

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-20-85		B Cotcamp		K. Greenfield		6834		[initials]		7		1a			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Washington		Twisp East		WA.		OKanogan								W. Cassidy	
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
R			D-378 1958	-R	U.S. G.S.	6-5				1609.0		Elevation traverse to beginning of line #7			
	3164				+10.1	89°40'	-18.4	-8.3	1600.7		BS			U.S.G.S. 0-378 1958 EL. 1609.0	
	3164				+13.7	270°24'	-22.1	-8.4		BS					
	0				5.1	0									
	1402				4.2	90°20'	-8.2	-12.4			TP				
	1402				4.1	269°40'	-8.2	-12.3		1588.4	TP				
	901				+11.3	BH	+4.5	+15.8	1604.2		BS				
	901				+11.2	BH 270	+4.5	+15.7		BS					
	0				5.1			-5.1			X				
	846				6.4	89°10'	+12.3	+5.9			TP				
	846				6.3	270°50'	+12.3	+6.0		1610.2	TP				
	85				+6.6			+6.6			BS				
	85				+6.2	BH	+0.4	+6.6	1616.8						
Bm	15				3.5	-		-3.5		1613.3	Bm				Twisp Bm. El. 1614 Stamp. 16190
X	0				5.1	-		-5.1			X				
TP	274				4.4	-		-4.4	1612.4		TP				
TP	276				5.8	TM	+1.4	-4.4		TP					
	612				+10.3	92°-	+21.4	+31.7	1644.1		BS				
	612				+8.5	92°10'	+23.1	+31.6		BS					
X	0				5.1	-		-5.1			X				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
7-20-85		B. Cotamp		K. Greenfield		6834		KUP		7	2A						
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
WASHINGTON		Twisp West		WA.	OKANOGAN					W. Cassidy							
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		
									1644.1								
TP	1784				5.6	89° 24'	+18.7	+13.1		1657.2	TP						Elevation
TP	1784				5.5	270° 36'	+16.7	+13.2									Transverse to
	1105				+9.8	88° 30'	-28.9	-19.1	1638.1		BS						START of LINE
	1105				+9.7	271° 30'	-28.9	-14.2			BS						↓
X	0				5.1	-		-5.1			X						
TP	471				7.0	89° 30'	+4.1	-2.9		1635.2	TP						↓
TP	471				6.9	270° 30'	+4.1	-2.8			TP						↓
*	616				+4.8	90° 30'	+5.4	+10.2	1645.4		BS						↓
	616				+6.7	90° 20'	+3.6	+10.3			BS						
X	0				3.0	TH	+4.0	+1.0		1646.4	TP						↓
TP	798				13.0	89° -	+13.9	+0.9			TP						↓
	688				+4.2	91° -	+12.0	+16.2	1662.6		BS						↓
	688				+2.1	91° 10'	+14.0	+16.1			BS						
X	0				5.1	-		-5.1			X						
TP	256				4.7	-		-4.7		1657.9	TP						↓
TP	256				6.0	TH	+1.3	-4.7			TP						↓
	766				+8.1	90° 40'	+8.9	+17.0	1674.9								
	766				+8.0	269° 20'	+8.9	+16.9									
X	0										X						



DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-20-85		B. Cotamp		K. Greenfield		6834		KUCW		7		4A			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		TWP West		WA.		OKANOGAN								W. Cassidy	
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
									1774.9						
TP	352				6.1	85°40'	+26.6	+20.5		1795.4	TP				
TP	352				7.1	85°30'	+27.6	+20.5							
	705				+1.7	92°30'	+30.8	+32.5		1827.9	BS				
	705				+1.6	267°30'	+30.8	+32.4							
X	0				5.1	-		-5.1			X				
TP	527				5.6	86°40'	+30.6	+25.0		1852.9	TP				
	527				4.1	86°50'	+29.8	+25.0							
	29				+6.1	-		+6.1		1859.0	BS				
X	0				5.1	-		-5.1			X				
TP	293				10.1	-		-10.1		1848.9	TP				
	663				+8.3	87°40'	-27.0	-18.7		1830.2	BS				
	663				+10.2	87°30'	-28.9	-18.7							
X	0				5.1	-		-5.1			X				
TP	883				13.0	88°-	+30.8	+17.8		1848.0	TP				
	883				10.4	88°10'	+28.2	+17.8							
	692				+5.2	94°20'	+52.3	+57.5		1905.5	BS				
	692				+7.3	94°10'	+50.3	+57.6							
	0				5.1	-		-5.1			X				
TP	677				8.4	87°-	+35.4	+27.0		1932.5	TP				
TP	677				6.5	87°10'	+33.9	+27.0							

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DATE 7-20-85	INSTRUMENT MAN B. Cotcamp	ROD MAN K. Greenfield	PARTY NUMBER 6834	NOTES CHECKED BY KWC	LINE NO. 7	PAGE 5A
AREA WASH.	TOPO MAP Twisp West	STATE WA.	COUNTY OKANOGAN	TWP	RANGE	PPM
PARTY MANAGER W. Cassidy						

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	
										1932.5						
BS	381				+ 8.3	93°	+19.9	+ 28.2	1960.7		BS					
BS	381				+ 5.0	93°30'	+ 23.3	+ 28.3								
X	0				5.1	-		-5.1		1955.6	XTP					
BS	2950				+ 13.6	BH	+14.8	+ 28.4	1983.9		BS					
BS	2950				+ 13.4	BH210	+14.8	+ 28.2				BS				
X	0				5.0	-		-5.0		1978.9	XTP					
											BS					Continued on page 6A.
											BS					

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-21-85		B. Cotcamp		K. Greenfield		6834		XVCL		7		6A			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASH.		Winthrop		WA.		OKANOGAN								W. Cassidy	
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
TK. Setup	Elevation								1978.9	1978.9					
	1398				+ 11.6	96° 40'	+16.3	+27.9	2006.8		BS				TRANSISE BACK to start of line
	1398				+ 11.5	269° 20'	+16.3	+27.8		BS					
TP	0				5.1	-		-5.1			TP				
TP	852				14.3	90° 50'	-12.4	-26.7	1980.1		TP				↓
TP	852				14.2	269° 10'	-12.4	-26.6		TP					
	3481				+ 6.0	88° 42' 30"	-78.5	-72.5	1907.7		BS				↓
	3481				+ 6.0	271° 17' 20"	-78.3	-72.3		7243	BS				
	3481				+ 14.8	88° 34'	-87.1	-72.3							
	0				5.1	-									
TP	662				5.8	87°	+11.6	+5.8	1913.5		TP				↓
TP	662				5.7	271°	+11.6	+5.9		TP					
	608				+ 4.1	92° 50'	+30.1	+34.2	1947.7		BS				↓
	608				+ 5.9	92° 40'	+28.3	+34.2		BS					
	0				5.1	-		-5.1							
TP	727				8.4	86° 30'	+44.4	+36.0	1983.7		TP				↓
TP	727				10.6	86° 20'	+46.5	+35.9		TP					
	1417				+ 3.9	91° 48'	+44.5	+48.4	2032.1						↓
	1417				+ 3.8	268° 12'	+44.5	+48.3							

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
7-21-85		B. Cotamp		K. Greenfield		6834		KUL		7		7A				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
WASHING				WA.		OKANOGAN								W. Cassidy		
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
									2032.1							
TP	3366				5.7	90° 12'	-11.7	-17.4	}	2014.8	TP	TP				
TP	3366				5.4	269° 48'	-11.7	-17.1					-17.3			
	749				+6.6	91° 30'	+19.6	+26.2	}	2041.0	BS					
	749				+8.8	91° 20'	+17.4	+26.2								
K	0				5.1	-		-5.1			K					
TP	1289				5.4	88° 40'	+30.0	+24.6	}	2065.7	TP	TP				
TP	1289				5.1	271° 20'	+30.0	+24.9					+24.7			
	1167				+14.9	89° 56'	-1.4	+13.5	}	2079.2	BS	BS				
	1167				+14.8	270° 04'	-1.4	+13.4								
K 133	0				5.1	-		-5.1			K					
TP	602				5.3	-		-5.3	}	2073.9	TP	TP				
TP	602				5.2	270° -		-5.2								
	1402				+10.2	90° 46'	+16.3	+26.5	}	2100.4	BS	BS				
	1402				+6.1	90° 50'	+20.4	+26.5								
K	0				5.1	-		-5.1			K					
TP	1231				9.8	89° 10'	+17.9	+8.1	}	2108.5	TP	TP				
TP	1231				9.7	270° 50'	+17.9	+8.2								
	644				+6.8	-		+6.8	}	2115.3	BS					
	644				+10.0	TA	-3.2	+6.8								
K	0										K					



DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-21-85		B. Cotcamp		K. Greenfield		6834		Kuc		7		9A			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Washington		Woodrow Peak		WA.		OKANOGAN								W. Cassidy	
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
										2198.9					
TP	754				+6.8	90°30'	+6.6	+13.4	2212.3		BS			ELEVATION TRAVERSE to START of line	
BS	754				+9.0	90°20'	+4.4	+13.4		BS					
X	0				5.1	-		-5.1			X				
TP	1031				8.0	88°40'	+24.0	+16.0	2228.3		TP				
BS	1215				+14.0	89°34'	-9.2	+4.8		2233.1		BS			
	0				5.1	-		-5.1			X				
TP	1612				4.4	89°10'	+23.4	+19.0	2252.1		TP				
BS	786				+8.9	92°40'	+36.6	+45.5		2297.6		BS			
	0				5.1	-		-5.1			X				
TP	759				11.4	89°20'	+8.8	-2.6	2295.0		TP				
BS	654				+6.3	-		+6.3		2301.3		BS			
	0				5.1	-		-5.1			X				
TP	420				3.9	-		-3.9	2297.4		TP				
BS	802				+8.1	89°40'	-4.7	+3.4		2300.8		BS			
	0				5.1	-		-5.1			X				
TP	790				12.3	91°30'	-20.7	-33.0	2267.8		TP				
	800				+6.0	92°-	+27.9	+33.9		2301.7		BS			
	0				5.1	-		-5.1			X				
TP	824				6.5	87°40'	+33.5	+27.0	2328.7		TP				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE: 7-21-85 INSTRUMENT MAN: B. Cotcamp ROD MAN: K. Greenfield PARTY NUMBER: 6834 NOTES CHECKED BY: KUGLO LINE NO.: 7 PAGE: 10A  
 AREA: WASH. TOPO MAP: STATE: WA. COUNTY: OKANOGAN TWP: RANGE: PPM: PARTY MANAGER: W. Cassidy

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
														Y	X	
										2328.7						
BS	554			+	+5.7	90° 10'	+1.6	+7.3	2336.6		BS					
X	0				5.1	-		-5.1			X					
TP#	820				6.3	89° 10'	+11.9	+5.6		2341.6	TP					ELEVATION
	444				+9.2	-		+9.2		2350.8	BS					TRAVERSE
X	0				5.1	-		-5.1			X					FROM TWISP
TP	746				2.1	-		-2.1		2348.7	TP					BM.
	1695				+13.8	91° 10'	+34.5	+48.3		2397.0	BS					↓
	0				5.1	-		-5.1			X					
TP	1574				12.8	-		-12.8		2384.2	TP					
	260				+7.5	-		+7.5		2391.7						
	0				5.1	-		-5.1			X					
#	12				5.1	-		-5.1		2386.6	#					Creek. EL. ON.
																MAP 2401. Surveyed EL. 2386.6
*	CONTINUED ON PAGE 1															

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-7-85		B. C. Camp		K. Greenfield		6834		xulo		7		1			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Washington		MODOO Peak-7 1/2		W.A.										W. Cassidy	
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
TK	creek crossing (scattered)		97 494.985	x -	2,114.990	EL.	2386.6			2386.6	#			# 494.985 x - 2,114.990 # creek crossing	
	1100		52 40 47	+20.5	12.2	84	+5.5	+17.7	2404.3		BS	-318	-1053		
	1100				12.2	84 20	+5.5	+17.7		BS					
TP	0		0		5.1	-	-5.1		2399.2	TP	0	0	494.667	2,113,937	
TP	2076		244 32 06		3.0	-	-3.0		2404.3	TP	-180	-2068	494.487	2,111,869	
TP	2076				2.9	270	-2.9			TP					
	1052		93 20 02	+12.9		-	+12.9		2414.1	BS	+425	-962			
	1052				12.8	270	+12.8			BS					
TP	0		0		5.1	-	-5.1		2409.0	TP	0	0	494.912	2,110,907	
TP	487		287 36 09	+20.5	3.4	88 20	+14.2	+10.8	2424.9	TP	+300	-383	495.212	2,110,524	
TP	487				4.8	88 10	+15.6	+10.8		TP					
	527		116 42 12	+4.4		92	+18.4	+22.8	2447.7	BS	+386	-358			
	527				13.6	91	+9.2	+22.8		BS					
TP	0		0		5.1	-	-5.1		2442.6	TP	0	0	495.598	2,110,166	
TP	835		284 44 21		5.5	89 50	+2.4	-3.1	2444.6	TP	+482	-682	496.080	2,109,484	
TP	835				5.4	270 10	+2.4	-3.0		TP					
	425		116 38 32	+8.9		88 30	-11.1	-2.2	2442.4	BS	+311	-289			
	425				7.7	88 40	-9.9	-2.2		BS					
TP	0		0		5.1	-	-5.1		2437.3	TP	0	0	496.391	2,109,195	
TP	979		288 09 58		7.3	92 10	-19.9	-27.2	2415.2	TP	+612	-764	497.003	2,108,431	
TP	979				4.4	92 20	-22.8	-27.2		TP					

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-7-85		B. Cotcamp		K. Greenfield		6834		KWG kw		7		2			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Washington		OVAL Peak-7 1/2		W.A.										W. Cassidy	
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 K TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
	1461		113° 06' 22"	+20.5	5.3	89° 50'	+21.2	+26.5			BS	+1008	-1058		
	1461				+5.2	269° 10'	+21.2	+26.4	2441.6		BS				
K	0				5.1	-	-	-5.1		2436.5	K	0	0	498011 2,107,373	
TP	1792		292° 06' 16"	--	3.6	89° 30'	+15.6	+12.0			TP	+1213	-1319	499224 2,106,054	
TP	1792				3.7	270° 30'	+15.6	+11.9		2453.5	TP				
	733		98° 09' 16"	--	+9.7	91° 30'	+19.2	+28.9	2482.4		BS	+351	-643		
	733				+9.8	268° 30'	+19.2	+29.0			BS				
K	0				5.1	-	-	-5.1		2477.3	K	0	0	499575 2,105,411	
#	769		291° 18' 24"	+20.5	3.0	91° -	-13.4	-16.4		2466.0		+513	-573	500088 2,104,838	
TP	856		290° 39' 22"	--	4.2	91° -	-14.9	-19.1		2463.3	TP	+563	-644	500138 2,104,767	
TP	856				11.7	90° 30'	-7.5	-19.2			TP				
	465		15° 18' 39"	--	+5.1	88° 10'	-14.9	-9.8	2453.5		BS	-377	-272		
	465				+4.3	88° 16'	-14.1	-9.8			BS				
K	0				5.1	-	-	-5.1		2448.4	K	0	0	499761 2,104,495	
#	342		186° 54' 46"	--	5.4	89° 30'	+3.0	-2.4		2451.1		-304	-157	499457 2,104,338 # 5-499,420 x=2,104,365	
TP	1005		187° 57' 58"	--	5.3	88° -	+35.1	+29.8			TP	-883	-479	498979 2,104,016	
TP	1005				5.4	272° -	+35.1	+29.7		2483.2	TP				
	653		309° 40' 53"	+20.5	+4.0	-	-	+4.0	2487.2		BS	-567	+325		
	653				+7.3	74	-3.3	+4.0			BS				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-7-85		B. Cotcamp		K. Greenfield		6834		KWB		7		3			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		DUAL Peak-7 1/2'		WA.		OKANOGAN								W. Cassidy	
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
									2487.2						
1	477		308 -	+20.5	5.7	89°30'	+4.2	-1.5	?	2485.7		+407	-249	498,718	2,104,092
2	147		307 40		5.3	89°30'	+1.3	-4.0		2483.2		+125	-78	498,436	2,104,263
K	0				5.1	-		-5.1		2482.1	K	0	0	498,311	2,104,341
3	187		156 -		5.0	91 -	-3.3	-8.3		2478.9		-187	+11	498,124	2,104,352
H	204		154 42 43		5.0	91 -	-3.6	-8.6		2478.6	H	-203	+17	498,108	2,104,358
TP	424		153 44 52		12.3	91 -	-7.4	-19.7		2467.5	TP	-422	+42	497,889	2,104,383
TP	424				11.1	91 10	+8.6	-19.7			TP				
	981		279 58 12	+20.5	7.3	88 -	-34.2	-26.9	2440.6		BS	-497	+845		
	981				4.5	88 10	-31.4	-26.9			BS				
4	898		279 10		5.6	88 10	+28.7	+23.1		2463.7		+444	-780	497,836	2,104,448
5	568		279 45		5.6	88 40	+13.2	+7.6		2448.2		+286	-491	497,628	2,104,737
6	238		282 40		5.3	89 30	+2.1	-3.2		2437.4		+130	-199	497,522	2,105,029
K	0				5.1	-		-5.1		2435.5	K	0	0	497,392	2,105,228
7	92		119 20	+20.5	5.2	88 30	+2.4	-2.8		2437.8		-70	+59	497,322	2,105,287
8	421		125 20		6.4	89 40	+17.1	+10.7		2451.3		-348	+236	497,044	2,105,464
9	750		123 40		5.0	88 -	+26.2	+21.2		2461.8		-608	+439	496,784	2,105,667
TP	795		122 42 09		4.6	88 -	+27.7	+23.1		2463.7	TP	-636	+476	496,756	2,105,704
TP	795				4.5	272 -	+27.7	+23.2			TP				
	848		279 58 30		+14.5	89 39	-5.2	+9.3	2473.0		BS	-430	+731		
	848				+14.8	89 38	-5.4	+9.4			BS				

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-7-85		B. Cotcamp		K. Greenfield		6834		KWB		7		4			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Washington		OVAL Peak - 7 1/2'		WA.		OKANOGAN								W. Cassidy	
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
									2,473.0						
10	565		280° 25'	+20.5	5.6	89° 20'	+6.6	+1.0		2474.0		+290	-485	496,616	2,105,950
11	235		281° 50'	--	5.3	71°	+1.2	-4.1		2468.9		+126	-199	496,452	2,106,236
K	0				5.1	-		-5.1		2467.9	K	0	0	496,326	2,106,435
12	96		115° 05'	--	5.8	91°	-1.7	-7.5		2465.5		-69	+67	496,257	2,106,502
13	426		115° 40'	--	5.9	91°	-7.4	-73.3		2459.7		-307	+295	496,019	2,106,730
K	589		115° 08' 32"	--	4.3	91°	-70.3	-14.6		2,458.4	K	-421	+412	495,905	2,106,847
14	755		115° 30'	+20.5	5.7	91°	-73.2	-18.9		2454.1		-543	+524	495,783	2,106,959
H	982		115° 36' 44"	--	7.2	91° 10'	-20.0	-27.2		2445.8	H	-708	+681	495,618	2,107,116
15	1085		115° 54' 56"	--	10.5	91° 10'	-22.1	-32.6		2440.4	TP	-786	+748	495,540	2,107,183
15	1085				10.4	268° 50'	-22.1	-32.5			TP				
	1435	1433.8	296° 57' 45"	--	8.6	87° 40'	-58.4	-49.8			BS	-1056	+969		
	1435				4.4	87° 50'	-54.3	-49.9	2,390.5		BS				
16	1105		297° -	+20.5	5.9	88° 10'	+35.3	+29.4		2419.9		+815	-747	495,299	2,107,405
17	775		- -	--	5.4	88° 30'	+20.3	+14.9		2405.4		+571	-524	495,055	2,107,628
18	445		- -	--	6.5	88° 30'	+11.6	+5.1		2395.6		+328	-301	494,812	2,107,851
19	115		- -	--	5.9	88° 30'	+3.0	-2.9		2397.6		+85	-78	494,569	2,108,074
K	0				5.1	-		-5.1		2386.4	K	0	0	494,404	2,108,152
20	215		103° 35'	+20.5	6.1	90° 40'	-2.5	-8.6		2381.9		-120	+178	494,364	2,108,330
21	545		102° 50'	--	5.6	90° 10'	-1.6	-7.2		2383.3		-299	+455	494,185	2,108,607
22	875		102° 30'	--	6.2	89° 20'	+10.2	+4.0		2394.5		-477	+734	499,907	2,108,886

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y-495,715 x - 2,107,050  
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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-9-85		B. Cotcamp		K. Greenfield		6834		Kovale		7		5			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		OVAL Peak - 7 1/2'		WA.		OKANOGAN								W. Cassidy	
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
									2390.5						
23	1205		103° -	+20.5	6.2	89° 10'	+17.5	+11.3		2401.8		-665	+1005	493819	2,109,157
TP	1441		101° 58' 32"	--	7.1	89° 10'	+21.0	+13.9			TP	-774	+1216	493,710	2,109,368
TP	1441				7.2	270° 50'	+21.0	+13.8		2404.3	TP				
	633		266° 06' 16"	-- +	3.1	88° -	-22.1	-19.0		2385.3	BS	-189	+635		
	633			+	4.9	87° 50'	-23.9	-19.0			BS				
24	540		265° 30'	+20.5	5.4	87° 40'	+22.0	+16.6		2401.9		+149	-519	493670	2,109,484
25	212		259° 40'	--	5.5	87° 40'	+8.6	+3.1		2388.4		+37	-209	493558	2,109,794
π	0				5.1	-		-5.1		2380.2	π	0	0	493521	2,110,003
26	118		76° 30'	--	6.2	91° 40'	-3.4	-9.6		2355.7		-14	+117	493507	2,110,120
27	447		78° 30'	--	5.3	91° 40'	-13.0	-18.3		2367.0		-70	+442	493451	2,110,445
28	777		78° -	--	6.2	91° 10'	-15.8	-22.0		2363.3		-115	+768	493406	2,110,771
29	1107		- -	--	4.3	91° -	-19.3	-23.6		2361.7		-164	+1095	493357	2,111,098
30	1437		- -	+20.5	6.9	90° 40'	-16.7	-23.6		2361.7		-212	+1421	423309	2,111,424 OVAL Peak ↑
31	1767		78° -	--	3.5	90° 30'	-15.4	-18.9		2366.4		-261	+1748	493260	2,111,751 Moodoo Peak ↓
32	2097		78° 15' -	--	5.3	90° 10'	-6.1	-11.4		2373.9		-319	+2073	493202	2,112,076
π	2162		77° 56' 32"	--	3.0	90° 10'	-6.3	-9.3		2396.0	π	-314	+2139	493207	2,112,142H creek
33	2427		78° 05'	--	6.8	89° 54'	+4.2	-2.6		2382.7		-362	+2400	493159	2,112,403
34	2757		78° 10' -	--	5.2	89° 54'	+4.8	-0.4		2384.9		-415	+2726	493106	2,112,729
TP	2848		77° 57' 09"	--	6.4	89° 54'	+5.0	-1.4		2383.9	TP	-414	+2818	493107	2,112,821
TP					6.3	270° 06'	+5.0	-1.3			TP				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-9-85		B. Cotcamp		K. Greenfield		6834		K. Greenfield		7		6			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Hoodoo Peak 7 1/2'		WA.		OKANOGAN								W. Cassidy	
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
										2383.9					
	377		280 07 54	+20.5	2.4	-		+2.4	2386.3		BS	-192	+325		
	377				+4.3	TM	-1.9	+2.4		BS					
35	132		281 40	~	5.0	TM	+0.7	-4.3		2382.0		+70	-112	492985	2,113,034
	0				5.1	-		-5.1		2381.2	X	0	0	492215	2,113,146
36	198		107 45	~	5.8	91 -	-3.5	-9.3		2377.0		-123	+155	492792	2,113,301
37	528		106 50	~	5.7	91 10	-10.8	-16.5		2,369.8		-320	+420	492595	2,113,566
TP	689		105 01 46	~	6.4	91 10	-14.0	-20.4	2365.9		TP	-399	+561	492516	2,113,707
TP	689				8.4	91 -	-12.0	-20.4		TP					
	353		253 30 04	+20.5	6.3	87 -	-18.4	-12.1	2353.8		BS	-24	+352		
	353				+5.3	87 10	-17.4	-12.1		BS					
38	181		249 40	~	6.0	86 30	+11.0	+5.0		2358.8		+1	-181	492495	2,113,878
	0				5.1	-		-5.1		2348.7	X	0	0	492492	2,114,059
39	149		53 55	~	5.8	91 20	-3.5	-9.3		2344.5		+40	+144	492532	2,114,203
40	479		56 30	~	4.8	91 20	-11.1	-15.9		2,337.9		+108	+467	492600	2,114,526
41	807		54 15	~	5.4	90 20	-4.7	-10.1		2,343.7		+212	+779	492704	2,114,838
TP	924		52 33 28	-	5.7	-		-5.7	2,348.1		TP	+271	+883	492763	2,114,942
TP	924				5.6	270 -		-5.6		TP					
	872		207 18 54	+20.5	11.0	91 -	+15.2	+26.2	2374.3		BS	+587	+645		
	872				8.4	91 10	+17.8	+26.2		BS					
42	705		207 11 16	~	5.4	91 10	-14.4	-19.8		2354.5		-475	-520	492975	2,115,067

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE					
7-9-85		B. Cotcamp		K. Greenfield		6834		Kub		7		7					
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER			
Washington		Hoodoo Peak - 7 1/2'		WA.		OKANOGA								W. Cassidy			
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS	
														Y	X		
									2,374.3								
42	661		206 40	+20.5	4.9	91 10	-13.5	-18.4		2,355.9		-449	-485	492901	2,115,102		
43	331		207 20	-	5.7	90 20	-1.9	-7.6		2,366.7		-222	-245	423,128	2,115,342		
44	0				5.1	-		-5.1		2,369.2	π	0	0	493350	2,115,587	across stn.	
45	331		42 15	-	5.1	91 -	-5.8	-10.9		2,363.4		+152	+294	493502	2,115,881		
TP	503		42 40 55	+20.3	7.9	91 -	-8.8	-16.7		2,357.6	TP	+228	+448	493578	2,116,035		
TP	503				6.4	91 10	-10.2	-16.6			TP						
	819		233 59 34	-	+5.5	88 -	-28.6	-23.1	2,334.5		BS	+222	+788				
	819				+3.2	88 10	-26.2	-23.0			BS						
46	660		233 20	-	6.0	88 -	+23.0	+17.0		2,351.5		-186	-633	493,614	2,116,190		
47	330		-	-	5.3	88 -	+11.5	+6.2		2,340.7		-93	-317	493,707	2,116,506		
48	0				5.1	-		-5.1		2,329.4	π	0	0	493,800	2,116,823		
49	329		60 -	+20.3	5.1	91 30	-8.6	-13.7		2,320.8		+55	+324	493,855	2,117,147		
50	658		61 20	-	5.2	89 50	+1.9	-3.3		2,334.2		+96	+651	493,896	2,117,474		
TP	719		60 04 12	-	5.7	89 30	+6.3	+0.6		2,335.1	TP	+120	+709	493,920	2,117,532		
TP	719				3.6	89 40	+4.2	+0.6			TP						
	504		223 27 36	-	+9.9	91 -	+8.8	+18.7	2,363.8		BS	+223	+452				
	504				+11.4	90 50	+7.3	+18.7			BS						
51	237		224 30	+20.3	5.9	-		-5.9		2,347.9		-101	-214	494,042	2,117,770		
π	0				5.1	-		-5.1		2,348.7	π	0	0	494,143	2,117,984		
52	93		51 50	-	5.0	91 40	-2.7	-7.7		2,346.1		+29	+89	494,172	2,118,073		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-9-85		B. Camp		K. Greenfield		6834		11/1/85		7		8			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		HOODOO Peak - 7 1/2		WA.		OKANOGAN								W. Cassidy	
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
									2353.8						
53	423		52° 50'	+20.3	6.4	92° -	-14.4	-21.2		2332.6		+123	+405	494266	2,118,389
54	753		51° 30'	-	5.0	92° 10'	-28.4	-33.4		2,320.4		+235	+715	494278	2,118,699
TP	886		50° 40'	-	4.0	92° 16'	-33.5	-37.5		2316.3	TP	+289	+837	494432	2,118,821
TP	886				6.5	92° -	-30.9	-37.4			TP				
	658		187° 08' 15"	+20.3	8.5	91° -	+11.5	+20.0			BS	+584	+303		
	658				+10.3	90° 50'	+9.6	+19.9	2336.2		BS				
55	458		186° 10'	-	6.2	91° 20'	-10.7	-16.9		2,319.3		-410	-204	494606	2,118,920
56	128		188° -	-	5.3	91° 20'	-3.0	-8.3		2327.9		-113	-61	494903	2,119,063
K	0				5.1	-		-5.1		2,331.1	K	0	0	495016	2,119,124
57	212		46° 45'	+20.3	5.4	89° 20'	+2.5	-2.9		2,333.3	H	+83	+195	495099	2,119,319
TP	282		48° 30' 31"	-	6.6	89° 20'	+3.3	-3.3		2,332.9	TP	+102	+263	495118	2,119,387
TP	282				5.8	89° 30'	+2.5	-3.3			TP				
	661		244° 19' 56"	-	+8.4	89° -	-11.5	-3.1			BS	+62	+658		
	661				+6.4	89° 10'	-9.6	-3.2	2329.7		BS				
58	399		243° 45'	-	4.7	89° 20'	+4.6	-0.1		2329.6		-41	-397	495139	2,119,648
59	71		250° 30'	-	5.9	92° 20'	-2.9	-8.8		2320.9		+1	-71	495181	2,119,974
K	0				5.1	-		-5.1		2324.6	K	0	0	495182	2,120,045
60	266		32° 30'	+20.3	5.8	93° 50'	-17.7	-23.5		2306.2		+161	+212	495341	2,120,257
61	596		30° 10'	-	5.4	92° 10'	-22.5	-27.9		2301.9		+379	+460	495539	2,120,505
62	925		29° 35'	-	5.8	91° 50'	-29.6	-35.4		2,294.3		+596	+707	495776	2,120,752

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
		B. Cotcamp		K. Greenfield		6834		K. W. G. L.		7		9			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Hoodoo Peak-7 1/2		WA.		OKANOGAN								L. Cassidy	
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
									2329.7		.				
63	1255		28° 55'	+20.3	6.2	91° 30'	-32.8	-39.0		2290.7		+820	+950	496,000	2,120,995
TP	1330		28° 37' 29"	--	9.4	91° 20'	-30.9	-40.3		2289.4	TP	+874	+1002	496,054	2,121,047
TP	1330				9.3	268° 40'	-30.9	-40.2			TP				
	256		171° 05' 38"	--	+10.1	--		+10.1		2299.5	BS	+251	+51		
	256				8.8	BH	+1.3	+10.1			BS				
64	0				5.1	--		-5.1		2294.4	X	0	0	496,305	2,121,098
65	330		321° 15' 15"	+20.3	8.9	--		-8.9		2290.6	TP	+313	-104	496,618	2,120,994
65	330				6.0	90° 30'	-2.9	-8.9			TP				LAST STA. ON ROAD
	355		219° 03' 00"	--	+11.0	--		+11.0		2301.6	BS	+181	+305		
	355				+9.2	BH	+1.8	+11.0			BS				
66	83		279° --	--	8.7	--		-8.7		2292.9		+41	-72	496,840	2,121,227
X	0				5.1	--		-5.1		2296.5	X	0	0	496,799	2,121,299
67	260		23° 50' 45"	--	2.9	88° 30'	+6.8	+3.9		2305.5	TP	+187	+181	496,946	2,121,480
67	260				2.1	88° 40'	+6.0	+3.9			TP				BACK ON ROAD
	1588	1586.5	267° 24' 48"	+20.3	8.6	92° 30'	+69.2	+77.8		2377.9	BS	-483	+1511		
	1588				+8.3	267° 30'	+69.2	+77.5		2383.2	BS				
68	1260		266° 26'	--	6.5	92° 30'	-54.9	-61.4		2321.8		+361	-1207	496,864	2,121,784
69	930		--	--	6.7	92° 20'	-37.8	-44.5		2339.7		+266	-891	496,769	2,122,100
70	600		266° 40'	--	4.8	92° 20'	-24.4	-29.2		2354.0		+175	-574	496,679	2,122,417
71	270		--	--	6.0	91° 40'	-7.8	-13.8		2369.4		+79	-258	496,582	2,122,733

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-9-85		B. Cotamp		K. Greenfield		6834		r.w.s.k		7		10			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		HOOB00 Peak-7 1/2		WA.		OKANOGAN								W. Cassidy	
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
									2383.2						
K	0				5.1	-		-5.1		2378.1	K	0	0	496,503	2,122,991
72	65		56 10	+20.3	5.6	90 40	-0.8	-6.4		2376.8		+15	+63	496,518	2,123,054
P	265		57 56 52	--	8.7	90 40	-3.1	-11.8		2,371.4	Y	+54	+259	496,557	2,123,250
73	393		55 50	--	5.2	91 40	-11.4	-16.6		2,366.6		+94	+382	496,597	2,123,373
TP	438		52 52 32	--	5.6	91 40	-12.7	-18.3			TP	+127	+419	496,630	2,123,410
TP	438				6.9	91 30	-11.5	-18.4		2364.8	TP				
	499		208 30 03	+20.3	8.0	87 30	-21.7	-13.7			BS	+328	+375		
	499				+6.5	87 40	-20.3	-13.8	2351.0		BS				
74	221		207 40	-	5.0	87 40	+9.0	+4.0		2,355.0		-148	-164	496,510	2,123,621
K	0				5.1	-		-5.1		2345.9	K	0	0	496,958	2,123,785
75	109		41 30	-	6.2	91 40	-3.2	-9.4		2341.6		+52	+76	497,010	2,123,881
76	439		43 50	-	6.2	91 40	-12.8	-19.0		2332.0		+192	+395	497,150	2,124,180
77	768		42 55	-	4.0	91 40	-22.3	-26.3		2324.7		+346	+686	497,304	2,124,471
78	1098		42 55 09	-	6.0	91 30	-28.7	-34.7		2316.3	TP	+495	+980	497,453	2,124,765
78	1098				5.9	268 30	-29.7	-34.8			TP				
	1206		218 15 01	+20.3	10.1	88	-42.1	-32.0	2284.3		BS	+629	+1028		
	1206				+10.0	212	-42.1	-32.1			BS				
79	876		218 50	--	5.8	88 30	+22.9	+17.1		2301.4		-449	-752	497,633	2,125,041
80	546			--	5.6	89 -	+9.5	+3.9		2,288.2		-280	-469	497,902	2,125,324
81	216		219 50	-	4.9	-		-4.9		2,279.4		-108	-187	497,974	2,125,606

496,525 x - 2,123,230  
y - enter.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE					
7-9-85		B. Cotcamp		K. Greenfield		6834		K. White		7		11					
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER			
WASHINGTON		H0000 Peak-7 1/2		WA.		OKANOGAN								C. Cassidy			
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS	
														Y	X		
									2,284.3								
X	0				5.1	-		-5.1		2279.2	X	0	0	498,882	2,125,793		
82	115		59 10	+20.3	4.7	-		-4.7		2,279.6		+ 21	+113	498,103	2,125,906		
83	444		64 50	--	5.2	89 -	+7.7	+2.5		2,286.8		+ 38	+442	498,120	2,126,235		
TP	570		62 57 02	--	0.9	89 -	+9.9	+9.0		2293.3	TP	+67	+566	498,149	2,126,359		
TP	570				4.2	88 40	+13.3	+9.1			TP						
	721		216 54 34	+20.3	12.1	91 30	+14.9	+31.0	2324.3		BS	+390	+606				
	721				+10.0	91 40	+21.0	+31.0			BS						
84	521		216 45	--	5.9	91 40	-15.1	-21.0		2303.3		-283	-437	498,256	2,126,528		
85	191		219 -	--	6.1	91 -	-3.3	-9.4		2314.9		- 98	- 164	498,441	2,126,801		
X	0				5.1	-		-5.1		2319.2	X	0	0	498,539	2,126,765		
86	139		48 35	+20.3	5.4	-		-5.4		2319.9		+ 50	+130	498,588	2,127,095		
87	469		50 50	--	5.3	-		-5.3		2319.0		+152	+444	498,691	2,127,409		
TP	728		49 30 38	--	5.1	-		-5.1		2319.2	TP	+251	+683	498,790	2,127,648		
TP	728				8.8	74	+3.6	-5.2			TP						
	1138		215 53 46	--	+7.6	-		+7.6	2327.3		BS	+633	+946				
	1138				+7.4	210 -		+7.4	2326.7		BS						
88	1072		215 45	+20.3	5.7	90 04	-1.2	-6.9		2319.8		-599	-889	498,824	2,127,705		
89	742		216 -	--	6.2	-		-6.2		2,320.5		-412	-617	499,011	2,127,977		
90	412		216 50	--	4.9	-		-4.9		2,321.8		-224	-346	499,199	2,128,248		
91	82		216 -	--	4.9	-		-4.9		2,321.8		-46	-68	499,377	2,128,526		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY			LINE NO.		PAGE			
7-9-85		B. Cotamp		K. Greenfield		6834		KUGA			7		12			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
WASHINGTON		Hoodoo Peak - 7 1/2'		WA.		OKANOGAN								W. Cassidy		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
														Y	X	
									2326.7							
π	0				5.1	-		-5.1		2321.6	π	0	0	499,423	2,128,594	
92	254		69 10	+20.3	6.5	-		-6.5		2320.2		+2	+254	499,425	2,128,848	
TP	445		66 04 59	-	0.7	-		-0.7		2326.0	TP	+28	+444	499,451	2,129,038	
TP	445				2.9	TH	+2.2	-0.7			TP					
	800		200 59 30	-	4.8	91°	+14.0	+18.8	2344.8		BS	+601	+528			
	800				4.7	269°	+14.0	+18.7			BS					
93	653		200 25	+20.3	6.1	91° 40	-19.0	-25.1		2319.7		-495	-426	499,557		
94	329		202 20	-	5.3	93 20	-19.1	-24.4		2320.4		-242	-223	499,910		
4	30		143 36 51	-	4.6	-		-4.6		2340.2		-29	+8	500,022	2,129,574	4-500,085 x -2,129,525 y -water
95	0				5.1	-		-5.1		2,339.7	π	0	0	500,052	2,129,566	
96	327		353 20 46	+20.3	10.9	91° 30	-8.6	-19.5		2325.3	TP	+318	+77	500,370	2,129,413	
96	327				10.0	91° 40	-9.5	-19.5			TP					
	330		173 23 18	-	4.5	86°	-23.0	-18.5	2306.8		BS	+320	+78			
	330				4.4	294°	-23.0	-18.6			BS					
97	0				5.1	-		-5.1		2301.7	π	0	0	500,690	2,129,721	
98	329		359.05	-	5.7	92 40	-15.3	-21.0		2285.8		+310	+109	501,000	2,129,830	
TP	384		359 07 59	-	5.1	92 40	-17.8	-22.9		2283.9	TP	+362	+128	501,052	2,129,849	
TP	384				6.2	92 30	-16.7	-22.9			TP					

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-9-85		B. Cotcamp		K. Greenfield		6834		H.W.K.		7		13			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Hoodoo Peak-7 1/2'		WA.		OKATOAN								W. Cassidy	
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 K TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
										2283.9					
	275		198° 28' 18"	+20.3	+4.8	88° -	-9.6	-4.8	2279.1		BS	+214	+172		
	275				+4.0	88° 10'	-8.8	-4.8		BS					
99	0				5.1	-		-5.1		2274.0	K	0	0	501266	2,130,021
TP	172		6° 25' 55"	-	6.3	91° -	-3.0	-9.3		2269.8	TP	+154	+77	501420	2,130,098
TP	172				6.2	269° -	-3.0	-9.2			TP				
	10		147° 33' 04"	-	+5.1	-		+5.1	2274.9		BS	+10	-2		
	10				+5.0	90° 10'	±0.0	+5.0		BS				-2	
K	0				5.1	-		-5.1		2269.8	K	0	0	501470	2,130,094
100	156		51° 20'	+20.3	6.2	92° -	-5.4	-11.6		2263.3		+49	+148	501,479	2,130,242
TP	1026	1022.7	280° 14' 22"	-	14.9	94° 34'	-81.7	-96.6		2178.3	TP	+520	-881	501948	2,129,211
TP	1026				14.8	265° 26'	-81.7	-96.5			TP	-2	-2		
	623		205° 52' 41"	-	+3.6	-		+3.6	2181.9		BS	+431	+449		
	623				+6.8	TH	-3.1	+3.7		BS			-2	-2	
K	0				5.1	-		-5.1		2176.8	K	0	0	502377	2,129,658
101	297		12° 50'	+20.3	5.2	89° 20'	+3.5	-1.7		2180.2		+249	+162	502626	2,129,820
TP	596		13° 02' 12"	-	6.5	-		-6.5		2175.4	TP	+498	+328	502973	2,129,984
TP	596				9.4	TH	+3.0	-6.4			TP	-2	-2		
	419		224° 42' 35"	-	+1.5	TH	-2.1	-0.6	2174.8		BS	+177	+380		
	419				+6.7	89° -	-7.3	-0.6		BS			-2	-2	
102	387		225° 25'	-	5.9	89° 10'	+5.6	-0.3		2174.5		-159	-353	502889	2,130,009

NOTE - 100 east sta. on south side of river. 1000 offset north west.

Hoodoo Peak T-7 1/2'  
Thompson Ridge  
↓

DATE 7-9-85		INSTRUMENT MAN B. Cotcamp		ROD MAN K. Greenfield		PARTY NUMBER 6834		NOTES CHECKED BY Kule		LINE NO. 7		PAGE 14			
AREA WASHINGTON		TOPO MAP Thompson Ridge-74		STATE WA.		COUNTY OKANOGAN		TWP		RANGE		PPM		PARTY MANAGER W. Cassidy	
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
									2,174.8						
103	58		226 50	-20.3	5.7	89 10	+0.8	-4.9		2,169.9		-23	-53	503025	2,130,309
TP	0				5.1	-		-5.1		2,169.7	TP	0	0	503,049	2,130,362
104	272		46 50	--	6.0	89 40	+1.6	-4.4		2,170.4		+106	+251	503,154	2,130,613
105	587		60 55	--	4.8	89 20	+6.8	+2.0		2,176.8		+90	+580	503,139	2,130,942
106	916		60 25	--	5.9	89 30	+8.0	+2.1		2,176.9		+148	+904	503,196	2,131,266
107	1246		59 19 04	--	10.3	89 30	+10.9	+0.6		2,175.4	TP	+225	+1226	503271	2,131,586
	1240				10.2	276 30	10.9	+0.7			TP	-2	-2		
	657		235 36 32	+20.3	7.1	88 30	-17.2	-10.1	2,165.3		BS	+160	+637		
	657				+5.2	88 40	-15.3	-10.1			BS	-2	-2		
108	328		237 55	--	5.6	88 30	+8.6	+3.0		2,168.3		-67	-321	503362	2,131,900
109	0				5.1	-		-5.1		2,160.2	TP	0	0	503429	2,132,221
110	330		74 -	--	6.7	90 50	-4.8	-11.5		2,153.8		-35	+329	503,404	2,132,550
111	658		70 20	--	5.9	91 -	-11.5	-17.4		2,147.9		-7	+658	503,422	2,132,879
112	963		61 50	--	19.8	-		-19.8		2,145.5		+132	+954	503561	2,133,175
TP	1139		60 09 36	--	9.0	90 30	-9.9	-18.9		2,146.4	TP	+189	+1123	503616	2,133,342
TP	1139				8.9	269 30	-9.9	-18.8			TP	-2	-2		
	1256		278 08 02	+20.3	3.0	-		+3.0	2,149.4		BS	-598	+1104		
	1256				+2.9	270 -		+2.9			BS	-2	-2		
TP	1237		277 53 48	--	3.7	-		-3.7		2,145.7	TP	+584	-1090	503600	2,133,354

5-503,595 X-2,133,440  
T-ENTER

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-9-85		B. Cotcamp		K. Greenfield		6834		HUG		7		15			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		HOMPSON		WA.		OKANOGAN								W. Cassidy	
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
									2,149.4						
113	1089		278 10	+20.3	6.7	89 50	+3.2	-3.5		2,145.9		+519	-957	503635	2,133,487
114	759		277 50	--	6.8	-		-6.8		2,142.6		+358	-669	503374	2,133,775
115	429		277 10	--	5.2	BH	-2.1	-7.3		2,142.1		+198	-381	503214	2,134,063
116	101		269 -	--	5.0	89 -	+1.8	-3.2		2,146.2		+33	-95	503049	2,134,349
X	0				5.1	-		-5.1		2,144.3	X	0	0	503016	2,134,444
117	223		52 45	+20.3	5.6	92 20	-9.1	-14.7		2,134.7		+65	+213	503081	2,134,657
118	550		45 20	--	6.2	91 30	-14.4	-20.6		2,128.8		+227	+501	503243	2,134,945
119	879		44 35	--	5.3	91 30	-23.0	-28.3		2,121.1		+373	+796	503389	2,135,240
120	1209		44 40	--	5.0	91 30	-31.6	-36.6		2,112.8		+512	+1095	503528	2,135,539
TP	1419		44 18 10	--	4.9	91 30	-37.1	-42.0	-41.7	2,107.5	TP	+608	+1281	503622	2,135,723
TP	1419			--	4.6	268 30	-37.1	-41.7			TP	-2	-2		
	924		278 01 58	+20.3	4.5	-		+4.5	2,112.0		BS	-439	+813		
	924				9.1	TH	-4.6	+4.5			BS	-2	-2		
121	824		282 10	--	6.7	-		-6.7		2,105.3		+442	-695	503623	2,135,839
122	499		278 10	--	4.7	-		-4.7		2,107.3		+238	-439	503419	2,136,095
123	169		276 20	--	5.0	-		-5.0		2,107.0		+76	-151	503257	2,136,383
X	0				5.1	-		-5.1		2,106.9	X	0	0	503181	2,136,534
124	160		74 50	+20.3	6.6	-		-6.6		2,105.4		-14	+159	503167	2,136,693
125	466		51 45	--	5.2	90 50	-6.8	-12.0		2,100.0		+144	+443	503325	2,136,977
126	782		42 40	--	4.8	90 50	-11.4	-16.2		2,095.8		+355	+697	503536	2,137,231

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-10-85		B. Cotcamp		K. Greenfield		6834		[initials]		7		16			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASH.		THOMPSON		WA.		OKANOGAN								W. Cassidy	
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
									2,112.0						
127	1110		102 26 34	+20.5	4.7	90° 30'	-16.1	-20.8	}	2,091.2	TP	+539	+970	503,718	2,137,502
127	1110				7.9	90° 40'	-12.9	-20.8		TP			-2	-2	
	1441		232 09 41	~	+11.7	89° -	-25.1	-13.4	}	2077.8	BS	+429	+1375		
	1441				+7.5	89° 10'	-21.0	-13.5		BS			-2	-2	
128	1111		231 55	~	4.7	89° 20'	+12.9	+8.2		2086.0		-336	-1059	503809	2,137,816
129	786		228 45	~	5.1	89° 30'	+6.9	+1.8		2079.6		-278	-735	503867	2,138,140
130	460		224 45	+20.5	5.8	89° 30'	+4.0	-1.8		2076.0		-193	-418	503952	2,138,457
131	131		220 20	~	5.7	89° 30'	+1.1	-4.6		2073.2		-64	-114	504081	2,138,761
π	30		245 34 30	~	5.9	89° 30'	+0.3	-5.6		2072.2		-2	-30	504143	2,138,845
	π				5.1	-	-	-5.1		2072.7	π	0	0	504145	2,138,875
132	198		29 30	+20.5	6.1	89° 40'	+1.2	-4.9		2072.9		+127	+152	504272	2,139,027
133	527		27 12 21	~	4.8	-	-	-4.8	}	2073.0	TP	+355	+390	504498	2,139,263
133	527				7.4	TP	+2.6	-4.8		TP			-2	-2	
	1139		246 04 04	~	+14.3	89° 10'	-16.6	-2.3	}	2070.7	BS	+68	+1137		
	1139				+14.2	270° 50'	-16.6	-2.4		BS			-2	-2	
134	811		243 35	~	6.6	89° -	+14.2	+7.6		2079.3		-84	-807	504490	2,139,591
135	481		242 30	~	6.3	88° 30'	+12.6	+6.3		2077.0		-59	-477	504505	2,139,921
136	151		242 -	~	5.0	88° -	+5.3	+0.3		2071.0		-20	-150	504544	2,140,248
π	0				5.1	-	-	-5.1		2065.6	π	0	0	504564	2,140,398
137	178		63 20	~	5.0	92° -	-6.2	-11.2		2,059.5		+19	+177	504583	2,140,575

4-504,210 x .2,138,870  
T-inter

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-9-85		B. Cotcamp		K. Greenfield		6834		HWE		7		17			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Thompson Ridge-7E		WA		OKanogan								W. Cassidy	
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
									2070.7						
138	490		83 12	+20.5	5.7	91 30	-72.8	-18.5		2052.2		-116	+476	504448	2,140,874
139	812		89 50	-	6.3	91 10	-16.5	-22.8		2047.9		-282	+1761	504,292	2,141,159
140	1115		96 55 28	-	11.6	91 -	-19.5	-31.1		2039.6	TP	-513	+990	504049	2,141,386
140	1115			-	11.5	269 -	-19.5	-31.0			TP	-2	-2		
	216		287 10 58	-	+3.0	89 -	-3.8	-0.8		2038.8	BS	-132	+171		
	216			-	+2.4	89 10	-3.1	-0.7			BS	-2	-2		
X	0			-	5.1	-	-	-5.1		2033.7	X	0	0	503915	2,141,555
141	98		60 10	+20.5	5.8	92 10	-3.7	-9.5		2029.3		+16	+97	503931	2,141,652
142	426		49 50	-	5.1	92 10	-16.1	-21.2		2017.6		+143	+401	504,058	2,141,956
143	755		47 30	-	6.0	91 30	-19.8	-25.8		2,013.0		+283	+700	504,198	2,142,255
144	1085		46 22 12	-	5.9	91 -	-18.9	-24.8		2014.0	TP	+426	+998	504,339	2,142,551
144	1085			-	2.7	91 10	-22.1	-24.8			TP	-2	-2		
	585		260 21 22	+20.5	8.6	88 -	-20.4	-11.8		2002.2	BS	-110	+574		
	585			-	6.9	88 10	-18.7	-11.8			BS	-2	-2		
145	327		285 45	-	5.1	87 40	+13.3	+8.2		2010.4		+193	-264	504,420	2,142,859
146	0			-	5.1	-	-	-5.1		1,992.1	X	0	0	504227	2,143,123
147	328		75 15	-	6.5	BH	-1.6	-8.1		1,994.1		-33	+326	504,194	2,143,449
148	658		73 15	-	3.5	-	-	-3.5		1,998.7		-43	+657	504,194	2,143,780
149	984		70 45	-	6.4	89 20	+11.4	+5.0		2,007.2		-21	+984	504,206	2,144,107
150	1312		72 30	-	4.1	89 10	+19.1	+15.0		2,017.2		-69	+1310	504,158	2,144,433

↑  
Thompson Ridge-7E  
↓  
WINTHROP-7E

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
7-10-85		B. Cotcamp		K. Greenfield		6834		KOW		7		18				
AREA		TOPO. MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
WASHINGTON		WINTHROP-7 1/2		WA.		OKANOGAN								W. Cassidy		
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
									2,002.2							
11	1341		71 59 35	+20.5	4.3	89° 10'	+19.5	+15.2		2017.4	11	-58	+1340	504,168	2,144,463.1	y - 504,215 x - 2,144,460 y - TRAIL
151	1642		72 16'	-	5.9	89° 16'	+21.0	+15.1		2017.3		-79	+1640	504,148	2,144,763	
152	1972		72 05'	-	5.8	89° 10'	+28.7	+22.9		2,025.1		-89	+1970	504,138	2,145,093	
153	2301		71 43 55	-	9.0	89° 10'	+33.5	+24.5		2,026.7	TP	-90	+2299	504,135	2,145,420	
153	2301				8.9	270 50'	+33.5	+24.6			TP	-2	-2			
	1289		246 29 20	+20.5	5.8	88° 30'	-33.7	-27.9	1,998.8		BS	+68	+1287			
	1289				5.7	271 30'	-33.7	-28.0			BS	-2	-2			
154	964		249 25'	-	6.7	88° 10'	+30.8	+24.1		2022.9		-1	-964	504,200	2,145,741	
155	644		255 10'	-	5.6	88° 20'	+18.7	+13.1		2011.9		+64	-641	504,265	2,146,064	
156	325		265 20'	-	5.8	88° 20'	+9.4	+3.6		2,002.4		+89	-313	504,290	2,146,392	
1F	166		277 27 10	-	4.7	88° 20'	+4.9	+0.1		1,998.9	1F	+78	-147	504,279	2,146,558	y - 504,320 x - 2,146,575 y - intersect
157	0				5.1	-		-5.1		1,993.7	T	0	0	504,201	2,146,705	
158	330		103 55	+20.5	5.9	91° 40'	-9.6	-15.5		1,983.3		-187	+272	504,014	2,146,977	
TP	462		101 12 11	-	11.0	91° 40'	-13.4	-24.4		1974.4	TP	-243	+393	503956	2,147,096	
TP	462				9.6	91° 50'	-14.8	-24.4			TP	-2	-2			
	521		258 48 09	-	3.4	87°	-27.2	-23.8	1950.6		BS	-84	+513			
	521				3.3	273°	-27.2	-23.9			BS	-2	-2			
159	330		255 10	-	5.3	86° 50'	+18.2	+12.9		1963.5		+33	-328	503903	2,147,279	
160	0				5.1	-		-5.1		1945.5	T	0	0	503870	2,147,607	
161	328		89 55	-	5.7	92 20'	-13.3	-19.0		1931.6		-141	+307	503756	2,147,914	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-10-85		B. Cotcamp		K. Greenfield		6834		rwc		7		19			
AREA		TOPG. MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		WINTHEOP-7 1/2		WA.		OKANOGAN								W. Cassidy	
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
									1,950.6						
162	658		91° 40'	+20.5	5.6	92° 34'	-29.4	-35.0		1,915.6		-248	+609	503622	2,148,216
TP	743		88° 29' 41"	--	5.5	92° 40'	-34.5	-40.0		1,910.6	TP	-242	+702	503626	2,148,307
TP	743				7.7	92° 35'	-32.4	-40.1			TP	-2	-2		
	707		259° 56' 52"	--	2.5	89° 30'	-6.2	-3.7	1,906.9		BS	-128	+695		
	707				4.4	89° 20'	-8.2	-3.6			BS	-2	-2		
163	469		259° 50'	+20.5	5.0	89° 20'	+5.5	+0.5		1907.4		+84	-461	503580	2,148,539
164	141		254° 50'	--	5.5	89° 20'	+1.6	-3.9		1903.0		+13	-140	503509	2,148,860
X	0				5.1	--	--	-5.1		1901.8	X	0	0	503496	2,149,000
165	194		94° 50'	--	5.9	90° 20'	-1.1	-7.0		1899.9		-83	+175	503413	2,149,175
166	524		91° 45'	--	6.4	90° 30'	-4.6	-11.0		1895.9		-198	+485	503298	2,149,485
167	854		92° --'	--	4.6	90° 40'	-9.9	-14.5		1892.4		-327	+189	503168	2,149,789
168	1176		89° 25'	--	6.2	90° 20'	-6.8	-13.0		1893.9		-401	+1106	503095	2,150,106
TP	1176		88° 50' 58"	--	6.4	90° 20'	-6.8	-13.2		1,893.7	TP	-390	+1110	503104	2,150,108
TP	1176				9.8	90° 10'	-3.4	-13.2			TP	-2	-2		
	809		257° 37' 39"	+20.5	9.4	92° --'	+28.2	+37.6	1,931.3		BS	-114	+800		
	809				7.1	92° 10'	+30.6	+37.7			BS	-2	-2		
169	490		263° 30'	--	6.2	92° 30'	-21.4	-27.6		1903.7		+119	-475	503107	2,150,431
170	168		273° 20'	--	5.6	92° 30'	-7.3	-12.9		1914.4		+68	-154	503056	2,150,752
X	0				5.1	--	--	-5.1		1926.2	X	0	0	502988	2,150,706
171	161		89° 20'	--	5.3	87° 30'	+7.0	+1.7		1,933.0		-55	+151	502933	2,151,057

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-10-85		B. Cotcamp		K. Greenfield		6834		[Signature]		7		20			
AREA		TOPOG MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		WINTHROP - 26'		WA.		OKANOGAN								W. Cassidy	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH -	EAST + WEST -		Y
									1931.3						
172	491		85° 46'	+20.5	4.1	89° -	+8.6	+4.5		1,935.8		-137	+472	502,851	2,151,378
173	820		83° 10'	--	6.4	88° 40'	+19.1	+12.7		1,944.0		-194	+797	502,794	2,151,703
174	1150		83° -	--	6.1	88° 10'	+36.8	+30.7		1,962.0		-268	+1118	502,720	2,152,024
175	1479		83° 45'	--	5.9	87° 50'	+55.9	+50.0		1,981.3		-364	+1433	502,624	2,152,339
TP	1630	1628.7	82° 27' 55"	--	9.2	87° 40'	+66.3	+57.1		1,988.4	TP	-365	+1587	502,621	2,152,491
TP	1630				9.1	272° 20'	+66.3	+57.2			TP	-2	-2		
	694		248° 14' 33"	+20.5	+14.6	90° 10'	+2.0	+16.6	2,005.0		BS	+15	+694		
	694				+14.5	269° 50'	+2.0	+16.5			BS	-2	-2		
176	520		249° 25'	--	5.5	90° 30'	-4.5	-10.0		1,995.0		-1	-520	502,633	2,152,663
177	190		250° 10'	--	4.9	-	-	-4.9		2,000.1		+2	-190	502,636	2,152,993
TP	0				5.1	-	-	-5.1		1,999.9	TP	0	0	502,634	2,153,183
178	139		73° 40'	+20.5	6.3	-	-	-6.3		1,998.7	TP	-10	+139	502,627	2,153,322
179	469		71° -	--	5.4	91° 10'	-9.5	-14.9		1,990.1		-12	+469	502,622	2,153,652
180	798		69° 35'	--	4.8	91° 20'	-18.6	-23.4		1,981.6		-1	+798	502,633	2,153,981
181	1125		67° -	--	5.1	90° 54'	-17.7	-22.8		1,982.2		+49	+1124	502,683	2,154,307
TP	1347		67° 10' 06"	--	8.2	90° 50'	-19.6	-27.8		1,977.2	TP	+55	+1346	502,689	2,154,527
TP	1347				8.1	269° 10'	-19.6	-27.7			TP	-2	-2		
	1069	1061.0	4° 14' 09"	+20.5	+13.1	83° -	-130.3	-117.2	1860.0		BS	-964	-444		
	1069				+10.6	83° 10'	-127.2	-117.2			BS	-2	-2		
182	1013		7° 20'	--	5.9	83° 30'	+114.7	+108.8		1,968.8		+896	+473	502,619	2,154,554

65° 45' 54" 1347 90° 40'  
Y=502,715 X=2,154,525  
TP - Inter.

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
7-10-85		B. Cotcamp		K. Greenfield		6834		mark		7		21				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
WASHINGTON		Twisp West-7 1/2'		WA.		OKANOGAN								W. Cassidy		
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
									1,860.0							
183	698		1 10'	+20.5	5.1	83 20'	+81.0	+75.9		1,935.9		+649	+258	502,372	2,154,339	WINTHROP ↑
184	372		0 25'	--	5.2	83 50'	+40.0	+34.8		1,894.8		+347	+133	502,070	2,154,214	Twisp West ↓
185	48		341 35'	--	5.3	87 50'	+1.8	-3.5		1,856.5		+48	+2	501,771	2,154,083	
TP	0				5.1	--		-5.1		1,854.9	TP	0	0	501,721	2,154,081	
TP	193		253 13 51'	+20.5	8.3	95 20'	-17.9	-26.2		1,833.8	TP	+13	-192	501,732	2,153,887	
TP	193				7.8	95 30'	-18.5	-26.3			TP	-2	-2			
	200		95 57 00'	-- +	3.3	--		+3.3	1,837.1		BS	+89	-179			
	200			+4.3	TM	--	-1.0	+3.3			BS	-2	-2			
186	84		79 25'	--	5.7	--		-5.7		1,831.4		-14	+83	501,805	2,153,789	
TP	0				5.1	--		-5.1		1,832.0	TP	0	0	501,819	2,153,706	
TP	88		207 48 40'	--	4.8	--		-4.8		1,832.3	TP	-59	-66	501,760	2,153,640	y-501,760x-2,153,640 JK Bridge. Note 3--64 corr. x--66
187	238		211 10'	--	5.8	86 30'	+14.5	+8.7		1,845.8		-148	-187	501,671	2,153,519	
TP	317	316.3	209 32 34'	--	2.3	86 10'	+21.2	+18.9		1,856.0	TP	-203	-242	501,612	2,153,461	
TP	317				1.4	86 20'	+20.3	+18.9			TP	-4	-3			
	864		333 36 39'	+20.5	6.8	--		+6.8	1,862.8		BS	-859	+89			333 36 39'
	864			+11.1	TM	--	-4.3	+6.8			BS	-4	-3			
188	633		325 15'	--	6.5	90 10'	-1.8	-8.3		1,854.5		+614	-156	501,363	2,153,391	
189	324		311 40'	--	5.2	89 40'	+1.9	-3.3		1,859.5		+287	-151	501,036	2,153,396	
190	0				5.1	--		-5.1		1,857.7	TP	0	0	500,749	2,153,547	
191	329		111 10'	--	6.1	88 40'	+7.7	+1.6		1,864.4		-219	+246	500,530	2,153,793	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-10-85		B. Cotcamp		K. Greenfield		6834		KCL		7		22			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp West-7 1/2'		WA.		OKANOGAN								W. Cassidy	
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
									1862.8						
TP	537		109 14 46	+20.5	0.8	88 24	+15.0	+14.2		1877.0	TP	-343	+413	500402	2,153,957
TP	537				0.7	271 36	+15.0	+14.3			TP	-4	-3		
	334		298 14 00	-	+12.6	-		+12.6	1889.6		BS	-251	+220		
	334				+11.0	84	+1.7	+12.7			BS	-4			
192	215		295 25	--	5.5	90 50	-3.1	-8.6		1881.0		+154	-150	500301	2,154,024
K	0				5.1	-		-5.1		1884.5	K	0	0	500147	2,154,174
193	130		172 30	--	5.1	91 50	-4.2	-9.3		1880.3		-127	-29	500020	2,154,145
TP	284		173 04 04	-	4.7	91 50	-9.1	-13.8		1875.8	TP	-276	-67	499,867	2,154,104
TP	284				5.6	91 40	-8.3	-13.9			TP	-4	-3		
	519		346 46 16	+20.5	4.9	-		+4.9	1880.7		BS	-515	-66		
	519				+7.5	71	-2.6	+4.9			BS	-4	-3		
194	369		334 20	--	4.7	-		-4.7		1876.0		+368	-33	499,716	2,154,002
195	89		282 30	--	5.7	-		-5.7		1875.0		+48	-75	499,396	2,153,960
K	0				5.1	-		-5.1		1875.6	K	0	0	499,348	2,154,035
D	93		63 19 21	+20.5	4.8	87 40	+3.8	-1.0		1879.7		+10	+92	499,358	2,154,127
196	214		46 46	--	5.2	86 10	+14.3	+9.1		1889.8		+83	+197	499,431	2,154,232
TP	268		37 27 50	-	4.6	85 50	+19.5	+14.9		1895.6	TP	+142	+227	499,486	2,154,259
TP	268				3.8	86	+18.7	+14.9			TP	-4	-3		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-10-85		B. Cstcamp		K. Greenfield		6834		1126 W		7		23			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp West-7 1/2'		WA.		OKANOGAN								W. Cass. Jy	
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
										1895.6					
	385	384.1	211 08 15	+20.5	8.9	94 -	+26.9	+35.8	1,931.4		BS	+238	+301		
	385				7.8	94 10'	+28.0	+35.8		BS	-4	-3			
197	110		214 50	--	5.5	95 -	-9.6	-15.1		1916.3		-63	-90	499,657	2,154,467
π	0				5.1	-		-5.1		1926.3	π	0	0	499,720	2,154,557
198	223		52 15,	--	4.6	85 20,	+18.1	+13.5		1944.9		+66	+213	499,796	2,154,770
TP	410	408.6	53 29 48	--	5.1	85 20	+33.4	+28.3	1,959.7		TP	+113	+393	499,929	2,154,947
TP	410				6.3	85 10'	+34.5	+28.2		TP	-4	-3			
	475		247 13 16	+20.5	8.8	89 -	-8.3	+0.5	1,960.2		BS	+19	+475		
	475				12.8	88 30	-12.4	+0.4		BS	-4	-3			
199	330		243 30'	--	6.0	88 20'	+9.6	+3.6		1,963.8		-34	-328	499,810	2,155,091
200	0				5.1	-		-5.1		1,955.1	π	0	0	499,844	2,155,419
201	330		67 40,	+20.5	6.3	93 -	-17.2	-23.5		1,936.7		+11	+330	499,855	2,155,749
TP	381		69 20 51	--	8.3	93 -	-19.9	-28.2	1,932.0		TP	+1	+380	499,841	2,155,796
TP	381				5.0	93 30	-23.2	-28.2		TP	-4	-3			
	677		274 31 38	--	8.4	87 -	-35.4	-27.0	1,905.0		BS	-286	+613		
	677				6.5	87 10	-33.4	-26.9		BS	-3	-3			
202	401		272 49,	--	5.9	87 40,	+16.3	+10.4		1915.4		+158	-368	499,710	2,156,038
203	74		266 55	-	5.8	86 40	+4.3	-1.5		1903.5		+22	-71	499,574	2,156,335
π	0				5.1	-		-5.1		1,899.9	π	0	0	499,552	2,156,406

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-10-85		B. Cotarr		K. Greenfield		6834		[initials]		7		24			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp West-7/2		WA		OKANOGAN								W. Cassidy	
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
									1905.0						
204	257		87° 10'	+20.5	5.0	94° -	-17.9	-22.9		1,882.1		-78	+245	499474	2,156.651
205	587		86° 10'	--	6.6	94° 20'	-44.4	-51.0		1,854.0		-168	+562	499384	2,156.988
TP	692		85° 31' 38"	--	5.2	94° 20'	-52.3	-57.5		1847.5	TP	-191	+663	499358	2,157.066
TP	692				7.3	94° 10'	-50.3	-57.6			TP	-3	-3		
	883		251° 01' 41"	+20.5	13.0	88° -	-30.8	-17.8	1829.7		BS	-24	+882		
	883				+10.4	88° 10'	-28.2	-17.8			BS	-3	-3		
206	660		249° 30'	--	6.5	89° -	+11.5	+5.0		1834.7		±0	-660	499331	2,157.285
207	330		249° 25'	--	5.3	84° -	-1.7	-7.0		1822.7		±0	-330	499331	2,157.615
208	0				5.1	--		-5.1		1824.6	X	0	0	499331	2,157.915
209	330		88° 10'	--	5.9	87° 30'	+14.4	+8.5		1838.2		-106	+313	499225	2,158.258
210	656		86° - 10'	--	4.1	88° -	+22.9	+18.8		1,848.5		-186	+629	499145	2,158.574
TP	663		84° 17' 10"	--	8.3	87° 40'	+27.0	+18.7		1848.4	TP	-169	+641	499159	2,158.583
TP	663				10.2	87° 30'	+28.9	+18.7			TP	-3	-3		
											BS				
											BS				

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SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-13-85		B. Cotcamp		K. Greenfield		6834		W		7		25			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp West - 7 1/2		WA.		OKANOGAN								W. Cassidy	
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
									1848.4						
	450		246 02 00	+20.5	6.9	74	-2.3	+4.7	1,853.1		BS	+74	+444		
	450			+12.5	89	-7.9	+4.6			BS	-3	-3			
211	139		234 50	~	5.7	87 30	+6.1	+0.4		1,853.5		-35	-134	499,195	2,158,890
	0				5.1			-5.1		1,848	X	0	0	499,230	2,159,024
212	221		103 05	~	8.8	79 30	+40.3	+31.5		1,884.6		-122	+184	499,108	2,159,208
TP	376		106 51 38	~	7.3	74 40	+99.4	+92.1		1,945.2	TP	-220	+288	499,007	2,159,309
TP	376				7.2	285 20	+99.4	+92.2			TP	-3	-3		
	237		306 49 20	+20.5	14.6	96	+24.6	+39.4	1,984.6		BS	-198	+127		
	237			+14.6	24		+24.8	+39.4			BS	-3	-3		
213	78		323 30	~	6.2	96	-4.2	-14.4		1,970.2		+75	-22	499,881	2,159,411
	0				5.1			-5.1		1,979.5	X	0	0	499,806	2,159,433
214	251		134 50	~	7.0			-7.0		1,977.6		-228	+105	499,578	2,159,538
215	572		146 10	~	6.1	BN	-2.9	-9.0		1,975.6		-557	+132	499,249	2,159,565
216	900		148 45	~	3.6			-3.6		1,991.0		-884	+168	497,922	2,159,601
1/1	924		147 47 44	~	2.3			-2.3		1,982.3	TP	-905	+187	497,935	2,159,615
1/1	924				6.9	74	+4.6	-2.3			TP	-6	-5		
											BS				
											BS				

Y-497,895 X-2,159,615  
T-INTEN. EL. 1982.0  
Horiz. Y--91  
CORR. X--59

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7- -85		P. Cotcamp		K. Greenfield		6834		4/20		7		26			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp West-7 1/2		WA.		OKANOGAN								W. Cassidy	
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
										1982.3					
	1619		310° 57' 40"	+20.8	4.7	90° 36'	+17.0	+21.7	+21.63		BS	-1426	+766		
	1619				+4.4	268° 24'	+17.0	+21.4	2003.9		BS	"			
217	1332		307° 20'	-	4.7	90° 36'	-13.9	-14.6		1,985.3		+1131	-703	497,601	2,159,678
218	1066		297° 55'	-	6.1	89° 52'	+2.5	-3.6		2,000.3		+801	-703	497,271	2,159,678
219	819		283° 48'	-	6.0	90° 18'	-4.3	-10.3		1,993.6		+465	-674	496,935	2,159,707
220	537		270° 40'	-	5.2	89° 54'	+0.9	-4.3		1,999.6		+197	-500	496,667	2,159,881
221	307		237° -	+20.8	6.0	91° 50'	-9.8	-15.8		1,988.1		-65	-300	496,405	2,160,081
X	0				5.1	-		-5.1		1,998.8	X	0	0	496,470	2,160,381
222	20		175° 10'	-	6.0	88° 30'	+0.5	-5.5		1,998.4		-19	-6	496,451	2,160,375
223	345		164° 05'	-	5.3	81° 20'	+52.0	+46.7		2,050.6		-344	-29	496,126	2,160,352
224	666		156° 40'	-	4.6	80° 50'	+106.1	+101.5		2,105.4		-665	+29	495,805	2,160,410
TP	834	822.2	153° 04' 50"	-	7.4	80° 20'	+140.0	+132.6		2,136.5	TP	-817	+88	495,654	2,160,468
TP	834				9.8	80° 10'	+142.4	+132.6			TP	"	-1		
	638		292° 30' 01"	+20.8	9.6	91° 30'	+16.7	+26.3	2162.8		BS	-437	+464		
	638				+9.5	266° 30'	16.7	+26.2			BS	"	-2		
225	483		292° 20'	-	5.7	91° 10'	-9.9	-15.5		2,147.3		+330	-352	495,548	2,160,578
226	201		261° 50'	-	5.1	94° -	-14.0	-19.1		2,143.7		+44	-196	495,262	2,160,734
X	0				5.1	-		-5.1		2,157.7	X	0	0	495,218	2,160,930
227	177		142° 35'	-	5.7	98° 30'	-26.2	-31.9		2,130.9		-170	+51	495,048	2,160,981
228	482		125° 15'	-	6.8	93° 10'	-26.6	-33.4		2,129.4		-400	+269	494,818	2,161,199

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE					
7-1-85		B. Cotcamp		K. Greenfield		6834		H.W. [Signature]		7		27					
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
WASHINGTON		Twisp West-7 1/2'		WA.	OKANOGAN					W. Cassidy							
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		
									2,162.8								
229	771		117° 55'	+20.8	7.0	90° 10'	-2.2	-9.2		2,163.6		-579	+509	494,639	2,161,439		
230	1058		109° 40'	-	6.0	88° 20'	+30.8	+24.8		2,187.6		-687	+805	494,531	2,161,735		
TP	1258	1257.0	108° 53' 11"	-	2.1	87° 40'	+51.2	+49.1		2,211.9	TP	-803	+967	494,416	2,161,895		
TP	1258				5.7	87° 30'	+54.8	+49.1			TP	+	-2				
	540		322° 25' 58"	+20.8	7.3	91° 40'	+15.7	+23.0		2,234.9	BS	-517	+156				
	540				+8.9	91° 30'	+14.1	+23.0			BS	+	-2				
231	393		318° 55'	-	6.3	92° 20'	-16.0	-22.3		2,212.6		+369	-136	494,269	2,161,913		
232	66		320° 10'	-	6.1	93° 30'	-4.0	-10.1		2,224.8		+62	-22	493,962	2,162,027		
X	0				5.1	-		-5.1		2,229.8	X	0	0	493,900	2,162,049		
233	266		165° 15'	-	6.0	85° 30'	+20.9	+14.9		2,249.8		-265	-28	493,635	2,162,021		
TP	366	364.9	162° 06' 11"	-	5.9	85° 30'	+28.7	+22.8		2,257.7	TP	-364	-18	493,537	2,162,029		
TP	366				5.9	274° 30'	+28.7	+22.8			TP	+	-2				
	758	754.3	314° 02' 40"	+20.8	4.6	95° 40'	+74.8	+79.4			BS	-683	+321				
	758				+6.8	95° 30'	+72.7	+79.5		2,337.2	BS	+	-2				
234	639		297° 10'	-	4.2	94° -	-44.6	-48.8		2,288.4		+475	-428	493,330	2,161,920		
235	391		274° 15'	-	6.0	93° 30'	-23.9	-29.9		2,307.3		+166	-354	493,021	2,161,994		
236	70		256° 40'	-	5.0	98° -	-9.7	-14.7		2,322.5		+9	-69	492,864	2,162,279		
X	0				5.1	-		-5.1		2,332.1	X	0	0	492,855	2,162,348		
237	270		130° 30'	-	4.3	84° -	+72.4	+24.5		2,361.7		-242	+133	492,613	2,162,481		
238	601		138° 40'	-	5.1	85° 30'	+47.2	+42.1		2,379.3		-563	+211	492,292	2,162,559		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		PAGE					
7-13-85		B. Cotcamp		K. Greenfield		6834		W. Gass. Jr		28					
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp West-7 1/2		WA.		OKANOGAN								W. Gass. Jr	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH -	EAST + WEST -		Y
									2337.2						
239	932		139° -	+20.8	5.6	85° 24'	+74.7	+69.1		2406.3		-875	+322	491980	2162670
TP	969	965.8	141° 42' 38"	--	6.3	85° 20'	+78.8	+72.5			TP	-921	+290	491935	2162636
TP	969				6.2	274° 40'	+78.8	+72.6		2409.8	TP	"	-2		
	541	539.7	289° 52' 16"	--	8.6	94° -	+37.7	+46.3	2456.1		BS	-352	+409		
	541				8.6	266° -	+37.7	+46.3			BS	"	-2		
240	247		292° 40'	--	6.0	94° -	-17.2	-23.2		2432.9		+170	-179	491754	2162864
K	0				5.1	-		-5.1		2451.0	K	0	0	491544	2163043
241	81		90° -	+20.8	5.9	89° 10'	+11.2	-4.7		2451.4		-29	+76	491555	2163119
TP	324		85° 55' 05"	--	10.2	88° 10'	+10.4	+0.2		2456.3	TP	-93	+310	491492	2163351
TP	324				9.6	88° 16'	+9.8	+0.2			TP	"	-2		
	855	853.7	240° 37' 27"	--	7.0	86° 50'	-47.2	-40.2	2416.1		BS	+127	+844		
	855				6.9	273° 10'	-47.2	-40.3			BS	"	-2		
242	773		240° 30'	--	6.0	86° 50'	+42.7	+36.7		2452.8		-117	-764	491503	2163429
TP	607		240° 34'	--	4.8	86° 50'	+33.5	+28.7		2444.8	TP	-91	-599	491529	2163574
243	444		240° 35'	--	6.2	87° 30'	+19.4	+13.9		2430.0		-67	-439	491553	2163754
244	114		✓ -	--	5.1	86° 44'	+6.5	+1.4		2417.5		-77	-113	491605	2164080
K	0				5.1	-		-5.1		2411.0	K	0	0	491620	2164193
245	215		59° 10'	+20.8	5.2	96° 46'	-25.0	-30.2		2385.9		+37	+212	491657	2164405
TP	362		57° 19' 57"	--	7.9	93° 16'	-20.6	-29.5		2386.6	TP	+74	+354	491695	2164545
TP	362				8.9	246° 44'	-20.6	-29.5			TP	"	-2		

119-491,520 x - 2,163,560  
 117-Intersect

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-13-85		B. Cotamp		K. Greenfield		6834		KOG		7		29			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp West-7 1/2		WA.		OKANOGAN								W. Cassidy	
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
										2386.6					
	416		255 38 31	+20.8	2.6	89°	-7.3	-4.7	2381.9		BS	-47	+413		
	416				2.5	271°	-7.3	-4.8		BS		+1	-2		
246	251		268 10	--	5.2	88°	+4.4	+3.6		2385.5		+82	-237	491731	2164719
π	0				5.1	-		-5.1		2376.8	π	0	0	491649	2164956
247	247		350 50	--	6.0	84 40	+23.0	+17.0		2398.9		+242	+50	491891	2165006
TP	527		20 00 15	--	3.3	-		-3.3	2,378.6		TP	+399	+344	492049	2165298
TP	527				6.0	711	+2.6	-3.4		TP		+1	-2		
	434	432.7	297 04 00	+20.8	3.8	85 38	-33.0	-29.2	2349.4		BS	-321	+290		
	434				3.7	274 22	-33.0	-29.3		BS		+1	-2		
248	488		297 40	--	4.9	85 30	+34.3	+33.4		2382.8		+365	-324	492094	2165262
249	476		332 35	--	14.4	83 40	+52.5	+36.1		2387.5		+473	-55	492202	2165531
250	152		339 20	--	5.3	85°	+13.2	+7.9		2357.3		+152	±0	491881	2165586
π	0				5.1	-		-5.1		2344.3	π	0	0	491729	2165586
251	233		92 10	+20.8	5.9	92 30	-10.2	-16.1		2,333.3		-91	+215	491639	2165801
TP	322		89 48 50	--	5.3	92 30	-14.0	-19.3	2,330.1		TP	-113	+301	491617	2165885
TP	322				4.4	92 40	-15.0	-19.4		TP		+1	-2		
	547		236 21 26	--	4.4	88°	-19.1	-14.7	2315.4		BS	+122	+533		
	547				2.8	88 10	-17.5	-14.7		BS		+1	-2		
252	329		241 50	--	5.4	88 10	+10.5	-5.1		2310.3		-42	-326	491698	2166090
253	0				5.1	-		-5.1		2310.3	π	0	0	491740	2166416

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
7-13-85		B. Lotcamp		K. Greenfield		6834		H. J. [unclear]		7		30							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
WASHINGTON		Twisp West - 7 1/2		WA.		OKANOGAN								W. Cassidy					
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				
									2315.4										
254	329		72° 30'	+20.8	6.5	92° 10'	-12.4	-19.9		2296.5		-19	+328	491,721	2,166,744				
255	659		71° 06' 23"	-	5.3	92°	-23.0	-28.3		2287.1	TP	-22	+658	491,719	2,167,072				
255	659				3.4	92° 10'	-24.9	-28.3			TP	"	"						
	348		268° 52' 16"	~ +	3.0	88°	-12.1	-9.1	2,278.0		BS	-117	+327						
	348				+4.0	87° 50'	-13.1	-9.1			BS	"	"						
256	21		269° -	+20.8	5.8	88°	+0.7	-5.1		2,272.9		+7	-20	491,610	2,167,377				
K	0				5.1	-		-5.1		2,272.9	K	0	0	491,603	2,167,397				
257	310		69° 40'	~	5.4	91° 50'	-9.9	-15.3		2,262.7		-3	+310	491,600	2,167,707				
258	638		69° 10'	~	4.7	91° 40'	-14.5	-23.2		2,254.8		±0	+638	491,603	2,168,035				
TP	892		68° 32' 03"	~	5.3	91° 30'	-23.3	-28.6		2,247.4	TP	+10	+892	491,614	2,168,287				
TP	892				2.7	91° 40'	-25.9	-28.6			TP	"	"						
	231		262° 34' 10"	+20.8	0.3	TH	-1.2	-0.9	2,248.5		BS	-53	+225						
	231				+0.2	TH 210°	-1.2	-1.0			BS	"	"						
259	153		261° 40'	~	5.7	88°	+5.3	-6.4		2,248.1		+33	-149	491,595	2,168,361				
K	0				5.1	-		-5.1		2,243.4	K	0	0	491,562	2,168,510				
260	172		59° 10'	~	4.6	92°	-6.0	-10.6		2,237.9		+30	+169	491,592	2,168,679				
TP	261		59° 17' 10"	~	4.3	92°	-9.1	-13.4		2,235.1	TP	+45	+257	491,608	2,168,765				
TP	261				3.5	92° 10'	-9.9	-13.4			TP	"	"						
	464		260° 38' 36"	~ +	4.5	89° 10'	-6.7	-2.2	2,232.9		BS	-92	+455						
	464				+3.2	89° 20'	-5.4	-2.2			BS	"	"						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-13-85		B. Cotcamp		K. Greenfield		6834		xw6		7		31			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp West - 7 1/2'		WA.		OKANOGAN								W. Cassidy	
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
									2,232.9						
261	223		261 20	+20.8	6.2	89 30	+1.9	-4.3		2,228.6		+47	-218	491,564	2,169,000
π	0				5.1	-		-5.1		2,227.8	π	0	0	491,517	2,169,218
262	107		93 19	~	6.2	92 20	-4.4	-10.6		2,222.3		-43	+78	491,474	2,169,316
TP	279		79 14 58	~	6.5	91 20	-6.5	-13.0		2,219.9	TP	-49	+275	491,469	2,169,491
TP	279				8.1	91 0	-4.9	-13.0			TP	+	-		
	241		255 35 04	+20.8	3.6	88 30	-6.3	-2.7		2,217.2	BS	-27	+239		
	241				4.3	88 20	-7.0	-2.7			BS	+	-		
263	90		258 40	-	5.5	88 -	+3.1	-2.4		2,214.8		+15	-89	491,458	2,169,639
π	0				5.1	-		-5.1		2,212.1	π	0	0	491,443	2,169,728
264	243		114 20	~	5.4	91 20	-5.7	-11.1		2,206.1		-172	+171	491,271	2,169,899
TP	283		113 31 58	~	4.5	91 20	-6.6	-11.1		2,206.1	TP	-198	+202	491,246	2,169,928
TP	283				5.4	91 10	-5.8	-11.2			TP	+	-		
	230		251 36 49	~	4.3	-		+4.3		2,210.4	BS	-10	+230		
	230				5.5	TH	-1.2	+4.3			BS	+	-		
π	0				5.1	-		-5.1		2,205.3	π	0	0	491,237	2,170,156
265	51		69 50	+20.8	4.8	89 -	+0.9	-3.9		2,206.5		-1	+51	491,236	2,170,207
TP	242		60 18 42	~	6.7	89 0	+4.2	-2.5		2,207.9	TP	+37	+239	491,275	2,170,393
TP	242				6.0	89 10	+3.5	-2.5			TP	+	-		
	344		262 59 02	~	8.2	88 30	-9.0	-0.8		2,207.1	BS	-82	+334		
	344				9.2	88 20	-10.0	-0.8			BS		-		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-13-85		B. Cotcamp		K. Greenfield		6834		HCB		7		32			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp West - 7 1/2'		WA.		OKANOGAN								B. Cassidy	
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
									2207.1						
266	205		243 20	+20.8	5.1	88 20	+6.0	+0.9		2208.0		+50	-199	491,243	2,170,526
π	0				5.1	-		-5.1		2202.0	π	0	0	491,193	2,170,725
267	124		102 20	--	5.2	92 10	-4.7	-9.9		2197.2		-68	+104	491,125	2,170,829
TP	283		104 13 16	-	6.0	93 10	-15.6	-21.6			TP	-162	+231	491,031	2,170,954
TP	283				5.9	266 30	-15.6	-21.5		2185.6	TP		-2		
	364	363.3	302 30 34	--	5.4	86 20	-23.3	-17.9	2167.7		BS	-291	+217		
	364				4.3	86 30	-22.2	-17.9			BS		-2		
268	196		298 20	+20.8	4.8	88 30	+5.1	+0.3		2168.0		+148	-128	490,898	2,171,041 well
π	0				5.1	-		-5.1		2162.6	π	0	0	490,740	2,171,169
269	135		99 45	--	5.7	-		-5.7		2,162.0		-69	+116	490,671	2,171,285
TP	236		93 29 42	-	9.6	89 -	+4.1	-5.5		2162.2	TP	-97	+215	490,643	2,171,382
TP	236				9.6	271 -	+4.1	-5.5			TP		-2		
	445		268 26 56	--	7.3	89 -	-7.8	-0.4	2161.8		BS	-147	+420		
	445				6.0	89 10	-6.5	-0.5			BS		-2		
270	219		268 -	+20.8	4.7	89 20	+2.5	-2.2		2159.6	BS	+71	-207	490,567	2,171,593
π	0				5.1	-		-5.1		2156.7	π	0	0	490,496	2,171,800
271	124		49 40	--	4.9	95 30	-11.9	-16.8		2145.0		+41	+117	490,537	2,171,917
TP	230		43 10 02	-	7.8	93 30	-14.0	-21.8		2140.0	TP	+101	+206	490,597	2,172,004
TP	230				7.1	93 40	-14.7	-21.8			TP		-2		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-23-85		B. Cstcamp		K. Greenfield		6834		mwl		7		33			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp West-7 1/2		WA.		OKANOGAN								W. Cassidy	
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 K TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
										2140.0					
	196		203° 08' 51"	+20.8	14.6	-		+14.6			BS	+141	+136	490738	
	196				+13.7	BH	+1.0	+14.7		2154.7	BS		-2		
272	73		113° 20'	--	5.7	102° 10'	-15.4	-21.1		2133.6		-51	+52	490687 2,172,190	
K	0				5.1	-		-5.1		2149.6	K	0	0	490,738 2,172,138	
TP	352		72° 20' 15"	--	5.3	93° 20'	-20.4	-25.7		2129.0	TP	-19	+351	490719 2,172,487	
TP	352				6.4	93° 10'	-19.4	-25.8			TP		-2		
	499		283° 18' 03"	~	+12.3	90° 20'	+2.9	+15.2		2144.2	BS	-280	+413		
	499				+12.2	267° 40'	+2.9	+15.1			BS		-2		
273	471		283° 25'	+20.8	5.0	91° 22'	-11.2	-16.2		2128.0		+265	-389	490,704 2,172,509	
274	146		285° 55'	-	5.5	95° -	-12.7	-18.2		2,126.0		+87	-117	490,526 2,172,781	
K	0				5.1	-		-5.1		2,139.1	K	0	0	490,439 2,172,898	
275	184		117° 35'	~	6.2	91° 40'	-5.3	-11.5		2,132.7		-138	+121	490,301 2,173,019	
TP	417		111° 39' 21"	~	7.2	87° 50'	+15.8	+8.6			TP	-281	+307	490,158 2,173,203	
TP	417				7.1	272° 10'	+15.8	+8.7		2152.9	TP		-2		
	300		296° 15' 26"	+20.8	12.3	91° -	+5.2	+17.5			BS	-220	+204		
	300				+7.1	92° -	+10.5	+17.6		2170.5	BS		-2		
276	213		305° 10'	--	6.3	91° 30'	-5.6	-11.9		2158.6		+177	-119	490,115 2,173,286	
K	0				5.1	-		-5.1		2165.4	K	0	0	489,938 2,173,405	
277	114		66° 20'	~	4.4	87° 30'	+5.0	+0.6		2,171.1		+6	+114	489,944 2,173,519	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-13-85		B. Cotcamp		K. Greenfield		6834		Huck		7		34			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp East-7 1/2'		WA.		OKANOGAN								W. Cassidy	
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
									2170.5						
TP	279		79° 05' 35"	+20.8	8.0	87° -	+14.6	+6.6	}	2,177.1	TP	-48	+274	} 489,890	2,173,677
TP	279				7.2	87° 10'	+13.8	+6.6		TP					-2
	444		211° 11' 11"		+7.8	93° -	+23.2	+31.0	} 2,208.1		BS	+273	+349		
	444				+7.7	267° -	+23.2	+30.9		BS				-2	
278	296		211° 25'		5.9	93° 20'	-17.2	-23.1		2,185.0		-181	-231	489,982	2,173,790
π	0				5.1	-		-5.1		2,203.0	π	0	0	490,163	2,174,024
279	36		359° 25'	+20.8	5.0	-		-5.0		2,203.1		+34	+12	490,197	2,174,036
TP	205		358° 49' 58"		7.3	92° -	-7.2	-14.5	} 2,193.7		TP	+193	+69	} 490,356	2,174,091
TP	205				7.2	268° -	-7.2	-14.4		TP					-2
	737	734.2	169° 03' 39"		3.2	85° -	-64.2	-61.0	} 2,132.7		BS	+723	+126		
	737				5.3	84° 50'	-66.4	-61.1		BS				-2	
280	579		169° 55'	+20.8	4.7	85° 20'	+47.1	+42.4		2,175.1		-569	-108	490,516	2,174,107
281	252		171° 10'		6.0	86° -	+17.6	+11.6		2,144.3		-247	-52	490,832	2,174,163
π	0				5.1	-		-5.1		2,127.6	π	0	0	491,079	2,174,215
282	81		14° 50'		10.9	110° -	-27.7	-38.6		2,094.1		+66	+47	491,145	2,174,262
283	376		16° -		5.8	105° 20'	-104.7	-110.5		2,022.2		+317	+237	491,396	2,174,452
284	706		12° -		5.7	103° 20'	-162.8	-164.5		1,964.2		+593	+382	491,672	2,174,597
TP	762	742.5	16° 10' 56"	+20.8	13.6	103° -	-171.4	-185.0	} 1,947.7		TP	+593	+447	} 491,672	2,174,660
TP	762				13.5	257° -	-171.4	-184.9		TP					-2

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-13-85		B. Stamp		K. Greenfield		6834		KWBW		7		35			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp East-7 1/2'		WA.		OKANOGAN								W. Cassidy	
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
	776	773.1	277° 04' 51"	+20.8	3.0	85° -	-67.6	-64.6	1883.1		BS	-362	+683		
	776				+0.7	85° 10'	-65.4	-64.7			BS		-2		
285	531		279° 40'	-	5.0	86° 40'	+30.9	+25.9		1,909.0		+269	-458	491,579	2,174,883
286	303		312° 40'	-	7.0	93° 20'	-17.6	-24.6		1,858.5		+271	-135	491,581	2,175,206
287	0				5.1	-		-5.1		1,878.0	X	0	0	491,310	2,175,341
288	326		121° 50'	--	6.2	-		-6.2		1,876.9		-259	+198	491,051	2,175,539
TP	534		121° 39' 56"	+20.0	4.8	-		-4.8		1878.3	TP	-425	+324	490,884	2,175,662 on line.
TP <sup>line</sup>	534				4.7	276° -		-4.7			TP	-1	-3		
Traverse to Bm															
±	299		322° 16' 22"	+20.8	8.2	94° 20'	-22.6	-30.8			±	+285	-87	491,595	2,175,250
TP	376				10.2	94° 30'	-29.5	-39.7		1,843.4	TP	traverse			
TP					10.1	265° 30'	-29.5	-39.6			TP				
	1749				+5.5	85° 50'	-127.1	-121.6		1,721.8	BS				
	1749				+5.4	274° 10'	-127.1	-121.7							
	0				5.1	-		-5.1		1716.7	X				
	3311				10.3	92° 20'	-134.8	-145.1			TP				
	3311				10.0	267° 40'	-134.8	-144.8		-145.0	1,576.8				
					+8.9	-		+8.9		1,585.7	BS				
X	0				5.1	-		-5.1			X				
Bm					2.7	-		-2.7		1,583.0	Bm				B-378 1958, El. 1583.0

Horiz. 9728  
 Cont. X-71  
 y-491,595 x-2,175,250  
 ±1" rate  
 Traverse to Bm ↓

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-14-85		B. Cotcamp		K. Greenfield		6834		KVL		7		36			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Washington		Twisp East-7 1/2'		WA.		OKANOGAN								W. Cassidy	
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
										1,878.3					
	742		299 07 21	+21.0	6.8	88° -	-25.9	-19.1	1,859.2		BS	-570	+475		
	742				+4.7	88° 10'	-23.7	-19.0		BS	-1	-3			
289	632		298 20	--	6.0	88° 36'	+15.4	+9.4		1,868.6		+479	-412	490792	2,175722
290	323		302 20	--	5.4	88° 30'	+8.5	+3.1		1,862.3		+259	-193	490592	2,175,941
291	34		242 30	--	6.0	82° -	+4.7	-1.3		1,857.9		-4	-34	490309	2,176,100
K	0				5.1	-		-5.1		1,854.1	K	0	0	490313	2,176,134
292	306		124 10	+21.0	6.2	92° 30'	-13.3	-19.5		1,839.7		-251	+175	490062	2,176,309
293	597		103 50	--	6.1	93° 10'	-33.0	-39.1		1,820.1		-341	+490	489972	2,176,624
294	906		94 40	--	5.0	92° 50'	-44.8	-49.9		1,809.4		-392	+817	48921	2,176,951
295	1232		92 25	--	5.0	92° 30'	-53.7	-59.7		1,800.5		-490	+1131	489823	2,177,265
TP	1472	1471.1	93 37 09	--	10.2	92° -	-51.4	-61.6	1,797.6		TP	-613	+1337	489699	2,177,468
TP	1472				10.1	268° -	-51.4	-61.5		TP	-1	-3			
	592		294 27 42	+21.04	7.1	91° 30'	+15.5	+22.6	1,820.2		BS	-422	+415		
	592				+5.4	91° 40'	+17.2	+22.6		BS	-1	-3			
296	504		294 25	--	4.9	92° -	-17.6	-22.5		1,797.7		+359	-354	489635	2,177,526
297	179		299 30	--	5.8	96° -	-19.7	-24.5		1,795.7		+138	-114	489414	2,177,766
K	0				5.1	-		-5.1		1,815.1	K	0	0	489276	2,177,880
298	178		73 25	--	5.6	95° 30'	-17.1	-22.7		1,797.5		-14	+177	489262	2,178,057
299	487		96 -	--	6.2	92° 30'	-21.2	-27.4		1,792.8		-221	+434	489055	2,178,314

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-14-85		B. Cotcamp		K. Greenfield		6834		KDF		7		37			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twp East - 7 1/2'		WA.		OKANOGAN								W. Cassidy	
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
									1,820.2						
300	814		101° 30'	+21.0	6.1	92° 06'	-29.4	-35.9		1,784.3		-437	+687	488,839	2,178,567
TP	976		102° 05' 53"	--	5.0	91° 50'	-31.2	-36.2		1,784.0	TP	-533	+817	488,742	2,178,694
TP	976				4.9	268° 10'	-31.2	-36.1			TP	-	-3		
	436		280° 23' 51"	--	+9.6	-		+9.6		1,793.6	BS	-227	+372		
	436				+7.5	B.M.	+2.2	+9.7			BS	-	-3		
301	275		280° 20'	--	5.7	90° 40'	-3.2	-8.9		1,784.7		+143	-235	488,657	2,178,828
X	0				5.1	-		-5.1		1,788.5	X	0	0	488,514	2,179,063
302	54		102° 35'	+21.0	5.1	89° 40'	+0.3	-4.8		1,788.8		-30	+45	488,484	2,179,108
303	383		107° 25'	--	6.2	90° 20'	-2.2	-8.4		1,795.2		-238	+300	488,276	2,179,363
TP	598		106° 29' 33"	--	6.6	89° 40'	+3.5	-3.1		1,790.5	TP	-364	+474	488,149	2,179,534
TP	598				8.3	89° 30'	+5.2	-3.1			TP	-	-3		
	428		263° 14' 31"	+21.3	+8.2	-		+8.2		1,794.7	BS	-107	+414		
	428				+10.3	T.M.	-2.1	+8.2			BS	-	-3		
304	325		255° 25'	--	6.1	91° 16'	-7.2	-13.3		1,785.4		+38	-323	488,079	2,179,622
305	0				5.1	-		-5.1		1,793.6	X	0	0	488,041	2,179,945
306	317		106° 10'	--	6.1	88° 34'	+7.9	+1.8		1,800.5		-193	+252	487,848	2,180,197
TP	306		109° 03' 42"	--	10.6	87° 20'	+14.2	+3.6		1,802.3	TP	-198	+233	487,842	2,180,175
TP	306				10.5	272° 40'	+14.2	+3.7			TP	-	-3		
											BS				
											BS				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-14-85		B. Cotcamp		K. Greenfield		6834		K. Wood		7		38			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp East - 7 1/2'		WA.		OKANOGAN								W. Cassidy	
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
										1802.3					
	997		300 12 40	+21.3	3.3	-		+3.3			BS	-780	+621		
	997				3.2	270 -		+3.2			BS	-1	-3		
307	660		300 40	-	6.1	90 20	-3.8	-9.9		1,795.6		+520	-407	487581	2,180,386
308	330		299 10	-	5.7	91 -	-5.8	-11.5		1,794.0		+255	-210	487316	2,180,583
309	0				5.1	-		-5.1		1,800.4	X	0	0	487061	2,180,793
310	330		122 50	+21.3	6.2	90 20	-7.9	-8.1		1,797.4		-267	+193	486794	2,180,986
TP	487		119 31 40	-	12.2	90 50	-7.1	-19.3		1,786.2	TP	-378	+308	486,692	2,181,098
TP	487				10.8	91 -	-8.5	-19.3			TP	-1	-3		
	1637		323 00 51	-	+11.7	BH	+8.2	+19.9	1,805.9		BS	-1576	+443		
	1637				+11.4	BH 270	+8.2	+19.6	1,797.3		BS		-3		
311	1450		320 55	-	7.1	-		-7.1		1,798.8		+1381	-443	486,487	2,181,095
312	1131		318 20	+21.3	12.5	89 30	+9.9	-2.6		1,803.3		+1060	-394	486,166	2,181,144
313	805		316 50	-	5.2	89 20	+9.4	+4.2		1,810.1		+747	-300	485,853	2,181,238
314	487		308 40	-	5.8	89 20	+5.7	-0.1		1,805.8		+422	-244	485,528	2,181,294
315	212		275 55	-	5.4	86 50	+11.7	+6.3		1,812.2		+97	-189	485,203	2,181,349
X	0				5.1	-		-5.1		1,800.8	X	0	0	485,106	2,181,538
316	353		178 10	+21.3	4.7	86 20	+22.6	+17.9		1,823.8		-333	-118	484,773	2,181,420
317	655		166 45	-	6.2	86 -	+45.7	+39.5		1,845.4		-649	-92	484,457	2,181,446
318	882		162 05	-	7.0	86 10	+59.0	+52.0		1,857.9		-880	-52	484,226	2,181,486
319	1147		152 45	-	14.0	85 24	+92.0	+78.0		1,883.9		-1141	+119	483,965	2,181,657

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
7-16-85		B. Cotcamp		K. Greenfield		6834		KWR		7		39				
AREA		TOPOG MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
WASHINGTON		Twisp East-7 1/2'		WA.		OKANOGAN								L. Cassidy		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
														Y	X	
TP	1217	1210.0	134° 31' 18"	+21.3	7.0	83° 50'	+130.7	+23.7		1,929.6	TP	-1104	+496	484002	2,182,031	
TP	1217				6.9	276° 10'	+130.7	+123.8			TP		-3			
	297	296.3	287° 13' 32"	-	+5.1	94° -	+20.7	+25.8			BS	-185	+232			
	297				+5.0	266° -	+20.7	+25.7		1,955.3	BS		-3			
320	346		242° 55'	-	25.8	91° 20'	-9.0	-33.8		1,921.5		-35	-344	483,782	2,181,916	curve switch BACK
321	80		246° 15'	-	5.8	91° 20'	-1.9	-7.7		1,942.6		-3	-80	487,814	2,182,180	
K	0				5.1	-		-5.1		1,950.2	K	0	0	483,817	2,182,260	
322	254		98° 15'	+21.3	5.7	83° -	+31.0	+25.3		1,980.6		-125	+221	483,692	2,182,481	
TP	463	457.9	115° 55' 35"	-	10.3	81° 30'	+68.4	+58.1		2,013.4	TP	-336	+311	483,481	2,182,568	
TP	463				10.2	278° 30'	+68.4	+58.2			TP		-3			
	624		314° 37' 34"	-	+3.6	74° -	-3.1	+0.5		2,013.9	BS	-570	+255			
	624				+2.3	89° 50'	-1.8	+0.5			BS		-3			
323	555		320° 05'	+21.3	5.7	BH	-2.8	-8.5		2,005.4		+526	-177	483,437	2,182,613	
324	251		304° 35'	-	5.4	BH	-1.3	-6.7		2,007.2		+208	-141	483,119	2,182,679	
K	0				5.1	-		-5.1		2,008.8	K	0	0	482,911	2,182,820	
325	166		210° 50'	-	5.7	94° 40'	-13.5	-19.2		1,994.7		-102	-131	482,809	2,182,689	
326	397		160° 20'	-	5.4	94° 16'	-28.8	-34.4		1,979.5		-397	-11	482,514	2,182,809	
327	725		160° 25'	-	5.4	93° 40'	-46.4	-51.8		1,962.1		-725	-22	482,186	2,182,798	
328	1054		161° 20'	-	5.1	93° 30'	-64.3	-69.4		1,944.5		-1053	-48	481,858	2,182,772	
329	1383		160° 25'	-	5.1	93° 20'	-80.4	-85.5		1,928.4		-1382	-41	481,529	2,182,779	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-16-85		B. Cotcamp		K. Greenfield		6834		HUGO		7		40			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp East-7 1/2		WA.		OKANOGAN								W. Cassidy	
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
TP	1604	1601.6	158° 38' 51"	+21.3	7.6	93° 10'	-88.6	-96.2		1,917.8	TP	-1602	+1	481,309	2,182,818
TP	1604				7.3	266° 50'	-88.6	-95.9	-96.13		TP		-3		
	2000	1992.9	324° 01' 40"	--	+13.0	85° 10'	-168.5	-155.5			BS	-1928	+505		
	2000				+10.0	85° 15'	-165.6	-155.6	x1,762.2		BS		-3		
330	1900		324° 25'	--	6.7	85° 20'	+154.6	+147.9		1,910.1		+1841	-469	481,222	2,182,851
331	1570		--	--	6.7	85° 20'	+127.7	+121.0		1,883.2		+1521	-387	480,902	2,182,933
332	1237		324° 50'	+21.3	6.0	85° 20'	+100.6	+94.6		1,856.8		+1201	-296	480,582	2,183,024
333	922		330° 10'	--	5.3	85° 30'	+72.3	+67.0		1,829.2		+912	-137	480,293	2,183,183
334	622		340° 20'	--	5.2	85° 40'	+47.0	+41.8		1,804.0		+622	+18	480,003	2,183,338
335	361		4° 50'	--	4.8	85° 10'	+30.4	+25.6		1,787.8		+324	+159	479,705	2,183,479
TP	184		16° 10' 01"	--	5.2	89° 10'	+2.7	-2.5		1,759.7		+146	+112	479,527	2,183,432
X	0				5.1			-5.1		1,755.1	X	0	0	479,381	2,183,320
336	199		66° 25'	+21.3	6.7	84° 10'	+20.2	+13.5		1,775.7		+8	+199	479,389	2,183,519
337	334		138° 10'	--	5.6	87° -	+17.5	+11.9		1,774.1		-313	+117	479,069	2,183,437
TP	493		150° 30'	--	5.2	88° 30'	+12.9	+7.7		1,769.9		-488	+70	478,893	2,183,390
338	630		156° 10'	--	5.8	88° 20'	+18.3	+12.5		1,774.7		-629	+28	478,752	2,183,348
TP	859		161° 01' 22"	--	8.3	88° 50'	+17.5	+9.2		1,771.4	TP	-858	-35	478,523	2,183,282
TP	859				8.2	271° 10'	+17.5	+9.3			TP		-3		
	254	253.4	333° 12' 16"	--	+5.6	86° -	-17.7	-12.1	1,759.3		BS	-252	+24		
	254				+4.9	86° 16'	-17.0	-12.1			BS		-3		

4-479,500 x-2,183,50  
790 corner

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-16-85		B. Cotcamp		K. Greenfield		6834		H.W. [Signature]		7		41			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Twisp East-7 1/2		WA.		OKANOGAN								W. Cassidy	
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
									1,759.3						
339	157		340 30	+21.3	5.1	86°40'	+9.1	+4.0		1,763.3		+157	+5	478,429	2,183,308
π	0				5.1	-		-5.1		1,754.2	π	0	0	478,271	2,183,303
340	172		154 30	-	5.4	94°20'	-13.0	-18.4		1,740.9		-172	+13	478,099	2,183,316
341	499		150 35	-	6.3	93°10'	-27.6	-33.9		1,725.4		-494	+70	477,777	2,183,373
TP	620		138 40 10	-	8.1	88°-	+21.6	+13.5		1,772.8	TP	-582	+212	477,689	2,183,512
TP	620				6.3	88°10'	+19.8	+13.5			TP				
	1560		246 22 15	+20.9	4.6	88°50'	-31.8	-27.2	1,745.5		BS	+74	+1558		
	1560				+4.3	21°10'	-31.8	-27.5	-273		BS		-3		
342	1498		243 25	--	3.8	70°40'	-17.4	-21.2		1,724.3		-148	-1491	477,615	2,183,576
343	1176		245 45	--	5.8	91°10'	-23.9	-29.7		1,715.8		-69	-1174	477,694	2,183,893
344	838		247 20	--	7.4	93°10'	-46.3	-53.7		1,691.8		-26	-838	477,737	2,184,229
345	521		248 05	--	5.6	95°20'	-44.4	-54.0		1,691.5		-9	-521	477,754	2,184,546
346	194		- -	--	3.9	102°-	-40.3	-44.2		1,701.3		-3	-194	477,760	2,184,873
π	0				5.1	-		-5.1		1,740.4	π	0	0	477,763	2,185,067
347	133		67 50	+20.9	4.7	99°-	-20.8	-25.5		1,720.0		+3	+133	477,766	2,185,200
348	459		65 05	--	2.8	99°-	-71.8	-74.6		1,670.9		+32	+458	477,795	2,185,525
TP 349	787	+779.0	65 02 45	-	13.6	262°10'	-107.3	-120.8		1,624.7	TP	+55	+777	477,818	2,185,841
TP 349	787				9.0	98°10'	-111.8	-120.8			TP		-3		
	401	389.9	254 29 32	--	+6.5	76°30'	-93.6	-87.1			BS	-37	+388		
	401				+5.3	76°40'	-92.5	-87.2	1,537.5		BS		-3		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE					
7-16-85		B. Lotcamp		K. Greenfield		6834		[initials]		7		42					
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER			
WASHINGTON		Twisp East-7 1/2		WA.		OKANOGAN								W. Cassidy			
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS	
														Y	X		
									1,537.5								
350	119		217°	+20.9	5.0	81°40'	+17.2	+12.2		1,549.7		-63	-101	477718	2186.125		
π	0			-	5.1	-		-5.1		1,532.4	π	0	0	477781	2186.226		
351	186		80°46'	-	20.0	98°46'	-28.3	-48.3		1,489.2		-38	+182	477743	2186.408	last sta. on west side of River	
TP	722		118°33'38"	-	11.7	91°50'	-23.1	-34.8		1,502.7	TP	-548	+469	477233	2186.692	35th. gap to East side.	
TP	722				11.6	268°10'	-23.1	-34.7			TP		-3				
	2030		241°43'52"	~	11.0	89°	-35.4	-24.4	1,478.3		BS	+260	+2013				
	2030				10.9	271°	-35.4	-24.5			BS		-3				
354	1241		250°05'	+20.9	7.0	-		-7.0		1,471.3		+21	-1241	477,514	2187.461		
355	911		250°40'	~	10.3	-		-10.3		1,468.0		+25	-911	477,518	2187.791		
356	581		250°50'	~	4.8	84°	-2.9	-7.7		1,470.6		+18	-581	477,511	2188.121		
357	252		251°50'	~	5.7	-		-5.7		1,472.6		+12	-252	477,505	2188.450		
π	0				5.1	-		-5.1		1,473.2	π	0	0	477,493	2188.702		
358	77		61°10'	+20.9	5.1	-		-5.1		1,473.2		+11	+76	477,504	2188.778		
359	406		76°05'	--	4.7	89°30'	+3.5	-1.2		1,477.1		-7	+406	477,486	2189.108		
360	736		-	--	5.3	89°40'	+4.3	-1.0		1,477.3		-13	+736	477,480	2189.438		
361	1066		-	~	4.8	89°50'	+3.1	-1.7		1,476.6		-18	+1066	477,475	2189.768		
362	1396		-	+20.9	5.4	89°48'	+4.9	-0.5		1,477.8		-24	+1396	477,469	2190.098		
Bm	1395		69°00'28"	--	5.4	89°50'	+4.1	-1.3		1,477.0	Bm	+2	+1395	477,495	2190.077	B.M.	EL. 1477.0
±	1424		69°20'57"	~	4.3	89°50'	+4.1	-0.2		1,478.1	±	-6	+1424	477,487	2190.126	± 4 way	Horiz. y = 71 Corr. x = -18
363	1726		69°54'	~	5.0	89°54'	+3.0	-2.0		1,476.3		-24	+1726	477,469	2190.428	y = 477,465 x = 2,190.125	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
7-16-85		B. Cotamp		K. Greenfield		6834		HWG		7		43				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
WASMLington		Twisp East-7 1/2'		WA.		OKANOGAN								W. Cassidy		
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
														Y	X	
									1,478.3							
TP	1798		69° 57' 52"	+20.5	11.1	74	+9.0	-2.1			TP	-15	+1798	477478	2,190,498	
TP	1798				11.0	74 290	+9.0	-2.0		1,476.3	TP		-2			
	718	717.0	321° 11' 01"	"	+4.3	93-	+37.6	+41.9		1,518.2	BS	-681	+225			
	718				+4.2	267-	+37.6	+41.8			BS					
364	539		337° 40'	"	5.1	93-	-28.2	-33.3		1,484.9		+539	-17	477336	2,190,706	
365	213		331° 50'	"	5.7	93 30	-13.0	-16.7		1,499.5		+211	-28	477008	2,190,695	
X	0				5.1	-		-5.1		1,513.1	X	0	0	476797	2,190,723	
366	111		155° 40'	+20.5	5.4	83 30	+12.6	+7.2		1,525.4		-111	+7	476,686	2,190,730	
367	432		135° 05'	"	6.3	83° 50'	+46.4	+40.1		1,558.3		-393	+179	476404	2,190,902	
TP	595	591.6	136° 36' 16"	"	5.4	83 50	+63.9	+58.5		1,576.7	TP	-545	+230	476252	2,190,953	
TP	595				3.7	84-	+62.2	+58.5			TP					
	890	885.1	327° 09' 29"	+20.5	10.8	96-	+93.0	+103.8		1,680.5	BS	-865	+189			
	890				8.2	96 16'	+95.6	+103.8			BS					
368	725		326° 25'	"	6.4	96 20	-80.0	-86.4		1,594.1		+706	-164	476,093	2,190,978	
369	397		322° 25'	"	6.0	96 20	-43.9	-49.9		1,630.9		+379	-117	475,766	2,191,025	
370	71		313° 55'	"	4.9	96 20	-7.8	-12.7		1,667.8		+64	-31	475,451	2,191,111	
X	0				5.1	-		-5.1		1,675.4	X	0	0	476397	2,191,142	
371	263		106° 35'	+20.5	5.0	84 20	+26.0	+21.0		1,701.5		-159	+210	475,228	2,191,352	
372	592		104° 40'	"	6.0	84 20	+58.5	+52.5		1,733.0		-341	+484	475,046	2,191,626	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
7-17-85		B. Cotcamp		K. Greenfield		6834		K. Greenfield		7		44				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
WASHINGTON		Twisp East-7 1/2'		WA.		OKANOGAN								W. Cassidy		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
														Y	X	
373	922	918.0	103° 47' 40"	+20.5	13.0	84° 40'	+85.7	+72.7			TP	-517	+758	474871	2191899	
373	922				12.9	275 20	+85.7	+72.8		1753.3	TP	"	-1			
	1010		276° 14' 58"	"	+14.9	90° 04'	+1.2	+16.1		1769.4	BS	-455	+902			" "
	1010				+14.8	269 56	+1.2	+16.0			BS	"	-1			
374	684		272° 45'	"	5.8	BM	-3.4	-9.2		1,760.2		+270	-628	474697	2192172	
375	356		270° 10'	"	6.3	TM	+1.8	-4.5		1,764.9		+126	-333	474543	2192467	
TP	0				5.1	-		-5.1		1,764.3	TP	0	0	474417	2192800	
376	116		336° 10'	+20.5	4.8	TM	+0.1	-4.7		1,764.7		+116	-7	474533	2192793	
377	389		26° 45'	"	6.1	89° 20'	+4.5	-1.6		1,767.8		+264	+286	474681	2193086	
378	717		29° 10'	"	5.6	89° 30'	+6.3	+0.7		1,770.1		+510	+504	474927	2193304	
379	1045		22° -	"	6.3	89° 16'	+13.4	+7.1		1,776.5		+770	+706	475187	2193506	
380	1375		21° 35'	"	6.2	89° 06'	+21.6	+15.4		1,784.8		+1020	+922	475437	2193722	
381	1690		23° 40'	"	5.1	89° 04'	+27.5	+22.4		1,796.2		+1212	+1178	475629	2193978	
382	2011		26° 55'	"	5.0	89° 04'	+32.8	+27.8		1,797.2		+1361	+1481	475578	2194281	
TP	2140		28° 20' 10"	"	6.2	89° -	+37.3	+31.1			TP	+1408	+1611	475826	2194410	
TP	2140				6.1	211° -	+37.3	+31.2		1,800.6	TP	"	-1			
	738		218° 19' 35"	+20.5	+12.5	92° -	+25.7	+38.2	1838.9		BS	+382	+631			
	738				+10.3	92° 10'	+27.9	+38.2			BS	"	-1			
383	552		214° 40'	-	5.1	92° 50'	-27.3	-32.4		1,806.4		-315	-453	475894	2194587	
384	224		212° 05'	"	6.0	93° 50'	-14.9	-20.9		1,817.9		-136	-178	476073	2194862	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
7-17-85		B. Cotamp		K. Greenfield		6834		KWA		7		45				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
WASHINGTON		Twisp East-7 1/2'		WA.		OKANOGAN								W. Cassidy		
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 - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
														Y	X	
π	0				5.1	-		-5.1			π	0	0	476,209	2,195,040	
385	106		33° 05'	+20.5	5.1	86° 24'	+1.7	+1.6		1,840.4		+63	+85	476,272	2,195,125	
386	436		33° 35'	-	6.1	87° 10'	+21.6	+15.5		1,854.3		+256	+353	476,465	2,195,393	
TP	607		34° 51' 13"	-	8.4	87° 30'	+26.5	+18.1		1,856.9	TP	+345	+499	476,555	2,195,538	
TP	607				10.2	87° 20'	+28.2	+18.0			TP	"	"			
	1430	1428.5	230° 20' 48"	+20.5	8.9	92° 40'	+66.5	+75.4	1,932.3		BS	+469	+1349			
	1430				+8.8	267° 20'	+66.5	+75.3			BS	+1	-1			
387	1273		231° 15'	-	6.1	93° 10'	-70.3	-76.4		1,855.9		-399	-1209	476,226	2,195,677	
388	954		235° 17'	-	6.0	93° 54'	-64.9	-70.9		1,861.4		-234	-925	476,791	2,195,961	
389	628		240° -	-	6.5	94° 20'	-47.5	-54.0		1,878.3		-104	-619	476,921	2,196,267	
390	300		238° 40'	-	5.3	95° -	-26.1	-31.4		1,900.9		-56	-295	476,969	2,196,591	
π	0				5.1	-		-5.1		1,927.2	π	0	0	477,025	2,196,886	
391	36		90° 30'	+20.5	5.1	84° 30'	+3.5	-1.6		1,930.7		-13	+34	477,012	2,196,920	
392	353		47° 05'	-	5.7	85° 10'	+29.7	+24.0		1,956.3		+135	+326	477,160	2,197,212	
393	681		45° 46'	-	5.8	85° 50'	+49.5	+43.7		1,976.0		+275	+623	477,300	2,197,509	
TP	838	835.8	46° 10' 39"	-	12.2	85° 50'	+60.9	+48.7		1,981.0	TP	+331	+767	477,357	2,197,652	
TP	838				9.8	86° -	+58.5	+48.7			TP	+1	-1			
	1386		246° 57' 08"	-	+12.9	-		+12.9	1,993.9		BS	+62	+1385			
	1386				+12.8	270° -		+12.8			BS	+1	-1			
394	1214		248° -	-	12.4	-		-12.4		1,981.5		-32	-1214	477,389	2,197,822	
395	886		247° 30'	-	5.7	89° 54'	+1.5	-4.2		1,989.7		-31	-885	477,389	2,198,151	



DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
7-17-85		B. Cotcamp		K. Greenfield		6834		HOB		17		47				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
OK, WASHINGTON		Twisp East-7 1/2		WA.		OKANOGAN								W. Cassidy		
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
407	1049		72° 10' 06"	+20.5	5.0	88° 40'	+24.4	+19.4			TP	-49	+1048	476,879	2,201,891	
407	1049				4.9	271° 20'	+24.4	+19.5		2005.4	TP	+	-			
	936	935.2	257° 48' 10"	~	+12.5	92° 20'	+38.1	+50.6		2056.0	BS	-135	+925			
	936				+9.8	92° 30'	+40.4	+50.6			BS	+	-			
408	609		261° 05'	~	6.3	93° 10'	-33.6	+39.9		2,095.9		+122	-597	476,867	2,202,218	
409	279		262°	~	5.2	92° 40'	-13.0	+18.2		2,074.2		+60	-272	476,805	2,202,543	
X	0				5.1	-		-5.1		2,050.9	X	0	0	476,745	2,202,815	Twisp East - 7 1/2
410	48		94° 35'	+20.5	5.4	86° 40'	+2.8	-2.6		2,053.4		-20	+43	476,725	2,202,858	Loop Loop - 15'
411	377		100° 25'	~	6.2	87° 10'	+18.6	+12.4		2,068.4		-194	+323	476,551	2,203,138	
If	607		99° 35' 10"	--	13.6	87° 30'	+26.5	+12.9		2,068.9	If	-304	+525	476,441	2,203,340	If 476,490 X - 2,203,295 T-ent.
412	707		99° 40'	--	15.1	87° 30'	+30.8	+15.7		2,071.7		-355	+611	476,390	2,203,426	
413	1036		98° 32' 55"	+20.2	9.3	87° 40'	+42.2	+32.9			TP	-498	+908	476,248	2,203,722	
413	1036				9.2	272° 20'	+42.2	+33.0		2089.0	TP	+	-			
	385		269° 27' 36"	~	+6.5	91° 30'	+10.1	+16.6		2105.6	BS	-129	+362			
	385				+5.4	91° 40'	+11.2	+16.6			BS	+	-			
414	57		264°	+20.2	5.1	91° 10'	-1.2	-6.3		2,099.3		+14	-55	476,134	2,204,028	
X	0				5.1	-		-5.1		2,100.5	X	0	0	476,120	2,204,083	
415	271		106° 50'	~	3.0	86° 30'	+16.5	+13.5		2,119.1		-163	+216	475,957	2,204,299	
TP	500	498.9	103° 39' 35"	~	3.7	86° 10'	+33.4	+29.7		2,135.3	TP	-278	+414	475,843	2,204,496	
TP	500				8.1	85° 40'	+37.8	+29.7			TP	+	-			

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
7-17-85		B. Cotcamp		K. Greenfield		6834		W.C.		7		48							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
WASHINGTON		Loop Loop-15'		WA.		OKANOGAN								W. Cassidy					
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				
										2135.3									
	542		257° 27' 06"	+20.2	14.2	-		+14.2	2149.5		BS	-72	+537						
	542				11.5	BH	+2.7	+14.2		BS		+	-						
416	450		256° 40'	-	5.6	90° 30'	-3.9	-9.5		2140.0		+54	-447	475826	2204.585				
417	137		278° 10'	-	6.5	92° 30'	-6.0	-12.5		2137.0		+65	-121	475837	2204.911				
X	0				5.1	-		-5.1		2144.4	X	0	0	475772	2205.032				
418	187		131° 10'	+20.2	5.0	84° 30'	+17.9	+12.9		2162.4		-164	+90	475608	2205.122				
TP	283	281.7	126° 02' 12"	-	9.2	84° 30'	+27.1	+17.9	2167.4		TP	-234	+157	475539	2205.188				
TP	283				4.3	85° 30'	+22.2	+17.9		TP		+	-						
	1027	1026.0	283° 06' 01"	-	11.8	92° 30'	+44.4	+56.6	2224.0		BS	-563	+858						
	1027				11.7	267° 30'	+44.4	+56.5		BS		+	-						
419	794		281° 40'	+20.2	6.0	92° 50'	+39.2	-45.2		2178.8		+419	-674	475396	2205.371				
420	467		280° 35'	-	7.0	93° -	-24.4	-31.4		2192.6		+239	-401	475216	2205.644				
421	138		286° 10'	-	5.7	93° -	-7.2	-12.9		2211.1		+82	-111	475059	2205.934				
X	0				5.1	-		-5.1		2218.9	X	0	0	474977	2206.045				
422	191		115° 30'	+20.2	5.5	85° -	+16.6	+11.1		2235.1		-137	+133	474840	2206.178				
TP	455	453.3	116° 52' 42"	-	3.7	85° -	+39.7	+36.0	2260.0		TP	-332	+309	474646	2206.353				
TP	455				7.7	84° 30'	+43.6	+35.9		TP		+	-						
	582	580.9	303° 54' 39"	-	13.7	93° 30'	+35.5	+49.2	2309.2		BS	-482	+324						
	582				5.2	94° 20'	+44.0	+49.2		BS		+	-						
423	520		304° 35'	-	4.2	94° 20'	-39.3	-43.5		2265.7		+425	-300	474590	2206.376				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
7-17-85		B. Cotcamp		K. Greenfield		6834		[initials]		7		49							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
Washington		Loop Loop - 15'		WA.		OKanogan								W. Cassidy					
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				
									2309.2										
424	192		306° 10'	+20.2	5.6	94° -	-13.4	-19.0		2 290.2		+160	-106	474,325	2,206,570				
	π	0			5.1	-		-5.1		2,304.1	π	0	0	474,165	2,206,676				
425	125		88° 50'		5.8	BH	-0.6	-6.4		2,302.8		-41	+118	474,124	2,206,794				
426	450		80° 40'		6.6	BH	-2.3	-8.9		2,300.3		-85	+442	474,080	2,207,118				
TP	500		80° 29' 24"		7.3	-		-7.3		2,301.9	TP	-93	+491	474,073	2,207,166				
	TP	506			9.8	TH	+2.5	-7.3			TP	+	-						
	294		323° 43' 41"	+20.2	10.3	-		+10.3	2312.2		BS	-283	+81						
	294			+	10.2	270° -		+10.2			BS	+	-						
427	0				5.1	-		-5.1		2307.1	π	0	0	473,791	2,207,244				
428	329		180° 45'		5.2	87° -	+17.2	+12.0		2,324.2		-307	-118	473,484	2,207,128				
TP	462	461.4	175° 16' 16"		5.1	87° -	+24.1	+19.0		2,331.2	TP	-445	+23	473,347	2,207,122				
	TP	462			6.5	86° 50'	+25.5	+19.0			TP	+	-						
	420	419.0	292° 34' 38"		8.0	94° -	+29.3	+37.3			BS	-285	+308						
	420				9.3	93° 50'	+28.1	+37.4	2368.6		BS	+	-						
429	227		288° 35'	+20.2	5.9	93° 30'	-13.9	-19.9		2,348.8		+142	-177	473,205	2,207,252				
	π	0			5.1	-		-5.1		2,363.5	π	0	0	473,063	2,207,429				
430	103		108° 35'		6.0	86° 30'	+6.3	+0.3		2,368.9		-65	+80	472,998	2,207,509				
431	429		96° 50'		4.8	85° 20'	+34.9	+30.1		2,398.7		-195	+382	472,968	2,207,811				
432	756	753.8	97° 19' 22"		7.1	85° 40'	+57.1	+50.0		2,419.6	TP	-348	+669	472,716	2,208,097				
432	756				4.9	85° 50'	+54.9	+50.0			TP	+	-						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-17-85		B. Cotcamp		K. Greenfield		6834		KLB		7		50			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop - 1S'		WA.		OKANOGAN								W. Cassidy	
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 K TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
										2,418.6					
	536		263 51 44	+20.2	5.6	92°	+18.7	+24.3	2442.9		BS	-130	+520		
	536				4.0	92° 10'	+20.3	+24.3			BS	"	-1		
433	207		262 55	--	5.7	93°	-10.8	-16.5		2,426.4		+47	-202	472,634	2,208,414
K	0				5.1	-		-5.1		2,437.8	K	0	0	472,587	2,208,616
434	126		106 05	--	6.1	87°	+6.6	+0.5		2,443.4		-75	+102	472,512	2,208,718
435	454		100 50	--	6.5	85° 40'	+34.3	+27.8		2,470.7		-234	+389	472,353	2,209,005
436	783		106 35	--	5.7	85° 40'	+59.2	+53.5		2,496.4		-461	+673	472,186	2,209,289
TP	1064	1061.2	101° 19' 51"	--	8.8	85° 50'	+77.3	+68.5			TP	-555	+905	472,033	2,209,520
TP	1064				8.7	274° 10'	+77.3	+68.6		2,511.5	TP	"	-1		
	737	736.2	273 12 45	+20.2	10.1	92° 38'	+33.8	+43.9	2555.4		BS	-293	+676		10' 10"
	737				10.0	267° 22'	+33.8	+43.8			BS	"	-1		
437	694		270 45	--	5.8	92° 50'	-34.3	-40.1		2,515.3		+248	-648	471,989	2,209,547
H	552		269 38 28	--	6.2	92° 50'	-27.3	-33.5		2,521.9	H	+187	-519	471,929	2,209,676
438	366		269 15	--	5.9	93° 10'	-20.2	-26.1		2,529.3		+122	-345	471,863	2,209,850
439	37		273 35	--	5.6	92° 10'	-1.4	-7.0		2,548.4		+15	-34	471,756	2,210,161
K	0				5.1	-		-5.1		2,550.3	K	0	0	471,741	2,210,195
440	286		67 35	+20.2	5.6	87° 40'	+11.6	+6.0		2,561.4		+11	+286	471,752	2,210,481
TP	472		67 41 45	--	5.0	88° 10'	+15.1	+10.1	2,565.6		TP	+17	+471	471,759	2,210,665
TP	472				6.3	88°	+16.5	+10.2			TP	"	-1		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-17-85		B. Cotcamp		K. Greenfield		6834		W		7		51			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		LOUP LOUP - 15'		WA.		OKANOGAN								W. Cassidy	
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
										2565.6					
	316		264 21 44	+20.2	10.4	-	+10.4				BS	-79	+306		
	316				+8.9	BH	+1.6	+10.5	2576.1		BS	+1	-1		
441	169		260 55	-	6.3	91 40	-4.9	-11.2		2,564.9		+33	-166	471714	2,210,804
X	0				5.1	-	-5.1			2,571.0	X	0	0	471681	2,210,970
442	160		103 40	-	6.7	86 30	+9.8	+3.1		2,579.2		-89	+133	471592	2,211,103
443	486		103 30	-	6.8	87 30	+21.2	+14.4		2,590.5		-270	+404	471911	2,211,374
TP	423		103 15 10	-	5.0	87 20	+19.7	+14.7		2,590.8	TP	-233	+353	471449	2,211,322
TP	423				6.2	87 10	+20.9	+14.7			TP	+1	-1		
	371		275 18 18	+20.2	9.8	-	+9.8		2600.6		BS	-160	+335		
	371				+7.9	BH	+1.9	+9.8			BS	+1	-1		
X	0				5.1	-	-5.1			2595.5	X	0	0	471290	2,211,656
444	33		164 05	-	5.8	87 -	+1.7	-4.1		2,596.5		-33	-2	471257	2,211,654
445	357		134 25	-	4.9	88 -	+12.5	+7.6		2,608.2		-323	+153	470967	2,211,809
446	686		134 50	-	5.1	87 10	+33.9	+28.8		2,629.4		-622	+290	470,668	2,211,946
TP	693	692.2	133 22 38	-	6.1	87 10	+34.2	+28.1			TP	-620	+308	470671	2,211,963
TP	693				6.0	272 50	+34.2	+28.2		2628.8	TP	+1	-1		
	485		298 26 52	+20.2	7.2	94 -	+33.8	+41.0	2669.8		BS	-363	+320		
	485	483.8			7.1	266 -	+33.8	+40.9			BS	+1	-1		
447	175		290 05	-	5.8	97 20	-22.3	-28.1		2641.7		+113	-134	470422	2,212,148
X	0				5.1	-	-5.1			2,664.7	X	0	0	470309	2,212,282

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY				SHEET NO.		PAGE	
7-17-85		B. Cotcamp		K. Greenfield		6834		H.W. W				7		52	
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop -15'		WA.		OKANOGAN								W. Cassidy	
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
									2669.8						
448	191		164° 45'	+20.2	5.6	91° 50'	-6.1	-11.7		2658.1		-190	-16	470,119	2,212,266
449	514		167° 01' 08"	--	5.0	88°	+17.9	+12.9		2682.7	TP	-510	-65	469,800	2,212,216
449	514				3.5	88° 10'	+16.4	+12.9			TP	"	"		
	341		290° 34' 13"	--	+7.3	93° 30'	+20.8	+28.1	2710.8		BS	-222	+258		
	341				+6.3	93° 40'	+21.8	+28.1			BS	"	"		
IF	88		248° 45' 03"	--	6.0	93° 40'	-5.6	-11.6		2699.2		-2	-88	469,577	2,212,385
450	75		229° 50'	--	6.0	93° 40'	-4.8	-10.8		2,700.0		-26	-70	469,553	2,212,403
K	0				5.1	-	-	-5.1		2,705.7	K	0	0	469,579	2,212,473
451	287		115° 35'	+20.2	6.4	91° 10'	-5.8	-12.2		2,698.6		-206	+200	469,373	2,212,673
452	614		118° 20' 16"	--	5.7	-	-	-5.7		2,705.1	TP	-460	+407	469,120	2,212,879 across sta.
452	614				8.8	TM	+3.1	-5.7			TP	"	"		
	483		284° 46' 58"	--	+13.0	BU	+2.4	+15.4	2720.5		BS	-277	+396		
	483				+13.1	BU <sub>220</sub>	+2.4	+15.5			BS	"	"		
453	158		285° 40'	--	5.7	91°	-2.8	+8.5		2729.0		+93	-128	468,937	2,213,146
K	0				5.1	-	-	-5.1		2715.4	K	0	0	468,944	2,213,274 correct
454	185		154° 05'	--	6.5	89°	+3.2	-3.3		2717.2		-184	+18	468,660	2,213,292
TP	431		154° 13' 53"	--	4.6	89°	+7.5	+2.9			TP	-429	+42	468,416	2,213,315
TP	431				8.3	88° 30'	+11.3	+3.0		2723.5	TP	"	"		
	318		357° 25' 20"	--	+14.0	BM	+1.6	+15.6	2739.1		BS	-303	-96		
	318				+10.1	91°	+5.5	+15.6			BS	"	"		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
7-17-85		B. Cotcamp		K. Greenfield		6834		406		7		53							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
WASHINGTON		LOUP LOUP - 15'		WA.		OKANOGAN								W. Casby					
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				
									2739.1										
455	235		359 -	+20.2	6.0	92° -	-8.2	-14.2		2724.9		+222	+77	468,336	2,213,295				
π	0				5.1	-		-5.1		2,734.0	π	0	0	468,114	2,213,218				
456	78		163 40	--	5.8	83° -	+9.5	+3.7		2,742.8		-78	-5	468,036	2,213,213				
TP	320	318.3	142 14 33	--	5.8	84° -	+33.4	+27.6			TP	-303	+96	467,812	2,213,313				
TP	320				5.7	276° -	+33.4	+27.7		2766.8	TP	+1	-1						
	161		326 33 46	+20.2	12.7	92° 30'	+7.0	+19.9		2766.5	BS	-157	+37						
	161				+12.2	92° 40'	+7.5	+19.7			BS	+1	-1						
457	114		299 50	--	6.3	93° -	-6.0	-12.3		2774.2		+87	-73	467,743	2,213,276				
TP	102		296 81	--	4.5	93° -	-5.3	-9.8		2776.7		+74	-70	467,730	2,213,279			467,750 x = 2,213,340	
π	0				5.1	-		-5.1		2781.4	π	0	0	467,656	2,213,349				
458	180		77 40	--	5.6	86° 10'	+12.0	+6.4		2792.9		-25	+178	467,631	2,213,527				
TP	212		67 23 12	+19.8	3.6	86° 10'	+14.2	+10.6		2797.1	TP	+3	+212	467,660	2,213,560				
TP	212				4.3	86° -	+14.8	+10.5			TP	+1	-1						
	367	366.1	185 07 57	+19.8	8.0	94° -	+25.6	+33.6			BS	+332	+154						
	367				+10.2	93° 46'	+23.5	+33.7		2830.8	BS	+1	-1						
459	87		190 -	--	6.3	93° 46'	-5.6	-11.9		2818.9		-76	-43	467,917	2,213,670				
π	0			+19.8	5.1	-		-5.1		2825.7	π	0	0	467,993	2,213,713				
460	230		53 -	--	7.2	87° 20'	+10.7	+3.5		2834.3		+68	+220	468,061	2,213,933				
TP	493		51 43 40	--	3.7	87° 20'	+22.9	+19.2			TP	+156	+467	468,150	2,214,179				
TP	493				5.1	87° 10'	+24.4	+19.3		2850.1	TP	+1	-1						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY				LINE NO.		PAGE		
7-2		B. Cotcamp		K. Greenfield		6834		KWB				7		54		
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
WASHINGTON		LOUP LOUP-15		WA.	OKANOGAN					W. Cassidy						
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	
										2850.1						
	307		215 56 34	+19.8	13.8	91° -	+5.4	+19.2	2869.3		BS	+173	+254			
	307			+12.9	91 10	+6.3	+19.2			BS	+	-1				
461	248		213 20	-	8.9	92 -	-8.7	-17.6		2,851.7		-149	-198	468,175	2,214,234	
X	0				5.1	-		-5.1		2,864.2	X	0	0	468,324	2,214,432	
462	90		77 10	--	4.9	85 -	+7.8	+2.9		2,872.2		-11	+89	468,313	2,214,521	
TP	189		75 12 51	--	5.4	85°	+16.5	+11.1	2880.5		TP	-16	+188	468,309	2,214,69	
TP	189				5.3	275 -	+16.5	+11.2		X		TP	+	-1		
	326		266 44 57	+19.8	12.2	93 46	+20.8	+33.0	2913.5		BS	-93	+312			
	326			+12.1	266 20	+20.8	+32.9				BS	+				
463	103		261 10	-	9.2	96 40	-12.0	-21.2		2892.3		+20	-101	468,237	2,214,830	
X	0				5.1	-		-5.1		2908.4	X	0	0	468,217	2,214,93	
464	223		70 50	-	6.7	89 -	+3.9	-2.8		2910.7		-2	+223	468,215	2,215,154	
465	552		70 50	-	5.2	88 40	+12.8	+7.6		2921.1		-6	+552	468,211	2,215,483	
TP	621		69 49 03	-	6.0	88 40	+14.5	+8.5	2922.1		TP	+4	+621	468,222	2,215,552	
TP	621				5.9	271 20	+14.5	+8.6		X		TP	+			
	299		261 48 46	+19.8	6.5	-		+6.5	2928.6		BS	-60	+293			
	299			+5.0	BM	+1.5	+6.5				BS	+				
466	38		243 50	-	5.6	86 50	+2.1	-3.5		2,925.1		-4	-38	468,159	2,215,807	
X	0				5.1	-		-5.1		2,923.5	X	0	0	468,163	2,215,845	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-		D. Cotcamp		K. Greenfield		6834		306				55			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASH.INGTON		LOUP LOUP-1S'		WA.		OKANOGAN								W. Cassidy	
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
467	301		124° 30' 33"	+19.8	12.5	87° 50'	+11.4	-1.1		2927.5	TP	-244	+175	467,920	2,216,020
467	301				12.5	272° 10'	+11.4	-1.1			TP	+			
	451		322° 19' 35"		+8.7	BH	+2.3	+11.0		2938.5	BS	-429	+138		
	451				+8.6	BH 210	+2.3	+10.9			BS	+			
468	126		322° 20'		12.0	91°	-2.2	-14.2		2924.3		+120	-39	467,612	2,216,119
X	0				5.1	-		-5.1		2937.4	X	0	0	467,492	2,216,158
469	223		86° 05'	+19.8	7.2	-		-7.2		2931.3		-61	+214	467,431	2,216,372
TP	299		83° 53' 09"		4.6	-		-4.6		2933.9	TP	-71	+291	467,422	2,216,449
TP	299				6.1	TH	+1.5	-4.6			TP	+			
	859		275° 26' 15"		+0.7	91° 30'	+22.5	+23.2		2957.1	BS	-366	+777		
	859				+3.2	91° 20'	+20.0	+23.2			BS	+			
470	608		275°		6.1	91° 10'	-12.4	-18.5		2928.6		+255	-552	467,312	2,216,674
471	278		273° 50'		6.0	91° 30'	-7.3	-13.3		2943.8		+111	-255	467,168	2,216,971
X	0				5.1	-		-5.1		2952.0	X	0	0	467,657	2,217,226
472	62		154° 10'	+19.8	5.2	88° 30'	+1.6	-3.6		2953.5		-62	+7	466,995	2,217,233
473	257		113° 25'		6.6	86° 30'	+15.7	+9.1		2966.2		-176	+187	466,881	2,217,413
TP	413	411.8	87° 47' 30"		11.3	85° 40'	+31.2	+19.9			TP	-124	+393	466,934	2,217,619
TP	413				11.2	274° 20'	+31.2	+20.0		2977.1	TP	+			
	408		279° 36' 40"		+11.3	-		+11.3		2988.4	BS	-200	+355		
	408				+13.3	TH	-2.0	+11.3			BS	+			

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-85		B. Camp		K. Greenfield		6834		AUG 6		7		56			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASH.		loop loop-15		WA.		OKANOGAN								W. Cassidy	
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
									2,988.4						
474	301		280° 25'	+19.8	8.8	-	-8.8		2979.6			+151	-260	466,886	2,217,714
π	0				5.1	-	-5.1		2983.3	π	0	0	0	466,733	2,217,974
475	39		153° 33'	-	4.5	-	-4.5		2983.9			-39	+5	466,696	2,217,979
476	365		132° 05'	-	8.7	-	-8.7		2,979.7			-322	+172	466,413	2,218,146
TP	420		129° 37' 23"	-	9.3	-	-9.3		2979.1	TP		-362	+214	466,374	2,218,188
TP	420				7.2	BH	-2.1	-9.3			TP				
	550		271° 17' 50"	+19.8	12.1	-	+12.1		2991.2		BS	-198	+513		
	550				9.3	BH	+2.8	+12.1			BS				
477	286		266° 10'	-	9.7	91° 20'	-6.7	-16.4		2974.8		+79	-275	466,255	2,218,426
47	112		303° 50' 10"	-	8.2	91° 20'	-2.6	-10.4		2980.4		+90	-66	466,266	2,218,635
π	0				5.1	-	-5.1		2,986.1	π	0	0	0	466,176	2,218,701 <i>convert mag?</i>
478	160		319° 30'	+19.8	6.2	90° 10'	-0.5	-6.7		2,984.5		+150	-57	466,326	2,218,644
TP	401		312° 38' 13"	-	6.8	87° 10'	+19.8	+13.0		3004.2	TP	+355	-185	466,531	2,218,516
TP	401				5.7	87° 20'	+18.7	+13.0			TP				
	545		167° 56' 55"	+19.5	13.4	BH	+2.7	+16.1		3,020.3	BS	+540	+71		
	545				13.3	BH 210°	+2.7	+16.0			BS				
479	461		166° 35'	-	8.6	90° 40'	-5.4	-14.0		3,006.3		-458	-49	466,613	2,218,538
480	131			-	7.7	88° 40'	+3.0	-4.7		3,015.6		-130	-14	466,941	2,218,573
π	0				5.1	-	-5.1		3,015.2	π	0	0	0	467,071	2,218,587
481	211		33° 10'	-	6.4	88° 40'	+4.9	-1.5		3,019.8		+128	+168	467,199	2,218,755

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY				LINE NO.		PAGE	
7-85		B. Cotcamp		K. Greenfield		6834		HOB				7		57	
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop - 15'		WA.		OKANOGAN								W. Cassidy	
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
									3020.3						
TP	429		33° 14' 22"	+19.5	7.9	88° 40'	+10.0	+2.1	}	3022.4	TP	+260	+341	467331	2,218,928
TP	429				9.2	88° 30'	+11.2	+2.0		TP					
	360		212° 02' 51"	--	+13.5	-		+13.5	}	3035.9	BS	+224	+282		
	360				+11.7	84	+1.8	+13.5		BS					
482	276		197° 15'	--	5.7	91-	-4.8	-10.5		3025.4		-221	-165	467,334	2,219,045
π	0				5.1	-		-5.1		3030.8	π	0	0	467,555	2,219,210
483	29		43° 50'	+19.5	4.8	-		-4.8		3031.1		+13	+26	467,568	2,219,236
TP	380		11° 33' 40"	--	7.4	89-	+6.6	-0.8	}	3035.1	TP	+325	+196	467,880	2,219,406
TP	380				6.3	89° 10'	+5.5	-0.8		TP					
	558		246° 58' 52"	--	+6.1	91° 40'	+16.2	+22.3	}	3057.4	BS	+34	+557		
	558				+6.0	268° 20'	+16.2	+22.2		BS					
484	560		246° 05'	--	5.0	91° 30'	-14.7	-19.7		3037.7		-43	-558	467,871	2,219,405
485	231		244° 10'	--	7.1	91° 30'	-6.0	-13.1		3044.3		-25	-230	467,889	2,219,733
π	0				5.1	-		-5.1		3052.3	π	0	0	467,914	2,219,963
486	99		26° 58'	+19.5	6.0	87° 40'	+4.0	-2.0		3055.4		+23	+96	467,937	2,220,059
TP	306		56° 49' 57"	--	9.7	87° 40'	+12.5	+2.8	}	3060.2	TP	+72	+297	467,986	2,220,260
TP	306				8.8	87° 50'	+11.6	+2.8		TP					
	327		270° 36' 30"	--	+7.0	93° 30'	+20.0	+27.0	}	3087.2	BS	-112	+306		
	327				+6.9	266° 30'	+20.0	+26.9		BS					

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-2-85		B. Cotcamp		K. Greenfield		6834		JVC				58			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASH.		loop loop - 15'		WA.		OKANOGAN								W. Cassidy	
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
									3067.2						
487	197		268	+19.5	7.3	94 10'	-14.3	-21.6		3065.6		+59	-188	467933	2,220,378
X	0				5.1	-		-5.1		3082.1	X	0	0	467879	2,220,506
488	137		120	-	5.6	84 20'	+13.5	+7.9		3,095.1		-104	+89	467770	2,220,655
TP	355		106 57 52	-	5.1	85 20'	+28.9	+23.8		3,111	TP	-210	+285	467,664	2,220,851
TP	355				6.2	85 10'	+29.9	+23.7			TP				
	578		267 05 27	-	+6.9	93 -	+30.3	+37.2	3148.2		BS	-165	+553		
	578				+6.8	267°	+30.3	+37.1			BS				
489	508		265 55	+19.5	12.6	92 30'	-22.2	-34.8		3113.4		+135	-490	467634	2,220,914
490	179		267 25	-	10.3	93 30'	-10.9	-21.2		3127.0		+52	-171	467,551	2,221,233
X	0				5.1	-		-5.1		3143.1	X	0	0	467499	2,221,404
491	151		60 -	-	9.1	87 30'	+6.6	-2.5		3,145.7		+28	+148	467,527	2,221,552
492	479		54 -	-	5.9	86 -	+33.4	+27.5		3,175.7		+136	+459	467,635	2,221,863
TP	586	584.6	54 06 35	-	4.9	86 -	+40.9	+36.0		3,184.2	TP	+165	+561	467,664	2,221,965
TP	586				3.2	86 10'	+39.2	+36.0			TP				
	798	795.4	281 14 58	+19.5	9.1	94 40'	+64.9	+74.0	3258.2		BS	-407	+684		
	798				9.0	265 20'	+64.9	+73.9			BS				
493	564		281 20	-	5.6	94 40'	-45.9	-51.5		3,206.7		+289	-484	467,546	2,222,165
494	235		279 30	-	9.0	94 40'	-19.1	-28.1		3,230.1		+114	-206	467,771	2,222,443
X	0				5.1	-		-5.1		3,253.1	X	0	0	467,257	2,222,649
495	94		104 20	-	4.7	86 40'	+5.5	+0.8		3,259.0		-52	+78	467,205	2,222,727

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
		B. Cotcamp		K. Greenfield		6834		JWB		7		59			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASH.		LOUP LOUP - 15'		WA.		OKANOGAN								W. Cassidy	
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
									3,258.2						
TP	268		93° 16' 21"	+19.5	7.6	86° 40'	+15.6	+8.0			TP	-104	+247	467,153	2,222,896
TP	268				7.5	273° 20'	+15.6	+8.1	x	3266.3	TP				
	406		265° 57' 30"	-	+11.1	-		+11.1		3277.4	BS	-108	+391		
	406				+9.0	BM	+2.0	+11.0			BS				
496	275		257° -	-	6.0	91° -	-4.8	-10.8		3266.6		+31	-273	467,076	2,223,014
X	0				5.1	-		-5.1		3272.3	X	0	0	467,045	2,223,287
497	52		99° 30'	+19.5	6.1	91° -	-0.9	-7.0		3,270.4		-25	+45	467,020	2,223,332
498	379		94° -	-	5.7	88° 30'	+7.7	+2.0		3,279.4		-151	+348	466,894	2,223,635
499	701		92° 45'	-	5.1	87° -	+36.6	+31.5		3,308.9		-265	+649	466,790	2,223,936
TP	892	889.8	93° 21' 21"	-	6.9	86° -	+62.2	+55.3			TP	-346	+820	466,699	2,224,107
TP	892				5.3	86° 06'	+60.7	+55.4	x	3332.8	TP				
	679		276° 43' 09"	+19.5	4.4	TH	-3.4	+1.0		3333.8	BS	-300	+609		
	679				+4.3	TH	-3.4	+0.9			BS				
500	542		274° 45'	-	6.2	89° 40'	+3.2	-3.0		3330.8		+223	-494	466,622	2,224,222
501	215		270° 30'	-	6.2	89° 40'	+1.3	-4.9		3,328.9		+74	-202	466,473	2,224,514
X	0				5.1	-		-5.1		3,328.7	X	0	0	466,399	2,224,716
502	123		128° 10'	-	6.0	-		-6.0		3327.8		-104	+66	466,295	2,224,782
503	446		130° 15'	-	5.6	BM	-2.2	-7.8		3326.0		-385	+225	466,014	2,224,941
TP	651		126° 16' 33"	-	2.5	-		-2.5		3331.3	TP	-538	+366	465,861	2,225,082
TP	651				5.8	TH	+3.3	-2.5			TP				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
		B. Cotcamp		K. Greenfield		6834		102 W		7		60			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop 15		WA.		OKANOGAN								W. Cassidy	
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
										3331.3					
	589		241° 48' 04"	+19.5	7.9	-		+7.9	3,339.2		BS	+89	+582		
	589				4.9	BH	+2.9	+7.8		BS					
504	473		239° 50'	--	10.1	-		-10.1		3329.1		-88	-465	465,862	2,225,199
1/2	483		240° 39' 12"	--	10.0	-		-10.0		3329.2	1/2	-83	-476	465,867	2,225,188
505	143		241° 10'	-	7.2	-		-7.2		3332.0		-23	-141	465,927	2,225,523
X	0				5.1	-		-5.1		3334.1	X	0	0	465,950	2,225,664
506	187		78° 40'	+19.5	4.2	88°	+6.5	+2.3		3341.5		-27	+185	465,923	2,225,849
507	516		80° 10'	--	4.8	88°	+18.0	+13.2		3352.4		-87	+509	465,863	2,226,173
508	846		78° 40'	--	4.9	88°	+29.5	+24.6		3363.8		-120	+837	465,820	2,226,501
1/2	1158		78° 29' 16"	--	14.6	88° 14'	+35.7	+21.1			1/2	-161	+1146	465,789	2,226,810
TP	1158				14.5	271° 46'	+35.7	+21.2		3360.4	TP				
	932		228° 14' 55"	+19.5	12.7	BH	+4.7	+17.4	3,377.8		BS	+353	+863		
	932				9.2	90° 30'	+8.1	+17.3		BS					
509	916		228° -	--	6.0	90° 44'	-11.7	-17.7		3360.1		-351	-846	465,791	2,226,827
510	587		226° 40'	--	9.2	91° -	-10.2	-19.4		3,358.4		-237	-537	465,905	2,227,136
1/2	541		227° 16' 39"	-	9.8	91° -	-9.4	-19.2		3,358.6		-213	-497	465,929	2,227,176
511	257		226° 20'	-	11.8	91° 30'	-6.7	-18.5		3,359.3		-105	-234	466,037	2,227,439
X	0				5.1	-		-5.1		3,372.7	X	0	0	466,142	2,227,673
512	73		53° -	--	6.0	88° 10'	+2.3	-3.7		3,374.1		+22	+70	466,164	2,227,743
513	398		37° 15'	-	6.6	90° 30'	-3.5	-10.1		3367.7		+218	+333	466,360	2,228,006

465,900 x = 2,225,150  
1/2 way zinter.

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
		B. Cotcamp		K. Greenfield		6834		KUC		7		61			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop - 15		WA.		OKANOGAN								W. Cassidy	
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
									3377.8						
514	728		38° 40'	+19.5	9.0	90° 30'	-6.4	-15.4		3362.4		+384	+619	466,526	2,228,292
TP	966		36° 20' 18"	-	6.3	-	-	-6.3		3371.5	TP	+542	+799	466,694	2,228,472
TP	966				11.1	TU	+4.8	-6.3			TP				
	300		183° 58' 29"	-	10.2	92° 30'	+13.1	+23.3	3394.8		BS	+275	+119		
	300				9.3	92° 40'	+14.0	+23.3			BS				
515	219		179 -	+19.5	5.3	93° 20'	-12.7	-18.0		3376.8		-208	-69	466,751	2,228,522 last str. on ROAD 516
K	0				5.1	-	-	-5.1		3389.7	K	0	0	466,959	2,228,591
516	191		75° 05'	-	6.0	106° 20'	-53.7	-59.7		3,335.1		-15	+190	466,944	2,228,781
TP	424	421.4	60° 57' 03"	-	6.2	96° 20'	-46.8	-53.0	3339	3340.9	TP	+70	+416	467,029	2,229,007
TP	424				2.4	96° 50'	-50.4	-52.8			TP				
	174		241° 03' 06"	+19.5	1.7	93° -	+9.1	+10.8	3351.7		BS	+29	+171		
	174				1.6	267° -	+9.1	+10.7			BS				
517	99		249° 45'	-	4.8	91° -	-1.7	-6.5		3345.2		-1	-99	467,057	2,229,079
K	0				5.1	-	-	-5.1		3346.6	K	0	0	467,058	2,229,178
518	232		93° 55'	-	7.1	-	-	-7.1		3,344.6		-92	+213	466,966	2,229,391
TP	499		92° 53' 05"	-	5.7	BH	-2.5	-8.2			TP	-190	+461	466,868	2,229,639
TP	499				5.6	BH 220	-2.5	-8.1		3343.6	TP				
	291		290° 45' 19"	-	5.8	91° -	+5.1	+10.9	3354.5		BS	-188	+222		
	291				5.7	269° -	+5.1	+10.8			BS				
519	254		299° 50'	-	5.1	91° -	-4.4	-9.5		3,345.0		+193	-166	466,873	2,229,695

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
		B. Cotcamp		K. Greenfield		6834		KUD		7		62			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		LOUP LOUP 19 1/2'		WA.		OKANOGAN								W. CASSIDY	
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
									3354.5						
X	0				5.1	-		-5.1		3349.4	X	0	0	466,680	2229,861
520	63		135 40	+19.5	5.1	-		-5.1		3,349.4		-57	+26	466,623	2,229,887
521	393		127 15	-	4.8	-		-4.8		3,249.7		-329	+215	466,351	2,230,076
TP	539		127 11 22	-	7.6	89 20	+6.3	-1.3		3 353.2	TP	-450	+296	466,230	2,230,157
TP	539				6.0	89 30	+4.7	-1.3			TP				
	394		269 17 10	+19.5	2.7	TH	-2.0	+0.7	3353.9		BS	-127	+373		
	394				+7.6	89 -	-6.9	+0.7			BS				
522	242		255 50	-	5.8	89 40	+1.4	-4.4		3,349.5		+22	-241	466,125	2,230,289
X	0				5.1	-		-5.1		3348.8	X	0	0	466,103	2,230,530
523	85		59 15	-	7.9	-		-7.9		3,346.0		+17	+83	466,120	2,230,613
524	468		76 05	-	5.0	90 26	-3.1	-8.1		3345.8		-40	+406	466,063	2,230,936
TP	414		76 03 38	-	1.7	90 50	-6.0	-7.7		3346.2	TP	-40	+412	466,063	2,230,942
TP	414				1.7	269 10	-6.0	-7.7			TP				
	205		281 41 35	+19.5	4.5	-		+4.5	3350.7		BS	-106	+175		
	205				+3.4	0M	+1.0	+4.4			BS				
X	0				5.1	-		-5.1		3,345.6	X	0	0	465,957	2,231,117
525	120		116 35	-	5.7	88 46	+2.8	-2.9		3347.8		-86	+83	465,871	2,231,200
TP	178		110 17 42	-	6.8	88 40	+4.1	-2.7		3,348.0	TP	-114	+137	465,843	2,231,254
TP	178				6.3	88 50	+3.6	-2.7			TP				LEAVING NATION FENCE

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-22-85		B. Cotcamp		K. Greenfield		6834		H.W.		7		63			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop-15'		WA.		OKANOGAN								W. Cassidy	
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
										3348.0					
	296		249° 29' 41"	+19.5	10.2	-		+10.2	3358.2		BS	+5	+296		
	294				8.7	BH	+1.5	+10.2		BS					
526	32		224° 10'	-	6.2	-		-6.2		3332.0		-14	-29	465,837	2,231,521
X	0				5.1	-		-5.1		3353.1	X	0	0	465,848	2,231,550
527	285		55° 15' 58"	-	5.9	TH	+1.4	-4.5			TP	+75	+275	465,923	2,231,825
527	285				4.4	-		-4.4		3353.8	TP				
	251		266° 41' 03"	-	+4.9	88°	-8.8	-3.9	3349.9		BS	-70	+241		
	251				+5.6	87° 50'	-9.5	-3.9		BS					
X	0				5.1	-		-5.1		3344.8	X	0	0	465,857	2,232,066
528	73		86° 50'	+19.5	5.7	96° 30'	-8.7	-14.4		3,325.5		-21	+70	465,832	2,232,136
529	400		87° 30'	-	6.6	96°	-41.8	-48.4		3,301.5		-117	+383	465,736	2,232,449
TP	489	486.3	86° 03' 36"	+19.0	3.6	96°	-51.1	-54.7		3,295.2	TP	-126	+470	465,727	2,232,536
TP	489				2.2	96° 10'	-52.5	-54.7			TP				
	488	486.6	261° 48' 13"	-	+4.5	86°	-34.0	-29.5	3265.7		BS	-91	+478		
	488				+3.0	86° 10'	-32.6	-29.6		BS					
530	246		262° 15'	-	7.0	85° 10'	+20.7	+13.7		3279.4		+48	-241	465,644	2,232,773
X	0				5.1	-		-5.1		3260.6	X	0	0	465,636	2,233,014
531	85		103° 40'	-	5.6	95° 10'	-7.7	-13.3		3252.4		-46	+72	465,590	2,233,086
532	413		94° 30'	-	7.3	94° 30'	-32.4	-39.7		3226.0		-165	+379	465,471	2,233,393

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY				LINE NO.		PAGE	
9-22-85		B. C. Camp		K. Greenfield		6834		XUG				7		64	
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop -15		WA.		OKANOGAN								W. Cassidy	
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
									3265.7						
533	740		95° 20'	+19.0	8.1	95° 10'	-66.6	-74.7		3191.0		-305	+674	465,331	2,233,688
TP	773	769.9	95° 14' 46"	-	8.0	95° 10'	-69.6	-77.6		3198.1	TP	-316	+702	465,320	2,233,716
TP	773				7.9	264° 50'	-69.6	-77.5			TP				
	312	310.6	281° 17' 47"	-	+8.6	84° 30'	-29.9	-21.3	3166.8		BS	-157	+268		
	312				+7.7	84° 40'	-29.0	-21.3			BS				
534	16		233° -	+19.0	5.8	85° 10'	+1.3	-4.5		3162.3		-5	-15	465,158	2,233,969
TP	41		267° 10' 36"	-	5.1	85° 10'	+3.5	-1.6		3,165.2		+11	-39	465,174	2,233,945
TP	0				5.1	-		-5.1		3,161.7	TP	0	0	465,163	2,233,984
535	366		89° -	-	6.5	94° 10'	-22.2	-24.7		3,138.1		-95	+291	465,068	2,234,275
TP	322	321.2	93° 02' 20"	-	4.7	94° 10'	-23.4	-28.1		3,138.7	TP	-121	+298	465,042	2,234,282
TP	322				4.6	265° 50'	-23.4	-28.0			TP				
	448		287° 45' 57"	+19.0	5.8	-		+5.8	3144.5		BS	-268	+359		
	448				+3.5	BM	+2.2	+5.7			BS				
536	149		288° 50'	-	8.0	-		-8.0		3,136.5		+91	-118	464,865	2,234,523
TP	38		346° 02' 04"	-	4.9	-		-4.9		3,139.6		+38	+3	464,812	2,234,644
TP	0				5.1	-		-5.1		3,139.4	TP	0	0	464,774	2,234,641
537	175		106° 30'	-	6.0	95° 20'	-16.3	-22.3		3,122.2		-102	+142	464,672	2,234,783
TP	204		103° 37' 36"	-	5.4	95° 20'	-19.0	-24.4		3,120.1	TP	-110	+171	464,664	2,234,812
TP	204				5.4	274° 40'	-19.0	-24.4			TP				

1/2 - 464,800 x - 2,234,700  
y - Inter.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-22-85		B. Cotcamp		K. Greenfield		6834		1502		7		65			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop - 15		WA.		OKANOGAN								W. Cassidy	
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
										3,120.1					
	468	466.2	269° 39' 48"	+19.0	5.9	85°	-46.8	-34.9	3,085.2		BS	-149	+442		
	468				4.5	85° 10'	-39.4	-34.9		BS					
538	170		266° -	-	5.6	84° 20'	+16.8	+11.2		3,096.4		+44	-164	464,559	2,235,090
X	0				5.1	-		-5.1		3,080.1	X	0	0	464,515	2,235,254
539	162		101° -	-	4.8	94° 20'	-12.2	-17.0		3,069.2		-81	+140	464,434	2,235,394
540	491		101° 40'	-	5.8	94° 20'	-37.1	-42.9		3,042.3		-250	+422	464,265	2,235,676
TP	504	502.2	101° 22' 24"	-	0.9	94° 50'	-42.5	-43.4	x		TP	-254	+433	464,261	2,235,687
TP	504				0.8	265° 10'	-42.5	-43.3		TP					
	79		291° 08' 16"	+19.0	1.9	-		+1.9	3,043.8		BS	-51	+60		
	79				1.5	BH	+0.4	+1.9		BS					
X	0				5.1	-		-5.1		3,038.7	X	0	0	464,210	2,235,747
541	239		98° 35'	-	7.3	92° 30'	-10.4	-17.7		3,026.1		-111	+212	464,099	2,235,959
542 TP	542		98° 42' 52"	-	5.2	91° 50'	-17.3	-22.5	}	3,021.3	TP	-252	+480	463,958	2,236,227
TP	542				5.3	268° 10'	-17.3	-22.6		TP					
	279		288° 40' 35"	+19.0	7.5	-		+7.5	3,028.8		BS	-171	+221		
	279				6.1	BH	+1.4	+7.5		BS					
542	252		289° 10'	-	8.2	-		-8.2		3,020.6		+156	-198	463,943	2,236,250
# Section Line	193		290° 45'	-	7.6	-		-7.6		3,021.2		+123	-148	463,910	2,236,300
X	0				5.1	-		-5.1		3,023.7	X	0	0	463,787	2,236,448
543	76		91° 40'	-	5.5	90° 40'	-0.9	-6.4		3,022.4		-27	+71	463,760	2,236,519

463,910 x 2,236,300  
# Section Line  
40 R 12 4 - +57  
CORR.  
x - 47

SURVEY NOTES-HIGH RESOLUTION DATA  
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-23-85		B. Cotamp		K. Greenfield		6834		KUC		7		64			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop-15		WA.		OKANOGAN								W. Cassidy	
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
									3028.8						
TP	198		90° 08' 46"	+19.2	14.3	90° 40'	-2.3	-16.6	}	3012.2	TP	-66	+187	463721	2,236,635
TP	198				13.7	90° 50'	-2.9	-16.6		TP					
	95		217° 41' 42"	-	+1.1	86° -	-6.6	-5.5	}	3006.7	BS	+52	+79		
	95				+1.0	274 -	-6.6	-5.6		BS					
TP	0				5.1	-		-5.1		3001.6	TP	0	0	463723	2,236,714
TP	114	162.2	107° 24' 03"	-	12.5	116° 20'	-50.6	-63.1	}		TP	-61	+82	463712	2,236,796
TP	114				12.4	243° 40'	-50.6	-63.0			2943.7	TP			
	108	92.1	231° 04' 13"	+19.2	+2.8	58° 30'	-56.4	-53.6	}	2890.1	BS	+31	+87		
	108				+2.7	201° 30'	-56.4	-53.7				BS			
544	87	71.98	209° 40'	-	8.0	55° 50'	+48.9	+40.9		2931.0		-47	-54	463,696	2,236,829
TP	0				5.1	-		-5.1		2885.0	TP	0	0	463,743	2,236,883
TP	151	141.6	74° 15' 33"	-	8.4	110° 20'	-52.5	-60.9	}		TP	-9	+141	463,734	2,237,024
TP	151				8.3	249° 40'	-52.5	-60.8			2829.3	TP			
	189		259° 44' 10"	+19.2	+2.8	89° -	-3.3	-0.5	}	2828.8	BS	-29	+187		
	189				+2.2	89° 10'	-2.7	-0.5				BS			
545	89		252° 15'	-	6.5	-		-6.5		2822.3		+2	-89		2,237,122
TP	0				5.1	-		-5.1		2823.7	TP	0	0	463,705	2,237,211
TP	109		106° 31' 13"	-	5.5	-		-5.5	}		TP	-64	+88	463,641	2,237,299
TP	109				4.9	84	-0.5	-5.4			2823.4	TP			

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-23-85		B. Cotcamp		K. Greenfield		6834		K. W. Kelly		7		67			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANGER	
WASHINGTON		Loop Loop-15		WA.		OKANOGAN								W. Cassidy	
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
										2,823.4					
	175	173.9	287° 42' 55"	+19.2	10.2	83° 30'	-19.8	-9.6	2,813.8		BS	-104	+139		
	175			+9.7		83° 40'	-19.3	-9.6		BS					
546	43		254° 35'	~	5.0	84° 20'	+4.2	-0.9		2,813.0		+3	-43	463,540 2,237,395	
TP	0				5.1	-		-5.1		2,808.9	TP	0	0	463,537 2,237,438	
TP	164	113.4	52° 07' 25"	~	10.0	113° 40'	-65.8	-75.8	2,738.0		TP	+48	+142	463,585 2,237,580 CROSS COUNTRY ↓	
TP	164				9.5	113° 50'	-66.3	-75.8		TP					
	143	136.0	286° 31' 10"	~ +	3.9	72° -	-44.2	-40.3	2,697.7		BS	-79	+110		
	143			+ 3.8		288° -	-44.2	-40.4		BS					
547	0				5.1	-		-5.1		2,692.6	TP	0	0	463,506 2,237,690	
TP	176	166.2	65° 02' 30"	+19.2	5.0	109° 10'	-57.8	-62.8	2,634.9		TP	+17	+165	463,523 2,237,855	
TP	176				5.5	109° -	-57.3	-62.8		TP					
	259	238.4	251° 58' 57"	~	9.2	67° -	-101.2	-92.0	2,542.9		BS	-5	+238		
	259				8.4	67° 10'	-100.5	-92.1		BS					
548	118	111.6	232° 35'	~	9.8	71° 06'	+34.2	+28.4		2,571.3		-35	-104	463,483 2,237,987	
TP	0				5.1	-		-5.1		2,537.8	TP	0	0	463,518 2,238,093	
TP	150		110° 51' 04"	~	5.4	95° 10'	-13.5	-18.9	2,524.0		TP	-96	+114	463,387 2,238,207	
TP	150				5.0	95° 20'	-13.9	-18.9		TP					
	213	208.4	268° 31' 10"	+19.2	3.8	78° -	-44.3	-40.5	2,482.5		BS	-63	+198		
	213				3.2	78° 10'	-43.7	-40.5		BS					
549	125	123.88	265° 55'	~	2.1	82° 20'	+16.7	+14.6		2,498.1		+32	-120	463,356 2,238,285	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-23-85		B. Stamp		K. Greenfield		6834		KUC		7		68			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		LOUP LOUP-15'		WA.		OKANOGAN								W. Cassidy	
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 K TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									2,483.5						
K	0				5.1	-		-5.1		2,478.4	K	0	0	463,327	2,238,405
TP	135	134.0	110° 25' 28"	+19.2	1.6	97° 10'	-16.8	-18.4			TP	-85	+103	463,239	2,238,508
TP	135				1.5	262° 50'	-16.8	-18.3		2,465.2	TP				
	301		282° 24' 15"	+3.3		87°	-15.8	-12.5	2,452.7		BS	-158	+256		
	301			+3.2		273°	-15.8	-12.6			BS				
550	230		284° 40'		5.8	87°	+12.0	+6.2		2,458.9		+128	-191	463,209	2,238,573
K	0				5.1	-		-5.1		2,447.6	K	0	0	463,081	2,238,764
551	100		112° 10'	+19.2	6.4	91° 20'	-2.3	-8.7		2,444.0		-66	+75	463,015	2,238,839
TP	405		107° 28' 41"		6.7	92° 50'	-20.0	-26.7		2,426.0	TP	-242	+324	462,839	2,239,088
TP	405				5.5	93°	-21.2	-26.7			TP				
	413		257° 17' 21"	+3.2				+3.2	2,429.2		BS	-47	+410		
	413				5.3	TH	-2.1	+3.2			BS				
552	392		257° 10'	+19.2	5.9	TH	+2.0	-3.9		2,425.3		+43	-390	462,835	2,239,108
553	63		255° 50'		4.5	-		-4.5		2,424.7		+6	-63	462,798	2,239,435
K	0				5.1	-		-5.1		2,424.1	K	0	0	462,792	2,239,498
554	271		50°		12.6	86°		-12.6		2,416.6	#	+97	+253	462,889	2,239,751 section
TP	378		44° 01' 48"		4.0	91° 20'	-8.8	-12.8		2,416.4	TP	+170	+337	462,962	2,239,835
TP	378				5.1	91° 10'	-7.7	-12.8			TP				
	1364		202° 15' 58"	+8.0				+8.0	2,424.4		BS	+1022	+903		
	1364			+7.9		270°		+7.9			BS				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-23-85		B. Cotcamp		K. Greenfield		6834		W		7		69			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop - 15		WA.		OKANOGAN								W. CASSIDY	
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
									2424.4						
555	1152		203° 05'	+19.2	6.0	-	-6.0		2419.4			-853	-775	463,131	2,239,963
556	825		202° 35'	-	6.4	-	-6.4		2418.0			-615	-550	463,369	2,240,188
557	495		202° 50'	-	5.2	-	-5.2		2419.2			-368	-331	463,616	2,240,407
558	168		208° 35'	-	5.8	-	-5.8		2418.6			-113	-124	463871	2,240,614
X	0				5.1	-	-5.1		2419.3		X	0	0	463984	2,240,738
559	160		0° 35'	+19.2	4.2	-	-4.2		2,420.2			+151	+54	464,135	2,240,792
TP	285		357° 11 25	-	6.0	-	-6.0		2418.4		TP	+273	+80	464,257	2,240,818
TP	285				4.6	BH	-1.4	-6.0			TP				
	362		121 22 48	-	+12.8	-	+12.8				BS	+280	-230		
	362				+11.1	BH	+1.8	+12.9		x2,431.3	BS				
560	172		119° 45'	+19.2	7.9	91 20	-4.0	-11.9		2419.4		-136	+113	464,407	2,240,701
X	0				5.1	-	-5.1		2,426.2		X	0	0	464,537	2,240,588
561	175		24° 15'	-	5.3	89° 20'	+2.0	-3.3		2,429.0		+127	+120	464,664	2,240,708
TP	468		22° 09 52	-	5.3	-	-5.3				TP	+351	+309	464,888	2,240,897
TP	468				5.2	270°	-	-5.2		2426.1	TP				
	422		219 40 50	-	+3.9	BH	+2.1	+6.0		2432.1	BS	+218	+361		
	422				+3.6	90 20	+2.5	+6.1			BS				
562	371		219° 30'	+19.2	6.0	-	-6.0		2426.1			-193	-317	464,913	2,240,941
563	46		216° 50'	-	5.0	87°	+2.4	-2.6		2429.5		-26	-38	465,080	2,241,220
X	0				5.1	-	-5.1		2427.0		X	0	0	465,106	2,241,258

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE					
7-23-85		B. Cotcamp		K. Greenfield		6834		HCL		17		70					
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
Washington		Loop Loop-15		WA.	OKANOGAN					W. Cassidy							
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		
									2432.1								
TP	124		61 44 54	+19.2	10.5	96	-13.0	-23.5		2,408.6	TP	+19	+122	465,125	2,241,380		
TP	124				10.1	96 10	-13.3	-23.4			TP						
	185	184.0	266 35 42	~	+1.9	84	-19.3	-17.4	2391.2		BS	-50	+177				
	185				+1.4	84 10	-18.8	-17.4			BS	1					
564	31		246 40	~	5.6	86	+2.2	-3.4		2,387.8		-2	-31	465,073	2,241,526		
X	0				5.1	-		-5.1		2,386.1	X	0	0	465,075	2,241,557		
TP	190	189.0	64 17 54	~	5.1	96	-19.9	-25.0		2366.2	TP	+21	+188	465,096	2,241,745		
TP	190				8.5	95	-16.6	-25.1			TP						
	235	234.1	186 35 21	+19.2	0.5	85	-20.5	-20.0	2346.2		BS	+211	+102				
	235				+1.9	84 40	-21.8	-19.9			BS						
565	150		186 10	~	5.7	85 10	+12.6	+6.9		2,353.1		-136	-64	465,171	2,241,783		
X	0				5.1	-		-5.1		2,341.1	X	0	0	465,307	2,241,847		
566	183		27	~	6.4	88 40	+4.3	-2.1		2,344.1		+127	+132	465,434	2,241,979		
TP	225		26 56 25	~	4.6	88 40	+5.2	+0.6		2,346.8	TP	+156	+162	465,463	2,242,009		
TP	225				5.3	88 30	+5.9	+0.6			TP						
	322		221 13 38	+19.2	8.3	91 30	+8.4	+16.7	2363.5		BS	+159	+280				
	322				+9.3	91 20	+7.5	+16.8			BS						
567	44		196 40	~	6.4	91 10	-0.9	-7.3		2,356.2		-36	-26	465,586	2,242,263		
X	0				5.1	-		-5.1		2,358.4	X	0	0	465,622	2,242,289		
568	300		68 15	~	5.8	90 40	-3.5	-9.3		2,354.2		+13	+300	465,635	2,242,589		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-23-85		B. Cotcamp		K. Greenfield		6834		HWA		7		71			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		LOUP LOUP - 15'		WA.		OKANOGAN								W. Cassidy	
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
									2363.5						
TP	509		71 49 13	+19.2	4.2	96°40'	-5.9	-10.1		2353.4	TP	-9	+509	465613	2,242,798
TP	509				5.7	90°30'	-4.4	-10.1			TP				
	468		263 28 40	~	+5.6	89°	-8.2	-2.6		2350.8	BS	-103	+457		
	468				+5.5	271°	-8.2	-2.7			BS				
569	351		262 25	-	5.7	88°40'	+8.2	+2.5		2353.3		+71	-344	465581	2,242,911
570	24		239 40	-	5.0	88°40'	+0.6	-4.4		2346.4		-5	-24	465505	2,243,231
π	0				5.1	-		-5.1		2,345.7	π	0	0	465510	2,243,255
571	312		105 45	+19.2	5.9	91°	-5.4	-11.3		2,339.5		-179	+256	465331	2,243,511
TP	467		105 15 25	~	6.7	91°	-8.2	-14.9		2,335.9	TP	-264	+385	465,246	2,243,640
TP	467				6.6	269°	-8.2	-14.8			TP				
	239		301 33 04	~	+3.6	88°	-8.3	-4.7		2,331.2	BS	-185	+151		
	239				+2.9	88°10'	-7.6	-4.7			BS				
572	62		296 20	-	5.0	85°20'	+5.2	+0.2		2,331.4		+39	-48	465,100	2,243,743 LAST. STA. ON ROAD
π	0				5.1	-		-5.1		2,326.1	π	0	0	465061	2,243,791
TP	149	146.7	67 21 18	~	8.4	100°16'	-26.3	-34.7		2,296.5	TP	+9	+146	465,070	2,243,937 cross country
TP	149				8.0	100°20'	-26.7	-34.7			TP				↓ ↓
	161	160.2	250 14 27	~	+5.6	95°38'	+15.8	+21.4		2,317.9	BS	+2	+160		
	161				+6.0	95°30'	+15.4	+21.4			BS				
573	44		263 20	-	5.9	95°30'	-4.2	-10.1		2307.8		+10	-43	465,042	2,244,054
π	0				5.1	-		-5.1		2,312.8	π	0	0	465072	2,244,097

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-23-85		B. Cotcamp		K. Greenfield		6834		KUG		7		72			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		LOUP LOUP -15'		WA.		OKANOGAN								W. Cassidy	
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
									2317.9						
TP	197		53 15 21	+19.2	14.0	91 30'	-5.2	-19.2	}	2298.7	TP	+59	+188	465,131	2,244,285
TP	197				13.4	91 40'	-5.7	-19.1		TP					
	565	549.4	263 54 28	-	+13.2	76 30'	-131.9	-118.7	}	2180.0	BS	-125	+535		
	565				+13.1	283 30'	-131.9	-118.8		BS					
574	470	457.6	263 40'	-	12.0	76 48'	+107.3	+95.3		2275.3		+102	-446	465,109	2,244,374
575	143	140.6	251 10'	-	6.9	79 30'	+26.1	+19.2		2199.2		+1	-143	465,007	2,244,677
π	0				5.1	-		-5.1		2,174.9	π	0	0	465,006	2,244,820
574	177		44 20'	+19.2	6.2	94 30'	-13.9	-20.1		2,159.9		+79	+158	465,085	2,244,978 BACK ON ROAD
577	506	504.4	41 20'	-	5.1	94 20'	-38.2	-43.3		2,136.7		+248	+439	465,254	2,245,259
578	836	834.3	42 15'	-	6.0	93 40'	-53.5	-59.5		2,120.5		+399	+733	465,405	2,245,553
TP	989	987.2	41 10' 46"	-	3.3	93 30'	-60.4	-63.7	}	2,116.3	TP	+488	+858	465,494	2,245,678
TP	989				3.2	266 30'	-60.4	-63.6		TP					
	370		232 13 34	-	+6.4	88'	-12.9	-6.5	}	2109.8	BS	+118	+351		
	370				+5.3	88 10'	-11.8	-6.5		BS					
579	191		233 -	+19.2	6.0	88 10'	+6.1	+0.1		2,109.9		-58	-182	465,554	2,245,847
π	0				5.1	-		-5.1		2,104.7	π	0	0	465,612	2,246,029
580	141		68 20'	-	6.5	90 40'	-1.6	-8.1		2,101.7		+6	+141	465,618	2,246,170
581	466		68 52 24	-	9.0	90 40'	-5.4	-14.4	}	2,095.4	TP	+16	+466	465,628	2,246,495
581	466				10.3	90 30'	-4.1	-14.4		TP					

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-23-85		B. Cotcamp		K. Greenfield		6834		KWA		7		73			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		LOWP LOWP-15'		WA.		OKANOGAN								W. Cassidy	
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
									2,095.4						
	626		232° 25' 30"	+19.2	3.2	74	-3.1	+0.1	2,095.5		BS	+197	+594		
	626				3.1	74 <sup>270</sup>	-3.1	+0.0		BS					
582	296		234° -	-	5.0	89° 20'	+3.4	-1.6		2,093.9		-86	-283	465,739	2,246,806
#	215		244° 42' 58"	-	4.2	89° 20'	+2.5	-1.7		2,093.8		-23	-214	465,802	2,246,875 # section line
X583	0				5.1	-		-5.1		2,090.4	X	0	0	465,825	2,247,089
TP	98		115° 06' 58"	+49.2	7.4	-		-7.4		2,088.1	TP	-68	+70	465,757	2,247,159
TP	98				6.9	BH	-0.5	-7.4			TP				
	275	24.1	255° 46' 18"	-	+9.9	85° 20'	-22.4	-12.5	2,075.6		BS	-24	+273		
	275				+9.9	274° 40'	-22.4	-12.5		BS					
584	76		271° 20'	--	5.2	89° -	+1.3	-3.9		2,071.7		+27	-71	465,760	2,247,361
X	0				5.1	-		-5.1		2,070.5	X	0	0	465,733	2,247,432
585	250		71° 40'	--	7.2	91° 40'	-7.3	-14.5		2,061.1		-4	+250	465,729	2,247,682
586	580		70° 20'	--	6.1	91° 30'	-15.2	-21.3		2,054.3		+5	+580	465,738	2,248,012
587	910		70° 02' 11"	--	7.0	91° 50'	-29.1	-36.1	2,039.5		TP	+12	+909	465,745	2,248,341
587	910				6.9	268° 10'	-29.1	-36.0		TP					
	452		253° 22' 54"	+19.2	11.2	87° 20'	-21.0	-9.8	2,029.7		BS	-20	+451		
	452				12.5	87° 10'	-22.3	-9.8		BS					
588	123		250° -	--	6.5	84° 40'	+11.4	+4.9		2,034.6		-2	-123	465,723	2,248,669
#	111		254° 01' 40"	-	5.8	89° 40'	+10.3	+4.5		2,034.2	#	+6	-110	465,731	2,248,682 465-730 x -2248690 4 way
X	0				5.1	-		-5.1		2,024.6	X	0	0	465,725	2,248,792

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-23-85		B. Cotcamp		K. Greenfield		6834		KWA		7		74			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASWington		Loop Loop-15'		WA.		OKANOGAN								W. Cassidy	
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 K TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									2029.7						
589	206		63° 05'	+19.2	6.0	91° 30'	-5.4	-11.4		2018.3		+28	+204	465753	2,248,996
TP	334		63° 42' 34"	--	3.6	91° 30'	-8.7	-12.3		2017.4	TP	+41	+331.	465766	2,249,123
TP	334				4.6	91° 20'	-7.8	-12.4			TP				
TRANSVERSE to		ELEVATION													
TP	1696		326° 54' 28"		7.3	89° 30'	+14.8	+7.5		2037.2	TP				
TP	1696				7.2	270° 30'	+14.8	+7.6			TP				
	1446		135° 55' 28"		+4.1	91°	+25.2	+29.3		2066.5	BS				
	1446				+4.0	269°	+25.2	+29.3			BS				
K	0				5.1	-		-5.1		2,061.4	K				
TP	868		314° 30' 16"		7.3	89° 20'	+10.1	+2.8		2069.3	TP				
TP	868				7.2	270° 40'	+10.1	+2.9			TP				
	1553		158° 39' 30"		+7.2	90° 40'	+18.1	+25.3		2094.6	BS				
	1553				+7.1	269° 20'	+18.1	+25.2			BS				
K	0				5.1	-		-5.1		2089.5	K				
IF	15		311° 26' 50"		4.4	-		-4.4		2,090.2					
	317		290° 08' 14"	+19.2	4.6	-		+4.6		2,022.0	BS	-201	+245		
	317				+6.2	TH	-1.6	+4.6			BS				
590	107		282° 40'	~	4.0	TH	+0.5	-3.5		2,018.5		+56	-91	465621	2,249,277
K	0				5.1	-		-5.1		2,016.9	K	0	0	465565	2,249,368

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-24-85		B. Cotcamp		K. Greenfield		6834		500		7		75			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		LOUP LOUP-15		WA.		OKANOGAN								W. Cassidy	
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
									2.022.0						
591	224		122° 35'	+19.2	5.7	93° -	-11.7	-17.4		2,604.6		-176	+139	465,389	2,249,507
TP	413	112.4	120 13 44	+19.4	2.7	93° -	-21.6	-24.3			TP	-314	+267	465,251	2,249,635
TP	413				2.6	267° -	-21.6	-24.2	x	1,997.8	TP				
	285		243 33 44	--	+5.3	91° 50'	+9.1	+14.4		2,012.2	BS	+35	+283		
	285				+5.2	268° 10'	+9.1	+14.3			BS				
592	136		240 30	--	9.1	92° 30'	-5.9	-15.0		1,992.2		-24	-134	465,262	2,249,784
X	0				5.1	-		-5.1		2,007.1	X	0	0	465,286	2,249,918
#1	65		71 42 30	--	0.0	94° 10'	-4.7	-4.7		2,007.5	#1	-1	+65	465,285	2,249,983
593	175		38° -	--	5.8	89° 20'	+2.0	-3.8		2,008.4		+94	+147	465,380	2,250,065
TP	382		58 34 10	--	5.7	90° 30'	-3.3	-9.0			TP	+80	+374	465,366	2,250,292
TP	382				5.6	269° 30'	-3.3	-8.9	x	2,003.3	TP				
	248		255 35 25	+19.4	+11.1	88° -	-8.7	+2.4		2,005.7	BS	-22	+247		
	248				+10.3	88° 10'	-7.9	+2.4			BS				
594	144		256 30	--	5.7	89° 20'	+1.7	-4.0		2,001.7		+15	-143	466,359	2,250,396
X	0				5.1	-		-5.1		2,000.6	X	0	0	465,744	2,250,539
595	185		45° -	--	4.3	97° 20'	-23.6	-27.9		1,977.8		+80	+167	465,424	2,250,706
TP	370	367.5	44 17 55	--	7.6	96° 40'	-43.0	-50.6			TP	+163	+329	465,507	2,250,868
TP	370				7.5	263° 20'	-43.0	-50.5	x	1,955.2	TP				
	144	143.2	236 32 55	--	+3.5	84° -	-15.1	-11.6		1943.6	BS	+35	+139		
	144				+3.1	84° 10'	-14.6	-11.5			BS				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
7-24-85		B. Cotcamp		K. Greenfield		6834		KLG		7		76				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
Washington		Loop Loop - 15'		WA.		OKAHOA								W. Cassidy		
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
									1,943.6							
596	0				5.1	-		-5.1		1,938.5	X	0	0	465,542	2,251,007	99 Rog
597	319		15° 50'	+19.4	6.0	94° -	-22.3	-28.3		1,915.3		+261	+184	465,803	2,251,191	
598	649		15° 05'	-	3.7	94° -	-45.3	-49.0		1,894.6		+535	+367	466,077	2,251,374	
TP	737	735.2	15° 05' 51"	-	4.2	94° -	-51.4	-55.6			TP	+606	+416	466,148	2,251,423	
TP	737				4.1	266° -	-51.4	-55.5		1,888.1	TP					
	126		190° 32' 28"	+19.4	3.1	-		+3.1		1,891.2	BS	+109	+63			
	126				2.5	BM	+0.6	+3.1			BS					
X	0				5.1	-		-5.1		1,886.1	X	0	0	466,257	2,251,486	
599	117		36° 40'	-	5.8	88° 30'	+3.1	-2.7		1,888.5		+65	+97	466,322	2,251,583	
TP	365		36° 55' 46"	-	7.6	88° 30'	+9.6	+2.0		1,873.2	TP	+202	+304	466,459	2,251,790	
TP	365				6.5	88° 40'	+8.5	+2.6			TP					
	323		235° 47' 06"	+19.4	13.0	-		+13.0		1,906.2	BS	+83	+312			
	323				14.6	TM	-1.6	+13.6			BS					
600	244		234° 05'	-	6.1	91° 10'	-5.0	-11.1		1,895.1		-69	-234	466,473	2,251,868	
X	0				5.1	-		-5.1		1,901.1	X	0	0	466,542	2,252,102	602
601	81		350° 20'	-	2.1	91° 10'	-1.6	-3.7		1,902.5		+80	+14	466,622	2,252,116	601
602	392		359° 40'	-	5.1	90° 10'	-1.1	-6.2		1,900.0		+370	+128	466,912	2,252,230	
TP	562		3° 57' 33"		6.1	90° 10'	-1.6	-7.7			TP	+516	+223	467,058	2,252,325	
TP	562				6.0	269° 50'	-1.6	-7.6		1,898.6	TP					

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-24-85		B. Cotcamp		K. Greenfield		6834		K. Greenfield		7		77			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop-15		WA.		OKANAGAN								W. G. S. S. S. S.	
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
									1,898.6						
605			194° 57' 42"	+19.4	3.7	91° 40'	+17.6	+21.3	1,919.9		BS	+499	+341		9 1/2"
605					3.6	268° 20'	+17.6	+21.2		BS					
603	450		194° 25'	~	5.6	92° 10'	-17.0	-22.6		1,897.3		-374	-250	467,183	2,252,416
604	126		206° 30'	~	5.1	95° 10'	-11.3	-16.4		1,903.5		-88	-90	467,469	2,252,576
X	0				5.1	-	-	-5.1		1,914.8	X	0	0	467,557	2,252,666
605	229		83° 05'	+19.4	7.1	93° 10'	-12.6	-19.7		1,900.2		-50	+224	467,507	2,252,890
TP	425		72° 34' 14"	--	10.5	91° 50'	-13.6	-24.1	1,895.9		TP	-15	+425	467,542	2,253,091
TP	425				10.4	268° 10'	-13.6	-24.0		TP					
	467		205° 14' 58"	~	6.3	88° 30'	-12.2	-5.9	1,890.0		BS	+332	+328		
	467				4.9	88° 40'	-10.9	-6.0		BS					
606	346		208° 25'	~	4.5	88° 40'	+9.0	+3.5		1,893.5		-232	-256	467,642	2,253,163
607	52		250° 20'	~	2.6	88° 40'	+1.2	-1.4		1,888.6		±0	-52	467,874	2,253,367
X	0				5.1	-	-	-5.1		1,884.9	X	0	0	467,874	2,253,419
608	278		61° 25'	+19.4	5.7	94° 10'	-20.2	-25.9		1,864.1		+44	+274	467,918	2,253,693
TP	425	423.9	59° 57' 48"	--	9.2	94° 10'	-30.9	-40.1	1,849.9		TP	+78	+417	467,952	2,253,836
TP	425				10.5	94° -	-29.6	-40.1		TP					
	160		258° 27' 16"	~	4.3	86° -	-11.2	-6.9	1,843.1		BS	-22	+158		
	160				3.9	86° 10'	-10.7	-6.8		BS					
X	0				5.1	-	-	-5.1		1,838.0	X	0	0	467,930	2,253,994
609	24		123° 35'	~	4.9	-	-	-4.9		1,838.2		-19	+14	467,911	2,254,008

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-24-85		B. Cotcamp		K. Greenfield		6834		KWC		7		78			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		LOUP LOUP - 15'		WVA.		OKANOGAN								W. Cassidy	
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
									1,843.1						
TP	156		115 25 51	+19.4	9.5	-		-9.5		1,833.6	TP	-110	+111	467420	2,254,105
TP	156				8.7	BM	-0.8	-9.5			TP				
	621	670.0	284 20 30	-	12.0	86°44'	-35.4	-23.4	1,810.2		BS	-344	+516		
	621				13.8	76°34'	-37.2	-23.4			BS				
610	433		286 25	-	4.7	87°10'	+21.4	+16.7		1,826.9		+253	-351	467729	2,254,270
HI	428		289 13 33	-	4.8	87°10'	+21.1	+16.3		1,826.5	HI	+267	-334	467,743	2,254,287
611	107		273 55	-	5.9	88°50'	+2.2	-3.7		1,806.5		+42	-98	467,518	2,254,523
π	0				5.1	-		-5.1		1,805.1	π	0	0	467,476	2,254,621
612	248		144 -	+19.4	8.4	93°10'	-13.9	-22.1		1,788.1		-238	+71	467,238	2,254,692
613	576		141 -	-	5.9	93 -	-30.1	-36.0		1,774.2		-543	+193	466,933	2,254,814
614	906		141 30	-	5.3	92 50	-44.7	-50.0		1,760.2		-856	+296	466,620	2,254,917
TP	1136	1134.8	139 56 11	-	3.6	92 40	-52.9	-56.5		1,753.8	TP	-1062	+400	466,414	2,255,021
TP	1136				3.3	267 20	-52.9	-56.2	-56.8		TP				
	397		263 45 33	+19.4	8.0	87 -	-20.8	-12.8	1,741.0		BS	-90	+386		
	397				6.8	87°10'	-19.6	-12.8			BS				
615	304		259 50	-	6.0	87 -	+15.9	+9.9		1,750.9		+49	-300	466373	2,255,107
π	0				5.1	-		-5.1		1,735.9	π	0	0	466324	2,255,407
616	26		67 30	-	5.8	91 -	-0.5	-6.3		1,734.7		+1	+26	466325	2,255,433
617	356		65 30	-	5.9			-5.9		1,735.1		+32	+355	466756	2,255,762

5-467,735 x-2,254,275  
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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-24-85		B. Cotcamp		K. Greenfield		6834		K. Greenfield		7		79			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop - 15'		WA.		OKANOGAN								W. Cassidy	
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
									1,741.0						
TP	544		62 17 46	+19.4	5.0	91°40'	-15.8	-20.8			TP	+79	+538	466,403	2,255,945
TP	544				4.9	268°20'	-15.8	-20.7		1,720.3	TP				
	135		207 46 18	--	0.1	TH	-0.7	-0.6		1,719.7	BS	+92	+99		
	135				+1.8	89°-	-2.4	-0.6			BS				
618	0				5.1	-		-5.1		1,714.6	X	0	0	466,495	2,256,044
TP	266		350 43 38	--	4.8	92°-	-9.3	-14.1		1,705.6	TP	+262	+47	466,757	2,256,091
TP	266				4.1	92°10'	-10.1	-14.2			TP				
	2435	2428.0	250 32 28	--	+10.6	85°40'	-184.0	-173.4		1,532.2	BS	+3	+2428		
	2435				+10.5	274°20'	-184.0	-173.5			BS				
619	2366	2359.2	250 30	+19.4	10.8	85°40'	+179.8	+168.0		1700.2		-4	-2359	466,756	2,256,160
620	2044	2038.6	250 10	--	5.0	85°50'	+148.5	+143.5		1675.7		-15	-2039	466,745	2,256,480
621	1727	1723.0	252 45	--	3.0	86°06'	+117.5	+114.5		1646.7		+65	-1722	466,825	2,256,797
622	1402	1399.6	253 30	--	5.0	86°40'	+81.5	+76.5		1,608.7		+71	-1398	466,831	2,257,121
623	1077	1076.0	252 50	+19.4	9.8	87°30'	+46.9	+37.1		1,569.3		+42	-1075	466,802	2,257,444
#	1083		253 19 14	--	6.0	87°40'	+44.1	+38.1		1,570.3	#	+51	-1081	466,811	2,257,438
624	747		254 20	--	6.8	88°-	+261	+193		1,551.5		+49	-745	466,809	2,257,774
625	419		257 30	--	8.2	88°-	+14.6	+6.4		1,538.6		+50	-416	466,810	2,258,103
626	92		264 10	--	7.8	88°-	+32	-4.6		1,527.6		+22	-89	466,782	2,258,430
X	0				5.1	-		-5.1		1,527.1	X	0	0	466,760	2,258,519
627	238		86 45	--	6.1	-		-6.1		1,526.1		-66	+229	466,694	2,258,748

y = 466,810 x - 2,257,380  
# section line

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
7-14-85		B. Cotcamp		K. Greenfield		6834		106		7		80			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		LOUP LOUP-15'		WA.		OKANOGAN								W. Cassidy	
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
									1,532.2						
TP	469		81° 57' 22"	+19.4	8.6	-	-8.6		1,523.6	TP	-92	+460	466,668	2,258,979	
TP	469				11.0	TM	+2.3	-8.7		TP					
	1994		259° 24' 16"	-	+6.0	89°	-34.8	-28.8	1,494.6	BS	-305	+1970			
	1994				+5.7	271°	-34.8	-29.1	-29.0	BS					
628	1911		260° 55'	+19.4	8.0	89°	+33.3	+25.3		1,519.9	+342	-1880	466,705	2,259,069	
629	1626		266° 10'	--	7.1	89°	+28.4	+21.3		1,515.9	+436	-1566	466,799	2,259,383	
630	1309		269° 20'	--	8.8	88° 50'	+26.7	+17.9		1,512.5	+420	-1240	466,743	2,259,709	
631	984		271° 50'	--	12.5	88° 30'	+25.8	+13.3		1,507.9	+356	-917	466,719	2,260,032	
632	655		270° 40'	-	7.7	88° 30'	+17.1	+9.4		1,504.0	+225	-615	466,588	2,260,334	
633	330		278° 35'	-	7.0	88° 30'	+8.6	+1.6		1,496.2	+155	-291	466,518	2,260,658	
634	0				5.1	-		-5.1		1,489.5	X	0	0	466,367	2,260,949
635	325	317.9	113° 15'	+19.4	3.7	102°	-67.6	-71.3		1,423.3		-215	+234	466,148	2,261,183
636	575	570.5	135° 30'	--	6.0	97° 10'	-71.7	-77.7		1,416.9		-517	+242	465,846	2,261,191
637	799	794.4	114° 58'	--	5.1	96° 10'	-85.8	-90.9		1,403.7		-555	+568	465,808	2,261,517
638	1086	1082.1	108° 10'	--	5.4	94° 50'	-91.5	-96.9		1,397.7		-660	+858	464,593	2,261,807
TP	1263	1259.7	107° 28' 36"	--	7.8	94° 10'	-91.8	-99.6			TP	-756	+1008	465,607	2,261,757
TP	1263				7.7	265° 50'	-91.8	-99.5		1,395.1	TP				
	468		258° 38' 40"	+19.4	14.0	87° 30'	-20.4	-6.4			BS	-65	+463		41 06
	468				+13.9	272° 30'	-20.4	-6.5		1,388.6	BS				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		MINE NO.		PAGE			
7-24-85		B. Cotcamp		K. Greenfield		6834		506-10		7		81			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASHINGTON		Loop Loop -15'		WA.		OKANOGAN								W. Cassidy	
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
									1,388.6						
639	328		254 45	+19.4	9.0	87 40	+13.4	+4.4		1,393.0		+24	-327	465,566	2,262,093
640	0				5.1	-	-	-5.1		1,383.5	X	0	0	465,542	2,262,420
641	330		112 40	--	6.3	91 50	-10.6	-16.9		1,371.7		-221	+245	465,322	2,262,665
TP	680		112 39 47	--	5.3	90 30	-5.9	-11.2	}	1,377.4	TP	-456	+505	465,086	2,262,925
TP	680				7.2	90 20	-4.0	-11.2			TP				
	771	769.1	306 23 57	+19.4	8.4	86 -	-53.8	-45.4	}	1,332.0	BS	-636	+432		
	771				8.3	274 -	-53.8	-45.5			BS				
642	879		312 50	--	11.0	87 20	+40.9	+29.9		1,361.9	TI	+777	-409	465,227	2,262,948
643	574		304 05	--	12.4	87 -	+30.0	+17.6		1,349.6		+461	-342	464,911	2,263,015
644	251		290 30	--	7.7	87 -	+13.1	+5.4		1,337.4		+161	-193	464,611	2,263,164
X	0				5.1	-	-	-5.1		1,326.9	X	0	0	464,450	2,263,357
645	76		106 35	+19.4	5.3	92 30	-3.3	-8.6		1,323.4		-45	+62	464,405	2,263,419
646	404		96 10	--	5.1	92 20	-16.4	-21.5		1,310.5		-174	+364	464,276	2,263,721
647	733		93 25	--	9.0	92 40	-34.1	-43.1		1,288.9		-284	+676	464,166	2,264,033
TP	943		92 05 57	--	14.7	92 46	-45.5	-60.2	}	1,271.8	TP	-345	+876	464,105	2,264,233
TP	943	941.9			14.6	207 14	-45.5	-60.1			TP				
	1072	1066.3	275 46 06	+19.4	15.0	84 06	-110.2	-95.2	}	1,176.6	BS	-453	+965		
	1072				14.9	275 54	-110.2	-95.3			BS				
648	952	947.4	276 30	--	8.8	84 20	+94.0	+85.2		1,261.8		+414	-852	464,066	2,264,346
649	623	620.0	277 15	--	6.4	84 20	+61.5	+55.1		1,231.7		+278	-554	463,930	2,264,644

J-465,250 x-2,262,950

Loop Loop -15'  
OKANOGAN -15'

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY				LINE NO.		PAGE	
7-24-85		B. Cotcamp		K. Greenfield		6834		K. Greenfield				7		82	
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
WASH.		OKANOGAN-15'		WA.		OKANOGAN								W. CASS. dy	
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
									1,176.6						
650	295		272° 05'	+19.4	5.8	84° 20'	+29.1	+23.3		1,199.9		+108	-275	463,760	2,264,923
π	0				5.1	-		-5.1		1,171.5	π	0	0	463,652	2,265,198
651	21		67° 45'	-	6.0	93° 40'	-1.3	-7.3		1,169.3		+1	+21	463,653	2,265,219
652	347	345.5	48° -	-	6.6	95° 20'	-32.3	-38.9		1,137.7		+133	+319	463,785	2,265,517
653	675	672.1	43° 45'	-	6.5	95° 20'	-62.7	-69.2		1,107.4		+304	+600	463,956	2,265,798
654	1005	1000.7	45° 35'	-	7.7	95° 20'	-93.4	-101.1		1,075.5		+423	+907	464,075	2,266,105
TP	1064	1059.4	45° 04 03"	-	7.5	95° 20'	-98.9	-106.4		1,070.2	TP	+457	+956	464,109	2,266,154
TP	1064				4.3	95° 30'	-102.0	-106.3			TP				
	888	884.2	250° 54 40'	+19.4	+5.5	84° 40'	-82.5	-77.0	993.2		BS	-5	+884		
	888				+5.4	275° 20'	-82.5	-77.1			BS				
655	610	607.0	250° 55'	-	7.2	84° 20'	+60.2	+53.0		1,046.2		+3	-607	464,107	2,266,431
656	280	278.5	249° 50'	-	6.2	84° -	+29.3	+23.1		1,016.3		-4	-278	464,100	2,266,760
π	0				5.1	-		-5.1		988.1	π	0	0	464,104	2,267,038
657	58		104° 25'	-	5.9	94° 20'	-4.4	-10.3		982.9		-32	+48	464,072	2,267,086
658	382	380.4	86° 40'	-	8.3	95° 20'	-35.5	-43.8		949.4	*	-105	+366	463,999	2,267,404 * E.O.L. Line # 7
TP	3298	3295.5	93° 25 06"	+19.1	13.7	92° 14'	-128.5	-142.2	442.8	851.1	TP	-1262	+3044	46,2842	2,270,082
TP	3298				13.4	267° 46'	-128.5	-141.9			TP				
	1371		340° 58 25"	+19.1	11.9	90° 30'	+12.0	+23.9	875.0		BS	-1371	-2		
	1371				+11.8	269° 30'	+12.0	+23.8			BS				
π	0				5.1	-		-5.1		869.9	π	0	0	46,471	2,270,080

**SURVEY NOTES-HIGH RESOLUTION DATA**  
GEO-445

**Geosource Inc.**

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		SHEET NO.		PAGE				
7-25-85		B. Cotcamp		K. Greenfield		6834		B. [Signature]		7		83				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
WASHINGTON		MONSE-7 1/2		WA.		OKANOGAN								W. Cassidy		
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
71	6575		160° 25' 10"	+19.1	5.9 <sup>+0.9</sup>	89° 58' 55"	+2.1	-2.9	875.0	872.2	71	-6575	+55	454,996	2,270,135	y = 454,995 x = 2,270,205 + Inter. EL. 873.0
71	6575				5.6 <sup>+0.9</sup>	270° 01' 05"	+2.1	-2.6	-2.83		71					