.7		BS	+417-1	-511				
	660				+6.8	TH	-3.3	+3.5			BS						
384	440		128° 57'	-1.6	4.1	-		-4.1		1195.6		-267	+350	350,774	2,538,895		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY			LINE NO.	PAGE					
1/10/79		G. Cotcamp		R. Flowers		6834		CWC			1	43					
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER								
Tennessee		Bald River Falls	Tennessee	Monroe					L. O. Davis								
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									1199.7								
385	220		129° -	-1.6	5.3	-		-5.3		1194.4		-134	+175	350,907	2,538,720		
386	0				5.4	-		-5.4		1194.3	π	0	0	351,041	2,538,545		
387	23		251° 52'	-1.6	5.5	-		-5.5		1194.2	—	-8	-22	351,033	2,538,523	bridge SE corner	
387	220		294° 23'	-1.6	7.1	-		-7.1		1192.6		+95	-202	351,126	2,538,343		
388	440		289° 50.5'	-1.6	7.9	-		-7.9		1191.8	TP	+137 -1	-418	351,177	2,538,127		
388	440				10.1	TH	+2.2	-7.9			TP						
	440		85° 50.3' +180	-1.6	+3.0	-		+3.0	1194.8		BS	-44 -1	-438				
	440				+5.2	TH	-2.2	+3.0			BS						
389	220		85° 50.3'	-1.6	3.3			-3.3		1191.5		+22	+219	351,154	2,537,908		
390	0				5.4	-		-5.4		1189.4	π	0	0	351,132	2,537,689		
391	220		255° 7'	-1.6	6.4	-		-6.4		1188.4		-62	-211	351,070	2,537,478	(scaled)	
391	270		251° 38.5'	-1.6	7.2	-		-7.2		1187.6	—	-92	-254	351,040	2,537,435	Y-intersect	
392	438		249° 15.6'	-1.4	13.8	TH	+2.2	-11.6		1183.2	TP	-165 +1	-406	350,968	2,537,283	HORIZ. Corr. y-56', x-2.1	
392	438			-1.4	14.1	89° 40'	+2.5	-11.6			TP						
	224		78° 31.7' +180	-1.4	+2.7	-		+2.7	1185.9		BS	-50 +1	-218				
	224				+1.6	BH	+1.1	+2.7			BS						
393	0				5.4	-		-5.4		1180.5	π	0	0	350,919	2,537,065	Opp. Sta	
394	220		270° 7.1'	-1.4	7.3	-		-7.3		1178.6	TP	-5 +1	-220	350,915	2,536,845		
394	220				8.4	TH	+1.1	-7.3			TP						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
1/10/79		G. Catcamp		R. Hulsey		6834		G.W.C.		1		44		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Bald River Falls		Tennessee		Monroe						L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
394										1178.6				
	437		62° 20.1' +180	-1.4	+9.9	89° 15'	-5.7	+4.2	1182.8		BS	-212"	-382	
	437		"		+12.1	88° 58'	-7.9	+4.2		BS				
395	220		57° 4'	-1.4	5.8	-		-5.8		1177.0		+124	+182	350,828 2,536,645
396	0				5.4	-		-5.4		1177.4	TP	0	0	350,704 2,536,463
397	217		222° 42.2'	-1.4	5.0	-		-5.0		1177.8	TP	-163"	-143	350,542 2,536,320
397	217		"		6.1	TH	+1.1	-5.0			TP			
	220		28° 41.5' +180	-1.4	+5.9	-		+5.9	1183.7		BS	-196"	-101	
	220		"		+7.0	TH	-1.1	+5.9		BS				
398	0				5.4	-		-5.4		1178.3	TP	0	0	350,347 2,536,219
399	219		183 26.4'	-1.4	8.0	-		-8.0		1175.7	TP	-219"	-8	350,129 2,536,211
399	219		"		9.1	TH	+1.1	-8.0			TP			
	440		332° 51.5' -180°	-1.4	+5.2	89° -	-7.6	-2.4	1173.3		BS	-387"	+210	
	440		"		+2.7	89° 20'	-5.1	-2.4		BS				
400	220		328° 17'	-1.4	2.2	-		-2.2		1171.1		+184	-120	349,927 2,536,301
401	0				5.4	-		-5.4		1167.9	TP	0	0	349,743 2,536,421
402	223		153° 29.2'	-1.4	6.8	-		-6.8		1166.5	TP	-197"	+104	349,547 2,536,525 T.P. opposite sta.
402	223		"		7.9	TH	+1.1	-6.8			TP			
	230		18° 8' +180°	-1.4	+1.5	-		+1.5	1168.0		BS	-220"	-66	
	230		"		+2.7	TH	-1.2	+1.5		BS				
403	0				5.4	-		-5.4		1162.6	TP	0	0	349,328 2,536,459 Set up opposite sta.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/11/79		G. CoTeamp		R. Flowers		6834		RBF		1		45			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Bald River Falls		Tennessee		Monroe								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									11680						
404	220		236°14'	-1.4	9.6	-	-9.6			1158.4		-127	-180	349,201	2,536,279
405	440		232°42.6'	-1.4	130	-	-130			1155.0	TP	-275"	-343	349,054	2,536,116
405	440				10.8	BH	-2.2	-130			TP				
	225		52°51.1'+180°	-1.4	+2.8	-	+2.8		1157.8		BS	-140"	-176		
	225				+3.9	TH	-1.1	+2.8			BS				
406	0				54	-	-5.4			1152.4	TP	0	0	348,915	2,535,940 set up opposite station
TP	190		266°53'	-1.4	8.9	-	-8.9			1148.9	TP	-15"	-189	348,901	2,535,751 split sta - sharp curve
TP	190				9.8	TH	+1.0	-8.8			TP				
	255		100°12'+180°	-1.4	+1.4	-	+1.4		1150.3		BS	+39"	-252		
	255				+2.7	TH	-1.3	+1.4			BS				
407	220		93°54'	-1.4	1.1	-	-1.1			1149.2		-9	+220	348,932	2,535,719
408	0				54	-	-5.4			1144.9	TP	0	0	348,941	2,535,499
TP	205		279°31.8'	-1.4	7.7	-	-7.7			1142.6	TP	+29"	-203	348,971	2,535,296 split sta - sharp curve
TP	205				6.7	BH	-1.0	-7.7			TP				
	248		150°23'+180°	-1.4	+0.5	-	+0.5		1143.1		BS	+213"	-128		
	248				+1.7	TH	-1.2	+0.5			BS				
409	220		149°28'	-1.4	1.7	-	-1.7			1141.4		-187	+116	348,998	2,535,284
410	0				54	-	-5.4			1137.7	TP	0	0	349,185	2,535,168 setup opposite sta.
411	220		339°43'	-1.4	4.2	-	-4.2			1138.9	TP	+204"	-81	349,390	2,535,087
411	220				5.3	TH	+1.1	-4.2			TP				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
1/11/79		G. Cotcamp		R. Flowers		6834		R.F.F.		1	46			
AREA		TOPO MAP		STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		Bald River Falls		Tennessee	Monroe				L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
411										1138.9				
	220		192°26'+180°	-1.4	+4.1	-		+4.1	11430		BS	+171"	-138	
	220				+5.2	TH	-1.1	+4.1			BS			
412	0				5.4	-		-5.4	1137.6		X	0	0	349,562 2,534,949
413	216		297°34.6'	-1.4	7.2	-		-7.2	1135.8		TP	+95"	-194	349,658 2,534,755
413	216				8.3	TH	+1.1	-7.2			TP			
	220		90°59.3'+180°	-1.4	+4.4	-		+4.4	1140.2		BS	-2.	-220	
	220				+5.5	TH	+1.1	+4.4			BS			
414	0				5.4	-		-5.4	1134.8		X	0	0	349,656 2,534,535
415	216		247°49.2'	-1.4	5.0	-		-5.0	1135.2		TP	-86+1	-198+	349,571 2,534,338
415	216				6.1	TH	+1.1	-5.0			TP			
	431		14°23.8'+180°	-1.4	+1.7	-		+1.7	1136.9		BS	-420	-97+1	Curve
	431				+3.9	TH	-2.2	+1.7			BS			
416	220		8°2'	-1.4	4.2	-		-4.2	1132.7			+218	+25	349,369 2,534,267
417	0				5.3	-		-5.3	1131.6		X	0	0	349,151 2,534,242
418	220		184°30.7'	-1.4	6.0	-		-6.0	1130.9		TP	-220	-12+1	348,931 2,534,231
418	220				7.1	TH	+1.1	-6.0			TP			
	218		331°16.7'-180°	-1.4	+4.9	-		+4.9	1135.8		BS	-189	+109+1	
	218				+6.0	TH	-1.1	+4.9			BS			
419	0				5.4	-		-5.4	1130.4		X	0	0	348,742 2,534,341
420	220		108°45'	-1.4	6.4	-		-6.4	1129.4			-66	+210	348,676 2,534,551

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
1/11/79		G. Cotcamp		R. Flowers		6834		R. J. H.		1		47		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Bald River Falls		Tennessee		Monroe						L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
									1135.8					
421	435		104° 28.5'	-1.4	7.8	-		-7.8		1128.0	TP	-98 "	+424 +1	348,645 2,534,766
421	435				10.0	TH	+2.2	-7.8			TP			
	221		295° 46.7' +180°	-1.4	+3.9 <del>4.9</del>	-		+3.9	1131.9		BS	-91	+201 +1	
	221				5.0	TH	-1.1	+3.9			BS			
422	0				5.4	-		-5.4		1126.5	X	0	0	348,554 2,534,968
423	223		121° 23.5'	-1.4	8.0	-		-8.0		1123.9	TP	-111	+193 +1	348,443 2,535,162 T.P. opposite station
423	223				9.1	TH	+1.1	-8.0			TP			
	224		317° 51.6' +180°	-1.4	+2.2	-		+2.2	1126.1		BS	-162	+154 +1	
	224				*3.3	TH	-1.1	+2.2			BS			
424	0				5.4	-		-5.4		1120.7	X	0	0	348,281 2,535,317
425	228		166° 14.8'	-1.4	9.6	-		-9.6		1116.5	TP	-220	+60 +1	348,061 2,535,378 T.P. opposite sta.
425	228				10.7	TH	+1.1	-9.6			TP			
	233		31° 6.6' +180°	-1.4	+2.5	-		+2.5	1119.0		BS	-202 "	-115 +1	
	233				+3.7	TH	-1.2	+2.5			BS			
426	0				5.4	-		-5.4		1113.6	X	0	0	347,860 2,535,264 set up opposite station
427	229		266° 14'	-1.4	8.9	-		-8.9		1110.7	TP	-21 "	-228 +1	347,840 2,535,037
427	229				10.0	TH	+1.1	-8.9			TP			T.P. opposite sta.
	441		105° 6.2' +180°	-1.4	+2.7	TH	-2.2	+0.5	1110.6		BS	+104 "	-428 +1	
	441				+1.8	89° 50'	-1.3	+0.5			BS			
428	220		105° 6.2'	-1.4	3.6	-		-3.6		1107.0		-52	+214	347,893 2,534,824

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
1/11/79		G. Cotcamp		R. Flowers		6834		R. J. H.		1	48					
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
Tennessee		Bald River Falls		Tennessee	Monroe					L. O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
									1110.6							
429	0				5.4	-		-5.4		1105.2	TP	0	0	347,945	2,534,610	
430	220		292° 9.5'	-1.4	5.7	-		-5.7		1104.9	TP	+78	-206	348,023	2,534,404	
431	440		292° 9.5'	-1.4	7.1	-		-7.1		1103.5	TP	+156 "	-411+1	348,102	2,534,200	
431	440				9.3	TH	+2.2	-7.1			TP					
	445		132° 1.3' +180°	-1.4	+2.7	-		+2.7	1106.2		BS	+290 "	-338+1			
	445				+4.9	TH	-2.2	+2.7			BS					
432	220		129° 2'	-1.4	5.0	-		-5.0		1101.2	TP	-134	+174	348,259	2,534,030	
433	0				5.4	-		-5.4		1100.0	TP	0	0	348,393	2,533,863	
434	220		303° 35'	-1.4	7.1	-		-7.1		1099.1	TP	+117	-186	348,510	2,533,677	
435	440		298° 41.8'	-1.4	7.4	-		-7.4		1098.8	TP	+202 "	-391+2	348,596	2,533,474	
435	440				9.6	TH	+2.2	-7.4			TP					
	218		87° 4.7' +180°	-1.4	+3.7	-		+3.7	1102.5		BS	-16	-217+2			
	218				+4.8	TH	-1.1	+3.7			BS					
436	0				5.4	-		-5.4		1097.1	TP	0	0	348,580	2,533,259	
437	210		245° 37'	-1.4	5.7	-		-5.7		1096.8	TP	-91	-189+2	348,489	2,533,072	curve
437	210				6.8	TH	+1.1	-5.7			TP					
	440		19° 15' +180°	-1.4	+0.8	89° 30'	-3.8	-3.0	1093.8		BS	-419 "	-135+2			
	440				+2.1	89° 20'	-5.1	-3.0			BS					
438	220		15° 56'	-1.4	1.7	-		-1.7		1092.1	TP	+213	+55	348,284	2,532,994	
439	0				5.4	-		-5.4		1088.4	TP	0	0	348,071	2,532,939	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
1/11/79		G. Cotcamp		R. Flowers		6834		R. J. [Signature]		1		49				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
Tennessee		Bald River Falls		Tennessee		Monroe								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									1093.8							
440	220		206°32.7'	-1.4	7.2	-		-7.2		1086.6		-199	-93	347,872	2,532,846	
441	440		206°32.7'	-1.4	9.1	-		-9.1		1084.7	TP	-398 +1	-187 +2	347,674	2,532,754	
441	440				11.3	TH	+2.2	-9.1			TP					
	440		14°53.3' +180°	-1.4	+1.7	-		+1.7	1086.4		BS	-428 +1	-103 +2			
	440				+3.9	TH	-2.2	+1.7			BS					
442	220		11°5'	-1.4	3.9	-		-3.9	1082.5			+217	+37	347,464	2,532,690	
443	0				5.4	-		-5.4	1081.0	TP	0	0	347,247	2,532,653		
TP	149		215°46.6'	-1.4	7.0	-		-7.0	1079.4	TP	-123	-84 +2	347,124	2,532,571	split sta. - sharp curve	
TP	149				7.7	TH	+0.7	-7.0			TP					
	310		75°35.7' +180°	-1.4	+2.4	-		+2.4	1081.8		BS	-84 +1	-298 +2			
	310				+3.9	TH	-1.5	+2.4			BS					
444	226		73°36'	-1.4	4.7	-		-4.7	1077.1			+69	+215	347,110	2,532,490	
444	160		76°50'	-1.4	5.3	-		-5.3	1076.5			+40	+155	347,081	2,532,430	Trail (south)
445	0				5.4	-		-5.4	1076.4	TP	0	0	347,041	2,532,215	set up opposite sta.	
TP	133		306°42'	-1.4	7.3	-		-7.3	1074.5	TP	+77	-109 +2	347,118	2,532,168	split sta. - curve	
TP	133				8.0	TH	+0.7	-7.3			TP					
	319		164°11.5' +180°	-1.4	+2.3	-		+2.3	1076.8		BS	+305 +1	-94 +2			
	319				+3.9	TH	-1.6	+2.3			BS					
446	220		163°34'	-1.4	4.1	-		-4.1	1072.7			-209	+67	347,215	2,532,143	
447	0				5.4	-		-5.4	1071.4	TP	0	0	347,424	2,532,076		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
1/11/79		G. Cotcamp		R. Flowers		6834		RDF		1		50		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Bald River Falls		Tennessee		Monroe						L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
									1076.8					
448	220		327°15'	-1.4	8.0	-		-8.0		1068.8		+182	-123	347,606 2,531,953
449	440		"	-1.4	9.8	-		-9.8		1067.0		+364	-247	347,788 2,531,829
450	660		324°10.7'	-1.4	12.3	-		-12.3		1064.5	TP	+525 +1	-399 +2	347,950 2,531,679
450	660				9.0	BH	-3.3	-12.3			TP			
	219		121°1' +180°	-1.4	+3.1	-		+3.1	1067.6		BS	+108	-190 +2	
	219				+4.2	TH	-1.1	+3.1			BS			
451	0				5.4	-		-5.4		1062.2	TP	0	0	348,058 2,531,491
452	220		275°4'	-1.4	9.0	-		-9.0		1058.6		+14	-219	348,072 2,531,272
453	440		268°54.5'	-1.4	10.0	-		-10.0		1057.8	TP	-19 +1	-439 +2	348,040 2,531,054
453	440				12.2	TH	+2.2	-10.0			TP			
	228		106°4.5' +180°	-1.4	+4.0	-		+4.0	1061.6		BS	+58	-220 +2	
	228				+5.1	TH	-1.1	+4.0			BS			
454	0				5.4	-		-5.4		1056.2	TP	0	0	348,098 2,530,836 set up opposite to
455	229		312°5.7'	-1.4	7.2	-		-7.2		1054.4	TP	+149	-174 +2	348,247 2,530,664
455	229				8.4	TH	+1.1	-7.3			TP			
	883		173°35.3' +180°	-1.4	+2.9	TH	-4.4	-1.5	1052.9		BS	+875 +2	-120 +2	
	883				+3.6	89°40'	-5.1	-1.5			BS			
456	660		173°35.3'	-1.4	1.2	-		-1.2		1051.7		-654	+90	348,470 2,530,631
457	440		171°30'	-1.4	2.9	-		-2.9		1050.0		-433	+76	348,691 2,530,622
458	220		"	-1.4	4.5	-		-4.5		1048.4		-217	+38	348,907 2,530,584

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
1/11/79		G. Cotcamp		R. Flowers		6834		QJZ		1		51		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Bald River Falls		Tennessee		Monroe						L. U. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
									1052.9					
459	0				5.4	-		-5.4		1047.5	X	0	0	349,124 2,530,546
460	214		316°45.3'	-1.4	5.8	-		-5.8		1047.1	TP	+152	-150+2	349,276 2,530,398 Curve
460	214				6.9	TH	+1.1	-5.8			TP			
	220		96°46'+180°	-1.4	+3.3	-		+3.3	1050.4		BS	+20	-219+2	
	220				+4.4	TH	-1.1	+3.3			BS			
461	0				5.4	-		-5.4		1045.0	X	0	0	349,296 2,530,181
462	220		256°2'	-1.4	7.8	-		-7.8		1042.6		-58	-212	349,238 2,529,619
463	440		252°39.6'	-1.4	8.7	-		-8.7		1041.7	TP	-141 "	-417+2	349,156 2,529,166
463	440				10.9	TH	+2.2	-8.7			TP			
	440		81°42'+180°	-1.4	+3.0	-		+3.0	1044.7		BS	-74 "	-434+2	
	440				+5.2	TH	-2.2	+3.0			BS			
464	220		81°42'	-1.4	4.4	-		-4.4		1040.3		+37	+217	349,120 2,529,551
465	0				5.4	-		-5.4		1039.3	X	0	0	349,083 2,529,334 set up opposite sta
466	223		287°3.7'	-1.4	8.5	-		-8.5		1036.2	TP	+60	-215+2	349,143 2,529,121 T.P. opposite station
466	223				9.6	TH	+1.1	-8.5			TP			
	228		120°47'+180°	-1.4	+4.6	-		+4.6	1040.8		BS	+112	-199+2	
	228				+5.7	TH	-1.1	+4.6			BS			
467	0				5.4	-		-5.4		1035.4	X	0	0	349,255 2,528,924
468	220		333°52'	-1.4	6.5	-		-6.5		1034.3		+195	-102	349,450 2,528,822
469	440		" "	-1.4	7.8	-		-7.8		1033.0		+390	-203	349,645 2,528,721

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
1/11/79		G. Cotcamp		R. Flowers		6834		RBF		1	52				
AREA		TOPO MAP		STATE		COUNTY		RANGE	PPM	PARTY MANAGER					
Tennessee		Bald River Falls		Tennessee		Monroe				L.O. Paris					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									1040.8						
470	660		339° 8'	-1.4	9.0	-		-9.0		1031.8		+587	-302	349,842	2,528,622
471	880		" "	-1.4	10.5	-		-10.5		1030.3		+782	-403	350,037	2,528,521
472	1100		333° 16.8'	-1.4	11.4	-		-11.4		1029.4	TP	+970 <sup>+</sup>	-518+2	350,226	2,528,408
472	1100				5.9	BH	-5.5	-11.4			TP				
	220		128° 24' +180°	-1.4	+3.5	-		+3.5	1032.9		BS	+132	-176+2		
	220				+4.6	TH	-1.1	+3.5			BS				
473	0				5.4	-		-5.4		1027.5	π	○	○	350,358	2,528,234
474	220		294° 20.8'	-1.4	7.7	-		-7.7		1025.2	TP	+86	-202+2	350,444	2,528,034
474	220				8.8	TH	+1.1	-7.7			TP				
	220		118° 25.2' +180°	-1.4	+4.6	-		+4.6	1029.8		BS	+100	-196+2		
	220				+5.7	TH	-1.1	+4.6			BS				
475	0				5.4	-		-5.4		1024.4	π	○	○	350,544	2,527,840
476	220		312° 31.6'	-1.4	6.1	-		-6.1		1023.7		+145	-166	350,689	2,527,674
476	320		312° 47'	-1.4	6.5	-		-6.5		1023.3		+211	-240	350,755	2,527,600
477	440		312° 31.6'	-1.4	6.3	-		-6.3		1023.5	TP	+289+1	-331+1	350,834	2,527,510
477	440				8.5	TH	+2.2	-6.3			TP				

Horiz. Corr. y-39'  
4-way int. x-66'  
350,755 + 2,527,600  
(scaled)

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11/2/79		R. Flowers		R. Hulsey		6834		BS		1		53			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Bald river Falls		Tenn.		Monroe								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
477										1023.5					
	442		108° 46.8' +180	-1.4°	+3.3	-		+3.3	1026.8		BS	+132+	-422+		
	442				+5.5	TH	-2.2	+3.3			BS				
478	220		105° 53'	-1.4°	4.4	-		-4.4		1022.4		-55	+213	350,912 2,527,302	
479	0				5.4	-		-5.4		1021.4	TP	0	0	350,967 2,527,089	
480	221		315° 1.3'	-1.4°	7.1	-		-7.1		1019.7	TP	+152+	-160+	351,120 2,526,930	
480	221				8.2	TH	+1.1	-7.1			TP				
	220		145° 21.1' +180	-1.4°	+5.1	-		+5.1	1024.8		BS	+178+	-129+		
	220				6.2	TH	-1.1	+5.1			BS				
481	0				5.4	-		-5.4		1019.4	TP	0	0	351,299 2,526,802	
482	211		311° 32.6'	-1.4°	6.2	-		-6.2		1018.6	TP	+136+	-161+	351,436 2,526,642	
482	211				7.3	TH	+1.1	-6.2			TP				
	223		101° 12.5' +180	-1.4°	+3.2	-		+3.2	1021.8		BS	+38+	-220+		
	223				+4.3	TH	-1.1	+3.2			BS				
483	0				5.4	-		-5.4		1016.4	TP	0	0	351,475 2,526,423 opp side	
484	220		302° 41'	-1.4°	6.1	-		-6.1		1015.7		+114	-188	351,589 2,526,235	
485	440		" "	-1.4°	6.7	-		-6.7		1015.1		+228	-376	351,703 2,526,047	
486	665		299° 23'	-1.4°	2.8	-		-2.8		1019.0	TP	+312	-587+	351,787 2,525,837 opp side	
486	665				6.1	TH	+3.3	-2.8			TP				
	220		142° 3.4' +180	-1.4	+10.9	-		+10.9	1029.9		BS	+170	-139+		
	220				+12	TH	-1.1	+10.9			BS				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/12/79		B. Flowers		R. Hulsey		6834		R. J. H.		7		54			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Bald River Falls		Tenn.		Monroe								L. O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									1029.9						
487	0				5.4	-		-5.4		1024.5	TP	0	0	351,957	2,525,699
<del>487</del>	32		305° 40.7'	-1.4°	24	-		-7.4		1022.5		+18	-26	351,975	2,525,673
488	220		289° 27.8'	-1.4°	13.1	-		-13.1		1016.8	TP	+68	-209	352,025	2,525,491
488	220				14.2	TH	+1.1	-13.1			TP				
<del>488</del>	440		326° 43.170'	-1.4°	10.3	-		+0.3	1017.1		BS	+315	-308		
	440		137° 32' +180		2.5	TH	-2.2	+0.3			BS				
489	220		143° 42'	-1.4°	4.4	-		-4.4		1012.7		-174	+135	352,166	2,525,319
<del>489</del>	208		145° 52'	-1.4°	3.9	-		-3.9		1013.2		-169	+121	352,171	2,525,305
490	0				5.4	-		-5.4		1011.7	TP	0	0	352,340	2,525,184
491	220		324° 0.3'	-1.4°	7.7	-		-7.7		1009.4		+175	-134	352,515	2,525,050
492	440		" "	-1.4°	8.5	-		-8.5		1008.6		+350	-267	352,690	2,524,917
493	663		" "	-1.4°	8.6	-		-8.6		1008.5	TP	+527	-403	352,867	2,524,782
493	663		324° 0.3'		5.3	B.H.	-3.3	-8.6			TP				
	442		161° 25.7' +180	-1.4°	+3.5	-		+3.5	1012.0		BS	+415	-151		
	442				5.7	TH	-2.2	+3.5			BS				
494	220		" 161° 25.7"	-1.4°	4.5	-		-4.5		1007.5		-207	+75	353,015	2,524,707
495	0				5.4	-		-5.4		1006.6	TP	0	0	353,282	2,524,632
496	219		325° 50.6'	-1.4°	6.9	-		-6.9		1005.1	TP	+178	-127	353,460	2,524,506
496	219				8.0	TH	+1.1	-6.9			TP				

\*rechecked azimuth  
for set-up 1/15/79 sec.  
opp. side of rd




DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
11/12/79		R. Flowers		R. Hulsey		6834		R. J. H.		1		55							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
Tennessee		Bald River Falls		Tenn.		Monroe								L. A. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
496										1005.1									
	220		126° 03' 180	-1.4°	+4.1	-	+4.1	} 1009.2			BS	+125	-181+1						
	220				+5.2	TH	-1.1		+4.1			BS							
497	0				5.4	-	-5.4			1003.8	T	0	0	353,585	2,524,326				
498	220		279° 19.6	-1.4°	6.5	-	-6.5			1002.7		+30	-218	353,615	2,524,108				
499	440		278° 48.4	-1.4°	12.9	-	-12.9	} 996.3			TP	+57+1	-436+1	353,643	2,523,891				
499	440				10.7	BH	-2.2		-12.9			TP							
	439		116° 40.3' 180	-1.4°	+1.4	-	+1.4	} 997.7			BS	+187+1	-397+1						
	439				+3.6	TH	-2.2		+1.4			BS							
500	220		117° 53.7'	-1.4°	4.0	-	-4.0			993.7		-98	+197	353,733	2,523,692				
501	0				5.4	-	-5.4			992.3	T	0	0	353,831	2,523,495				
502	217		287° 21.7'	-1.4°	4.0	-	-4.0	} 993.7			TP	+60	-209+1	353,891	2,523,287	Curve			
502	217				5.1	TH	+1.1		-4.0			TP							
	216	68	68° 42.5' 180	-1.4°	+4.9	-	+4.9	} 998.6			BS	-83+1	-199+1			Curve			
	216				+6.0	TH	-1.1		+4.9			BS							
503	0				5.4	-	-5.4			993.2	T	0	0	353,809	2,523,089				
504	215		218° 22.3'	-1.4°	7.5	-	-7.5	} 991.1			TP	-172	-129+1	353,637	2,522,761				
504	215				8.6	TH	+1.1		-7.5			JP							
	435		358° 12.2' 180	-1.4°	+7.9	89° 10'	-6.3	+1.6	} 992.7			BS	-434	+24+1			Curve		
	435				+8.7	89° 4'	-7.1	+1.6				BS							
505	220		353° 1'	-1.4°	4.1	-	-4.1			988.6		+218	-32	353,421	2,522,954				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
1/12/79		R. Flowers		R. Hulsey		6234		R. J. H.		1		56				
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER				
Tennessee		Bald River Falls		Tenn.		Moore						L. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									992.7							
506	0				5.4	-	-	-5.4		987.3	TP	0	0	353,203	2,522,986	
507	220		162° 15'	-1.4°	6.5	-	-	-6.5		986.2		-208	+72	352,995	2,523,058	
508	430		154° 43'	-1.4°	7.5	-	-	-7.5		985.2	TP	-384	+193+1	352,819	2,523,180	curve
508	430				9.6	TH	+2.2	-7.4			TP					
	432		306° 25.2 - 180°	-1.4°	+3.6	TH	-2.2	+1.4			BS	-248	+354+1		curve	
	432				+5.2	89° 30'	-3.8	+1.4	986.6		BS					
509	220		293° 14'	-1.4°	3.2	-	-	-3.2		983.4		+82	-204	352,653	2,523,331	
510	0				5.4	-	-	-5.4		981.2	TP	0	0	352,571	2,523,535	set up opposite sta.
511	221		131° 50'	-1.4°	6.7	-	-	-6.7		979.9		-143	+168	352,428	2,523,703	
512	443		"	-1.4°	9.1	-	-	-9.1		977.5		-287	+337	352,284	2,523,872	
513	665		130° 41.5'	-1.4°	9.8	-	-	-9.8		976.8	TP	-421	+515+1	352,150	2,524,051	TP opposite station
513	665				13.1	TH	+3.3	-9.8			TP					
	212		330° 6.3 - 180°	-1.4°	+5.7	-	-	+5.7	982.5		BS	-181	+110+1			
	212				+4.6	BH	+1.1	+5.7			BS					
X	0				5.4	-	-	-5.4		977.1	X	0	0	351,969	2,524,162	split sta. - sharp curve
514	30		238° 39'	-1.4°	8.4	-	-	-8.4		974.1		-16	-25	351,953	2,524,137	
TP	208		214° 35'	-1.4°	6.8	-	-	-6.8			TP	-174	-114+1	351,795	2,524,049	
TP	208				7.9	TH	+1.0	-6.9		975.6	TP					
	281		97° 12.8 + 180°	-1.4°	+4.8	89°	-4.9	-0.1			BS	+28	-280+			
	281				+3.9	89° 10'	-4.1	-0.2	975.4		BS					

**SURVEY NOTES-HIGH RESOLUTION DATA**

GEO-445

**Geosource Inc.**

DATE 1/13/79		INSTRUMENT MAN G. Cotcamp		ROD MAN R. Flowers		PARTY NUMBER 6834		NOTES CHECKED BY R. J. H.		LINE NO. 1		PAGE 57		
AREA Tennessee		TOPO MAP Bald River Falls		STATE Tennessee		COUNTY Monroe		RANGE		PPM		PARTY MANAGER L. D. Davis		
STATION NO.	SLOPE DISTANCE 	PLOTTING DISTANCE 	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE 	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
									9754					
515	225		97°51'	-1.4°	3.1	-	-	-3.1		9723		-25	+224	351,798 2,523,994
516	0				54	-	-	-5.4		970.0	π	○	○	351,823 2,523,770 set up opposite sta.
517	220		299°58.2'	-1.4°	7.4	-	-	-7.4		968.0		+105	-193	351,928 2,523,577
518	440		299°58.2'	-1.4°	10.7	-	-	-10.7		964.7	TP	+210	-386+	352,033 2,523,385
518	440				12.9	TH	+22	-10.7			TP			
	886		108°56.6' +180°	-1.4°	+9.3	89°-	-15.5	-6.2	958.5		BS	+267	-845+	
	886				+1.5	89°30'	-7.7	-6.2			BS			
519	666		108°56.6'	-1.4°	26	89°30'	+5.8	+3.2		961.7		-201	+635	352,099 2,523,176
520	446		'	-1.4°	29	89°30'	+3.9	+1.0		959.5		-134	+425	352,166 2,522,966
521	226		'	-1.4°	2.0	-	-	-2.0		956.5		-68	+215	352,232 2,522,756
522	0				54	-	-	-5.4		953.1	π	○	○	352,300 2,522,541 set-up opposite sta.
523	230		324°50.6'	-1.4°	8.5	-	-	-8.5		950.0	TP	+185	-137+	352,485 2,522,405 T.P. opposite station.
523	230				9.7	TH	+1.2	-8.5			TP			
	444		179°39' +180°	-1.4°	+1.5	89°30'	-3.9	-2.4	947.6		BS	+444	-14+	
	444				+2.8	89°20'	-5.2	-2.4			BS			
524	220		177°46'	-1.4°	2.7	-	-	-2.7		944.9		-220	+14	352,709 2,522,406
525	0				54	-	-	-5.4		942.2	π	○	○	352,929 2,522,392
526	220		345°46'	-1.4°	7.5	-	-	-7.5		940.1		+212	-59	353,141 2,522,333
527	431		336°18.7'	-1.4°	3.7	90°40'	-5.0	-8.7		938.9	TP	+390	-166	353,319 2,522,226 curve
527	431				54	90°26'	-3.3	-8.7			TP			

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
1/13/79		G. Cotcamp		R. Flowers		6834		✓ P.J.H.		1	56						
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER								
Tennessee		Bald River Falls/Tellico Plains	Tennessee	Montroe					L.O. Davis								
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH+ SOUTH - LAT.	EAST+ WEST - DEP.	COORDINATES		REMARKS	
														Y	X		
527										938.9							
	219		117° 55.7' +180°	-1.4°	+4.4	-	-	+4.4	943.3		BS	+98	-196				
	219				+5.5	TH	-1.1	+4.4			BS						
528	0				5.4	-	-	-5.4	937.9		TP	○	○	353,417	2,522,030		Bald River Falls Quad.
529	215		264° 34.3'	-1.4°	6.4	-	-	-6.4	936.9		TP	-26	-213	353,391	2,521,817		Tellico Plains Quad.
529	215				5.3	BH	-1.1	-6.4			TP						
	219		50° 48.5' +180°	-1.4°	+4.0	-		+4.0	940.9		BS	-142	-166				
	219				+5.1	TH	-1.1	+4.0			BS						
530	0				5.4	-		-5.4	935.5		TP	○	○	353,249	2,521,651		
531	218		206° 49'	-1.4°	7.4	-		-7.4	933.5		TP	-197	-94	353,052	2,521,551		curve
531	218				8.5	TH	+1.1	-7.4			TP						
	220		7° 19' +180°	-1.4°	+2.1	-		+2.1	935.6		BS	-219	-23				
	220				+3.2	TH	-1.1	+2.1			BS						
532	0				5.4	-		-5.4	920.2		TP	○	○	352,833	2,521,534		
533	229		198° 52.3'	-1.4°	5.1	-		-5.1	930.5		TP	-218	-69	352,615	2,521,465		T.P. opposite station
533	229				4.0	BH	-1.1	-5.1			TP						
	230		70° 15' +180°	-1.4	+2.9	-		+2.9	933.4		BS	-83	-215				
	230				+4.1	TH	-1.2	+2.9			BS						
534	0				5.4	-		-5.4	928.0		TP	○	○	352,532	2,521,250		set-up opposite sta.
535	230		288° 7.5'	-1.4°	4.2	-		-4.2	929.2		TP	+66	-220	352,598	2,521,030		T.P. opposite sta.
535	230				5.3	TH	+1.2	-4.1			TP						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
1/13/79		G. Cotcamp		R. Flowers		6834		R. J. H.		1	59					
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
Tennessee		Tellico Plains	Tennessee	Monroe					L. D. Davis							
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
535	446		150° 49.2' + 180°	-1.4°	+5.4	-		+5.4	934.6	929.2	BS	+384	-227			
	446				+7.6	TH	-2.2	+5.4			BS					
536	220		152° 50'	-1.4°	5.1	-		-5.1		929.5		-193	+105	352,789	2,520,908	
	120		156° 8'	-1.4°	4.9	-		-4.9		929.7		-109	+51	352,873	2,520,854	bridge
537	0				5.4	-		-5.4		929.2	TP	0	0	352,982	2,520,803	
538	220		344° 34'	-1.4°	11.1	-		-11.1		923.5		+211	-64	353,193	2,520,739	
539	440		342° 8.5'	-1.4°	13.9	-		-13.9		920.7	TP	+415	-145	353,397	2,520,658	
539	440				11.7	BH	-2.2	-13.9			TP					
	439		133° 21.5' + 180°	-1.4°	+1.4	TH	-2.2	-0.8	919.9		BS	+294	-326			
	439				+1.8	89° 40'	-2.6	-0.8			BS					
540	220		129° 34'	-1.4°	3.5	-		-3.5		916.4		-136	+173	353,555	2,520,505	
541	0				5.4	-		-5.4		914.5	TP	0	0	353,691	2,520,332	
542	220		307° 40'	-1.4°	7.0	-		-7.0		912.9		+130	-177	353,821	2,520,155	
543	440			-1.4°	10.3	-		-10.3		909.6		+260	-355	353,951	2,519,977	
544	660		304° 15.8'	-1.4°	11.8	BH	-3.3	-15.1			TP	+358	-554	354,049	2,519,778	
544	660				9.4	90° 30'	-5.8	-15.2		904.7	TP					
	880		118° 49.6' + 180°	-1.4°	+0.1	-		+0.1	904.8		BS	+405	-781			
	880				+4.5	TH	-4.4	+0.1			BS					
545	660		118° 49.6'	-1.4°	1.8	-		-1.8		903.0		-304	+586	354,150	2,519,583	
546	440			-1.4°	2.9	-		-2.9		901.9		-203	+391	354,251	2,519,388	

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DATE 1/13/79	INSTRUMENT MAN G. Cotcamp	ROD MAN R. Flowers	PARTY NUMBER 6834	NOTES CHECKED BY R.J.H.	LINE NO. 1	PAGE 60
AREA Tennessee	TOPO MAP Tellico Plains 1326E	STATE Tennessee	COUNTY Monroe	RANGE	PPM	PARTY MANAGER L.O. Davis

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
									904.8										
547	220		118°49.6'	-1.4°	4.6	-		-4.6		900.2		-101	+195	354,353	2,519,192				
548	0				54	-		-5.4		899.4	X	0	0	354,454	2,518,997				
549	220		288°3'	-1.4°	7.1	-		-7.1		897.7		+63	-211	354,517	2,518,786				
550	440		"	-1.4°	6.9	-		-6.9		897.9		+126	-422	354,580	2,518,575				
551	660		"	-1.4°	8.1	-		-8.1		896.7		+189	-632	354,643	2,518,365				
552	880		"	-1.4°	9.7	-		-9.7		895.1		+252	-843	354,706	2,518,154				
553	1100		"	-1.4°	8.4	-		-8.4		896.4		+315	-1054	354,769	2,517,943				
554	1320		288°3'	-1.4°	7.4	-		-7.4		897.4	TP	+378	-1265	354,832	2,517,732				
554	1320				0.8	BH	-6.6	-7.4			TP								
	880		110°24' + 180°	-1.4°	+3.6	-		+3.6	901.0		BS	+286	-832						
	880				+1.0	90°10'	+2.6	+3.6			BS								
555	660		110°24'	-1.4°	3.4	-		-3.4		897.6		-215	+624	354,903	2,517,524				
556	440		"	-1.4°	3.5	-		-3.5		897.5		-143	+416	354,975	2,517,316				
557	220		"	-1.4°	4.0	-		-4.0		897.0		-72	+208	355,046	2,517,108				
558	0				54	-		-5.4		895.6	X	0	0	355,118	2,516,900				
558	81		279°53'	-1.4°	54	-		-5.4		895.6		+12	-80	355,130	2,516,820				Hor. corr. x=30' y=9' Intersect (scaled)
559	220		290°31'	-1.4°	6.3	-		-6.3		894.7		+72	-208	355,190	2,516,692				
559	230		288°15.6'	-1.4°	6.5	-		-6.5		894.5		+67	-220	355,185	2,516,680				bridge
560	440		290°31'	-1.4°	9.8	-		-9.8		891.2		+144	-416	355,262	2,516,484				unable to locate BM - new bridge



DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
1/13/79		G. Cotcamp		R. Flowers		6834		R. J. H.		1		62		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Tellico Plains		Tennessee		Monroe						L. O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
570	215		110° 22.6' + 180°	-1.2°	+5.1	-	+5.1	870.4	865.3	BS	+71+2	-203-1		Curve
	215				+6.2	TH	-1.1	+5.1		BS				
571	0				54	-	-5.4		865.0	TP	0	0	355,986	2,514,298
572	220		312° 34'	-1.2°	4.2	-	-4.2		866.2		+145	-165	356,131	2,514,133
573	440		308° 49'	-1.2°	3.7	-	-3.7		866.7		+269	-349	356,255	2,513,949
574	660		"	-1.2°	3.3	-	-3.3		867.1		+403	-523	356,389	2,513,775
575	884		307° 52.6'	-1.2°	2.2	-	-2.2		868.2	TP	+528+2	-709-1	356,516	2,513,588
575	884				6.6	TH	+4.4	-2.2		TP				TP opposite sta.
	220		159° 57.9' + 180°	-1.2°	+9.3	88° 30'	-5.8	+3.5	871.7	BS	+205+2	-80-1		
	220				+8.8	88° 38'	-5.2	+3.6		BS				
576	0				5.4	-	-5.4		866.3	TP	0	0	356,723	2,513,507
577	220		347° 35.6'	-1.2°	3.6	-	-3.6		868.1	TP	+214+2	-52-1	356,939	2,513,454
577	220				4.7	TH	+1.1	-3.6		TP				
	440		135° 17.9' + 180°	-1.2°	+1.1	-	+1.1	869.2		BS	+306+2	-316-1		
	440				+3.3	TH	-2.2	+1.1		BS				
578	220		135° 17.9'	-1.2°	3.5	-	-2.5		865.7		-153	+158	357,094	2,513,295
579	0				54	-	-5.4		863.8	TP	0	0	357,247	2,513,137
580	220		312° 38'	-1.2°	5.7	-	-5.7		863.5		+146	-165	357,393	2,512,972
BM	415		356° 38'	-1.2°	13.7	-	-13.7		855.5		+414	-33	357,661	2,513,104
BM	415				12.5	90° 10'	-1.2	-13.7						U.S.C.S. BM 4 E.L. 1932 855.6

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
11/3/79		G. Cotcamp		R. Flowers		6834		R. J. H.		1		63				
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER				
Tennessee		Tellico Plains		Tennessee		Monroe						L.D. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									869.2							
581	438		308°59'	-1.2°	5.9	-	-	-5.9		863.3	TP	+268+2	-346-1	357,517	2,512,790	
581	438				8.1	TH	+2.2	-5.9			TP					
	220		87°35' +180°	-1.2°	+5.0	-		+5.0	868.3		BS	-14+2	-220-1			
	220				+6.1	TH	-1.1	+5.0			BS					
582	0				54	-		-5.4		862.9	TP	0	0	357,505	2,512,569	
583	220		300°49.2'	-1.2°	59	88°-	+7.7	+1.8		870.1		+109	-191	357,614	2,512,378	
584	440		"	-1.2°	87	88°-	+15.3	+6.6		874.9		+217	-383	357,722	2,512,186	
585	660		300°49.2'	-1.2°	3.3	89°-	+11.5	+8.2		876.5	TP	+326+1	-574	357,832	2,511,995	
585	660				7.2	88°40'	+15.4	+8.2			TP					
	658		99°24' +180°	-1.2°	+1.8	-		+1.8	878.3		BS	+94+1	-651			
	658				+5.1	TH	-3.3	+1.8			BS					
586	440		96°55'	-1.2°	12.4	-		-12.4		865.9		-44	+438	357,883	2,511,782	
587	220			-1.2°	11.4	-		-11.4		866.9		-22	+219	357,905	2,511,563	
<del>588</del>	140		89°46'	-1.2°	9.9	-		-9.9		868.4		+4	+140	357,931	2,511,484	Y-intersect.
588	0				5.4	-		-5.4		872.9	TP	0	0	357,927	2,511,344	
589	220		267°51.5'	-1.2°	1.3	89°-	+3.8	+2.5		880.8		-13	-220	357,914	2,511,124	
590	440		"	-1.2°	2.5	88°30'	+11.5	+9.0		887.3		-26	-439	357,901	2,510,905	unable to locate BM-
591	660		267°51.5'	-1.2°	1.1	88°30'	+17.3	+16.2		894.5	TP	-38+1	-659	357,890	2,510,685	MLB 549
591	660				3.0	88°20'	+19.2	+16.2			TP					

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE								
1/15/79		G. Cotcamp		R. Flowers		6834		R. J. H.		1	64								
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER									
Tennessee		Tellico Plains		Tennessee	Monroe					L.O. Davis									
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
591										894.5									
	220		88°33.8' +180°	-1.2°	+6.7	-		+6.7	901.2		BS	-10 <sup>+2</sup>	-220						
	220				+7.8	TH	-1.1	+6.7		BS									
592	0				5.4	-		-5.4		895.8	π	○	○	357,882	2,510,465				
593	220		277°40'	-1.2°	13.1	-		-13.1		888.1		+25	-219	357,907	2,510,246				
594	440		281°35'	-1.2°	13.1	91°30'	-11.5	-24.6		876.6		+79	-433	357,961	2,510,032				
595	655		284°39.2'	-1.2°	10.2	91°30'	-17.1	-27.3		873.9	TP	+152 <sup>+1</sup>	-637	358,035	2,509,828				curve
595	655				14.0	91°10'	-13.3	-27.3			TP								
	431		86°59' +180°	-1.2°	+10.4	89°-	-7.5	+2.9			BS	-32 <sup>''</sup>	-430						curve
	431				+9.1	89°10'	-6.3	+2.8	876.7		BS								Town of Tellico Plains
596	220		80° -	-1.2°	2.0	TH	+1.1	-0.9		875.8		+43	+216	358,047	2,509,614				last sta. on main road
597	0				5.4	-		-5.4		871.3	π	○	○	358,004	2,509,398				line runs thru back alley
598	220		271°34.2'	-1.2°	8.5	-		-8.5		868.2		+1	-220	358,005	2,509,178				railroad tracks
599	438		271°34.2'	-1.2°	7.3	-		-7.3		869.4	TP	+3 <sup>''</sup>	-438	358,008	2,508,960				"
599	438				9.5	TH	+2.2	-7.3			TP								
	440		116°58' +180°	-1.2°	+6.0	-		+6.0	875.4		BS	+185 <sup>''</sup>	-399						
	440				+8.2	TH	-2.2	+6.0		BS									
600	220		116°58'	-1.2°	4.8	-		-4.8		870.6		-93	+199	358,101	2,508,760				
601	0				5.4	-		-5.4		870.0	π	○	○	358,194	2,508,561				on bridge
602	220		283°53'	-1.2°	6.5	-		-6.5		868.9		+48	-215	358,242	2,508,346				✓
603	440		"		8.5	-		-8.5		866.9		+97	-429	358,291	2,508,132				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
1/15/79		G. Cot camp		R. Flowers		6834		R. J. H.		1	65					
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
Tennessee		Tellico Plains		Tennessee	Monroe					L. O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									875.4							
12	480		283° 7'	-1.2°	8.5	-		-8.5		866.9	TP	+99"	-470	358,294	2,508,09	T-intersect.
12	480				10.9	TH	+2.4	-8.5			TP					line joins south
	147		26° 35' +180°	-1.2°	+9.1	-		+9.1	876.0		BS	-133"	-63			Town of Tellico Plains
	147				+9.8	TH	-0.7	+9.1			BS					
604	0				5.4	-		-5.4		870.6	TP	0	0	358,162	2,508,028	first sta back on main
605	220		298° 54'	-1.2°	7.5	-		-7.5		868.5		+102	-195	358,264	2,507,833	road
606	443		298° 54'	-1.2°	3.1	-		-3.1		872.9	TP	+206"	-392	358,369	2,507,636	
606	443				5.3	TH	+2.2	-3.1			TP					
	220		142° 40.2' +180°	-1.2°	+10.6	-		+10.6	883.5		BS	+172"	-137			v
	220				+11.7	TH	-1.1	+10.6			BS					
607	0				5.4	-		-5.4		878.1	TP	0	0	358,542	2,507,499	
608	220		336° 24'	-1.2°	2.2	-		-2.2		881.3		+200	-92	358,742	2,507,407	
609	440		341° 38'		0.8	-		-0.8		882.7		+4/4	-147	358,956	2,507,352	
610	656		344° 42'	-1.2°	3.0	-		-3.0		880.5	TP	+629"	-186	359,172	2,507,313	curve
610	656				6.3	TH	+3.3	-3.0			TP					
	212		133° 9.8' +180°	-1.2°	+0.7	87°	-3.7	-3.0	877.5		BS	+142"	-158			
	212				+2.5	88° 30'	-5.5	-3.0			BS					
611	0				5.4	-		-5.4		872.1	TP	0	0	359,315	2,507,155	
612	220		273° 18'	-1.2°	7.0	-		-7.0		870.5		+8	-220	359,323	2,506,935	
613	440		"		3.3	-		-3.3		874.2		+16	-440	359,331	2,506,715	

DATE 1/16/79	INSTRUMENT MAN G. Cotcamp	ROD MAN R. Hulsey	PARTY NUMBER 6834	NOTES CHECKED BY C.W.C.	LINE NO. 1	PAGE 66
AREA Tennessee	TOPO MAP Tellico Plains	STATE Tennessee	COUNTY Monroe	TWP	RANGE	PPM
				PARTY MANAGER L.O. Davis		

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH+ SOUTH -		EAST+ WEST -		COORDINATES		REMARKS
												LAT.	DEP.	Y	X			
									877.5									
614	660		273°10.6'	-1.2°	5.4	-		-5.4		872.1	TP	+23	+1	-660	359,339	2,506,495		
614	660				8.7	TH	+3.3	-5.4			TP							
	210		146°12'+180°	-1.2°	+0.5	89°	-3.7	-3.2	868.9		BS	+172	+1	-120				horiz. correct. y=41', x=-12'
	210				+2.3	88°30'	-5.5	-3.2			BS							359,365 + 2,506,363 (cont'd)
BM	148		186°1'	-1.2°	3.4	88°	+5.2	+1.8	870.7	870.7	BM	-147	-12	359,365	2,506,363			TVA MLB 548 el. 871.1 1944
615	0				5.4	-		-5.4	863.5	863.5	TP	0	0	359,512	2,506,375			
616	220		359°10.7'	-1.2°	5.9	-		-5.9	863.0	863.0		+220	-8	359,732	2,506,367			
617	440		"	-1.2°	6.8	-		-6.8	862.1	862.1		+440	-16	359,952	2,506,359			
618	660		"	-1.2°	6.5	-		-6.5	862.4	862.4		+660	-23	360,172	2,506,352			
619	880		359°10.7'	-1.2°	5.4	-		-5.4	863.5	863.5	TP	+879	-2	-31+1	360,389	2,506,345		
619	880				9.8	TH	+4.4	-5.4			TP							
	880		180°34'-180°	-1.2°	+2.4	-		+2.4	865.9	865.9	BS	+880	-2	-10+1				
	880				+6.8	TH	-4.4	+2.4			BS							
620	660		180°34'	-1.2°	3.2	-		-3.2	862.7	862.7		-660	+7	360,607	2,506,343			
621	440		"	-1.2°	3.4	-		-3.4	862.5	862.5		-440	+5	360,827	2,506,341			
622	220		"	-1.2°	4.2	-		-4.2	861.7	861.7		-220	+2	361,047	2,506,338			
623	0				5.4	-		-5.4	860.5	860.5	TP	0	0	361,267	2,506,336			
624	220		0°23'	-1.2°	6.0	-		-6.0	859.9	859.9		+220	-3	361,487	2,506,333			
625	440		"	-1.2°	5.9	-		-5.9	860.0	860.0		+440	-6	361,707	2,506,330			
□	448		356°43.3'	-1.2°	5.2	-		-5.2	860.7	860.7		+439	-34	361,706	2,506,302			closed square el. 860.9

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DATE 1/16/79	INSTRUMENT MAN G. Cotcamp	ROD MAN R. Hulsey	PARTY NUMBER 6834	NOTES CHECKED BY G.W.C.	LINE NO. 1	PAGE 67
AREA Tennessee	TOPO MAP Tellico Plains	STATE Mount Vernon Tennessee	COUNTY Monroe	RANGE	PPM	PARTY MANAGER L.O. Davis

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS	
														Y	X		
									865.9								
626	460		359° 16'	-1.2°	5.8	-		-5.8		860.1		+460	-16	361,727	2,506,320	Frd (west)	
626	655		357° 30'	-1.2°	8.0	-		-8.0		857.9	TP	+654	-42	361,919	2,506,295		
	660		148° 25' + 180°	-1.2°	+5.1	-		+5.1	863.0		BS	+555	-2-357				
	660				+8.4	TH	-3.3	+5.1			BS						↑
627	440		148° 25'	-1.2°	7.2	-		-7.2		855.8		-370	+238	362,102	2,506,177	last sta in Tellico Plains	
628	220			-1.2°	6.7	-		-6.7		856.3		-185	+119	362,287	2,506,058	first sta. in Mount Vernon Quad.	
629	0				5.4	-		-5.4		857.6	TP	0	0	362,472	2,505,939	↓	
630	220		320° 14'	-1.2°	3.2	-		-3.2		859.8		+166	-144	362,638	2,505,795		
631	352		316° 17'	-1.2°	0.2	-		-0.2		862.8		+249	-249	362,721	2,505,690	4 way Intersect.	
631	415		312° 16.8'	-1.2°	1.2	TH	+2.1	+0.9		863.9	TP	+273	-2-313	362,743	2,505,627	line jogs west	
	443		59° 32.5' + 180	-1.2°	+13.6	-		+13.6	877.5		BS	-13	-2-443			curve	
	443				+11.4	BH.	+2.2	+13.6			BS						
632	220		" "	-1.2°	8.7	-		-8.7		868.8		+7	+220	362,735	2,505,405		
633	0				5.4	-		-5.4		872.1	TP	0	0	362,728	2,505,185	opp side rd	
634	220		278° 10'	-1.2°	3.3	-		-3.3		874.2		+27	-218	362,755	2,504,967		
635	441		279° 50.1'	-1.2°	6.7	-		-6.7		870.8	TP	+66	-2-436	362,792	2,504,750		
635	441				8.9	TH.	+2.2	-6.7			TP		+1				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
1/16/79		R. Flowers		R. Hulsey		6834		G.C.		1		68							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
Tennessee		Mount Vernon		Tennessee		Monroe								L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
635										870.8									
	660		104° 12.2' + 180°	-1.2°	+8.5	-		+8.5	879.3		BS	+149	-2	-643	+1				
	660				+5.3	BH	+33	+8.6			BS								
636	440		104° 12.2'	-1.2°	7.3	-		-9.3		870.0		-99	+429			362,840	2,504,537		
637	220		" "	-1.2°	7.1	-		-7.1		872.2		-50	+214			362,889	2,504,322		
638	0				5.4			-5.4		873.9	TP	0	0			362,939	2,504,108		
639	220		286° 37'	-1.2°	5.9	-		-5.9		873.4		+58	-212			362,997	2,503,896		
640	440		" "	-1.2°	1.2	-		-1.2		878.1		+117	-424			363,056	2,503,684		
641	661		289° 20.5'	-1.2°	1.1	89° 26'	+6.5	+5.4		884.7	TP	+206	-628	+1		363,143	2,503,481		
641	661				0.4	89° 30'	+5.8	+5.4			TP								
	439		114° 1.3' + 180°	-1.2°	+2.2	TH	-2.2	+0.0	884.7		BS	+170	-2	-405	+1				
	439				+6.5	89° 10'	-6.4	+0.1			BS								
642	220		111° 51'	-1.2°	6.8	-		-6.8		877.9		-78	+206			363,233	2,503,283		
643	0				5.4			-5.4		879.3	TP	0	0			363,311	2,503,077		
644	220		274° 40'	-1.2°	5.9			-5.9		878.8		+13	-220			363,324	2,502,857		
645	440		276° 21'	-1.2°	3.5			-3.5		881.2		+39	-438			363,350	2,502,639		
646	660		" "	-1.2°	9.9	88° 10'	+21.1	+11.2		895.9		+59	-657			363,370	2,502,420		
647	880	879	" "	-1.2°	3.3	87° 50'	+33.2	+29.9		914.6		+79	-875			363,390	2,502,202		
648	1100	1099	278° 11.6'	-1.2°	3.3	87° 40'	+44.7	+41.4			TP	+134	-1091			363,443	2,501,987		
648	1100				1.3	87° 46'	+42.8	+41.5		926.2	TP	-2	+1						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE								
1/16/79		R. Flowers		R. Hulsey		6837		GWC.		1	69								
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER									
Tennessee		Mount Vernon		Tennessee	Monroe					L.O. Davis									
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
648										926.2									
	219		98° 10.2' +180	-1.2°	12.3	91°	+38	+16.1	942.3		BS	+27-2	-217+1						
	219				10.4	91° 30'	+5.7	+16.1			BS								
	92		95° 17'	-1.2°	9.6	-		-9.6		932.7		-7	+92	363,461	2,501,863			Y intersect	
649	0				5.4	-		-5.4		936.9	TP	0	0	363,468	2,501,771			Curve	
650	217		239° 56.7	-1.2°	1.9	89° 10'	+3.2	+1.3		943.6	TP	-113-2	-186+1	363,353	2,501,586				
650	217				1.3	89° 20'	+2.5	+1.2			TP								
	219				+11.8	92°	+7.6	+19.4	963.0		BS	-201-2	-86+1						
	219		24° 27.4' +180		11.2	92° 10'	+8.3	+19.5			BS								
651	0				5.4	-		-5.4		957.6	TP	0	0	363,150	2,501,501				
652	220		195° 32.5'	-1.2°	5.2	-		-5.2		957.8	TP	-213-2	-54+1	362,935	2,501,448				
652	220				6.3	TH	+1.1	-5.2			TP								
	214		79° 40.4' +180	-1.2°	+8.5	-		+8.5	966.3		BS	-168-2	-133+1					Curve	
	214				+7.4	BH	+1.1	+8.5			BS								
653	0				5.4	-		-5.4		960.9	TP	0	0	362,765	2,501,316				
654	216		231° 51'	-1.2°	1.2	89°	+3.8	+2.6		968.9	TP	-137-2	-167+1	362,626	2,501,150			Curve	
654	216				0.6	89° 10'	+3.1	+2.5			TP								
	223		66° 46.2' +180	-1.2°	+9.8	90° 30'	+1.9	+11.7	980.6		BS	-92-2	-203+1					Curve	
	223				+9.2	90° 40'	+2.6	+11.8			BS								
655	0				5.4	-		-5.4		975.2	TP	0	0	362,532	2,500,948			opp side id.	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
1/16/79		R. Flowers		R. Hulsey		6834		GWC.		1		70		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Mount Vernon		Tennessee		Monroe						L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
655									980.6					
656	221		278° 42.1'	-1.2	2.3	87° 10'	+10.9	+8.6		989.2	TP	+29 -2	-219 +1	362,559 2,500,730
656	221				1.7	87° 20'	+10.3	+8.6			TP			
	220		114° 34.3' +180	-1.2	+6.0	-		+6.0	995.2		BS	+87 -2	-202 +1	
	220				+7.1	TH	-1.1	+6.0			BS			
657	0				5.4	-		-5.4		989.8	TP	0	0	362,644 2,500,529
658	220	219	263° 41'	-1.2	3.5	93° 50'	-14.7	-18.2		977.0		-29	-217	362,615 2,500,312
659	440	439	" "		1.2	93° 50'	-29.3	-30.5		964.7		-57	-435	362,587 2,500,094
660	660	659	264° 4'	-1.2	5.7	93°	-34.5	-40.2		955.0		-82	-654	362,562 2,499,875
661	880	879	" "		9.3	92°	-30.7	-40.0		955.2		-109	-872	362,535 2,499,657
662	1098	1097	264° 43.8'	-1.2	6.0	92°	-38.3	-44.3		950.9	TP	-124 -2	-1090 +1	362,518 2,499,440
662	1098				9.3	91° 50'	-35.1	-44.4			TP			
	425		135° 54.6' +180	-1.2	+3.8	-		+3.8	954.7		BS	+299 -1	-302 +1	curve
	425				+5.9	TH	-2.1	+3.8			BS			
663	220		146° 16.4'	-1.2	7.1	-		-7.1		947.6		-180	+126	362,636 2,499,265
664	0				5.4	-		-5.4		949.3	TP	0	0	362,816 2,499,139
	50		315° 38.9'	-1.2	4.0	-		-4.0		950.7		+35	-36	362,851 2,499,103 rd inter. 90° bend
665	220		246 13'	-1.2	2.0	89° 45'	+1.0	-1.0		953.7		-93	-199	362,723 2,498,940 line jogs west
666	395		237° 18.8'	-1.2	2.3	89° 6'	+6.2	+3.9		958.6	TP	-220 -1	-328 +1	362,595 2,498,812
666	395				1.9	89° 10'	+5.7	+3.8			TP			

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
1/16/79		R. Flowers		R. Hulsey		6834		G.W.C.		1	71					
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
Tennessee				Tennessee	Monroe					L.O. Davis						
STATION NO.	 SLOPE DISTANCE	 PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	 VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES Y X		REMARKS
666										958.6						
	884		74° 0.3' +180	-1.2	+1.9	BH	+4.4	+6.3	964.9		BS	-261 -1	-844 +1			
	884				+3.8	90° 10'	+2.6	+6.4			BS					
667	660		74° 0.3'	-1.2	8.9	-		-8.9		956.0		+195	+631	362,528	2,498,600	
668	440		" "	-1.2	13.5	-		-13.5		951.4		+130	+420	362,463	2,498,389	
669	220		" "	-1.2	12.3	-		-12.3		952.6		+65	+210	362,398	2,498,179	
670	0				5.4			-5.4		959.5	TP	0	0	362,333	2,497,969	
671	220		254° 43'	-1.2	2.8	89°	+3.8	+1.0		965.9		-62	-211	362,271	2,497,758	Curves
672	435		251° 48.1'	-1.2	4.6	89° 30'	+3.8	-0.8		964.1	TP	-144 -1	-410 +1	362,188	2,497,560	RR tracks
672	435				3.4	89° 40'	+2.5	-0.9			TP					
	430		76° 44.4' +180	-1.2	+2.5	-		+2.5	966.6		BS	-107 -1	-416 +1			Curve across RR tracks
	430				+4.6	TH	-2.1	+2.5			BS					
673	220		84° 24'	-1.2	7.7	-		-7.7		958.9		+26	+218	362,106	2,497,363	
674	0				5.4	-		-5.4		961.2	TP	0	0	362,080	2,497,145	
675	220		272° 15'	-1.2	2.9	-		-2.9		963.7	TP	+4 -1	-220 +1	362,083	2,496,926	
675	220				4.1	TH	+1.1	-3.0			TP					
	221		163° 30' +180	-1.2	+13.5	-		+13.5	977.2		BS	+47 -1	-216 +1			
	221				+12.4	BH	+1.1	+13.5			BS					
676	0				5.4			-5.4		971.8	TP	0	0	362,129	2,496,711	
677	220		301 33.5'	-1.2	6.0	-		-6.0		971.2	TP	+111 -1	-190 +1	362,239	2,496,522	
677	220				4.9	B.H	-1.1	-6.0			TP					

**SURVEY NOTES-HIGH RESOLUTION DATA**

**Geosource Inc.**

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
1/16/79		R. Flowers		R. Hulsey		6834		G.W.C.		1		72		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Mount Vernon/Tellico Plains		Tennessee		Monroe						L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
677										971.2				
	205		88° 14.1' +180	-1.2	+4.2	-		+4.2	975.4		BS	-11 -1	-205	Curve
	205				+5.2	T.H	+1.0	+4.2			BS			
678	0				5.4			-5.4		970.0	TP	0	0	362,227 2,496,317 ↑
679	220		234° 44.1	-1.2	0.8	88° 20'	+6.4	+5.6		981.0	TP	-131 -1	-177	362,095 2,496,140 Mount Vernon Quad.
679	220				1.4	88° 10'	+7.0	+5.6			TP			Tellico Plains
	219		69° 57.1' +180	-1.2	+12.5	-		+12.5	993.5		BS	-79 -1	-204	Curve ↓
	219				+13.6	T.H	-1.1	+12.5			BS			
680	0				5.4			-5.4		988.1	TP	0	0	362,015 2,495,936
681	220		271° 52'	-1.2	9.9			-9.9		983.6		+3	-220	362,018 2,495,716
682	432		265° 26.5'	-1.2	14.3	-		-14.3		979.2	TP	-43 -1	-430	361,971 2,495,506 Curve
682	432				12.1	B.H	-2.2	-14.3			TP			
	220		65° 13.4' +180	-1.2	+6.6	-		+6.6	985.8		BS	-96 -1	-198	
	220				+5.5	B.H	+1.1	+6.6			BS			
683	0				5.4			-5.4		980.4	TP	0	0	361,874 2,495,308 361,860 + 2,495,290
71	23		234° 37.2'	-1.2	5.2	-		-5.2		980.6		-14	-18	361,860 2,495,290 F-intersect (south)
684	220		231° 5'	-1.2	6.0	-		-6.0		979.8		-142	-168	361,732 2,495,140 Hor. Corr. y-55', x-29'
685	435		229° 48.4'	-1.2	9.0	-		-9.0		976.8	TP	-288-4	-326-4	361,582 2,494,978
685	435				11.2	T.H	+2.2	-9.0			TP			



DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE					
1/17/79		Flowers		R. Hulsey		6834		R. J. H.		1		74					
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER					
Tennessee		Mount Vernon		Tennessee		Monroe						L. O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS	
														Y	X		
695										953.6							
	220		125° 8.9' +180	-1.8°	+9.4	-		+9.4	963.0		BS	+121-5	-184-13				Note: reran turn points and backsights from sta.
	220				+10.5	TH	-1.1	+9.4		BS							
696	0				5.4	-		-5.4		957.6	TP	0	0	362,739	2,493,880		695 to 728 1/18/79.
697	220		315° 22'	-1.8°	1.9	-		-1.9		961.1		+152	-159	362,891	2,493,721		All azimuths are
698	440		" "	-1.8°	3.5	89° 30'	+3.8	+0.3		963.3		+303	-319	363,042	2,493,561		correct - possible local
699	660		" "	-1.8°	2.9	89° 30'	+5.8	+2.9		965.9		+455	-478	363,194	2,493,402		magnetic attraction.
700	880		315° 47.3'	-1.8°	1.1	89° 30'	+7.7	+6.6			TP	+611-5	-633-13	363,345	2,493,234		
> 700	880				2.3	89° 26'	+8.7	+6.4		969.4	TP						
	1100		136° 14.2' +180	-1.8°	+6.6	-		+6.6	976.0		BS	+770-5	-785-7				
	1100				+121	TH	-5.5	+6.6		BS							
701	880		136 14.2'	-1.8°	6.2	-		-6.2		969.8		-616	+628	363,494	2,493,070		
702	660		" "	-1.8°	6.0	-		-6.0		970.0		-462	+471	363,648	2,492,913		
703	440		" "	-1.8°	8.4	-		-8.4		967.6		-308	+314	363,802	2,492,756		
704	220		" "	-1.8°	7.5	-		-7.5		968.5		-154	+157	363,956	2,492,599		
705	0				5.4			-5.4		970.6	TP	0	0	364,110	2,492,442		
706	220		331° 56'	-1.8°	3.1	88° 10'	+7.0	+3.9		979.9		+191	-110	364,301	2,492,332		(scaled)
1F	332		332° 40.6'	-1.8°	2.0	88° 10'	+12.6	+8.6		984.6		+290	-162	364,400	2,492,280		T-rod (east)
707	440		" "	-1.8°	1.9	88° 10'	+14.1	+12.2		988.2		+384	-214	364,494	2,492,228		Hor. Corr. y-47' x-63'
708	660		331° 42'	-1.8°	2.1	88° 10'	+21.1	+19.0		995.0		+571	-331	364,681	2,492,111		

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
1/17/79		Flowers		R. Hulsey		6834		RS2				75				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
Tennessee		Mount Vernon		Tennessee		Monroe								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
708									976.0							
709	880	879	333° 24.7'	-24°	2.5	88°	+30.7	+28.2		1004.2	TP	+769-5	-426-8	364,874	2,492,008	Curves
709	880				2.0	88° 2'	+30.2	+28.2			TP					
	220		168° 24.3' +180	-24°	+13.3	-		+13.3	1017.5		BS	+213-5	-53-8			
	220				+14.4	TH	-1.1	+13.3			BS					
710	0				5.4	-		-5.4		1012.1	TP	0	0	365,082	2,491,947	
711	220		329° 24.7'	-24°	7.6	-		-7.6			TP	+185-5	-120-8	365,262	2,491,819	
711	220				8.8	TH	+1.1	-7.7		1009.8	TP					
	440	438	148° 51.7' +180	-24°	+4.7	85° 10'	-36.9	-32.2	977.6		BS	+365-5	-242-9			
	440				+6.0	85°	-38.2	-32.2			BS					
712	220		145° 24'	-24°	1.9	85°	+19.1	+17.2		994.8		-176	+132	365,446	2,491,700	
713	0				5.4	-		-5.4		972.2	TP	0	0	365,622	2,491,568	
714	220		342° 59.8'	-24°	7.2	-		-7.2			TP	+208-5	-73-9	365,825	2,491,486	
714	220				8.4	TH	+1.1	-7.3		970.3	TP					
	220/440		188° 8.6' -180	-24°	+13.2	89° 40'	-2.6	+10.6	980.9		BS	+438-4	+44-9			
	440				+14.4	89° 30'	-3.8	+10.6			BS					
715	220		190° 41.6'	-24°	2.8	89° 30'	+1.9	-0.9		980.0		-218	-32	366,041	2,491,489	(scaled)
715	121		192° 15.3'	-24°	2.7	-		-2.7		978.2		-119	-21	366,140	2,491,500	Y-intersect. (southwest)
716	0				5.4			-5.4		975.5	TP	0	0	366,259	2,491,521	Hor. Corr. y-28' x-51'
717	220		359° 2'	-24°	2.7	-		-2.7		978.2		+220	-13	366,479	2,491,508	
718	440		357° 42'	-24°	7.1	88°	+15.3	+8.2		989.1		+439	-36	366,698	2,491,485	



SURVEY NOTES-HIGH RESOLUTION DATA

Geosource Inc.

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
1/17/79		Flowers		R. Hulsey		6834		RSH		1	77					
AREA		TOPO MAP		STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER							
Tenn.		Mount Vernon		Tenn.	Monroe				L.O. Davis							
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
728										974.3					Traverse from stat.	
	122		239° 34.2'	-2.8°	+32	-		+32.2	977.5		BS	+67	+102		728 to TVA BM	
	122				+3.8	TH	-0.6	+3.2			BS					
π	0				5.4	-		-5.4	972.1		π	0	0	368,741	2,490,904	(Control Data): 369,126 + 2,490,800
BM	399		347° 45.9'	-2.8°	7.1	-		-7.1	970.4		BM	+385	-104	369,126	2,490,800	TVA MLB 544 El. Hor. Corr. y = -28.969 x = 6'
BM	399				9.1	TH	+2.0	-7.1			BM					
728										974.3				368,674	2,490,802	+728 coordinates
	222		57° 0' +180°	-2.8°	+14.3	-		+14.3	988.6		BS	-130	-180			
	222				-13.2	BH	+1.1	+14.3			BS					
729	0				5.4	-		-5.4	983.2		π	0	0	368,544	2,490,623	set up opposite sta.
730	220		243° 53'	-2.8°	2.1	-		-2.1	986.5			-106	-193	368,438	2,490,430	
731	440		243° 53'		0.9	TH	+2.2	+1.3	989.9		TP	-213	-385	368,331	2,490,239	
731	440				1.3	89° 40'	+2.6	+1.3			TP					
	440		53° 3' +180°	-2.8°	+14.9	-		+14.9	1004.8		BS	-281	-338			
	440				+12.7	BH	+2.2	+14.9			BS					
732	220		53° 3'	-2.8°	11.2	-		-11.2	993.6			+141	+169	368,191	2,490,071	
732	107		58° 53'	-2.8°	9.9	-		-9.9	994.9			+60	+88	368,110	2,489,990	Trail (east)
733	0				5.4	-		-5.4	999.4		π	0	0	368,050	2,489,902	
734	225	224	251° 32'	-2.8°	3.2	85°	+19.5	+16.3	1021.1		TP	-81	-209	367,969	2,489,699	T.P. opposite station
734	225				1.2	85° 30'	+17.6	+16.4			TP					

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
11/18/79		G. Cotcamp		R. Hulsey		6834		R. J. H.		1	78			
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
Tennessee		Mount Vernon		Tennessee	Monroe					L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH+ SOUTH - LAT.	EAST+ WEST - DEP.	
734										1021.1				
	228	227	106° 55' +180°	-2.8°	+14.2	94°-	+15.9	+30.1			BS	+55	-220	
	228				+12.2	94°30'	+17.8	+30.0	1051.1		BS			
735	0				5.4	-		-5.4		1045.7	π	0	0	368,024 2,489,475 set up opposite sta.
736	222		312° 50.5'	-2.8°	1.7	89°-	+3.9	+2.2		1053.3	TP	+143	-170	368,167 2,489,306
736	222				0.4	89°20'	+2.6	+2.2			TP			
	292		141° 46.4' +180°	-2.8°	+12.8	-		+12.8	1066.1		BS	+220	-192	
	292				+14.3	TH	-1.5	+12.8			BS			
737	72		131° 13'	-2.8°	7.3	-		-7.3		1058.8		-45	+56	368,342 2,489,171
	0				5.4	-		-5.4		1060.7	π	0	0	368,387 2,489,115 split sta. - sharp curve
738	135		236° 59'	-2.8°	0.8	88°-	+4.7	+3.9		1070.0		-79	-109	368,308 2,489,006
739	350		223° 35.3	-2.8°	3.2	87°-	+18.3	+15.1		1081.2	TP	-265	-229	368,122 2,488,887
739	350				1.2	87°20'	+16.3	+15.1			TP			
	440		58° 44.7' +180°	-2.8°	+1.8	TH	-2.2	-0.9	1080.8		BS	-246	-365	
	440		5'		+7.2	84°	-7.7	-0.5			BS			
740	220		58° 44.7'	-2.8°	2.3	-		-2.3		1078.5		+123	+182	367,999 2,488,705
741	0				5.4			-5.4		1075.4	π	0	0	367,816 2,488,523
742	220		243° -	-2.8°	9.3	-		-9.3		1071.5		-109	-191	367,767 2,488,332
743	440		243° -	-2.8	14.0	BH	-2.2	-16.2		1064.6	TP	-219	-382	367,657 2,488,142 opp side
743	440				12.4	90°30'	-3.8	-16.2			TP			

# Geosource Inc.

DATE 1/24/79	INSTRUMENT MAN R. Flowers	ROD MAN R. Hulsey	PARTY NUMBER 6837	NOTES CHECKED BY R. J. H.	LINE NO. 79
AREA Tennessee	TOPO MAP Mount Vernon	STATE Tennessee	COUNTY Monroe	TWP	PARTY MANAGER L.O. Davis

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS
												LAT.	DEP.	Y	X			
743										1064.6								
	221		74° 13.7' +180	-28°	+6.1	87° 10'	-10.9	-4.8	1059.8		BS	-70	-209.1					
	221				+5.5	87° 20'	-10.3	-4.8			BS							
744	0				5.4	-		-5.4		1054.4	TP	0	0	367,587	2,487,934			
745	220		258° 44.4'	-28°	6.1	93° 50'	-14.7	-20.8		1039.0		-53	-213	367,534	2,487,721			
746	440		"		7.3	93° 50'	-29.3	-36.6		1023.1		-107	-427	367,480	2,487,507			
747	660	659	258° 44.4'	-28°	2.4	93° 10'	-36.4	-38.8		1021.0	TP	-160	-639.1	367,427	2,487,296	opp side		
747	660				0.4	93° 20'	-38.3	-38.7			TP							
	440		81° 51.8' +180	-28°	+5.5	88° 10'	-14.1	-8.6	1012.4		BS	-83	-432.1					
	440		81° 51.8' +180		+4.3	88° 20'	-12.8	-8.5			BS							
748	220		81° 51.8'	-28°	4.0	89° 20'	+2.6	-1.4		1011.0		+42	+216	367,386	2,487,081			
749	0				5.4	-		-5.4		1007.0	TP	0	0	367,344	2,486,865			
750	220		269° 4.9'	-28°	10.0	-		-10.0		1002.4	TP	-14	-220.1	367,330	2,486,646			
750	220				11.1	TH	+1.1	-10.0			TP							
	660	659	88° 50.3' +180	-28°	+0.8	86° 30'	-40.2	-39.4	963.0		BS	-45	-657.1					
	660				+4.6	86° 10'	-44.0	-39.4			BS							
751	440		88° 50.3'	-28°	7.8	86° 10'	+29.3	+21.5		984.5		+30	+439	367,315	2,486,428			
752	220		"	-28°	3.5	86° 10'	+14.7	+11.2		974.2		+15	+219	367,300	2,486,209			
753	0				5.4	-		-5.4		957.6	TP	0	0	367,285	2,485,990			
753	192		252° 9.2'	-28°	4.2	93° 30'	-11.7	-15.9		947.1		-68	-180	367,217	2,485,810	Trail (south)		

SURVEY NOTES-HIGH RESOLUTION DATA

Geosource Inc.

GEO-445

DATE		INSTRUMENT MAN			ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
1/24/79		R. Flowers			R. Hulsey		6834		R. J. H.		1	80					
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
Tennessee		Mount Vernon / Englewood		Tennessee	Monroe					L. D. Davis							
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
753									963.0								
754	219		251° 26.7'	-28°	24	93° 50'	-14.6	-17.0		946.0	TP	-80	-204.1	367,205	2,485,787	Curve	
754	219				31	93° 40'	-14.0	-17.1			TP						
	439	438	54° 20.2' +180	-28°	+4.6	87° 10'	-21.7	-17.1	928.9		BS	-272	-343.1				
	439				+3.5	87° 20'	-20.4	-16.9			BS						
755	220		59° 31.9'	-28°	5.0	87° 20'	+10.2	+5.2		934.1		+121	+184	367,054	2,485,629	Curve	
756	0				5.4	-		-5.4		923.5	T	0	0	366,933	2,485,445		
757	215		293° 22.3'	-28°	4.2	-		-4.2		924.7		+76	-201	367,009	2,485,244	Curve	
758	430		294° 19.4'	-28°	1.5	91° -	-7.5	-9.0		919.9	TP	+158	-400.1	367,091	2,485,046	rechecked rod reading	
758	430				0.2	91° 10'	-8.8	-9.0			TP					1/24/79	
	437		95° 49.8' +180	-28°	6.5	-		+0.5	920.4		BS	+23	-436.1				
	437				+2.7	TH	-2.2	+0.5			BS						
759	220		95° 49.8'	-28°	4.0	-		-4.0		916.4		-12	+220	367,102	2,484,831		
760	0				5.4	-		-5.4		915.0	T	0	0	367,114	2,484,611	↑	
761	220		257° 13.6'	-28°	3.8	87° 10'	+10.9	+7.1		927.5	TP	-59	-212.1	367,055	2,484,400	Mount Vernon Quad.	
761	220				3.2	87° 20'	+10.2	+7.0			TP					↑	
	440		84° 0.1' +180	-28°	+6.3	92° 10'	+16.6	+22.9	950.4		BS	-67	-435.1				
	440				+5.0	92° 20'	+17.9	+22.9			BS						
762	220		84° -	-28°	7.6	92° 10'	-8.3	-15.9		934.5		+34	+217	367,022	2,484,183	Englewood Quad.	
763	0				5.4	-		-5.4		945.0	T	0	0	366,988	2,483,966	↓	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
1/25/79		R. Flowers		R. Hulsey		6834		R.J.H.		1		81							
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER							
Tennessee		Englewood 7.5		Tennessee		Monroe						L.O. Davis							
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
76									950.4										
764	219		274° 1.2'	-28°	0.1	TH	+1.1	+1.0		951.4	TP	+5	-219+1	366,993	2,483,748	curve			
764	219				1.0	89°30'	+1.9	+0.9			TP								
	440		76° 8.2' +180	-24°	+118	91°40'	+12.8	+24.6	976.0		BS	-126	-422+1						
	440				+105	91°50'	+14.1	+24.6			BS								
765	220		76° 8.2'	-28°	8.9	-		-8.9		967.1		+63	+211	366,930	2,483,538				
766	0				5.4	-		-5.4		970.6	T	0	0	366,867	2,483,327				
767	219		246° 46.4'	-28°	8.8	-		-8.8		967.2	TP	-96	-197+1	366,771	2,483,131	curve			
767	219				9.9	TH	+1.1	-8.8			TP								
	442	440	69° 35.2' +180	-28°	+2.4	84°30'	-42.2	-39.8	927.4		BS	-173	-404						
	442				+1.1	84°40'	-40.9	-39.8			BS								
768	220		72° 3.4'	-28°	3.5	84°20'	+21.6	+18.1		945.5		+78	+206	366,676	2,482,933				
769	0				5.4	-		-5.4		922.0	T	0	0	366,598	2,482,727				
77	193		268° 31.2'	-28°	5.6	93°10'	-10.6	-16.2		911.2		-14	-192	366,584	2,482,535	Hor. corr - y = 0' x = +2.4'			
770	215		283° 47.7'	-3.0°	8.3	92°40'	-10.0	-18.3		909.1	TP	+40-3	-211+1	366,635	2,482,517	Y-int. 366,584 + 2,482,535			
770	215				9.5	92°20'	-8.7	-18.3			TP								
	219		162° 20.2' +180	-3.0°	+7.8	-		+7.8	916.9		BS	+205-3	-77+1						
	219				+6.7	B.H.	+1.1	+7.8			BS								
771	0				5.4	-		-5.4		911.5	T	0	0	366,837	2,482,441				
772	218		359° 41.2'	-3.0°	7.6	88°10'	+7.0	-0.6		916.3	TP	+218-3	-13+1	367,052	2,482,429	Curve			
772	218				8.2	88°	+7.6	-0.6			TP								



DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
1/25/79		R. Flowers		R. Hulsey		6834		RSH		1	83				
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
Tennessee		Englewood 7.5'	Tennessee	Monroe					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH+ SOUTH - LAT.	EAST+ WEST - DEP.		Y
780									1010.6						
781	0				5.4	-		-5.4		1005.2	T	0	0	368,863	2,482,044
782	217	85° 21'	56° 41.2'	-3.0°	14.7	83° 10'	+25.6	+10.9		1021.5	TP	+128-2	+174+2	368,989	2,482,220
782	217				14.4	83° 15'	+25.3	+10.9			TP				
	190	85° 40'	190° 21.2'-180	-3.0°	+13.1	84° 24'	-18.5	-5.4	1016.1		BS	+187-2	+24+2		curves
	190				+14.9	83° 50'	-20.3	-5.4			BS				
783	0				5.4	-		-5.4		1010.7	T	0	0	369,174	2,482,246
784	220		34° 58.5'	-3.0°	9.4	-		-9.4		1006.7	TP	+205-1	-79+2	369,378	2,482,169
784	220				10.5	TH	+1.1	-9.4			TP				
	220	86° 30'	146° 10.9'+180	-3.0°	+1.0	86° 46'	-12.4	-11.4	995.3		BS	+176-1	-132+2		
	220				+0.7	86° 50'	-12.1	-11.4			BS				
785	0				5.4	-		-5.4		989.9	T	0	0	369,553	2,482,039
786	217		315° 34'	-3.0°	10.5	-		-10.5		984.8	TP	+147-1	-160+2	369,699	2,481,881
786	217				9.4	BH	-1.1	-10.5			TP				
	220		144° 11.2'+180	-3.0°	+1.7	92° 48'	+10.7	+12.4	997.2		BS	+171-1	-138+2		
	220				+1.6	92° 50'	+10.9	+12.5			BS				
787	0				5.4	-		-5.4		991.8	T	0	0	369,869	2,481,745
788	220		336° 0'	-3.0°	11.0	-		-11.0		986.2		+196	-100	370,065	2,481,645
789	440		336° 52.8'	-3.0°	6.6	-		-6.6		990.6	TP	+395-1	-194+2	370,263	2,481,553
789	440				4.4	BH	-2.2	-6.6			TP				

Geosource Inc.

DATE 11/25/79	INSTRUMENT MAN R. Hulsey	ROD MAN R. Flowers	PARTY NUMBER 6834	NOTES CHECKED BY RBF	LINE NO. 1	PAGE 84
AREA Tennessee	TOPO MAP Englewood	STATE Tennessee	COUNTY Monroe	RANGE	PPM	PARTY MANAGER L. O. Davis

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS
												LAT.	DEP.	Y	X			
789										990.6								
	219	93° 30'	119° 39.5' + 180°	-3.0	+14.2	93° 14'	+12.3	+26.5	1012.1		BS	+98	-1	-196	+2			
	219				+13.8	93° 20'	+12.7	+26.5			BS							
790	0				5.4	-	-	-5.4		1011.7	TP	0	0			370,360	2,481,359	
791	220		315° 32.9'	-3.0	0.0	88° 40'	+5.1	+5.1		1022.2		+149	-162			370,509	2,481,197	
792	440		315° 32.9'	-3.0	2.0	87° 40'	+17.9	+15.9		1033.0	TP	+298	-1	-324	+2	370,657	2,481,037	
792	440				3.3	87° 30'	+19.2	+15.9			TP							
	660		130° 42.3' + 180°	-3.0	+14.1	-	-	+14.1	1047.1		BS	+404	-1	-522	+2			
	660				+10.8	BH	+33	+14.1			BS							
793	440		130° 42.3'	-3.0	12.3	-	-	-12.3		1034.8		-269	+348			370,791	2,480,865	
794	220		" "	-3.0	6.5	-	-	-6.5		1040.6		-135	+174			370,925	2,480,691	
795	0				5.4	-	-	-5.4		1041.6	TP	0	0			371,060	2,480,517	
	35		295° 59'	-3.0	2.5	-	-	-2.5		1044.6		+14	-32			371,074	2,480,485	371,070 + 2,480,510 T-rd (scaled)
796	220		299° 40'	-3.0	2.8	88° 38'	+5.2	+2.4		1049.5		+99	-197			371,159	2,480,320	
797	437		295° 45.7	-3.0	0.4	88° 08'	+14.2	+13.9		1061.0	TP	+169	-403	+1		371,229	2,480,115	Turn opp.
797	437				0.8	88° 04'	+14.7	+13.9			TP							
	227		161° 53.8' + 180°	-3.0	+6.2	89° 22'	-2.5	+3.7	1064.7		BS	+212	-82					Curve
	227				+7.0	89° 10'	-3.3	+3.7			BS							
798	0				5.3	-	-	-5.3		1059.4	TP	0	0			371,441	2,480,033	Set-up opp
799	221		4° 19.4'	-3.0	0.3	89° -	+3.9	+3.6		1068.3	TP	+221	+5			371,662	2,480,038	End
799	221				0.2	89° 02'	+3.7	+3.5			TP							

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
1/26/79		R. Flowers		R. Hulsey		6834		G.W.C.		1		85							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
Tennessee		Englewood		Tennessee		Monroe								L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
799										1068.3									
	439		188° 29.3'	-3.0°	+12.4	92° 20'	+17.9	+30.3	1098.6		BS	+437	+42						
	439				+13.6	92° 10'	+16.6	+30.2			BS								
800	220		196° 36.6'	-3.0°	13.4	92°	-7.7	-21.1		1077.5		-220	-14	371,879	2,480,066				
801	0				5.4	-		-5.4		1093.2	TP	0	0	372,099	2,480,080				
802	220	219	345° 14.4'	-3.0°	1.0	86° 20'	+14.0	+13.0		1111.6	TP	+209	-67	372,308	2,480,013				
802	220				1.6	86° 10'	+14.7	+13.1				TP							
	438	437	146° 54.9' +180	-3.0°	+10.8	93° 40'	+28.0	+38.8	1150.4		BS	+353	-257						
	438				+12.2	93° 30'	+26.7	+38.9				BS							
803	220		146° 54.9	-3.0°	13.1	93° 10'	-12.1	-25.2		1125.2		-178	+130	372,483	2,479,886				
804	0				5.4			-5.4		1145.0	TP	0	0	372,661	2,479,756				
805	219		302° 5.2'	-3.0°	1.6	87° 50'	+8.3	+6.7		1157.1	TP	+106	-191	372,767	2,479,565				
805	219				2.3	87° 40'	+8.9	+6.6				TP							
	195		138° 33.1' +180	-3.0°	+9.8	88° 10'	-6.2	+3.6	1160.7		BS	+139	-137						
	195				+9.3	88° 20'	-5.7	+3.6				BS							
71	97		190° 37.4	-3.0°	1.4	-		-1.4		1159.3		-96	-13	372,810	2,479,415				
806	0				5.4	-		-5.4		1155.3	TP	0	0	372,906	2,479,428				
807	219		358° 39.2'	-3.0°	4.2	-		-4.2		1156.5	TP	+218+1	-17+2	373,125	2,479,413				
807	219				5.3	TH	+1.1	-4.2				TP							
	211		194° 19.1' -180°	-3.0°	+5.4	88° 10'	-6.7	-1.3	1155.2		BS	+207+1	+41+2						
	211				+4.8	88° 20'	-6.1	-1.3				BS							

372,810 + 2,479,415  
T-rd (scaled)  
Horizontal, Corr,  
y = 40, x = 33

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/26/79		B. Flowers		B. Hulsey		6834		G.W.C.		1		86			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Englewood		Tennessee		Monroe								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									1155.2						
808	0				5.4	-		-5.4		1149.8	TP	0	0	373,333	2,479,456
809	219		86° 8.1'	-3.0°	1.0	87° 10'	+10.8	+9.8		1165.0	TP	+26+1	+217+1	373,360	2,479,674
809	219				0.3	87° 20'	+10.2	+9.9			TP				
	220	219	237° 37.9' -180	-3.0°	+9.7	94° 10'	+15.9	+25.6	1190.6		BS	+127+1	+179+1		
	220				+8.6	94° 30'	+17.2	+25.8			BS				
810	0				5.4	-		-5.4		1185.2	TP	0	0	373,488	2,479,854
811	218		30° 20.3'	-3.0°	1.2	89° 10'	+3.2	+2.0		1192.6	TP	+194+1	+100+1	373,683	2,479,955
811	218				0.6	89° 20'	+2.5	+1.9			TP				
	430		165° 53.3' +180	-3.0°	+2.1	-		+2.1	1194.7		BS	+411+1	-127+1		
	430				+4.2	TH	-2.2	+2.0			BS				
812	220		163° 14.1'	-3.0°	5.1	88° 50'	+4.5	-0.6		1194.1		-207	+74	373,888	2,479,903
813	0				5.4	-		-5.4		1189.3	TP	0	0	374,095	2,479,829
814	220		357° 30.0'	-3.0°	8.6	-		-8.6		1186.1		+219	-21	374,314	2,479,808
1F	350		357° 55.9'	-3.0°	7.3	-		-7.3		1187.4		+349	-31	374,444	2,479,798
815	440		357° 55.9'	-3.0°	7.4	-		-7.4		1187.3		+438	-39	374,533	2,479,790
816	660		2° 4.4'	-3.0°	3.5	-		-3.5		1191.2		+660	-11	374,755	2,479,818
817	880		3° 2.7'	-3.0°	5.5	89° 30'	+2.6	-2.9		1191.8	TP	+880	+1	374,975	2,479,830
817	880				8.1	89° 40'	+5.1	-3.0			TP				
	438		143° 6.1' +180	-3.0°	+9.7	91° 10'	+8.9	+17.6	1209.4		BS	+336	-281		
	438				+7.4	91° 20'	+10.2	+17.6			BS				

374,455+2, 479,800  
T-rd. (east)

**SURVEY NOTES-HIGH RESOLUTION DATA**

GEO-445

**Geosource Inc.**

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11/26/79		B. Flowers		B. Hulsey		6834		R.S.F.		1		87			
AREA		TOWNSHIP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Englewood		Tennessee		Monroe								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									1209.4						
818	220		138° 57.0'	-3.0°	7.9	91° 50'	-7.0	-14.9		1194.5		-158	+153	375,153	2,479,702
819	0				5.4	-		-5.4		1204.0	TP	0	0	375,311	2,479,549
820	220		340° 123'	-3.0°	10.4	93° 10'	-12.1	-22.5		1186.9		+203	-85	375,514	2,479,464
821	440	438	337° 10.6'	-3.0°	3.9	93° 10'	-39.5	-43.4		1166.0	TP	+394	-191	375,705	2,479,358
821	440				2.7	93° 20'	-40.7	-43.4			TP				
	438	436	104° 4.5' +180	-3.0°	+3.9	84° 10'	-44.3	-40.4	1125.6		BS	+84	-428		-
	438				+2.7	84° 20'	-43.0	-40.3			BS				-
822	220		104° 4.5'	-3.0°	7.4	82° 30'	+28.5	+21.1		1146.7		-42	+216	375,747	2,479,146
823	0				5.4	-		-5.4		1120.2	TP	0	0	375,789	2,478,930
824	220	219	300° 8.9'	-3.0°	9.7	95° 40'	-21.6	-31.3		1094.3	TP	+100	-195	375,889	2,478,735
824	220				9.0	95° 50'	-22.2	-31.2			TP				
	650	648	94° 33.4' +180	-3.0°	+4.1	85° 30'	-50.8	-46.7	1047.6		BS	+18	-648		
	650				+5.9	85° 20'	-52.7	-46.8			BS				
825	440	438	93° 2.6'	-3.0°	8.8	85°	+38.2	+29.4		1077.0		-0-	+438	375,907	2,478,525
826	220	219	93° 2.6'	-3.0°	5.9	85°	+19.1	+13.2		1060.8		-0-	+219	375,907	2,478,306
827	0				5.4	-		-5.4		1042.2	TP	0	0	375,907	2,478,087
TP	209	208	287° 8.3'	-3.0°	10.8	94° 30'	-16.3	-27.1		1020.5	TP	+51	-203	375,958	2,477,884 split-sta due to curve
TP	209				11.4	94° 20'	-15.7	-27.1			TP				
	241		145° 56.0' +180	-3.0°	+3.4	87° 20'	-11.2	-7.8	1012.7		BS	+192	-145		
	241				+4.1	87° 10'	-11.9	-7.8			BS				

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/26/79		R. Flowers		R. Hulsey		68511		G.W.C.		1		88			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Eagle wood		Tennessee		Monroe								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH+ SOUTH - LAT.	EAST+ WEST - DEP.		Y
									1012.7						
828	221		143° 24.2'	-3.0°	3.6	87° 20'	+10.3	+6.7		1019.4		-170	+141	375,980	2,477,880
829	0				5.4	-		-5.4		1007.3	π	○	○	376,150	2,477,739
830	222		5° 17.3'	-3.0°	11.7	-		-11.7		1001.0	TP	+222	+9	376,372	2,477,748
830	222				128	TH	+1.1	-11.7			TP				
	424		194° 13.5' +180	-3.0°	+23	88° 10'	-13.6	-11.3	989.7		BS	+416	+83		Curve
	424				+35	83° -	-14.8	-11.3			BS				
831	215		190° 57.0'	-3.0°	4.5	85°	+7.5	+3.0		992.7		-213	-30	376,575	2,477,801
832	0				5.4	-		-5.4		984.3	π	○	○	376,788	2,477,831
833	220		306° 29.4'	-3.0°	4.0	91° -	-3.8	-7.8		981.9		+121	-183	376,909	2,477,648
834	440		308° 53.2'	-3.0°	13.4	SH	-2.2	-15.6		974.1	TP	+258	-356	377,046	2,477,475
834	440				14.2	93° 15'	-1.3	-15.5			TP				Opp. stn.
	221		140 38.2' +180	-3.0°	+8.5	-		+8.5	982.6		BS	+163	-149		
	221				+7.4	BH	+1.1	+8.5			BS				
835	0				5.4	-		-5.4		977.2	π	○	○	377,209	2,477,326
836	220		345° 41.9'	-3.0°	6.3	87° 40'	+8.9	+2.6		985.2	TP	+210	-65	377,419	2,477,261
836	220				7.0	87° 30'	+9.6	+2.6			TP				
	210		176° 31.3' +180	-3.0°	+7.3	-		+7.3	992.5		BS	+209	-24		
	210				+8.4	TH	-1.1	+7.3			BS				
837	0				5.4	-		-5.4		987.1	π	○	○	377,628	2,477,237

## Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
1/26/79		R. Flowers		R. Hulsey		6834		G.W.C.		1		89				
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER				
Tennessee		Englewood		Tennessee		Monroe						L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
														Y	X	
									992.5					377,628	2,477,237	
838	218		283° 40.4'	-3.0°	5.5	-	-	-5.5		987.0	TP	+40	-214	377,668	2,477,023	
838	218				6.6	TH	+1.1	-5.5			TP					
	200		137° 45.3' +180	-3.0°	+14.8	86° 48'	-11.1	+3.7	990.7		BS	+141	-142			
	200				+14.9	86° 46'	-11.3	+3.6			BS					
839	0				5.8	-	-	-5.8		984.9	TP	0	0	377,809	2,476,881	
≡	209		345° 0.7'	-3.0°	12.6	-	-	-12.6		978.1		+199	-65	378,008	2,476,816	378,000 + 2,476,825 red. interest (scaled)
840	220		347° 15.5'	-3.0°	13.9	-	-	-13.9		976.8	TP	+212	-60	378,021	2,476,821	
840	220				12.8	BH	-11	-13.9			TP					
	660		181° 46.3' -180	-3.0°	+0.9	88° -	-23.0	-22.1	954.7		BS	+660	-14			
	660				+2.8	87° 50'	-24.9	-22.1			BS					
841	440		181° 46.3'	-3.0°	8.1	89° 20'	+5.1	-3.0		951.7		-440	+9	378,241	2,476,816	
842	220		"	-3.0°	6.2	90° 20'	-1.3	-7.5		947.2		-220	+5	378,461	2,476,812	
843	0				5.4	-	-	-5.4		949.3	TP	0	0	378,681	2,476,807	
R.R.	52		335° 9.1'	-3.0°	1.0	-	-	-1.0		953.7		+46	-24	378,727	2,476,783	R.R. tracks
□	272		286° 35.2'	-3.0°	31	-	-	-3.1		951.6		+64	-264	378,745	2,476,543	P.M. 951.8 U.S.G.S. check square 951.69
844	205		318° 52.2'	-3.0°	14.6	88° -	+7.2	-7.4		947.3	TP	+147	-143	378,828	2,476,664	
844	205				14.0	88° 10'	+6.6	-7.4			TP					
	436		131° 14.3' +180°	-3.0°	+5.7	-	-	+5.7	953.0		BS	+270	-342			x=-8
	436				+3.5	BH	+2.2	+5.7			BS					Horiz. Corr. y=-6
≡	402		132° 58.2'	-3.0°	6.1	-	-	-6.1		946.9		-258	+308	378,840	2,476,630	378,840 + 2,476,630 red interest (scaled)

SURVEY NOTES-HIGH RESOLUTION DATA

Geosource Inc.

GEO-445

DATE: 1/24/79  
 INSTRUMENT MAN: R. Flowers  
 ROD MAN: B. Hulsey  
 PARTY NUMBER: 6834  
 NOTES CHECKED BY: [Signature]  
 LINE NO.: 1  
 PAGE: 90  
 AREA: Tennessee  
 TOPO MAP: Englewood  
 STATE: Tennessee  
 COUNTY: Monroe  
 TWP: [blank]  
 RANGE: [blank]  
 PPM: [blank]  
 PARTY MANAGER: L.D. Davis

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									953.0						
845	218		133° 55.7'	-3.0°	6.6	-		-6.6		946.4		-143	+165	378,955	2,476,487
846	0				5.4	-		-5.4		947.6	TP	0	0	379,098	2,476,322
847	217		292° 2.6'	-2.8°	6.5	-		-6.5		946.5	TP	+72+1	-205-2	379,171	2,474,115
847	217				7.6	TH	+1.1	-6.5			TP				
	221		83° 35.2' +180	-2.8°	+7.9	-		+7.9	954.4		BS	-35+1	-218-2		
	221				+9.0	TH	-1.1	+7.9			BS				
848	0				5.4	-		-5.4		949.0	TP	0	0	379,137	2,475,895 opp. Sta
849	221		281° 38.2'	-2.8°	9.2	-		-9.2		945.2	TP	+34+2	-218-2	379,173	2,475,675
849	221				10.3	TH	+1.1	-9.2			TP				trail North
	217		116° 59.2' +180	-2.8°	+3.9	-		+3.9	949.1		BS	+68+2	-206-2		
	217				+5.0	TH	-1.1	+3.9			BS				
850	0				5.4	-		-5.4		943.7	TP	0	0	379,243	2,475,465 opp. Sta
851	222		289° 48.1'	-2.8°	7.8	TH	+1.1	-6.7		942.4	TP	+65+2	-212-2	379,310	2,475,253 opp. Sta
851	222				6.7	-		-6.7			TP				
	215		116° 54.3' +180	-2.8°	+4.5	-		+4.5	946.9		BS	+88+2	-196-2		
	215				+5.6	TH	-1.1	+4.5			BS				
852	0				5.4	-		-5.4		941.5	TP	0	0	379,400	2,475,055
853	220		277° 1'	-2.8°	5.2	-		-5.2		941.7		+16	-219	379,416	2,474,836
854	439		277° 1'	-2.8°	2.9	89° 10'	+6.4	+3.5		950.4	TP	+32+2	-438-2	379,434	2,474,615
854	439				4.2	89° -	+7.7	+3.5			TP				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
1/29/74		R. Flowers		P. Hulsey		6834		RSZ		7		97		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Camp 400		Englewood		Tennessee		Monroe						L.D. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
854										950.4				
	438		56° 38.7' +180	-28°	+8.1	88° 30'	-11.5	-3.4	947.0		BS	-258+2	-354-2	
	438				+9.3	88° 20'	-12.7	-3.4			BS			
855	220		54° 26.3'	-28°	5.9	88° 30'	+5.8	-0.1		946.9		+136	+173	379,314 2,474,432
856	0				5.4	-		-5.4		941.6	X	0	0	379,178 2,474,259
857	220		239° 17.8'	-28°	7.9	-		-7.9		939.1	TP	-121+2	-183-2	379,059 2,474,074
857	220				9.0	TH	+1.1	-7.9			TP			
	436		52° 58.3' +180	-28°	+6.5	-		+6.5	945.6		BS	-279+2	-335-2	
	436				+8.7	TH	-2.2	+6.5			BS			
858	220		47° 35.2'	-28°	6.7	-		-6.7		938.9		+156	+155	378,938 2,473,892
859	0				5.4	-		-5.4		940.2	X	0	0	378,782 2,473,737
860	219		239° 37.6'	-28°	4.0	-		-4.0		941.6		-120	-183	378,662 2,473,554
861	433		249° 42.6'	-28°	9.7	-		-9.7			TP	-170+2	-398-2	378,614 2,473,337
861	433				11.8	TH	+2.2	-9.6		936.0	TP			
	660		85° 57.2' +180	-28°	+6.6	TH	-3.3	+3.3			BS	-79+2	-655-1	
	660				+9.2	89° 30'	-5.8	+3.4	939.4		BS			
862	440		85° 57.2'	-28°	6.5	-		-6.5		932.9		+52	+437	378,589 2,473,118
863	220		" "	-28°	11.8	89° 20'	+2.6	-9.2		930.2		+26	+218	378,563 2,472,899
864	0				5.4			-5.4		934.0	X	0	0	378,537 2,472,681
865	220		283° 12.4'	-28°	4.5	89° 20'	+2.6	-1.9		937.5		+40	-216	378,571 2,472,465

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/29/79		B. Flowers		D. Hulsey		6834		R.J.H.		1		92			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Englewood		Tennessee		Moore								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									939.4						
866	440		287° 10.4'	-2.8°	5.2	89° 20'	+5.1	-0.1		939.3	TP	+109+2	-426-1	378,648	2,472,254
866	440				6.5	89° 10'	+6.4	-0.1			TP				
	220	219	118° 16.8' +160	-2.8°	+13.3	86°	-15.3	-2.0	937.3		BS	+94+2	-198-1		
	220				+12.6	86° 10'	-14.7	-2.1			BS				
867	0				5.4			-5.4		931.9	T	0	0	378,744	2,472,055
BM	165		314° 42.7'	-2.8°	13.5	91°	-2.9	-16.4		920.9		+110	-123	378,854	2,471,932 Y-intersect.
868	205		340° 49.8'	-2.8°	14.1			-14.1		923.2	TV	+148	-60	378,892	2,471,995 M <sup>etc.</sup> 924.2 N3.1932
868	205		227° 24.7	-2.8°	5.2	93° 10'	-11.3	-16.5		920.8	TP	+167+2	-119	378,913	2,471,936 X
	875				4.7	93° 20'	-11.9	-16.6			TP				
	875		148° 54.5' +160	-2.8°	+10.6			+10.6			BS	+726+2	-488		Curve
	875				+6.3	BH	+4.4	+10.7	931.5		BS				
869	660		148° 54.3'	-2.8°	10.3			-10.3		921.2		-548	+368	379,093	2,471,816
870	440		"	-2.8°	11.1			-11.1		920.4		-365	+245	379,276	2,471,693
871	220		147° 21.1'	-2.8°	11.4			-11.4		920.1		-179	+128	379,462	2,471,576
872	0				5.4			-5.4		926.1	T	0	0	379,641	2,471,448
873	220		305° 32.0	-2.8°	2.4			-2.4		929.1		+119	-185	379,760	2,471,263
874	440		307° 32.4'	-2.8°	3.7			-3.7		927.8	TP	+251+2	-361	379,894	2,471,087
874	440				6.0	711	+2.2	-3.8			TP				
	221		136° 7.6' +180	-2.8°	+0.3	89°	-3.9	-3.6	924.2		BS	+152+2	-161		
	221				+0.9	88° 50'	-4.5	-3.6			BS				



DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/29/79		R. Flowers		R. Hulsey		6834		D. J. J.		1		94			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Englewood		Tennessee		Monroe								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									942.2						
885	0				5.4	-		-5.4		936.8	T	0	0	381,912	2,469,783
886	220		307° 16.6'	-28°	12.8	-		-12.8		929.4		+125	-181	382,037	2,469,602
887	440		309° 27'	-28°	12.3	91° 10'	-9.0	-21.3			TP	+261+2	-354	382,175	2,469,429
887	440				11.0	91° 20'	-10.2	-21.2		921.0	TP				
	440		151° 19.1' +180	-28°	+3.0	89° 10'	-6.4	-3.4	917.6		BS	+375+2	-230		
	440				1.7	89° 20'	-5.1	-3.4			BS				
888	220		151° 19.1'	-28°	5.4	-		-5.4		912.2		-188	+115	382,364	2,469,314
889	0				5.4	-		-5.4		912.2	T	0	0	382,552	2,469,199
890	219		340° 37.1'	-28°	3.3	-		-3.3		914.3	TP	+203+2	-83	382,757	2,469,116
890	219				4.4	TH	+1.1	-3.3			TP				
	219		196° 22.1 -180	-28°	+7.2	93° 30'	+13.3	+20.5	934.8		BS	+213+2	+51		
	219				+7.8	93° 20'	+12.7	+20.5			BS				
891	0				5.4	-		-5.4		929.4	T	0	0	382,972	2,469,167
892	220		357° 3.3'	-28°	9.8	84°	+22.9	+13.1		947.9		+219	-22	383,191	2,469,145
893	435	433	351° 31.3'	-28°	8.7	84° 50'	+39.0	+30.3			TP	+425+2	-85	383,399	2,469,082
893	435				9.9	84° 40'	+40.3	+30.4		965.2	TP				
	660	657	185° 50.4' -180	-28°	+11.2	95° -	+57.3	+68.5	1033.7		BS	+656+2	+35		
	660	-			+9.3	95° 10'	+59.2	+68.5			BS				
894	440	436	185° 50.4'	-28°	5.5	95° 30'	-42.0	-47.5		986.2		-437	-23	383,620	2,469,094
895	220	219	" "	-28°	6.1	95° 30'	-21.0	-27.1		1006.6		-219	-12	383,838	2,469,105

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DATE 1/29/79	INSTRUMENT MAN P. Flowers	ROD MAN R. Hulsey	PARTY NUMBER 6834	NOTES CHECKED BY ✓ G.W.C.	LINE NO. 1	PAGE 95
AREA Tennessee	TOPO MAP Englewood	STATE Tennessee	COUNTY Monroe	TWP	RANGE	PPM
				PARTY MANAGER L.O. Davis		

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS	
														Y	X		
896	0				5.4	-		-5.4	1033.7								horizontal correct. y=+58 x=-25
TP	37		335° 33'	-2.8°	2.8	-		-2.8		1028.3	TP	0	0	384,057	2,469,117		384,090+2,469,100 (scaled)
897	220		49° 17.4'	-2.8°	5.8	88° 16'	+7.0	+1.2		1030.9		+33	-17	384,090	2,469,100		Intersect
847	220				5.2	88° 20'	+6.4	+1.2		1034.9	TP	+151-2	+160	384,206	2,469,277		line jogs northeast
	880		232° 54' -180°	-2.8°	+2.7	-		+2.7	1037.6		BS	+564-2	+675				
	880				+7.1	TH	-4.4	+2.7			BS						
898	660		232° 54'	-2.8°	7.7	-		-7.7		1029.9		-423	-506	384,345	2,469,446		
899	440		"	-2.8°	7.9	-		-7.9		1029.7		-282	-338	384,486	2,469,614		
900	220		"	-2.8°	6.3	-		-6.3		1031.3		-141	-169	384,627	2,469,783		
901	0				5.4	-		-5.4		1032.2	TP	0	0	384,768	2,469,952		
902	220		62° 11.1'	-2.8°	2.6	-		-2.6		1035.0		+112	+189	384,880	2,470,141		
903	440		62° 11.1'	-2.8°	12.2	-		-12.2		1025.4	TP	+224-2	+379	384,990	2,470,331		
	440				14.4	TH	+2.2	-12.2			TP						
	660		252° 29.7' -180°	-2.8°	+2.5	88° 30'	-17.3	-14.8	1012.6		BS	+229-2	+619				
	660				+4.4	88° 20'	-19.2	-14.8			BS						
904	440		252° 29.7'	-2.8°	2.3	88° 30'	+11.5	+9.2		1019.8		-153	-413	385,064	2,470,537		
905	220		"	-2.8°	0.3	TH	+1.1	+0.8		1011.4		-76	-206	385,141	2,470,744		
906	0				5.4	-		-5.4		1005.2	TP	0	0	385,217	2,470,950		
907	220		57° 24'	-2.8°	4.5	-		-4.5		1006.1		+127	+179	385,344	2,471,129		
908	440		"	-2.8°	9.9	88° -	+15.3	+5.4		1016.0		+255	+359	385,472	2,471,309		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES Y X		REMARKS
									10106							
909	660		57°24'	-2.8°	6.8	88°-	+23	+16.2		1026.8		+382	+538	385,599	2471,988	
<u>IL</u>	780		54°14'	-2.8°	5.5	88°-	+27.2	+21.7		1032.3		+486	+610	385,703	2471,560	385,710 + 2,471,555 (scaled)
910	875	874	53°16.6'	-2.8°	14.5	87°28'	+38.6	+24.1			TP	+556-4	+674	385,769	2471,624	T-rod (north)
910	875				134	87°32'	+37.6	+24.2		1034.8	TP					
	880		224°29.3'-180°	-2.8°	+10.2	91°-	+15.4	+25.6	1060.4		BS	+657-4	+585			
	880				+14.3	90°44'	+11.3	+25.6			BS					
911	660		224°29.3'	-2.8°	7.9	91°-	-11.5	-19.4		1041.0		-493	-439	385,929	2471,770	
912	440		"	-2.8°	12.8	8H	-2.2	-15.0		1045.4		-329	-293	386,093	2471,916	
913	220		"	-2.8°	10.4	-		-10.4		1050.0		-164	-146	386,258	2472,063	
914	0				5.4	-		-5.4		1055.0	π	0	0	386,422	2472,209	
915	220		46°17.6'	-2.8°	9.0	-		-9.0		1051.4		+160	+151	386,582	2472,360	
916	440		46°17.6'	-2.8°	8.3	8H	-2.2	+0.5		1049.9	TP	+319-4	+303	386,737	2472,512	
916	440				7.9	90°20'	-2.6	-10.5			TP					
	880		233°28.2'-180°	-2.8°	+9.5	89°-	-15.4	-3.9	1044.1	-5.8	BS	+558-4	+681			
	880				+4.5	89°20'	-10.2	-5.7			BS					
917	660		233°28.2'	-2.8°	3.3	89°20'	+7.7	+4.4		1048.5		-418	-511	386,873	2472,682	
918	440		"	-2.8°	3.0	89°20'	+5.1	+2.1		1046.2		-279	-340	387,012	2472,853	
919	220		"	-2.8°	1.7	89°20'	+2.6	+0.9		1045.0		-139	-170	387,152	2473,023	
<u>IL</u>	195		236°47'	-2.8°	1.5	89°20'	+2.3	+0.8		1044.9		-115	-158	387,176	2473,035	387,180 + 2,473,040 (scaled)
920	0				5.4	-		-5.4		1038.7	π	0	0	387,291	2473,193	T-rod (north)

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE								
1/30/79		G. Cotcamp		R. Flowers		6834		G.W.C.		1	97								
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER										
Tennessee		Englewood	Tennessee	Monroe					L.O. Davis										
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
									1044.1										
921	220		64°23.3'	-2.8°	8.4	-		-8.4		1035.7		+105	+194	387,396	2,473,387				
922	440		"	-2.8°	2.9	-		-2.9		1041.2		+209	+387	387,500	2,473,580				
923	660		"	-2.8°	3.3	-		-3.3		1040.8		+314	+581	387,605	2,473,774				
924	880		"	-2.8°	1.6	-		-1.6		1042.5		+419	+774	387,710	2,473,967				
925	1100		64°23.3'	-2.8°	4.8	TH	+5.5	+0.7		1044.8	TP	+523-4	+968	387,810	2,474,161				
925	1100				5.8	89°40'	+6.4	+0.6			TP								
	658		240°17'-180°	-2.8°	+14.4	-		+14.4	1059.2		BS	+354-4	+555						curve
	658				+11.1	OH	+3.3	+14.45			BS								
926	440		241°20'	-2.8°	10.2	-		-10.2		1049.0		-230	-375	387,930	2,474,341				
927	220		246°45'	-2.8°	6.7	-		-6.7		1052.5		-97	-198	388,063	2,474,518				
TF	71		265°54'	-2.8°	5.2	-		-5.2		1054.0		-9	-70	388,151	2,474,646				388,135+2,474,640 (scaled) 1-cd (south)
928	0				5.4	-		-5.4		1052.8	π	○	○	388,160	2,474,716				
929	220		91°37.8'	-2.8°	10.0	-		-10.0		1049.2		+4	+220	388,164	2,474,936				
930	440		"	-2.8°	12.8	91°	-7.7	-20.5		1038.7		+9	+440	388,169	2,475,156				
931	660		91°37.8'	-2.8°	9.3	92°	-23.0	-32.3		1026.9	TP	+13-4	+660-2	388,169	2,475,374				
931	660				13.2	91°40'	-19.2	-31.4			TP								
	220		258°5'-180°	-2.8°	+3.5	89°	-3.8	-0.3	1026.6		BS	+56-4	+213-2						
	220				+0.8	TH	-1.1	-0.3			BS								
932	0				5.4	-		-5.4		1021.2	π	○	○	388,221	2,475,585				
933	220		58°49.1'	-2.8°	8.3	-		-8.3		1018.3		+123	+182	388,344	2,475,767				

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/30/79		G. Cotcamp		R. Flowers		6834		G.W.C.		1		98			
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER			
Tennessee		Englewood		Tennessee		Monroe						L.O. Davis			
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
934	440		58° 49.1'	-2.8°	9.0	91°	-77	-16.7	1026.6						
935	660		'	-2.8°	10.3	91° 30'	-17.3	-27.6		1009.9		+246	+365	388,467	2,475,950
936	880	879	58° 49.1'	-2.8°	12.8	92°	-30.7	-43.5		999.0		+369	+547	388,590	2,476,132
936	880				14.8	91° 52'	-28.6	-43.4			TP	+491-4	+729-2	388,708	2,476,312
	172		206° 31' - 180°	-2.8°	+3.2	87°	-9.0	-5.8	977.4		TP				
	172				+0.2	88°	-6.0	-5.8			BS	+157-4	+69-3		
TP	84		163° 54'	-2.8°	2.0	-	-	-2.0			BS				shooting across 90° bend
937	0				54	-	-	-5.4		975.4		-79	+27	388,782	2,476,405
938	220		336° 32.5'	-2.8°	13.9	-	-	-13.9		972.0	π	○	○	388,811	2,476,378
939	440		"	-2.8°	10.7	91°	-7.7	-18.4		963.5		+197	-97	389,058	2,476,281
940	660		336° 32.5'	-2.8°	11.6	-	-	-11.6		959.0		+395	-195	389,256	2,476,183
940	660				8.3	BH	-3.3	-11.6		965.8	TP	+592-3	-292	389,450	2,476,086
	220		166° 5.1' + 180	-2.8°	+0.1	-	-	+0.1	965.9		TP				
	220				+1.2	TA	-1.1	+0.1			BS	+211-3	-63		
941	0				5.4	-	-	-5.4		966.0	BS				
942	220		350° 30.6'	-2.8°	12.9	BH	-1.1	-14.0		960.5	π	○	○	389,658	2,476,023
943	439		350° 30.6'	-2.8°	12.5	90° 30'	-3.8	-16.3		951.9		+215	-47	389,873	2,475,976
943	439				13.8	90° 20'	-2.6	-16.4		949.6	TP	+4293	-93	390,084	2,475,930
	660	659	162° 12.1' + 180	-2.8°	+11.7	87°	-34.5	-22.8	926.8		TP				
	660				+9.8	87° 10'	-32.6	-22.8			BS	+617-1	-232		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/30/79		P. Flowers		B. Hulsey		6834		V GWC.		1		99			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Englewood		Tennessee		Monroe								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									926.8						
944	440	439	162° 12.1'	-2.8°	10.8	87°	+23.0	+12.2		939.0		-411	+154	390,289	2,475,852
945	220		" "	-2.8°	10.7	87°	+11.5	+0.8		927.6		-206	+77	390,494	2,475,775
946	0	.			5.4	-		-5.4		921.4	TP	○	○	390,700	2,475,698
947	220		335° 15.6'	-2.8°	10.0	-		-10.0		916.8	TP	+195-1	-102	390,894	2,475,596
947	220				11.1	TH	+1.1	-10.0			TP				
	660		163° 5.6' +180	-2.8°	+8.3	88° 20'	-19.2	-10.9	905.9		BS	+621-1	-223		
	660				+10.1	88° 10'	-21.1	-11.0			BS				
948	440		163° 5.6'	-2.8°	5.9	89° -	+7.7	+1.8		907.7		-414	+148	391,100	2,475,521
949	220		" "	-2.8°	9.2	89° -	+3.8	-5.4		900.5		-207	+74	391,307	2,475,447
950	0				5.4	-		-5.4		900.5	TP	○	○	391,514	2,475,373
951	216		337° 4.2'	-2.8°	11.8	-		-11.8		894.1		+196	-95	391,710	2,475,278
952	438		339° 45.5'	-2.8°	12.6	-		-12.6		893.3	TP	+403-1	-171	391,916	2,475,202
952	438				14.8	TH	+2.2	-12.6			TP				
	220		141° 12.9 +180	-2.8°	+8.8	-		+8.8	902.1		BS	+165-1	-146		
	220				+7.7	B.H.	+1.1	+8.8			BS				
953	0				5.4	-		-5.4		896.7	TP	○	○	392,080	2,475,056
954	220		314° 59.1'	-2.8°	5.9	87° 10'	+10.9	+5.0		907.1		+148	-163	392,228	2,474,893
955	440	439	314° 59.1'	-2.8°	3.8	87° 10'	+21.7	+17.9		920.0	TP	+295-1	-325	392,374	2,474,731
955	440				2.6	87° 20'	+20.4	+17.8			TP				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
7/30/79		R. Flowers		B. Hulsey		6834		✓ 252		1	100			
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
Tennessee		Englewood		Tennessee	Monroe					L. O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
955										920.0				
	219		157° 16.3' +180	-2.8°	+7.4	BH	+1.1	+8.5	928.5		BS	+198-1	-94	
	219				+6.6	90° 30'	+1.9	+8.5		BS				
956	0				5.4	-		-5.4		923.1	TP	○	○	392,571 2,474,637 392,640 2,474,525
	132		304° 32.6'	-2.8°	3.9	-		-3.9		924.6		+6.9	-11.2	392,640 2,474,525 TP-rd (east)
957	215		318° 54.1'	-2.6°	13.8	88° 20'	+6.3	-7.5		921.0	TP	+155.	-149+2	392,726 2,474,490
957	215				14.4	88° 10'	+6.9	-7.5			TP			
	440	439	190° 13.4' -180	-2.6°	+3.4	87° -	-23.0	-19.6	901.4		BS	+435.	+58+2	
	440				+2.1	87° 10'	-21.7	-19.6		BS				
958	220		190° 13.4'	-2.6°	6.4	87° 30'	+9.6	+3.2		904.6		-218	-29	392,943 2,474,524
959	0				5.4			-5.4		896.0	TP	0	0	393,161 2,474,550
960	214		350° 17.5'	-2.6°	14.5	-		-14.5		886.9	TP	+209	-46+1	393,370 2,474,505
960	214				13.4	BH	-1.1	-14.5			TP			
	440		138° 23.4' +180	-2.6°	+4.5	-		+4.5	891.4		BS	+315.	-307+1	
	440				+6.8	TH	-2.2	+4.6		BS				
961	220		138° 23.4'	-2.6°	7.1	-		-7.1		884.3		-158	+153	393,527 2,474,352
962	0				5.4	-		-5.4		886.0	TP	0	0	393,685 2,474,199
963	214		32° 14.3'	-2.6°	10.2	88° -	+7.5	-2.7		888.7	TP	+186.	+106+1	393,871 2,474,306
963	214				9.5	88° 10'	+6.8	-2.7			TP			
	220		189° 44.2' -180	-2.6°	+1.9	-		+1.9	890.6		BS	+218	+27+1	
	220				+3.0	TH	-1.1	+1.9		BS				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/30/79		B. Flowers		P. Hulsey		6874		G.W.C.		1		161			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Englewood		Tennessee		Monroe								L. O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									890.6						
964	0				5.4	-		-5.4		885.2	T	0	0	394,089	2,474,334
965	270		347° 30.1	-2.6°	8.2	-		-8.2		882.4		+212	-57	394,301	2,474,277
	350		346° 54.0'	-2.6°	6.9	-		-6.9		883.7		+337	-95	394,426	2,474,239
966	440		346° 3'	-2.6°	5.5	B.H	-2.2	-7.7		882.9	TP	+422	-125+1	394,511	2,474,210
966	440				3.8	90° 30'	-3.8	-7.6			TP				
	220		171° 37.2' +180	-2.6°	+5.1	91° 10'	+4.5	+9.6	892.5		BS	+216	-42+1		
	220				+4.4	91° 20'	+5.1	+9.5			BS				
967	0				5.4	-		-5.4		887.1	T	0	0	394,727	2,474,169
968	220		2° 63'	-2.6°	2.8	87° 20'	+10.2	+7.4		899.9		+220	-2	394,947	2,474,167
969	440	439	2° 35.9'	-2.6°	4.2	87° -	+23.0	+18.8		911.3	TP	+439	0+1	395,166	2,474,180
969	440				3.0	87° 16'	+21.7	+18.7			TP				
	880		182° 25.5' -180	-2.6°	+10.6	-		+10.6	921.9		BS	+880	-3+1		
	880				+6.2	B.H	+4.4	+10.6			BS				
970	660		182° 25.5'	-2.6°	10.1	-		-10.1		911.8		-660	+2	395,386	2,474,170
971	440		" "	-2.6°	8.1	-		-8.1		913.8		-440	+1	395,606	2,474,169
972	220		" "	-2.6°	5.5	-		-5.5		916.4		-220	+1	395,826	2,474,169
973	0				5.4	-		-5.4		916.5	T	0	0	396,046	2,474,168
974	192		297° 328'	-2.6°	10.4	-		-10.4		911.5	TP	+81	-174+1	396,127	2,473,995
974	192				11.4	TH	+1.0	-10.4			TP				



DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/31/79		R. Flowers		R. Hulsey		6834		R. J. H.		1		103			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Englewood		Tennessee		Montee								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									940.6						
984	0				5.4	-		-5.4		935.2	T	0	0	395,900	2,472,174
985	220		303° 1.9'	-26°	6.4	-		-6.4		934.2		+111	-190	396,011	2,471,984
986	440		303° 1.9'	-26°	6.4	-		-6.4		934.2		+223	-379	396,123	2,471,795
987	660		303° 1.9'	-26°	1.8	-		-1.8		938.8	TP	+334-2	-569+1	396,232	2,471,606
987	660				5.1	TH	+3.3	-1.8			TP				
	213		153° 31'+180	-26°	+3.7	-		+3.7	942.5		BS	+185-2	-105+3		
	213				+4.7	TH	-1.1	+3.6			BS				
$\frac{1}{1}$	137		168° 50.0'	-26°	3.2	-		-3.2		939.3		-133	+33	396,282	2,471,537
988	0				5.4	-		-5.4		937.1	T	0	0	396,415	2,471,504
989	220		1° 26.1'	-28°	8.3	92° 50'	-10.9	-19.2		923.3		+220	-5	396,635	2,471,499
990	440		1° 26.1'	-28°	6.1	92° -	-15.3	-21.4		921.1	TP	+440-4	-10	396,851	2,471,494
990	440				4.8	92° 10'	-16.6	-21.4			TP				
	220		182° 10.4'-180	-28°	+11.7	93° -	+11.5	+23.2	944.3		BS	+220-4	-2		
	220				+11.1	93° 10'	+12.1	+23.2			BS				
991	0				5.4	-		-5.4		938.9	T	0	0	397,067	2,471,492
992	220		9° 43.7'	-28°	5.4	88° -	+7.7	+2.3		946.6		+218	+27	397,285	2,471,519
993	440		6° 8.9'	-28°	5.9	88° 40'	+10.2	+4.3		948.6	TP	+439-4	+26	397,502	2,471,518
993	440				4.6	88° 50'	+9.0	+4.4			TP				
	1100		182° 34.2'-180	-28°	+14.8	-		+14.8	963.4		BS	+1100-4	-4		
	1100				+9.3	BH	+5.5	+14.8			BS				

396,280+2,471,540 (scale)  
4-way int. Rt 411  
Horiz. Corr. y-37'  
x-21'

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
1/31/79		B. Flowers		R. Hulsey		6834		R. J. H.				104							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
Tennessee		Englewood		Tennessee		Monroe								L. O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
									963.4										
994	880		182° 34.2'	-2.8°	13.1	-		-131		950.3		-880	+4	397,718	2,471,518				
995	660		" "	-2.8°	13.0	-		-13.0		950.4		-660	+3	397,938	2,471,517				
996	440		" "	-2.8°	12.1	-		-12.1		951.3		-440	+2	398,158	2,471,516				
997	220		" "	-2.8°	9.9	-		-9.9		953.5		-220	+1	398,378	2,471,515				
998	0				5.4	-		-5.4		958.0	TP	0	0	398,598	2,471,514				
999	136		356° 31.1'	-2.8°	8.8	-		-8.8		954.6		+135	-15	398,733	2,471,499			398,720 + 2,471,510 (scale)	Offset 4-way
1000	220		" "	-2.8°	10.5	-		-10.5		952.9		+219	-24	398,817	2,471,490				
1001	440		1° 33.2'	-2.8°	7.2	-		-7.2		956.2		+440	-10	399,038	2,471,504				
1002	660		1° 33.2'	-2.8°	2.1	-		-2.1		961.3		+660	-14	399,258	2,471,500				
1003	880		1° 33.2'	-2.8°	0.5	-		-0.5		962.9		+880	-19	399,478	2,471,495				
1003	1100		1° 33.2'	-2.8°	7.7	TP	+5.5	-2.2		961.2	TP	+1100-2	-24	399,696	2,471,490				
	1100				5.5	89° 50'	+3.2	-2.3			TP								
	660		182° 59.3'-180	-2.8°	+9.3	91°-	+11.5	+20.8	982.0		BS	+660-2	+2						
	660				+7.4	91°10'	+13.4	+20.8			BS								
1004	440		182° 59.3	-2.8°	11.9	91°	-7.7	-19.6		962.4		-440	-1	399,914	2,471,491				
1005	220		" "	-2.8°	7.8	91°	-3.8	-11.6		970.4		-220	-1	400,134	2,471,491				
1006	0				5.4	-		-5.4		976.6	TP	0	0	400,354	2,471,492				
1007	220		1° 53.5'	-2.8°	6.4	-		-6.4		975.6		+220	-3	400,574	2,471,489				
1008	440		" "	-2.8°	12.0	-		-12.0		970.0		+440	-7	400,794	2,471,485				
R.R. x	575		1° 17.4'	-2.8°	4.3	-		-4.3		977.7		+575	-15	400,929	2,471,477				railroad

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
11/31/79		R. Flowers		R. Hulsey		6834		R. J. H.		1	105				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
Tennessee		Englewood		Tennessee		Monroe					L. O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									9820						
1009	660		1° 53.5'	-2.8°	10.1	-		-10.1		971.9	TP	+660.2	-10	401,012	2,471,482
1009	660				6.8	BH	-3.3	-10.1			TP				
	880		184° 14.0' - 180	-2.8°	+0.7	BH	+4.4	+5.1			BS	+880.2	+22		
	880				+2.4	90° 10'	+2.6	+5.0	976.9		BS				
1010	660		184° 14'	-2.8°	10.4	-		-10.4		966.5		-660	-17	401,230	2,471,487
1011	440		"	-2.8°	12.1	-		-12.1		964.8		-440	-11	401,450	2,471,493
1012	220		"	-2.8°	11.8	-		-11.8		965.1		-220	-6	401,670	2,471,498
1013	0				5.4	-		-5.4		971.5	TP	0	0	401,890	2,471,504
1014	220		7° 29.4'	-2.8°	6.7	-		-6.7		970.2	TP	+219.	+18	402,109	2,471,522
	880	879	183° 10.4' - 180	-2.8°	+2.0	87°	-46.0	-44.0	926.2		BS	+879.	+6		
	880				+4.6	86° 30'	-48.5	-43.9			BS				
1015	770	769	182° 56.9'	-2.8°	1.1	87°	+40.2	+39.1		965.3		-769	-2	402,219	2,471,526
1015	660	659	183° 10.4'	-2.8°	4.5	87°	+34.5	+30.0		956.2		-659	-4	402,329	2,471,524
1016	440		"	-2.8°	7.1	88°	+15.3	+9.2		934.4		-440	-3	402,548	2,471,525
1017	220		"	-2.8°	4.1	-		-4.1		922.1		-220	-1	402,768	2,471,527
1018	0				5.4	-		-5.4		920.8	TP	0	0	402,988	2,471,528
1019	220		2° 5.5'	-2.8°	3.9	87°	+11.5	+7.6		933.8		+220	-3	403,208	2,471,525
1020	440	439	2° 5.5'	-2.8°	4.9	86°	+30.6	+25.7		951.9	TP	+439.2	-5	403,425	2,471,523
1020	440				3.7	86° 10'	+29.4	+25.7			TP				

402,215 + 2,471,545 (scaled)  
4-Way Intersect.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11/31/79		R. Flawais		P. Hulsey		6834		✓ [Signature]		1		106			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Englewood		Tennessee		Monroe								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
1020										951.9					
	440	439	201° 54.1' -180	-28°	+11.5	94° -	+30.6	+42.1	994.0		BS	+415-2	+144		
	440				+10.2	94° 10'	+31.9	+42.1			BS				
1021	220		201° 54.1'	-28°	8.7	93° -	-11.5	-20.2		973.8		-208	-72	403,630	2,471,595
1022	0				5.4	-		-5.4		988.6	T	0	0	403,838	2,471,667
1023	220		7° 13.7'	-28°	1.1	-		-1.1		992.9		+219	+17	404,057	2,471,684
1024	440		7° 13.7'	-28°	2.3	89° 30'	+3.8	+1.5		995.5		+439	+34	404,277	2,471,701
1025	660		5° 13.1'	-28°	1.1	89° 10'	+9.6	+8.5		1002.5	TP	+659-2	+28	404,495	2,471,695
1025	660				3.0	89°	+11.5	+8.5			TP				
	440		167° 4.3' +180	-28°	+10.6	-		+10.6	1013.1		BS	+424-2	-119		
	440				+12.8	I.H.	-2.2	+10.6			BS				
1026	220		167° 4.3'	-28°	8.7	92° -	-7.7	-16.4		996.7		-212	+60	404,705	2,471,636
1027	0				5.4	-		-5.4		1007.7	T	0	0	404,917	2,471,576
1028	220		344° 37'	-28°	14.0	-		-14.0		999.1	TP	+208-2	-71	405,123	2,471,505
1028	220				12.9	B.H.	-1.1	-14.0			TP				
	220		169° 9.5' +180	-28°	+4.7	87° -	-11.5	-6.8	992.3		BS	+214	-52		
	220				+5.4	86° 50'	-12.1	-6.7			BS				
1029	0				5.4	-		-5.4		986.9	T	0	0	405,337	2,471,453
1030	220	219	3° 38.4'	-28°	9.1	94° -	-15.3	-24.4		967.9		+219	+3	405,556	2,471,456
1031	441	440	3° 38.4'	-28	4.4	93° -	-23.0	-27.4		964.9	TP	+440	+6	405,777	2,471,459
1031	441				3.1	93° 10'	-24.3	-27.4			TP				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
1/31/79		R. Flowers		R. Hulsey		6834		✓ R.S.P.		1		107			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Englewood/Sweetwater		Tennessee		Monte								6834	
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
1021										964.9					
	219		184° 43.1' - 180	-28°	+13.7	B.H	+1.1	+14.8	979.7		BS	+219	+7		
	219				+14.8	-		+14.8			BS				
1032	0				5.4	-		-5.4	974.3		TP	0	0	405,996 2,471,466	
1033	220		3° 4.9'	-28°	7.7	-		-7.7	972.0			+220	+1	406,216 2,471,467	
1034	439		3° 4.9'	-28°	12.9	BH	-2.2	-15.1	964.6		TP	+439	+2	406,435 2,471,468 check 2/1/79	
1034	439				11.3	90° 30'	-3.8	-15.0			TP				
	880	879	192° 17.8' - 180	-28°	+1.4	88° -	-30.7	-29.3	935.3		BS	+879	-8		
	880				+4.0	87° 50'	-33.2	-29.2			BS				
1035	660		182° 17.8'	-28°	7.7	88°	+23.0	+15.3	950.6			-660	+6	406,654 2,471,466	
1036	440		" "	-28°	13.1	88°	+15.3	+2.2	937.5			-440	+4	406,874 2,471,464 ↑	
1037	220		" "	-28°	4.5	-		-4.5	930.8			-220	+2	407,094 2,471,462 Englewood Quad.	
1038	0				5.4			-5.4	929.9		TP	0	0	407,314 2,471,460 Sweetwater Quad.	
1039	220		2° 56.5'	-28°	12.8	91° -	-3.8	-16.6	918.7			+220	+1	407,534 2,471,461 ↓	
1040	440		" "	-28°	8.1	91° -	-7.7	-15.8	919.5			+440	+1	407,754 2,471,461	
1041	660		" "	-28°	10.5	91° 20'	-15.4	-25.9	909.4			+660	+2	407,974 2,471,462	
1042	880		2° 56.5'	-28°	7.4	91° 20'	-20.5	-27.9	907.4		TP	+880	+2	408,194 2,471,462	
1042	880				4.9	91° 30'	-23.0	-22.9			TP				
	195		135° 13.5' + 180	-28°	+11.2	93°	+10.2	+21.4	928.8		BS	+132	-144		
	195				+10.6	93° 10'	+10.8	+21.4			BS				
1043	0				5.4	-		-5.4	923.4		TP	0	0	408,326 2,471,318 E.O.L. nail + flagging marker for future reference	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
1/31/79		R. Flowers		P. Hulsey		6834		D. J. S.		1		108 of 108				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
TENNESSEE		Sweetwater		Tennessee		Monroe								L. O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
TP	195		279° 40.1'	-28°	45	88° -	+6.8	+2.3		931.1	TP	+23	-194	408,349	2,471,124	408,350 + 2,471,125 T-Intersect.
TP	195				39	88° 10'	+6.2	+2.3			TP					horizontal correct y=37 x=0+
	1480				+9.4	91° 30'	+38.7	+48.1	979.2		BS					
	1480				+13.8	91° 20'	+34.4	+48.2			BS					
TP	1260				12.0	89° -	+21.9	+9.9		989.1	TP					vertical Traverse
TP	1260				9.3	89° 10'	+18.3	+10.0			TP					from T-rd northeast to
	145				+6.6	-		+6.6	995.7		BS					BM
	145				+7.3	TH	-0.7	+6.6			BS					
BM	160				14.9	BH	-0.8	-15.7		980.0	BM					WTR18 ele 979.5
BM	160				14.3	90° 30'	-1.4	-15.7			BM					1933 U.S.G.S. 10.5