

DATE: 11-23-85		INSTRUMENT MAN: B. Cotcamp		ROD MAN: B. SALDIVAR		PARTY NUMBER: 6834		NOTES CHECKED BY: B.S.		LINE NO: 5		PAGE: 1				
AREA: (Shiprock) NEW MEXICO		TOPO MAP: Shiprock - 74'		STATE: NEW Mex.		COUNTY: SAN JUAN		TWP:		RANGE:		PPM:		PARTY MANAGER: J. McCLELLAN		
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
K.	Intersect.	Highway	666 + 504	scaled	→ (4-2)	103.305	x - 247.360			4939.0	TP			2,103.305	247.360	Line on 4-96 504 EAST → WEST Wild-TI LIETZ ROD → 2,103.305 x -247.360 TP-Intersect EL. 4939.0
	2049		85° 06'	+12.0	11.1	TH	-10.2	+0.9	4939.8		BS	+254	-2033			
	2049				11.0	TH 20	-10.2	+0.8			BS					
1	1633		83° 50'	-	10.0	TH	+8.2	-1.8		4938.0		-166	+1625	2,103.393	246.952	
2	1310		82° 10'	-	9.1	TH	+6.6	-2.6		4937.2		-95	+1307	2,103.464	246.634	
3	983		80° 10'	-	8.3	TH	+4.9	-3.4		4936.4		-37	+982	2,103.522	246.309	
4	655		76° 20'	-	3.8	-		-3.8		4936.0		+19	+655	2,103.578	245.982	
5	330		69° 50'	-	4.3	-		-4.3		4935.5		+47	+327	2,103.606	245.654	
6	0				5.1	-		-5.1		4934.7	TP	0	0	2,103.559	245.327	
7	330		243° 07'	+12.0	8.0	-		-8.0		4931.8		-85	-319	2,103.474	245.008	
8	660		-	-	10.8	-		-10.8		4929.0		-170	-638	2,103.389	244.689	
9	990		-	-	8.4	1.1	+5.0	-3.5		4936.3		-254	-957	2,103.305	244.370	
10	1320		-	-	8.8	BH	+6.6	-2.2		4937.6		-339	-1276	2,103.220	244.051	
11	1650		243° 07'	+12.0	7.0	BH	+8.3	+1.3		4941.1		-424	-1595	2,103.135	243.732	
12	1980		-	-	4.3	BH	+9.9	+5.6		4945.4		-509	-1914	2,103.050	243.413	
13	2310		-	-	12.4	-		-12.4		4927.4		-593	-2233	2,102.966	243.094	
14	2640		-	-	12.0	-		-12.0		4927.8		-678	-2551	2,102.881	242.776	
15	2970		-	-	10.4	-		-10.4		4929.4		-763	-2870	2,102.796	242.457	
IF	3342		242° 49' 57"	-	5.8	-		-5.8		4934.0	IF	-874	-3226	2,102.685	242.101	y - 2,102.670 x - 242.100 IF-Inter.
16	3303		243° 09' 21"	-	6.8	-		-6.8			TP	-846	-3193	2,102.715	242.136	
16	3303				6.9	220		-6.9		4932.9	TP	+2	+2			

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
11-23-85		B. Cotcamp		B. Saldivar		6834		B.S.		5		2				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
NEW Mexico		SMIP Rock- 7 1/2'		NEW Mexico		SAN JUAN								J. McLELLAN		
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	
										4932.9						
	2308		62° 26' 42"	+12.3	13.2	90° 34'	+22.8	+36.0			BS	-607	-2227			
	2308				12.9	269° 26'	+22.8	+35.7			BS					
17	1980		62° 31'	--	8.6	90° 36'	-20.7	-29.3		4939.4		+519	+1911	2,102,628	241,822	
18	1650		--	--	7.4	90° 36'	-17.3	-24.7		4944.0		+432	+1592	2,102,541	241,503	
19	1320		--	--	5.3	90° 36'	-13.8	-19.1		4949.6		+346	+1274	2,102,455	241,185	
20	990		62° 31'	+12.3	11.1	90° 10'	-2.9	-14.0		4954.7		+259	+955	2,102,368	240,866	
21	660		--	--	6.9	90° 10'	-1.9	-8.8		4959.9		+173	+637	2,102,282	240,548	
22	330		--	--	5.0	90° 10'	-1.0	-6.0		4962.7		+86	+318	2,102,195	240,229	
23	0		--	--	5.1			-5.1		4963.6	TP	0	0	2,102,109	239,911	
24	330		242° 27'	+12.3	7.6	90° 10'	-1.0	-8.6		4960.1		-87	-318	2,102,022	239,593	
25	660		--	--	13.2	90° 10'	-1.9	-15.1		4953.6		-174	-637	2,101,935	239,274	
26	990		--	--	6.9	90° 50'	-14.4	-21.3		4947.4		-260	-955	2,101,849	238,956	
27	1103		241° 37' 58"	--	7.2	90° 50'	-16.0	-23.2		4945.5	TP	-305	-1060	2,101,804	238,851	2,101,805 + 238,840 BRIDGE ELEV 49470
28	1320		242° 27'	--	8.1	90° 50'	-19.2	-27.3		4941.4		-317	-1274	2,101,762	238,637	
29	1650		242° 35'	+12.3	11.1	90° 30'	-14.4	-25.5		4943.2		-430	-1593	2,101,679	238,318	
30	1979		243° 15'	--	8.3	90° 10'	-5.8	-14.1		4954.6		-494	-1916	2,101,615	237,975	
31	2305		244° 10'	--	10.6	89° 40'	+13.4	+2.8		4971.5		-539	-2241	2,101,570	237,670	
32	2631		245° 15'	--	11.1	89° 20'	+30.6	+19.5		4988.2		-567	-2569	2,101,542	237,342	
33	2956		246° 26'	--	8.1	89° 10'	+43.0	+34.9		5003.6		-578	-2899	2,101,531	237,012	

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11-23-85		B. Cotamp		B. SARDIVAR		6834		B.S.			5		3						
AREA		TOPQ MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
NEW MEXICO		SHIPROCK - 7 1/2'		NEW MEX.		SAN JUAN								J. McCellan					
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				
									4968.7										
33	3278		247 45 -	+12.3	3.9	89 10	+47.7	+43.8			TP	-566	-3228	2,101,544	236,684				
33	3278				3.6	276 50	+47.7	+44.1	+43.9	5012.6	TP	"	"						
	3633		86 19 14	+12.6	12.4	90 52	+55.0	+67.4			BS	+563	-3589						
	3633				+12.3	269 08	+55.0	+67.3		5079.9	BS	"	"						
34	3303		86 45	--	12.1	90 50	-48.0	-60.1		5019.8		-537	+3259	2,101,571	236,355				
35	2970		86 50	--	9.7	90 50	-43.2	-52.9		5027.0		-487	+2930	2,101,621	236,026				
36	2640		--	--	8.2	90 50	-38.4	-46.6		5033.3		-433	+2604	2,101,675	235,700				
37	2310		--	--	7.0	90 50	-33.6	-46.6		5039.3		-379	+2279	2,101,729	235,375				
38	1980		--	--	6.0	90 50	-28.8	-34.8		5045.1		-325	+1953	2,101,783	235,049				
39	1650		--	+12.6	5.3	90 50	+24.6	-29.3		5050.6		-270	+1628	2,101,838	234,724				
40	1320		--	--	5.3	90 50	-19.2	-24.5		5055.4		-216	+1302	2,101,892	234,398				
41	1115		87 39 05	--	7.7	90 40	-13.0	-20.7		5059.2	1k	-198	+1097	2,101,910	234,193				1k y - intersect EL 5056
41	990		86 50	--	7.3	90 40	-11.5	-18.8		5061.1		-162	+977	2,101,946	234,073				
42	660		--	+12.6	6.3	90 40	-7.7	-14.0		5065.9		-108	+651	2,102,000	233,747				
43	330		--	--	6.4	90 40	-3.8	-10.2		5069.7		-54	+326	2,102,054	233,422				
44	0		--	--	5.1	--	--	-5.1		5074.8	1	0	0	2,102,108	233,096				
45	330		266 50	--	5.8	89 10	+4.8	-1.0		5078.9		+54	-326	2,102,162	232,770				
46	660		--	--	6.0	89 10	+9.6	+3.6		5083.5		+108	-651	2,102,216	232,445				
47	990		--	--	6.9	89 10	+14.4	+7.5		5087.4		+162	-977	2,102,270	232,119				
48	1281		266 06 05	--	5.2	89 16	+16.4	+11.2		5091.1		+194	-1266	2,102,302	231,830				48 y - 2,102,305 x - 231,805 y - inter

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11-23-85		B. Camp		B. SALDIVAR		6834		B.S.		5		4							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
NEW Mexico		SHIP Rock/Rattlesnake 7 1/2'		NEW MEXICO		SAN JUAN								W.M. McCLELLAN					
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				
									5079.9										
48	1320		266° 50'	+12.6	8.2	89° 10'	+19.2	+11.0		5090.9		+216	-1302	2,102,324	231,794				
49	1650		- -	--	9.7	89° 10'	+24.0	+14.3		5094.2		+270	-1628	2,102,378	231,468				
50	1980		- -	--	11.6	89° 10'	+28.8	+17.2		5097.1		+325	-1953	2,102,433	231,143				SHIP Rock - 7 1/2' ↑
51	2310		266° 50'	+12.6	12.9	89° 10'	+33.6	+20.9		5100.6		+379	-2279	2,102,487	230,817				RATTLESNAKE - 7 1/2' ↓
52	2640		- -	--	11.1	89° 10'	+38.4	+27.3		5107.2		+433	-2604	2,102,541	230,492				
53	2970		- -	--	6.0	89° 10'	+43.2	+37.2		5117.1		+487	-2930	2,102,595	230,166				
54	3300		- -	--	10.4	89° -	+57.6	+47.2		5127.1		+541	-3255	2,102,649	229,841				
55	3630		266° 52' 39"	-	11.6	89° -	+63.4	+51.8	} -51.93	5131.8	TP	+598	-3580	2,102,707	229,517				
55	3630		- -	-	11.3	271° -	+63.4	+52.1		TP	"	"	"	"					
	4620		86° 56' 42"	+12.6	12.9	90° 52'	+67.2	+80.1	} +80.23 5212.0		BS	+766	-4556						
	4620		- -	-	+13.2	269° 10'	+67.2	+80.4		BS	"	"	"	"					
56	4290		86° 57'	--	8.6	90° 54'	-67.4	-76.0		5136.0		-712	+4231	2,102,762	229,193				
57	3960		- -	-	8.9	90° 54'	-62.2	-71.1		5140.9		-657	+3905	2,102,817	228,867				
58	3630		- -	-	7.0	90° 54'	-57.0	-64.0		5148.0		-602	+3580	2,102,872	228,542				
59	3300		86° 57'	+12.6	6.4	90° 54'	-51.8	-58.2		5153.8		-548	+3254	2,102,926	228,216				
60	2970		- -	--	9.1	90° 54'	-46.7	-55.8		5156.2		-493	+2929	2,102,981	227,891				
61	2640		- -	--	6.9	91° 04'	-49.1	-56.0		5156.0		-438	+2603	2,103,036	227,565				
62	2310		- -	--	9.2	91° 10'	-47.0	-56.2		5155.8		-383	+2278	2,103,091	227,240				
63	1980		- -	--	4.7	91° 30'	-51.8	-56.5		5155.5		-329	+1953	2,103,145	226,915				
64	1650		- -	--	8.4	91° 30'	-43.2	-51.6		5160.4		-274	+1627	2,103,200	226,589				

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11-23-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		5		5							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
NEW MEXICO		RATTLESNAKE-7 1/2'		NEW MEXICO		SAN JUAN								J. McCLELLAN					
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				
									52120										
51	1658		87° 36' 46"	+12.6	7.1	91° 30'	-43.4	-50.5		5161.5	1K	-294	+1631	2,103,180	226,593			4-2,103,200 x-226,600 K T-Intersect E.L. 5160.0	
65	1320		86° 57'	--	6.5	91° 30'	-34.6	-41.1'		5170.9		-219	+1302	2,103,255	226,264				
66	970		--	--	5.1	91° 30'	-25.9	-31.0		5181.0		-164	+976	2,103,310	225,938				
67	660		--	--	5.0	91° 30'	-17.3	-22.3		5189.7		-110	+651	2,103,364	225,613				
68	330		--	--	4.9	91° 20'	-7.7	-12.6		5199.4		-55	+325	2,103,419	225,287				
69	0				5.1	--		-5.1		5206.9	1	0	0	2,103,474	224,962				
70	330		266° 55'	+12.6	4.9	89° 10'	+4.8	-0.1		5211.9		+55	-325	2,103,529	224,637				
71	660		--	--	6.7	89° 10'	+9.6	+2.9		5214.9		+109	-651	2,103,583	224,311				
72	970		--	--	8.7	89° 10'	+14.4	+5.7		5217.7		+164	-976	2,103,638	223,986				
73	1320		266° 55'	--	11.2	89° 10'	+19.2	+8.0		5220.0		+218	-1302	2,103,692	223,660				
74	1650		--	+12.6	10.0	89° 20'	+19.2	+9.2		5221.2		+273	-1627	2,103,747	223,335				
75	1980		--	--	7.1	89° 30'	+17.3	+10.2		5222.2		+327	-1953	2,103,801	223,009				
71	2268		266° 27' 03"	--	8.6	89° 30'	+19.8	+11.2		5223.2	71	+357	-2240	2,103,831	222,722			4-2,103,795 x-222,980 71 K - Intersect E.L. 5222.0	
76	2310		266° 55'	--	9.1	89° 30'	+20.2	+11.1		5223.1		+382	-2278	2,103,856	222,684				
77	2640		--	--	11.0	89° 30'	+23.0	+12.0		5224.0		+436	-2604	2,103,910	222,358				
78	2970		--	--	13.2	89° 30'	+25.9	+12.7		5224.7		+491	-2929	2,103,965	222,033				
79	3302		266° 55' 27"	--	14.9	89° 30'	+28.8	+13.9		5226.0	TP	+546	-3256	2,104,021	221,707				
79	3302				14.6	270° 30'	+28.8	+14.2	14.0		TP	+1	+1						
	5298		86° 58' 26"	+12.6	13.8	89° 52'	-7.7	+6.1			BS	+549	-3252						
	3298				13.7	270° 08'	-7.7	+6.0	5232.0		BS	+1	+1						

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11-23-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		85		6			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEW MEXICO		RATTLESNAKE-7 1/2'		NEW. Mex.		SAN JUAN								J. McCLELLAN	
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
									5232.0						
80	2970		86° 57'	+12.6	13.5	89° 50'	+8.6	-4.9		5227.1		-493	+2929	2,104,078	221,385
81	2640		- -	--	12.1	89° 50'	+7.7	-4.4		5227.6		-438	+2603	2,104,133	221,059
82	2310		- -	--	9.7	89° 50'	+6.7	-3.0		5229.0		-383	+2278	2,104,188	220,734
83	1980		86° 57'	-	8.0	89° 50'	+5.8	-2.2		5229.8		-329	+1953	2,104,242	220,409
84	1650		- -	+12.6	6.3	89° 50'	+4.8	-1.5		5230.5		-274	+1627	2,104,297	220,083
85	1320		- -	--	5.3	89° 50'	+3.8	-1.5		5230.5		-219	+1302	2,104,352	219,758
86	990		- -	--	7.5	89° 40'	+5.8	-1.7		5230.3		-164	+976	2,104,407	219,432
87	660		- -	--	6.5	89° 40'	+3.8	-2.7		5229.3		-110	+651	2,104,461	219,107
88	527		89° 02' 54"	+12.6	5.7	89° 40'	+3.1	-2.6		5229.4	HI	-106	+516	2,104,465	218,972
88	330		86° 57'	-	5.6	89° 40'	+1.9	-3.7		5228.3		-55	+325	2,104,516	218,781
89	0		- -	--	5.1	-	-	-5.1		5226.9	π	0	0	2,104,571	218,456
90	330		266° 55'	-	6.7	90° 10'	-1.0	-7.7		5224.3		+55	-325	2,104,626	218,131
91	660		- -	--	5.6	90° 40'	-7.7	-13.3		5218.7		+109	-651	2,104,680	217,805
92	990		267° 45'	-	7.6	90° 40'	-11.5	-19.1		5212.9		+178	-974	2,104,749	217,482
93	1318		269° -	+12.6	9.7	90° 40'	-15.3	-25.0		5207.0		+265	-1291	2,104,836	217,165
94	1645		270° 30'	--	11.7	90° 40'	-19.1	-30.8		5201.2		+373	-1602	2,104,944	216,854
95	1971		271° 55'	-	8.1	90° 50'	-28.9	-36.8		5195.2		+494	-1908	2,105,065	216,548
96	2297		273° 17'	-	9.3	90° 50'	-33.4	-42.7		5189.3		+629	-2209	2,105,200	216,247
97	2625		274° 15'	-	11.3	90° 50'	-38.2	-49.5		5182.5		+761	-2512	2,105,332	215,944

→ 2,104,470 x 218,970
HI T-Inter El. 5229.0

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-23-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		5		7			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEW MEXICO		RATTLESNAKE - 7 1/2'		NEW MEXICO		SAN JUAN								J. MacClellan	
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
									5232.0						
98	2953		275° 04' 32"	+12.6	14.1	90° 50'	-42.9	-57.0		5175.0	TP	+897	-2813	2,105,469	215,644
98	2933				14.0	269° 10'	-42.9	-56.9			TP	"	"		
	4620	468.5	101° 21' 31"	-	+13.8	88° 32'	-118.3	-104.5	-104.4	5070.6	BS	+1875	-4221		
	4626				+14.1	271° 28'	-118.3	-104.2			BS	"	"		
99	4290		101° 22'	+12.6	9.0	88° 36'	+104.8	+95.8		5166.4		-1743	+3920	2,105,602	215,344
100	3960		- -	-	9.3	88° 36'	+96.8	+87.5		5158.1		-1609	+3619	2,105,736	215,043
101	3630		- -	-	9.8	88° 36'	+88.7	+78.9		5149.5		-1475	+3317	2,105,870	214,741
102	3300		- -	-	6.1	88° 40'	+76.8	+70.7		5141.3		-1340	+3015	2,106,005	214,439
103	2970		101° 22'	+12.6	6.4	88° 40'	+69.1	+62.7		5133.3		-1206	+2714	2,106,139	214,138
104	2640		- -	-	7.2	88° 40'	+61.4	+54.2		5124.8		-1072	+2412	2,106,273	213,836
105	2310		- -	-	8.6	88° 40'	+53.8	+45.2		5115.8		-938	+2111	2,106,407	213,535
106	1980		- -	-	9.7	88° 40'	+46.1	+36.4		5107.0		-804	+1809	2,106,541	213,233
107	1650		101° 22'	+12.6	9.8	88° 40'	+38.4	+28.6		5099.2		-670	+1508	2,106,675	212,932
108	1320		- -	-	8.2	88° 40'	+30.7	+22.5		5093.1		-536	+1206	2,106,809	212,630
109	990		- -	-	6.8	88° 40'	+23.0	+16.2		5086.8		-402	+905	2,106,943	212,329
110	660		- -	-	5.9	88° 40'	+15.4	+9.5		5080.1		-268	+603	2,107,077	212,027
111	330		- -	-	5.4	88° 40'	+7.7	+2.3		5072.9		-134	+302	2,107,211	211,726
112	0		- -	-	5.1	-	-	-5.1		5065.5	π	0	0	2,107,345	211,424
113	330		281° 22'	+12.6	6.6	91° -	-5.8	-12.4		5058.2		+131	-302	2,107,479	211,122
114	660		- -	-	8.7	91° -	-11.5	-20.2		5050.4		+268	-603	2,107,613	210,821

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
11-23-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		5		8							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
NEW MEXICO		RATTLESNAKE-7 1/2'		NEW Mex.		SAN JUAN								J. McCLELLAN					
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				
									5070.6										
115 115	990		281 22	+12.6	11.0	91 -	-17.3	-28.3		5042.3		+ 402	-905	2,107.747	210.519				
116	1320		- -	-	9.4	91 10	-26.9	-36.3		5034.3		+ 536	-1206	2,107.881	210.218				
117	1650		- -	-	10.3	91 10	-33.6	-43.9		5026.7		+ 670	-1508	2,108.015	209.916				
118	1980		281 22	+12.6	7.3	91 10	-40.3	-47.6		5023.0		+ 804	-1809	2,108.149	209.615				
119	2310		- -	-	8.1	91 -	-40.3	-48.4		5022.2		+ 938	-2111	2,108.283	209.313				
120	2640		- -	-	6.8	98 50	-38.4	-45.2		5025.4		+ 1072	-2412	2,108.417	209.012				
121	2970		- -	-	5.1	90 40	-34.6	-39.7		5030.9		+ 1206	-2714	2,108.551	208.710				
121	3248		281 04 55	-	8.8	90 30	-28.3	-37.1		5033.5	TP	+1305	-2974	2,108.650	208.450				2,108,610 - 208,505 # pipeline EL. 5035.0
122	3300		281 22	-	9.1	90 30	-28.8	-37.9		5032.7		+ 1340	-3015	2,108.685	208.409				
123	3630		- -	+12.6	12.3	90 30	-31.7	-44.0		5026.6		+ 1475	-3317	2,108.820	208.107				
124	3958		281 23 22	-	13.0	90 38	-43.8	-56.8			TP	+1609	-3616	2,108.955	207.809				
124	3958		- -	-	13.1	269 22	-43.8	-56.9		5013.7	TP	"	"						
	2470		101 11 03	-	7.9	91 -	+51.8	+59.7	5073.4		BS	+1198	-2717						
	2970		- -	-	8.0	269 -	+51.8	+59.8			BS	"	"						
125	2640		101 11	+12.6	10.7	91 20	-61.4	-72.1		5001.3		-1065	+2416	2,109.089	207.509				
126	2310		- -	-	12.6	91 30	-60.5	-73.1		5000.3		- 932	+2114	2,109.222	207.207				
127	1980		- -	-	9.1	91 30	-51.8	-60.9		5012.5		- 798	+1812	2,109.356	206.905				
128	1650		- -	-	9.2	91 20	-38.4	-47.6		5025.8		- 665	+1510	2,109.489	206.603				
129	1320		- -	-	5.4	91 20	-30.7	-36.1		5037.3		- 532	+1208	2,109.622	206.301				
129	1218		102 01 45	-	4.1	91 20	-28.3	-32.4		5041.0		-507	+1107	2,109.647	206.200				

DATE		INSTRUMENT MAN.		ROD MAN.		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
11-24-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		5		9							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
NEW MEXICO		RATTLESNAKE-7 1/2		NEW MEX.		SAN JUAN								J. McCLELLAN					
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				
									5073.4										
130	990		101 11	+12.6	7.2	91 10	-20.2	-27.4		5046.0		-399	+906	2,109.755	205.999				
131	660		- -	--	5.8	91 10	-13.4	-19.2		5054.2		-266	+604	2,109.888	205.697				
132	330		- -	--	5.3	91 -	-5.8	-11.1		5062.3		-133	+302	2,110.021	205.395				
133	0		.		5.1	- . 1		-5.1		5068.3	TP	0	0	2,110.154	205.093				
134	330		281 11	+12.6	5.0	89 10	+4.8	-0.2		5073.2		+133	-302	2,110.287	204.791				
135	660		- -	--	6.5	89 10	+9.6	+3.1		5076.5		+266	-604	2,110.420	204.489				
136	990		- . -	--	8.0	89 10	+14.4	+6.4		5079.8		+399	-906	2,110.553	204.187				
137	1320		281 11	-	8.1	89 10	+19.2	+11.1		5084.5		+532	-1208	2,110.686	203.885				
138	1650		- -	+12.6	6.8	89 10	+24.0	+17.2		5090.6		+665	-1510	2,110.819	203.583				
139	1980		- -	--	5.7	89 10	+28.8	+23.1		5096.5		+798	-1812	2,110.952	203.281				
140	2310		- -	--	5.0	89 10	+33.6	+28.6		5102.0		+932	-2114	2,111.086	202.979				
141	2436		280 45 15	+12.6	4.9	89 10	+35.4	+30.5		5103.9	TP	+966	-2236	2,111.120	202.857				119 - 2,111,125 x - 202,870 T-Intersect el. 5103.9
141	2640		281 11	--	8.4	89 10	+38.4	+30.0		5103.4		+1065	-2416	2,111.219	202.677				
142	2971		281 12 02	+12.8	12.0	89 14	+39.8	+27.8			TP	+1208	-2714	2,111.363	202.380				
142	2971		.		12.1	270 46	+39.8	+27.7		5101.1	TP	+	+						
	3958		101 05 21	-	+4.2	90 40	+46.1	+50.3		5151.4	BS	+1603	-3619						
	3958		.		+4.3	269 20	+46.1	+50.4			BS	+	+						
143	3630		101 05	+12.8	11.2	90 40	-42.2	-53.4		5098.0		-1470	+3319	2,111.497	202.081				
144	3300		- -	--	7.6	90 50	-48.0	-55.6		5095.8		-1336	+3017	2,111.631	201.779				
145	2970		- -	--	11.5	90 50	-43.2	-54.7		5096.7		-1202	+2716	2,111.765	201.478				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-24-85		B. Cotcamp		B SALDIVAR		6834		B.S.		5		10			
AREA		TOPO-MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEW MEXICO		RATTLESNAKE - 7 1/2'		NEW MEX		SAN JUAN								J. Mc Clellan	
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
									5151.4						
146	2640		101° 05'	+128°	6.6	91° -	-46.1	-52.7		5098.7		-1069	+2414	2,111,898	201,176
147	2310		- -	--	11.1	91° -	-40.3	-51.4		5100.0		-935	+2112	2,112,032	200,874
148	1980		- -	--	12.2	91° 10'	-40.3	-52.5		5098.9		-802	+1810	2,112,165	200,572
149	1650		- -	--	7.0	91° 40'	-46.0	-55.0		5096.4		-668	+1509	2,112,299	200,271
150	1320		101° 05'	+128°	8.7	92° -	-46.1	-54.8		5096.6		-534	+1207	2,112,433	199,969
151	990		- -	--	9.3	92° -	-34.6	-43.9		5107.5		-401	+905	2,112,566	199,667
152	660		- -	--	5.3	92° -	-23.0	-28.3		5123.1		-267	+603	2,112,700	199,365
153	330		- -	--	7.9	91° -	-5.8	-13.7		5137.7		-134	+302	2,112,833	199,064
154	0		- -	--	5.1	-	-	-5.1		5146.3	π	0	0	2,112,967	198,762
155	330		281° 05'	+128°	6.4	88° 40'	+17.7	+1.3		5152.7		+134	-302	2,113,101	198,460
156	660		- -	--	8.1	88° 40'	+15.4	+7.3		5158.7		+267	-603	2,113,234	198,159
157	990		- -	--	8.9	88° 40'	+23.0	+14.1		5165.5		+401	-905	2,113,368	197,857
158	1320		- -	--	7.8	88° 40'	+30.7	+22.9		5174.3		+534	-1207	2,113,501	197,555
159	1650		281° 05'	+128°	10.9	88° 40'	+38.4	+27.5		5178.9		+667	-1509	2,113,634	197,253
160	1980		- -	--	10.3	88° 50'	+40.3	+30.0		5181.4		+802	-1810	2,113,767	196,952
161	2310		- -	--	9.4	88° 50'	+47.0	+37.6		5189.0		+935	-2112	2,113,902	196,650
162	2640		- -	--	10.4	88° 40'	+61.4	+51.0		5202.4		+1069	-2414	2,114,036	196,348
163	2970		- -	--	9.1	88° 40'	+69.1	+60.0		5211.4		+1202	-2716	2,114,169	196,046
164	3300		- -	--	10.6	88° 40'	+76.8	+66.2		5217.6		+1336	-3017	2,114,303	195,745
165	3630		- -	--	13.0	88° 40'	+84.5	+71.5		5222.9		+1470	-3319	2,114,437	195,443

RATTLESNAKE - 7 1/2'

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
11-23-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		# 5		11							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
NEW MEXICO		Rocky Point - 7 1/2'		NEW MEX.		SAN JUAN								J. McClellan					
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				
									5151.4										
166	3961		281° 03' 52"	+12.8	11.1	88° 46'	+85.3	+74.2			TP	+1602	-3622	2,114,571	195,141				
166	3961				11.2	271° 14'	+85.3	+74.1		5225.5	TP	+2	+1						
	2174	2173.4	101° 00' 22"	-	11.6	91° 20'	+50.6	+62.2		5287.7	BS	+877	-1988						
	2174				11.7	268° 40'	+50.6	+62.3			BS	+3	+1						
167	1842		101 -	-	12.2	91° 30'	-48.2	-60.4		5227.3		-743	+1685	2,114,708	194,839				
168	1512		- -	-	11.4	91° 40'	-44.0	-55.4		5232.3		-610	+1383	2,114,841	194,537				
169	1182		- -	+12.8	7.9	91° 40'	-34.4	-42.3		5245.4		-477	+1081	2,114,974	194,235				
170	852		101 -	-	11.4	91° 10'	-17.3	-28.7		5259.0		-344	+780	2,115,107	193,934				
171	822		- -	-	5.4	91° 10'	-10.6	-16.0		5271.7		-211	+478	2,115,240	193,632				
172	192		- -	-	6.1	90° 30'	-1.7	-7.8		5279.9		-77	+176	2,115,374	193,330				
IF	72		116° 32' 05"	-	4.7	90° 30'	-0.6	-5.3		5282.4	IF	-46	+56	2,115,405	193,210				y = 2,115,405 x = 193,210 7 - Inter. Horiz. + 20 corr. x = 18
X	0				5.1	-		-5.1		5282.6	X	0	0	2,115,451	193,154				
173	138		281 -	+12.8	5.2	74	+0.7	-4.5		5283.2		+56	-126	2,115,507	193,028				
174	468		281 -	-	6.3	-		-6.3		5281.4		+189	-428	2,115,640	192,726				
175	798		- -	-	9.0	-		-9.0		5278.7		+322	-730	2,115,773	192,424				
176	1128		- -	-	11.1	-		-11.1		5276.6		+455	-1032	2,115,906	192,122				
177	1458		- -	+12.8	8.1	BH	+7.3	-0.8		5286.9		+588	-1334	2,116,039	191,820				
178	1788		- -	-	6.7	90° 30'	-15.6	-22.3		5265.4		+722	-1636	2,116,173	191,518				
179	2118		- -	-	8.1	90° 30'	-18.5	-26.6		5261.1		+855	-1938	2,116,306	191,216				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
11-24-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		# 5		12							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
NEW MEXICO		Rocky Point-7 1/2		NEW MEX.		SAN JUAN								J. Mc CRELLAN					
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				
									5287.7										
180	2448		280° 57' 24"	-12.8	9.2	90° 30'	-21.4	-30.6			TP	+986	-2240	2,116,437	190,914				
180	2448				9.3	269° 30'	-21.4	-30.7		5257.0	TP								
	1874		100° 48' 50"	-	8.2	89° 20'	-21.8	-13.6	5243.4		BS	+751	-1717						
	1874				8.3	270° 40'	-21.8	-13.5			BS								
181	1545		100° 53'	--	10.1	89° 20'	+18.0	+17.9		5251.3		-621	+1415	2,116,567	190,612				
182	1215		-	--	11.0	89° 20'	+14.1	+3.1		5246.5		-488	+1113	2,116,700	190,310				
183	885		-	--	8.8	89° 20'	+10.3	+1.5		5244.9		-355	+810	2,116,833	190,007				
184	884		102° 00' 30"	+12.8	8.0	89° 20'	+10.3	+2.3		5245.7	TP	-371	+802	2,116,817	189,999				2,116,810 x 190,000 4 way Inter. EL 5245.0
184	555		100° 53'	--	6.1	89° 10'	+8.1	+2.0		5245.4		-223	+508	2,116,965	189,705				
185	225		-	--	5.9	88° 10'	+7.2	+1.3		5244.7		-90	+206	2,117,098	189,403				
186	0		-	--	5.1	-	-	-5.1		5238.3	X	0	0	2,117,188	189,197				
186	104		280° 52'	+12.8	5.5	92° 20'	-4.2	-9.7		5233.7		+42	-95	2,117,230	189,102				
187	434		-	--	6.3	92° 20'	-17.7	-24.0		5219.4		+174	-398	2,117,362	188,799				
188	764		-	--	6.3	92° 20'	-31.1	-37.4		5206.0		+307	-700	2,117,495	188,497				
189	1094		-	--	7.5	92° -	-38.2	-45.7		5197.7		+439	-1002	2,117,627	188,195				
190	1424		280° 52'	+12.8	6.2	91° 40'	-41.4	-47.6		5195.8		+572	-1304	2,117,760	187,893				
191	1754		-	--	9.8	91° 20'	-40.8	-50.6		5192.8		+704	-1606	2,117,892	187,591				
192	2084		-	--	8.0	91° 20'	-48.5	-56.5		5186.9		+837	-1909	2,118,025	187,288				
193	2414		-	--	9.7	91° 10'	-49.2	-58.9		5184.5		+969	-2211	2,118,157	186,986				
194	2744		-	--	12.7	91° -	-47.9	-60.1		5183.3		+1101	-2513	2,118,289	186,684				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-24-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		5		13			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEW MEXICO		Rocky Point-7 1/2		NEW Mex.		SAN JUAN								J. McCLELLAN	
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
									5243.4						
195	3074		280 52	+12.8	4.6	91° 10'	-62.6	-67.2		5176.2		+1234	-2815	2,118,422	186,382
TP	3280	3279.3	280 44 27	+13.0	10.7	91 10	-66.8	-77.5			TP	+1320	-3002	2,118,508	186,195
TP	3280				10.6	268 50	-66.8	-77.4		5166.0	TP				
	4373	4370.3	94 35 22	--	+6.9	88 -	-152.6	-145.7			BS	+1321	-4166		
	4373				+6.6	272 -	-152.6	-146.0	-145.8 (5020.2)		BS				
196	4248		94 36	+13.0	10.8	88 -	+148.3	+137.5		5157.7		-1284	+4049	2,118,545	186,078
197	3918		94 43	--	11.0	88 10	+125.3	+114.3		5134.5		-1192	+3732	2,118,637	185,761
198	3590		95 20	--	12.8	88 20	+104.4	+91.6		5111.8		-1129	+3408	2,118,700	185,437
199	3269		96 36	--	12.3	88 30	+85.6	+73.3		5093.5		-1097	+3080	2,118,732	185,109
200	2951		98 13	+13.0	9.2	88 34	+73.8	+64.6		5084.8		-1068	+2751	2,118,761	184,780
201	2631		99 50	--	11.0	88 30	+68.9	+57.9		5078.1		-1021	+2425	2,118,808	184,454
202	2306		101 20	--	7.5	88 40	+53.7	+46.2		5066.4		-950	+2101	2,118,879	184,130
203	1980		102 25	--	8.1	88 50	+40.3	+32.2		5052.4		-850	+1788	2,118,979	183,817
204	1650		103 35	--	10.5	89 -	+28.8	+18.3		5038.5		-738	+1476	2,119,091	183,505
205	1320		- -	--	10.4	89 10	+19.2	+8.8		5029.0		-591	+1180	2,119,238	183,209
206	990		- -	--	9.3	89 10	+14.4	+5.1		5025.3		-443	+885	2,119,386	182,914
207	660		103 35	--	9.1	89 10	+9.6	+0.5		5020.7		-295	+590	2,119,534	182,619
208	330		- -	--	8.8	89 10	+4.8	-4.0		5016.2		-148	+295	2,119,681	182,324
209	0		- -	--	5.1	-	-	-5.1		5015.1	X	0	0	2,119,829	182,029

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-24-85		B. Cotamp		B. SALDIVAR		6834		B.S.		# 5		14			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEW MEXICO		Rocky Point - 7 1/2'		NEW MEXICO		SAN JUAN								J. McCULLAN	
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
									5020.2						
210	330		283 39	+13.0	6.6	90 10	-1.0	-7.6		5012.6		+148	-295	2,119,977	181,734
211	660		-	-	9.2	90 40	-7.7	-16.9		5003.3		+296	-590	2,120,125	181,439
212	990		-	-	12.0	91 -	-17.3	-29.3		4990.9		+444	-885	2,120,273	181,144
211	1265		282 55 28	-	11.5	91 -	-22.1	-33.6		4986.6	#1	+553	-1138	2,120,382	180,891
213	1320		283 39	-	11.2	91 -	-23.0	-34.2		4986.0		+592	-1180	2,120,421	180,849
214	1650		-	+13.0	5.1	91 -	-28.8	-33.9		4986.3		+740	-1475	2,120,569	180,554
215	1980		-	-	8.1	90 40	-23.0	-31.1		4989.1		+888	-1770	2,120,717	180,259
216	2310		283 39	-	6.3	90 30	-20.2	-26.5		4993.7		+1036	-2065	2,120,865	179,964
217	2640		-	-	5.7	90 30	-23.0	-28.7		4991.5		+1184	-2360	2,121,013	179,669
218	2970		-	-	9.2	90 30	-25.9	-35.1		4985.1		+1332	-2654	2,121,161	179,375
219	3300		-	-	10.2	90 30	-28.8	-39.0		4981.2		+1480	-2949	2,121,309	179,080
220	3630		283 39	+13.0	6.7	90 30	-31.7	-38.4		4981.8		+1628	-3244	2,121,457	178,785
221	3960		-	-	6.3	90 30	-34.6	-40.9		4979.3		+1776	-3539	2,121,605	178,490
222	4285		283 46	-	12.8	90 30	-37.4	-50.2				+1923	-3829	2,121,752	178,200
222	4285				12.5	269 36	-37.4	-49.9	-50.1	4970.1	TP TP BS BS				

4 - 2120,370 x - 180,910
 21 T-Inter.

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-27-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		85		15			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEW MEXICO		Rocky Point-7k		N.M.		SAN JUAN								J. McLELLAN	
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
										4970.1					
	3259		84 41 04	+130	5.7	-		+5.7	4975.8		BS	+436	-3230		
	3259				5.8	270		+5.8			BS				
223	2945		82 55	--	9.2	90 10	-8.6	-17.8		4958.0		-304	+2929	2,121,884	177,900
224	2625		81 20	--	5.4	90 40	-30.5	-35.9		4939.9		-198	+2617	2,121,989	177,588
225	2302		79 55	--	10.2	91 10	-46.9	-57.1		4918.7		-117	+2299	2,122,071	177,269
226	1975	1974.0	78 55	--	6.9	91 50	-63.2	-70.1		4905.7		-66	+1973	2,122,122	176,943
227	1647	1645.8	78 15	+130	10.0	92 10	-62.3	-72.3		4903.5		-36	+1645	2,122,152	176,616
JC	1461	1459.6	78 36 24	--	6.6	92 30	-63.7	-70.3		4905.5	JC	-41	+1459	2,122,147	176,429
228	1318	1316.4	77 40	--	9.2	92 36	-59.8	-69.0		4906.8		-16	+1317	2,122,172	176,287
229	990	988.6	76 15	--	9.1	93 -	-51.8	-60.9		4914.9		+13	+989	2,122,201	175,959
230	660	659.1	75 30	--	8.3	93 -	-34.5	-42.8		4933.0		+17	+659	2,122,205	175,629
231	330		-	-	4.3	93 -	-17.3	-21.6		4954.2		+9	+329	2,122,196	175,300
232	0				5.1	-		-5.1		4970.7	X	0	0	2,122,188	174,970
233	330		255 01	+130	9.2	88 -	+11.5	+2.3		4978.1		-11	-330	2,122,176	174,641
234	660		-	-	12.9	88 -	+23.0	+10.1		4985.9		-23	-659	2,122,165	174,311
235	990		-	-	11.1	88 -	+34.6	+23.5		4999.3		-34	-989	2,122,154	173,981
236	1320	1319.2	-	-	4.5	88 -	+46.1	+41.6		5017.4		-46	-1318	2,122,142	173,652
237	1650	1648.4	255 01	-	10.5	87 30	+72.0	+61.5		5037.3		-57	-1647	2,122,131	173,323
238	1980	1978.1	-	-	5.8	87 30	+82.4	+80.6		5056.4		-68	-1977	2,122,119	172,993
#1	2349	2346.8	254 33 46		1.9	87 30	+102.5	+100.6		5076.4		-100	-2345	2,122,088	172,626

2,122,190 X - 176,400
82109c EL. 4903.6

DATE 11-27-85	INSTRUMENT MAN B. Cotcamp	ROD MAN B. SANDIWAR	PARTY NUMBER 6834	NOTES CHECKED BY B.S.	LINE NO. 5	PAGE 16
AREA NEW MEXICO	TOPO MAP Rocky Point-76	STATE N.M.	COUNTY SAN JUAN	TWP	RANGE	PPM
				PARTY MANAGER J. McLELLAN		

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	
									4975.8							
239	2310	2307.5	255 01	+13.0	10.0	87° 20'	+109.5	+97.5		5073.3		-80	-2306	2,122,108	172,664	
240	2640	2637.1	- -	--	5.3	87° 20'	+122.8	+112.5		5093.3		-91	-2636	2,122,097	172,335	
241	2970	2966.4	- -	--	6.4	87° 10'	+146.8	+140.4		5116.2		-103	-2965	2,122,085	172,006	
242	3300	3295.5	255 01	+130	9.0	87° -	+172.7	+163.7		5139.5		-114	-3294	2,122,074	171,677	
243	3630	3625.6	- -	-	3.8	87° -	+190.0	+186.2		5162.0		-125	-3623	2,122,062	171,347	
244	3960	3954.0	- -	-	9.0	86° 50'	+218.8	+209.8		5185.6		-137	-3952	2,122,051	171,019	
245	4290	4283.5	- -	-	3.9	86° 50'	+237.0	+233.1		5208.9		-148	-4281	2,122,040	170,689	
246	4620	4612.7	255 01	-	6.7	86° 46'	+260.6	+253.9		5229.7		-160	-4610	2,122,028	170,360	
247	4950	4942.1	255 02 21	-	10.9	86° 46'	+279.2	+268.3			TP	-169	-4939	2,122,019	170,031	
247	4950				11.0	273° 14'	+279.2	+268.2		5244.0	TP					
	4951	4950.5	75° 11 48	+13.0	13.7	90° 50'	+72.0	+85.7	525.8 5329.8		BS	-156	-4948			
	4951				14.0	269° 10'	+72.0	+86.0			BS					
248	4620	4619.5	75 13	-	10.1	90° 50'	-67.2	-77.3		5252.5		+144	+4617	2,122,007	169,760	
249	4680		75 31 30	-	9.9	90° 50'	-68.1	-78.0		5251.8	TI	+120	+46	2,121,983	169,761	1/4 - 2122005 X - 169,750 1/4 Hwy Inter. EL. 5253.0
249	4290		75° 11'	-	8.9	90° 50'	-62.4	-71.3		5258.5		+136	+4287	2,121,979	169,370	
250	3960		- -	+130	7.7	90° 50'	-57.6	-65.3		5264.5		+126	+3958	2,121,988	169,041	
251	3630		- -	-	6.8	90° 50'	-52.8	-59.6		5270.2		+115	+3628	2,121,978	168,711	
252	3300		- -	-	5.7	90° 50'	-48.0	-53.7		5276.1		+105	+3298	2,121,968	168,381	
253	2970		- -	-	4.7	90° 50'	-43.2	-47.9		5281.9		+94	+2968	2,121,957	168,051	
254	2640		- -	-	3.8	90° 50'	-38.4	-42.2		5287.6		+84	+2638	2,121,947	167,721	

DATE	11-27-85	INSTRUMENT MAN	B. Cotcamp	ROD MAN	B. SALDIVAR	PARTY NUMBER	6834	NOTES CHECKED BY	B.S	LINE NO.	5	PAGE	17	
AREA	NEW MEXICO	TOPO MAP	Rocky Point - 7 1/2'	STATE	N.M.	COUNTY	SAN JUAN	TWP		RANGE		PPM		
													PARTY MANAGER	J. McCLELLAN

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				
									5329.8										
255	2310		75° 11'	+13.0	5.5	90° 50'	-33.6	-39.1		5290.7		+73	+2309	2,121,936	167,392				
256	1980		- -	-	9.9	90° 50'	-28.8	-38.7		5291.1		+63	+1979	2,121,926	167,062				
257	1650		- -	-	9.4	91° -	-28.8	-38.2		5291.6		+52	+1649	2,121,915	166,732				
258	1320		- -	-	11.2	91° 10'	-26.9	-38.1		5291.7		+42	+1319	2,121,905	166,402				
259	990		- -	-	11.4	91° 20'	-23.0	-34.4		5295.4		+31	+989	2,121,894	166,072				
260	660		- -	-	11.3	91° 20'	-15.4	-26.7		5303.1		+21	+659	2,121,884	165,743				
261	533		77° 06' 10"	-	9.8	91° 20'	-12.4	-22.2		5307.6	7/8	-1	+533	2,121,862	165,616			2,121,900 x - 165,600 4 way inter, EL. 5307.0	
262	330		75° 11'	-	8.5	91° 20'	-7.7	-16.2		5313.6		+10	+330	2,121,873	165,413				
263	0				5.1	-		-5.1		5324.7	X	0	0	2,121,863	165,083				
264	330		255 14	+13.0	5.4	88° -	+11.5	+6.1		5335.9		-10	-330	2,121,853	164,753				
265	660		- -	-	7.0	88° -	+23.0	+16.0		5345.8		-20	-659	2,121,843	164,424				
266	990		- -	-	8.2	88° -	+34.6	+26.4		5356.2		-31	-989	2,121,832	164,094				
267	1320	1319.2	255 14	-	9.1	88° -	+46.1	+37.0		5366.8		-41	-1319	2,121,822	163,764				
268	1650	1649.0	- -	-	11.2	88° -	+57.6	+46.4		5376.2		-51	-1648	2,121,812	163,435				
269	1980	1979.0	- -	-	7.1	88° 10'	+63.3	+56.2		5386.0		-61	-1978	2,121,802	163,105				
270	2310	2308.8	- -	-	8.0	88° 10'	+73.9	+65.9		5395.7		-71	-2308	2,121,792	162,775				
271	270	2638.7	255 14	+13.0	9.1	88° 10'	+84.5	+75.4		5405.2		-81	-2637	2,121,782	162,446				
272	2970	2968.5	- -	-	10.4	88° 10'	+95.0	+84.6		5414.4		-92	-2967	2,121,771	162,116				
273	3300	3298.6	- -	-	6.1	88° 18'	+97.9	+91.8		5421.6		-102	-3297	2,121,761	161,786				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE					
11-27-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		#5		18					
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER			
NEW MEXICO		Rocky Point-7k'		N.M.		SAN JUAN								J. McQuillan			
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		
									5329.8								
273	3628	3626.5	255 17 30	+13.0	8.6	88 20	+105.5	+96.9			TP	-108	-3625	2,121,755	161,458		
273	3628				8.9	271 40	+105.5	+96.6	-96.73	5426.5	TP						
	658		83 07 12	--	+13.9	-		+13.9		5440.4	BS	+70	-654				
	658				+10.6	84	+3.3	+13.9			BS						
214	330		86 05	--	9.0	-		-9.0		5431.4		-52	+326	2,121,773	161,130		
275	0				5.1	-		-5.1		5435.3	T	0	0	2,121,825	160,804		
276	330		273 35	+130	7.6	89 -	+5.8	-1.8		5438.6		+94	-316	2,121,919	160,488		
277	660		274 10	--	6.5	89 -	+11.5	+5.0		5445.4		+195	-631	2,122,020	160,173		
277	919		273 25 33	--	11.9	88 50	+18.7	+16.8		5457.2	TI	+260	-881	2,122,085	159,923		2,122,100 x 159,900
278	990		274 40	--	6.6	88 30	+25.9	+19.3		5459.7		+300	-943	2,122,125	159,861		TI-Intec.
279	1320	1319.3			7.9	88 10	+42.2	+34.3		5474.7		+400	-1257	2,122,225	159,547		
280	1651	1650.2	274 53 55	+130	7.3	88 10	+52.8	+45.5			TP	+507	-1570	2,122,332	159,234		
280	1651				7.4	271 50	+52.8	+45.4		5485.8	TP						
	3958	3956.6	95 13 47	-	+6.2	91 30	+103.6	+109.8		5595.6	BS	+1238	-3758				
	3958				+6.3	268 30	+103.6	+109.9			BS						
281	3630	3628.8	95 18	-	8.7	91 30	-95.0	-103.7		5491.9		-1139	+3445	2,122,430	158,921		Rocky Point-7k' ↑
282	3300	3298.6	-	-	4.7	91 40	-96.0	-100.7		5494.9		-1036	+3132	2,122,534	158,607		Beclabito-7k' ↓
283	2970	2968.7	-	-	11.4	91 40	-86.4	-97.8		5497.8		-932	+2819	2,122,638	158,294		
284	2640	2638.7	-	-	10.3	91 50	-84.5	-94.8		5500.8		-829	+2505	2,122,741	157,981		
285	2310	2308.6	-	-	10.8	92 -	-80.6	-91.4		5504.2		-725	+2192	2,122,845	157,667		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
11-27-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		5	20				
AREA		TOPO MAP	STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER							
NEW MEXICO		Beclabito - 7 1/2'	N.M.	SAN JUAN				J. McCLELLAN							
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
									5673.3						
301	1512		117° 45'	+128°	6.5	74	+2.6	+1.1		5674.4		-983	+1149	2,124,495	152,653
302	1198		122° -	-	6.7	74	+6.0	-0.7		5672.6		-844	+850	2,124,634	152,354
303	878		126° 05'	-	5.7	-		-5.7		5667.6		-661	+577	2,124,816	152,082
304	552		129° 55'	-	5.7	-		-5.7		5667.6		-439	+334	2,125,039	151,839
#	399		134° 49' 54"	-	4.0	-		-4.0		5669.3		-337	+214	2,125,141	151,718
305#	223		134° 50'	-	4.7	-		-4.7		5668.6		-188	+119	2,125,290	151,624
X	0				5.1	-		-5.1		5668.2	X	0	0	2,125,478	151,504
306	106		316° 34'	+128°	5.4	-		-5.4		5667.9		+91	-54	2,125,569	151,450
307	436		-	-	7.1	-		-7.1		5666.2		+375	-222	2,125,853	151,282
308	766		-	-	9.9	-		-9.9		5663.4		+659	-390	2,126,137	151,114
309	1096		-	-	8.7	BH	+5.5	-3.2		5670.1		+943	-558	2,126,421	150,946
310	1426		316° 36' 30"	-	10.8	90° 30'	-12.4	-23.2			TP	+1227	-726	2,126,705	150,779
310	1426				10.9	269° 30'	-12.4	-23.3		5650.0	TP				90° 30' v.H.
	1651		136° 28' 45"	+128°	7.6	-		+7.6	5657.6		BS	+1419	-843		
	1651				7.7	270°		+7.7			BS				
311	1320		136° 34'	-	8.2	90° 30'	-11.5	-19.7		5637.9		-1136	+673	2,126,989	150,608
312	990		-	-	7.0	91° -	-17.3	-24.3		5633.3		-852	+504	2,127,273	150,440
#	895		137° 39' 34"	-	7.2	91° -	-15.6	-22.8		5634.8		-779	+441	2,127,346	150,376
313	660		136° 34'	-	7.2	91° -	-11.5	-18.7		5638.9		-568	+336	2,127,557	150,271
314	330		-	-	6.1	91° -	-5.8	-11.9		5645.7		-284	+168	2,127,841	150,103

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY			LINE NO.	PAGE					
11-27-85		B. Cotcamp		B. SALDIVAR		6834		B.S.			5	21					
AREA		TOPO MAP	STATE	COUNTY		TWP.	RANGE	PPM	PARTY MANAGER								
NEW MEXICO		Beclabito - 7 1/2'	NEW MEX.	SAN JUAN					J. McCLELLAN								
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		
									5657.6								
315	0				5.1	-		-5.1		5652.5	IK	0	0	2,128,125	149,935	IK ² - Inter. El. 5652.0	
316	330		316 32	+128	6.3	88° 40'	+7.7	+14		5659.0		+284	-168	2,128,408	149,767		
317	660		-	-	7.5	88° 40'	+15.4	+7.9		5665.5		+568	-337	2,128,692	149,599		
318	990		-	-	8.4	88° 40'	+23.0	+14.6		5672.2		+851	-505	2,128,976	149,430	NEW MEXICO 2,128,965 x - 149,400.	
IK	966		315 29 18	-	7.8	88° 40'	+22.5	+14.7		5672.3		+822	-508	2,128,946	149,428	IK ² - Inter	
319	1320		316 32	-	7.9	88° 40'	+30.7	+22.8		5680.4		+1135	-673	2,129,260	149,262	ARIZONA 2,129,635 x - 832,170	
320	1650		316 36 08	-	4.1	88° 40'	+38.4	+34.3			TP	+1420	-840	2,129,545	149,096	2,129,295 x - 831,805	
320	1650			+11.7 MAR 2	4.2	271° 20'	+38.4	+34.2		5691.8	TP	(+1403)	(-867)	2,129,267	831,855	ZONE CHANGE * NEW MEXICO WEST ZONE to ARIZONA EAST ZONE	
	891		143 36 10	+11.7	12.3	91° -	+15.6	+27.9			BS						
	891				12.2	269° -	+15.6	+27.8	5719.6		BS	+809	-372				
321	561		145 50	-	7.7	91° -	-9.8	-17.5		5702.1		-518 ⁻²	+214 ²	2,129,556	831,695		
322	232		147 -	-	5.7	91° -	-4.0	-9.7		5709.9		-216	+84	2,129,858	831,565		
	0				5.1	-		-5.1		5714.5	IK	0	0	2,130,074	831,481		
323	98		327 40	+11.7	5.2	89° -	+1.7	-3.5		5716.1		+92	-35	2,130,166	831,446		
324	428		-	-	6.4	88° 50'	+8.7	+2.6		5722.2		+400	-151	2,130,475	831,330		
IK	752		326 27 09	-	5.5	88° 50'	+15.3	+9.8		5729.4		+698	-280	2,130,772	831,201		
325	759		327 40	-	6.1	88° 50'	+15.5	+9.4		5729.0		+710	-267	2,130,785	831,213		
326	1091		327 48 42	-	6.6	88° 50'	+22.2	+15.6			TP	+1022	-382	2,131,094	831,097		
326	1091				6.7	271° 10'	+22.2	+15.5		5735.1	TP	-2	-2				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
11-30-85		B. C. Camp		B. SALDIVAR		6834		B.S.		5		22				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
NEW MEXICO		B. CLARITO - 7 1/2'		N.M.		SAN JUAN								J. McCLELLAN		
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	
										5735.1						
	2199		147° 37' 40"	-11.7	+13.0	90° 10'	+6.4	+19.4	5754.5		BS	+2057	-776			
	2199				+13.1	269° 50'	+6.4	+19.5			BS	-2	-2			
327	1867		147° 32'	--	10.4	90° 10'	-5.4	-15.8		5738.7		-1746	+662	2,131,404	830,981	-2,131,400 x -830,915 IF T - Inter.
IF	1843		148° 08' 48"	--	9.6	90° 10'	-5.4	-15.0		5739.5	IF	-1730	+635	2,131,419	830,954	
328	1537		147° 32'	--	8.9	90° 10'	-4.5	-13.4		5741.1		-1437	+545	2,131,712	830,861	
329	1207		- -	-	6.7	90° 10'	-3.5	-10.2		5744.3		-1129	+428	2,132,021	830,747	
330	877		- -	-	7.3	-	-	-7.3		5747.2		-820	+311	2,132,330	830,630	
331	547		147° 32'	--	6.1	74	+2.7	-3.4		5751.1		-511	+194	2,132,638	830,513	
332	217		- -	--	6.5	89°	+3.8	-2.7		5751.8		-203	+77	2,132,947	830,396	
T	0				5.1	-	-	-5.1		5749.4	T	0	0	2,133,150	830,319	
333	113		327° 43'	+11.7	5.2	91° 10'	-2.3	-7.5		5747.0		+106	-40	2,133,255	830,279	
334	443		- -	--	9.5	91° 10'	-9.0	-18.5		5736.0		+415	-156	2,133,561	830,163	
335	773		- -	--	7.3	92° 10'	-29.2	-36.5		5718.0		+723	-272	2,133,873	830,047	
336	1103	1102.1	- -	-	11.7	92° 20'	-44.9	-56.6		5697.9		+1032	-387	2,134,181	829,931	
TP	1154	1153.0	327° 51' 10"	-	12.7	92° 20'	-47.0	-59.7	5694.7		TP	+1080	-403	2,134,228	829,914	
TP	1154				12.8	267° 40'	-47.0	-59.8			TP	-2	-2			
	4564	4561.7	148° 12' 39"	+11.7	+3.9	88° 10'	-146.0	-142.1	5552.5		BS	+4284	-1567			
	4564				+3.8	271° 50'	-146.0	-142.2			BS	-2	-2			
337	4287	4284.8	148° 12'	-	11.2	88° 10'	+137.2	+126.0		5678.5		-4024	+1473	2,134,486	829,818	
338	3960	3958.3	148° 16'	-	8.9	88° 20'	+115.2	+106.3		5658.8		-3719	+1356	2,134,791	829,701	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-30-85		B. G. Camp		B. Saldivar		6834		B.S.		5		23			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEW MEXICO		BECLABITO - 7 1/2'		N.M.		SAN JUAN								J. McClellan	
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
									5552.5						
339	3630	3628.6	148° 20'	+11.7	11.1	88° 24'	+101.4	+90.3		5642.8		-3410	+1239	2,135,100	829,584
340	3300	3298.7	-	-	12.9	88° 24'	+92.1	+79.2		5631.7		-3100	+1126	2,135,410	829,471
341	2970	2968.8	148° 26'	-	10.4	88° 24'	+82.9	+72.5		5625.0		-2792	+1009	2,135,718	829,354
342	2640	2639.0	148° 30'	-	4.8	88° 24'	+73.7	+68.9		5621.4		-2483	+894	2,136,027	829,239
343	2310	2308.8	148° 32'	-	12.0	88° 10'	+73.9	+61.9		5614.4		-2173	+781	2,136,337	829,126
344	2101	2100.1	149° 12' 45"	+11.7	5.5	88° 20'	+61.1	+55.6		5608.1	34	-1985	+687	2,136,525	829,032
															2,136,450 X-829,005 T-Intersect
344	1980	1979.2	148° 48'	-	8.4	88° 20'	+57.6	+49.2		5601.7		-1866	+661	2,136,644	829,006
345	1650	1649.4	149° 10'	-	9.4	88° 30'	+43.0	+33.8		5586.3		-1558	+541	2,136,952	828,886
346	1320		149° 20'	-	4.7	89° 0'	+23.0	+18.3		5570.8		-1248	+429	2,137,262	828,774
347	990		149° 30'	-	13.2	89° 0'	+17.3	+4.1		5556.6		-937	+319	2,137,573	828,664
348	660		-	-	8.9	89° 40'	+3.8	+5.1		5557.6		-625	+213	2,137,885	828,558
349	330		-	-	10.5	89° 40'	+1.9	-8.6		5543.9		-312	+106	2,138,198	828,451
350	0				5.1	-		-5.1		5547.4	34	0	0	2,138,510	828,345
#	116		319° 55' 12"	+11.7	2.9	89° 40'	+0.7	-2.2		5550.3	#	+102	-55	2,138,612	828,296
															NEW MEXICO SAN JUAN county
351	330		329° 15'	-	5.7	88° 40'	+7.7	+2.0		5554.5		+312	-108	2,138,822	828,237
															STATE LINE
352	660		-	-	4.1	88° 40'	+15.4	+11.3		5563.8		+624	-215	2,139,134	828,130
															ARIZONA APACHE county
353	990		329° 40'	-	7.4	88° 20'	+28.8	+21.4		5573.9		+938	-316	2,139,448	828,029
															Beclabito - 7 1/2' ↑
354	1320	1319.4	330° 25'	-	7.1	88° 20'	+38.4	+31.3		5583.8		+1256	-405	2,139,766	827,940
															Teece Nos Pos - 7 1/2' ↓
355	1649	1648.3	331° 15'	-	6.3	88° 20'	+48.0	+41.7		5594.2		+1576	-483	2,140,086	827,862
356	1978	1976.8	331° 20'	-	12.1	88° 0'	+69.0	+56.9		5609.4		+1891	-577	2,140,401	827,768

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-30-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		85		24			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEW MEXICO/ ARIZONA		Teec Nos Pos - 7 1/2'		ARIZONA		APACHE								J. McClellan	
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
									5552.5						
357	2307	2305.6	332° 58'	+11.7	7.1	88° -	+80.5	+73.4		5625.9		+2224	-610	2,140,734	827,735
358	2635	2633.4	329° 54'	+11.4	10.5	88° -	+92.0	+81.5			TP	+2495	-844	2,141,003	827,500
358	2635				10.6	272° -	+92.0	+81.4		5633.9	TP	-2			
	988		133° 03'	--	+13.5	88° 50'	-20.1	-6.6			BS	+804	-574		
	988				+13.4	271° 10'	-20.1	-6.7	5627.2		BS	-2	-1		
359	659		130° 50'	--	7.4	88° 30'	+17.3	+9.9		5637.1		-521	+403	2,141,284	827,329
360	330		129° 20'	--	5.8	88° -	+11.5	+5.7		5632.9		-255	+209	2,141,549	827,134
361	0				5.1	-		-5.1		5622.1	X	0	0	2,141,804	826,925
362	330		307° 58'	+11.4	6.1	92° 40'	-15.4	-21.5		5605.7		+250	-214	2,142,055	826,710
363	660	659.3		--	8.0	92° 40'	-30.7	-38.7		5588.5		+500	-429	2,142,305	826,496
364	990	988.9		--	8.0	92° 40'	-46.1	-54.1		5573.1		+750	-644	2,142,555	826,281
365	1320	1318.6	308° 05'	--	3.6	92° 40'	-61.4	-65.0		5562.2	TP	+1002	-857	2,142,805	826,068
365	1320				3.5	267° 20'	-61.4	-64.9			TP	-2	-1		
	2307		127° 51'	+11.4	+12.2	90° 40'	+26.8	+39.0	5601.2		BS	+1748	-1506		
	2307				+12.3	269° 20'	+26.8	+39.1			BS	-2			
366	1980		127° 58'	-	8.2	91° 10'	-40.3	-48.5		5552.7		-1502	+1289	2,143,048	825,851
367	1650	1649.3		-	9.4	91° 40'	-48.0	-57.4		5543.8		-1252	+1074	2,143,299	825,636
368	1320	1319.2		--	9.9	92° -	-46.1	-56.0		5545.2		-1001	+859	2,143,549	825,421
369	990	989.4		--	8.7	92° -	-34.6	-43.3		5557.9		-751	+644	2,143,800	825,206
370	660			-	6.5	92° -	-23.0	-29.5		5571.7		-501	+436	2,144,050	824,991

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-30-85		B. Cotcamp		B. SALDIVAR		6834		B.C.		35		25			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
ARIZONA		Teec Nos Pos - 7 1/2		ARIZ.		APACHE								J. M. CLERGAN	
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
									5601.2						
371	330		127 58	+11.4°	4.5	92 -	-11.5	-16.0		5585.2		- 250	+215	2,144,300	824,777
372	0				5.1	-		-5.1		5596.1	TP	0	0	2,144,551	824,562
373	330		308 02	--	5.3	88 40	+7.7	+2.4		5603.6		+251	-215	2,144,801	824,347
374	660		- -	--	8.4	88 40	+15.4	+7.0		5608.2		+501	-429	2,145,052	824,133
375	990		- -	--	6.9	89 -	+17.3	+10.4		5611.6		+750	-644	2,145,362	823,918
1/2	1129		307 10 33	+11.4	7.8	89 -	+19.7	+11.9		5613.1	1/2	+846	-747	2,145,397	823,815
376	1320		308 02	--	9.2	89 -	+23.0	+13.8		5615.0		+1003	-858	2,145,553	823,704
377	1650		- -	--	9.1	89 10	+24.0	+14.9		5616.1		+1253	-1073	2,145,804	823,489
378	1979		308 22 28	--	13.8	89 10	+28.8	+15.0		5616.2	TP	+1511	-1278	2,146,059	823,284
378	1979				13.7	270 50	+28.8	+15.1			TP	-2			12' 56"
	3953	3951.5	141 15 54	+11.4	14.9	88 26	-108.1	-93.2			BS	+3510	-1815		
	3953				14.8	271 34	-108.1	-93.3	5522.9		BS	-2			
379	3627	3625.8	142 -	--	6.8	88 30	+94.9	+88.1		5611.0		-3242	+1623	2,146,326	823,093
380	3299	3297.8	142 35	--	7.9	88 26	+90.2	+82.3		5605.2		-2964	+1447	2,146,605	822,916
381	2970	2968.9	142 55	--	6.1	88 26	+81.2	+75.1		5598.0		-2676	+1287	2,146,892	822,756
382	2640	2639.0	143 07	--	6.1	88 26	+72.2	+66.1		5589.0		-2382	+1135	2,147,185	822,605
383	2310	2309.2	- -	+11.4°	5.4	88 30	+60.5	+55.1		5578.0		-2085	+994	2,147,483	822,463
384	1980	1979.3	- -	-	6.3	88 30	+51.8	+45.5		5568.4		-1787	+852	2,147,781	822,321
385	1650	1649.4	- -	--	6.1	88 30	+43.2	+37.1		5560.0		-1489	+710	2,148,079	822,179
386	1320		- -	--	6.1	88 30	+34.6	+28.5		5551.4		-1191	+568	2,148,376	822,037

y 2,145,390 x 823,765
1/2 T-inter.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-30-85		B. Cotcamp		B. SALDIVAR		6834		B.C.		# 5		26			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
ARIZONA		Teec Nos. Pos - 7 1/2		ARIZ.		APACHE								J. M. CLELLAN	
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
									5522.9						
387	990		143° 07'	+11.4	6.0	88° 30'	+25.9	+19.9		5542.8		-893	+426	2,148,674	821,895
388	660		-	--	4.8	88° 30'	+17.3	+12.5		5535.4		-596	+284	2,148,972	821,753
389	330		-	--	4.3	88° 30'	+8.6	+4.3		5527.2		-298	+140	2,149,270	821,611
390	0				5.1	-		-5.1		5517.8	X	0	0	2,149,568	821,469
391	330		323° 09'	+11.4	7.2	91° 30'	-8.6	-15.8		5507.1		+298	-142	2,149,866	821,328
392	660		-	--	10.2	91° 30'	-17.3	-27.5		5495.4		+596	-284	2,150,163	821,186
393	990		-	--	10.2	91° 30'	-25.9	-36.1		5486.8		+894	-425	2,150,461	821,044
394	1320		-	--	6.1	91° 30'	-34.6	-40.7		5482.2		+1192	-567	2,150,759	820,902
395	1650	1649.4	323° 09'	+11.4	3.1	91° 30'	-43.2	-46.3		5476.6		+1489	-709	2,151,057	820,761
396	1980		-	--	7.3	91° 20'	-46.1	-53.4		5469.5		+1787	-851	2,151,355	820,619
397	2310	2309.4	-	--	7.3	91° 20'	-53.8	-61.1		5461.8		+2085	-992	2,151,653	820,477
398	2640	2639.3	-	--	7.0	91° 20'	-61.4	-68.4		5454.5		+2383	-1134	2,151,951	820,335
399	2970	2969.2	-	+11.4	4.7	91° 20'	-69.1	-73.8		5449.1		+2681	-1276	2,152,249	820,193
400	3300	3299.3	322° 50'	--	11.4	91° 10'	-63.5	-74.9		5448.0		+2807	-1355	2,152,375	820,114
401	3630	3629.3	323° 05'	--	9.6	91° 10'	-67.2	-76.8		5446.1		+2978	-1421	2,152,545	820,048
402	3957	3956.2	322° 45'	--	6.7	91° 10'	-73.9	-80.6		5442.3		+3266	-1582	2,152,834	819,887
403	4282	4281.0	322° 05'	--	8.2	91° 10'	-80.6	-88.8		5434.1		+3540	-1766	2,153,108	819,703
403	4282		321° 21' 30"	--	11.2	91° 14'	-92.2	-103.4			TP	+3806	-1960	2,153,372	819,510
					11.3	268° 46'	-92.2	-103.5		5419.4	TP				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
11-30-85		B. Cotcamp		B. SARDINAR		6834		B.C.		5		27				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
ARIZONA		Teec Nos Pos - 7 1/2'		ARIZ.		Apache								J. McQUELAN		
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	
										5419.4						
	1780	1777.6	121 34 57	+11.4	+10.0	87°	-93.2	-83.2			BS	+1212	-1300			
	1786				+9.9	273°	-93.2	-83.3	5336.1		BS	-1				
404	1453	1451.0	120 -	-	9.0	87°	+76.0	+67.0		5403.1		-960	+1088	2,153,623	819,298	
405	1125	1123.5	118 10	-	8.0	87°	+58.9	+50.9		5387.0		-716	+866	2,153,867	819,075	
406	795	793.9	116 50	-	7.0	87°	+41.6	+34.6		5370.7		-491	+624	2,154,091	818,833	
407	465	464.4	115 30	-	6.6	87°	+24.5	+17.7		5353.8		-279	+371	2,154,304	818,581	
408	135		- -	--	5.8	87°	+7.1	+1.3		5337.4		-81	+108	2,154,502	818,317	
X	0				5.1	-		-5.1		5331.0	X	0	0	2,154,583	818,209	
409	193		292° 42'	+11.4	6.3	92° 30'	-8.4	-14.7		5321.4		+108	-160	2,154,691	818,050	
410	523	522.5	- -	--	8.1	92° 30'	-22.8	-30.9		5305.2		+293	-433	2,154,876	817,777	
411	853	852.2	- -	--	10.9	92° 30'	-37.2	-48.1		5288.0		+478	-706	2,155,060	817,503	
412	1183	1181.7	- -	--	9.3	92° 40'	-55.0	-64.3		5271.8		+663	-979	2,155,245	817,231	
413	1513	1511.4	- -	--	10.9	92° 40'	-70.4	-81.3		5254.8		+847	-1252	2,155,430	816,958	
414	1842	1840.0	292° 43' 01"	-	9.8	92° 40'	-85.7	-95.5			TP	+1032	-1523	2,155,614	816,686	
414	1842				9.9	267° 20'	-85.7	-95.6	* 5238.3	5240.5	TP	-1				Corrected Elevation * 5238.3
	3389		112 42 21	+11.4	+5.8	89° 10'	-49.3	-43.5			BS	+1900	-2806			
	3389				+5.7	270° 50'	-49.3	-43.6	5194.7		BS					
415	3056		112 42	--	8.2	89° 10'	+44.4	+36.2		5230.9		-1713	+2530	2,155,801	816,411	
416	2726		- -	-	8.9	89° 10'	+39.6	+30.7		5225.4		-1528	+2257	2,155,986	816,137	
417	2396		--	-	9.3	89° 10'	+34.8	+25.5		5220.2		-1343	+1984	2,156,171	815,864	

DATE 12-1-85	INSTRUMENT MAN B. G. Camp	ROD MAN B. SALDIVAR	PARTY NUMBER 6834	NOTES CHECKED BY BC	LINE NO. 35	PAGE 27A	
AREA ARIZONA	TOPO MAP Teec NOS Pos-7 1/2'	STATE ARIZ.	COUNTY APACHE	TWP	RANGE	PPM	PARTY MANAGER J. McCLELLAN

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				
TRAVERSE to Bench MARK U.S.G.S EL. 5299.0																			
K STA. 414		ELV.	5240.5							5238.3 - corrected elevation									
414	0				+ 5.1	-		+ 5.1	5245.6 5243.4		X	O	O			2,155,614	816,686		
Bm	2595		167° 49' 24"	+11.4	12.3	88° 30'	+67.9	+55.6		5301.2	Bm	-2594	+35			2,153,020	816,721	U.S.G.S. Bm. EL. 5299.0	
Bm	2595				12.2	271° 30'	+67.9	+55.7			Bm								correct ELEVATION at this point

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
11-30-85		B. Cotcamp		B. SALDIVAR		6834		B.C.		# 5		28				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
ARIZONA		Teec Nos Pos - 7 1/2'		ARIZ		APACHE								J. McCLELLAN		
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
									5194.7							
41	2333		113 09 06	+11.4	9.1	89 10	+33.9	+24.8		5219.5	41	-1323	+1921	2,516,191	815,802	2,516,190 x 815,800 T-Intersect Horiz. -76 CORR. y -13
418	2066		112 43	-	7.1	89 20	+24.0	+16.9		5211.6		-1159	+1710	2,516,355	815,591	
419	1736		-	-	12.8	89 20	+20.2	+7.4		5202.1		-974	+1437	2,516,540	815,317	
420	1406		-	-	11.3	89 34	+10.6	-0.7		5194.0		-789	+1164	2,516,725	815,044	
421	1076		-	+11.4	10.2	89 34	+8.1	-2.1		5192.6		-603	+891	2,516,910	814,771	
422	746		-	-	4.7	89 34	+5.6	+0.9		5195.6		-418	+618	2,517,095	814,498	
423	416		-	-	5.7	89 -	+7.3	+1.6		5196.3		-233	+344	2,517,281	814,225	
424	86		-	-	4.7	89 -	+1.5	-3.2		5191.5		-48	+71	2,517,466	813,951	
X	0				5.1	-		-5.1		5189.6	X	0	0	2,517,514	813,886	
425	244		292 41	+11.4	4.8	92 -	-8.5	-13.3		5181.4		+137	-202	2,517,650	813,678	
426	574	573.5	-	-	4.4	92 30	-25.0	-29.4		5165.3		+321	-475	2,517,835	813,405	
427	904	903.1	-	-	7.8	92 30	-39.4	-47.2		5147.5		+506	-748	2,518,020	813,132	
428	1234	1232.8	-	-	11.6	92 30	-53.8	-65.4		5129.3		+691	-1021	2,518,205	812,859	
429	1564	1562.3	292 41	+11.4	11.1	92 40	-72.8	-83.9		5110.8		+876	-1294	2,518,389	812,586	
430	1894	1891.8	-	-	10.3	92 46	-91.4	-101.7		5093.0		+1060	-1567	2,518,574	812,313	
431	2224	2221.4	-	-	13.2	92 46	-107.3	-120.5		5074.2		+1245	-1840	2,518,759	812,040	
432	2554	2550.9	-	-	13.0	92 50	-126.2	-139.2		5055.5		+1430	-2113	2,518,943	811,768	
433	2884	2880.7	-	-	12.7	92 44	-137.5	-149.7		5045.0		+1614	-2386	2,519,128	811,494	
434	3214	3210.9	-	-	13.4	92 30	-140.2	-153.6		5041.1		+1799	-2659	2,519,313	811,221	
435	3544	3541.1	-	-	12.2	92 20	-144.3	-156.5		5038.2		+1984	-2933	2,519,498	810,947	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE					
11-30-85		B. Cotcamp		B. Salvador		6834		B.C.		# 5		29					
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER			
ARIZONA		Teec Nos Pos-7 1/2		ARIZ.		Apache								J. McClellan			
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		
									5194.7								y = 2,159,500 x - 810,870
431	3621	3618.0	292° 24' 10"	+11.4°	9.2	92° 20'	-147.4	-156.6		5038.1	41	+2013	-3006	2,159,527	810,874	41	T-Inter.
436	3871	3867.8	292° 43' 12"	--	2.2	92° 20'	-157.6	-159.8			TP	+2170	-3202	2,159,683	810,678		
436	3871				2.5	267° 40'	-157.6	-160.1	-160.05	5034.7	TP						
	2835		112° 22' 04"	+11.4°	5.1	BH	+14.2	+19.3	5054.0		BS	+1576	-2357				
	2835				+5.2	BH 270-	+14.2	+19.4			BS						
437	2506		112° 20'	--	7.4	90° 20'	-14.6	-22.0		5032.0		-1392	+2084	2,159,868	810,406		
438	2176		112° 18'	--	11.9	90° 20'	-12.7	-24.6		5029.4		-1207	+1810	2,160,052	810,132		
439	1846		112° 20'	--	9.4	90° 30'	-16.1	-25.5		5028.5		-1025	+1535	2,160,234	809,857		
440	1516		112° 15'	+11.4°	11.9	90° 30'	-13.2	-25.1		5028.9		-840	+1262	2,160,419	809,583		
441	1187		111° 55'	--	8.9	90° 50'	-17.3	-26.2		5027.8		-652	+992	2,160,607	809,313		
442	858		111° 40'	--	13.2	90° 50'	-12.5	-25.7		5028.3		-468	+719	2,160,791	809,040		
443	528		--	--	11.1	90° 50'	-7.7	-18.8		5035.2		-288	+442	2,160,971	808,764		
444	199		112° 20'	--	6.8	90° 50'	-2.9	-9.7		5044.3		-111	+165	2,161,149	808,487		
Σ	0				5.1	--		-5.1		5048.9	π	0	0	2,161,259	808,322		
445	135		277° 25'	+11.4°	5.7	89° 20'	+1.6	-4.1		5049.9		+44	-128	2,161,303	808,194		
446	464		281° --	--	8.3	89° 20'	+5.4	-2.9		5051.1		+177	-429	2,161,436	807,893		
447	576		278° 31'	--	6.5	89° 40'	+3.4	-3.1		5050.9	41	+196	-542	2,161,455	807,780	41	T-Inter.
447	794		279° 50'	--	10.4	89° 40'	+4.6	-5.8		5048.2		+288	-740	2,161,547	807,581		
448	1123		278° 16' 05"	--	12.8	--		-12.8		5041.2	TP	+378	-1057	2,161,637	807,264		
448	1123				12.9	270-		-12.9			TP						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
12-1-85		B. Cotcamp		B. SALDIVAR		6834		B.S. B.C.		5		30				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
ARIZONA		Teec Nos Pos-7 1/2'		ARIZ.		Apache.								J. McCallan		
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	
										5041.2				2,161,637	807,264	
	1644		83° 23' 27"	+11.1	2.1	-		+2.1	5043.3		BS	+129	-1639			
	1644				10.3	TH	-8.0	+2.1			BS					
447	1318		81° 25'	-	8.1	-		-8.1		5035.2		-58	+1317	2,161,708	806,942	
450	989		79° 30'	-	10.2	-		-10.2		5033.1		-10	+989	2,161,756	806,614	
451	660		77° 30'	-	9.0	-		-9.0		5034.3		+16	+660	2,161,782	806,285	
452	330		75° 50'	-	5.5	-		-5.5		5037.8		+18	+330	2,161,784	805,955	
453	0				5.1	-		-5.1		5038.2	TP	0	0	2,161,766	805,625	
454	330		251° 15'	+11.1	6.9	-		-6.9		5036.4		-44	-327	2,161,722	805,298	
455	660		249° 45'	-	5.7	-		-5.7		5037.6		-105	-652	2,161,661	804,973	
456	990		248° 10'	-	5.8	TH	+5.0	-0.9		5042.4		-184	-973	2,161,582	804,652	Teec NOS Pos-7 1/2'
457	1320		247° 10'	-	6.8	89° 20'	+15.4	+8.6		5051.9		-268	-1292	2,161,498	804,333	PASTORA Peak-15'
458	1650		246° 25'	-	8.1	89° -	+28.8	+20.7		5064.0		-357	-1611	2,161,409	804,014	
459	1980		246° -	+11.1	8.3	88° 50'	+40.3	+32.0		5075.3		-447	-1930	2,161,324	803,695	
460	2310	2309.4	245° 45'	-	10.0	88° 40'	+53.8	+43.8		5087.1		-525	-2249	2,161,241	803,376	
461	2639	2638.3	245° 30'	-	5.0	88° 40'	+61.4	+56.4		5099.7		-611	-2566	2,161,155	803,059	
461	2675	2674.3	245° 05' 15"	-	4.0	88° 40'	+62.2	+58.2		5101.5		-638	-2577	2,161,128	803,028	
462	2969	2968.0	245° 21' 40"	-	10.7	88° 30'	+77.7	+67.0		5110.3	TP	-695	-2886	2,161,071	802,739	
462	2969				10.8	271° 30'	+77.7	+66.9			TP					
	3956	3955.3	64° 05' 59"	+11.1	5.0	91° 06'	+75.9	+80.9			BS	-1010	-3824			
	3956				5.3	268° 54'	+75.9	+81.2		581.3591.4	BS					

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
12-1-85		B. Cotcamp		B. SALDIVAR		6834		B.S. BC.		75	31				
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
ARIZONA		PASTORA Peak-15'	ARIZ.	APACHE					J. McClellan						
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
									591.4						
463	3630	3629.4	64° 08'	+11.1	10.5	91° -	-63.4	-73.9		5117.5		+925	+3510	2,160,986	802,425
464	3300		- -	-	12.9	91° -	-57.6	-90.5		5120.9		+841	+3191	2,160,902	802,106
465	2970		- -	-	11.0	91° 10'	-60.5	-74.5		5119.9		+757	+2872	2,160,818	801,787
466	2640	2639.1	- -	-	5.0	91° 30'	-69.1	-74.1		5117.3		+673	+2552	2,160,734	801,467
467	2310	2309.0	64° 08'	+11.1	9.9	91° -	-67.2	-77.1		5114.3		+589	+2233	2,160,650	801,148
468	1980	1978.9	- -	-	11.2	91° 54'	-65.6	-76.8		5114.6		+504	+1914	2,160,565	800,829
469	1650	1649.0	- -	-	12.1	92° -	-57.6	-69.7		5121.7		+420	+1595	2,160,481	800,510
470	1320	1319.2	- -	-	8.4	92° -	-46.1	-54.5		5136.9		+336	+1276	2,160,397	800,191
471	990		69° 08'	+11.1	11.9	91° 30'	-25.9	-37.8		5153.6		+252	+957	2,160,313	799,872
472	660		- -	-	6.0	91° 30'	-17.3	-23.3		5168.1		+168	+638	2,160,229	799,553
473	330		- -	-	6.7	91° -	-5.8	-12.5		5178.9		+84	+319	2,160,145	799,234
474	0				5.1	-		-5.1		5186.3	X	0	0	2,160,061	798,915
475	330		244° 05'	+11.1	5.7	89° 10'	+4.8	-0.9		5190.5		-84	-319	2,159,977	798,596
476	660		- -	-	7.2	89° 10'	+9.6	+2.4		5193.8		-169	-638	2,159,892	798,277
477	990		- -	-	8.7	89° 10'	+14.4	+5.7		5197.1		-253	-957	2,159,808	797,958
478	1320		- -	-	10.1	89° 10'	+19.2	+9.1		5200.5		-338	-1276	2,159,723	797,639
479	1650		244° 05'	-	10.4	89° 12'	+23.0	+12.6		5204.0		-422	-1595	2,159,639	797,320
	1421		243° 20' 48"	-	10.3	89° 10'	+20.7	+10.4		5201.8		-381	-1369	2,159,680	797,546
480	1980		244° 05'	-	7.9	89° 10'	+28.8	+20.9		5212.3		-506	-1914	2,159,555	797,001
481	2310		- -	-	10.7	88° 50'	+47.0	+36.3		5227.7		-591	-2233	2,159,470	796,682

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
12-1-85		B. Cotcamp		B. SALDIVAR		6834		BC.		5		32			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
ARIZONA		Pastora Peak-15		ARIZONA		APACHE								J. McCLELLAN	
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
									5191.4						
482	2640	2639.2	244° 06'	+11.1	6.7	88° 38'	+63.0	+56.3		5247.7		-674	-2552	2159.387	796.363
483	2970	2968.8	- -	-	10.1	88° 20'	+80.4	+76.3		5267.7		-758	-2870	2159.303	796.045
484	3300	3298.3	- -	-	9.8	88° 10'	+105.6	+95.8		5287.2		-843	-3189	2159.218	795.726
485	3630	3627.8	- -	-	11.0	88° -	+126.7	+115.7		5307.1		-927	-3507	2159.134	795.408
486	3960	3957.6	244° 06'	+11.1	3.0	88° -	+138.2	+135.2		5326.6		-1011	-3826	2159.050	795.089
487	4290	4286.9	- -	-	7.2	87° 50'	+162.2	+155.0		5346.4		-1095	-4145	2158.966	794.770
488	4620	4616.3	- -	-	11.1	87° 42'	+185.4	+174.3		5365.7		-1179	-4463	2158.882	794.452
489	4950	4946.0	- -	-	6.3	87° 42'	+198.7	+192.4		5383.8		-1263	-4782	2158.798	794.133
490	5280	5275.7	- -	-	5.9	87° 42'	+211.9	+206.0		5397.4		-1348	-5101	2158.713	793.814
491	5606	5601.5	244° 06' 40"	-	9.1	87° 42'	+225.0	+215.9	+215.8	5407.2	TP	-1430	-5416	2158.631	793.499
491	5606				9.4	87° 18'	+225.0	+215.6			TP				
	2967		64° 28' 40"	+11.1	5.6	90° 50'	+43.2	+48.8			BS	-739	-2873		
	2967				5.7	269° 10'	+43.2	+48.9	5456.1		BS				
492	2640		64° 34'		4.9	90° 50'	-38.4	-43.9		5412.8		+654	+2558	2158.546	793.184
493	2310		- -	-	7.9	90° 50'	-33.6	-41.5		5414.6		+572	+2238	2158.464	792.864
494	1980		64° 45'	-	12.7	90° 50'	-28.8	-41.5		5414.6		+484	+1920	2158.376	792.546
495	1650		64° 55'	-	11.9	91° -	-28.8	-40.7		5415.4		+399	+1601	2158.291	792.227
496	1320		65° 05'	-	11.2	91° -	-23.0	-34.2		5421.9		+315	+1282	2158.207	791.908
497	990		65° 25'	-	10.3	90° 40'	-11.5	-21.8		5434.3		+231	+963	2158.123	791.589
498	660		66° 05'	-	5.1	90° 40'	-7.7	-12.8		5443.3		+146	+644	2158.038	791.270

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
12-1-85		B. Cotcamp		B. Saequivar		6834		B.C.		15		33			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
ARIZONA		Pastora Peak-15'		ARIZ.		Apache								J. McClellan	
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
									5456.1						
499	330		67° 15'	+11.1	6.4	90° 10'	-1.0	-7.4		5448.7		+67	+323	2,157,959	790,949
500	0				5.1	-		-5.1		5451.0	TP	0	0	2,157,892	790,626
501	330		251° 40'	--	5.3	-		-5.3		5450.8		-42	-327	2,157,850	790,299
502	660		252° 50'	-	7.8	TH	+3.3	-4.5		5451.6		-70	-657	2,157,822	789,969
503	989		254° 40'	-	8.7	TH	+4.9	-3.8		5452.3		-73	-986	2,157,819	789,640
504	1317		256° 15'	-	9.7	TH	+6.6	-3.1		5453.0		-61	-1316	2,157,831	789,310
505	1644		257° 55'	+11.1	10.3	TH	+8.2	-2.1		5454.0		-28	-1644	2,157,864	788,982
Inter.	1874		258° 10' 29"	-	1.4	-		-1.4		5454.7		-24	-1874	2,157,868	788,752
506	1971		259° 10'	-	11.6	TH	+9.9	-1.7		5454.4		+9	-1971	2,157,901	788,655
507	2301		260° -	--	5.0	-		-5.0		5451.1		+44	-2301	2,157,936	788,325
508	2628		260° 38'	+11.1	13.0	89° 56'	+3.1	-9.9		5446.2		+79	-2627	2,157,971	787,999
509	2956		261° -	--	15.8	89° 56'	+3.4	-12.4		5443.7		+108	-2954	2,158,000	787,672
510	3290		261° 20'	-	9.4	89° 56'	+3.8	-5.6		5450.5		+140	-3287	2,158,032	787,339
511	3615		261° 45'	-	9.3	89° 46'	+14.7	+5.4		5461.5		+180	-3611	2,158,072	787,015
512	3944		262° -	-	8.9	89° 38'	+25.2	+16.3		5472.4		+213	-3938	2,158,105	786,688
513	4274		262° 15'	+11.1	9.6	89° 30'	+37.3	+27.7		5483.8		+250	-4267	2,158,142	786,359
514	4605		262° 25'	-	7.6	89° 26'	+45.5	+37.9		5494.0		+282	-4596	2,158,174	786,030
515	4605 4935		262° 35'	-	4.6	89° 26'	+48.8	+44.2		5500.3		+317	-4925	2,158,209	785,701
516	5263		262° 45' 20"	+11.2	6.5	89° 26'	+52.1	+45.6			TP	+363	-5250	2,158,255	785,376
516	5263				6.8	270° 34'	+52.1	+45.3	45.5	5501.6	TP				




DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
12-1-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		# 5		34			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
ARIZONA		Pastora Peak-15'		ARIZ.		Apache								J. McCLELLAN	
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
										5501.6					
	4287	428.1	84° 55' 24"	+11.2	10.1	88° 50'	-87.3	-77.2	5424.4		BS	+457	-4262		
	4287				10.0	271° 10'	-87.3	-77.3			BS				
517	3960	3959.2	84° 58'	--	5.1	88° 50'	+80.6	+75.5		5499.9		-425	+3936	2,158,287	785,050
518	3630	3629.2	- -	--	4.3	88° 50'	+73.9	+69.6		5494.0		-390	+3608	2,158,322	784,722
519	3300	3299.3	- -	--	8.1	88° 50'	+67.2	+59.1		5483.5		-354	+3280	2,158,358	784,394
520	2970		- -	--	7.4	89° -	+51.8	+44.4		5468.8		-319	+2953	2,158,393	784,067
521	2640		84° 58'	+11.2	5.7	89° 16'	+33.8	+28.1		5452.5		-284	+2625	2,158,428	783,739
522	2310		- -	--	8.3	89° 30'	+20.2	+11.9		5436.3		-248	+2297	2,158,464	783,411
523	1980		- -	--	5.5	89° 50'	+5.8	+0.3		5424.7		-213	+1969	2,158,499	783,083
524	1650		- -	--	12.3	TH	+8.3	-4.1		5420.3		-177	+1640	2,158,535	782,754
525	1320		- -	--	5.9	-	-	-5.9		5418.5		-142	+1312	2,158,570	782,426
526	990		- -	--	7.0	-	-	-7.0		5417.4		-106	+984	2,158,606	782,098
527	1069		85° 54' 08"	+11.2	6.3	-	-	-6.3		5418.1		-132	+1061	2,158,580	782,175
528	660		84° 58'	-	7.2	-	-	-7.2		5417.2		-71	+656	2,158,641	781,770
529	330		- -	--	6.4	-	-	-6.4		5418.0		-35	+328	2,158,677	781,442
530	0		- -	--	5.1	-	-	-5.1		5419.3	TP	0	0	2,158,712	781,114
531	330		264° 58'	+11.2	5.9	TH	+1.7	-4.3		5420.1		+35	-328	2,158,747	780,786
532	660		- -	--	6.5	TH	+3.3	-3.2		5421.2		+71	-656	2,158,783	780,458
533	990		- -	--	7.4	TH	+5.0	-2.5		5421.9		+106	-984	2,158,818	780,130
534	1320		- -	--	8.3	TH	+6.6	-1.7		5422.7		+142	-1312	2,158,854	779,802

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
12-1-85		B. Cotcamp		B. SALDIVAR		6834		B.C.		75		35			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
ARIZONA		Pastora Peak-15'		ARIZ.		Apache								J. McClellan	
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
									5424.4						
534	1650		264° 58'	+11.2	9.0	TH	+8.3	-0.7		5423.7		+177	-1640	2158,889	779,474
535	1980		-	--	11.4	TH	+9.9	-1.5		5422.9		+213	-1969	2158,925	779,145
536	2310		-	--	3.8	-		-3.8		5420.6		+248	-2297	2158,960	778,817
537	2640		265° 11'	--	6.0	-		-6.0		5418.4		+294	-2624	2159,006	778,490
538	2970		265° 28'	--	8.0	-		-8.0		5416.4		+345	-2950	2159,057	778,164
539	3296		265° 54'	--	10.8	-		-10.8		5413.6	TP	+407	-3271	2159,119	777,843
	4611				10.9	270		-10.9			TP				
	4611		97° 50' 47"	+11.2	12.9	89° 30'	-40.2	-27.3			BS	+1505	-4358		
	4611				+13.0	270° 30'	-40.2	-27.2	5386.4		BS				
540	4285		98° 27'	--	12.7	89° 30'	+37.4	+24.7		5411.1		-1441	+4035	2159,183	777,520
541	3956		98° 52'	--	12.1	89° 30'	+34.5	+22.4		5408.8		-1357	+3716	2159,267	777,201
542	3627		99° 05'	--	12.3	89° 30'	+31.7	+19.4		5405.8		-1257	+3402	2159,367	776,887
543	3298		99° 30'	--	12.9	89° 30'	+28.8	+15.9		5402.3		-1166	+3085	2159,458	776,570
544	2970		99° 38'	+11.2	13.2	89° 30'	+25.9	+12.7		5399.1		-1056	+2776	2159,568	776,261
545	2640		-	--	6.9	89° 40'	+15.4	+8.5		5394.9		-939	+2467	2159,685	775,952
546	2310		-	--	8.3	89° 40'	+13.4	+5.1		5391.5		-822	+2159	2159,802	775,644
547	1980		-	--	8.7	89° 40'	+11.5	+2.8		5389.2		-704	+1851	2159,920	775,336
548	1650		99° 38'	--	7.8	89° 40'	+9.6	+1.8		5388.2		-587	+1542	2160,037	775,027
549	1320		-	--	7.3	89° 40'	+7.7	+0.4		5386.8		-469	+1234	2160,155	774,719
550	990		-	--	7.0	89° 40'	+5.8	-1.2		5385.2		-352	+925	2160,272	774,410

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
12-3-85		B. Cotamp		B. SALDIVAR		6834		B.C.		15		36				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
ARIZONA		Pastora Peak - 15'		ARIZ.		APACHE								J. McCLELLAN		
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
									5386.4							
551	660		99° 38'	+11.2	5.9	89° 40'	+3.8	-2.1		5384.3		-235	+617	2160.389	774.102	
552	330		-	--	5.3	89° 40'	+1.9	-3.4		5382.0		-117	+308	2160.507	773.793	
553	0				5.1	-		-5.1		5381.3	X	0	0	2160.624	773.485	
554	330		279° 38'	--	5.6	90° 10'	-1.0	-6.6		5379.8		+117	-308	2160.741	773.177	
555	660		-	+11.2	6.0	90° 10'	-1.9	-7.9		5378.5		+235	-617	2160.859	772.868	
556	990		-	--	6.8	90° 10'	-2.9	-9.7		5376.7		+352	-925	2160.976	772.560	
557	1320		-	--	8.9	90° 10'	-3.8	-12.7		5373.7		+469	-1234	2161.093	772.251	
558	1650		-	--	12.4	90° 10'	-4.8	-17.2		5369.2		+587	-1542	2161.211	771.943	
559	1980		279° 38'	+11.2	10.1	90° 20'	-11.5	-21.6		5364.8		+704	-1851	2161.328	771.634	
560	2310		-	--	12.6	90° 20'	-13.4	-26.0		5360.4		+822	-2159	2161.446	771.326	
561	2640		-	--	7.8	90° 30'	-23.0	-30.8		5355.6		+939	-2467	2161.563	771.018	
562	2970		-	--	9.7	90° 30'	-25.9	-35.6		5350.8		+1056	-2776	2161.680	770.709	
563	3300		-	--	9.4	90° 30'	-28.8	-38.2		5348.2		+1174	-3084	2161.798	770.401	
564	3630		-	--	13.3	90° 20'	-21.1	-34.4		5352.0		+1291	-3393	2161.915	770.092	
565	3960		-	--	7.0	90° 20'	-23.0	-30.0		5356.4		+1408	-3701	2162.032	769.784	
566	4288		279° 38' 03"	--	10.1	90° 14'	-17.5	-27.6	} 27.73	5358.7	TP	+1525	-4008	2162.149	769.477	
566	4288				10.4	269° 46'	-17.5	-27.9				TP				
	4618		99° 48' 54"	+11.2	2.5	TH	-23.1	-20.6	} 20.73 53380		BS	+1656	-4311			
	4618				2.2	TH 270	-23.1	-20.9				BS				
IF	4450		100° 02' 35"	--	1.8	TH	+22.3	+20.5		5358.5		-1612	+4148	2162.193	769.314	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
12-3-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		5		37				
AREA		TOPG MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
ARIZONA		PASTORA Peak-15		ARIZ.		APACHE								J. Mc CLELLAN		
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	X
									5338.0							
567	4290		99° 48'	+11.2	6.4	89° 40'	+25.0	+18.6		5356.6		-1537	+4005	2,162,268	769,171	
568	3760		- -	-	12.9	89° 40'	+23.0	+10.1		5348.1		-1419	+3697	2,162,386	768,863	
569	3630		- -	-	10.1	89° 50'	+10.6	+0.5		5338.5		-1301	+3389	2,162,504	768,555	
570	3300		- -	-	4.7	-	-	-4.7		5333.3		-1183	+3081	2,162,622	768,247	
571	2970		- -	-	6.1	-	-	-6.1		5332.9		-1064	+2773	2,162,741	767,939	PASTORA Peak - 15' ↑
572	2640		99° 48'	+11.2	7.8	-	-	-7.8		5330.2		-946	+2465	2,162,859	767,631	TOR ATIN MESA - 15' ↓
573	2310		- -	-	9.0	-	-	-9.0		5329.0		-828	+2157	2,162,977	767,323	
574	1980		- -	-	8.7	-	-	-8.7		5329.3		-710	+1848	2,163,095	767,014	
575	1650		- -	-	8.0	-	-	-8.0		5330.0		-591	+1540	2,163,214	766,706	
576	1320		99° 48'	-	7.2	-	-	-7.2		5330.8		-473	+1232	2,163,332	766,398	
577	990		- -	-	6.6	-	-	-6.6		5331.4		-355	+924	2,163,450	766,090	
578	660		- -	-	5.9	-	-	-5.9		5332.1		-237	+616	2,163,568	765,782	
579	330		- -	-	5.3	-	-	-5.3		5332.7		-118	+308	2,163,687	765,474	
580	0		- -	-	5.1	-	-	-5.1		5332.9	X	0	0	2,163,805	765,166	
581	330		77° 45'	+11.2	5.6	-	-	-5.6		5332.4		+118	-308	2,163,923	764,858	
582	660		- -	-	6.3	-	-	-6.3		5331.7		+236	-616	2,164,041	764,550	
583	990		- -	-	6.9	-	-	-6.9		5331.1		+354	-925	2,164,159	764,241	
584	1320		- -	-	7.3	-	-	-7.3		5330.7		+472	-1233	2,164,277	763,933	
585	1650		- -	-	6.9	-	-	-6.9		5331.1		+590	-1541	2,164,395	763,625	
586	1980		- -	-	5.8	-	-	-5.8		5332.2		+708	-1849	2,164,513	763,317	



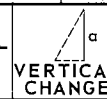
SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
12-3-85		B. Gtcamp		B. SALDIVAR		6834		B.S.		5	38				
AREA		TOPO MAP	STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER							
ARIZONA		TOH ATIN MESA-15'	ARIZ.	APACHE				J. Mc CLELLAN							
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
									5338.0						
587	2310		279° 45'	+11.2	4.7	-		-4.7		5333.3		+ 826	- 2157	2,164,631	763,009
588	2640		- -	-	3.0	-		-3.0		5335.0		+944	-2465	2,164,749	762,701
589	2970		- -	-	10.7	89° 50'	+8.6	-2.1		5335.9		+ 1062	- 2774	2,164,867	762,392
590	3300		- -	-	10.7	89° 50'	+9.6	-1.1		5336.9		+ 1180	- 3082	2,164,985	762,084
591	3636		279° 45'	+11.2	10.3	89° 50'	+10.6	+0.3		5338.3		+ 1298	- 3390	2,165,103	761,776
592	3960		- -	-	10.1	89° 50'	+11.5	+1.4		5339.4		+ 1416	- 3698	2,165,221	761,468
593	4290		- -	-	10.7	89° 50'	+12.5	+1.8		5339.8		+ 1534	- 4006	2,165,339	761,160
594	4620		- -	-	12.4	89° 50'	+13.4	+1.0		5339.0		+ 1652	- 4315	2,165,457	760,851
595	4949		279° 45' 26"	-	8.5	89° 54'	+8.6	+0.1	} 500'	5338.0	TP	+1770	-4622	2,165,575	760,544
595	4949				8.8	270° 06'	+8.6	-0.2				TP			
595	0				+ 5.1	H.		+5.1	} 53431		X	0	0	2,165,575	760,544
Bm	303		46° 57' 40"	+11.2	11.6	-		-11.6			5331.5	Bm	+160	+257	2,165,735
Bm	303				10.1	BH	-1.5	-11.6			Bm.				

Y = 2,165,700 X = 760,850
 U.S.G.S Bm. EL. 5332.0
 1950

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
12-14-85		B. Cotcamp		B. Salvador		6634		B.S.		5	39					
AREA		TOPO MAP		STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER							
ARIZONA		TOM ATIN MESA - 15		ARIZ.	Apache				J. M. (illegible)							
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
Sub-shot For station 595 Azimuth			Plates → (9 grids)							5332.0	K.					K. y-2165.710 x-760.850
Bm	304		0 00 00 (57)	54 34	10.2	BH	+1.5	+11.7	5343.7		BS	-161	-257			Bm. U.S.G.S. 121.53320
Bm	304				+11.7	-		+11.7			BS					* plate angle survey
595	0				5.1	-		-5.1		5338.6	K	0	0	2165.949	760.593	Between 595-682
596	330		232 57 (29052)		5.7	-		-5.7		5338.0		+118	-308	2165.667	760.285	Due to magnetic attraction
597	660		- - (- -)		6.4	-		-6.4		5337.3		+235	-617	2165.784	759.976	
598	990		- - (- -)		6.0	-		-6.0		5337.7		+353	-925	2165.902	759.668	
599	1320		- - (- -)		9.0	TH	+6.6	-2.1		5341.3		+470	-1233	2166.019	759.360	
600	1650		- - (- -)		9.0	TH	+8.3	-0.8		5342.9		+588	-1542	2166.137	759.057	
601	1980		232 56 52		2.5	-	+0.1	-2.4			TP	+705	-1850	2166.254	758.743	
601	1980		(290 51, 26)		12.3	TH	+10.0	-2.3		5341.4	TP					
595			0 00 00													
601	0				+5.25	H.		+5.3	5346.7		K	0	0	2166.254	758.743	
602	330		179 58 (29049)		10.4	-		-10.4		5336.3		+117	-308	2166.371	758.435	
603	660		- - (- -)		7.1	91 -	-11.5	-18.6		5328.1		+235	-617	2166.489	758.126	
604	990		- - (- -)		9.4	91 -	-17.3	-26.7		5320.0		+352	-925	2166.606	757.818	
605	1320		- - (- -)		6.8	91 -	-23.0	-29.8		5316.9		+469	-1234	2166.723	757.509	
606	1650		179 58 (29049)		6.6	90 50	-23.9	-30.5		5316.2		+586	-1542	2166.840	757.201	
607	1980		- - (- -)		8.2	90 40	-23.0	-31.2		5315.5		+704	-1651	2166.958	756.892	
608	2310		- - (- -)		4.8	90 40	-26.8	-31.6		5315.1		+821	-2159	2167.075	756.584	
609	2640		- - (- -)		9.4	90 30	-22.9	-32.3		5314.4		+938	-2468	2167.192	756.275	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
12-14-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		5		40							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
ARIZONA		TOH ATIN MESA - 15'		ARIZ.		Apache								J. McClellan					
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				
			plates 7 90.05						5346.7										
616	2970		179 58 (290 49)		6.5	90° 30'	-25.7	-32.2		5314.5		+1055	-2776	2,167,309	755967				
617	2911		179 37, 17 (290 28 43)		5.7	90° 30'	-25.9	-31.6		5315.1		+1046	-2802	2,167,300	755941				
611	3300		179 58 (290 49)		10.3	90 20	-19.0	-29.3		5317.4		+1173	-3085	2,167,427	755658				
612	3630		- - (- -)		6.4	90 20	-20.8	-27.2		5319.5		+1290	-3393	2,167,544	755350				
613	3960		- - (- -)		10.8	90 14	-15.8	-26.6		5320.1		+1407	-3702	2,167,661	755041				
614	4290		- - (- -)		8.2	90 14	-17.1	-25.9		5320.8		+1525	-4010	2,167,779	754733				
615	4620		- - (- -)		6.8	90 14	-18.4	-25.2		5321.5		+1642	-4316	2,167,896	754425				
616	4950		- - (- -)		4.8	90 14	-19.7	-24.5		5322.2		+1759	-4627	2,168,013	754116				
617	5278		179 59 17		9.3	90 10	-14.8	-24.1			TP	+1878	-4933	2,168,132	753810				
617	5278		(290 59 43)		9.6	269 50	-14.8	-24.4	-21.2	5322.5	TP								
601			0 00 00																
617	0				+5.25	Hi		+5.3	5327.8		X	0	0	2,168,132	753810				
618	330		179 51 (290 42)		4.2	-		-4.2		5323.6		+117	-309	2,168,249	753501				
619	660		- - (- -)		6.9	TH	+3.3	-3.6		5324.2		+233	-617	2,168,365	753193				
620	990		- - (- -)		3.4	-		-3.4		5324.4		+350	-926	2,168,482	752884				
621	1320		179 51 (290 42)		4.2	-		-4.2		5323.6		+467	-1235	2,168,599	752575				
622	1650		- - (- -)		4.7	-	+0.1	-4.6		5323.2		+583	-1543	2,168,715	752267				
623	1980		- - (- -)		5.2	-	+0.1	-5.1		5322.7		+700	-1852	2,168,832	751958				
624	2308		179 38 (290 29)		4.5	-	+0.1	-4.4		5323.4		+808	-2162	2,168,940	751648				
625	2636		178 50 (289 41)		8.1	89 50	+7.8	-0.3		5327.5		+888	-2482	2,169,020	751328				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
12-14-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		5	41						
AREA		TOPO MAP	STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER									
ARIZONA		TOH ATIN MESA-15	ARIZ.	Maricopa				J. McCLURE									
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		
			plates → (grids)						5327.8								
626	2963		177° 55' (288° 46')		4.9	89° 50'	+ 8.8	+ 3.9		5331.7		+ 953	- 2805	2,169,085	751,005		
627	3288		176° 55' (287° 46')		7.6	89° 44'	+ 15.5	+ 7.9		5335.7		+ 1003	- 3131	2,169,135	750,679		
628	3611		175° 48' (286° 39')		4.9	89° 44'	+ 17.1	+ 12.2		5340.0		+ 1035	- 3460	2,169,167	750,350		
629	3932		174° 33' 40'		7.2	89° 40'	+ 23.2	+ 16.0	} +5.9		TP	+ 1045	- 3791	2,169,177	750,019		
629	3932		(285° 24' 23')		7.5	270° 20'	+ 23.2	+ 15.7		5343.7	TP						
617			0 00 00														
629	0				+ 5.15	41.		+ 5.2	} 5348.9		TP	0	0	2,169,177	750,019		
630	330		166° 30' (271° 54')		6.5	89° -	+ 5.8	- 0.7		5348.2		+ 11	- 330	2,169,188	749,689		
631	660		- - (- -)		7.8	89° -	+ 11.5	+ 3.7	5352.6		+ 22	- 660	2,169,199	749,359			
632	990		- - (- -)		9.4	89° -	+ 17.3	+ 7.9	5356.8		+ 33	- 989	2,169,210	749,030			
633	1320		166° 30' (271° 54')		10.4	89° -	+ 23.1	+ 12.7	5361.6		+ 44	- 1319	2,169,221	748,700			
634	1650		- - (- -)		10.8	89° -	+ 28.9	+ 18.1	5367.0		+ 55	- 1649	2,169,232	748,370			
635	1980		- - (- -)		10.6	89° -	+ 34.6	+ 23.8	5372.7		+ 66	- 1979	2,169,243	748,040			
636	2310		- - (- -)		11.0	89° -	+ 40.4	+ 29.4	5378.3		+ 77	- 2309	2,169,254	747,710			
637	2640		- - (- -)		11.2	89° -	+ 46.2	+ 35.0	5383.9		+ 88	- 2639	2,169,265	747,380			
638	2970		166° 30' (271° 54')		11.8	89° -	+ 52.0	+ 40.2	5389.1		+ 98	- 2968	2,169,275	747,051			
639	3300		- - (- -)		9.6	89° 06'	+ 52.1	+ 43.1	5392.0		+ 109	- 3298	2,169,286	746,721			
TP	3478		166° 31' 56"		11.3	89° 06'	+ 54.9	+ 43.6	} +43.5		TP	+ 118	- 3476	2,169,295	746,543		
TP	3478		(271° 56' 19")		11.6	270° 54'	+ 54.9	+ 43.3		5392.4	TP						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
12-14-85		B. Cotamp		B. Sawivar		6834		B.S.		5		42			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
ARIZONA		TOL ATIN MESA-15		ARIZ.		Apache								J. McClellan	
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
			PLATES → (GR. 05)												
629			0 00 00							5392.4					
7 ²	0				+5.05	4.		+5.1	5397.5		π	0	0	2,169,295	746,543
640	153		180 03 (271 59)		6.0	89 20	+1.8	-4.2		5393.3		+5	-153	2,169,300	746,390
641	483		- - (- -)		8.6	89 20	+5.6	-3.0		5394.5		+17	-483	2,169,312	746,060
642	813		- - (- -)		9.5	89 20	+9.5	-0.0		5397.5		+28	-813	2,169,323	745,730
643	1143		- - (- -)		8.9	89 20	+13.3	+4.4		5401.9		+40	-1143	2,169,335	745,401
644	1473		180 03 (271 59)		8.1	89 20	+17.2	+9.1		5406.6		+51	-1473	2,169,346	745,071
645	1803		- - (- -)		7.2	89 20	+21.0	+13.8		5411.3		+62	-1803	2,169,357	744,741
646	2133		- - (- -)		6.5	89 20	+24.9	+18.4		5415.9		+74	-2133	2,169,369	744,411
647	2463		- - (- -)		7.1	89 20	+28.8	+21.7		5419.2		+85	-2463	2,169,380	744,081
648	2794		180 05 02		11.5	89 20	+32.7	+21.2				+99	-2792	2,169,394	743,751
648	2794		(272 01 21)		11.8	270 40	+32.7	+20.9	+21.13	5418.6	π π				
7 ²			0 00 00												
648	0				+5.15	4.		+5.2	5423.8		π	0	0	2,169,394	743,751
649	330		179 54 (271 55)		6.4	89 50	+1.0	-5.4		5418.4		+11	-330	2,169,405	743,421
650	660		- - (- -)		8.0	89 50	+1.9	-6.1		5417.7		+22	-660	2,169,416	743,091
651	990		- - (- -)		9.1	89 50	+2.9	-6.2		5417.6		+33	-989	2,169,427	742,762
652	1320		179 54 (271 55)		8.9	89 50	+3.9	-5.0		5418.8		+44	-1319	2,169,438	742,432
653	1650		- - (- -)		8.1	89 50	+4.9	-3.2		5420.6		+55	-1649	2,169,449	742,102
654	1980		- - (- -)		7.3	89 50	+5.8	-1.5		5422.3		+66	-1979	2,169,460	741,772

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
12-14-85		B. Stamp		B. Saldivar		6834		BC		5	43						
AREA		TOPO MAR		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
ARIZONA		TOM ATIN MESA-15		ARIZ.	Apache					J. McCLELLAN							
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		
			PLATES → (92.00)						5423.8								
655	2310		179° 54' (271° 55')		5.7	89° 50'	+6.8	+1.1		5424.9		+77	-2309	2169.471	741.442		
656	2640		-- (--)		10.3	89° 40'	+15.5	+5.2		5429.0		+88	-2639	2169.482	741.112		
657	2970		-- (--)		9.0	89° 40'	+17.5	+8.5		5432.3		+99	-2968	2169.493	740.783		
658	3300		-- (--)		7.3	89° 40'	+19.4	+12.1		5435.9		+110	-3298	2169.504	740.453		
659	3630		-- (--)		6.1	89° 40'	+21.4	+15.3		5439.1		+121	-3628	2169.515	740.123		
660	3959		179° 53' 47"		8.4	89° 40'	+23.4	+15.0			TP	+133	-3957	2169.527	739.794		
660	3959		(271° 55' 08")		8.7	270° 20'	+23.4	+14.7	5438.7		TP						
648			0° 00' 00"														
660	0				+5.35	H.		+5.4	5444.1		TP	0	0	2169.527	739.794		
661	330		180° 04' (271° 59')		4.9	90° 16'	-1.5	-6.4		5437.7		+11	-330	2169.538	739.464		
662	660		-- (--)		4.8	90° 16'	-3.1	-7.9		5436.2		+23	-660	2169.550	739.134		
663	990		-- (--)		4.6	90° 16'	-4.6	-9.2		5434.9		+34	-989	2169.561	738.805		
664	1320		-- (--)		4.5	90° 16'	-6.1	-10.6		5433.5		+46	-1319	2169.573	738.475		
665	1650		180° 04' (271° 59')		5.2	90° 16'	-7.6	-12.8		5431.3		+57	-1649	2169.584	738.145		
666	1980		-- (--)		7.2	90° 16'	-9.1	-16.3		5427.8		+69	-1979	2169.596	737.815		
667	2310		-- (--)		9.3	90° 16'	-10.6	-19.9		5424.2		+80	-2309	2169.607	737.485		
668	2640		-- (--)		11.2	90° 16'	-12.1	-23.3		5420.8		+91	-2638	2169.618	737.156		
669	2970		-- (--)		11.4	90° 16'	-13.6	-25.0		5419.1		+103	-2968	2169.630	736.826		
670	3300		-- (--)		9.4	90° 16'	-15.1	-24.5		5419.6		+114	-3298	2169.641	736.496		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
12-14-85		B. Gtcamp		B. SALDIVAR		6834		B.P.		5		44			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
ARIZONA		T6H ATIN MESA -15		ARIZ.		APACHE								J. Mc CLELLAN	
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
			PLATES → (GRIDS)						5444.1						
671	3629		180° 06' 36"		8.2	90° 16'	-16.6	-24.8	5447.3		TP	+128	-3627	2169,655	736,167
671	3629		(272° 01' 44")		12.2	269° 48'	-12.4	-24.6			5419.4	TP			
660			0° 00' 00"												
671	0				+5.3	H.		+5.3	5424.7		K	0	0	2169,655	736,167
672	330		179° 57' (271° 59')		6.0	-		-6.0		5418.7		+11	-330	2169,666	735,837
Bm	1443		136° 16' 54" (222° 18' 38")		3.1	TH	+7.2	+4.1		5428.8	Bm	-1067	-971	2168,588	735,196
673	660		179° 57' (271° 59')		6.8	-		-6.8		5417.9		+23	-660	2169,678	735,507
674	990		- - (- -)		7.3	-		-7.3		5417.4		+34	-989	2169,689	735,178
675	1320		- - (- -)		8.0	-		-8.0		5416.7		+46	-1319	2169,701	734,848
676	1650		- - (- -)		8.1	-	+0.1	-8.0		5416.7		+57	-1649	2169,712	734,518
677	1980		179° 57' (271° 59')		5.7	-	+0.1	-5.6		5419.1		+69	-1979	2169,724	734,188
678	2310		- - (- -)		8.3	89° 50'	+6.8	-1.5		5423.2		+80	-2309	2169,735	733,858
679	2640		- - (- -)		7.3	89° 50'	+7.8	+0.5		5425.2		+91	-2638	2169,746	733,529
680	2970		- - (- -)		7.2	89° 50'	+8.8	+1.6		5426.3		+103	-2968	2169,758	733,199
681	3300		- - (- -)		8.1	89° 50'	+9.8	+1.7		5426.4		+114	-3298	2169,769	732,869
682	3631		179° 53' 53"		8.4	89° 50'	+10.8	+2.4	2.6		TP	+122	-3629	2169,777	732,538
682	3631		(271° 55' 37")		8.1	270° 16'	+10.8	+2.7			5427.3	TP			
	3302		79° 30' 38"	+12.54	9.0	-		+9.0	5436.3		BS	+116	-3300		BACK to magnetics
683	2970		79° 30'	--	8.0	-		-8.0		5428.3		-104	+2968	2169,789	732,206
684	2640		--	--	7.3	-		-7.3		5429.0		-92	+2638	2169,801	731,876

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY			LINE NO.		PAGE					
12-6-85		B. Cotamp		B. SALDIVAR		6834		V. H.			5		45					
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER				
ARIZONA		TOM ATIN MESA-15		ARIZ.		Apache								J. McClellan				
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			
685	2310		79° 30'	+12.5	6.6	-	-6.6	5436.3	5429.7			-81	+2309	2169.812	731547			
686	1980		79° 30'	--	7.0	-	-7.0		5429.3			-69	+1979	2169.824	731217			
687	1650		- -	--	7.6	-	-7.6		5428.7			-58	+1649	2169.835	730887			
688	1320		- -	--	8.3	-	-8.3		5428.0			-46	+1319	2169.847	730557			
689	990		- -	--	9.0	-	-9.0		5427.3			-35	+989	2169.858	730227			
690	660		- -	--	9.3	-	-9.3		5427.0			-23	+660	2169.870	729898			
691	525		81° 40' 22"	+12.5	8.4	-	-8.4		5427.9			-38	+524	2169.855	729762			
691	330		79° 30'	--	7.4	-	-7.4		5428.9			-12	+330	2169.881	729568			
692	0				5.1	-	-5.1		5431.2		TP	0	0	2169.893	729238			
693	330		259° 31'	+12.5	4.9	-	-4.9		5431.4			+12	-350	2169.905	728908			
694	660		- -	--	6.8	-	-6.8		5429.5			+23	-660	2169.916	728578			
695	990		- -	--	8.6	-	-8.6		5427.7			+35	-989	2169.928	728249			
696	1320		259° 31'	+12.5	10.8	-	-10.8		5425.5			+46	-1319	2169.939	727919			
697	1650		- -	--	12.7	-	-12.7		5423.6			+58	-1649	2169.951	727589			
698	1980		- -	--	5.1	BH	-9.9	-15.0	5421.3			+70	-1979	2169.963	727259			
699	2310		- -	--	7.1	BH	-11.6	-18.7	5417.6			+81	-2309	2169.974	726929			
700	2640		259° 31'	-	9.6	BH	-13.2	-22.8	5413.5			+93	-2638	2169.986	726600			
701	2970		- -	-	12.0	BH	-14.9	-26.9	5409.4			+105	-2968	2169.998	726270			
702	3300		259° 30'	-	14.3	BH	-16.5	-30.8			TP	+115	-3298	2170.008	725940			
702	3300				14.2	BH	-16.5	-30.7	5405.6		TP							

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
12-6-85		B. Cotcamp		B. SALDIVAR		6834		V.H.		5		46				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
ARIZONA		TOMATIN MESA-15'		ARIZ.		Apache								J. McLELLAN		
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	
										5405.6						
	2640		79° 42' 04"	+12.5	9.1	BH	+13.2	+22.3	5427.9		BS	+101	-2638			
	2640				9.0	BH ²⁰	+13.2	+22.2			BS					
1F	2407		80° 07' 58"	-	11.3	BH	-12.0	-23.3		5404.6		-111	+2404	2169.998	725706	
703	2310		79° 39'	-	12.1	BH	-11.6	-23.7		5404.2		-87	+2308	2170.022	725610	
704	1980		-	-	11.8	BH	-9.9	-21.7		5406.2		-74	+1979	2170.035	725281	
705	1650		-	-	11.4	BH	-8.3	-19.7		5408.2		-62	+1649	2170.047	724951	
706	1320		79° 39'	+12.5	11.0	BH	-6.6	-17.6		5410.3		-50	+1319	2170.059	724621	
707	990		-	-	9.2	BH	-5.0	-14.2		5413.7		-37	+989	2170.072	724291	
708	660		-	-	9.0	-		-9.0		5418.9		-25	+660	2170.084	723962	
709	330		-	-	5.3	-		-5.3		5422.6		-12	+330	2170.097	723632	
710	0				5.1	-		-5.1		5422.8	TP	0	0	2170.109	723302	
711	330		259° 40'	+12.5	8.9	-		-8.9		5419.0		+12	-330	2170.121	722972	
712	660		-	-	5.1	91-	-11.5	-16.6		5411.3		+25	-660	2170.134	722642	
713	990		-	-	11.9	91-	-17.3	-29.2		5378.7		+37	-989	2170.146	722313	
714	1320				11.											
TP	1198		259° 37' 16"	+12.5	11.5	91° 20'	-27.9	-39.4	5388.5		TP	+44	-1197	2170.153	722105	
TP	1198				11.6	268° 40'	-27.9	-39.5			TP					
	4082		79° 39' 33"	+12.2	6.9	89° 10'	-59.4	-52.5	5336.0		BS	+132	-4079			
	4082				6.8	276° 50'	-59.4	-52.6			BS					

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
12-6-85		B. Cotcamp		B. Salovar		6834		V. #.		# 5		47							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
ARIZONA		TOM ATIN MESA-15		ARIZ.		APACHE								J Mc CLELLAN					
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				
									5336.0										
714	3959		79 38	+122	8.4	89 12	+55.3	+46.9		5382.9		-127	+3957	2170,158	721983				
715	3630		- -	-	9.9	89 20	+42.2	+32.3		5368.3		-116	+3628	2170,169	721654				
716	3300		- -	-	7.4	89 30	+28.8	+21.4		5357.4		-106	+3298	2170,179	721324				
717	2970		- -	-	11.0	89 30	+25.9	+14.9		5350.9		-95	+2968	2170,190	720292				
718	2640		79 38	+122	11.6	89 30	+23.0	+11.4		5347.4		-84	+2639	2170,201	720665				
719	2310		- -	-	12.5	89 30	+20.2	+7.7		5343.7		-74	+2309	2170,211	720335				
720	1980		- -	-	13.1	89 30	+17.3	+4.2		5340.2		-63	+1979	2170,222	720005				
721	1650		- -	-	7.6	TH	+8.3	+0.7		5336.7		-53	+1649	2170,232	719675				
722	1320		79 38	+122	8.4	TH	+6.6	-1.8		5334.2		-42	+1319	2170,243	719345				
723	990		- -	-	7.7	TH	+5.0	-2.7		5333.3		-32	+989	2170,253	719015				
724	660		- -	-	6.6	TH	+3.3	-3.3		5332.7		-21	+660	2170,264	718686				
725	330		- -	-	5.9	TH	+1.7	-4.2		5331.8		-11	+330	2170,274	718356				
1/4	192		85 24 44	-	3.7	-	-	-3.7		5332.3	1/4	-25	+190	2170,260	718216				
726	0		- -	-	5.1	-	-	-5.1		5330.9	X	0	0	2170,285	718026				
727	330		259 39	+122	5.6	-	-	-5.6		5330.4		+11	-330	2170,296	717696				
728	660		- -	-	6.0	-	-	-6.0		5330.0		+21	-660	2170,306	717366				
729	990		- -	-	6.9	-	-	-6.9		5329.1		+32	-989	2170,317	717037				
730	1320		- -	-	8.1	-	-	-8.1		5327.9		+43	-1319	2170,328	716707				
731	1650		- -	-	9.4	-	-	-9.4		5326.6		+53	-1649	2170,338	716377				
732	1980		- -	-	11.2	-	-	-11.2		5324.8		+64	-1979	2170,349	716047				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
12-6-85		B. Cotcamp		B. SALDIVAR		6834		V.H.		5		48							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
ARIZONIA		TOM ATIN MESA - 15		ARIZONA		APACHE								J. McClellan					
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				
									5336.0										
733	2310		259 39	+12.2	12.9	-		-12.9		5323.1		+75	-2309	2,170,360	715 717				
734	2640		- -	-	3.2	BH	-13.2	-16.4		5319.6		+85	-2639	2,170,370	715 387				
735	2970		- -	-	6.8	BH	-14.9	-21.7		5314.3		+96	-2968	2,170,381	715 058				
736	3300		259 39 06	-	13.7	90 14	-13.4	-27.1		5308.9	TP	+107	-3298	2,170,392	714,728				
736	3300				13.8	269 46	-13.4	-27.2			TP								
	2312		79 40 48	+12.2	1.2	-		+1.2	5310.1		BS	+76	-2311						
	2312				1.1	270 -		+1.1			BS								
737	1980		79 41	-	5.5	-		-5.5		5304.6		-65	+1979	2,170,403	714 396				
738	1650		- -	-	9.3	-		-9.3		5300.8		-64	+1649	2,170,414	714 066				
739	1507		86 23 10	-	9.7	-		-9.7		5300.4		-66	+1505	2,170,400	713 922				
739	1320		79 41	-	10.3	-		-10.3		5299.8		-43	+1319	2,170,425	713 736				
740	990		- -	-	11.0	-		-11.0		5299.1		-33	+989	2,170,435	713 406				
741	660		- -	-	11.9	-		-11.9		5298.2		-22	+660	2,170,446	713 077				
742	330		- -	-	11.5	-		-11.5		5298.6		-11	+330	2,170,457	712 747				
743	.0				5.1	-		-5.1		5305.0	X	0	0	2,170,468	712,417				
744	330		259 40	+12.2	6.9	87 10	+16.3	+9.4		5319.5		+11	-330	2,170,479	712 087				
745	660	659.2	- -	-	4.7	87 10	+32.6	+28.4		5338.5		+22	-660	2,170,490	711 757				
746	990	988.5	- -	-	6.6	86 50	+54.7	+48.7		5358.8		+32	-989	2,170,500	711 428				
747	1320	1318.0	- -	-	4.7	86 50	+72.9	+68.2		5378.3		+43	-1319	2,170,511	711 098				
748	1650	1647.5	- -	-	5.9	86 50	+91.1	+85.2		5395.3		+54	-1649	2,170,522	710 768				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
12-6-85		B. Cotcamp		B. SALDIVAR		6834		V.H.		# 5		49							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
ARIZONA		TOH ATIN MESA-15		ARIZONA		APACHE								J. Mc CLELLAN					
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				
									5310.1										
749	1980	177.0	259° 40'	+12.2	11.2	86° 50'	+109.4	+98.2		5408.3		+65	-1979	2170,533	710,438				
TP	2139	2135.8	259° 43' 43"	-	14.4	86° 52'	+116.9	+102.5			TP	+72	-2135	2170,540	710,282				
TP	2139				14.3	273° 08'	+116.9	+102.6		5412.7	TP								
	3144		79° 42' 36"	--	+14.9	89° 43'	-15.5	-0.6		5412.1	BS	+105	-3142						
	3144				+14.8	270° 17'	-15.5	-0.7			BS								
750	2971		79° 42'	+12.2	12.2	89° 40'	+17.3	+5.1		5417.2		-99	+2969	2170,546	710,109				
751	2640		- -	--	5.8	89° 40'	+15.4	+9.6		5421.7		-88	+2639	2170,557	709,779				
752	2310		- -	--	10.0	89° 30'	+20.2	+10.2		5422.3		-77	+2309	2170,568	709,449				
753	1980		- -	--	10.8	89° 30'	+17.3	+6.5		5418.6		-66	+1979	2170,579	709,119				
754	1650		79° 42'	+12.2	12.7	89° 30'	+14.4	+1.7		5413.8		-55	+1649	2170,590	708,789				
755	1320		- -	--	12.9	89° 30'	+11.5	-1.4		5410.7		-44	+1319	2170,601	708,459				
756	990		- -	--	11.8	89° 30'	+8.6	-3.2		5408.9		-33	+989	2170,612	708,129				
TP	766		81° 03' 16"	-	9.9	89° 30'	+6.7	-3.2		5408.9		-43	+765	2170,602	707,905				
757	660		79° 42'	-	9.3	89° 30'	+5.8	-3.5		5408.6		-22	+660	2170,623	707,800				
758	330		- -	--	6.9	89° 30'	+2.9	-4.0		5408.1		-11	+330	2170,634	707,470				
759	0		- -	--	5.1	-		-5.1		5407.0	X	0	0	2170,645	707,140				
760	330		259° 49'	+12.2	6.8	90° 30'	-2.9	-9.7		5402.4		+12	-330	2170,657	706,810				
761	660		- -	-	11.0	90° 30'	-5.8	-16.8		5395.3		+23	-660	2170,668	706,480				
762	990		- -	-	12.0	90° 42'	-12.1	-24.1		5388.0		+35	-989	2170,680	706,151				
763	1320		- -	-	10.0	90° 50'	-19.2	-29.2		5382.9		+46	-1319	2170,691	705,821				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
12-6-85		B. Cotcamp		B. SALDIVAR		6834		v. 4.		35		50							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
ARIZONA		TDM ATIN MESA - 15		ARIZ.		Apache								J. McCLELLAN					
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				
									5412.1										
764	1650		259 49	+12.2	11.2	90° 40'	-19.2	-30.4		5381.7		+58	-1649	2,170,703	705 491				
765	1980		- -	--	7.9	90° 40'	-23.0	-30.9		5381.2		+70	-1979	2,170,715	705 161				
766	2310		- -	--	5.0	90° 40'	-26.9	-31.9		5380.2		+81	-2309	2,170,726	704 821				
767	2640		- -	--	9.4	90° 30'	-23.0	-32.4		5379.7		+93	-2638	2,170,738	704 502				
768	2970		259 49	-	7.4	90° 30'	-25.9	-33.3		5378.8		+105	-2968	2,170,750	704 172				
769	3300		- -	--	5.3	90° 30'	-28.8	-34.1		5378.0		+116	-3298	2,170,761	703 842				
770	3630		- -	--	9.5	90° 24'	-25.3	-34.8		5377.3		+128	-3628	2,170,773	703 512				
771	3960		- -	--	9.1	90° 24'	-27.6	-36.7		5375.4		+139	-3958	2,170,784	703 182				
772	4291		259 49 26	-	10.4	90° 24'	-30.0	-40.4	-10.3	5371.8	TP TP	+152	-4288	2,170,797	702 852				
772	4291				10.1	269° 36'	-30.0	-40.1											
	3907		66° 41' 18"	+12.2	5.4	-		+5.4	-5.3 5377.1		BS BS	-753	-3834						
	3907				+5.1	270° -		+5.1											
773	3586		65° 30'	--	8.2	-		-8.2		5368.9		+764	+3504	2,170,808	702 522				
774	3269		63° 55'	-	11.1	-		-11.1		5366.0		+784	+3174	2,170,828	702 192				
775	2949		62° 25'	-	5.8	90° 10'	-8.6	-14.4		5362.7		+782	+2843	2,170,826	701 861				
776	2628		60° 50'	-	9.7	90° 10'	-7.6	-17.3		5359.8		+767	+2514	2,170,811	701 532				
777	2303		59° 20'	-	12.0	90° 10'	-6.7	-18.7		5358.4		+729	+2184	2,170,773	701 202				
778	1977		57° 55'	-	12.1	90° 10'	-5.8	-17.9		5359.2		+672	+1859	2,170,716	700 877				
779	1649		56° 20'	-	12.3	90° 10'	-4.8	-17.1		5360.0		+603	+1535	2,170,647	700 553				
780	1320		55° 15'	-	8.7	90° 20'	-7.7	-16.4		5360.7		+506	+1219	2,170,550	700 237				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
12-6-85		B. Cotamp		B. SALDIVAR		6834		B.S.		5		52							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
ARIZONA		WALKER CREEK RESERVE		ARIZ.		APACHE								J. McCLELLAN					
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				
									5418.4										
	4199		53° 56' 08"	+12.2	9.7	90° 50'	+61.1	+70.8	5489.2		BS	-1699	-3840						
	4199				+9.6	269° 10'	+61.1	+70.7			BS								
799	3870		53° 55'	-	5.9	90° 50'	-56.3	-62.2		5427.0		+1567	+3539	2168.027	694.499				
800	3540		- -	-	5.4	90° 50'	-51.5	-56.9		5432.3		+1433	+3237	2167.893	694.197				
801	3210		- -	-	8.5	90° 50'	-46.7	-55.2		5434.0		+1300	+2935	2167.760	693.895				
802	2880		- -	-	12.4	90° 50'	-41.9	-54.3		5434.9		+1166	+2633	2167.626	693.593				
803	2550		53° 55'	+12.2	9.4	91° -	-44.5	-53.9		5435.3		+1032	+2332	2167.492	693.292				
804	2220		- -	-	12.0	91° 04'	-41.3	-53.3		5435.9		+899	+2030	2167.359	692.990				
805	1890		- -	-	17.2	91° 04'	-35.2	-52.4		5436.8		+765	+1728	2167.225	692.688				
806	1560		- -	-	16.7	91° 04'	-29.0	-45.7		5443.5		+632	+1426	2167.092	692.386				
807	1230		53° 55'	+12.2	10.0	91° 04'	-22.9	-32.9		5456.3		+498	+1125	2166.958	692.085				
808	900		- -	-	7.1	90° 50'	-13.1	-20.2		5469.0		+364	+823	2166.824	691.783				
809	570		- -	-	9.7	90° 10'	-1.7	-11.4		5477.8		+231	+521	2166.691	691.481				
810	240		- -	-	6.0	90° 10'	-0.7	-6.7		5482.5		+97	+219	2166.557	691.179				
π	0		0		5.1	-		-5.1		5484.1	π	0	0	2166.460	690.960				
811	90		233° 57'	+12.2	5.9	-		-5.9		5483.3		-36	-82	2166.424	690.878				
812	470		- -	-	8.9	-		-8.9		5480.3		-170	-324	2166.290	690.576				
813	750		- -	-	12.5	BH	-3.8	-8.8		5472.9		-303	-686	2166.157	690.274				
814	1080		- -	-	9.0	91° -	-18.8	-21.8		5461.4		-437	-988	2166.023	689.972				
815	1410		- -	-	15.7	91° 08'	-27.9	-43.6		5445.6		-570	-1290	2165.890	689.670				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
12-6-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		5		53							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
ARIZONA		Walker Lake Reservoir-7 1/2		ARIZ.		Apache								J. McCLELLAN					
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				
									5489.2										
816	1740		233 57	+12.2	23.5	91° 08'	-34.4	-57.9		5481.3		-704	-1591	2165.756	689369				
817	2070		- -	-	24.2	91° 08'	-40.9	-65.1		5424.1		-837	-1893	2165.623	689067				
818	2400		- -	-	18.3	91° 08'	-47.5	-65.8		5423.4		-970	-2195	2165.490	688765				
819	2730		- -	-	10.8	91° 08'	-54.0	-64.8		5424.4		-1104	-2497	2165.356	688463				
820	3060		233 57	-	10.0	91 -	-53.4	-63.4		5425.8		-1237	-2799	2165.223	688161				
821	3390		- - -	-	4.0	91 -	-59.2	-63.2		5426.0		-1371	-3101	2165.089	687859				
822	3722	3721.4	233 59 01	+11.9	0.9	91° -	-65.0	-65.9		5423.3	TP	-1521	-3397	2164.939	687563				
822	3722				1.0	269 -	-65.0	-66.0			TP								
	4623	4621.4	54 12 21	-	+6.4	88 30	-121.0	-114.6			BS	-1872	-4225						
	4623				+6.7	271 30	-121.0	-114.3	-114.4353089		BS								
823	4290	4288.5	54 11	+11.9	4.7	88 30	+112.3	+107.6		5416.5		+1739	+3920	2164.806	687258				
824	3960	3958.6	- -	-	6.2	88 30	+103.7	+97.5		5406.4		+1605	+3619	2164.672	686957				
825	3630	3628.8	- -	-	8.6	88 30	+95.0	+86.4		5395.3		+1471	+3317	2164.538	686655				
826	3300	3298.9	- -	-	11.3	88 30	+86.4	+75.1		5384.0		+1337	+3016	2164.404	686354				
827	2970	2969.2	54 11	+11.9	5.1	88 40	+69.1	+64.0		5372.9		+1204	+2714	2164.271	686052				
828	2640	2639.3	- -	-	8.6	88 40	+61.4	+52.8		5361.7		+1070	+2413	2164.137	685751				
829	2310	2309.4	- -	-	12.3	88 40	+53.8	+41.5		5350.4		+936	+2111	2164.003	685449				
830	1980		- -	-	9.0	88 50	+40.3	+31.3		5340.2		+803	+1810	2163.870	685148				
831	1650		- -	-	8.7	88 50	+33.6	+24.9		5333.8		+669	+1508	2163.736	684846				
832	1320		- -	-	8.0	88 50	+26.9	+18.9		5327.8		+535	+1207	2163.602	684545				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE								
12-6-85		B. Cotcamp		B. SALDIVAR		6834		B.S.		5	55								
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER										
ARIZONA		Walker Creek Reservoir-74	ARIZ.	Apache					J. Mc CRELAN										
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				
										5190.6									
	2970		53 59 03	+11.9	13.7	89° 10'	-43.2	-29.5	5161.1		BS	-1213	-2711						
	2976				13.8	270° 50'	-43.2	-29.4			BS								
851	2640		54 -	-	9.7	89° 20'	+30.7	+21.0		5182.1		+1078	+2410	2161.062	678815				
852	2310		- -	-	11.0	89° 20'	+26.9	+15.9		5177.0		+943	+2109	2160.927	678514				
853	1980		- -	-	12.1	89° 20'	+23.0	+10.9		5172.0		+808	+1807	2160.792	678212				
854	1650		- -	-	12.9	89° 20'	+19.2	+6.3		5167.4		+674	+1506	2160.658	677911				
855	1320		54 -	+11.9	11.9	89° 20'	+15.4	+3.5		5164.6		+539	+1205	2160.523	677610				
856	990		- -	-	9.2	89° 20'	+11.5	+2.3		5163.4		+404	+904	2160.388	677309				
857	660		- -	-	6.1	89° 20'	+7.7	+1.6		5162.7		+270	+602	2160.254	677007				
858	330		- -	-	5.7	89° -	+5.8	+0.1		5161.2		+135	+301	2160.119	676706				
859	0				5.1	-		-5.1		5156.0	X	0	0	2159.984	676405				
860	330		234 02	+11.9	6.5	91° 20'	-7.7	-14.2		5146.9		-135	-301	2159.849	676104				
861	660		- -	-	10.0	91° 20'	-15.4	-25.4		5135.7		-269	-602	2159.715	675803				
862	990		- -	-	10.5	91° 30'	-25.9	-36.4		5124.7		-404	-904	2159.580	675501				
863	1320		- -	-	8.1	91° 30'	-34.6	-42.7		5118.4		-538	-1205	2159.446	675200				
864	1650		234 02	-	10.9	91° 10'	-33.6	-44.5		5116.6		-673	-1507	2159.311	674898				
865	1980		- -	-	5.9	91° 10'	-40.3	-46.2		5114.9		-807	-1808	2159.177	674597				
866	2310		- -	-	9.0	91° -	-40.3	-49.3		5111.8		-942	-2109	2159.042	674296				
867	2640		- -	-	9.7	91° -	-46.1	-55.8		5105.3		-1077	-2411	2158.907	673994				
868	2970		- -	-	10.2	91° -	-51.8	-62.0		5099.1		-1211	-2712	2158.773	673693				

