

SURVEY NOTES-HIGH RESOLUTION DATA  
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-10-82		B. Cotcamp		D. Hamilton		6834		0.8		5		1			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Delta-15		UTAH		Millard								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
K	WELL	Topo	ELEVATION 4577.0			Horizontal				4577.0	K <sub>1</sub>				WELL EL. 4577.0
	3246			+16.0	5.9	-		+5.9	4582.8		BS				
	3246				+5.6	270°		+5.6		15.8	BS		SCALED →	352,365	1,660,900
K	77	1733	58° 07' 23"	+16.0	8.2	-		-8.2	4574.6	77	-474	-1667			K-y=352,365 X-1,660,900 77y-ROAD South
1	4286		166° 39'	"	5.0	90° 06'	-7.5	-12.5	4570.3		-4281	-198 <sup>-3</sup>	347,606	1,659,032	Cross Country
2	3957		" "	"	5.0	90° 06' 36"	-7.6	-12.6	4570.2		-3953	-183	347,934	1,659,047	↓
3	3627		" "	"	5.0	90° 08' 20"	-8.8	-13.8	4569.0		-3623	-168	348,264	1,659,062	between station
4	3297		" "	"	5.0	90° 09'	-8.6	-13.6	4569.2		-3293	-152	348,594	1,659,078	#1 and #24
5	2968		166° 39'	+16.0	5.0	90° 06' 52"	-5.9	-10.9	4571.9		-2965	-137	348,922	1,659,093	
6	2638		" "	"	5.0	90° 08' 25"	-6.5	-11.5	4571.3		-2635	-122	349,252	1,659,108	
7	2308		" "	"	5.0	90° 08' 12"	-5.5	-10.5	4572.3		-2306	-107	349,581	1,659,123	
8	1979		" "	"	5.0	90° 12' 06"	-7.0	-12.0	4570.8		-1977	-92	349,910	1,659,138	
9	1650		" "	"	5.0	90° 11' 24"	-5.5	-10.5	4572.3		-1648	-76	350,239	1,659,154	
10	1320		166° 39'	"	5.0	90° 13' 06"	-5.0	-10.0	4572.8		-1319	-61	350,568	1,659,169	
11	990		" "	"	5.0	90° 11' 18"	-5.0	-10.0	4572.8		-989	-46	350,898	1,659,184	
12	660		" "	"	5.0	90° 28' 42"	-5.5	-10.5	4572.3		-659	-31	351,228	1,659,199	
13	330		" "	+16.0	5.0	90° 53' 24"	-5.1	-10.1	4572.7		-330	-15	351,557	1,659,215	
14	0			"	5.2	-		-5.2	4577.6	π	0	0	351,887	1,659,230	
15	330		346° 36'	"	5.0	90° 15'	-1.4	-6.4	4576.4		+330	+15	352,217	1,659,245	
16	660		" "	"	5.0	90° 18' 20"	-3.5	-8.5	4574.3		+659	+30	352,546	1,659,260	
17	990		" "	"	5.0	90° 13'	-3.7	-8.7	4574.1		+989	+45	352,876	1,659,275	

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GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
11-10-82		B. Cotcamp		D. Hamilton		6834		D.H.		5	2						
AREA		TOPO MAP	STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER									
UTAH		Delta-15'	UTAH	MILLARD				L.O. Davis									
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									4582.8								
18	1319		346° 36'	+16.0	5.0	90° 10'	-3.8	-8.8		4574.0		+1318	+60	353,205	1,659,290	CROSS COUNTRY	
19	1649		" "	" "	5.0	90° 08 34"	-4.1	-9.1		4573.7		+1647	+75	353,534	1,659,305	" "	
20	1979		" "	" "	5.0	90° 07'	-4.0	-9.0		4573.8		+1977	+90	353,864	1,659,320	" "	
21	2309		" "	" "	5.0	90° 07'	-4.7	-9.7		4573.1		+2307	+105	354,194	1,659,335	" "	
22	2639		" "	+16.0	5.0	90° 05 48"	-4.5	-9.5		4573.3		+2636	+120	354,523	1,659,350	" "	
23	2969		" "	" "	5.0	90° 04 12"	-3.6	-8.6		4574.2		+2966	+135	354,853	1,659,365	" "	
24	3299		346° 26'	" "	5.0	90° 05 36"	-5.4	-10.4		4572.4		+3296	+140	355,183	1,659,370	FIRST STA. BACK	
25	3628		346° 17'	" "	5.0	90° 05'	-5.3	-10.3		4572.5		+3625	+145	355,512	1,659,375	ON ROAD	
26	3958		346° 17' 53"	" "	10.2	-		-10.2		4572.8	TP	+3955	+159	355,838	1,659,386		
26	3958			" "	9.9	270°		-9.9	-10.0		TP	-4	-3				
	2296		168° 11' 35" +180	+16.0	8.1	-		+8.1		4580.9	BS	+2290	+168			THROUGH CORNER	
	2296			" "	8.2	270°		+8.2			BS	-4	-3			" "	
27	1968		168° 23'	" "	8.9	-		-8.9		4572.0		-1962	-150	356,162	1,659,401	" "	
28	1638		168° 46'	" "	8.4	-		-8.4		4572.5		-1632	-136	356,492	1,659,415	" "	
29	1308		169° 23'	" "	8.2	-		-8.2		4572.7		-1302	-123	356,822	1,659,428	" "	
30	979		170° 22'	+16.0	7.7	-		-7.7		4573.2		-973	-109	357,151	1,659,442	" "	
31	660		166° 39'	" "	8.1	TH	+3.3	-4.8		4576.1		-659	-31	357,465	1,659,520		
32	330		165° 37'	" "	6.2	TH	+1.7	-4.7		4576.2		-330	-9	357,794	1,659,542		
33	0			" "	5.2	-		-5.2		4575.7	X	0	0	358,124	1,659,551		
34	330		346° 00'	" "	5.9	-		-5.9		4575.0		+330	+12	358,454	1,659,563		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE 11-11-82	INSTRUMENT MAN B. Cot camp	ROD MAN D. Hamilton	PARTY NUMBER 6834	NOTES CHECKED BY A.H.	LINE NO. 5	PAGE 3
AREA UTAH	TOPO MAP Delta-15'	STATE UTAH	COUNTY M. HARR	TWP	RANGE	PPM
				PARTY MANAGER L.O. Davis		

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
									4580.9					
35	660		346° 00'	+16.0	6.2	-		-6.2		4574.7		+660	+23	358,784 1,659,574
36	990		" "	" "	5.4	-		-5.4		4575.5		+989	+35	359,113 1,659,586
37	1320		346° 10'	" "	6.7	-		-6.7		4574.2		+1319	+50	359,443 1,659,601
38	1650		346° 14'	" "	4.4	-		-4.4		4576.5		+1649	+64	359,773 1,659,615
39	1980		346° 21'	" "	3.0	-		-3.0		4577.9		+1978	+81	360,102 1,659,632
TP	2237		346° 19' 18"	" "	4.5	-		-4.5		4576.4				OFFSET WEST STA. 39 258' south of intersect.
BS	2609		314° 06' 35"	+16.0	13.7	89° 50'	+7.6	-6.1		4574.8	BS	+2262	-300	360,386 1,658,251 4-360,365 X 1,658,290 7-RD. NORTH EL 4515.0
40	2669		314° 57' 11"	" "	13.5	89° 50'	+7.8	-5.7		4575.2	TP	+2333	-1296	360,453 1,658,252
40	2669			" "	13.6	270° 10'	+7.8	-5.8			TP	-4	-3	STA. 40' 72' NORTH OF INTERSECT.
	3959		165° 25' 28" +180	+16.0	12.8	-		+12.8	4587.9		BS	+3958	+98	
	3959			" "	12.5	270°		+12.5	+12.7		BS	-4	-3	
41	3630		165° 32'	" "	12.0	-		-12.0		4575.9		-3629	-97	360,778 1,658,250
42	3300		" "	" "	12.4	-		-12.4		4575.5		-3299	-88	360,108 1,658,259
43	2970		" "	+16.0	12.0	-		-12.0		4575.9		-2969	-79	361,438 1,658,268
44	2640		" "	" "	11.9	-		-11.9		4576.0		-2639	-71	361,768 1,658,276
45	2310		165° 32'	" "	11.2	-		-11.2		4576.7		-2309	-62	362,098 1,658,285
46	1980		" "	" "	12.0	-		-12.0		4575.9		-1979	-53	362,428 1,658,294
47	1650		" "	+16.0	12.5	-		-12.5		4575.4		-1649	-44	362,758 1,658,303
48	1320		" "	" "	11.9	-		-11.9		4576.0		-1320	-35	363,087 1,658,312
49	990		" "	" "	10.3	-		-10.3		4577.6		-990	-26	363,417 1,658,321

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE	11-11-82	INSTRUMENT MAN	B. Cotcamp	ROD MAN	D. Hamilton	PARTY NUMBER	6834	NOTES CHECKED BY	D.H.	LINE NO.	5	PAGE	4	
AREA	WTAM	TOPO MAP	Delta-15'	STATE	WTAM	COUNTY	Millard	TWP		RANGE		PPM	PARTY MANAGER	L.O. Davis

STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
									4587.9							
50	660		165° 32'	+16.0	10.4	-		-10.4		4577.5		-660	-18	363,747	1,658,329	
51	330		" "	" "	8.6	-		-8.6		4579.3		-330	-9	364,077	1,658,338	
52	0			" "	5.2	-		-5.2		4582.7	X	0	0	364,407	1,658,347	
53	330		345° 40'	" "	6.2	-		-6.2		4581.7		+330	+10	364,737	1,658,357	
54	660		" "	" "	7.1	-		-7.1		4580.8		+660	+19	365,067	1,658,366	
55	990		" "	+16.0	12.6	-		-12.6		4575.3		+990	+29	365,397	1,658,376	
56	1289		345° 25' 46"	" "	13.2	-		-13.2		4574.7	TP	+1289	+32	365,696	1,658,379	Y=365,875 X=1,658,400 HT Highway 6150 el. 45750
56	1320		345° 40'	" "	7.2	BH	-6.6	-13.8		4574.1		+1319	+38	365,726	1,658,385	
57	1650		345° 28'	" "	7.7	BH	-8.3	-16.0		4571.9		+1649	+42	366,056	1,658,389	
58	1980		" "	" "	5.6	BH	-9.9	-15.5		4572.4		+1979	+51	366,386	1,658,398	
59	2310		" "	+16.0	6.0	BH	-11.6	-17.6		4570.3		+2309	+59	366,716	1,658,406	
60	2640		" "	" "	2.9	BH	-13.2	-16.1		4571.8		+2639	+68	367,046	1,658,415	
61	2970		" "	" "	10.0	90° 06'	-5.2	-15.2		4572.7		+2969	+76	367,376	1,658,423	
62	3360		" "	" "	7.7	90° 06'	-5.8	-13.5		4574.4		+3299	+84	367,706	1,658,431	
63	3630		345° 31'	" "	11.2	-		-11.2		4576.7		+3629	+96	368,036	1,658,443	
64	3961		345° 32' 28"	" "	10.6	-		-10.6		4577.5	TP	+3960	+107	368,363	1,658,451	
64	3961			+16.0	10.3	270°		-10.3	-10.4		TP	-4	-3			
	5280		165° 32' 55" +180	" "	14.0	-		+14.0	4591.4		BS	+5278	+143			
	5280			" "	13.7	270°		+13.7	4573.9		BS	-4	-2			
65	4950		165° 29'	" "	12.8	-		-12.8		4578.6		-4948	-128	368,689	1,658,464	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE	11-11-82	INSTRUMENT MAN	B. Cotcamp	ROD MAN	D. Hamilton	PARTY NUMBER	6834	NOTES CHECKED BY	D.H.	LINE NO.	5	PAGE	5	
AREA	UTAH	TOPO MAP	Delta-15'	STATE	UTAH	COUNTY	Millard	TWP		RANGE		PPM	PARTY MANAGER	L.O. Davis

STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
									4591.4							
66	4620		165° 28'	+16.0	10.1	-		-10.1		4581.3		-4618	-118	369,018	1,658,474	
67	4290		165° 24'	"	10.8	-		-10.8		4580.6		-4289	-105	369,348	1,658,487	
68	3960		" "	"	10.7	-		-10.7		4580.7		-3959	-97	369,678	1,658,495	
69	3630		" "	"	10.2	-		-10.2		4581.2		-3629	-89	370,008	1,658,503	
70	3300		" "	"	9.0	-		-9.0		4582.4		-3299	-81	370,338	1,658,511	
71	2970		165° 24'	"	9.1	-		-9.1		4582.3		-2969	-73	370,668	1,658,519	
72	2640		" "	"	8.4	-		-8.4		4583.0		-2639	-65	370,998	1,658,527	
73	2310		165° 19'	+16.0	5.9	-		-5.9		4585.5		-2309	-53	371,328	1,658,539	
74	1980		" "	"	4.8	-		-4.8		4586.6		-1979	-46	371,658	1,658,546	
75	1650		" "	"	5.0	-		-5.0		4586.4		-1650	-38	371,987	1,658,554	
76	1320		" "	"	6.7	-		-6.7		4584.7		-1320	-30	372,317	1,658,562	
77	990		165° 05'	"	7.0	-		-7.0		4584.9		-990	-19	372,647	1,658,573	
78	660		" "	"	7.3	-		-7.3		4584.1		-660	-12	372,977	1,658,580	
79	330		" "	+16.0	6.2	-		-6.2		4585.2		-330	-6	373,307	1,658,586	
80	0			"	5.2	-		-5.2		4586.2	T	0	0	373,637	1,658,592	
IF	22		326° 17' 55"	"	5.3	-		-5.3		4586.1	IF	+21	-7	373,655	1,658,585	IF - 373,655 x = 1,658,585 IF - RD EAST EL. 4585.0
81	330		344° 46'	"	6.2	-		-6.2		4585.2		+330	+4	373,967	1,658,596	HORIZ y = 31, CORR. x = 20
82	660		" "	+16.0	6.0	-		-6.0		4585.4		+660	+9	374,297	1,658,601	
83	990		" "	"	7.7	-		-7.7		4583.7		+990	+13	374,627	1,658,605	
84	1320		" "	"	8.9	-		-8.9		4582.5		+1320	+18	374,957	1,658,610	

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11-11-82		B. Cotcamp		D. Hamilton		6834		D.H.		5		6			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Delta-15'		UTAH		Millard								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									4591.4						
85	1650		344° 46'	+16.0	7.9	-		-7.9		4583.5		+1650	+22	375,287	1,658,614
86	1980		" "	" "	5.9	-		-5.9		4585.5		+1980	+26	375,617	1,658,618
87	2310		" "	" "	7.7	-		-7.7		4583.7		+2310	+31	375,947	1,658,623
88	2640		" "	" "	5.0	-		-5.0		4586.4		+2640	+35	376,277	1,658,627
89	2970		" "	" "	7.1	-		-7.1		4584.3		+2970	+40	376,607	1,658,632
90	3300		344° 41'	+16.0	8.0	-		-8.0		4583.4		+3300	+39	376,937	1,658,631
91	3630		" "	" "	8.1	-		-8.1		4583.3		+3630	+43	377,267	1,658,635
92	3960		" "	" "	8.8	-		-8.8		4582.6		+3960	+47	377,597	1,658,639
93	4290		" "	" "	9.0	-		-9.0		4582.4		+4290	+51	377,927	1,658,643
94	4620		" "	" "	9.1	-		-9.1		4582.3		+4620	+55	378,257	1,658,647
95	4950		" "	" "	9.2	-		-9.2		4582.2		+4950	+59	378,587	1,658,651
96	5280		345° 06' 47"	+15.7	10.6	89° 58'	+3.1	-7.5		4584.0	TP	+5279	+75	378,914	1,658,668
96	5280				10.3	270° 02'	+3.1	-7.2	-7.4		TP	-2	"		
	2967		163° 18' 06" +180	+15.7	8.4	-		+8.4	4592.3		BS	+2967	+52		
	2967				8.1	270°		+8.1	+8.3		BS		+1		
97	2640		162° 32'	+15.7	7.7	-		-7.7		4584.6		-2639	+81	379,240	1,658,698
98	2310		" "	" "	7.1	-		-7.1		4585.2		-2309	+71	379,570	1,658,688
99	1980		" "	" "	6.9	-		-6.9		4585.4		-1979	+61	379,900	1,658,678
100	1650		" "	" "	6.0	-		-6.0		4586.3		-1649	+51	380,230	1,658,668
101	1320		" "	" "	6.3	-		-6.3		4586.0		-1320	+41	380,559	1,658,658

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GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-12-82		B. Cotcamp		D. Mami, How		6834		Pi #1		5		7			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		DELTA-15'		UTAH		MILLARD								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									4592.3						
102	990		162° 32'	+15.7°	5.1	-		-5.1		4587.2		-990	+31	380,889	1,658,648
103	660		" "	" "	6.9	TH	+3.3	3.6		4588.7		-660	+20	381,219	1,658,637
104	330		" "	" "	6.8	TH	+1.7	5.1		4587.2		-330	+10	381,549	1,658,627
TP	196		165° 41' 06"	" "	4.3	-		-4.3		4588.0	TP	-196	-5	381,683	1,658,612
well	135		111° 48' 36"	" "	5.3	-		-5.3		4587.0	well				well ELEVATION-45880
105	0				5.2	-		-5.2		4587.1	TP	0	0	381,879	1,658,617
106	330		344° 52'	+15.7°	5.5	-		-5.5		4586.8		+330	+3	382,209	1,658,620
<del>107</del>	660		" "	" "	5.4	-		-5.4		4586.9		+660	+7	382,539	1,658,624
<del>108</del>	990		" "	" "	5.1	-		-5.1		4587.2		+990	+10	382,869	1,658,627
<del>109</del>	1320		" "	" "	4.8	-		-4.8		4587.5		+1320	+13	383,199	1,658,630
110	1650		344° 52'	+15.7°	4.0	-		-4.0		4588.3		+1650	+16	383,529	1,658,633
111	1980		" "	" "	3.7	-		-3.7		4588.6		+1980	+20	383,859	1,658,637
112	2310		" "	" "	3.4	-		-3.4		4588.9		+2310	+23	384,189	1,658,640
113	2640		" "	" "	3.0	-		-3.0		4589.3		+2640	+26	384,519	1,658,643
114	2970		344° 54' 03"	" "	2.9	-		-2.9			TP	+2970	+31	384,847	1,658,649
114	2970		" "	" "	3.0	270°		-3.0		4589.3	TP		"		
	5280		164° 56' 53" +180°	+15.7°	8.8	89° 59' 36"	0.6	+8.2			BS	+5280	+60		
	5280		" "	" "	8.8	270° 00' 28"	0.7	+8.1	4597.4		BS		"		
115	4950		164° 59'	+15.7°	7.0	-		-7.0		4590.4		-4950	-59	385,175	1,658,651
116	4620		" "	" "	6.3	-		-6.3		4591.1		-4620	-55	385,505	1,658,655

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-12-82		B. Cotcamp		D. Hamilton		6834		D.H.		70 5		8			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WTAM		Delta-15'		WTAM		Millard								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH -	EAST + WEST -		Y
									4597.4						
117	4290		164° 59'	+15.7°	5.2	-		-5.2		4592.2		-4290	-51	385,835	1,658,699
118	3960		" "	" "	5.2	-		-5.2		4592.2		-3960	-47	386,165	1,658,663
119	3630		" "	" "	4.9	-		-4.9		4592.5		-3630	-43	386,495	1,658,667
120	3300		" "	" "	5.1	-		-5.1		4592.3		-3300	-39	386,825	1,658,671
121	2970		164° 59'	+15.7°	5.2	-		-5.2		4592.2		-2970	-35	387,155	1,658,675
122	2640		" "	" "	5.2	-		-5.2		4592.2		-2640	-31	387,485	1,658,679
123	2310		" "	" "	4.2	-		-4.2		4593.2		-2310	-28	387,815	1,658,682
124	1980		165° 01'	" "	9.2	89° 50'	+5.8	-3.4		4594.0		-1980	-25	388,145	1,658,685
125	1650		" "	" "	8.0	89° 50'	+4.8	-3.2		4594.2		-1650	-21	388,475	1,658,689
126	1320		" "	" "	6.7	89° 50'	+3.8	-2.9		4594.5		-1320	-17	388,805	1,658,693
127	990		164° 55'	+15.7°	6.7	89° 40'	+5.8	-0.9		4596.5		-990	-11	389,135	1,658,697
128	660		164° 40'	" "	6.8	89° 40'	+3.8	-3.0		4594.4		-660	-4	389,465	1,658,706
4 1/2	531		165° 27' 12"	" "	3.3	-		-3.3		4594.1	4 1/2	-531	-11	389,594	1,658,699
129	330		63° 58'	" "	5.5	TM	+1.7	-3.8		4593.6		-330	+2	389,795	1,658,712
130	0				5.2	-		-5.2		4592.2	λ	0	0	390,125	1,658,710
131	330		344° 41'	+15.7°	5.8	-		-5.8		4591.6		+330	+2	390,455	1,658,712
132	660		" "	" "	6.4	-		-6.4		4591.0		+660	+4	390,785	1,658,714
133	990		" "	" "	5.9	-		-5.9		4591.5		+990	+7	391,115	1,658,717
134	1320		" "	" "	6.0	-		-6.0		4591.4		+1320	+9	391,445	1,658,719
135	1650		" "	" "	6.4	-		-6.4		4591.0		+1650	+11	391,775	1,658,721

4-389,570x-1,658,710  
4 way INTERSECT.

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-12-82		B. Cotcamp		D. Hamilton		6834		B.C.		5		9			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAM		Delta-15'		UTAM		Millard								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									4597.4						
136	1980		344° 41'	+15.7°	6.8	-		-6.8		4590.6		+1980	+13	392,105	1,658,723
WPLL	2278		346° 44' 08"	" "	9.3	-		-9.3		4588.1	well				WELL ELEVATION: 4588.0
137	2316		344° 41'	" "	6.9	-		-6.9		4590.5		+2310	+15	392,435	1,658,725
138	2640		" "	" "	7.3	-		-7.3		4590.1		+2640	+18	392,765	1,658,728
139	2970		" "	" "	8.4	-		-8.4		4589.0		+2970	+20	393,095	1,658,730
140	3306		" "	+15.7°	9.0	-		-9.0		4588.4		+3300	+22	393,425	1,658,732
141	3630		" "	" "	8.9	-		-8.9		4588.5		+3630	+24	393,755	1,658,734
142	3960		344° 41'	" "	9.2	-		-9.2		4588.2		+3960	+26	394,085	1,658,736
143	4290		" "	" "	10.0	-		-10.0		4587.4		+4290	+29	394,415	1,658,739
144	4620		344° 40' 40"	" "	10.5	-		-10.5		4587.1	TP	+4620	+30	394,743	1,658,741
144	4620				10.0	270°		-10.0	-10.3		TP	-2	+1		
	3299		164° 18' 21" +180	+15.9°	2.4	-		+2.4	4589.4		BS	+3299	+12		
	3299				2.1	270°		+2.1	+2.3		BS	-2	+1		
#	366		164° 34' 42"	+15.9°	3.2	-		-3.2		4586.2	#	-3166	-26	394,874	1,658,728
															4-394,900 X-1,658,750
145	2970		164° 24'	" "	4.1	-		-4.1		4585.3		-2970	-16	395,070	1,658,738
146	2640		" "	" "	4.1	-		-4.1		4585.3		-2640	-14	395,400	1,658,740
147	2310		" "	" "	4.2	-		-4.2		4585.2		-2310	-12	395,730	1,658,742
148	1980		" "	" "	4.6	-		-4.6		4584.8		-1980	-10	396,060	1,658,744
149	1650		164° 24'	" "	4.6	-		-4.6		4584.8		-1650	-9	396,390	1,658,745
150	1320		" "	" "	4.8	-		-4.8		4584.6		-1320	-7	396,720	1,658,747

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-12-82		B. Cotcamp		D. Hamilton		6834		BC		5		10			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Delta-15'		UTAH		MILLARD								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH -	EAST + WEST -		Y
									4589.4						
151	990		164° 24'	+159°	4.9	-		-4.9		4584.5		-990	-5	397,050	1,658,749
152	666		" "	" "	4.8	-		-4.8		4584.6		-660	-3	397,380	1,658,751
#	508		164° 55' 04"	" "	4.1	-		-4.1		4585.3	#	-508	-7	397,532	1,658,747
153	330		164° 09'	" "	4.8	-		-4.8		4584.6		-330	-2	397,710	1,658,752
154	0				5.2	-		-5.2		4584.2	π	0	0	398,040	1,658,754
155	330		344° 41'	+159°	5.1	-		-5.1		4584.3		+330	+3	398,370	1,658,757
156	660		" "	" "	5.2	-		-5.2		4584.2		+660	+7	398,700	1,658,761
157	990		" "	" "	4.9	-		-4.9		4584.5		+990	+10	399,030	1,658,764
158	1320		" "	" "	4.4	-		-4.4		4585.0		+1320	+13	399,360	1,658,767
159	1650		344° 41'	+159°	4.1	-		-4.1		4585.3		+1650	+17	399,690	1,658,771
160	1980		" "	" "	5.2	-		-5.2		4584.2		+1980	+20	400,020	1,658,774
161	2310		" "	" "	6.1	-		-6.1		4583.3		+2310	+24	400,350	1,658,778
162	2640		" "	" "	6.2	-		-6.2		4583.2		+2640	+27	400,680	1,658,781
163	2970		" "	" "	6.6	-		-6.6		4582.8		+2970	+30	401,010	1,658,784
164	3300		344° 41' 58"	+159°	6.2	-		-6.2		4583.4	TP	+3300	+35	401,338	1,658,790
164	3300				5.9	270°		-5.9	-6.0		TP	-2	+1		
	3300		164° 43' 58" +180	+159°	2.6	-		+2.6	4585.8		BS	+3300	+36		
	3300				+2.3	270°		+2.3	+2.4		BS	-2	+1		
165	2970		164° 44'	+159°	4.2	-		-4.2		4581.6		-2970	-33	401,666	1,658,794
166	2640		" "	" "	4.6	-		-4.6		4581.2		-2640	-29	401,996	1,658,798

IF 317,515 x 1,658,728  
IF 4WAY INT. EL. 4584.0

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-12-82		B. Cotcamp		D. Hamilton		6834		B.C.		5		11			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAM		Delta-15'		UTAH		MILLARD								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									4585.8						
167	2310		164° 44'	+15.9°	4.8	-		-4.8		4581.0		-2310	-26	402,326	1,658,801
168	1980		" "	" "	4.8	-		-4.8		4581.0		-1980	-22	402,656	1,658,805
#	1857		164° 51' 55"	" "	3.5	-		-3.5		4582.3	#	-1857	-25	402,779	1,658,802
169	1650		164° 44'	+15.9°	5.0	-		-5.0		4580.8		-1650	-18	402,986	1,658,809
170	1320		" "	" "	4.9	-		-4.9		4580.9		-1320	-15	403,316	1,658,812
171	990		" "	" "	5.3	-		-5.3		4580.5		-990	-11	403,646	1,658,816
172	660		" "	" "	5.1	-		-5.1		4580.7		-660	-7	403,976	1,658,820
173	330		" "	" "	4.7	-		-4.7		4581.1		-330	-4	404,306	1,658,823
174	0				5.2	-		-5.2		4580.6	X	0	0	404,636	1,658,827
175	330		344° 47'	+15.9°	5.0	-		-5.0		4580.8		+330	+4	404,966	1,658,831
176	660		" "	" "	5.3	-		-5.3		4580.5		+660	+8	405,296	1,658,835
177	990		" "	" "	5.0	-		-5.0		4580.8		+990	+12	405,626	1,658,839
178	1320		" "	" "	6.1	-		-6.1		4579.7		+1320	+16	405,956	1,658,843
179	1650		344° 47'	+15.9°	5.3	-		-5.3		4580.5		+1650	+20	406,286	1,658,847
180	1980		" "	" "	6.0	-		-6.0		4579.8		+1980	+24	406,616	1,658,851
181	2310		" "	" "	5.9	-		-5.9		4579.9		+2310	+28	406,946	1,658,855
182	2640		" "	" "	5.3	-		-5.3		4580.5		+2640	+31	407,276	1,658,858
183	2970		" "	" "	5.9	-		-5.9		4579.9		+2970	+35	407,606	1,658,862
184	3300		344° 46' 42"	+15.9°	5.7	-		-5.7		4580.3	TP	+3300	+39	407,934	1,658,867
184	3300				5.3	270°		-5.3	-5.5		TP	-2	+1		

y=402.815x-1,658,800  
4 way INTER EL. 45820

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-12-82		B. Cotcamp		D. Hamilton		6834		B.C.		5		12			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Delta-15'		UTAH		MILLARD								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									4580.3						
	1320		164° 48' 54" +180	+15.9°	3.1	-		+3.1	4583.4		BS	+1320	+16		
	1320				9.7	TH	-6.6	+3.1		BS			-3	+1	
#	1208		164° 57' 06"	+15.9°	1.3	-		-1.3		4582.1	#	-1208	78	408,043	1658866
185	990		164° 49'	" "	7.9	TH	+5.0	-2.9		4580.5		-990	-12	408,261	1658872
186	660		" "	" "	5.9	TH	+3.3	-2.6		4580.8		-660	-8	408,591	1658876
187	330		" "	" "	4.2	TH	+1.7	-2.5		4580.9		-330	-4	408,921	1658880
188	0				5.2	-		-5.2		4578.2	X	0	0	409,251	1658824
189	330		343° 59'	+15.9°	3.0	-		-3.0		4580.4		+330	-1	409,581	1658,883
#	617		343° 41' 43"	" "	1.7	-		-1.7		4581.7	#	+617	-4	409,865	1658,880
190	660		343° 59'	" "	5.1	TH	+3.3	-1.8		4581.6		+660	-1	409,911	1658,883
191	990		343° 36'	" "	9.3	TH	+5.0	-4.3		4579.1		+990	-9	410,241	1658875
192	1320		343° 35' 43"	+15.9°	5.1	-		-5.1			TP	+1320	-12	410,566	1658,871
192	1320				11.6	TH	+6.6	-5.0		4578.4	TP		-5		
	4048		165° 03' 42" +180	+15.9°	5.4	-		+5.4	4583.8		BS	+4047	+68		
	4048				5.3	-		+5.3		BS			-5		
193	3718		164° 57'	+15.9°	8.8	89° 56'	+4.3	-4.5		4579.3		-3718	-55	410,890	1658,883
194	3388		" "	" "	8.1	89° 56'	+3.9	-4.2		4579.6		-3388	-50	411,220	1,658,888
195	3058		" "	" "	6.7	89° 56'	+3.6	-3.1		4580.7		-3058	-45	411,550	1,658,893
196	2728		" "	" "	4.8	-		-4.8		4579.0		-2728	-40	411,880	1,658,898
197	2398		" "	" "	4.7	-		-4.7		4579.1		-2398	-36	412,210	1,658,902

409,865 X = 1,658,880  
 Creek crossing  
 Horiz.  $\pm 23'$   
 Cor.  $\pm 10'$



SURVEY NOTES-HIGH RESOLUTION DATA  
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-13-82		B. Cotcamp		O. Hamilton		6834		B.C.		8		14			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Delta - 15'		UTAH		MILLARD								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									4575.1						
Well	945		161° 23' 32"	+15.7°	7.1	89° 40'	+5.5	-1.6		4573.5	Well				Well TOPO EL. 4574.0
211	659		167° 03'	" "	5.9	TH	+3.3	-2.6		4572.5		-658	-32	416,891	1,654,568
212	329		168° 10'	" "	5.8	TH	+1.6	-4.2		4570.9		-328	-22	417,221	1,654,578
213	0				5.2	-		-5.2		4569.9	X	0	0	417,549	1,654,600
214	330		346° 52'	+15.7°	7.2	-		-7.2		4567.9		+330	+15	417,879	1,654,615
215	660		346° 12'	" "	8.0	-		-8.0		4567.1		+660	+22	418,209	1,654,622
216	990		345° 48'	" "	8.7	-		-8.7		4566.4		+990	+26	418,539	1,654,626
217	1320		" "	" "	8.8	-		-8.8		4566.3		+1320	+35	418,869	1,654,635
218	191650		345° 41'	+15.7°	9.1	-		-9.1		4566.0		+1650	+40	419,199	1,654,640
219	1980		345° 30'	" "	9.3	-		-9.3		4565.8		+1980	+41	419,529	1,654,641
220	2310		" "	" "	9.3	-		-9.3		4565.8		+2309	+48	419,858	1,654,648
Sec. corner	2465		344° 35' 02"	" "	9.0	-		-9.0		4566.1	Sec. corner	+2465	+12	420,014	1,654,612
221	2640		345° 24' 43"	" "	9.3	-		-9.3			TP	+2640	+51	420,184	1,654,652
221	2640				9.2	270° -		-9.2		4565.9	TP		-5		
	3299		164° 42' 22" +180°	+15.7°	5.8	-		+5.8	4571.7		BS	+3299	+23		
	3299		" "	" "	5.7	-270°		+5.7			BS		-5		
222	2970		164° 33'	+15.7°	13.3	89° 50'	+8.6	-4.7		4567.0		-2970	-13	420,508	1,654,660
223	2640		164° 33'	" "	10.2	89° 50'	+7.7	-2.5		4569.2		-2640	-12	420,838	1,654,661
224	2310		" "	" "	7.3	89° 50'	+6.7	-0.6		4571.1		-2310	-10	421,168	1,654,663
225	1980		" "	" "	8.0	89° 50'	+5.8	-2.2		4569.5		-1980	-9	421,498	1,654,664

420,000 x 1,654,615  
Sec. CORNER EL. 4567.0  
LAND OFFICE SURVEY

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE 11-13-82	INSTRUMENT MAN B. Cotcamp	ROD MAN D. Hamilton	PARTY NUMBER 6834	NOTES CHECKED BY B.C.	LINE NO. 5	PAGE 15
AREA UTAH	TOPO MAP Delta-15	STATE UTAH	COUNTY MILLARD	TWP	RANGE	PPM
			PARTY MANAGER L.O. Davis			

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
									4571.7					
226	1650		164° 30'	+15.7°	8.9	89° 50'	+4.8	-4.1		4567.6		-1650	-6	421,828 1,654,667
227	1320		" "	" "	8.7	89° 50'	+3.8	-4.9		4566.8		-1320	-5	422,158 1,654,668
228	990		" "	" "	8.5	89° 50'	+2.9	-5.6		4566.1		-990	-3	422,488 1,654,670
229	660		" "	" "	8.1	89° 50'	+1.9	-6.2		4565.5		-660	-2	422,818 1,654,671
230	330		" "	" "	7.1	89° 50'	+1.0	-6.1		4565.6		-330	-1	423,148 1,654,672
231	0				5.2	-		-5.2		4566.5	X	0	0	423,478 1,654,673
232	330		344° 22'	+15.7°	6.0	TH	+1.7	-4.3		4567.4		+330	±0	423,808 1,654,673
233	660		" "	" "	7.0	-		-7.0		4564.7		+660	+1	424,138 1,654,674
234	990		" "	" "	7.3	-		-7.3		4564.4		+990	+1	424,468 1,654,674
235	1320		" "	" "	8.2	-		-8.2		4563.5		+1320	+2	424,798 1,654,675
236	1650		" "	" "	8.4	-		-8.4		4563.3		+1650	+2	425,128 1,654,675
SEC. CORN.	1834		343° 42' 56"	+15.7°	8.4	-		-8.4		4563.3	SEC. CORN.	+1834	-19	425,312 1,654,654 SECTION CORNER EL. 45640
237	1980		343° 58'	" "	7.9	-		-7.9		4563.8		+1980	-12	425,458 1,654,661 2123 2126 LAND OFFICE SURVEY
238	2308		343° 12'	" "	8.0	-		-8.0		4563.7		+2308	-44	425,786 1,654,629
239	2637		342° 39'	" "	8.3	-		-8.3		4563.4		+2636	-76	426,114 1,654,597
240	2966		342° 11' 24"	" "	8.5	-		-8.5			TP	+2964	-109	426,437 1,654,564
240	2966				8.4	270°		-8.4		4563.3	TP	-5		
	1320		158° 28' 25" +180	+15.7°	9.3	-		+9.3	4572.6		BS	+1313	-134	
	1320				9.2	270°		+9.2			BS	-5		
241	990		158° 28'	+15.7°	9.4	-		-9.4		4563.2		-985	+101	426,760 1,654,531

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-13-82		B. Cotcamp		D. Hamilton		6834		BC		5		16			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Delta-15'		UTAH		Millard								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTting DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									4572.6						
242	660		158° 28'	+15.7°	9.3	-	-9.3		4563.3			-657	+67	427,088	1,654,497
243	330		" "	" "	8.3	-	-8.3		4564.3			-328	+34	427,417	1,654,464
244	0				5.2	-	-5.2		4567.4	X		0	0	427,745	1,654,430
245	330		338° 50'	+15.7°	9.0	-	-9.0		4563.6			+329	-31	428,074	1,654,399
246	660		" "	" "	10.1	-	-10.1		4562.5			+657	-63	428,402	1,654,367
247	990		" "	" "	8.7	-	-8.7		4563.9			+986	-94	428,731	1,654,336
248	1320		" "	" "	10.2	-	-10.2		4562.4			+1314	-126	429,059	1,654,304
249	1650		338° 50'	+15.7°	9.8	-	-9.8		4562.8			+1643	-157	429,388	1,654,273
250	1980		" "	" "	9.9	-	-9.9		4562.7			+1971	-189	429,716	1,654,241
251	2310		" "	" "	9.7	-	-9.7		4562.9			+2299	-220	430,044	1,654,210
252	2640		" "	" "	9.8	-	-9.8		4562.8			+2628	-252	430,373	1,654,178
Sec.	2455		199° 01' 48"	+15.7°	9.6	-	-9.6				TP	-2445	+225	425,295	1,654,655
CORNER	2455				9.5	270°	-9.5			4563.1	TP	-5			

E.O. LINE #5  
 Y=425,295 X=1,654,655  
 SECTION CORNER EL. 4564  
 Horiz y=45  
 CORR. X=5



SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
11-26-82		B. Gtcamp		D. Hamilton		6834		D.H. B.C.		Ser.	2					
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
UTAM		Sunstone Knoll-7 1/2'		UTAM		MILLARD					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
K FOR											R					4-323,095 x-1657,415
Sec. Corner	424		35° 34' 28"		3.5	86° 20'	+27.1	+23.6		4616.8	Sec. Corner	-267	-328			25126 Sec. U.S. 9th Mer. 76135 CORNER LAND OFFICE
T	0				5.2	-		-5.2		4588.0	T	0	0	322,828	1,657,087	
TP	1121		02° 20' 17"		6.6	-		-6.6		4586.6	TP	+1068	+340	323,896	1,657,426	
TP	1121				6.7	270°		-6.7			TP					
	991		172° 59' 55" +18°		+3.9	89° 30'	-8.6	-4.7	4581.9		BS	+981	+143			
	991				+6.7	89° 20'	-11.5	-4.8			BS					
T	0				5.2	-		-5.2		4576.7	T	0	0	324,878	1,657,569	
V.P. #4	1606		354° 39' 16"		9.4	-		-9.4		4572.5	TP	+1582	+278	326,459	1,657,847	
V.P. #4	1606				4.7	90° 10'	-4.7	-9.4			TP					
K1			U.S. C+G.S TRI-STATION C-180	1970		ELEVATION-				4615.0	K1					4-311,155 x-1,699,430
BS	588		278° 00' 47" -18°		+4.6	85°	-51.3	-46.7	4568.3		BS	-236	+536			U.S. C+G.S TRI STA. E1. C-180 1970 4615.0
BS	588				+4.5	275°	-51.3	-46.8			BS					
V.P. #6	390		12° 40' 41"		4.9	90° 03' 24"	-0.4	-5.3		4563.0		+343 <sup>-8</sup>	+185 <sup>+4</sup>	311,255	1,660,156	
T	0				5.2	-		-5.2		4563.1	T	0	0	310,911	1,659,970	
Bm	994		186° 42' 43"		5.7	74	+5.0	-0.7		4567.6	Bm	-919	-379	309,985	1,659,595	4-309,985 x-1,659,595
Bm	994				3.6	89° 50'	+2.9	-0.7			Bm	-8	+4			U.S. C+G.S Bm E1. 4567.8 A-180 1970

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE 11-26-82	INSTRUMENT MAN B. Cotcamp	ROD MAN D. Hamilton	PARTY NUMBER 6834	NOTES CHECKED BY D.H. B.C.	LINE NO. 5EXT.	PAGE 3
AREA UTAH	TOPO MAP Sunstone Knoll-7 1/2'	STATE UTAH	COUNTY MILLARD	TWP	RANGE	PPM
				PARTY MANAGER L.O. Davis		

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS
												LAT.	DEP.	Y	X			
K1	U.S.C+G.S Bm		2-179 1970		ELEVATION	4570.0				4570.0	K1							y=314,900 x=1,662,070
BS	2337		188° 54' 54" - 180°		+7.7	89° 50'	-6.8	+0.9	4570.9		BS	+2120	+985					U.S.C+G.S Bm EL. 4570.0
BS	2337				+7.6	270° 10'	-6.8	+0.8		BS	+1	+4						2-179 1970
V.P.#6	2907		190° 36' 48"		13.6	TM	+14.5	+0.9		4571.8		-2599	-1302	314,421	1,661,756			
TP	0				5.2	-		-5.2		4565.7	TP	0	0	317,021	1,663,059			
V.P.#5	3538		10° 57' 39"		2.0	-		-2.0		4568.9		+3153	+1604	320,174	1,664,663			
TP	2969		12° 19' 23"		11.5	89° 50'	+8.6	-2.9	4568.0		Bm	+2614	+1409	319,635	1,664,470			y=319,635 x=1,664,470
TP	2969				11.4	270° 10'	+8.6	-2.8		Bm	+3							U.S.C+G.S Bm EL. 4568.0

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
11-24-82		B. Cotcamp		D. Hamilton		6834		D.H. B.C.		5 extension	4				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
UTAH		DeHA-15		UTAH		MILLARD					L. O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH -	EAST + WEST -		Y
LAT.	DEP.	Y	X												
TK <sub>1</sub>	T-ROAD SOUTH		ELEVATION - 4573.0	y-	333.640	x-	1,662,995	(scaled)		4573.0	TK <sub>1</sub>			scaled	y-333,640 x-1,662,995 T-ROAD SOUTH EL. 4573.0
BS	2743		75° 17' 31" +180	+	2.8	-		+2.8	4575.6		BS	+4	-2743		
BS	2743			+	2.4	270°		+2.4	4572.6		BS	-3	-1		
TP	0				5.2	-		-5.2		4570.4	TP	0	0	333,641	1,660,251
V.P. #3	2596		254° 56' 54"		8.9	-		-8.9		4566.9	TP	-11	-2	333,628	1,657,661
V.P. #3	2590				8.5	270°		-8.5	-8.7		TP				
BS	2699		255° 11' 05" -180	+	9.2	-		+9.2		4576.0	BS	+1	+2699		
BS	2699			+	9.0	270°		+9.0	+9.1		BS	-2			
TP	0				5.2	-		-5.2		4570.8	TP	0	0	333,627	1,660,360
IF	2635		74° 52' 16"		2.8	-		-2.8		4573.2	TP	+15	+2635	333,640	1,662,995
IF	2635				2.7	270°		-2.7			TP	-2			scaled
TK	SECTION CORNER -		ELEVATION - 4570.0	y-		x-				4570.0	TK <sub>1</sub>			scaled	y-333,040 x-1,657,750 TK <sub>1</sub> SECTION CORNER EL. 4570.0
BS	1335		343° 32' 17" -180	+15.7	4.9	-		+4.9			BS	-1335	+18		
BS	1335			+	5.0	270°		+5.0	4575.0		BS				
TP	0				5.2	-		-5.2		4569.8	TP	0	0	337,705	1,657,768
V.P. #2	58		255° 11' 35"	+15.7	5.3	-		-5.3		4569.7	TP	+1	-58	337,706	1,657,710
V.P. #2	58				5.3	270°		-5.3			TP				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-24-82		B. Cotcamp		D. Hamilton		6834		B.C.		5 EXT.		5			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Delta-15'		UTAH		Millard								L.O. DAVIS	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
BS	133		73° 36' 53" +180	+15.7	4.1	-	+4.1	4573.8			BS	-2	-133		
BS	133				4.1	270°	+4.1					BS			
X	0				5.2	-	-5.2		4568.6		X	0	0	337,704	1,657,517
SEC.	1346		351° 40' 32"	+15.7	3.8	-	-3.8	4570.0			TP	+1335	+173	339,039	1,657,750
CORNER.	1346				3.9	270°	-3.9					TP			
TK1	SEC. CORNER - <sup>116</sup> / <sub>127</sub>		U.S. GENERAL	LAND	OFFICE SURVEY			EL. 4577.0		4577.0	TK1				SECTION CORNER EL. 4577.0 y=344,280 x=1,663,285
BS	2821		75° 40' 42" +180		10.4	89° 50'	-8.2	+2.2	4579.1		BS	+68	-2820		
BS	2821				10.3	270° 16'	-8.2	+2.1				BS			
X	0				5.2	-	-5.2		4573.9		X	0	0	344,348	1,660,465
V.P. #1	2404		255° 24' 29"		7.0	-	-7.0	-6.9	4572.2		TP	+46	-2404	344,394	1,658,061
V.P. #1	2404				6.8	270°	-6.8						TP		
	2546		255° 40' 59" -180		7.6	-	+7.6	+7.5	4579.7		BS	-61	+2545		
	2546				7.4	270°	+7.4						BS		
X	0				5.2	-	-5.2		4574.5		X	0	0	344,333	1,660,607
TP	2679		75° 22' 29"		10.6	89° 50'	+7.8	-2.8	4577.0		SEC.	-50	+2679	344,283	1,663,285
TP	2679				10.4	270° 10'	+7.8	-2.6				CORNER.			