

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

PAGE 1 of 58

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10.6.83		B Cotcamp		D. Wrinkle		6834		D W		7		1				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
NEVADA		Gibbet Creek S.E. - T ₂		NEVADA		LANDER								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
K	T-TRAIL	SOUTH	- Elevation		6602.0	4-1831,200	- 331,060			6602.0	K			1,831,200	331,060	-75' scaled
H	154		55° 35' 53"	+16.8°	7.4	84° 20'	-15.1	-7.7			BS	-46	-146			H-T-TRAIL south on 6602.0
H	154			" "	7.0	84° 30'	-14.7	-2.7	6594.3		BS	+2	+2			
T	0			+16.8°	5.2	-		-5.2		6589.1	T	0	0	1,831,156	330,916	
TP	342		275° 35' 10"	" "	5.7	91° 50'	-10.9	-16.6		6577.7	TP	+130	-316	1,831,288	330,602	
TP	342			" "	4.7	92° -	-11.9	-16.6			TP	+2	+2			
	192		132° 33' 31"	" "	7.0	94° -	+13.4	+20.4			BS	+165	-98			
	192			" "	6.4	94° 10'	+13.9	+20.3	6598.0		BS	+2	+2			
2	98		135° 32'	" "	4.2	95° 30'	-9.3	-13.5		6584.5		-87	+46	1,831,368	330,552	
T	0			+16.8°	5.2	-		-5.2		6592.8	T	0	0	1,831,455	330,506	
1	232		301° 34'	" "	4.9	86° 40'	+13.5	+8.6		6606.6		+173	-154	1,831,628	330,352	B.O.L. line #7
TP	195		133° 15' 00"	" "	7.1	94° -	-13.6	-20.7		6577.3	TP	-169	+97	1,831,288	330,605	
TP	195			" "	6.6	94° 10'	-14.1	-20.7			TP	+2	+2			
	312		274° 27' 32"	" "	3.7	92° 10'	+11.8	+15.5			BS	-113	+291			
	312			" "	2.7	92° 20'	+12.7	+15.4	6592.7		BS	+2	+2			
3	90		272° 38'	" "	5.4	92° 10'	-3.4	-8.8		6583.9		+30	-85	1,831,207	330,813	
T	0			+16.8°	5.2	-		-5.2		6587.5	T	0	0	1,831,177	330,898	
4	225		58° 19' 42"	" "	13.8	84° 50'	+20.2	+6.4		6599.1	TP	+58	+217	1,831,237	331,117	
4	225			" "	13.1	85° -	+19.6	+6.4			TP	+2	+2			
	69		260° 44' 16"	" "	2.6	87° 30'	-3.0	-0.4			BS	-9	+68			
	69			" "	2.4	87° 40'	-2.8	-0.4	6598.7		BS	+2	+2			

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10-5-83		B. Cotcamp		D. W. Rinkle		6834		D W		7	2			
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER			
Nevada		Gilbert Creek		NEV		Lander					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.	
									6598.7					
π	0			+16.8°	5.2	-		-5.2		6593.5	π	0	0	1,831,230 331,187
5	260		113° 23'	"	5.3	95° 10'	-23.3	-28.6		6570.1		-168	+199	1,831,062 331,386
TP	305		112° 35' 44"	"	12.1	93° 20'	-17.7	-29.8		6568.9	TP	-193	+235	1,831,039 331,424
TP	305			"	11.2	93° 30'	-18.6	-29.8			TP	+2	+2	
	283		274° 39' 31"	"	14.1	-	-	+14.1			BS	-104	+263	
	283			"	13.2	90° 10'	+0.8	+14.0	6582.9		BS	+2	+2	
6	0			+16.8°	5.2	-		-5.2		6577.7	π	0	0	1,830,937 331,689
TP	182		84° 17' 35"	"	5.1	85° 10'	+15.3	+10.2			TP	-35	+178	1,830,904 331,869
TP	182			"	4.5	85° 20'	+14.8	+10.3		6593.2	TP	+2	+2	
	300		251° 57' 14"	"	5.2	95° 20'	+22.8	+33.0			BS	+7	+299	
	300			"	4.3	95° 30'	+28.6	+32.9	6626.1		BS	+2	+2	
7	156		252° 14'	"	4.9	95° 20'	-14.4	-19.3		6606.8		-3	-156	1,830,910 332,014
π	0			+16.8°	5.2	-		-5.2		6620.9	π	0	0	1,830,913 332,170
8	164		33° 53'	"	4.4	86° 40'	+9.5	+5.1		6631.2		+104	+127	1,831,017 332,297
TP	223		34° 55' 05"	"	6.4	86° 30'	+13.6	+7.2		6633.3	TP	+138	+175	1,831,053 332,347
TP	223			"	7.1	86° 20'	+14.2	+7.1			TP	+2	+2	
	78		274° 11' 59"	"	6.1	93° 40'	+5.0	+11.1			BS	-28	+73	
	78			"	6.4	93° 30'	+4.8	+11.2	6644.5		BS	+2	+2	
π	0			+16.8°	5.2	-		-5.2		6639.3	π	0	0	1,831,027 332,422
9	202		111° 08'	"	5.0	88° 20'	+5.9	+0.9		6645.4		-124	+159	1,830,903 332,581

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
10.5.83		B. Cotcamp		D. Wrinkle		6834		D N		7	3				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
NEVADA		GILBERT CREEK		NEVADA		LANDER					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
									6644.5						
TP	325		110° 31' 47"	+16.8°	3.5	88° 30'	+8.5	+5.0			TP	-197	+258	1830,832	332,682
TP	325			"	2.5	88° 40'	+7.6	+5.1		6649.6	TP	+2	+2		
	366		307° 34' 12"	"	8.8	-		+8.8			BS	-297	+213		
	366			"	4.5	90° 40'	+4.3	+8.8	6658.4		BS	+2	+2		
10	158		305° 55'	"	4.9	92° -	-5.5	-10.4		6648.0		+126	-96	1830,663	332,801
X	0			+16.8°	5.2	-		-5.2		6653.2	X	0	0	1830,537	332,897
11	171		132° 00'	"	5.2	89° -	+3.0	-2.2		6656.2		-146	+89	1830,391	332,986
TP	340		131° 22' 16"	"	2.1	88° 30'	+8.9	+6.8		6665.2	TP	-289	+179	1830,250	332,077
TP	340			"	3.1	88° 20'	+9.9	+6.8			TP	+2	+1		
	270		333° 31' 36"	"	8.0	87° 20'	-12.5	-4.5			BS	-266	+45		
	270			"	8.8	87° 10'	-13.3	-4.5	6660.7		BS	+2	+1		
14	239		333° 12' 34"	"	5.4	87° 20'	+11.1	+5.7		6666.4		+235	-41	1830,221	333,082
14	134		333° 48' 41"	"	3.6	86° 30'	+8.2	+4.6		6665.3		+132	-22	1830,118	333,101
12	106		333° 18'	"	4.2	86° -	+7.4	+3.2		6663.9		+104	-18	1830,090	333,105
X	0			+16.8°	5.2	-		-5.2		6655.5	X	0	0	1829,986	333,123
13	232		117° 30'	"	4.5	94° 20'	-17.5	-22.0		6638.7		-162	+166	1829,824	333,289
14	561		115° 11' 01"	"	6.6	91° 30'	-14.7	-21.3		6639.4	TP	-375	+417	1829,614	333,541
14	561			"	8.2	91° 20'	-13.0	-21.2			TP	+3	+1		
	213		277° 12' 55"	"	4.6	93° -	+11.1	+15.7			BS	-87	+194		
	213			"	4.0	93° 10'	+11.7	+15.7	6655.1		BS	+3	+1		

5-1830,240 X-333,090
 3-ROAD NORTH
 5-1830,160 X-333,100
 4-ROAD NORTH

OFF ROAD X

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10-5-83		B. Cotcamp		D. Wrinkle		6834		DW		7		4				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
NEVADA		GILBERT CREEK S.E. 7 1/2		NEVADA		LANDER								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	X
									6655.1							
14	241		279° 10' 59"	+16.8°	5.0	92° 52'	-12.0	-17.0		6638.1	14	+105	-216	1,829,635	333,526	5-1,829,635 X-333,526 5-ROAD WEST LIBRARY 40 CORR. X +34
TP	0			"	5.2	-		-5.2		6649.9	TP	0	0	1,829,530	333,736	
15	116		82° 37'	"	5.4	88° 40'	+2.7	-2.7		6652.4		-19	+114	1,829,571	333,850	
TP	406		81° 00' 43"	"	5.4	88° -	+14.2	+8.8		6663.9	TP	-55	+402	1,829,426	334,139	
TP	406			"	4.2	88° 10'	+13.0	+8.8			TP	"	"			
	699		224° 30' 09"	"	13.7	90° 40'	+8.1	+21.8			BS	+336	+613			
	699			"	11.7	90° 50'	+10.2	+21.9	6685.8		BS	"	"			
16	655		224° 32'	"	9.8	91° 10'	-13.3	-23.1		6662.7		-314	-575	1,829,499	334,128	
17	330		219° 11'	"	6.2	91° 10'	-6.7	-12.9		6672.9		-185	-274	1,829,628	334,479	
18	0			+16.8°	5.2	-		-5.2		6680.6	TP	0	0	1,829,813	334,253	
19	330		39° 29'	"	6.1	89° 16'	+4.8	-1.3		6684.5		+183	+274	1,829,996	335,027	
20	659		42° 14'	"	10.8	88° 40'	+15.3	+4.5		6690.3		+339	+565	1,830,152	335,318	
14	869		42° 15' 21"	"	11.2	88° 50'	+17.7	+6.5		6692.3	14	+447	+745	1,830,260	335,498	4-1,830,255 X-335,500 4-WAY TURN
21	988		42° 56'	"	11.8	88° 52'	+19.5	+7.7		6693.5		+498	+853	1,830,311	335,606	↑
22	1318		43° 40' 50"	"	15.0	88° 40'	+30.7	+15.7		6701.5	TP	+649	+1147	1,830,463	335,901	GILBERT CREEK S.E.
22	1318			"	15.0	271° 20'	+30.7	+15.7			TP	"	"			
	989		222° 21' 12"	"	13.9	90° 30'	+8.6	+22.5			BS	+507	+849			
	989			"	11.0	90° 40'	+11.5	+22.5	6724.0		BS	"	"			
23	660		222° 21'	"	6.5	91° -	-11.5	-18.0		6706.0		-338	-567	1,830,633	336,184	MAN HATTAN Mtn. 7 1/2
24	330		"	"	6.9	91° -	-5.8	-12.7		6711.3		-169	-283	1,830,802	336,468	↓

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10.6.83		B. Cotcamp		D. Wrinkle		6834		D W		7		5				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
NEVADA		MANHATTAN Mtn - 7 1/2		NEVADA		LANDER								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	X
									6724.0							
#	283		223° 08' 58"	+16.8	7.0	91° -	-4.9	-11.9		6712.1	#	-142	-245	1,830,829	336,506	5 - 1830,810 x - 336,500 # 4 way inter.
25	0			"	5.2	-		-5.2		6718.8	π	0	0	1,830,971	336,751	
TP	266		40° 26' 05"	"	3.7	88° -	+9.3	+5.6		6729.6	TP	+144	+224	1,831,116	336,976	
TP	266			"	4.4	87° 50'	+10.0	+5.6			TP	"	"			
	193		193° 32' 01"	"	6.3	-		+6.3			BS	+167	+97			
	193			"	5.3	BH	+1.0	+6.3	6735.9		BS	"	"			
26	129		192° 45'	"	6.2	-		-6.2		6729.7		-112	-64	1,831,172	337,010	
π	0			+16.8°	5.2	-		-5.2		6730.7	π	0	0	1,831,284	337,074	
27	211		66° 11' 41"	"	5.3	-		-5.3		6730.6	TP	+47	+206	1,831,332	337,281	
27	211			"	4.3	BH	-1.1	-5.4			TP	"	"			
	225		226° 49' 53"	"	1.9	88° 30'	-5.9	-4.0			BS	+100	+202			
	225			"	2.6	88° 20'	-6.5	-3.9	6726.7		BS	"	"			
π	0			+16.8°	5.2	-		-5.2		6721.5	π	0	0	1,831,433	337,484	
28	104		34° 39'	"	4.2	90° 30'	-0.9	-5.1		6721.6		+65	+81	1,831,498	337,565	
TP	188		34° 16' 54"	"	4.2	90° 20'	-1.1	-5.3		6721.4	TP	+118	+146	1,831,552	337,631	
TP	188			"	5.3	-		-5.3			TP	"	"			
	282		240° 00' 11"	"	7.8	-		+7.8			BS	+64	+275			
	282			"	7.0	90° 10'	+0.8	+7.8	6729.2		BS	"	"			
29	34		235° 29'	"	5.6	-		-5.6		6723.6		-10	-32	1,831,607	337,875	
π	0			+16.8°	5.2	-		-5.2		6724.0	π	0	0	1,831,617	337,907	

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10.6.83		B. Cotcamp		D. Wrinkle		6834		D W		7		6			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		MANHATTAN MTR - 7E		NEVADA		LANOOR								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
									6729.2						
TP	188		36° 59' 29"	+16.80	4.6	93° 40'	-12.0	-16.6		6712.6	TP	+111	+151	1,831,729	338,059
TP	188			" "	4.1	93° 50'	-12.5	-16.6			TP	"	"		
	180		236° 03' 46"	" "	1.3	86° 30'	-11.0	-9.7			BS	+53	+172		
	180			" "	0.7	86° 40'	-10.4	-9.7	6702.9		BS	"	"		
30	72		233° 16'	" "	3.4	86° 20'	+4.6	+1.2		6704.1		-25	-68	1,831,758	338,164
π	0			+16.80	5.2	-	-	-5.2		6697.7	π	0	0	1,831,783	338,282
TP	221		76° 15' 48"	" "	4.2	98° -	-30.5	-34.7		6668.2	TP	-12	+219	1,831,771	338,452
TP	221			" "	3.6	98° 10'	-31.1	-34.7			TP	"	"		
	110		262° 53' 30"	" "	1.1	86° -	-7.7	-6.6			BS	-18	+108		
	110			" "	0.7	86° 10'	-7.3	-6.6	6661.6		BS	"	"		
31	69		254° 29'	" "	2.6	86° -	+4.8	+2.2		6663.8		+2	-69	1,831,755	338,492
π	0			+16.80	5.2	-	-	-5.2		6656.4	π	0	0	1,831,753	338,561
TP	250		53° 34' 34"	" "	9.1	95° 10'	-22.4	-31.5		6630.1	TP	+84	+235	1,831,837	338,797
TP	250			" "	9.9	95° -	-21.7	-31.6			TP	"	"		
	152		265° 52' 02"	" "	1.0	87° -	-7.9	-6.9			BS	-33	+148		
	152			" "	0.6	87° 10'	-7.5	-6.9	6623.2		BS	"	"		
32	142		261° 42'	" "	2.4	86° 40'	+8.2	+5.8		6629.0		+21	-140	1,831,825	338,906
π	0			+16.80	5.2	-	-	-5.2		6618.0	π	0	0	1,831,804	338,946
33	188		101° 13'	" "	4.4	94° -	-13.1	-17.5		6605.7		-88	+166	1,831,716	339,112

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10.6.83		B. Catcamp		D. Wrinkle		6834		PW		7	7						
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER								
NEVADA		MANHATTAN 7 1/2	NEVADA	LANDER					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		
									6623.2								
TP	261		97° 24' 36"	+16.8°	7.1	94° -	-18.2	-25.3		6597.9	TP	-10.7	+23.7	1,831,697	339,184		
TP	261		"	"	6.4	94° 10'	-18.9	-25.3			TP	"	"				
	291		247° 29' 42"	"	2.9	85° 30'	-22.8	-19.9			BS	+2.9	+28.9				
	291		"	"	3.7	85° 20'	-23.6	-19.9	6578.0		BS	"	"				
34	39		232° 18'	"	4.2	87° 10'	+1.9	-2.3		6575.7		-14	-36	1,831,712	339,438		
π	0		"	+16.8°	5.2	-	-	-5.2		6572.8	π	0	0	1,831,726	339,474		
35	290		29° 12'	"	4.3	94° 30'	-22.7	-27.0		6551.0		+201	+209	1,831,927	339,683		
TP	511		27° 48' 18"	"	6.1	94° 36'	-40.0	-46.1			TP	+36.3	+35.7	1,832,089	339,832		
TP	511		"	"	4.6	94° 46'	-41.4	-46.0		6532.0	TP	"	"				
	259		224° 05' 21"	"	3.3	87° -	-13.5	-10.2			BS	+12.6	+22.6				
	259		"	"	2.6	87° 10'	-12.8	-10.2	6521.8		BS	"	"				
36	249 ^{B.S.L.} 149		223° 40'	"	5.2	86° 10'	+9.9	+4.7		6526.5		-73	-130	1,832,142	339,929		
π	0		"	+16.8°	5.2	-	-	-5.2		6516.6	π	0	0	1,832,215	340,059		
37	181		44° 42'	"	6.6	93° 56'	-12.1	-18.7		6503.1		+86	+159	1,832,301	340,218		
TP	401		43° 27' 23"	"	6.0	94° 10'	-29.1	-35.1		6486.7	TP	+198	+34.7	1,832,413	340,407		
TP	401		"	"	4.9	94° 20'	-30.2	-35.1			TP	"	"				
	306		267° 37' 58"	"	1.9	87° 30'	-13.3	-11.4			BS	-76	+29.6				
	306		"	"	2.8	87° 20'	-14.2	-11.4	6425.3		BS	"	"				
38	187		268° 04'	"	5.1	87° 10'	+9.2	+4.1		6479.4		+48	-181	1,832,385	340,513		
π	0		"	+16.8°	5.2	-	-	-5.2		6470.1	π	0	0	1,832,337	340,704		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE	10-6-83	INSTRUMENT MAN	B. Cotcamp	ROD MAN	D. W. Rinkle	PARTY NUMBER	6834	NOTES CHECKED BY	D.P.	LINE NO.	7	PAGE	8
AREA	NEVADA	TOPO MAP	MANHATTAN Mtn. -15	STATE	NEVADA	COUNTY	LANDER	TWP		RANGE		PPM	
												PARTY MANAGER	L.O. Davis

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
									6475.3										
39	145		106° 42'	+16.80	4.5	92° 50'	-7.2	-11.7		6463.6		-80	+121	1832,257	340,825				
TP	360		106° 27' 31"	"	7.9	92° 50'	-17.8	-25.7			TP	-197	+301	1832,140	341,006				
TP	360			"	6.8	93° -	-18.8	-25.6		6449.7	TP		"						
	449		299° 23' 55"	"	5.4	86° 40'	-26.1	-20.7			BS	-324	+310						
	449			"	6.6	86° 30'	-27.4	-20.8	6428.9		BS		"						
40	330		297° 48'	"	4.6	86° 30'	+20.1	+15.5		6444.4		+232	-235	1832,048	341,082				
41	0			+16.80	5.2	-		-5.2		6423.7	X	0	0	1831,816	341,317				
TP	309		129° 46' 00"	"	5.7	92° 30'	-13.5	-19.2		6409.7	TP	-258	+170	1831,558	341,488				
TP	309			"	6.6	92° 20'	-12.6	-19.2			TP		"						
	430		302° 06' 13"	"	4.9	87° 40'	-17.5	-12.6			BS	-324	+282						
	430			"	6.2	87° 30'	-18.7	-12.5	6397.2		BS		"						
42	419		297° 21'	"	2.9	88° 50'	+8.5	+5.6		6402.8		+292	-301	1831,526	341,470				
43	90		296° 17'	"	4.9	94° -	-6.3	-11.2		6386.0		+61	-66	1831,295	341,705				
X	0			+16.80	5.2	-		-5.2		6392.0	X	0	0	1831,834	341,771	OFF ROAD ON HILL			
44	250		164° 19'	"	4.9	95° 20'	-23.1	-28.0		6369.2		-250	-5	1830,984	341,766				
TP	491		147° 11' 22"	"	3.7	94° 40'	-39.8	-43.5		6353.7	TP	-470	+135	1830,764	341,907				
TP	491			"	7.9	94° 10'	-35.6	-43.5			TP		"						
	147		274° 57' 05"	"	6.6	86° 20'	-9.4	-2.8			BS	-54	+136						
	147			"	7.0	86° 10'	-9.8	-2.8	6350.9		BS		"						
45	116		265° 42'	"	4.1	87° 20'	+5.4	+1.3		6352.2		+25	-113	1830,735	341,931				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10.6.83		B. Cotcamp		D. Wrinkle		6834		P W		7	9						
AREA		TOPO MAP		STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER								
NEVADA		Manhattan Mtn. - 7 1/2'		NEVADA	LANDER				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 +	EAST +	COORDINATES		REMARKS	
												SOUTH -	WEST -	Y	X		
												LAT.	DEP.	Y	X		
									6350.9								
K	0			+16.8°	5.2	-		-5.2		6345.7	K	0	0	1830,710	342,044		
46	205		151° 59' 16"	"	8.0	92° 20'	-8.3	-16.3		6334.6	TP	-201	+40	1830,509	342,085		
46	205			"	8.6	92° 10'	-7.7	-16.3			TP		"				
	221		300° 28' 38"	"	4.6	86° 50'	-12.2	-7.6			BS	-162	+150				
	221			"	5.3	86° 40'	-12.8	-7.5	6327.1		BS						
K	0			+16.8°	5.2	-		-5.2		6321.9	K	0	0	1830,347	342,235		
47	109		133° 18'	"	4.9	93° -	-5.7	-10.6		6316.5		-94	+54	1830,253	342,289		
TP	348		132° 31' 17"	"	4.2	93° 10'	-19.2	-23.4		6303.7	TP	-299	+177	1830,048	342,412		
TP	348			"	5.3	93° -	-18.2	-23.5			TP						
	293		295° 28' 41"	"	9.5	86° -	-20.4	-10.9			BS	-197	+216				
	293			"	10.4	85° 50'	-21.2	-10.8	6292.9		BS						
48	207		290° 14'	"	4.1	87° 10'	+10.2	+6.1		6299.0		+125	-165	1829,976	342,463		
K	0			+16.8°	5.2	-		-5.2		6287.7	K	0	0	1829,851	342,628		
49	122		137° 20'	"	9.0	91° -	-2.1	-11.1		6281.8		-110	+53	1829,741	342,681		
TP	230		132° 51' 56"	"	5.7	92° 40'	-10.7	-16.4		6276.5	TP	-198	+116	1829,653	342,744		
TP	230			"	6.4	92° 30'	-10.0	-16.4			TP						
	614		299° 05' 59"	"	7.2	87° -	-32.1	-24.9			BS	-440	+427				
	614			"	5.4	87° 10'	-30.4	-25.0	6251.5		BS						
50	395		298° 40'	"	7.0	87° 10'	+19.5	+12.5		6264.0		+282	-277	1829,495	342,894		
51	70		307° 32'	"	5.9	88° 40'	+1.6	-4.3		6247.2		+57	-41	1829,270	343,130		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY			LINE NO.		PAGE			
10.6.83		B. Cotcamp		D. Wrinkle		6834		D W			7		10			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
NEVADA		Manhattan Map - 7 1/2'		NEVADA		LANDER								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	X
									6251.5							
TP	0			+16.8°	5.2	-		-5.2		6246.3	TP	0	0	1,829,213	343,171	Access Road
52	266		161° 05'	"	6.8	93° 50'	-17.7	-24.5		6227.0		-266	+10	1,828,947	343,181	
TP	519		159° 31' 41"	"	7.0	93° 50'	-34.6	-41.6		6209.9	TP	-517	+33	1,828,696	343,204	
TP	519			"	8.5	93° 40'	-33.1	-41.6			TP					
	408		344° 45' 28"	"	4.4	87° 10'	-20.1	-15.7			BS	-407	-11			
	408			"	3.2	87° 20'	-19.0	-15.8	6194.1		BS					
53	330		343° 23'	"	3.9	87° 20'	+15.3	+11.4		6205.5		+330	+1	1,828,619	343,194	
54	0			+16.8°	5.2	-		-5.2		6188.9	TP	0	0	1,828,289	343,193	
TP	202		129° 11' 10"	"	6.4	93° 20'	-11.7	-18.1		6176.0	TP	-167	+113	1,828,122	343,306	Y-1,828,100-343,280 1/4-ROAD WEST FL. 6176.0
55	328		125° 22' 43"	"	11.3	92° 10'	-12.4	-23.7			TP	-259	+201	1,828,030	343,394	
55	328			"	12.2	92° -	-11.4	-23.6		6170.5	TP					
	490		279° 46' 35"	"	4.6	86° 30'	-29.9	-25.3			BS	-219	+437			
	490			"	3.1	86° 40'	-28.4	-25.3	6145.2		BS					
56	166		279° 04'	"	4.6	86° 40'	+9.3	+4.7		6149.9		+70	-144	1,827,881	343,687	
TP	0			+16.8°	5.2	-		-5.2		6140.0	TP	0	0	1,827,811	343,831	
57	170		107° 19'	+16.8°	7.1	92° -	-5.9	-13.0		6132.2		-95	+141	1,827,716	343,972	
TP	327		107° 50' 29"	+16.6°	8.3	92° -	-11.4	-19.7		6125.5	TP	-185	+270	1,827,626	344,101	
TP	327			"	7.4	92° 10'	-12.4	-19.8			TP					
	958		310° 27' 11"	"	6.0	87° -	-50.1	-44.1			BS	-803	+520			
	958			"	8.8	86° 50'	-52.8	-44.0	6081.5		BS					

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
10.6.83		B. Cotcamp		D. Wainkle		6834		DW		7	11					
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
NEVADA		Maudslayi Mtn. - 7 1/2		NEVADA		LANDER					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									6081.5							
58	780		309° 37'	+16.6°	8.7	87° -	+40.8	+32.1		6113.6		+648	-434	1827471	344187	
59	449		309° 31'	" "	8.1	87° -	+23.5	+15.4		6096.9		+373	-250	1827196	344371	
60	120		305° 39'	" "	7.7	87° -	+6.3	-1.4		6080.1		+95	-73	1826913	344548	
TP	0			+16.6°	5.2	-		-5.2		6076.3	TP	0	0	1826823	344621	E.D.M. setup
61	268		112° 56'	" "	5.9	93° 46'	-13.3	-19.2		6062.3		-132	+160	1826691	344781	
TP	442		112° 28' 23"	" "	7.2	93° 20'	-25.7	-32.9		6048.6	TP	-278	+343	1826545	344964	
TP	442			" "	5.9	93° 30'	-22.0	-32.9			TP					
	467		291° 24' 11"	" "	8.5	87° -	-24.4	-15.9			BS	-287	+367			
	467			" "	7.2	87° 10'	-23.1	-15.9	6032.7		BS					
62	377		296° 35'	" "	5.6	87° 10'	+18.6	+13.0		6045.7		+258	-275	1826516	345056	
63	49		277° 54'	" "	5.6	86° 20'	+3.1	-2.5		6030.2		+20	-45	1826278	345286	
TP	0			+16.6°	5.2	-		-5.2		6027.5	TP	0	0	1826258	345331	E.D.M. across Road
64	282		113° 47'	" "	5.5	91° 40'	-8.2	-13.7		6019.0		-183	+215	1826075	345546	
65	612		114° 10'	" "	8.9	91° 50'	-19.6	-28.5		6004.2		-400	+464	1825858	345795	
TP	704		113° 48' 40"	" "	4.3	92° 16'	-26.6	-30.9		6001.8	TP	-456	+536	1825802	345867	
TP	704			" "	6.4	92° -	-24.6	-31.0			TP					
	536		284° 35' 48"	" "	8.0	87° 40'	-21.8	-13.8			BS	-277	+458			
	536			" "	9.6	87° 30'	-23.4	-13.8	5988.0		BS					
66	299		282° 22'	" "	7.1	87° 30'	+13.0	+5.9		5993.9		+145	-262	1825620	346063	
TP	0			+16.6°	5.2	-		-5.2		5982.8	TP	0	0	1825525	346325	E.D.M.

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10.7.83		B. Cotcamp		D. Wrinkle		6834		DW		7		12			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Manhattan Mtn. - 7 1/2'		NEVADA		LANDER								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
									5988.0						
67	30		101° 34'	+166°	5.2	93° 16'	-1.7	-6.9		5981.1		-14	+126	1,825,511	346,351
68	360		" "	" "	8.3	92° 30'	-15.7	-24.0		5964.0		-170	+317	1,825,355	346,642
69	689		101° 47'	" "	6.0	92° 50'	-34.0	-40.0		5948.0		-328	+606	1,825,197	346,931
TP	775		99° 23' 30"	" "	11.8	92° 10'	-29.3	-41.1		5946.9	TP	-340	+696	1,825,185	347,021
TP	775		" "	" "	14.1	92° -	-27.0	-41.1			TP				
	1463		281° 21' 39"	" "	8.2	87° 20'	-65.3	-57.1			BS	-657	+1238		
	1403		" "	" "	8.2	272° 40'	-65.3	-57.1	5889.8		BS				
70	1158		280° 53'	" "	12.1	87° 34'	+49.1	+37.0		5926.8		+534	-1027	1,825,062	347,232
71	830		282° 08'	" "	7.3	88° -	+29.0	+21.7		5911.5		+399	-728	1,824,927	347,531
72	501		282° 11'	" "	10.2	88° -	+17.5	+7.3		5897.1		+241	-439	1,824,769	347,820
73	170		281° 17'	" "	5.1	88° -	+5.9	+0.8		5890.6		+80	-150	1,824,608	348,109
π	0		" "	+166°	5.2	-		-5.2		5884.6	π	0	0	1,824,528	348,259 E. DM
74	159		102° 28'	" "	5.7	93° 20'	-9.2	-14.9		5874.9		-77	+139	1,824,451	348,398
75	475		120° 15'	" "	14.7	92° 36'	-21.5	-36.2		5853.6		-347	+325	1,824,181	348,584
76	801		121° 53'	" "	8.1	92° 40'	-37.2	-45.3		5844.5		-600	+531	1,823,928	348,790
77	1128		121° 15'	" "	14.1	92° 30'	-49.2	-63.3		5826.5		-836	+757	1,823,692	349,016
78	1442		121° 41' 24"	" "	13.2	92° 40'	-67.1	-80.3		5809.5	TP	-1075	+958	1,823,453	349,217
78	1442		" "	+166°	13.2	267° 20'	-67.1	-80.3			TP				
	777		285° 02' 02"	+164°	7.7	-		+2.7	5817.2		BS	-405	+663		
	777		" "	+164°	9.9	89° 50'	-2.3	+7.6			BS				

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-7-83		B. Cotcamp		D. Wrinkle		6834		PW		7		13			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		MANHATTAN Mtn. - 7 1/2		NEVADA		LANDER								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
									5817.2						
79	519		302° 24'	+16.4	9.1	88° 40'	+12.1	+3.0		5820.2		+391	-342	1823,439	349,538
80	193		310° 36'	"	5.4	88° 40'	+4.5	-0.9		5816.3		+162	-105	1823,210	349,775
π	0			+16.4	5.2	-		-5.2		5812.0	π	0	0	1823,048	349,880 OFF ROAD E.D.M.
81	138		123° 25'	"	5.3	92° 20'	-5.6	-10.9		5806.3		-105	+89	1822,943	349,969
82	465		131° 57' 40"	"	6.8	92° 30'	-20.3	-27.1			TP	-396	+244	1822,652	350,124
82	465			"	8.1	92° 20'	-18.9	-27.0		5790.2	TP				
	1793		320° 22' 26"	"	6.9	88° 20'	-52.1	-45.2	5745.0		BS	-1647	+707		
	1793			"	6.8	271° 40'	-52.1	-45.3			BS				
83	1463		320° 20'	"	7.1	88° 20'	+42.5	+35.4		5780.4		+1344	-578	1822,319	350,253
84	1133		320° 07'	"	8.6	88° 20'	+32.9	+24.3		5769.3		+1039	-451	1822,044	350,380
85	803		319° 51'	"	9.0	88° 20'	+23.3	+14.3		5759.3		+735	-323	1821,740	350,508
86	473		319° 16'	"	9.2	88° 20'	+13.8	+4.6		5749.6		+431	-195	1821,436	350,634
87	143		317° 57'	"	6.9	88° 20'	+4.2	-2.7		5742.3		+129	-62	1821,134	350,769
π	0			+16.4	5.2	-		-5.2		5739.8	π	0	0	1821,005	350,831 E.D.M. ↑
88	187		134° 36'	"	9.7	93° 20'	-10.9	-20.6		5724.4		-164	+91	1820,841	350,922 MANHATTAN Mtn - 7 1/2
89	517		"	"	9.2	93° -	-27.0	-36.2		5708.8		-452	+251	1820,553	351,082 Vigas Butte N.W - 7 1/2
90	847		134° 03'	"	8.1	92° 30'	-36.9	-45.0		5700.0		-737	+418	1820,262	351,249 ↓
∞	897		133° 08' 10"	"	8.0	92° 30'	-39.1	-47.1		5697.9	∞	-772	+454	1820,233	351,285 y-1820,300 x-351,210 R 5-Inter.
91	1165		129° 16'	"	7.7	92° 30'	-50.8	-58.5		5686.5		-962	+657	1820,048	351,488

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10.7.83		B. Cotcamp		D. Wrinkle		6834		DW		7		14			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Vigas Butte N.W. - 7 1/2		NEVADA		LANDER								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
									5745.0						
92	1486		126° 04' 31"	+16.4°	8.9	92° 10'	-56.2	-65.1		5679.9	TP	-1178	+904	1,819,827	351,735
92	1486			"	13.3	92° -	-51.9	-65.2			TP				
	985		303° 59' 46"	"	9.4	88° -	-34.4	-25.0			BS	-758	+628		
	985			"	6.5	88° 10'	-31.5	-25.0	5654.9		BS				
93	658		306° 28'	"	12.4	88° 10'	+21.0	+8.6		5663.5		+525	-397	1,819,594	351,966
94	329		309° 11'	"	6.8	87° 40'	+13.4	+6.6		5661.5		+271	-186	1,819,340	352,177
95	0			+16.4°	5.2	-	-	-5.2		5649.7	X	0	0	1,819,069	352,363
96	330		117° 39'	"	4.4	91° -	-5.8	-10.2		5644.7		-229	+237	1,818,840	352,600
97	660		116° 51'	"	12.0	91° -	-11.5	-23.5		5631.4		-452	+481	1,818,617	352,844
98	989		117° 01' 32"	"	9.2	91° 10'	-20.1	-29.3		5625.6	TP	-670	+718	1,818,399	353,081
98	989			"	12.0	91° -	-17.3	-29.3			TP				
	1592		309° 35' 26"	"	10.2	87° 30'	-69.4	-59.2			BS	-1318	+890		
	1592			"	10.2	87° 30'	-69.4	-59.2	5566.4		BS				
99	1273		312° 56'	"	11.7	87° 40'	+51.8	+40.1		5606.5		+1095	-649	1,818,176	353,322
100	952		312° 08'	"	8.8	87° 40'	+38.2	+29.9		5596.3		+812	-497	1,817,893	353,474
101	654		301° 44'	"	8.1	87° 40'	+26.6	+18.5		5584.9		+487	-436	1,817,568	353,535
102	330		298° 54'	"	7.1	87° 40'	+13.4	+6.3		5572.7		+235	-232	1,817,316	353,739
103	0			+16.4°	5.2	-	-	-5.2		5561.2	X	0	0	1,817,081	353,971
104	330		124° 05'	"	9.0	94° 40'	-26.8	-35.8		5530.6		-255	+210	1,816,826	354,181
105	639		136° 04'	"	9.9	95° 20'	-59.1	-69.0		5497.4		-567	+295	1,816,514	354,266

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10.7.83		B. Cotcamp		D. Wrinkle		6834		DW		7		15			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Vigas Butte N.w. - 7 1/2		NEVADA		LANDER								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
									5566.4						
106	966		136° 46'	+16.4°	7.3	94° 40'	-78.3	-85.6		5480.8		-862	+436	1816,219	354,407
107	1295		135° 52'	"	10.7	93° 40'	-82.6	-93.3		5473.1		-1146	+603	1815,935	354,574
45	1508		136° 11' 17"	45	11.7	93° 20'	-87.5	-99.2		5467.2	45	-1336	+693	1815,745	354,664
108	1622		135° 50' 52"	"	7.4	93° 20'	-94.3	-101.7		5464.7	TP	-1433	+754	1815,648	354,725
108	1622			"	7.4	266° 40'	-94.3	-101.7			TP				
	2238		309° 07' 33"	"	+1.0	-		+1.0			BS	-1845	+1267		
	2238			"	+0.7	270 -		+0.7		5465.5	BS				
109	1909		308° 58'	"	9.1	-		-9.1		5456.4		+1571	-1085	1815,374	354,907
110	1581		307° 54'	"	7.2	Bm	-7.9	-15.1		5450.4		+1284	-923	1815,087	355,069
111	1254		308° 32'	"	10.8	90° 30'	-10.9	-21.7		5443.8		+1026	-720	1814,829	355,272
112	961		301° 46'	"	9.9	90° 30'	-8.4	-18.3		5447.2		+716	-641	1814,519	355,351
112	758		296° 37' 53"	+16.4°	8.7	90° 30'	-6.6	-15.3		5450.2	112	+517	-554	1814,320	355,438
Bm	1259		247° 30' 49"	"	8.0	90° 10'	-3.7	-11.7		5453.8	Bm	-133	-1252	1813,670	354,740
113	653		294° 51'	"	8.5	90° 30'	-5.7	-14.2		5451.3		+431	-490	1814,234	355,502
114	326		299° 52'	"	6.7	90° 30'	-2.8	-9.5		5456.0		+236	-225	1814,039	355,767
115	0			+16.4°	5.2	-		-5.2		5460.3	X	0	0	1813,803	355,992
116	330		147° 56'	"	6.8	89° 10'	+4.8	-2.0		5463.5		-318	+89	1813,485	356,081
117	660		" "	"	7.2	89° 10'	+9.6	+2.4		5467.9		-635	+178	1813,168	356,170
118	990		" "	"	8.2	89° 10'	+14.4	+6.2		5471.7		-953	+267	1812,850	356,259
119	1317		146° 42'	"	7.3	89° 10'	+19.1	+11.8		5477.3		-1260	+383	1812,543	356,375

5-1815,745 x - 354,695
4 way INTER. Elev 5466.9

5-1814,365 x - 355,445
OLD RAILROAD GRADE
5-1813,670 x 354,740
U.S.G.S. Bm Elev 5454.2
19
HORIZ 5-112
CORR. X - +29

E.O.M.

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE								
10-7-83		B. Cotcamp		D. Winkle		6834		DW		4	16								
AREA		TOPO MAP	STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER											
NEVADA		Vigas Butte n.w. - 7 1/2	NEVADA	LANDER				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				
									5465.5										
120	1395		146° 12' 29"	+16.4°	7.2	89° 10'	+20.3	+13.1		5478.6	√	-1331	+417	1812472	356409				
121	1642		144° 25'	"	7.7	89° 10'	+23.9	+16.2		5481.7		-1551	+540	1812252	356532				
122	1968		142° 43'	"	7.9	89° 10'	+28.6	+20.7		5486.2		-1839	+702	1811964	356694				
122	2288		140° 33' 47"	+16.4°	7.6	89° 10'	+33.3	+25.7		5491.2	TP	-2105	+895	1811698	356887				
122	2288			+16.4°	14.2	89° -	+39.9	+25.7			TP								
	2293		300° 58' 44"	+16.2°	12.5	90° 40'	+26.7	+39.2			BS	-1687	+1553						
	2293			"	12.4	269° 20'	+26.7	+39.1	5530.3		BS								
123	1964		300° 09'	"	10.9	90° 40'	-22.8	-33.7		5496.6		+1421	-1356	1811487	357089				
124	1635		299° 44'	"	9.7	90° 40'	-19.0	-28.7		5501.6		+1175	-1137	1811191	357308				
125	1305		299° 32'	"	8.1	90° 40'	-15.2	-23.3		5507.0		+935	-911	1810951	357534				
126	983		296° 04'	"	8.0	90° 40'	-11.4	-19.4		5510.9		+661	-727	1810677	357718				
127	655		293° 51'	"	6.7	90° 40'	-7.6	-14.3		5516.0		+421	-501	1810437	357944				
128	329		297° 30'	"	5.9	90° 40'	-3.8	-9.7		5520.6		+227	-238	1810243	358207				
129	0			+16.2°	5.2	-		-5.2		5525.1	X	0	0	1810016	358445				
130	329		129° 48'	"	6.7	89° -	+5.7	-1.0		5529.3		-273	+184	1809743	358629				
131	640		116° 55'	"	8.8	89° -	+11.2	+2.4		5532.7		-437	+467	1809579	358912				
TP	733		113° 27' 35"	"	7.0	89° -	+12.8	+5.8		5536.1	TP	-470	+563	1809546	359008				y = 1,809,590 x = 359,010
IL	632		96° 21' 31"	"	4.0	89° -	+11.0	+7.0		5537.3	IL	-244	+583	1809772	359028				Inter to = 1,809,810 x = 359,025 Inter
132	959		112° 17'	"	5.6	89° -	+16.7	+11.1		5541.4		-597	+751	1809419	359196				
133	1284		114° 47'	"	5.9	88° 50'	+26.1	+20.2		5550.5		-842	+969	1809174	359414				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10.7.83		B. Cotcamp		D. WRINKLE		6834		DW		7		17			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Vigas Butte N.W. 7 1/2		NEV.		LANDER								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
									5530.3						
134	1612		115° 53'	+16.2°	7.2	88° 50'	+32.8	+25.6		5555.9		-1086	+1196	1,808,936	359,641
135	1941		116° 42'	"	9.2	88° 50'	+39.5	+30.3		5560.6		-1321	+1422	1,808,695	359,867
136	2270		117° 14'	"	11.1	88° 50'	+46.2	+35.1		5565.4		-1561	+1648	1,808,455	360,093
137	2600		117° 27 02"	+16.2°	8.8	88° 50'	+52.9	+44.1		5574.4	TP	-1794	+1881	1,808,222	360,326
137	2600			"	8.7	271 10'	+52.9	+44.2			TP				
	1647		292° 52 34"	"	10.0	90° 40'	+19.2	+29.2			BS	-1038	+1278		
	1647			"	14.7	90° 30'	+14.4	+29.1	5603.5		BS				
138	1320		293° 01'	"	9.2	90° 50'	-19.2	-28.4		5575.1		+835	-1023	1,808,019	360,581
139	990		" "	"	10.1	90° 50'	-14.4	-24.5		5579.0		+626	-767	1,807,810	360,837
140	660		" "	"	7.4	90° 50'	-9.6	-17.0		5586.5		+417	-511	1,807,601	361,093
141	330		" "	"	6.6	90° 50'	-4.8	-11.4		5592.1		+209	-256	1,807,393	361,348
142	0			+16.2°	5.2	-		-5.2		5598.3	X	0	0	1,807,184	361,604
143	330		113° 20'	"	8.7	88° 50'	+6.7	-2.0		5601.5		-210	+255	1,806,974	361,859
144	660		" "	"	7.1	88° 50'	+13.4	+6.3		5609.8		-420	+509	1,806,764	362,113
145	990		" "	"	8.5	88° 50'	+20.2	+11.7		5615.2		-630	+764	1,806,554	362,368
146	1318		111° 24 24"	"	11.0	88° 50'	+26.8	+15.8		5619.3	TP	-804	+1044	1,806,380	362,648
146	1318			"	7.2	89° -	+23.0	+15.8			TP				
	1318		276° 24 29"	"	12.5	90° 50'	+19.2	+31.7			BS	-507	+1217		
	1318			"	8.7	91° -	+23.0	+31.7	5651.0		BS				
147	990		274° 25'	+16.2°	12.7	90° 50'	-14.4	-27.1		5623.9		+349	-927	1,806,222	362,938

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10.8.83		B. Cotcamp		D. Wrinkle		6834		DW		7		18			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Vigas Butte N.W. - 7 1/2'		NEV.		LANDER								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
									5651.0						
148	660		273° 26'	+16.2°	7.0	90° 50'	-9.6	-16.6		5634.4		+222	-622	1,804,095	363,243
149	330		" "	" "	7.0	90° 10'	-1.0	-8.0		5643.0		+111	-311	1,805,987	363,554
150	0			+16.2°	5.2	-		-5.2		5645.8	X	0	0	1,805,873	363,865
151	330		93° 30'	" "	5.4	-		-5.4		5645.6		-111	+311	1,805,762	364,176
152	660		" "	" "	7.0	-		-7.0		5644.0		-222	+621	1,805,651	364,486
153	990		93° 59'	" "	9.1	TH	+5.0	-4.1		5646.9		-342	+929	1,805,531	364,794
154	1320		94° 27'	" "	5.0	TH	+6.6	+1.6		5652.6		-466	+1235	1,805,407	365,100
155	1650		94° 53'	" "	9.0	89° 20'	+19.2	+10.2		5661.2		-594	+1540	1,805,279	365,405
156	1980		95° 17'	" "	9.0	89° -'	+34.6	+25.6		5676.6		-725	+1842	1,805,148	365,707
157	2309		95° 25'	" "	9.7	88° 40'	+53.7	+44.0		5695.0		-851	+2147	1,805,022	366,012
158	2626		93° 31' 12"	" "	8.1	88° 30'	+68.7	+60.6		5711.6	TP	-886	+2471	1,804,987	366,336
158	2626		" "	" "	8.0	271° 30'	+68.7	+60.7			TP				
	1114		247° 06' 12"	" "	+11.0	92° -'	+38.9	+49.9			BS	+130	+1106		
	1114		" "	" "	+7.8	92° 10'	+42.1	+49.9	5761.5		BS				
159	788		250° 26'	" "	8.9	92° -'	-27.5	-36.4		5725.1		-46	-787	1,805,071	366,655
160	468		257° 40'	" "	5.7	92° -'	-16.3	-22.0		5739.5		+32	-467	1,805,149	366,975
161	143		268° 06'	" "	5.2	92° -'	-5.0	-10.2		5751.3		+35	-139	1,805,152	367,303
X	0		" "	+16.2°	5.2	-		-5.2		5756.3	X	0	0	1,805,117	367,442
162	186		100° 42'	" "	6.3	87° 30'	+8.1	+1.8		5763.3		-84	+166	1,805,033	367,608
163	511		110° 21'	" "	8.2	87° 10'	+25.2	+17.0		5778.5		-304	+411	1,804,813	367,853

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10.8.83		B. Cotcamp		D. Wrinkle		6834		DN		7		19			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Vigas Butte N.W. - 7 1/2		NEVADA		LANDER								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
									5761.5						
164	824		118° 24'	+16.2°	10.8	87° 20'	+38.3	+27.5		5789.0		-579	+587	1804,538	368,029
165	1129		125° 57'	"	11.5	87° 20'	+52.5	+41.0		5802.5		-891	+693	1804,226	368,135
166	1458		127° 06'	"	11.3	87° 30'	+63.5	+52.2		5813.7		-1169	+871	1803,948	368,313
TP	1632		125° 57' 54"	"	7.3	87° 30'	+71.2	+63.9		5825.4	TP	-1288	+1000	1803,829	368,442
TP	1632			"	12.1	87° 20'	+75.9	+63.8			TP				
	605		280° 11' 05"	"	13.0	92°	+21.1	+34.1			BS	-269	+542		
	605			"	11.2	92° 10'	+22.9	+34.1	5859.5		BS				
167	453		278° 46'	"	7.2	92° 30'	-19.7	-26.9		5832.6		+191	-411	1803,751	368,573
168	125		270° 12'	"	7.7	-		-7.7		5851.8		+35	-120	1803,595	368,864
X	0			+16.2°	5.2	-		-5.2		5854.3	X	0	0	1803,560	368,984
169	207		74° -	"	6.2	86° 40'	+12.0	+5.8		5865.3		-1	+207	1803,559	369,191
170	537		72° 07' 44"	"	7.1	87° 30'	+23.4	+16.3		5875.8	TP	+16	+536	1803,576	369,520
170	537			"	5.6	87° 40'	+21.9	+16.3			TP				
	3297		270° 31' 20"	"	12.3	91° 06'	+63.3	+75.6			BS	-948	+3157		
	3297			"	12.2	268° 54'	+63.3	+75.5	5951.3		BS				
171	2971		271° 12'	"	10.9	91° 04'	-55.3	-66.2		5885.1		+888	-2835	1803,516	369,842
172	2640		"	"	9.8	91° 04'	-49.1	-58.9		5892.4		+789	-2519	1803,417	370,158
172	2466		269° 25' 42"	"	11.3	91° 04'	-45.9	-57.2		5894.1		+664	-2374	1803,292	370,303
173	2310		271° 12'	"	11.2	91° -	-40.3	-51.5		5899.8		+691	-2204	1803,319	370,473
174	1980		"	+16.2°	10.1	91° -	-34.6	-44.7		5906.6		+592	-1889	1803,220	370,788

3-1,803,310 x-370,300
 fence corner Elev. 5896.0
 ↑
 Vigas Butte N.W. - 7 1/2

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10.8.83		B. Cotcamp		D. Winkle		6834		DN		7		20				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
NEVADA		Vigas Butte N.E. 7 1/2		NEVADA		LANDER								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH+ SOUTH - LAT.	EAST+ WEST - DEP.		Y	X
									5951.3							
175	1650		271° 12'	+16.2°	9.2	91° -	-28.8	-38.0		5913.3		+493	-1575	1803,121	371,102	Vigas Butte N.E. 7 1/2
176	1320		" "	" "	8.9	91° -	-23.0	-31.9		5919.4		+395	-1260	1803,023	371,417	↓
177	990		" "	" "	7.7	91° -	-17.3	-25.0		5926.3		+296	-945	1802,924	371,732	
178	660		" "	" "	6.7	91° -	-11.5	-18.2		5933.1		+197	-630	1802,825	372,047	
179	330		" "	" "	6.1	91° -	-5.8	-11.9		5939.4		+99	-315	1802,727	372,362	
180	0			+16.2°	5.2	-		-5.2		5946.1	X	0	0	1802,628	372,677	
181	330		90° 22'	" "	5.9	88° 40'	+7.7	+1.8		5953.1		-94	+316	1802,534	372,993	
182	660		" "	" "	9.0	88° 40'	+15.4	+6.4		5957.7		-188	+633	1802,440	373,310	
183	990		" "	" "	8.8	88° 40'	+23.0	+14.2		5965.5		-282	+949	1802,346	373,626	
184	1320		" "	" "	9.9	88° 40'	+30.7	+20.8		5972.1		-376	+1265	1802,252	373,942	
185	1650		" "	" "	11.3	88° 40'	+38.4	+22.1		5978.4		-470	+1582	1802,158	374,259	
186	1980		90° 12'	" "	7.9	88° 50'	+40.3	+32.4		5983.7		-559	+1899	1802,069	374,576	
187	2310		" "	" "	9.3	88° 50'	+47.0	+32.7		5989.0		-652	+2216	1801,976	374,893	
188	2640		" "	" "	11.2	88° 50'	+53.8	+42.6		5993.9		-745	+2533	1801,883	375,210	
189	2970		" "	" "	9.7	88° 54'	+52.0	+47.3		5998.6		-839	+2849	1801,789	375,526	
190	3301		90° 12 55	" "	14.3	88° 50'	+67.2	+52.9		6004.2	TP	-933	+3166	1801,695	375,843	
190	3301		" "	" "	14.2	271° 10'	+67.2	+53.0			TP					
	3298		271° 37 28"	" "	+13.4	91° 04'	+61.4	+74.8			BS	-1009	+3139			
	3298		" "	" "	+13.5	268° 56'	+61.4	+74.9	6079.1		BS					
191	2968		271° 47'	+16.2°	8.1	91° 10'	-60.4	-68.5		6010.6		+916	-2823	1801,602	376,159	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10.8.83		B. Cotamp		D. Winkle		6834		D.W.		4		21			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Vigas Butte N.E. - 7 1/2		NEVADA		LANDER								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
									6079.1						
192	2638		271° 59'	+16.2°	8.0	91° 10'	-53.7	-61.7		6017.4		+823	-2506	1801,509	376,476
193	2308		272° 15'	"	7.7	91° 10'	-47.0	-54.7		6024.4		+730	-2187	1801,416	376,793
194	1978		272° 27'	"	7.1	91° 10'	-40.3	-47.4		6031.7		+633	-1874	1801,319	377,108
195	1648		272° 38'	"	7.2	91° 10'	-33.6	-40.8		6038.3		+532	-1560	1801,218	377,422
196	1318		272° 50'	"	9.1	91° -	-23.0	-32.1		6047.0		+430	-1246	1801,116	377,736
197	988		273° 11'	"	8.1	91° -	-17.2	-25.3		6053.8		+328	-932	1801,014	378,050
198	659		274° 01'	"	6.7	91° -	-11.5	-18.2		6060.9		+228	-618	1800,914	378,364
199	330		275° 24'	"	5.4	91° -	-5.8	-11.2		6067.9		+121	-307	1800,807	378,675
200	0			+16.2°	5.2	-		-5.2		6073.9	TP	0	0	1800,686	378,982
1#	19		75° 43' 06"	"	4.7	-		-4.7		6074.4	1#	-1	+19	1800,685	379,001
201	330		102° 40'	"	7.1	88° 40'	+7.7	+0.6		6079.7		-159	+289	1800,527	379,271
202	660		" "	"	9.2	88° 40'	+15.4	+6.2		6085.3		-319	+578	1800,367	379,560
203	990		" "	"	11.1	88° 40'	+23.0	+11.9		6091.0		-478	+867	1800,208	379,849
204	1320		102° 34'	"	12.7	88° 40'	+30.7	+18.0		6097.1		-635	+1157	1800,051	380,139
205	1650		102° 23'	"	8.3	88° 50'	+33.6	+25.3		6104.4		-789	+1449	1799,897	380,431
206	1980		102° 05'	"	4.8	88° 50'	+40.3	+35.5		6114.6		-938	+1744	1799,748	380,726
2#	2201		101° 48'	"	9.1	88° 40'	+51.2	+42.1		6121.2	2#	-1033	+1943	1799,653	380,925
207	2310		101° 37'	"	9.1	88° 40'	+53.7	+44.6		6123.7		-1078	+2043	1799,608	381,025
208	2639		101° 13'	+16.2°	9.0	88° 40'	+61.4	+52.4		6131.5		-1215	+2343	1799,471	381,325

y = -1,800,700 x = 379,000

1# T-Road South. Elev 6076

y = -1,799,690 x = 380,905

2# T-Road North

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
10.8.83		B. Costamp		D. Wrinkle		6834		DN		7	22					
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
NEVADA		Vigas Butte N.E. - 7 1/2		NEVADA	LANDER					L. O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES Y X		REMARKS
									6079.1							
209	2968		100° 48'	+16.2°	8.2	88° 40'	+69.0	+60.8		6139.9		-1347	+2645	1,799,399	381,627	
210	3298		100° 26' 28"	"	8.7	88° 40'	+76.7	+68.0		6147.1	TP	-1478	+2947	1,799,208	381,929	
210	3298			"	8.6	271° 20'	+76.7	+68.1			TP					
	2294		271° 00' 59"	"	12.4	91° 20'	+53.4	+65.8			BS	-679	+2191			
	2294			"	12.5	268° 40'	+53.4	+65.9	6213.0		BS					
211	1966		269° 56'	"	12.2	91° 20'	-45.7	-57.9		6155.1		+546	-1889	1,799,075	382,231	
212	1639		268° 28'	"	12.8	91° 20'	-38.1	-50.9		6162.1		+415	-1586	1,798,944	382,534	
213	1314		266° 15'	"	9.4	91° 30'	-34.4	-43.8		6169.2		+283	-1283	1,798,812	382,837	
214	990		263° 26'	"	10.6	91° 30'	-25.9	-36.5		6176.5		+166	-976	1,798,695	383,144	
215	660		263° 01'	"	9.5	91° 30'	-17.3	-26.8		6186.2		+106	-651	1,798,635	383,469	
216	330		"	"	9.9	91° 30'	-8.6	-18.5		6194.5		+53	-326	1,798,582	383,794	
#1	296		264° 33' 16"	"	5.4	92° 20'	-12.0	-17.4		6195.6		+55	-291	1,798,584	383,829	1,798,595 X - 383,800 ROAD north
217	0			+16.2°	5.2	-		-5.2		6207.8	X	0	0	1,798,529	384,120	
218	329		90° 30'	"	6.3	88° -	+11.5	+5.2		6218.2		-95	+315	1,798,434	384,435	Silver Creek Ranch sign
219	654		97° 26'	"	8.6	88° 20'	+19.0	+10.4		6223.4		-262	+599	1,798,267	384,719	
220	981		100° 41'	"	10.0	88° 30'	+25.7	+15.7		6228.7		-444	+875	1,798,085	384,995	
221	1305		103° 46'	"	8.4	88° 30'	+34.2	+25.8		6238.8		-652	+1131	1,797,877	385,251	
222	1631		105° 40'	"	8.3	88° 40'	+37.9	+29.6		6242.6		-861	+1385	1,797,668	385,505	
223	1961		105° 49'	"	6.9	88° 40'	+45.6	+38.7		6251.7		-1040	+1663	1,797,489	385,783	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE 10-8-83	INSTRUMENT MAN B. Cotcamp	ROD MAN D. Winkle	PARTY NUMBER 6834	NOTES CHECKED BY DW	LINE NO. 7	PAGE 23
AREA NEVADA	TOPO MAP Vigas Butte N.E. 7 1/2	STATE NEVADA	COUNTY LANOCH	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.	
									6213.0					
TP	2233		105° 26' 59"	+16.2°	13.9	88° 40'	+52.0	+38.1		6251.1	TP	-1171	+1900	1797,358 386,020
TP	2233			" "	13.8	271° 20'	+52.0	+38.2			TP			
	1290		283° 31' 56"	" "	10.8	89° 20'	-15.0	-4.2			BS	-640	+1120	
	1290			" "	7.1	89° 30'	-11.3	-4.2	6246.9		BS			
224	1232		283° 41'	" "	8.0	89° 30'	+10.8	+2.8		6249.7		+614	-1068	1797,333 386,072
225	902		283° 55'	" "	8.9	89° 30'	+7.9	-1.0		6245.9		+453	-780	1797,171 386,360
226	572		284° 42'	" "	5.2	89° 30'	+5.0	-0.2		6246.7		+294	-491	1797,012 386,649 (scaled)
227	243		287° 28'	" "	4.6	89° 30'	+2.1	-2.5		6244.4		+135	-202	1796,853 386,938 1700 south west offset between
π	0			+16.2°	5.2	-		-5.2		6241.7	π	0	0	1796,718 387,140 227 + 228
228	1700		195° 44'	" "	12.0	93° 16'	-93.8	-105.8		6141.1		-1443	-899	1795,225 386,241
TP	1615		187° 54' 11"	+16.2°	12.2	93° 16'	-89.2	-101.4		6145.5	TP	-1472	-659	1795,246 386,481
TP	1615			" "	12.2	266° 50'	-89.2	-101.4			TP			
	1629		268° 43' 23"	" "	9.5	91° 50'	+52.1	+61.6			BS	-419	+1573	
	1629			" "	9.4	268° 10'	+52.1	+61.6	6207.1		BS			
229	1542		268° 06'	" "	8.8	92° -	-53.8	-62.6		6144.5		+381	-1494	1795,208 386,560
230	1220		269° 34'	" "	9.5	92° 10'	-46.1	-55.6		6151.5		+332	-1174	1795,159 386,880
231	895		268° 12'	" "	9.8	92° 20'	-36.4	-46.2		6160.9		+223	-867	1795,050 387,187
232	567		271° 22'	" "	9.1	93° -	-29.6	-38.7		6168.4		+171	-541	1794,998 387,513
233	238		272° 22'	" "	8.6	93° -	-12.4	-21.0		6186.1		+76	-226	1794,903 387,828
π	0			+16.2°	5.2	-		-5.2		6201.9	π	0	0	1794,827 388,054

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-8-83		B. Cotcamp		D. Wrinkle		6834		DW		7		24			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Vigas Butte N.E. - 7 1/2		NEVADA		LANDER								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
									6207.1						
234	87		103° 55'	+16.2	7.8	88° 50'	+1.8	-6.0		6201.1		-44	+75	1,794,783	388,129
235	413		86° 37'	" "	12.7	87° 50'	+15.6	+2.9		6210.0		-92	+403	1,794,725	388,457
236	741		86° 59'	" "	11.5	88° -	+25.8	+14.3		6221.4		-169	+721	1,794,658	388,775
237	1068		89° 30'	" "	9.5	88° -	+37.3	+27.8		6234.9		-289	+1028	1,794,538	389,082
238	1391		92° 26'	" "	9.0	88° -	+48.5	+39.5		6246.6		-444	+1318	1,794,383	389,372
239	1716		93° 55'	" "	9.9	88° 06'	+56.9	+47.0		6254.1		-590	+1611	1,794,237	389,665
240	2046		94° 09'	" "	9.1	88° 10'	+65.4	+56.3		5263.4		-712	+1918	1,794,115	389,972
241	2370		94° 38'	" "	11.8	88° -	+82.7	+70.9		6278.0		-843	+2215	1,793,984	390,269
242	2681		97° 04 36"	" "	13.2	88° -	+93.6	+80.4		6287.5	TP	-1059	+2461	1,793,768	390,515
242	2681			" "	13.1	272° -	+93.6	+80.5			TP				
	347		294° 50 39"	" "	8.4	92° -	+12.1	+20.5			BS	-228	+262		
	347			" "	7.4	92° 10'	+13.1	+20.5	6308.0		BS				
243	63		357° 53'	" "	6.7	84° 46'	+5.8	-0.9		6307.1		+61	+15	1,793,601	390,792
X	0			+16.2	5.2	-		-5.2		6302.8	X	0	0	1,793,540	390,777 OFFLINE IN FIELD
244	307		93° 25'	" "	5.8	89° -	+5.4	-0.4		6307.6		-103	+789	1,793,437	391,066
245	632		95° 04'	" "	7.3	88° 30'	+16.5	+9.2		6317.2		-229	+589	1,793,311	391,366
TP	915		96° 51 02"	" "	8.0	88° 10'	+29.3	+21.3		6329.3	TP	-358	+842	1,793,182	391,619
TP	915			" "	10.6	88° -	+31.9	+21.3			TP				
	1053		281° 47 04"	" "	10.0	91° 40'	+30.6	+40.6			BS	-494	+929		
	1053			" "	13.1	91° 30'	+27.6	+40.7	6370.0		BS				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
10.8.83		B. Cotcamp		D. W. Rinkle		6834		DW		7	25					
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
NEVADA		Vigas Butte N.E. - 7 1/2	NEVADA	LANDER					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	X
									6370.0							
246	1014		282° 51'	416.2°	10.5	91° 30'	-26.5	-32.0		6333.0		+492	-886	1,793,180	391,662	
247	689		282° 32'	" "	12.1	91° 40'	-20.0	-32.1		6332.9		+331	-604	1,793,019	391,944	
248	392		297° 18'	" "	9.9	90° 50'	-5.7	-15.6		6354.4		+270	-284	1,792,958	392,264	
249	178		353° 46'	" "	7.1	87° -	+9.3	+2.2		6372.2		+175	+31	1,792,863	392,579	
TP	0			116.2°	5.2	-		-5.2		6364.8	TP	0	0	1,792,688	392,548	Offline in field
250	345		63° 59'	" "	10.4	86° 50'	+19.0	+8.6		6378.6		+59	+340	1,792,747	392,888	
251	659		75° 50'	" "	7.1	87° 50'	+24.9	+17.8		6387.8		-23	+659	1,792,665	393,207	
252	971		83° 37'	" "	8.5	88° -	+33.9	+25.4		6395.4		-166	+957	1,792,522	393,505	
253	1256		91° 51'	" "	11.1	87° 50'	+47.5	+36.4		6406.4		-389	+1194	1,792,299	393,742	
TP	1344		92° 58' 50"	" "	14.4	87° 51'	+49.2	+34.8		6404.8	TP	-441	+1269	1,792,247	393,817	
TP	1344			" "	12.8	87° 58'	+47.7	+34.9			TP					
	652		287° 13' 51"	" "	6.6	92° 20'	+26.5	+33.1			BS	-359	+544			
	652			" "	8.6	92° 10'	+24.6	+33.2	6438.0		BS					
254	420		292° 22'	" "	11.1	92° 30'	-18.3	-29.4		6408.6		+262	-328	1,792,150	394,033	
255	95		283° 19'	" "	10.0	94° -	-6.6	-16.6		6421.4		+47	-83	1,791,935	394,278	
TP	0			116.2°	5.2	-		-5.2		6432.8	TP	0	0	1,791,888	394,361	
256	228		65° 30'	" "	10.1	87° 40'	+9.3	-0.8		6437.2		+33	+226	1,791,921	394,587	
TP	452		74° 02' 11"	" "	8.5	88° 10'	+14.5	+6.0		6444.0	TP	-2	+452	1,791,886	394,813	
TP	452			" "	9.8	88° -	+15.8	+6.0			TP					

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10.9.83		B. Cotcamp		D. Wrinkle		6834		DW		7		26			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Vigas Butte N.E. - 7 1/2'		NEVADA		LANDER								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
										6444.0					
	817		274° 21' 54"	+16.2°	6.9	92° -	+28.5	+35.4			BS	-287	+764		
	817			" "	4.5	92° 10'	+30.9	+35.4	6479.4		BS				
257	729		274° 39'	" "	8.7	91° 50'	-23.3	-32.0		6447.4		+259	-681	1,791,858	394,896
258	405		278° 09'	" "	7.0	91° 50'	-13.0	-20.0		6459.4		+167	-369	1,791,766	395,208
259	79		276° 51'	" "	6.6	91° -	-1.4	-8.0		6471.4		+31	-73	1,791,630	395,504
TP	0			+16.2°	5.2	-		-5.2		6474.2	TP	0	0	1,791,599	395,577
260	246		89° 31'	" "	8.6	88° 20'	+7.2	-1.4		6478.0		-67	+237	1,791,532	395,814
261	565		79° 41'	" "	10.7	87° 20'	+26.3	+15.6		6495.0		-58	+562	1,791,541	396,139
TP	770		76° 16' 23"	" "	12.7	87° 10'	+38.1	+25.4		6504.8	TP	-33	+768	1,791,566	396,345
TP	770			" "	14.9	87° -	+40.3	+25.4			TP				
	616		259° 31' 10"	" "	7.0	91° -	+10.8	+17.8			BS	-61	+613		
	616			" "	5.2	91° 10'	+12.5	+17.7	6522.5		BS				
262	496		256° 28'	" "	8.8	91° 10'	-10.1	-18.9		6503.6		+23	-495	1,791,528	396,463
263	169		251° 51'	" "	7.8	91° 10'	-3.4	-11.2		6511.3		-6	-169	1,791,499	396,789
TP	0			+16.2°	5.2	-		-5.2		6517.3	TP	0	0	1,791,505	396,958
264	158		67° 46'	" "	8.7	87° 10'	+7.8	-0.9		6521.6		+17	+157	1,791,522	397,115
265	484		73° 14'	" "	8.8	87° 10'	+23.9	+15.1		6537.6		+5	+484	1,791,510	397,442
TP	756		73° 48' 59"	" "	9.7	87° 30'	+33.0	+23.3		6545.8	TP	+0	+755	1,791,505	397,713
TP	756			" "	11.9	87° 20'	+35.2	+23.3			TP				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
10.9.83		B. Cotcamp		D. Winkle		6834		DW		7	27					
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
NEVADA		Vigas Butte N.E. - 7 1/2	NEVADA	LANDER					L.D. Davis							
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
										6545.8						
	596		278° 51' 25"	+16.2°	13.6	92° 40'	+27.7	+41.3			BS	-252	+539			
	596			" "	14.7	92° 34'	+26.7	+41.4	6582.2		BS					
266	549		277° 38'	" "	10.4	93° 10'	-30.3	-40.7		6546.5		+222	-502	1791,475	397,750	
267	225		275° 32'	" "	8.3	94° 10'	-16.3	-24.6		6562.6		+83	-209	1791,336	398,043	
TP	0			+16.2°	5.2	-		-5.2		6582.0	TP	0	0	1791,253	398,252	Opp. side of road
268	109		114° 43'	" "	8.0	89° 40'	+0.6	-7.4		6579.8		-71	+82	1791,182	398,334	
269	432		114° 14'	" "	8.8	89° 40'	+2.5	-6.3		6580.9		-280	+329	1790,973	398,531	
270	757		116° 58'	" "	5.2	89° 30'	+6.6	+1.4		6588.6		-518	+552	1790,735	398,804	
TP	985		116° 52' 34"	" "	11.5	88° 50'	+20.1	+8.6		6595.8	TP	-673	+719	1790,550	398,971	
TP	985			" "	14.4	88° 40'	+22.9	+8.5			TP					
	275		312° 18' 03"	" "	12.5	-		+12.5			BS	-234	+144			
	275			" "	11.7	96° 10'	+0.8	+12.5	6608.3		BS					
271	169		311° 06'	" "	6.5	91° 30'	-4.4	-10.9		6597.4		+142	-91	1790,488	399,024	
TP	0			+16.2°	5.2	-		-5.2		6603.1	TP	0	0	1790,346	399,115	
272	159		111° 36'	" "	8.1	87° 20'	+7.4	-0.7		6607.6		-97	+126	1790,249	399,241	
273	487		111° 23'	" "	8.2	87° 40'	+19.8	+11.6		6619.9		-297	+386	1790,049	399,501	
274	815		113° 23' 14"	" "	9.0	87° 10'	+40.3	+31.3		6639.6	TP	-519	+627	1789,827	399,742	
274	815			" "	11.4	87° -	+42.7	+31.3			TP					
	835		308° 27' 42"	" "	13.8	-		+13.8			BS	-681	+483			
	835			" "	9.6	84	+4.2	+13.8	6653.4		BS					

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10.9.83		B. Cotcamp		D. Wrinkle		6834		DW		7		28				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
NEVADA		Vigas Butte N.E. - 7 1/2		NEVADA		LANDER								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	X
									6653.4							
275	511		307° 47'	+16.2°	6.4	90° 30'	-4.5	-10.9		6642.5		+413	-300	1,789,559	399,925	
276	184		313° 05'	"	6.3	90° 30'	-1.6	-7.9		6645.5		+158	-94	1,789,304	400,131	
TP	0		"	"	5.2	-		-5.2		6648.2	TP	0	0	1,789,146	400,225	Offline in field
277	201		53° 58'	"	6.9	88° -	+7.0	+0.1		6653.5		+68	+189	1,789,214	400,414	
278	511		73° 39'	"	9.3	88° -	+17.8	+8.5		6661.9		+1	+511	1,789,147	400,736	
279	824		82° 15'	"	10.1	88° 30'	+21.6	+11.5		6664.9		-121	+815	1,789,025	401,040	
280	1113		83° 10'	"	10.6	88° 30'	+22.4	+11.8		6665.2		-139	+846	1,789,007	401,071	
281	1367		92° 13'	"	18.1	87° 26'	+49.8	+31.7		6685.1		-352	+1056	1,788,794	401,281	
282	1640		101° 47'	"	11.1	88° 20'	+39.7	+28.6		6682.0		-641	+1207	1,788,505	401,432	
282	1640		108° 49' 58"	"	10.4	88° 20'	+42.7	+32.3		6690.7	TP	-941	+1342	1,788,205	401,567	
	329		320° 59' 01"	"	14.2	88° 12'	+51.5	+32.3			TP					
	329		"	"	10.1	91° 46'	+9.6	+19.7			BS	-303	+128			
	329		"	"	9.1	91° 50'	+10.5	+19.6	6710.3		BS					
283	0		"	+16.2°	5.0	-		-5.0		6705.3	TP	0	0	1,787,902	401,695	
284	327		133° 47'	"	7.9	88° 50'	+6.7	-1.2		6709.1		-283	+164	1,787,619	401,859	
285	657		133° 30'	"	6.6	88° 30'	+17.2	+10.6		6720.9		-567	+331	1,787,325	402,026	
TP	797		132° 20' 01"	"	7.3	88° 30'	+20.9	+13.6		6723.9	TP	-680	+416	1,787,232	402,111	
TP	797		"	"	9.6	88° 20'	+23.2	+13.6			TP					
	1268		313° 40' 14"	"	5.1	91° -	+22.1	+27.2			BS	-1097	+636			
	1268		"	"	8.8	90° 50'	+18.4	+27.2	6751.1		BS					

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10.9.83		B. Cotcamp		D. Wrinke		6834		DW		4	29						
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER								
NEVADA		Vigas Butte N.E. - 7 1/2	NEVADA	LANDER					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		
									6751.1								
286	1098		316° 22'	+16.2°	9.1	90° 50'	-16.0	-25.1		6726.0		+975	-506	1,782,110	402,241		
287	791		321° 15'	"	11.7	90° 30'	-6.9	-18.6		6732.5		+731	-303	1,786,806	402,444		
288	484		329° 35'	"	6.1	90° 30'	-4.2	-10.3		6740.8		+469	-119	1,786,604	402,628		
289	231		04° 54'	"	7.7	87° 10'	+11.4	+3.7		6754.8		+216	+83	1,786,351	402,830		
X	0			+16.2°	5.2	-		-5.2		6745.9	X	0	0	1,786,135	402,747	South of Road in Field	
290	332		73° 11'	"	5.7	86° 10'	+22.1	+16.4		6767.5		+4	+332	1,786,139	403,079		
291	600		96° 42'	"	7.0	87° 50'	+22.7	+15.7		6766.8		-233	+553	1,785,902	403,300		
292	893		108° 24'	"	5.0	87° 20'	+41.5	+36.5		6787.6		-507	+735	1,785,628	403,482		
293	1219		110° 39'	"	10.8	87° 20'	+56.6	+45.8		6796.9		-731	+975	1,785,404	403,722		
TP	1468		111° 46' 38"	"	10.8	87° 30'	+64.0	+53.2		6804.3	TP	-902	+1156	1,785,223	403,903	OFF ROAD OUT IN FIELD	
TP	1468			"	10.9	272° 30'	+64.0	+53.1			TP						
	837		260° 37' 41"	"	14.2	91° 10'	+17.0	+31.2			BS	-99	+831				
	837			"	14.1	268° 50'	+17.0	+31.1	6835.4		BS						
294	744		262° 05'	"	7.0	91° 20'	-17.3	-24.3		6811.1		+107	-736	1,785,241	403,998		
295	425		266° 13'	"	7.0	90° 50'	-6.2	-13.2		6822.2		+91	-415	1,785,225	404,319		
296	170		310° 38'	"	6.7	87° 10'	+8.4	+1.7		6837.1		+142	-93	1,785,276	404,641	st setup after truck stuck	
X	0			+16.2°	5.2	-		-5.2		6830.2	X	0	0	1,785,134	404,734	OFF LINE IN FIELD	
297	340		21° 06'	"	7.2	87° 10'	+16.8	+9.6		6845.0		+270	+206	1,785,404	404,940		
298	657		30° 38' 10"	"	5.7	86° 20'	+42.0	+36.3		6871.7	TP	+449	+478	1,785,583	405,212		
298	657			"	7.5	86° 10'	+43.9	+36.4			TP						

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10.9.83		B. Cotcamp		D. Wrinkle		6834		DW		7		30			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Vigas Butte N.E.-7 1/2		NEVADA		LANDER								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
										6871.7					
	725		238° 53' 18"	+16.2	10.7	91° 10'	+14.8	+25.5			BS	+187	+700		
	725				12.9	91° -	+12.7	+25.6	6892.3		BS				
299	410		248° 43'		8.5	92° 30'	-17.9	-26.4		6870.9		-36	-408	1,785,734	405,504
300	143		283° 07'		10.3	90° 40'	-1.7	-12.0		6885.3		+70	-125	1,785,840	405,787
X	0			+16.2	5.2	-		-5.2		6892.1	X	0	0	1,785,770	405,912
301	202		79° 51'		6.2	86° 50'	+11.1	+4.9		6902.2		-21	+201	1,785,749	406,113
302	526		85° 23'		13.0	86° 50'	+29.0	+16.0		6913.3		-106	+515	1,785,664	406,427
303	848		85° 43'		14.7	87° 20'	+39.4	+24.7		6922.0		-175	+830	1,785,595	406,742
TP	1160		87° 51' 36"		14.4	87° 24'	+52.6	+38.2		6935.5	TP	-282	+1124	1,785,488	407,036
TP	1160				14.4	272' 36"	+52.6	+38.2			TP				
	864		237° 10' 30"		13.9	92° 06'	+31.7	+45.6			BS	+247	+827		
	864				13.8	267° 54'	+31.7	+45.5	6981.0		BS				
304	815		241° 55'		11.3	92° 10'	-30.8	-42.1		6938.9		-168	-798	1,785,567	407,065
305	489		245° 49'		9.1	92° 20'	-19.9	-29.0		6952.0		-68	-4184	1,785,667	407,379
306	197		273° 40'		14.3	88° -	+6.9	-7.4		6973.6		+66	-185	1,785,801	407,678
X	0			+16.2	5.2	-		-5.2		6975.8	X	0	0	1,785,735	407,863
307	231		13° 25'		8.8	85° 10'	+19.4	+10.6		6991.6		+201	+114	1,785,936	407,977
308	532		34° 35'		11.4	86° 10'	+35.5	+24.1		7005.1		+336	+412	1,786,071	408,225
309	812		49° 19'		9.1	86° 50'	+44.8	+35.7		7016.7		+337	+739	1,786,072	408,602

OFFLINE FIELD

SURVEY NOTES - HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-11-83		B. Cotkamp		D. Wrinkle		6834		DN		7		31			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Mount Callaghan -15'		NEV.		LANDER								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
									6981.0						
310	1117		55° 45' 59"	+16.2	8.1	87° -	+58.5	+50.4		7031.4	TP	+345	+1061	1,786,080	408,924
310	1117				11.3	86° 50'	+61.7	+50.4			TP				
	1207		251° 28' 16"		8.0	90° 50'	+17.6	+25.6			BS	+49	+1206		
	1207				8.1	269° 10'	+17.6	+25.7	7057.1		BS				
311	901		257° 48'		9.9	91° 10'	-18.3	-28.2		7028.9		+63	-899	1,786,192	409,231
312	615		270° 27'		8.6	91° 10'	-12.5	-21.1		7036.0		+176	-589	1,786,305	409,541
313	322		279° 03'		7.5	90° 30'	-2.8	-10.3		7046.8		+137	-291	1,786,266	409,839
314	0			+16.2°	5.2	-		-5.2		7051.9	X	0	0	1,786,129	410,130
315	328		62° 22'		7.7	87° 20'	+15.2	+7.5		7064.6		+65	+321	1,786,194	410,451
316	653		62° 25'		6.9	87° 20'	+30.3	+23.4		7080.5		+129	+640	1,786,258	410,770
317	982		60° 19'		8.3	87° -	+51.3	+43.0		7100.1		+229	+955	1,786,358	411,095
318	1309		61° 25'		11.3	86° 50'	+72.2	+60.9		7118.0		+281	+1279	1,786,410	411,409
TP	1483		60° 00' 14"		14.7	86° 40'	+86.2	+71.5		7128.6	TP	+353	+1438	1,786,482	411,568
TP	1483				14.8	273° 20'	+86.2	+71.4			TP				
	730		206° 58' 07"		13.3	92° -	+25.5	+38.8			BS	+532	+499		
	730				13.2	268° -	+25.5	+38.7	7162.3		BS				
319	599		202° 02'		12.2	91° 30'	-15.7	-27.9		7139.4		-471	-371	1,786,543	411,696
320	270		203° 42'		7.8	91° 50'	-8.6	-16.4		7150.9		-207	-173	1,786,807	411,894
X	0			+16.2°	5.2	-		-5.2		7162.1	X	0	0	1,787,014	412,067
321	59		17° 55'		6.1	86° 50'	+3.3	-2.8		7164.5		+49	+33	1,787,063	412,100

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-11-83		B. Cotcamp		D. Wrinkle		6824		DW		7		32			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA				NEV.		LANDER								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
									7167.3						
322	388		19° 12'	+16.2°	8.1	87° 20'	+18.0	-9.9		7157.4		+316	+225	1,287,330	412,292
323	717		19° 21'	"	6.4	87° -	+32.5	+31.1		7198.4		+583	+417	1,287,597	412,484
324	1044		17° 42'	"	5.4	86° 30'	+63.6	+58.2		7225.5		+867	+582	1,287,881	412,649
TP	1187		18° 41' 30"	"	8.6	86° 10'	+79.4	+70.8		7238.1	TP	+971	+677	1,287,985	412,744
TP	1187			"	8.6	273° 50'	+79.4	+70.8			TP				
	599		211° 04' 23"	"	4.5	93° -	+31.3	+35.8			BS	+406	+439		
	599			"	15.0	92° -	+20.9	+35.9	7224.0		BS				
325	415		208° 15'	"	9.0	93° -	-21.7	-30.7		7243.3		-296	-291	1,288,095	412,892
326	86		209° 24'	"	6.5	93° -	-4.5	-11.0		7263.0		-60	-61	1,288,331	413,122
X	0			+16.2°	5.2	-		-5.2		7268.8	X	0	0	1,288,391	413,183
327	243		22° 04'	"	6.0	85° 40'	+18.3	+12.3		7286.3		+191	+151	1,288,582	413,334
328	553		39° 24'	"	7.5	85° 30'	+43.3	+35.8		7309.8		+312	+456	1,288,703	413,639
TP	776		39° 27' 05"	"	12.6	85° 10'	+65.4	+52.8		7326.8	TP	+436	+638	1,288,827	413,821
TP	776			"	10.4	85° 20'	+63.1	+52.7			TP				
	1249		195° 48' 20"	"	10.2	94° 20'	+94.4	+104.6			BS	+1056	+660		
	1249			"	10.2	265° 40'	+94.4	+104.6	7431.4		BS				
329	1147		195° 42'	"	8.6	94° 30'	-89.7	-98.3		7333.1		-974	-606	1,288,909	413,875
330	821		193° 46'	"	11.1	94° 30'	-64.2	-75.3		7356.1		-711	-410	1,289,172	414,071
331	493		194° 52'	"	9.7	94° 50'	-41.4	-51.1		7380.3		-422	-254	1,289,461	414,227
332	176		210° 26'	+16.2°	7.9	95° 40'	-17.3	-25.2		7406.2		-121	-128	1,289,762	414,353

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10-11-83		B. Cotcamp		D. Wrinkle		6834		DW		7		33				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
NEVADA		Mount Callaghan-15		NEVADA		Lander								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									7431.4							
π	0			+16.2°	5.2	-		-5.2		7426.2	π	0	0	1,789,883	414,481	OFFLINE to north
333	175	172.5	88° 20'	"	6.1	80° 20'	+29.4	+23.3		7454.7		-43	+167	1,789,840	414,648	
334	504	496.8	85° 20'	"	7.0	86° 20'	+84.6	+77.6		7509.0		-99	+487	1,789,784	414,968	
335	829	816.8	85° 32'	"	7.1	80° 10'	+141.6	+134.5		7565.9		-166	+800	1,789,717	415,281	
336	1151	1127.9	88° 36'	"	7.0	78° 30'	+229.5	+222.5		7653.9		-288	+1090	1,789,595	415,571	
337	1473	1439.6	91° 07'	"	10.3	77° 40'	+314.6	+304.3		7735.7		-428	+1374	1,789,455	415,855	
5 ^{sec} corner	1455	1422.3	91° 09' 37"	"	6.2	77° 50'	+306.7	+300.5		7731.9	5 ^{sec} corner	-424	+1358	1,789,459	415,839	1,789,490 x - 415,890 6.5665
338	1802	1760.4	91° 34'	"	2.4	77° 40'	+384.9	+382.5		7813.9		-537	+1676	1,789,346	416,157	
339	2131	2079.1	91° 24'	"	9.9	77° 20'	+467.3	+457.4		7888.8		-629	+1982	1,789,254	416,463	
340	2461	2401.1	91° 16'	"	4.8	77° 20'	+539.6	+534.8		7966.2		-721	+2290	1,789,162	416,771	
TP	2611	2547.5	91° 05' 43"	"	9.1	77° 20'	+572.5	+563.4		7994.8	TP	-757	+2432	1,789,126	416,913	
TP	2611			"	9.2	282° 40'	+572.5	+563.3			TP					
	391		264° 21' 28"	"	14.1	95° -	+34.1	+48.2			BS	-71	+383			
	391			"	7.3	96° -	+40.9	+48.2	8043.0		BS					
341	213	212.5	262° 34'	"	8.4	94° -	-14.8	-23.2		8019.8		+32	-210	1,789,087	417,086	
π	0			+16.2°	5.2	-		-5.2		8037.8	π	0	0	1,789,055	417,296	
342	118		68° 02'	"	3.4	89° 30'	+1.0	-2.4		8040.6		+12	+117	1,789,067	417,413	TOP OF PASS
TP	227		77° 43' 36"	"	10.6	90° 20'	-1.3	-11.9		8031.1	TP	-16	+226	1,789,039	417,522	
TP	227			"	10.0	90° 30'	-2.0	-12.0			TP					

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE	10-11-83	INSTRUMENT MAN	B. Catcamp	ROD MAN	D. Winkle	PARTY NUMBER	6834	NOTES CHECKED BY	DW	LINE NO.	7	PAGE	34
AREA	NEVADA	TOPO MAP	Mount Callaghan - 15	STATE	NEV.	COUNTY	LANDER	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.	
										8031.1				
	3563	3436.2	278° 41' 30"	+16.2	9.8	74° 40'	-942.2	-932.4			BS	-1446	+3117	
	3563				9.7	285° 20'	-942.2	-932.5	7098.6		BS			
343	3349	3232.4	278° 15'		11.6	74° 50'	+876.2	+864.6		7963.2		+1338	-2942	1,788,931 417,697 CROSS country
344	3023	2922.3	277° 22'		10.6	75° 10'	+773.9	+762.3		7861.9		+1168	-2679	1,788,761 417,960
345	2696	2610.1	276° 31'		4.1	75° 30'	+675.0	+670.9		7769.5		+1008	-2408	1,788,601 418,231 ↓
346	2369	2295.3	275° 37'		7.2	75° 40'	+586.5	+579.3		7677.9		+853	-2131	1,788,446 418,508
347	2043	1987.9	274° 57'		5.1	76° 40'	+471.1	+466.0		7564.6		+717	-1854	1,788,310 418,785
348	1714	1671.2	274° 46'		8.5	77° 10'	+380.7	+372.2		7470.8		+598	-1561	1,788,191 419,078
349	1387	1357.5	274° 04'		6.8	78° 10'	+284.4	+277.6		7376.2		+470	-1273	1,788,063 419,366
350	1061	1043.8	273° 43'		5.7	79° 40'	+190.3	+184.6		7383.2		+356	-981	1,787,949 419,658
351	738	730.8	271° 20'		11.3	82° -'	+102.7	+91.4		7190.0		+220	-697	1,787,813 419,942
352	410	406.7	269° 13'		7.9	82° 40'	+52.3	+44.4		7143.0		+108	-392	1,787,701 420,247
353	81	80.6	269° 50'		5.1	84° 20'	+8.0	+2.9		7101.5		+22	-77	1,787,615 420,562 LAST STA. TO CROSS country
π	0			+16.2	5.2	-		-5.2		7093.4	π	0	0	1,787,593 420,639 BACK ON ROAD
354	245	244.1	39° 56'		6.1	95° -'	-21.3	-27.4		7071.2		+136	+203	1,787,729 420,842
355	573	570.9	36° 38'		6.0	94° 50'	-48.1	-54.1		7044.5		+345	+455	1,787,938 421,094
356	902	899.4	34° 29'		10.2	94° 20'	-68.0	-78.2		7020.4		+570	+696	1,788,163 421,335
357	1228	1224.5	34° 59'		6.0	94° 20'	-92.5	-98.5		7000.1		+768	+954	1,788,361 421,593
358	1555	1550.9	36° 55'		7.8	94° 10'	-112.7	-120.5		6978.1		+931	+1240	1,788,524 421,879
359	1881	1876.8	37° 20'		11.6	93° 50'	-125.5	-137.1		6961.5		+1115	+1509	1,788,708 422,148

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10.11.83		B. Cotcamp		D. Wrinkle		6834		DW		7	35						
AREA		TOPO MAP		STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER								
NEVADA		Mount Callaghan -15'		NEV.	LANDER				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		
									7098.6								
360	2203	2198.1	39° 13'	+16.2	8.2	93° 50'	-146.9	-155.1		6943.5		+1248	+1810	1788,841	422,449		
TP	2421		41° 07' 22"		10.8	93° 40'	-154.8	-165.6		6933.0	TP	+1304	+2034	1,788,897	422,623		
TP	2421				10.9	266° 20'	-154.8	-165.7			TP						
	500		234° 53' 53"		7.8	89° -	-8.7	-0.9			BS	+162	+473				
	500				6.4	89° 10'	-7.3	-0.9	6932.1		BS						
361	409		229° 26'		8.0	89° 10'	+5.9	-2.1		6930.0		-169	-373	1,788,890	422,773		
362	85		213° 11'		5.8	91° -	-1.5	-7.3		6924.8		-55	-65	1,789,004	423,081		
π	0			+16.2°	5.2	-		-5.2		6926.9	π	0	0	1,789,059	423,146		
4th	49		27° 01' 58"		6.0	94° 40'	-4.0	-10.0		6922.1		+36	+33	1,789,095	423,179	1789,100 X-423,195 CREEK CROSSING ROAD	
363	235		82° 51'		4.6	92° -	-8.2	-12.8		6919.3		-37	+232	1,789,022	423,378		
11	339		80° 43' 54"		6.1	92° -	-11.8	-17.9		6914.2		-41	+337	1,789,018	423,483		
364	551		90° 42'		14.2	92° -	-19.2	-33.4		6898.7		-160	+527	1,788,899	423,623		
365	866		99° 08'		8.8	92° 40'	-40.2	-49.0		6883.1		-371	+783	1,788,688	423,929		
366	1175		105° 07'		9.9	92° 10'	-44.4	-54.3		6877.8		-611	+1004	1,788,448	424,150		
TP	1329		105° 59' 02"		6.1	92° 10'	-50.2	-56.3		6875.8	TP	-707	+1124	1,788,352	424,270		
TP	1329				6.0	268° 50'	-50.2	-56.2			TP						
	955		276° 54' 18"		6.1	87° -	-50.0	-43.9			BS	-324	+877				
	955				8.9	86° 50'	-52.8	-43.9	6831.9		BS						
367	784		277° 01'		9.0	87° 30'	+34.2	+25.2		6857.1		+309	-721	1,788,287	424,426		
368	456		277° 50'		11.4	87° 50'	+17.2	+5.8		6832.7		+186	-416	1,788,104	424,731		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-11-83		B. Cotcamp		D. Wrinkle		6834		DW		7		36			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Mount Callaghan -15		NEVADA		LANA DOER								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
									6831.9						
369	130		274° 03	+16.2°	7.8	87° 50'	+4.9	-2.9		6829.0		+45	-122	1,788,023	425,025
X	0				5.2	-		-5.2		6826.7	X	0	0	1,787,978	425,147
370	196		80° 14		8.7	94° 40'	-15.9	-24.6		6807.3		-22	+195	1,787,956	425,342
371	519		88° 06		7.4	93° 20'	-30.1	-37.5		6794.4		-128	+503	1,787,850	425,650
TP	756		92° 00' 23"		4.9	93° 20'	-44.0	-48.9		6783.0	TP	-236	+717	1,787,742	425,864
TP	756				4.9	266° 40'	-44.0	-48.9			TP				
	329		267° 02' 53"		5.5	87°	-17.2	-11.7			BS	-75	+320		
	329				4.6	87° 10'	-16.3	-11.7	6771.3		BS				
372	244		268° 03		6.9	87° 10'	+12.0	+5.5		6776.8		+60	-236	1,787,727	425,948
X	0			+16.2°	5.2	-		-5.2		6766.1	X	0	0	1,787,667	426,184
373	86		94° 51		6.7	92° 30'	-3.7	-10.4		6760.9		-31	+80	1,787,636	426,264
374	416		91° 06		6.3	92° 30'	-18.1	-24.4		6746.9		-124	+397	1,787,543	426,581
TP	522		89° 52' 21"		6.8	92° 30'	-22.8	-29.6		6741.7	TP	-144	+501	1,787,523	426,685
TP	522				5.3	92° 40'	-24.3	-29.6			TP				
	287		255° 11' 48"		4.4	88° 10'	-9.2	-4.8			BS	-7	+287		
	287				5.2	88°	-10.0	-4.8	6736.9		BS				
375	65		253° 44		6.0	88°	+2.3	-3.7		6733.2		±0	-65	1,787,516	426,907
X	0			+16.2°	5.2	-		-5.2		6731.7	X	0	0	1,787,516	426,972
376	262		51° 42		8.5	90° 40'	-3.0	-11.5		6725.4		+99	+243	1,787,615	427,215

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE 10.12.83	INSTRUMENT MAN B. Cotcamp	ROD MAN D. Wriukle	PARTY NUMBER 6834	NOTES CHECKED BY DW	LINE NO. 7	PAGE 37
AREA NEVADA	TOPO MAP Mount Callaghan - 15'	STATE NEV.	COUNTY LANDER	TWP RANGE	PPM	PARTY MANAGER 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
									6736.9						
377	589		55° 41' 40"	+16.2°	10.7	91° -	-10.3	-21.0	20.2	6716.0	TP	+183	+560	1,787,699	427,532
377	589				8.8	91° 10'	-12.0	-20.8			TP				
	1158		236° 10' 41"		9.4	88° -	-40.4	-31.0			BS	+350	+1103		
	1158				9.4	272° -	-40.4	-31.0	6685.0		BS				
378	834		238° 34'		7.3	88° -	+29.1	+21.8		6706.8		-219	-805	1,787,830	427,830
379	517		245° 18'		5.1	88° -	+18.0	+12.9		6697.9		-76	-511	1,787,973	428,124
380	253		276° 41'		5.3	88° -	+8.8	+3.5		6688.5		+98	-233	1,788,147	428,402
X	0			+16.2°	5.2	-		-5.2		6679.8	X	0	0	1,788,049	428,635
381	227		05° 45'		16.5	89° -	+4.0	-12.5		6672.5		+211	+85	1,788,260	428,720
382	493		37° 03'		11.2	91° 20'	-11.5	-22.7		6662.3		+295	+395	1,788,344	429,030
383	808		44° 48'		26.1	90° 22'	-5.2	-31.3		6653.7		+392	+707	1,788,441	429,342
384	1104		52° 18'		8.6	92° -	-38.5	-47.1		6637.9		+405	+1027	1,788,454	429,662
385	1425		55° 26'		7.0	92° -	-49.7	-56.7		6628.3		+449	+1352	1,788,498	429,987
386	1750		57° 27'		10.2	91° 50'	-56.0	-66.2		6618.8		+493	+1679	1,788,512	430,314
TP	1909		57° 18' 53"		8.8	91° 50'	-61.1	-69.9		6615.1	TP	+541	+1830	1,788,590	430,465
TP	1909				8.9	268° 10'	-61.1	-70.0			TP				
	434		235° 09' 20"		5.1	89° 30'	-3.8	+1.3			BS	+139	+411		
	434				6.3	89° 20'	-5.0	+1.3	6616.4		BS				
387	267		239° 38'		7.1	89° 20'	+3.1	-4.0		6612.4		-65	-259	1,788,664	430,617
X	0			+16.2°	5.2	-		-5.2		6611.2	X	0	0	1,788,729	430,876

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-12-83		B. Cotcamp		D. Wrinkle		6834		W		4		38			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEV.		Mount Callaghan -15'		NEV.		LANDER								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
									6616.4						
388	65		40° 23'	+162°	6.3	92° 36'	-2.8	-9.1		6607.3		+36	+54	1,788,765	430,930
389	392		53° 23'	"	7.2	91° 40'	-11.4	-18.6		6597.8		+137	+367	1,788,886	430,243
390	721		55° 18'	"	9.1	91° 30'	-18.9	-28.0		6588.4		+229	+684	1,788,958	431,560
TP	830		55° 09' 29"	"	6.0	91° 30'	-21.7	-22.7		6588.7	TP	+265	+786	1,788,993	431,662
TP	830			"	8.4	91° 20'	-19.3	-22.7			TP	-1			
	1167		223° 33' 44"	"	13.7	-		+13.7			BS	+588	+1008		
	1167			"	13.6	270°		+13.6	6602.3		BS	-1			
391	965		228° 07'	"	10.0	-		-10.0		6592.3		-418	-870	1,789,162	431,800
392	650		234° 30'	"	9.2	91°	-11.3	-20.5		6581.8		-215	-613	1,789,365	432,057
393	326		239° 16'	"	7.9	91°	-5.7	-13.6		6588.7		-82	-316	1,789,498	432,354
394	0			+162°	5.2	-		-5.2		6597.1	X	0	0	1,789,580	432,670
395	330		73° 49'	"	7.8	93° 10'	-18.2	-26.0		6576.3		70	+330	1,789,580	433,000
396	559		70° 48' 55"	"	7.1	93° 10'	-30.8	-37.9		6564.4	TP	+29	+557	1,789,609	433,227
396	659		71° 52'	"	7.1	93° 10'	-36.4	-43.5		6558.8		+22	+659	1,789,602	433,329
397	989		72° 01'	"	7.7	92° 30'	-43.1	-50.8		6551.5		+31	+989	1,789,611	433,659
398	1318		72° 04' 40"	"	7.0	92° 20'	-53.7	-60.7		6541.6	TP	+40	+1316	1,789,619	433,986
398	1318			"	10.8	92° 10'	-49.8	-60.6			TP	-1			
	2276		250° 12' 17"	"	13.3	88°	-79.4	-66.1			BS	+143	+2270		
	2276			"	13.2	272°	-79.4	-66.2	66475.4		BS	-1			

Y-1,789,600 X-433,195
4 way INTER.

ACROSS FROM FLAG

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
10.12.83		B. Cotramp		D. Wrenkle		6834		DW		7	39				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
NEVADA		Mount Callaghan -15'		NEU		LANOER					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
									6475.4						
399	1946		250° 15'	+16.2°	12.1	88°	+67.9	+55.8		6531.2		-121	-1942	1789,640	434,314
400	1616		249° 48'	"	11.3	88°	+56.4	+45.1		6520.5		-113	-1612	1789,648	434,644
401	1288		248° 48'	"	9.9	88°	+44.9	+35.0		6510.4		-112	-1283	1789,649	434,973
402	960		247° 28'	"	9.4	88°	+33.5	+24.1		6499.5		-106	-954	1789,655	435,302
403	632		244° 32'	"	8.3	88°	+22.0	+13.7		6489.1		-102	-624	1789,659	435,632
404	315		233° 04'	"	8.3	88°	+11.0	+2.7		6478.1		-112	-295	1789,649	435,961
405	0			+16.2°	5.2	-		-5.2		6470.2	X	0	0	1789,761	436,256
406	330		68° 27'	"	5.7	92° 20'	-13.4	-19.1		6456.3		+31	+329	1789,992	436,585
407	658		64° 41'	"	6.2	92° 20'	-26.8	-33.0		6442.4		+104	+650	1789,865	436,906
408	986		62° 37'	"	10.2	91° 40'	-28.7	-38.9		6436.5		+191	+967	1789,952	437,223
409	1316		62° 49'	"	8.7	91° 40'	-38.3	-47.0		6428.4		+251	+1292	1790,012	437,548
410	1645		62° 43'	+16.2°	9.1	91° 20'	-38.3	-47.4		6428.0		+316	+1614	1790,077	437,870
411	1959		64° 58'	"	5.0	91° 20'	-45.6	-50.6		6424.8		+301	+1936	1790,062	438,192
412	2230		69° 52'	"	10.2	91° 20'	-51.9	-62.1		6413.3		+153	+2225	1789,914	438,481
413	2547		71° 30' 16"	"	8.8	91° 20'	-59.3	-68.1		6407.3	TP	+102	+2544	1789,862	438,800
413	2547			"	8.9	268° 40'	-59.3	-68.2			TP	-1			
	1914		264° 10' 42"	"	8.8	87° 50'	-72.4	-63.6			BS	-345	+1881		
	1914			"	8.8	272° 10'	-72.4	-63.6	6343.7		BS	-1			
414	1616		268° 11'	+16.2°	8.4	87° 40'	+65.5	+57.1		6400.8		+400	-1560	1789,916	439,121

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
10-12-83		B. Cotcamp		D. Wrinkle		6834		DW		7	40			
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
NEVADA		Mount Callaghan -15'	NEV.	LANOER					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.	
									6343.7					
415	1282		267° 52'	+16.2°	9.8	87° 40'	+52.2	+42.4		6386.1		+312	-1244	1,789,828 439,437
416	972		262° 15'	"	9.2	87° 40'	+39.5	+30.3		6374.0		+143	-961	1,789,659 439,720
417	652		257° 43'	"	9.1	88° 10'	+20.9	+11.8		6355.5		+45	-650	1,789,561 440,031
418	330		252° 06'	"	8.8	88° 10'	+10.6	+1.8		6345.5		-10	-330	1,789,506 440,351
419	0			+16.2°	5.2	-		-5.2		6338.5	X	0	0	1,789,516 440,681
420	330		71° 47'	"	7.2	91° 10'	-6.7	-13.9		6329.8		+12	+330	1,789,528 441,011
421	659		68° 06'	"	6.9	91° 10'	-13.4	-20.3		6323.4		+65	+656	1,789,581 441,337
422	986		69° 09'	"	7.5	91° 10'	-20.1	-27.6		6316.1		+80	+983	1,789,596 441,664
423	1314		70° 14'	+16.2°	7.9	91° 10'	-26.8	-34.7		6309.0		+82	+1311	1,789,598 441,992
424	1642		68° 42'	"	7.0	91° 10'	-33.4	-40.4		6303.3		+146	+1636	1,789,662 442,317
425	1966		67° 02'	"	8.7	91°	-34.3	-43.0		6300.7		+232	+1952	1,789,748 442,633
426	2268		63° 25' 41"	"	8.8	90° 30'	-19.8	-28.6		6315.1	TP	+408	+2231	1,789,923 442,912
426	2268			"	8.7	269° 30'	-19.8	-28.5			TP	-1		
	1578		227° 39' 29"	"	9.8	89° 10'	-23.0	-13.2			BS	+696	+1416	
	1578			"	5.3	89° 20'	-18.4	-13.1	6302.0		BS	-1		
427	1298		234° 34'	+16.2°	9.3	89° 20'	+15.1	+5.8		6302.8		-428	-1226	1,790,190 443,102
428	972		233° 46'	"	9.1	89° 20'	+11.3	+2.2		6304.2		-333	-913	1,790,285 443,415
429	648		229° 12'	"	10.4	89° 20'	+7.5	-2.9		6299.1		-270	-589	1,790,348 443,739
430	327		219° 36'	"	9.9	89° 20'	+3.8	-6.1		6295.9		-184	-270	1,790,434 444,058
431	0			+16.2°	5.2	-		-5.2		6296.8	X	0	0	1,790,618 444,328

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
10.12.83		B. Cotcamp		D. Wrinkle		6834		DW		7	41			
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER			
NEVADA		Mount Callaghan - 15		NEV.		LANDER					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.	
									6302.0					
432	316		46° 35'	+16.2°	12.1	91° 50'	-10.1	-22.2		6279.8		+145	+281	1790,763 444,609
433	628		59° 54'	" "	8.7	91° 50'	-20.1	-28.8		6273.2		+151	+610	1790,769 444,938
434	953		64° 09'	" "	11.9	92° -	-33.2	-45.1		6256.9		+160	+940	1790,778 445,268
435	1217		56° 53'	" "	11.2	91° 40'	-35.4	-46.6		6255.4		+354	+1164	1790,972 445,492
436	1468		47° 40'	" "	7.1	91° 30'	-38.4	-45.5		6256.5		+647	+1318	1791,265 445,646
437	1747		41° 20'	" "	8.3	91° 10'	-35.6	-43.9		6258.1		+938	+1474	1791,556 445,802
438	2051		37° 32' 19"	" "	6.4	91° -	-35.8	-42.2		6259.8	TP	+1213	+1654	1791,830 445,982
438	2051				6.3	269° -	-35.8	-42.1			TP	-		
	1632		225° 07' 13"	+16.2°	12.6	88° 10'	-52.2	-39.6			BS	+783	+1431	
	1632				12.5	211° 50'	-52.2	-39.7	6220.1		BS	-		
439	1312		227° 53'	" "	12.4	88° 10'	+42.0	+29.6		6249.7		-573	-1186	1792,039 446,233
Y	1180		228° 54' 44"	" "	11.3	88° 10'	+37.7	+26.4		6246.5	Y	-496	-1070	1792,116 446,343
440	985		229° 58'	" "	9.3	88° 10'	+31.5	+22.2		6242.3		-398	-901	1792,214 446,512
441	659		233° 37'	" "	9.7	87° 40'	+26.8	+17.1		6237.2		-227	-619	1792,385 446,794
442	330		235° 12'	" "	7.1	87° 40'	+13.4	+6.3		6226.4		-105	-313	1792,507 447,100
443	0			+16.2°	5.2	-		-5.2		6214.9	X	0	0	1792,612 447,413
444	330		54° 25'	" "	6.2	91° 30'	-8.6	-14.8		6205.3		+110	+311	1792,722 447,724
445	660		" "	" "	7.9	91° 30'	-17.3	-25.2		6194.9		+219	+623	1792,831 448,036
446	990		" "	" "	10.5	91° 30'	-25.9	-36.4		6183.7		+329	+934	1792,941 448,347
447	1320		" "	+16.2°	8.0	91° 40'	-38.4	-46.4		6173.7		+438	+1245	1793,050 448,658

SURVEY NOTES-HIGH RESOLUTION DATA
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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
10.12.83		B. Cotcamp		D. Winkle		6834		DW		4		42							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
NEVADA		Mount Gallagher - 15		NEV.		LAWDER								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				
									6220.1										
448	1650		54° 33' 31"	+16.0	7.3	91° 40'	-48.0	-55.3		6164.8	TP	+549	+1555	1793,160	448,968				
448	1650				12.0	91° 30'	-43.2	-55.2			TP	-							
	1946		232° 17' 52"		12.5	88° 16'	-62.1	-49.6			BS	+717	+1802						
	1940				12.4	211° 50'	-62.1	-49.7	6115.1		BS	-							
449	1616		232° 00'	+16.0	6.0	88° 20'	+46.8	+40.8		6155.9		-603	-1493	1793,273	449,277				
450	1280		231° 16'		8.1	88° 20'	+37.2	+29.1		6144.2		-495	-1181	1793,381	449,589				
451	951		230° 00'		11.8	88° 20'	+27.6	+15.8		6130.9		-387	-869	1793,489	449,901				
452	622		229° 43'		9.2	88° 40'	+14.5	+5.3		6120.4		-256	-567	1793,620	450,203				
453	320		246° 49'		11.7	89° 20'	+3.7	-8.0		6107.1		-40	-317	1793,836	450,453				
454	0			+16.0	5.2	-		-5.2		6109.9	X	0	0	1793,876	450,770				
455	309		65° 33'		9.0	91° 20'	-7.2	-16.2		6098.9		+45	+306	1793,921	451,076				
Y	491		48° 35' 10"		6.0	91° 10'	-10.0	-16.0		6099.1		+211	+443	1794,087	451,213				
456	607		48° 03'		5.8	91° 10'	-12.4	-18.2		6096.9		+266	+546	1794,142	451,316				
457	936		49° 00'		6.7	91° 10'	-19.1	-25.8		6089.3		+396	+848	1794,272	451,618				
458	1266		49° 23'		11.0	91° 10'	-25.8	-36.8		6078.2		+527	+1151	1794,403	451,921				
459	1596		49° 51'		10.1	91° 10'	-32.5	-42.6		6072.5		+653	+1456	1794,529	452,226				
460	1926		50° 08' 09"		10.9	91° 10'	-39.2	-50.1		6065.0	TP	+779	+1761	1794,654	452,531				
460	1926				5.3	91° 20'	-44.8	-50.1			TP	-							
	4290		231° 09' 05"		10.6	88° 50'	-87.3	-76.7			BS	+1665	+3953						
	4290			+16.0	10.7	211° 10'	-87.3	-76.6	5988.4		BS	-							

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-12-83		B. Cotcamp		D. Winkle		6834		OW		7		43			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Mount Callaghan -15'		NEV.		LANOOR								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
									5988.4						
461	3960		231 14	+16.0	10.2	88° 50'	+80.6	+70.4		6058.8		-1532	-3651	1,794,786	452,833
462	3630		" "	" "	11.2	88° 50'	+73.9	+62.7		6051.1		-1405	-3347	1,794,913	453,137
463	3300		" "	" "	13.0	88° 50'	+67.2	+54.2		6042.6		-1277	-3043	1,794,041	453,441
464	2970		" "	" "	12.3	88° 52'	+58.7	+46.4		6034.8		-1149	-2739	1,795,169	453,745
465	2640		231 10	" "	11.9	88° 54'	+50.7	+38.8		6027.2		-1024	-2433	1,795,294	454,051
466	2310		" "	+16.0	10.2	88° 50'	+47.0	+36.8		6025.2		-896	-2129	1,795,422	454,355
467	1980		" "	" "	9.1	88° 50'	+40.3	+31.2		6019.6		-768	-1825	1,795,550	454,659
468	1650		231 01	" "	9.1	88° 50'	+33.6	+24.5		6012.9		-640	-1521	1,795,678	454,963
469	1320		230 57	" "	9.3	88° 50'	+26.9	+17.6		6006.0		-517	-1215	1,795,801	455,269
470	990		230 37	" "	9.3	88° 50'	+20.2	+10.9		5999.3		-393	-909	1,795,925	455,575
471	660		" "	" "	7.9	88° 50'	+13.4	+5.5		5993.9		-262	-606	1,795,056	455,878
472	330		228 58	" "	6.6	88° 50'	+6.7	+0.1		5988.5		-140	-299	1,796,178	456,185
473	157		230 18 33	" "	5.8	88° 50'	+3.2	-2.6		5985.8		-63	-144	1,796,255	456,340
474	0			+16.0	5.2	-		-5.2		5983.2	X	0	0	1,796,318	456,484
474	330		30 22	" "	7.7	90° 30'	-2.9	-10.6		5977.8		+228	+239	1,796,546	456,723
475	660		" "	" "	9.7	90° 30'	-5.8	-15.5		5972.9		+455	+478	1,796,773	456,962
476	990		" "	" "	12.0	90° 30'	-8.6	-20.6		5967.8		+683	+717	1,797,001	457,201
477	1320		" "	" "	10.4	90° 40'	-15.4	-25.8		5962.6		+911	+955	1,797,229	457,439
478	1650		" "	" "	12.0	90° 40'	-19.2	-31.2		5957.2		+1139	+1194	1,797,457	457,678
479	1980		" "	+16.0	10.0	90° 46'	-26.5	-36.5		5951.9		+1366	+1433	1,797,684	457,917

4-1,796,285 x -456,305
 H-T-ROAD South elev 5985

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-12-83		B. Cotcamp		D. Wrinkle		6834		D.W.		7		44			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEVADA		Mount Callaghan-15		NEV.		LANDER								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
									5988.4						
480	2310		30° 22'	+16.0°	12.1	90° 40'	-26.9	-39.0		5949.4		+1594	+1672	1,797,912	458,156
481	2640		" "	" "	11.0	90° 40'	-30.7	-41.7		5946.7		+1822	+1911	1,798,140	458,385
482	2970		" "	" "	9.9	90° 40'	-34.5	-44.4		5944.0		+2049	+2150	1,798,367	458,634
483	3300		" "	" "	8.8	90° 40'	-38.4	-47.2		5941.2		+2277	+2388	1,798,595	458,872
484	3630		" "	" "	6.6	90° 40'	-42.2	-48.8		5939.6		+2505	+2627	1,798,823	459,111
485	3960		30° 11'	" "	5.0	90° 40'	-46.1	-51.1		5937.3		+2742	+2857	1,799,060	459,341
486	4289		29° 52' 59"	" "	11.6	90° 34'	-42.4	-54.0	} -54.1	5934.3	TP	+2986	+3079	1,799,303	459,563
486	4289		" "	" "	11.9	26° 26'	-42.4	-54.3		TP			-		
	2287		212° 02' 08"	+16.0°	8.2	89° 30'	-20.0	-11.8	} -11.6		BS	+1529	+1700		
	2287		" "	+8.5	27° 30'	-20.0	-11.5	5922.7		BS			-		
487	1959		212° 58'	" "	7.3	89° 30'	+17.1	+9.8		5932.5		-1286	-1478	1,799,545	459,785
488	1630		213° 50'	" "	7.1	89° 30'	+14.2	+7.1		5929.8		-1051	-1246	1,799,780	460,017
489	1302		215° 04'	" "	6.0	89° 30'	+11.4	+5.4		5928.1		-818	-1013	1,800,013	460,250
490	974		216° 35'	" "	9.5	89° 20'	+11.3	+1.8		5924.5		-592	-774	1,800,239	460,489
491	647		220° 14'	" "	7.9	89° 20'	+2.5	-0.4		5922.3		-360	-538	1,800,471	460,725
492	326		229° 45'	" "	5.9	89°	+5.7	-0.2		5922.5		-134	-297	1,800,697	460,966
493	0		" "	+16.0°	5.2	-	-	-5.2		5917.5	TP	0	0	1,800,831	461,263
494	330		63° 08'	" "	7.2	90° 20'	-1.9	-9.1		5913.6		+62	+324	1,800,893	461,587
495	660		" "	" "	8.7	90° 20'	-3.8	-12.5		5910.2		+124	+648	1,800,955	461,911
496	990		" "	+16.0°	11.8	90° 20'	-5.8	-17.6		5905.1		+187	+972	1,801,018	462,235

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10.13.83		B. Cotcamp		D. Wrinkle		6834		D		7		45				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
NEVADA		Mount Callaghan-15'		NEV		LANOCH								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH+ SOUTH - LAT.	EAST+ WEST - DEP.		Y	X
									5922.7							
497	1324		63° 55' 01"	+160°	8.7	90° 20'	-7.7	-16.4		5906.3	BS	+232	+1304	1,801,063	462,567	to - 1,801,100 X - 462,595 - INTER.
498	1316		64° 36'	"	8.9	90° 20'	-7.7	16.6		5906.1		+215	+1298	1,801,046	462,561	
TP	1621		69° 26'	"	10.8	90° 20'	-9.4	-20.2		5902.5		+129	+1616	1,800,960	462,879	
TP	1870		67° 47' 37"	"	12.0	90° 20'	-10.9	-22.9		5899.8	TP	+202	+1859	1,801,032	463,122	
TP	1870			"	12.1	92° 40'	-10.9	-23.0			TP	-	-			
	1379		223° 29' 48"	+160°	9.3	89° 10'	-20.1	-10.8			BS	+700	+1188			
	1379			"	9.4	270° 50'	-20.1	-10.7	5889.1		BS	-	-			
499	1315		223° 53'	"	12.0	89° 03'	+21.8	+9.8		5898.9		-660	-1137	1,801,071	463,173	
500	985		223° 21'	"	10.0	89° -	+17.2	+7.2		5896.3		-502	-847	1,801,229	463,463	
501	657		221° 14'	"	8.2	89° -	+11.5	+3.3		5892.4		-356	-552	1,801,325	463,258	
502	330		217° 07'	"	6.7	89° -	+5.8	-0.9		5888.2		-198	-264	1,801,533	464,046	
503	0			+160°	5.2	-		-5.2		5883.9	TP	0	0	1,801,231	464,310	
504	329		31° 10'	"	6.7	90° 20'	-1.9	-8.6		5880.8		+224	+241	1,801,955	464,551	
505	657		27° 03'	"	5.9	90° 20'	-3.8	-9.7		5879.4		+480	+448	1,802,211	464,758	
506	983		29° 47'	"	7.2	90° 20'	-5.7	-12.9		5876.2		+686	+705	1,802,417	465,015	
507	1304		33° 38'	"	11.5	90° 20'	-7.6	-19.1		5870.0		+845	+994	1,802,526	465,304	
508	1631		33° 48' 39"	"	10.8	90° 30'	-14.2	-25.0		5864.1	TP	+1052	+1246	1,802,782	465,556	
508	1631			"	10.9	269° 30'	-14.2	-25.1			TP	-	-			
	2275		220° 11' 43"	"	13.1	89° 10'	-33.1	-20.0			BS	+1266	+1890			
	2275			+160°	13.2	270° 50'	-33.1	-19.9	5844.2		BS	-	-			

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE	10.13.83	INSTRUMENT MAN	B. Cotcamp	ROD MAN	D. Wrinkle	PARTY NUMBER	6834	NOTES CHECKED BY	OW	LINE NO.	7	PAGE	416
AREA	NEVADA	TOPO MAP	Mount Callaghan - 15'	STATE	NEV.	COUNTY	LANDER	TWP		RANGE		PPM	
										PARTY MANAGER		L.O. Davis	

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
									5844.2										
509	1950		221° 31'	+16.0°	8.1	89° 20'	+22.7	+14.6		5858.8		-1047	-1645	1803,000	465,802				
510	1633		224° 15'	"	10.0	89° 20'	+19.0	+9.0		5853.2		-810	-1718	1803,257	466,029				
511	1308		226° 30'	"	9.6	89° 20'	+15.2	+5.6		5849.8		-604	-1160	1803,443	466,287				
512	982		228° 52'	"	7.6	89° 20'	+11.4	+3.8		5848.0		-417	-889	1803,630	466,558				
513	653		229° 29'	"	7.8	89° 20'	+7.6	-0.2		5844.0		-271	-594	1803,776	466,853				
514	329		230° 41'	"	5.9	89° 20'	+3.8	-2.1		5842.1		-130	-302	1803,917	467,145				
515	0			+16.0°	5.2	-		-5.2		5839.0	X	0	0	1804,047	467,447				
516	110		56° 18' 54"	"	6.2	-		-6.2		5838.0		+33	+105	1804,018	467,552				y = ROAD NORTH
517	330		62° 22'	"	8.2	-		-8.2		5836.0		+67	+323	1804,114	467,770				
518	660		64° 14'	"	11.2	-		-11.2		5833.0		+112	+650	1804,159	468,097				
519	979		62° 01'	"	9.2	184	-4.9	-14.1		5830.1		+203	+958	1804,250	468,405				
519	1291		56° 39'	"	17.3	-		-17.3		5826.9		+385	+1232	1804,432	468,679				
520	1620		55° 52'	"	15.3	90° 10'	-4.7	-20.0		5824.2		+504	+1540	1804,551	468,987				
521	1934		58° 53'	"	17.4	90° 10'	-5.6	-23.0		5821.2		+504	+1867	1804,551	469,314				
522 TP	2198		61° 34' 47"	"	6.9	90° 30'	-19.2	-26.1		5818.1	TP	+473	+2146	1804,519	469,594				
TP	2198				7.0	269° 30'	-19.2	-26.2			TP	-	-						
	1918		294° 15' 04"	+16.0°	9.1	-		+9.1			BS	-1239	+1464						
	1918			+9.2	270°	-		+9.2	5827.3		BS	-	-						
522	1880		294° 01'	"	9.0	-		-9.0		5818.3		+1209	-1440	1804,488	469,619				700 scaled offset south between 522 + 523 creek
522	1846		293° 49' 12"	+16.0°	8.8	-		-8.8		5818.5		+1182	-1418	1804,461	469,641				

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10.13.83		B. Cotamp		D. Wrinkle		6834		DW		7	47						
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER								
NEVADA		Mount Callaghan-15	NEV.	LANDER					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	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5822.3								
523	1633		275° 00'	+16.0°	22.8	89° 26'	+16.2	-6.6		5820.7		+585	-1525	1,803,864	469,534		
524	1315		278° 07'	"	10.8	-		-10.8		5816.5		+537	-1200	1,803,816	469,859		
41	1093		280° 24' 16"	"	10.4	-		-10.4		5816.9	41	+486	-979	1,803,765	470,080	y = 1,803,735x - 470,100 - Inter.	
525	989		280° 47'	"	9.2	-		-9.2		5818.1		+446	-883	1,803,725	470,126		
526	660		281° 14'	"	7.3	-		-7.3		5820.0		+302	-587	1,803,581	470,472		
527	330		279° 36'	"	10.2	-		-10.2		5817.1		+143	-298	1,803,422	470,761		
528	0			+16.0°	5.2	-		-5.2		5822.1	1	0	0	1,803,279	471,059		
529	328		81° 23'	"	11.1	-		-11.1		5816.2		-42	+325	1,803,237	471,384		
530	652		74° 05'	"	10.3	90° 20'	-3.8	-14.1		5813.2		-1	+652	1,803,278	471,711		
531	979		70° 39'	"	10.1	90° 26'	-5.7	-15.8		5811.5		+57	+977	1,803,336	472,032		
532	1307		68° 51'	"	10.1	90° 20'	-7.6	-17.7		5809.6		+117	+1302	1,803,396	472,361		
533	1636		67° 45'	"	12.1	90° 20'	-9.5	-21.6		5805.7		+178	+1626	1,803,457	472,685		
534	1965		66° 59' 50"	"	8.5	90° 30'	-17.1	-25.6		5801.6	TP	+240	+1950	1,803,518	473,010		
534	1965				8.7	269° 30'	-17.1	-25.8			TP	-1	-1				
	1650		243° 14' 18"	+16.0°	6.8	-		+6.8		5808.4	BS	+308	+1621				
	1650				6.9	270° -		+6.9			BS	-1	-1				
535	1320		243° 14'	"	7.8	-		-7.8		5800.6		-247	-1297	1,803,578	473,335		
536	990		"	"	9.7	-		-9.7		5798.7		-185	-973	1,803,640	473,659		
537	660		"	"	12.1	-		-12.1		5796.3		-123	-648	1,803,702	473,984		
538	330		"	+16.0°	6.2	-		-6.2		5802.2		-62	-324	1,803,763	474,308		

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10.13.83		B. Cotcamp		D. Winkle		6834		DW		7	48						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
NEVADA		Mount Callaghan - 15		NEV.		LANDER					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	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5808.4								
539	0			+16.0°	5.2	-		-5.2		5803.2	TP	0	0	1803.825	474.632		
540	328		51° 36'	" "	11.8	-		-11.8		5796.6		+125	+303	1803.950	474.935		
541	647		49° 50'	" "	10.4	BH	-3.2	-13.6		5794.8		+265	+590	1804.090	475.222		
542	931		62° 09'	" "	8.9	BH	-4.7	-13.6		5794.8		+191	+911	1804.016	475.543		
543	1238		68° 41'	" "	10.1	BH	-6.2	-16.3		5792.1		+115	+1233	1803.940	475.865		
544	1494		77° 15' 46"	" "	12.8	-		-12.8		5795.6	TP	-85	+1492	1803.740	476.124		
544	1494			+16.0°	12.8	270°		-12.8			TP						
⊙ TRaverse to Δ station TEA from setup @ STA. 539.																	
TP	3091		38° 20' 05"	" "	14.3	90° 20'	-18.0	-32.3	525	5775.9	TP	+1802	+2511	1805.626	477.144		
TP	3091			" "	14.7	269° 40'	-18.0	-32.2			TP	-1	+1				
	2837		187° 48' 22"	" "	8.4	89° 40'	-16.5	-8.1	277		BS	+2596	+1145				
	2837			" "	8.7	270° 20'	-16.5	-7.8	5768.0		BS	-1	+1				
TP	0			+16.0°	5.2	-		-5.2			TP	0	0	1808.221	478.290		
Δ	2423		24° 39' 15"	" "	9.0	90° 10'	-7.0	-16.0		5752.0	Δ	+1838	+1579	1810.058	479.870	y=1810.058 x=479.870 U.S.C.G.S. Δ Elev 5752.0	
Δ	2423			" "	9.1	269° 50'	-7.0	-16.1			Δ	-1	+1			TEA 1954 Horiz y=21, CORR. x=19	
544-BS				+16.0°						5795.6	Ri					R. STATION 544	
	1965		291° 30' 50"	+15.8°	9.8	-		+9.8	5805.4		BS	-1191	+1563				
	1965			" "	9.9	270°		+9.9			BS						
545	1639		289° 58'	" "	10.3	89° 50'	+4.8	-5.5		5799.9		+958	-1330	1803.507	476.357		
Δ	1605		289° 49' 28"	" "	10.6	89° 50'	+4.7	-5.9		5799.5		+935	-1305	1803.484	476.382	Mount Callaghan	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE 10-13-83	INSTRUMENT MAN B. Cotcamp	ROD MAN D. Wrinkle	PARTY NUMBER 6834	NOTES CHECKED BY DW	LINE NO. 7	PAGE 49
AREA NEVADA	TOPO MAP Ackerman Canyon - 15'	STATE NEV.	COUNTY LANDER	TWP	RANGE	PPM
			PARTY MANAGER L.O. Davis			

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS
												LAT.	DEP.	Y	X			
									5805.4									
546	1312		290° 06'	+15.8°	7.6	89° 50'	+3.8	-3.8		5801.6		+769	-1063	1,803,318	476,624			Ackerman Canyon
547	983		290° 49'	"	8.0	89° 50'	+2.9	-5.1		5800.3		+586	-789	1,803,135	476,898			↓
548	656		293° 30'	"	8.7	89° 50'	+1.9	-6.8		5798.6		+416	-508	1,802,965	477,179			
549	328		289° 58'	"	8.0	89° 50'	+1.0	-7.0		5798.4		+192	-266	1,802,741	477,421			
550	0				5.2	-		-5.2		5800.2	π	0	0	1,802,549	477,687			
551	330		112° 36'	+15.8°	9.9	89° 50'	+1.0	-8.9		5796.5		-205	+259	1,802,344	477,946			
552	658		115° 33'	"	10.1	-		-10.1		5795.3		-435	+494	1,802,114	478,181			
553	984		119° 26'	"	12.5	-		-12.5		5792.9		-699	+693	1,801,850	478,380			
554	1312		120° 45'	"	8.1	BH	-6.6	-14.7		5790.7		-952	+902	1,801,597	478,589			
555	1641		121° 40'	"	7.5	BH	-8.2	-15.7		5789.7		-1209	+1109	1,801,340	478,796			
556	1970		122° 27' 01"	"	9.3	90° 10'	-5.7	-15.0			TP	-1470	+1312	1,801,079	478,997			
556	1970			"	9.4	269° 50'	-5.7	-15.1		5790.3	TP		-2					
	2614		295° 34' 29"	+15.8°	8.0	-		+8.0	+7.99		BS	-1728	+1962					
	2614			"	7.8	210°		+7.8	5798.2		BS		-2					
557	2290		294° 09'	"	8.9	-		-8.9		5789.3		+1470	-1756	1,800,821	479,201			
558	1974		291° 39'	"	10.1	-		-10.1		5788.1		+1200	-1567	1,800,551	479,390			
559	1647		291° 25'	"	10.8	-		-10.8		5787.4		+996	-1312	1,800,347	479,645			
560	1318		292° 17'	"	10.0	-		-10.0		5788.2		+813	-1037	1,800,164	479,920			
561	988		291° 53'	"	6.8	-		-6.8		5791.4		+604	-782	1,799,955	480,175			2-1799 895 = 480,325 2120579 2
✓	786		292° 52' 04"	"	6.2	-		-6.2		5792.0	14	+491	-614	1,799,842	480,343			14y. ROAD NORTH

SURVEY NOTES-HIGH RESOLUTION DATA
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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-13-83		B. Cotcamp		D. Wrinkle		6834		DW		7		50			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
NEV.		ACKERMAN Canyon - 15		NEV.		LANDER								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
									5798.2						
562	659		293° 00'	+15.8	6.7	-		-6.7		5791.5		+413	-514	1,799,764	480,443
563	330		294° 16'	"	6.3	-		-6.3		5791.9		+212	-253	1,799,563	480,704
564	0				5.2	-		-5.2		5793.0	X	0	0	1,799,351	480,957
565	330		105° 34'	+15.8	7.0	89° 20'	+3.8	-3.2		5795.0		-172	+282	1,799,179	481,239
566	659		105° 04'	"	9.0	89° 20'	+7.7	-1.3		5796.9		-338	+566	1,799,013	481,523
567	985		108° 17'	"	10.7	89° 20'	+11.5	+0.8		5799.0		-552	+816	1,798,799	481,773
568	1313		110° 03'	"	5.7	89° 20'	+15.3	+9.6		5807.8		-769	+1064	1,798,582	482,021
569	1642		109° 08'	"	7.8	89° 20'	+19.1	+11.3		5809.5		-940	+1346	1,798,411	482,303
570	1972		108° 46' 36"	"	9.4	89° 20'	+22.9	+13.5	} +13.4	5811.6	TP	-1119	+1624	1,798,232	482,579
570	1972				9.6	270° 40'	+22.9	+13.3				TP		-2	
	1271		287° 15' 45"	+15.8	6.5	TH -	-6.4	+0.1	} 5811.7		BS	-693	+1065		
	1271				6.5	TH 270°	-6.4	+0.1				BS		-2	
571	942		288° 44'	"	9.3	89° 40'	+5.5	-3.8		5807.9		+534	-776	1,798,073	482,866
572	615		290° 30'	"	10.8	89° 40'	+3.6	-7.2		5804.5		+364	-496	1,797,903	483,146
573	288		284° 53'	"	8.8	89° 40'	+1.7	-7.1		5804.6		+147	-248	1,797,686	483,394
X	0			+15.8	5.2	-		-5.2		5806.5	X	0	0	1,797,539	483,642
574	42		128° 19'	"	6.2	89° 40'	+0.2	-6.0		5805.7		-34	+25	1,797,505	483,667
575	362		147° 49'	"	7.2	89° 40'	+2.1	-5.1		5806.6		-347	+102	1,797,192	483,744
576	680		158° 05'	"	8.0	89° 20'	+7.9	-0.1		5811.6		-676	+72	1,796,863	483,714
577	1006		161° 18'	"	8.7	89° 20'	+11.7	+3.0		5814.7		-1005	+51	1,796,534	483,693

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
10.13.83		B. Cotcamp		D. Winkle		6834		D W		7	51					
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
NEVADA		Ackerman Canyon		NEV.		LANDER					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES Y X		REMARKS
									5811.7							
578	1334		163° 19' 47"	+15.8	10.4	89° 20'	+15.5	+5.1		5816.8	TP	-1334	+20	1,794,205	483,166.0	
578	1334				10.5	270° 40'	+15.5	+5.0			TP		-2			
	1106		305° 02' 12"	--	8.2	91° -	+19.3	+27.5			BS	-857	+698			
	1106				+5.0	91° 10'	+22.5	+27.5	5844.3		BS		-2			
579	904		290° 06'	--	6.8	91° 10'	-18.4	-25.2		5819.1		+530	-732	1,795,878	483,624	
580	659		278° 22'	--	7.8	91° 10'	-13.4	-21.2		5823.1		+270	-601	1,795,618	483,255	
581	330		" "	--	11.4	91° 40'	-9.6	-21.0		5823.3		+135	-301	1,795,483	484,055	
582	0			--	5.2	-		-5.2		5839.1	X	0	0	1,795,348	484,356	
583	330		98° 58'	+15.8	5.0	89° 40'	+1.9	-3.1		5841.2		-138	+300	1,795,210	484,165.6	
584	660		" "	--	7.1	89° 40'	+3.8	-3.3		5841.0		-276	+599	1,795,072	484,955	
585	990		" "	--	10.0	89° 50'	+2.9	-7.1		5837.2		-415	+899	1,794,933	485,255	
586	1319		97° 42' 54"	--	7.7	89° 50'	+3.8	-3.9		5840.4	TP	-526	+1209	1,794,822	485,563	
586	1319				4.0	-		-4.0			TP		-2			
	3629		272° 05' 56"	--	+10.8	92° 10'	+132.2	+148.0	5988.7		BS	-1115	+3451			
	3629				+11.4	267° 50'	+132.2	+148.6	5988.3		BS		-2			
587	3300		272° 06'	+15.8	7.7	92° 20'	-134.2	-141.9		5846.8		+1014	-3140	1,794,721	485,872	
588	2970		" "	--	8.2	92° 26'	-126.0	-134.2		5854.5		+913	-2826	1,794,620	486,186	
589	2640		" "	--	11.2	92° 30'	-115.1	-126.3		5862.4		+811	-2512	1,794,518	486,500	
590	2310		" "	--	9.1	92° 40'	-107.3	-116.4		5872.3		+710	-2198	1,794,417	486,814	
591	1980		" "	--	8.2	92° 50'	-97.8	-106.0		5882.7		+609	-1884	1,794,316	487,128	

SURVEY NOTES-HIGH RESOLUTION DATA

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
10.13.83		B. Cotcamp		D. Wrinkle		6834		DW		7		52							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
NEVADA		Ackerman Canyon-15		NEVADA		LANDER								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				
									5988.7										
592	1650		272° 06'	+15.8	12.3	92° 50'	-81.5	-93.8		5894.9		+507	-1570	1,794,214	487,442				
593	1320		" "	" "	11.8	93° -	-69.0	-80.8		5907.9		+406	-1256	1,794,113	487,756				
594	990		" "	" "	11.0	93° -	-51.8	-62.8		5925.9		+304	-942	1,794,011	488,070				
595	660		" "	" "	6.1	93° -	-34.5	-40.6		5948.1		+203	-628	1,793,910	488,384				
596	330		" "	" "	9.7	92° -	-11.5	-21.2		5967.5		+101	-314	1,793,808	488,698				
597	6				5.2	-		-5.2		5983.5	X	0	0	1,793,707	489,012				
598	330		92° 00'	+15.8	4.9	87° -	+17.2	+12.3		6001.0		-101	+314	1,793,606	489,326				
599	660		" "	" "	5.0	87° -	+34.5	+29.5		6018.2		-202	+628	1,793,505	489,640				
600	990		92° 18'	" "	6.5	87° -	+51.7	+45.2		6033.9		-308	+941	1,793,399	489,953				
sec. corner	1217		44° 07' 34"	" "	4.3	88° -	+42.4	+38.1		6026.8	sec. corner	+609	+1053	1,794,316	490,065	1/2" section corner Elev 60200			
601	1320		92° 16'	" "	9.7	86° 50'	+72.8	+63.1		6051.8		-409	+1255	1,793,298	490,267				
602	1650		" "	" "	12.0	86° 50'	+91.0	+79.0		6067.7		-512	+1569	1,793,195	490,581				
603	1980		92° 28'	" "	10.1	86° 50'	+109.2	+99.1		6087.8		-621	+1880	1,793,086	490,892				
604	2309		92° 59'	" "	9.0	86° 50'	+127.4	+118.4		6107.1		-743	+2186	1,792,964	491,198				
605	2636		93° 58'	" "	6.4	86° 40'	+153.0	+146.4		6135.1		-891	+2481	1,792,816	491,493				
TP	2777	2771.8	94° 47' 12"	" "	12.6	86° 30'	+169.5	+156.9		6145.4	TP	-975	+2595	1,792,732	491,605				
TP	2777				13.0	273° 30'	+169.5	+156.5	+156.7		TP		-2						
	1092	1087.8	290° 14' 04"	+15.8	10.7	95° -	+95.2	+105.9			BS	-640	+880						
	1092			" "	10.8	265° -	+95.2	+106.0	6251.4		BS		-2						

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10.14.83		B. Cotcamp		D. Wrinkle		6834		DW		7	53						
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER								
NEVADA		Ackerman Canyon -15	NEV.	LANDER					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		
									6251.4								
606	913		287° 23'	+15.8°	12.7	95° 30'	-87.1	-99.8		6151.6		+500	-764	1792,592	491,719		
607	606		278° 33'	"	8.4	98° -	-84.3	-92.7		6158.7		+256	-552	1792,342	491,931		
608	361		252° 52'	"	9.2	101° 50'	-74.0	-83.2		6168.2		-8	-361	1792,084	492,122		
π	0				5.2	-		-5.2		6246.2	π	0	0	1792,092	492,483	north of line or side of H.11	
609	302		198° 37'	+15.8°	9.2	101° -	-52.6	-66.8		6184.6		-249	-171	1791,843	492,312		
610	282		129° 54'	"	8.6	89° 50'	-38.4	-42.0		6204.4		-233	+159	1791,859	492,642		
611	599		111° 09'	"	12.2	90° 10'	-1.7	-13.9		6237.5		-348	+463	1791,744	492,946		
612	906		111° 04'	"	8.9	89° 40'	+5.3	-3.6		6247.8		-544	+725	1791,548	493,208		
613	1230		113° 46'	"	14.9	88° 24'	+34.3	+19.4		6270.8		-783	+948	1791,309	493,431		
614	1529		111° 05'	"	18.0	87° 50'	+57.8	+39.8		6291.2		-918	+1223	1791,174	493,706		
TP	1756		110° 17' 22"	"	6.7	87° 50'	+66.4	+59.7		6311.1	TP	-1034	+1418	1791,058	493,899		
TP	1756				6.8	272° N	+66.4	+59.6			TP		-2				
	338		281° 26' 52"	+15.8°	5.6	93° -	+17.7	+23.3			BS	-155	+300				
	338				4.6	93° 10'	+18.6	+23.2	6334.3		BS		-2				
615	241		284° 19'	"	6.4	93° -	-12.6	-19.0		6315.3		+121	-208	1791,024	493,989		
π	0				5.2	-		-5.2		6329.1	π	0	0	1790,903	494,197	STAIN	
616	88		114° 52'	"	6.2	86° -	+6.1	-0.1		6334.2		-57	+67	1790,846	494,264		
TP	352		111° 45' 01"	"	3.0	85° 50'	+25.5	+22.5		6356.8	TP	-214	+278	1790,689	494,423		
TP	352				2.0	86° -	+24.5	+22.5			TP		-2				

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE							
10.14.83		B. Cotcamp		D. Winkle		6834		DW		7	54							
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER									
NEVADA		Ackerman Canyon - 15	NEV.	L. ANDER					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			
										6356.8								
	240		272° 06' 28"	+15.8	6.4	93° 30'	+14.6	+21.0			BS	-74	+228					
	240				7.1	93° 20'	+13.9	+21.0	6372.8		BS		-2					
617	175		268° 43'	"	6.3	93° -	-9.1	-15.4		6362.4		+44	-169	1,790,659	494,530			
X	0				5.2	-		-5.2		6372.6	X	0	0	1,790,615	494,699	station		
618	154		85° 03'	"	6.9	86° -	+10.7	+3.8		6381.6		-29	+151	1,790,586	494,850			
TP	389		83° 49' 03"	"	7.3	86° -	+27.1	+19.8		6392.6	TP	-65	+383	1,790,550	495,080			
TP	389				6.2	86° 10'	+25.9	+19.7			TP		-2					
	174		298° 28' 39"	+15.8	8.5	92° -	+6.1	+14.6			BS	-121	+125					
	174				7.9	92° 10'	+6.6	+14.5	6412.1		BS		-2					
619	76		297° 57'	"	5.2	91° 30'	-2.0	-7.2		6404.9		+53	-55	1,790,482	495,148			
X	0				5.2	-		-5.2		6406.9	X	0	0	1,790,429	495,203	station		
620	254		126° 45'	"	7.6	88° 20'	+7.4	-0.2		6411.9		-202	+154	1,790,227	495,357			
TP	317		124° 30' 33"	"	4.8	88° 40'	+7.4	+2.6		6414.7	TP	-244	+202	1,790,185	495,403			
TP	317				3.9	88° 50'	+6.5	+2.6			TP		-2					
	524		312° 45' 48"	+15.8	8.8	93° 20'	+30.4	+39.2			BS	-446	+273					
	524				7.3	93° 30'	+31.9	+39.2	6453.9		BS		-2					
621	276		327° 59'	"	6.3	93° 30'	-16.8	-23.1		6430.8		+265	-77	1,790,004	495,597			
X	0			"	5.2	-		-5.2		6448.7	X	0	0	1,789,739	495,674	station		
622	54		135° 45'	"	4.2	86° 40'	+3.1	-1.1		6452.8		-47	+26	1,789,692	495,700			

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
10-14-83		B. Cotcamp		D. Wrinkle		6834		DW		17	55				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
NEVADA		Ackerman Canyon - 15		NEV.		Lander					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
									6453.9						
TP	162		129° 12' 36"	+15.8°	4.0	86° 30'	+9.9	+5.9	}	6459.8	TP	-132	+93	1,289,607	495,765
TP	162				3.5	86° 40'	+9.4	+5.9		TP			-2		
	320		284° 06' 50"	" "	4.3	94° -	+22.3	+26.6	}	6486.4	BS	-159	+277		
	320				7.1	93° 30'	+19.5	+26.6			BS			-2	
623	102		283° 01'	" "	4.7	93° 40'	-6.5	-11.2		6475.2		+49	-89	1,289,497	495,951
X	0				5.2	-		-5.2		6481.2	X	0	0	1,289,448	496,040
624	236		131° 57'	" "	5.6	87° 10'	+11.7	+6.1		6492.5		-200	+126	1,289,248	496,166
TP	449		130° 13' 02"	" "	8.3	87° 10'	+22.2	+13.9	}	6500.3	TP	-372	+251	1,289,078	496,289
TP	449				7.0	87° 20'	+20.9	+13.9			TP				
	539		310° 43' 41"	+15.8°	10.3	93° 30'	+32.9	+43.2	}	6543.5	BS	-449	+297		
	539				11.9	93° 20'	+31.3	+43.2			BS			-1	-2
625	425		307° 04'	" "	18.6	92° 40'	-19.7	+38.3		6505.2		+339	-257	1,288,965	496,327
626	114		327° 46'	" "	6.8	95° 40'	-11.2	-18.0		6525.5		+109	-32	1,288,735	496,552
X	0				5.2	-		-5.2		6538.3	X	0	0	1,288,626	496,584
627	208		144° 19'	" "	5.8	86° -	+14.5	+8.7		6552.2		-196	+71	1,288,430	496,655
TP	304		143° 11' 06"	" "	6.9	85° 10'	+25.6	+18.7	}	6562.2	TP	-283	+109	1,288,342	496,691
TP	304				6.0	85° 20'	+24.7	+18.7			TP		-1		
	255		303° 08' 50"	" "	11.0	94° -	+17.7	+28.7	}	6590.9	BS	-192	+167		
	255				10.2	94° 10'	+18.5	+28.7			BS			-1	-2
628	32		290° 55'	" "	5.3	93°	-1.7	-7.0		6583.9		+19	-26	1,288,168	496,830

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
10.14.83		B. Cotcamp		D. Wrinkle		6834		DW		7		56							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
NEVADA		ACKERMAN Canyon - 15		NEV.		LANDER								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	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X				
									6590.9										
TP	0				5.2	-		-5.2		6585.7	TP	0	0	1,788,149	496,856				
TP	276		133° 43' 33"	+15.8	2.0	88° 38'	+6.6	+4.6		6595.5	TP	-238	+140	1,787,910	496,994				
TP	276				2.2	88° 36'	+6.7	+4.5			TP	-1	-2						
	201		304° 46' 23"	--	8.0	93° 30'	+12.2	+20.2			BS	-155	+127						
	201				+6.9	93° 50'	+13.4	+20.3	6615.8		BS	-1	-2						
629	184		301° 39'	--	4.1	94° 40'	-14.9	-19.0		6596.8		+136	-124	1,787,890	496,995				
TP	0				5.2	-		-5.2		6610.6	TP	0	0	1,787,754	497,119				station
630	146		106° 38'	+15.8	6.7	86° 10'	+9.7	+3.0		6618.8		-78	+123	1,787,676	497,242				
631	476		104° 51'	--	7.3	85° 10'	+40.0	+47.3		6663.1		-243	+410	1,787,511	497,529				
TP	635		105° 15' 53"	--	7.3	85° 20'	+51.5	+44.2		6660.0	TP	-327	+542	1,787,426	497,659				
TP	635				5.4	85° 30'	+49.7	+44.3			TP	-1	-2						
	658		303° 42' 40"	--	11.7	93° 30'	+40.2	+51.9			BS	-500	+426						
	658				+9.8	93° 40'	+42.1	+51.9	6671.9		BS	-1	-2						
632	485		304° 06'	+15.8	7.7	93° 50'	-32.3	-40.0		6671.9		+370	-313	1,787,295	497,770				
633	157		300° 21'	--	9.2	94° -	-10.9	-20.1		6691.8		+113	-109	1,787,038	497,974				
TP	0				5.2	-		-5.2		6706.7	TP	0	0	1,786,925	498,083				E.P.M.
634	173		101° 08'	--	6.2	85° 30'	+13.5	+7.3		6719.2		-78	+154	1,786,847	498,237				
TP	483		103° 28' 17"	--	5.9	85° 30'	+37.9	+32.0		6743.9	TP	-235	+420	1,786,689	498,501				
TP	483				7.3	85° 20'	+39.3	+32.0			TP	-1	-2						

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10-14-83		B. Cotcamp		D. Wrinkle		6834		DW		7		57				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
NEVADA		ACKERMAN Canyon -15'		NEVADA		LANDER								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
										6743.9				Y	X	
	664		319° 42' 46"	+15.8'	13.5	93° 20'	+38.6	+52.1			BS	-603	+275			
	664			+11.6		93° 30'	+40.5	+52.1	6796.0		BS	-1	-2			
635	655		319° 17'	" "	11.8	93° 30'	-39.9	-51.7		6744.3		+594	-276	1,786,679	498,498	
636	328		325° 14'	" "	6.4	93° 30'	-20.0	-26.4		6769.6		+310	-107	1,786,395	498,667	
637	0				5.2	-		-5.2		6790.8	TP	0	0	1,786,085	498,724	
638	329		143° 52'	" "	10.3	84° -	+34.2	+23.9		6819.9		-309	+114	1,785,776	498,888	E.O.L. Line #7
TP	1368		314° 04' 37"	+15.6'	10.0	91° -	-23.9	-33.9		6762.1	TP	+1181	-691	1,787,265	498,081	Traverse back to Control
TP	1368				10.1	269° -	-23.9	-34.0			TP	-1	-2			↓
	1845		101° 36' 07"	" +	8.9	85° 10'	-155.5	-146.6			BS	+840	-1635			
	1845			+9.0		274° 50'	-155.5	-146.5	6615.6		BS	-1	-2			
TP	0				5.2	-		-5.2		6610.4	TP	0	0	1,788,104	496,444	
TP	3354		311° 37' 09"	" "	11.1	93° 20'	-195.0	-206.1		6409.3	TP	+2815	-1813	1,790,918	494,629	
TP	3354				11.5	266° 40'	-195.0	-206.5	-206.5		TP	-1	-2			
	3381		102° 22' 04"	" "	9.0	86° 10'	-226.0	-217.0	6192.5		BS	+1582	-2979			
	3381				9.3	273° 50'	-226.0	-216.7	-216.7		BS	-1	-2			
TP	0				5.2	-		-5.2		6187.3	TP	0	0	1,792,499	491,648	
TP	3903		278° 38' 13"	+15.6'	12.9	93° 44'	-254.1	-267.6		5925.4	TP	+1599	-3551	1,794,097	488,095	
TP	3903				13.2	266° 16'	-254.1	-267.3	-267.3		TP	-1	-2			
	3296		92° 51' 52"	" +	10.9	88° 26'	-90.1	-79.2	5846.4		BS	+1049	-3123			
	3296			+11.2		271° 34'	-90.1	-78.9	-78.9		BS	-1	-2			

