## THELWOOD VALLEY PROJECT - 1994 : TECHNICAL REPORT

The Thelwood Valley Project was carried out quite close to the submitted revised proposal. The program commenced November 1st, 1994 and finished on February 1st, 1995. Only the work conducted to the end of December, 1994 will be dealt with for the purposes of the Explore B.C. program #94-95/M-161. Background information for the project (including property geology) was dealt with in the application for the grant and therefore will not be reviewed here. The Program consisted of 2616 meters of diamond drilling (6 drillholes), a 6 line-kilometer surface IP survey, 3 downhole IP surveys and 78 32-element whole rock ICP analyses. Total cost of the 1994 Thelwood Valley Project was \$203,490. The work, as per original proposal, comprised three parts: Trumpeter Zone follow-up, 43 Block follow-up and Trumpeter Zone trend, East test.

The Trumpeter Zone follow-up consisted of drilling three diamond drillholes for a total of 1618 meters. The drillholes, PR111, PR112 and PR116, successfully tested the mine west strike extension of Three stratigraphically distinct the zone. mineralized intervals were found within the H-W Horizon in this area (H-W Horizon is the principal target unit throughout the property): Upper Zone, 43 Block and Trumpeter Upper/Lower. Upper Zone mineralization consists of 1 to 5 meter wide intervals along the hanging wall of the H-W Horizon and contains 3-15 percent stringer and disseminated sphalerite and pyrite in rhyolite lapilli-tuff deposits. 43 Block mineralization is a transported ore type consisting of up to 30 percent massive sulphide clasts (pyrite, sphalerite, chalcopyrite) in a coarse rhyolite dominant clastic deposit. The zone, up to 8 meters thick, occurs in mid-H-W Horizon stratigraphy, west of the original Trumpeter discovery drillholes (PR92 and PR101). Trumpeter Upper/Lower represents typical massive sulphide mineralization along the base of the H-W Horizon (on top of the Footwall Andesite unit). The intersections, from 0.5 to 8.5 meters thick, vary from chalcopyrite-rich (up to 30 percent) to mixed chalcopyrite (7-20%) - sphalerite (5-10%) -The Upper/Lower designation refers to pyrite assemblages. repetition due to faulting. Results of this new drilling has increased proven and probable geological reserves for the Trumpeter Zone fourfold, from 61,200 tonnes to 227,900 tonnes (see attached table).



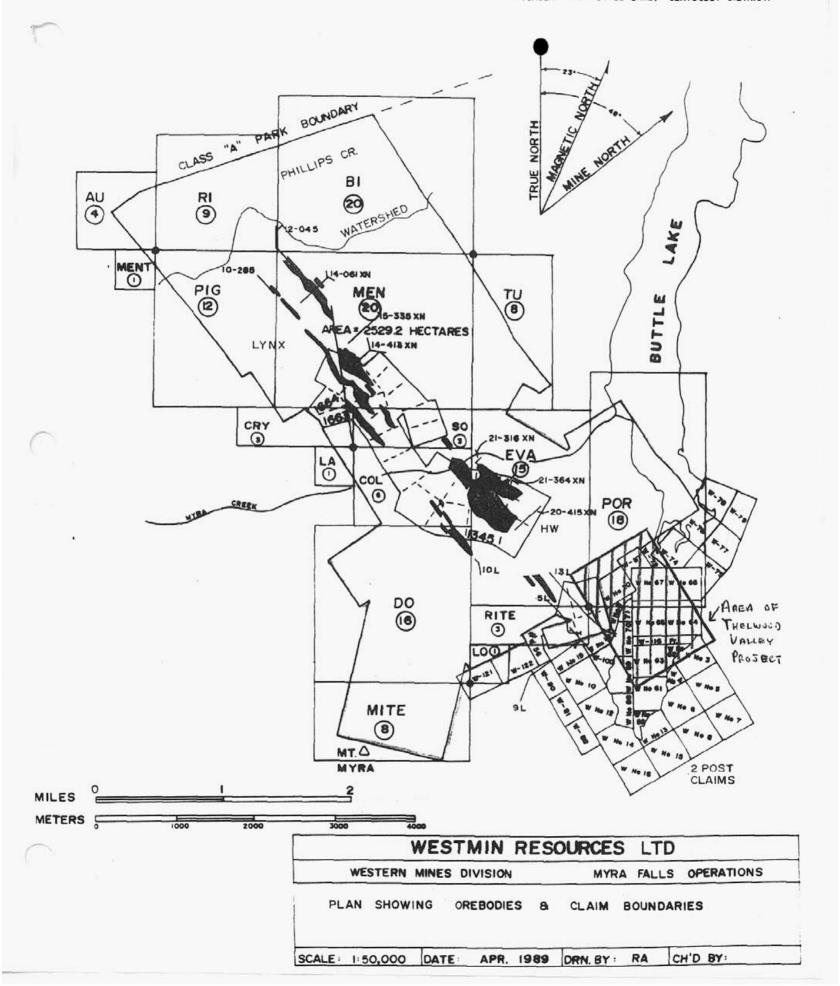
43 Block follow-up consisted of a 6 line-kilometer surface IP survey. Main focus of the survey was to help locate fault structures in the valley floor area (and its attendant 50 to 100 meter thick overburden). Results did highlight numerous mine E-W structures as well as valley parallel, mine N-S structures. This information will greatly aid in target selection for future drill programs within the valley floor proper.

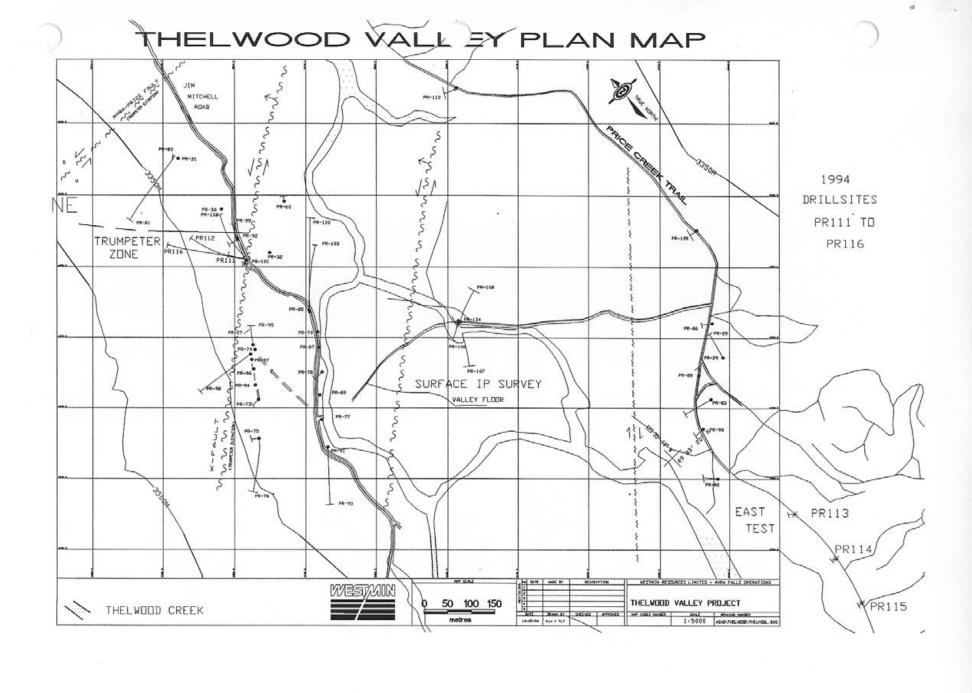
Trumpeter Zone trend, East test comprised the drilling of three diamond drillholes for a total of 998 meters. These drillholes, drilled for stratigraphic purposes, confirmed the hypothesis of completely fault offset H-W Horizon east from the Trumpeter Zone. The prospective stratigraphy, with anomalous sphalerite + pyrite mineralization in rhyolite clastic deposits, was intersected from 90 to 150 meters below surface. Average thickness of the H-W Horizon in this area is approximately 70 meters. Downhole IP surveys of the three drillholes returned weak to moderate off-hole anomalies, including a strong mine west offhole anomaly from PR115. The geological and geophysical results warrant follow-up work in this region in future programs.

1995 TRUMPETER GEOLOGICAL RESERVES (PROBABLE)

DDH#	ZONE	-AI-	AREA	TONNES	Au	Ag	Cu	Pb	Zn	Ba	Fe	Density
PR112	UPPER ZONE	5.3	900	15072	1.8	32.6	0.6	0.2	2.6	2.4	11.5	3.2
PR112	43 BLOCK	7.5	900	23625	2.7	56.9	2.1	0.2	7.9	4.3	15.6	
PR112	TRUMPETER UPPER	6.8	2250	53799	3.1	51.2	2.3	0.4	4.5	1.7	19.4	3.5
r Kiiz	TROWING TER OFFER	0.0	2230	33177	3.1	31.2	2.3	0.4	4.5	1.7	17.4	3.3
PR111	TRUMPETER UPPER	3.3	1260	17487	3.1	108.7	7.8	0.4	3.8	0.6	32.3	4.2
PR111	TRUMPETER LOWER	0.5	Ō	0	1.7	45.9	4.5	0.2	2.3	0.0	10.2	3.1
PR116	UPPER ZONE	1.6	900	4203	1.1	58.3	0.8	0.4	4.0	1.9	3.9	2.9
PR116	43 BLOCK	3.4	900	9881	2.7	46.6	2.4	0.3	2.0	2.2	13.4	3.2
PR116	TRUMPETER UPPER	5.4	1050	22124	5.2	102.3	4.7	0.4	3.9	4.7	24.9	3.9
PR116	TRUMPETER LOWER	2.0	900	5515	1.6	33.0	1.4	0.3	3.5	0.9	9.3	3.1
PR101	TRUMPETER UPPER	3.1	810	11854	4.1	97.2	11.6	0.1	1.7	2.4	38.8	4.7
PR101	TRUMPETER LOWER	4.8	840	19091	2.9	78.7	7.5	0.1	2.8	2.0	39.4	4.7
PR92	UPPER ZONE	1.6	840	4043	1.6	86.9	1.0	0.5	6.1	4.4	3.8	3.0
PR92	TRUMPETER UPPER	8.5	1260	41241	3.2	62.1	4.9	0.4	5.6	3.7	23.8	3.9
TOTAL	UPPER ZONE	.3%		23318	0.6	46.7	0.7	0.3	3.4	2.6	8.8	3.1
TOTAL	43 BLOCK			33506	2.7	53.8	2.2	0.4	6.2	3.7	14.9	3.4
TOTAL	TRUMPETER UPPER			146505	3.5	72.6	4.8	0.4	4.4	2.7	24.6	3.8
TOTAL	TRUMPETER LOWER			24606	2.6	68.5	6.2	0.1	3.0	1.7	32.6	4.2
TOTAL	ALL CATEGORIES			227935	3.1	66.7	4.1	0.3	4.4	2.7	22.4	3.7

1994 TRUMPETER GEOLOGICAL RESERV	ES (PROBABI	LE)							
TOTAL ALL CATEGORIES	61200	3.2	68.9	6.3	0.3	4.6	0.0	28.9	4.0





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	Eas	thing: ting: vatio	5573.0	DIP TESTS DEPTH DIP none		TROPA DEPTH 0 280					COM	MENTS						re Size ill Typ		NQ 37A	
		lar A: lar D				26m 280 70m 281 161m 28 273m 28	-86 32 -86											gged by	y: J.H FEB	. and .28/95	
From (m)	To (m)		DESCRIPT	TION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN X	BA %	FE X	LEN (m)		ERAGES AG CU		ZN
.0 6.1	6.1		and low epidote alteration of the country of the co	DESITE grey to green medium lightness. places strongly porphyritic feldsparace weathering and fracturing. sill creamy white light green alteration, ed Fault Zone. Epidotized quartz veining contact 25 degrees to the core axis and 25 degrees to the core axis.																	
36.0	48.4		degrees to the core core	ght grey to green. Upper contact 40 axis and lower contact 75 degrees to the thin to medium bedded siliceous siltstone dip 70 degrees.	ļ			: :											•		
	77.2	\$\$\$\$\$\$\$\$\$\$\$	of 70 degrees. 66.3 67.1 MAFIC DYKE. Upper contact 15 degrees to the core axi: 74.0 77.2 MAFIC DYKE. Medium dark green loi degrees to the core core axis. ANDESITE	siltstone/mudstone texture. Bedding angle ees to the core axis and lower contact 35 s. w epidote alteration. Upper contact 75 axis and lower contact 20 degrees to the																	

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From (m)	To (m)		DESCRIPTION	SAMPLE NUMBER	From (m)	(s.	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AVER/	РВ	ZN
103.6	107.	.3	97.4 103.6 MAFIC DYKE. Medium to dark grey with low epidote alteration. Upper contact 45 degrees to the core axis and lower contact 80 degrees to the core axis.  MAFIC FLOW  Medium to dark green with upper contact 80 degrees to the core axis and lower contact 85 degrees to the core axis and lower contact 85 degrees to the core axis. DCm10 flow. 103.6 104.5 High hematite alteration.																
107.3		*******	Light green tuff with upper contact 85 degrees to the core axis. DCms.  108.4 109.5 Feldspar porphyry dike medium to light grey with upper contact 75 degrees to the core axis and lower contact 75 degrees to the core axis.  30% FXPH with size of .3cm. DCmg.	:			•												
			Lapilli agglomerate. Upper volcaniclasitic unit - DCms. Type 1 fragment sub-angular andesite. Type 2 fragment sub-rounded dacite.																
117.9		\$\$\$\$\$\$\$\$	Interbedded fine to coarse lapilli tuff and siltstone texture. Felsic clast component and minor sulphide clasts, still part of DCmg. Type 1 sub-angular andesite fragments to .5cm size @ 70%. Type 2 sub-angular felsic fragments to .3cm size @ 20%. Bedding core angle=70 degrees.																
122.4		000000000000000000000000000000000000000	Lapilli tuff with moderate epidote alteration. Fragmental Unit consisting of predominantly andesite and altered sub-angular andesite fragments ( 3 cm. Size a 80%) to minor felsic fragments present ( 1 cm. Size a 10%).  DCm8.									Grand and the state of the stat							
139.0			Lapilli tuff medium greenish-grey. Coarse fragmental, poorly sorted, non-bedded debris flow with major sub-rounded 3 cm. Clasts of felsic (altered dacite?) fragments and sub-rounded 1 cm. Andesite fragments.  Represents transition zone to DCm5u. Matrix is more silicious than above unit.																
144.4	155	.8	DACITE/ANDESITE Tuff fine lapilli medium to dark grey. Bedding angle of 70 degree. Well-sorted, well-bedded epiclastic to pyroclastic? deposit that generally fines upwards. 1,45.6 145.8 Fault zone. 2cm gouge thickness. Upper contact 50																

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PR111	(66	ontinu	Jed)													page	9: 3 OF 6		
From (m)	To (m)		DESCRIPTION	SAMPLE Number	From (m)	T Gi	_en (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AVERAGE! AU AG L	./B	ZN
	5 177.		Agglomerate lapilli medium grey-green. Mixed unit to possible hyaloclastitic in places; biotite alteration in upper part (associated with fault?). 4cm. Sub-angular andesite fragments a 50% and 3cm. Sub-rounded felsic fragments a 50%.  158.2 160.4 Fault zone. Medium to high foliation intensity. Foliation dip 20 degrees, shear dip 15 degrees.  159.5 160.4 Vein. Quartz calcite. Lower contact 20 degrees to the core axis.  161.5 163.9 Fault zone. 2cm. Gouge; QM1=1%. Upper contact 10 degrees to the core axis and lower contact 10 degrees to the core axis.  162.0 162.9 Vein. Quartz calcite. Upper contact 15 degrees to the core axis and lower contact 80 degrees to the core axis.  DACITE/ANDESITE Tuff fine lapilli medium to light grey. Low hematite alteration5cm. Dacite fragments and .5cm. Andesite fragments.																
177.	8 239	, •																	
239.	9 242		Dike or sill medium to dark green. Amygdular massive flow brecciated ultramafic dike or sill. Upper contact 50 degrees to the core axis and lower contact 40 degrees to the core axis.																
242.	. 233	>>>>>>>>> *	Tuff fine lapilli medium grey. Lower contact 25 degrees to the core axis and bedding angle 45 degrees.  Fining upward beds with quartz eyes and rounded quartz clasts.  Bleached 249.24 to base.  245.8 Gouge for 2 cm.  246.4 246.5 Fault zone gouge for 4 cm.  247.6 249.2 MAFIC DYKE.  247.6 256.4 Fault zone. Foliation intensity low to moderate.  Foliation dip 25 degrees.  Broken core and bleaching. Gouge at: (248.48), (249.10-1cm),																

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From (m)		┯ ┷	DESCRIPTION	SAMPLE NUMBER	From (m)	T (h	en (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AVERAGE AU AG L	/B	ZN
		:\$\$\$\$\$	(249.247cm). (249.54-3cm), (250.01-2cm), (250.95), (251.70), (253.94-3cm), (254.50-254.73/23cm).				; :						 						
253.9	256.	8	MAFIC DYKE Bleached and fault brecciated to 23 cm gouge noted above. Upper contact 25 degrees to the core axis.																
256.	3 262.	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	DACITE/ANDESITE Lapilli tuff moderately bleached. Bedding angle 30 degrees. DCm5																
262.	5 281.		DACITE Flow breccia, medium green moderately bleached. Quartz calcite 10%. Possible DCm5u flow or pyroclastic deposit to moderately bleached and veined. Intense alteration along base of unit( wet intrusion ).										:						
281.	309.	<u>**</u> *******	ANDESITE Tuff lapilli light to medium greenish-grey. Mixed volcaniclastic (andesitic), minor felsic clasts, intercolated beds poor to well-sorted. DCm4 or top of DCm3. Broken core: (281.40-281.90), (282.35-282.90), (290.87-290.92), (302.20-303.56), (307.56-308.60).																
309.	314.	7	FELDSPAR PORPHYRY Dike, medium grey with upper contact 40 degrees to the core axis and lower contact 35 degrees to the core axis. FXPH 15% to .3 cm.																
314.	7 345.	5	DACITE/ANDESITE Tuff agglomerate lapilli medium to dark green. Large felsic (rhyolite) clasts up to 0.6cm in width, minor sulphide clasts. DCm3. 317.9 318.5 Fault zone. 4 cm gouge at 5%. Moderate foliation with a shear dip of 35 degrees. 318.5 323.9 FELDSPAR PORPHYRY. Medium grey dike with upper contact 35 degrees to the core axis and lower contact 65 degrees to the core axis. FXPH of 10% at .5cm sizes. 320.0 327.9 Fault zone. Bleached with moderate to high foliation and shear dip of 35 degrees. Broken core: (331.20-332.06), (338.89-340.0).																
	356.		Massive breccia, medium green, with low epidote alteration. Minor quartz vesicles/amygdules. Broken core (350.43-350.63).													i:			
356.	393.	3	MAFIC DYKE Massive to mildly porphyritic, mafic units to sill or dyke.					,											

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(m)		SAMPLE NUMBER	From (m)	Т (Б.	.en (m)					AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)			гB	ZN
01.4	Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW  Dark green tuff with bedding angle of 70 degrees. Broken core at (392.96-393.70).																			
13.0	RHYOLITE/ANDESITE Lapilli tuff medium grey-green with upper contact 80 degrees to core axis. 401.4 401.8 RHYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 2% disseminated Pyrite-fine grained, a trace of disseminated fine-grained Chalcopyrite and 3% fine-grained Sphalerirte as	8 9					tr 3		.40 .00											
	breccia fragments. 402.8 403.8 RHYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 10% disseminated fine-grained Pyrite, 1% of medium-grained disseminated Chalcopyrite, and 2% fine-grained	10	402.8	403.8	1.0	10	1 2		. 70	22.60	.25	.20	1.60	2.40	2.95					
	Sphalerite as stringers.  403.8 405.0 RHYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 8% fine-grained disseminated Pyrite, 1% medium-grained chalcopyrite as stringers and disseminations, and 4% fine-grained Sphalerite as stringers and disseminations.  Upper zone of disseminated sulphides.	11	403.8	405.0	1.2	8	1 4		1.70	70.60	.75	.70	4.20	3.60	3.20					
16.3	CHERT Semi massive sulphides faulted together with chert and altered tuff?. Moderately foliated/30 degree dip. Broken core 412.23-414.50.	14	414.2	415.5	1.3	1			.70	18.40	.65	.05	.40	.50	13.10	l				
18.8	MASSIVE SULPHIDES Massive sulphides Fe>Cu>Zn. 40% fine-grained massive Pyrite, 6% fine-grained Chalcopyrite as patches, and 5% fine-grained sphalerite as stringers and disseminations.																			
19.8	RHYOLITE/ANDESITE Lapilli tuff with upper contact 40 degrees to core axis and lower contact 80 degrees to core axis. Base of HW horizon.																			
10.5	ANDESITE Tuff-Lapilli Breccia and Flow medium green with low to moderate epidote alteration. Footwall Andesite-flow breccia. 423.2 453.4 Light to moderate bleaching of andesite from green to grey. Associated with proximity to large fault through this interval. 426.9 428.9 Gouge 5cm foliation dip of 75 degrees. 427.9 439.3 Broken Core light to medium grey. 437.4 438.2 Fault zone. Faulted and brecciated fragments of		437.4	437.9	.5	5	1	1	1.70	45.90	4.50	.15	2.25	.00	10.20					
1	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (392.96-393.70).  RMYOLITE/ANDESITE Lapitli tuff medium grey-green with upper contact 80 degrees to core axis.  401.4 401.8 RHYOLITE/ANDESITE. Lapitli tuff with fragments of andesite and rhyolite. 2% disseminated Pyrite-fine grained, a trace of disseminated fine-grained Chalcopyrite and 3% fine-grained Sphalerire as breccia fragments.  402.8 403.8 RMYOLITE/ANDESITE. Lapitli tuff with fragments of andesite and rhyolite. 10% disseminated fine-grained Pyrite, 1% of medium-grained disseminated Chalcopyrite, and 2% fine-grained Sphalerite as stringers.  403.8 405.0 RMYOLITE/ANDESITE. Lapitli tuff with fragments of andesite and rhyolite. 8% fine-grained disseminated Pyrite, 1% medium-grained chalcopyrite as stringers and disseminations, and 4% fine-grained Sphalerite as stringers and disseminations.  Upper zone of disseminated sulphides.  CHERT Semi massive sulphides faulted together with chert and altered tuff?. Moderately foliated/30 degree dip. Broken core 412.23-414.50.  MASSIVE SULPHIDES Massive sulphides Fe>Cu>Zn. 40% fine-grained massive Pyrite, 6% fine-grained Chalcopyrite as patches, and 5% fine-grained sphalerite as stringers and disseminations.  RHYOLITE/ANDESITE Lapitli tuff with upper contact 40 degrees to core axis and lower contact 80 degrees to core axis. Base of HW horizon.  ANDESITE Tuff-Lapitli Breccia and Flow medium green with low to moderate epidote alteration. Footwall Andesite-flow breccia.  423.2 453.4 Light to moderate bleaching of andesite from green for the process of the contact of the proximity to large fault through this interval.  426.9 428.9 Gouge 5cm foliation dip of 75 degrees. 427.9 439.3 Broken Core light to medium grey.	Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (392.96-393.70).  RHYOLITE/ANDESITE Lapilli tuff medium grey-green with upper contact 80 degrees to core axis.  401.4 401.8 RHYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 2% disseminated Pyrite-fine grained, a trace of disseminated Fine-grained Chalcopyrite and 3% fine-grained Sphalerite as breccia fragments.  402.8 403.8 RHYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 10% disseminated fine-grained Pyrite, 1% of medium-grained disseminated Chalcopyrite, and 2% fine-grained Sphalerite as stringers.  403.8 405.0 RHYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 8% fine-grained disseminated Pyrite, 1% medium-grained Algopyrite, as stringers and disseminations, and 4% fine-grained Sphalerite as stringers and disseminations.  Upper zone of disseminated sulphides.  CHERT Semi massive sulphides faulted together with chert and altered tuff?. Moderately foliated/30 degree dip. Broken core 41.2.23-414.50.  MASSIVE SULPHIDES Massive sulphides Fe>Cu>2n. 40% fine-grained massive Pyrite, 6% fine-grained Chalcopyrite as patches, and 5% fine-grained sphalerite as stringers and disseminations.  RHYOLITE/ANDESITE Lapilli tuff with upper contact 40 degrees to core axis and lower contact 80 degrees to core axis. Base of HM horizon.  ANDESITE Tuff-Lapilli Breccia and flow medium green with low to moderate epidote alteration. Footwall Andesite-flow breccia.  423.2 453.4 Light to moderate bleaching of andesite from green to grey. Associated with proximity to large fault through this interval.  426.9 428.9 Gouge 5cm foliation dip of 75 degrees. 427.9 439.3 Broken Core light to medium grey.	DESCRIPTION  SAMPLE From MUMBER  Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (392.96-393.70).  RHYOLITE/ANDESITE Lapilli tuff medium grey-green with upper contact 80 degrees to core axis.  401.4 401.8 RHYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 2% disseminated Pyrite-fine grained, a trace of disseminated fine-grained Chalcopyrite and 3% fine-grained Sphalerite as breccia fragments.  402.8 403.8 RHYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 10% disseminated fine-grained disseminated fine-grained disseminated fine-grained disseminated fine-grained disseminated chalcopyrite, and 2% fine-grained sphalerite as stringers.  403.8 405.0 RHYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 8% fine-grained disseminated Pyrite, 1% medium-grained chalcopyrite as stringers and disseminations, and 4% fine-grained Sphalerite as stringers and disseminations.  CHERT Semi massive sulphides faulted together with chert and altered tuff?. Moderately foliated/30 degree dip. Broken core 412.23-414.50.  MASSIVE SULPHIDES Massive sulphides faulted together with chert and altered tuff?. Moderately foliated/30 degree dip. Broken core 414.2.23-414.50.  MASSIVE SULPHIDES Massive sulphides faulted together with chert and altered sphalerite as stringers and disseminations.  RHYOLITE/ANDESITE Lapilli tuff with upper contact 40 degrees to core axis and lower contact 80 degrees to core axis. Base of HW horizon.  ADDESITE Tuff-Lapilli Breccia and Flow medium green with low to moderate epidote alteration.  Footwall Andesite-flow breccia.  426.9 428.9 Gouge Scm foliation dip of 75 degrees.  A 427.9 439.3 Broken Core light to medium grey.	DESCRIPTION  Derk grey-green. Broken core at (359.66-361.20).  MAFIC FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (359.96-393.70).  RNYOLITE/ANDESITE Lapilli tuff medium grey-green with upper contact 80 degrees to core axis. 401.4 401.8 RNYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 2% disseminated Pyrite-fine grained, a trace of disseminated Pyrite-fine grained Chalcopyrite and 3% fine-grained Sphaleritre as broccia fragments.  402.8 403.8 RNYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 10% disseminated fine-grained Sphalerite as a stringers and results of andesite and rhyolite. 10% disseminated pyrite, 1% and seminated pyrite, 1% and seminations.  403.8 405.0 RNYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 8% fine-grained Sphalerite as stringers and disseminations.  405.0 RNYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 8% fine-grained Sphalerite as stringers and disseminations.  CHERT Semi massive sulphides faulted together with chert and altered tuff?. Moderately foliated/30 degree dip. Broken core 4/12.23-414.50.  CHERT Semi massive sulphides faulted together with chert and altered tuff?. Moderately foliated/30 degree dip. Broken core 4/12.23-414.50.  CHERT Semi massive sulphides faulted together with chert and altered tuff?. Moderately foliated/30 degree dip. Broken core 4/12.23-414.50.  CHERT Semi massive sulphides faulted together with chert and altered tuff?. Moderately foliated/30 degree dip. Broken core 4/12.23-414.50.  CHERT Semi massive sulphides faulted together with chert and altered tuff? Moderately foliated/30 degree dip. Broken core 4/12.23-414.2 degrees to core axis. Base of NM horizon.  ANDESITE Tuff-Lapilli Breccia and Flow medium green with low to moderate epidete alteration. Footwall Andesite-flow breccia.  A22.9 428.9 Gouge 5cm foliation dip	DESCRIPTION  DESCRIPTION  Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (359.96-361.20).  RRYOLITE/ANDESITE Lapilli tuff medium grey-green with upper contact 80 degrees to core axis.  401.4 401.8 RNYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 2% disseminated Pyrite-fine grained, a trace of disseminated Pyrite-fine grained chalcopyrite and 3% fine-grained Sphalerirte as breccia fragments.  402.8 403.8 RNYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 10% disseminated fine-grained disseminated fine-grained disseminated Chalcopyrite, 10% disseminated disseminated Chalcopyrite, and 2% fine-grained Sphalerite as stringers.  403.8 405.0 RNYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 8% fine-grained disseminated Pyrite, 1% of medium-grained disseminated Pyrite, 1% and disseminated Pyrite, 1% of medium-grained disseminated Pyrite, 1% medium-grained chalcopyrite as stringers and disseminated pyrite, 1% medium-grained chalcopyrite as stringers and disseminated pyrite, 1% medium-grained chalcopyrite as stringers and disseminated sulphides.  CHERT Semi massive sulphides faulted together with chert and altered tuff?. Moderately foliated/30 degree dip. Broken core 114 414.2 415.5 1.3 415.5 416.3 .8  MASSIVE SULPHIDES  Massive Sulphides Fe>Cu>Zn. 40% fine-grained massive Pyrite, 6% fine-grained Chalcopyrite as patches, and 5% fine-grained sphalerite as stringers and disseminations.  Whas it is a stringer and disseminations.  RRYOLITE/ANDESITE  Lapilli tuff with upper contact 40 degrees to core axis and lower contact 80 degrees to core axis. Base of HW horizon.  ANDESITE  Tuff-Lapilli Breccia and Flow medium green with low to moderate epidote alteration. Footwall Andesite-flow breccia.  423.2 433.4 Light to moderate bleaching of andesite from green to grey. Associated with proximity to large fault  426.9 428.9 Gouge 5cm foliation dip of 75 degrees.  427.9 439.3 Brokon Core L	DESCRIPTION  DESCRIPTION  DESCRIPTION  Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (359.96-393.70).  RRYOLITE/ANDESITE Lapilli tuff medium grey-green with upper contact 80 degrees to core axis.  401.4 401.8 RRYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 2X disseminated Pyrite-fine grained, a trace of disseminated Friengrained Chalcopyrite and 3X fine-grained Sphalerirte as breccia fragments.  402.8 403.8 RRYOLITE/ANDESITE. Lapilli tuff with fragments of andesite and rhyolite. 10X disseminated fine-grained disseminated fine-grained disseminated Chalcopyrite, 1X of medium-grained disseminated fine-grained f	Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW Dark greem tuff with bedding angle of 70 degrees. Broken core at (329.86-33.70).  RRYOLITE/ANDESITE Lapitli tuff medium grey-green with upper contact 80 degrees to core axis. 401.4 401.8 HAVELEY ANDESITE. Lapitli tuff with fragments of andesite and rhyolite. 2X disseminated Pyrite-fine grained, a trace of disseminated fine-grained Chacepore are fragments of andesite and rhyolite. 10X disseminated fine-grained disseminated fine-grained Sphalerite as stringers. 402.8 403.8 HVOLITE/ANDESITE. Lapitli tuff with fragments of a fine-grained Pyrite, 1X of medium-grained disseminated fine-grained pyrite, 1X of medium-grained Sphalerite as stringers. 403.8 405.0 RNYOLITE/ANDESITE. Lapitli tuff with fragments of andesite and rhyolite. 8X fine-grained disseminated Pyrite, 1X medium-grained chalcopyrite as stringers and disseminated Pyrite, 1X medium-grained shaler pyrite, 1X medium-grained shale	DESCRIPTION  DESCRIPTION  Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW  Dark green tuff with bedding angle of 70 degrees. Broken core at (392.96-393.70).  RHYOLITE/ANDESITE  Lapitli tuff medium grey-green with upper contact 80 degrees to core axis.  401.4 401.8 RHYOLITE/ANDESITE. Lapitli tuff with fragments of grained, a trace of disseminated fine-grained Chalcopyrite and 3% fine-grained Sphalerite as brecal fragments.  402.8 403.8 RHYOLITE/ANDESITE. Lapitli tuff with fragments of andesite and Phylolite. 10% disseminated fine-grained Chalcopyrite and 3% fine-grained Sphalerite as brecal fragments.  402.8 403.8 RHYOLITE/ANDESITE. Lapitli tuff with fragments of andesite and Phylolite. 10% disseminated fine-grained Sphalerite as stringers.  402.8 403.8 RHYOLITE/ANDESITE. Lapitli tuff with fragments of andesite and Phylolite. 10% disseminated fine-grained disseminated Phylolite. 10% disseminated Phylolite. 10% disseminated fine-grained disseminations.  403.8 405.0 RHYOLITE/ANDESITE. Lapitli tuff with fragments of andesite and rhylolite. 8% fine-grained disseminated Phylolite. 8% fine-grained Sphalerite  403.8 405.0 RHYOLITE/ANDESITE. Lapitli tuff with fragments of andesite and rhylolite. 8% fine-grained Sphalerite  Upper zone of disseminations, and 4% fine-grained disseminated Phylolite. 8% fine-grained Sphalerite as stringers and disseminations.  Upper zone of disseminations.  Upper zone of disseminations disseminations.  RHYOLITE/ANDESITE  Lapitli tuff with upper contact 40 degrees to core axis and lower contact 80 degrees to core axis. Base of HM horizon.  ANDESITE  Lapitli tuff with upper contact 40 degrees to core axis and lower contact 80 degrees to core axis. Base of HM horizon.  ANDESITE  Lapitli to moderate Disaching of andesite from green to grey. Associated with proximity to large fault through this interval.  A 22.7 423.3 Stocken Core Light to medium green.	Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW  Dark grey-green. Broken core at (340.8 401.8 4	Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW  Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW  Dark green tuff with bedding angle of 70 degrees. Broken core at (392.96-393.70).  RYVOLITE/ANDESITE Lapilli tuff with fragments of 401.4 401.8 402.8 1.0 401.8 402.8 1.0 401.8 402.8 1.0 401.8 402.8 1.0 401.8 402.8 1.0 401.8 402.8 1.0 401.8 402.8 1.0 401.8 402.8 402.8 403.8 RYVOLITE/ANDESITE Lapilli tuff with fragments of 602.8 403.8 RYVOLITE/ANDESITE Lapilli tuff with fragments of 602.8 403.8 RYVOLITE/ANDESITE Lapilli tuff with fragments of 603.8 403.8 403.8 RYVOLITE/ANDESITE Lapilli tuff with fragments of 603.8 403.8 403.8 RYVOLITE/ANDESITE Lapilli tuff with fragments of 603.8 403.8 403.8 RYVOLITE/ANDESITE Lapilli tuff with fragments of 603.8 403.8 403.8 1.0 10 1 2 .70 22.60 403.8 403.8 403.8 403.8 1.0 10 1 2 .70 20.8 403.8	Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW  Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW  Dark green tuff with bedding angle of 70 degrees. Broken core at (392.96-393.70).  RMYOLITE/ANDESITE  Lapilli tuff medium grey-green with upper contact 80 degrees to core axis.  401.4 401.8 shrol.ITE/ANDESITE Lapilli tuff with fragments of andesite and rhybitie. 22 disseminated Pyriter teas braccia fragments.  402.8 403.8 BRYOLITE/ANDESITE Lapilli tuff with fragments of andesite and rhybitie. 10% disseminated fine-grained fine-grained grained gra	Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (392.86-393.70).  3.0  RAFICIFIAMDESITE Lapilli tuff medium grey-green with upper contact 80 degrees to core axis.  401.4 401.8 RYNOLIFIAMDESITE. Lapilli tuff with fragments of andestite and rhyolite. 22 disseminated byrite-fine grained, a trace of disseminated private-fine grained. This copyright and 3X fine-grained flatcopyright and 3X fine-grained fine-grained fine-grained fine-grained private. 1X of medium-grained disseminated chalcopyrite, and 2X fine-grained grained grained grained private as stringers.  403.8 405.0 \$1.0 \$10 \$1 \$2 \$.70 \$22.60 \$.25 \$.20 \$.20 \$.20 \$.20 \$.20 \$.20 \$.20 \$.20	Dark grey-green. Broken core at (359.66-361.20).  MAFIC FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (392.86-393.70).  3.0 RAFFOLTE/AMDESITE Lapilli tuff medium grey-green with upper contact 80 degrees to core axis.  401.4 401.8 RYPOLTE/AMDESITE Lapilli tuff medium grey-green with upper contact 80 degrees to core axis.  401.4 401.8 RYPOLTE/AMDESITE Lapilli tuff medium grey-green with upper contact 80 degrees to core axis.  401.4 401.8 RYPOLTE/AMDESITE Lapilli tuff with fragments of grained placety fragments of andesite and rhyolite. IX disseminated fragments of andesite and rhyolite. IX of medium-grained disseminated Chalcopyrite, and 2X fine-grained disseminated Pyrite, iX of medium-grained Pyrite, iX medium-grained Pyrite, iX medium-grained Agricular and Agricula	Dark grey-green. Broken core at (359.66-361.20).    Dark grey-green. Broken core at (359.66-361.20).   Dark green tuff with bedding angle of 70 degrees. Broken core at (392.96-393.70).   Sangultz-AMDESITE   Lapilli tuff with fragments of a core arising and sprained, a trace of disseminated frie-grained phalerite as braccis rangement.   Sangultz-AMDESITE   Lapilli tuff with fragments of disseminated chalcopyrite and 3% fine-grained Sphalerite as braccis rangement.   Sangultz-AMDESITE   Lapilli tuff with fragments of disseminated chalcopyrite and arrangement of disseminated chalcopyrite and through the sangular phalerite as sphalerite as the sangular phalerite and sphalerite and reposite.   Sangular phalerite and sphalerite and reposite.   Sangular phalerite   Sangular phalerit	Description    Description   SAMPLE   From   T	Dark grey-green. Broken core at (359,66-361.20).  Dark grey-green. Broken core at (359,66-361.20).  AMSICE FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (359.66-361.20).  MASICE FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (359.66-361.20).  AMSICE FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (359.66-361.20).  AMSICE FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (359.66-361.20).  AMSICE FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (359.66-361.20).  AMSICE FLOW Dark green tuff with bedding angle of 70 degrees. Broken core at (359.66-361.20).  AUX ACC 1.00 A	Dark grey-green. Broken core at (359.66-361.20).  Dark grey-green. Broken core at (359.66-361.20).  MARIC FLOW  Dark green tuff with bedding angle of 70 degrees. Broken core at (359.69-303.70).  3.0 The proof of the proof	Dark grey-green. Broken core at (359,66-361,20).  Dark grey-green. Broken core at (359,66-361,20).  MAIL FLOW  Dark grey-green. Broken core at (359,66-361,20).  MAIL FLOW  Dark green tuff with bedding angle of 70 degrees. Broken core at (359,66-361,20).  MAIL FLOW  Dark green tuff with bedding angle of 70 degrees. Broken core at (359,66-361,20).  MAIL FLOW  Dark green tuff with bedding angle of 70 degrees. Broken core at (359,66-361,20).  MAIL FLOW  MAIL FLOW  Dark green tuff with bedding angle of 70 degrees. Broken core at (359,66-361,20).  MAIL FLOW  MA	Description   Description   SMPIE   From   T

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111	(con	tinu	ed)													page: 6	OF 6	
rom (m)	To (m)	' ↓	DESCRIPTION	SAMPLE Number	From (m)	Ţ	Len (m)	MIN. % PY CPY SPH (	AU AL g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN AVE (m) AU	RAGES AG L	B ZN
		8333333	5% Fine-grained Pyrite as breccia fragments, 1% fine-grained Chalcopyrite as breccia fragments, and 1% fine-grained Sphalerite as breccia fragments. Gouge 35cm thick at 40 %. High broken core intensity with foliation dip 40 degrees. 448.2 449.0 Broken Core-low intensity. 488.8 489.2 Broken Core-low intensity. 490.3 492.3 Broken Core-low to medium intensity with shear dip of 25 degrees.															
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			R112 74.2 00 VALLEY			ESTMIN R MYRA F IAMOND D	ALLS OP	ERATIC	N								Pag	e: 1 o	f 6		
	Eas	ting:	366.0 5571.0 3270.0	DIP TESTS DEPTH DIP NONE		TROPA DEPTH 0 280 -					COH	IENTS						e Size: ll Type:	NG 37	0 7A	
	Col	lar Azi: 2	30.0 77.0			13.72m 53.34m 114.29m 202.68m	282 -77	, 7									Log Dat	ged by: e:	J.H. a		D.
From (m)	To (m)		DESCRIP	TION	SAMPLE NUMBER	From (m)		Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AVERA AU AG	GES %	PB	ZN
	41.9	INTERMEDI. Dike or S Broken Co 11.5 13.4 Upper co degrees t Generally Surface creamy wh 34.2 34.7	ATE INTRUSIVE ill medium gree (6.2-7.0), ANDESITE. bleached altentact 70 degroothe core axi massive and meathering ef	ees to the core axis and lower contact 70 s. in places strongly feldspar porphyritic. fects to 7.62 m. Unit cut throughout by veins and veinlets.																	
	7 77.2	Light gr siltstone 42.9 44.2  AA ANDESITE AA Angle of 64.6 65.0	. Bedding angl Fault zone. with shear di o dark green 70%.																		
77.2	2 109.4	A DCt be medium-co siltstone A Siltstone A ANDESITE A Medium alteratio A fragments	gins with a arse fragment /wacke of SBT to light gin. Contorte . Bedding angle INTERMEDIATE	white chert that is overlain by a cal (LT) over several metres then begins unit.  Incen siltstone/wacke with low epidote texture with thin-medium bedded to 70 degrees.  INTRUSIVE. Dark green dike. Upper degrees to the core axis, lower contact 80					·										·		

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From (m)	To		DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	RAGES X	ZN
		<><><><><>	99.6 104.4 INTERMEDIATE INTRUSIVE. Upper contact 80 degrees to the core axis, lower contact 80 degrees to the core axis.  105.6 107.4 ANDESITE. Siltstone/wacke medium to dark red-maroon with high hematite alteration.  106.7 107.4 Broken Core. 107.4 109.0 INTERMEDIATE INTRUSIVE. Dike.															
109.	112	<del>?</del> <>><>	ANDESITE Siltstone containing minor felsic fragments (rhyolite) and patches of fine-grained pyrite. Contorted texture with low epidote alteration. 111.2 112.3 FELDSPAR PORPHYRY dike.	00001	109.4	112.9	3.5	1										
112.	114	3	CHERT Light green-grey unit contains minor argillaceous chert and fine-grained micro-veins of pyrite.	00002	112.9	114.3	1.4	2										
114.	3 119	).5 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	DACITE/ANDESITE Agglomerate lapilli medium grey. Fragments of sub-angular andesite (4cm, 50%), and sub-rounded dacite (5cm, 50%). Poorly sorted volcaniclastic deposit in dacitic matrix.															
119.	5 123	5.5 X	DACITE/ANDESITE  Medium grey tuff/flow with medium bedding, well sorted, fining upwards sequences of epiclastics. Bedding angle of 60 degrees.															
123.	5 142	2.5 <del> }</del>  }  }	ANDESITE Light to medium grey lapilli poorly sorted, non-bedded with moderate epidote altered volcaniclastic. 2cm angular clasts of altered andesite-90%.	:														
142.	5 146	.000000	FELDSPAR PHYRIC ANDESITE Lapilli with low epidote alteration. Poorly sorted, non-bedded, includes 3cm sub-angular andesite clasts (60%), and variable-size sub-rounded felsic clasts (30%).															
146.	0 155	ָהָנְעַעְעָעָעָעָעָעָעָעָעָעָעָעָעָעָעָעָעָע	DACITE/ANDESITE Siltstone/wacke light-medium green-grey with low hematite alteration facies. Bedding angle of 45 degrees. Coarse to fine-grained, well-sorted, well-bedded epiclastic. 146.2 146.5 Fault zone. Broken core and .5cm gouge (1%), low intensity with shear dip of 50 degrees.															
155.	0 176	5.4 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	DACITE/ANDESITE Light-dark green agglomerate/lapilli with moderate epidote alteration. Well-poorly sorted volcaniclastic, fining-upwards but poorly bedded. Contains 3cm sub-angular andesite clasts (90%), and 5cm sub-rounded dacite clasts (10%). Bedding angle of 60 degrees. 161.9 162.4 Broken Core.											·				

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From (m)	To (m)		DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AVERAG AU AG	B ZN
176.4	181.	\$\$\$\$\$\$\$\$	DACITE/ANDESITE  Medium greenish-grey siltstone/wacke with andesitic lapilli size partially hematized to moderate to well sorted with upper contact 50 degrees to the core axis and lower contact 40 degrees to the core axis. Bedding angle 50 degree.															-
181.0	201.		FELDSPAR PHYRIC DACITE Medium to dark grey with FXPH size of .3cm. 189.8 191.6 Intense bleaching of the dacite to lt. Cream color. Minor gouge. Bedding angle 30 degrees. 191.6 192.4 ULTRAMAFIC/MAFIC dike.															
201.0	205.	9	FELDSPAR PORPHYRY Breccia. 201.5 203.2 Broken core low intensity. Light-moderate bleaching with shear dip of 40 degrees.								:		E					
205.9	215.	0	RHYOLITE/ANDESITE Medium grey-green fine lapilli tuff with epidote alteration. Interbedded, well-bedded wacke and rhyolite flow breccia to bedding angle 80 degrees. 20cm chert at base.															
215.0	252.	<u> </u>	FELDSPAR PHYRIC DACITE Massive flow breccia dark grey-green. Brecciated dacite at base of unit. 217.2 217.5 Broken Core. 236.0 237.1 Broken Core.															
252.4	253.	8	MAFIC DYKE															
253.8	261.	3 (3)(3)(3)(3)	ANDESITE/DACITE Volcaniclastic lapilli tuff unit. 254.2 255.1 Broken core with low intensity. 259.5 261.3 Broken core with 2cm gouge (1%) and bedding angle of 45 degrees.	•														
261.3	268.	1800	DACITE Flow breccia with laminar flow structure in places. 265.3 267.5 Broken core.						:									
268.1	285.	<u> </u>	ANDESITE/DACITE Light grey to medium grey pyroclastic deposit to dacite in character, possible welded texture in places, minor sulphide - intercolated with dacite massive flow and breccia with laminar flow bonding. 270.0 270.3 Fault zone 3cm gouge at 5%. 270.3 271.0 Bleached area. 273.6 274.9 Broken core with low intensity. 280.3 282.8 Broken core with low intensity.															

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From (m)		o m)		DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AVERAGE AU AG	ZN
285.	0 31	5.0	300000000000	FELDSPAR PHYRIC ANDESITE Lapilli tuff dark green with epidote alteration. 2cm sub-rounded andesite and altered andesite clasts (95%) with minor sub-rounded 1cm felsic fragments (2%). Moderate-well sorted, non-bedded volcaniclastic deposit. 309.8 315.0 Fault zone. Significant fault to narrow gouge zones (2%). Moderate bleaching, med-high broken core intensity with shear dip of 45 degrees.															
315.	0 33	31.7		RHYOLITE/ANDESITE Agglomerate tuff lapilli med-dark green. Poor to well sorted, non-bedded volcaniclastic. Variable-size clasts of sub-rounded andesite (80%) and rhyolite (10%). Some felsic clasts.															
331.	7 33	39.1	KSSKSKS	ANDESITE/DACITE Lapilli tuff siltstone medium grey-green. Moderate to well-sorted, moderately bedded. Lower contact 65 degrees to core axis with bedding angle of 85 degrees.															
339.	1 39	91.4		MAFIC DYKE  Dark green massive mafic sill with brecciated and porphyritic sections. Light epidote alteration with upper contact 65 degrees to core axis.  357.5 358.1 Broken core.  360.8 362.8 ANDESITE. Massive with porphyritic section.  384.3 385.5 Fault zone. Light-moderate broken core intensity, shear dip=50 degrees. 5cm gouge (3%).  390.8 391.4 Fault zone. Light-high broken core intensity, shear dip 30 degrees. 30cm of gouge (50%).															
391.	4 39	97.5	::	RHYOLITE/ANDESITE Medium to thin-bedded, fairly well-sorted graded quartz feldspar crystal-lithic tuff to coarse tuff.															
397.	5 4	01.5	1,1,1,1	RHYOLITE FRAGMENTAL fine to coarse lapilli. Heterolithic but rhyolite dominant debris flow, med-poor sorted, non-bedded. 5% fine-grained disseminated Pyrite, 1% medium-grained disseminated Chalcopyrite and 3% fine-grained interstitial Sphalerite.		397.5	401.5	4.0	5 1 3										
401.	5 4	07.5	XXXXI.	DACITE Dacite and Rhyolite lapilli tuff and intercolated dacitic pyroclastic units.															
407.	5 4	27.9	*********	DACITE Dacite and Rhyolite flow breccia light-dark green-white. Large 5-20cm sub-rounded felsic (80%) and rhyolite (10%) clasts. Poorly sorted, non-bedded. Lower contact 55 degrees to core axis.	ı				i.										
427.	9 4	33.6		MAFIC DYKE						<u> </u>									

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From (m)		o m)		DESCRIPTION	SAMPLE NUMBER	from (m)	To (m)	Len (m)		MIN. Py si	% PH GAL	AU g/t	AG g/t	CU X	P8 %	ZN %	BA %	FE %	LEN (m)	AVERAGES AU AG CL	X PB	ZN
433.6			00000000	Very dark green with 3% calcit vein, upper contact 65 degrees to the core axis and lower contact 20 degrees to the core axis.  FELDSPAR PHYRIC ANDESITE Agglomerate lapilli tuff medium green with epidote alteration. Poorly sorted, non-bedded andesite and altered andesite dominant unit. 3cm sub-angular andesite clasts (80%), and 5cm sub-rounded felsic clasts (15%). Part debris flow and part pyroclastic.																		
444.0	0 44	9.3	<b>*******</b>	RHYOLITE Agglomerate lapilli tuff, light grey with sub-rounded rhyolite and felsic fragments. Mineralized:. 444.0 444.8 5% medium-grained Pyrite as spots, 1% fine-grained disseminated Sphalerite. 444.8 445.7 20% medium-grain Pyrite as patches and 2% fine-grain Sphalerite as wisps.	00004 00000	444.8	444.8 445.7		5 20		1 2											
			*****	445.7 446.6 2% fine-grain interstitial Pyrite and 1% fine-grain Sphalerite as wisps. 446.6 447.9 20% fine-grain pervasive Pyrite, 1% medium-grain Chalcopyrite as spots and 10% fine-grain interstitial Sphalerite.	00000	446.6	446.6 447.9 449.3	1.3	20	1												
449.	3 45	50.4	***	447.9 449.3 5% fine-grain disseminated Pyrite, 3% medium-grain Chalcopyrite as patches and 3% fine-grain disseminated Sphalerite.  FELDSPAR PORPHYRY Medium green dike.		447.7	447.3			,	,											
450.4	4 45	53.4	<b>XX</b>	RHYOLITE Vitric tuff.																		
453.4	4 46	63.5	*	SEMI-MASSIVE SULPHIDES Lapilli agglomerate to semi-massive sulphide as sulphide fragments and disseminations in a siliceous (rhyolite, chert?) matrix with felsic fragments (50%). Poorly sorted, may be debris flow. 20% fine-grain Pyrite breccia fragments, 3% medium-grain disseminated Chalcopyrite and 5% fine-grained sphalerite breccia fragments.		453.4	463.5	10.1	20	3	5											
463.	5 57	74.2	555555555	ANDESITE Massive to fine breccia. 463.7 480.7 Fault zone. 5% gouge, 60% broken core. Contains fault block of rhyolite-sulphide mineralization.	840 841	398.5 399.5 400.5 401.5 444.0 444.8		1.0 1.0 1.0 42.5	3	2	3	1.90 7.20 .90 4.50		.90 .65 .30	.35 .65	3.75 3.65 2.20 3.25	3.50 8.40 .80	3.50 4.40 3.10 8.60 22.10 4.20				

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To (m)	DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. 3 PY CPY SPI	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AVERAGES X AU AG CU	
	470.7 477.5 MASSIVE SULPHIDES. 10% fine-grain massive Pyrite, 2% fine-grain massive Chalcopyrite and 3% fine-grain massive Sphalerite.  488.0 519.7 ANDESITE. Massive/porphyritic with epidote alteration. 509.7 515.2 MAFIC DYKE. Mixed mafic dyke and fine grain massive to mildly porphyritic to end of hole. Light epidote and chlorite alteration. Minor Broken Core at: (491.23-492.23), (501.35-502.07), (550.69-552.44). 563.3 568.4 FELDSPAR PORPHYRY dike. 573.8 574.2 FELDSPAR PORPHYRY dike.	852 853 854 855 856 857 858 869 860 861 862 863 864 865 866 870 888 869 870	447.6 448.6 449.3 453.4 454.3 455.8 456.8 457.5 462.0 463.2 470.3 472.3 475.3 475.3 476.1	449.3 453.4 454.3 454.8 456.8 456.8 457.8 460.8 461.2 470.7 471.4 472.3 474.3 476.8	1.00 .7 4.11 .9 .66 .9 1.07 .7 .5 1.2 7.5 .7 .9 1.00 1.00 1.00 1.00		1.40 .90 1.60 .00 .80 1.60 1.70 3.70 4.20 1.30 4.10 1.30 4.10 1.90 4.20 1.90	18.80 25.60 2.50 17.40 71.80 62.90 52.60 47.00 36.30 60.90 60.90	.95 .75 .60 .50 1.10 5.85 2.45 .80 2.75 1.05 4.80 3.00 1.35 1.95 2.30	.15 .10 .00 .25 .10 .10 .20 .10 .20 1.40 1.40 .35 .75 .10 .50 .75	3.50 1.50 .35 .10 2.00 8.50 .75 9.60 9.85 9.85 7.35 2.30 2.35 7.00 11.50	1.20 .60 .50 .60 1.30 2.90 .80 9.80 1.80 8.50 8.50 1.10 .70 2.20 3.40 3.00 .60	10.80 10.00 12.10 2.40 7.05 12.90 25.80 17.50 14.20 10.70 14.50 8.30 26.50 14.60 10.00 39.30 17.00 11.05			

			ole: PR113 EOH: 389.2 n: THELWOOD VALLEY			ESTMIN R MYRA F IAMOND D	FALLS OF	PERATIO	ON								Pag	ge: 1	of 4		
	East	thin ting vati	: 6735.0	DIP TESTS Depth DIP None		DEPTH 0 290 -		DIP			СОМ	MENTS			-			re Size: ill Type		NAL Q	'OR
		lar i	Azi: 290.0 Dip: -90.0			200.24	292 -84 n 269 -4 n 259 -4 52 -87	38										gged by: te:		AND (	
	To (m)		DESCRIP	TION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN X	BA %	FE %	LEN (m)		RAGES % AG CU		ZN
17.4 29.3 42.8	42.8 66.0	\$55555555555555555555555555555555555555	alteration. Well-sorted Sub-angular 1cm. Ander felsic clasts.  ANDESITE/DACITE Lapilli agglomerate to clasts (80%) and sub-reportly sorted non-bedded ANDESITE Fine to coarse tuff, met Epiclastic re-sediment sorted and bedded, finit 46.5 46.9 Fault zone deg.  20cm Of gouge (50%).  47.2 50.0 Broken core B 57.4 60.1 Broken core B 60.4 60.9 Broken core.	aniclastic. Medium green with epidote, non-bedded. sitic clasts (95%) and sub-rounded 2cm uff. Variable size sub-angular andesitic counded variable size dacite clasts (10%). d volcaniclastic debris flow. dium green with bedding angle of 70 deg. ated fine fraction of above unit, welling upward overall. 10% quartz veining, with a shear dip=15 dedding angle=15 deg.																	
	85.1 117.3	\$\$\$\$\$\$\$\$\$\$	(70%) and sub-rounded clasts. 67.2 69.6 Broken core. 71.7 71.9 Fault zone Sh 72.2 73.1 Broken core B DACITE/ANDESITE Agglomerate lapilli	tuff volcaniclastic. Poorly sorted, gular 7cm andesitic clasts (70%) and 20cm																	

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From

(m) (m)

130.8 131.6

138.8 154.8

154.8 165.0

165.0 167.1

167.1 170.2

170.2 176.2

176.2 191.3

191.3 200.0

Lapilli tuff, light to medium green/grey with foliation dip=25 191.3 191.6 Fault zone. Shear dip=25 deg, 2cm gouge at 3%. 196.6 201.1 Fault zone. Foliation dip=30 deg, shear dip=45 deg.

2 OF 4 page: AVERAGES % DESCRIPTION SAMPLE From Τo l en MIN. X AU AG BA × x % (m) AU AG CU PB ZN PY CPY SPH GAL × X NUMBER (m) (m) (m) g/t g/t Minor sulphide clasts. 99.7 102.4 Broken core. 104.0 104.4 Broken core. 105.1 105.5 Broken core. 113.7 115.3 Broken core. 117.3 130.8 RHYOLITE/ANDESITE Fine lapilli tuff, light grey-green, with bedding angle=70 deg. Well sorted and bedded epiclastic. Coarse wacke to mudstone. 126.3 130.1 Broken core. INTERMEDIATE INTRUSIVE Dike. 130.8 130.9 Fault zone. 5cm gouge (20%). 131.6 138.8 V RHYOLITE 00000 131.6 138.8 7.2 Fine to coarse tuff, rhyolite dominant epiclastic seds, well sorted, well bedded, finely disseminated Pyrite 1% throughout. RHYOLITE/ANDESITE 00000 138.8 154.8 16.0 2 0 1 Lapilli tuff. Coarse clastic unit-heterolithic includes large rhyolite sub-rounded 10cm clasts (50%) and altered andesitic chert and sulphide clasts. Pyrite>Sphalerite>Chalco. 2% medium-grain disseminated Pyrite, 0.2% coarse Chalcopyrite as patches and 1% fine-grain clastic Sphalerite. RHYOLITE Breccia porphyritic flow, med-dark grey. RHYOLITE/ANDESITE Lapilli tuff. Moderate to well sorted, non-bedded, includes sphalerite clasts up to 4cm in length. RHYOLITE Coarse to fine tuff, medium grey, fining-upward sequence of med-bedded tuffs (epiclastic). Bedding angle of 25 deg. Massive, in places brecciated rhyolite flows. Medium grey. RHYOLITE/ANDESITE Well sorted, non-bedded debris flow, lapilli tuff. Medium to dark grey/green with sub-rounded fragments of rhyolite and sub-angular fragments of andesite. 180.4 180.9 FELDSPAR PORPHYRY dike.

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From (m)	To (m)		DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AVERAGES % AU AG CU	ZN
200.0	201.	<u> </u>	Unevenly distributed fault with several gouge zones and light foliation.  CHERT  Siltstone/mudstone, light green.															
201.	233.	.8 <u>&lt;                                   </u>	ANDESITE Massive Breccia, med-dark green with epidote alteration. 201.1 203.1 Possible sill with low bleaching and foliation=35 deg.					·										
233.	3 236.	.ه(۲ <u>۲)</u> ۲۸	ANDESITE Lapilli tuff, medium green with epidote alteration.															
236.	5 259.	Σ. .ΑΑΑ .ΑΑΑΑ .ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ	ANDESITE Massive, medium dark green with epidote alteration. 258.6 259.3 Fault zone. 15% quartz veining, shear dip=30 deg, 15% gouge. 263.6 264.3 Broken core. Low intensity, shear dip=30 deg.															
259.	3 273	.0\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ANDESITE Andesite and felsic clasts in well sorted, non-bedded deposit. 268.1 269.6 MAFIC DYKE. Very dark green. 269.0 270.3 Fault zone. Shear dip=15 deg, 2% gouge.													1 1 1 1		
273.	285	.6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FELDSPAR PHYRIC ANDESITE Lapilli tuff, well sorted, non-bedded andesitic unit. 275.0 275.4 Broken core.															
285.	6 301	.0000000	FELDSPAR PHYRIC ANDESITE Lapilli tuff, Moderate to well sorted, non-bedded debris flow deposit that fines upward. 3cm sub-rounded felsic clasts (20%) have 'eyes' or amygdules. 2cm Sub-angular andesitic clasts (80%). Gradational lower contact.															
301.	0 320	.8 <mark>?</mark> ? ?^/ ?^/	ANDESITE Fine to coarse tuff, well sorted and bedded, wacke/siltstone deposit. Fining upwards overall, bedding angle=60 deg.										: :					
320.	8 321	.3	MAFIC DYKE  Dark green with moderate quartz/calcite alteration. Upper contact 45 degrees to the core axis, lower contact 35 degrees to the core axis.															
321.	3 324	.2	RHYOLITE/ANDESITE Light to medium grey mineralized lapilli tuff with abundant rhyolite clasts. 2cm Sub-rounded rhyolite fragments (80%) and 1 cm sub-angular	l .	321.4	324.2	2.8	3 3 1 1										

page: 4 OF 4

From (m)			DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN AVERAGES % (m) AU AG CU PB ZN
324.			Flow Breccia with 1% medium-grain Pyrite as patches. 324.2 325.2 MAFIC DYKE. 326.9 327.6 MAFIC DYKE. 329.3 330.0 MAFIC DYKE. Upper contact 30 degrees to the core axis. 330.1 334.5 Broken core. Moderate to high intensity with shear dip=10 deg.	00001 872 873 874 875 876 877 878 880 881 882 883 884 885 886 887 888 889 890 891 892	.0 48.3 116.1 116.5 142.7 143.4 144.3 145.8 147.7 148.4 149.0 150.5 151.6 167.1 168.6 169.3 237.1 320.0 321.3 322.4 323.5	116.1 116.5 142.7 143.4 144.3 145.8 147.7 148.4 149.0 150.5 151.6 168.3 167.1 168.6 320.0 321.3 322.4 323.5 323.5	48.3 67.8 .4426.2 .77 .99 1.55 1.19 .60 12.1 .88 1.55 .77 67.8 82.99 1.33 1.11		.70	4.10, .00 1.30 5.00 .00 1.50 21.70 2.70 14.10 2.50 5.50	.05 .00 .00 .05 .05 .05 .05 .35 .05	.00 .00 .00 .10 .10 .00 .20 .00 .15	.10 .10 .00 .10 .20 .10 .70 1.35 .60 .80	.60 .40 .20 .40 .40 .30 .40 .20 .20	39.00 3.30 2.80 1.40 2.00 2.00 2.80 4.45 1.20 3.20 2.60 4.60	
333.	9 389	7.2	MAFIC FLOW Dark green flow breccia. 348.9 349.0 Fault zone. SHEAR DIP=40 DEG., 8CM GOUGE @ 80%. 379.2 385.3 FELDSPAR PORPHYRY dike. 389.21 End of hole.													

			ole: PR114 EOH: 303.9 n: THELWOOD VALLEY			ESTMIN ( MYRA   IAMOND	FALLS O	PERATI	ON								Pag	je: 1	of 4	
	Eas	thin ting vati	: 6875.8	DIP TESTS Depth dip None		DEPTH 0 00.0		H DIP			COM	MENTS						e Size: ll Type		NQ VAL D'OR
			Azi: .0 Dip: -90.0			203.3m	00.0 - 00.0 - m 00.0	88.5									Log Dat			AND G.D. H 4/95
	To (m)	П	DESCRIP	TION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB X	ZN X	BA X	FE %	LEN (m)		RAGES %	PB ZN
.0	24.4	H	OVERBURDEN																	
24.4	37.3	\$\$\$\$\$	Fine Lapilli Tuff, medi	um green with bedding angle=80 deg. tstone/mudstone, well sorted, normally																
37.3	38.9		brecciated.	20 bearing, significant fault, highly ining, high broken core intensity with ouge.																
38.9	45.9	00000	Lapilli tuff volcani	E clastic with sub-angular 1cm andesite -rounded .7cm feldspar fragments (5%).				i	:											
45.9	54.4	******	(sub-rounded 8cm, 95	d andesite and altered andesite fragments %) in medium green matrix. Moderately or bedded volcaniclastic.																
54.4	58.5	<u>^^</u>	RHYOLITE/ANDESITE Lapilli tuff volcani foliation (dip≖45 deg.)	clastic non-bedded. Light to moderate																
58.5	65.0			uilli tuff, gradational with unit above. 10%) and rhyolite (10%) fragments.																
65.0	65.7	,	QUARTZ FELDSPAR PORPHYR Dike upper contact 45 d	Y legrees to the core axis.																
65.7	82.2	<u> </u>	Coarse to fine tuff, w layers epiclastic, mo	wacke to siltstone in places hematite-rich oderately-well beddded, very well-sorted,							-									

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From (m)	To (m)	Π	DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	RAGES % AG CU	ZN
		\$555	bedding angle=70 deg. 67.1 69.3 Broken core. Light-moderate intensity, shear dip=25 deg. 1% gouge.															
82.2	86.	2	RHYOLITE/ANDESITE Coarse to fine, light grey and bleached. Fines upward, well-sorted, thick bedding.		<u>.</u>													
86.2	97.	1	RHYOLITE/ANDESITE Light grey green lapilli tuff volcaniclastic gradational with above unit. Well-sorted, non-bedded with sub-rounded variable size andesite (70%) and rhyolite (20%) fragments. Light to moderate foliation. 92.8 93.1 Broken core Shear dip=30 deg., 2% gouge. 95.5 98.3 Broken core.															
97.1	101.	4	RHYOLITE Flow Breccia. 100.6 101.3 Broken core.															
101.4	121.	1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	RHYOLITE Massive Flow. 104.3 104.7 Massive Dyke. 117.8 119.7 MAFIC DYKE.															
121.	1 155.	<u>**</u> *****	ANDESITE Epiclastic unit of well-sorted and bedded wacke/siltstone cut by a feldspar porphyritic unit. Upper contact 50 degrees to the core axis, and BEDDING ANGLE =75 DEG.															
155.	6 158.	3 >> > > > > > > > > > > > > > > > > >	RHYODACITE Light grey wacke/siltstone with upper contact 20 degrees to the core axis and bedding angle=20 deg. Well sorted and bedded epiclastic with argillaceous mudstone-chert rip-ups. Some coarse patches of pyrite.	l.		٠								•				
158.	3 158.	.5	FAULT ZONE 3cm gouge 10%.															
	5 161.	\$2\$2\$2\$2	Lapilli tuff agglomerate, light grey with sub-rounded rhyolite (2cm, 95%) and dacite fragments. Fining upward volcaniclastic with fine grain disseminated Pyrite (2%), coarse patchy Chalcopyrite (1%) and fine grain interstitual Sphalerite (2%).															
161.	9 163.	۶۰۲) ۱۹۲۶ ۱۹۲۶)	Light grey-green wacke/siltstone/mudstone, bedding angle=65 deg.															

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From (m)	To (m)		DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. PY CPY S		AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AVERAGE AU AG	S % CU PB	ZN
	164.	***	RHYODACITE Lapilli tuff conglomerate, rhyolite-chert debris flow, well sorted, non-bedded. Sub-rounded 2cm fragments of rhyolite (80%) and chert (10%). RHYODACITE Wacke/siltstone/mudstone, lower contact 50 degrees to core axis and a bedding angle of 50 deg. Coarse clasts of black argillaceous chert-mudstone rip-ups.																	
164.9	171.		RMYOLITE Light grey coarse to fine tuff, well sorted, thick bedded with bedding angle of 50 deg.													•				
171.8	181.	·	RHYOLITE Wacke-tuff siltsone-mudstone, bedding angle=65 deg. Well-sorted and bedded sequence of mixed rhyolite epiclastic.								:									
181.1	183.	4	ARGILLITE Black chert-mudstone wacke siltstone. Well-bedded sequence of intercolated argillaceous wacke-siltstone. Fining upwards with individual beds. Gradational with unit above. Bedding angle=70 deg.				-													
183.4	. 184.	\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$	RMYOLITE Light grey lapilli schist, coarse tuff. Debris flow, well-sorted. 1% fine grain disseminated Pyrite, 2% fine grain interstitial Sphalerite.	910 911 912 913 914	.0 45.5 137.0 139.6 140.0 147.1	137.0 139.6 140.0 147.1	45.5 91.5 2.6 .4 7.1		2	1.50 .50		1.55		7.60 2.80		13.00 5.25				
184.6	5 194.	0	ARGILLITE Intercolated argillite-chert-mudstone and rhyolite epiclastics, black to light grey.Well-sorted with bedding angle of 70 deg.																	
194.0	204.	<u> </u>	RMYOLITE Fine to coarse light grey tuff, thick bedded and well-sorted with bedding angle of 70 deg. 199.2 201.0 Broken core. Light to moderate intensity, shear dip=10 deg., 2% gouge.																	
204.	4 208.	8	ARGILLITE Light grey to black chert-mudstone, fine lapilli tuff. Bedding angle=60 deg. 2% Fine grain disseminated Pyrite and 1% fine grain Sphalerite as stringers. 205.6 208.0 Broken core. Fault zone light to moderate broken core intensity, shear dip=30 deg., 1% gouge.																	

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From To			DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	RAGES % AG CU	ZN
208.8 23	<b>50.</b> 0		RHYOLITE/ANDESITE Fine to coarse lapilli tuff, massive thick-bedded rhyolite dominant pyroclastic and volcaniclastic deposition becoming conglomeritic near the top of unit. 1cm gouge at 222.44. 224.1 225.4 Fault zone, Shear dip=15 deg., 5% gouge.		228.5	303.9	75.4											
230.0 24	6.0		RHYOLITE/ANDESITE Lapilli tuff, well sorted, non-bedded andesite dominant volcaniclastic deposit. Laminated texture with foliation dip of 8 degrees.															
246.0 26	55.5	333333	AMDESITE Tuff, massive, non-bedded gradational with unit above and below. Foliation dip=15 degrees with light to moderate intensity. 259.8 265.5 20% quartz veinlets and patches increasing towards shear zone at base. 260.4 259.8 Fault zone, high broken core intensity with shear dip of 35 degrees and 50% gouge.															
265.5 30	00.8	<	FAULT ZONE Significant zone, bleached with mod-high broken core intensity and shear dip of 30 degrees Gouge at: (268.63-268.93), (269.73), (272.38-271.78), (273.75-274.40),. (277.75-277.95), (278.97-278.87), (280.60-280.70), (282.85-283.45). 288.6 292.6 Broken core. 300.8 303.9 ANDESITE. Flow breccia/porphyry. EOH.															
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	Drill	E	ole: PR115 OH: 305.4 o: THELWOOD VALLEY			ESTMIN # MYRA I IAMOND [	ALLS O	PERATIO	ON								Pag	e: 1 d	of 5	
	Norti East Eleva	ing:	5572-5 6876.	DIP TESTS Depth dip None		TROP/ DEPTH 0 00.0 91m 00.	-90	H DIP			сон	MENTS						e Size: ll Type:		. D'OR
	Colla					183m 00 274m 00	0.0 -88	.5									Log Dat		J.H. AN	
From T (m) (			DESCRIPT	ION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU X	PB %	ZN %	BA X	FE X	LEN (m)		AGES % G CU F	B ZN
.0 1 16.5 2 23.3 2 24.5 3 33.2 5	23.3		non-bedded debris flow. Scm andesite fragment fragments (15%).  RHYOLITE/ANDESITE Medium green lapilli t alteration. Sub-rounded a 20%) fragments. Some disseminated sulphi  ANDESITE/DACITE Medium grey-green la alteration. Sub-angular dacite (.5cm a 15%) frag  RHYOLITE/ANDESITE Medium light green co pervasive epidote alterat Epiclastic, medium to fining upwards. Minor mafic dyke cutt contact 80 degrees to to the core axis. 33.4 33.9 ULTRAMAFIC/MAI Medium green sill with 5  MAFIC DYKE Fine to medium grain contact 15 degrees to angle = 10 deg. 55.8 55.9 Fault zone.	lapilli agglomerate tuff with epidote andestic (.8cm a 80%) and sub-rounded gments.  Dearse tuff mudstone with moderate to ation.  Thinly bedded (bedding angle=80 deg.), ting stratification at 45.0-46.0m, upper the core axis and lower contact 6 degrees																

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PR115	(c	onti	inu	ed)													page	e: 2 OF 5		_
From (m)	To			DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AVERAGES AU AG C	B ZN	
	80	33.7	***************************************	to the core axis.  55.9 56.3 Quartz-calcite veining, crack and seal type with minor hematite/sulphides. Upper contact 10 degrees to the core axis and lower contact 10 degrees to the core axis.  RHYODACITE  Mafic agglomerate lapilli, medium to light green with low to moderate epidote alteration.  Ore clast breccia unit with sulphide clasts, large rhyolitic clasts and quartz eyes. Dyke contact above and fault below. Upper contact 10 degrees to the core axis and lower contact 25 degrees to the core axis.  57.8 60.0 MAFIC FLOW, coarse agglomerate lapilli tuff, medium green with low epidote alteration and sub-angular. 7cm mafic fragments (90%).  60.0 80.8 Mafic rhyolite dacite, medium to light green agglomerate lapilli with low to medium epidote alteration.  5cm Sub-angular mafic fragments (70%) and rounded 7cm rhyolitic fragments (15%).  Poorly sorted, heterolithic, coarsening downwards with increasing sulphide and chert clasts.  66.4 66.8 RHYOLITE. Intermediate, rhyolite clasts with fine grain disseminated pyrite.  71.3 72.1 Epidote alteration and bleached.  RHYOLITE/ANDESITE  Lapilli agglomerate tuff brecciated, grey-green, with low to high bleached quartz alteration.  Sub-rounded variable-size mafic fragments (90%) and rounded 10cm rhyolite fragments (5%).  80.8 83.4 Fault zone,broken core with fairly high foliation intensity and variable gouge (3%).  Upper contact 25 degrees to the core axis.  81.3 81.8 Quartz-calcite veining.  83.8 84.0 Broken core.  84.4 86.7 ANDESITE Flow, medium green with fairly high quartz and epidote alteration.  84.8 85.0 Broken core.  86.7 93.7 RHYOLITE/ANDESITE medium grey-green agglomerate. With sub-angular 5cm andesite fragments (95%).  Rounded 10cm rhyolite fragments (5%) and minor sulphide clasts.  88.0 88.6 Broken core.  90.3 90.8 Broken core.  91.7 93.0 Quartz vein, fine grain massive.	NUMBER														PB ZN	
/3./	,,,		****	HW horizon, light grey siltstone. Intercolated siltstone-mudstone argillaceous chert with quartz-calcite (10%) veining.																

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From (m)	To (m)	$\bigsqcup$	DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)		IN. % Y SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AVERA AU AG		РВ	ZN
		\$\$\$\$\$	94.0 94.6 ARGILLITE Dark black mudstone with gradational lower contact and 3% fine grain disseminated Pyrite. 94.6 95.1 RMYOLITE coarse to fine tuff, medium grey. Fining upwards with quartz-calcite veining 10% and 3% patchy	00001 00002		94.6 95.1		١													
		555555555	coarse Pyrite.  95.1 97.3 RHYOLITE massive fine tuff, light grey-green with 15% quartz veining and 2% fine grain disseminated Pyrite.  97.3 97.8 ARGILLITE, dark black mudstone with 15% quartz veining and upper contact 75 degrees to the core axis and lower contact 60 degrees to the core axis.  5% Patchy coarse Pyrite, 20% QXPH .6cm size.  97.8 98.9 ARGILLITE and RHYOLITE mudstone and fine tuff, dark blue to light green-grey with 10% quartz veining and upper contact 60 degrees to the core axis and lower	00003	95.1	97.3	2.2	2													
		\$\$\$\$\$\$\$	contact 9 degrees to the core axis.  98.9 99.2 RHYOLITE fine to coarse tuff, light grey-green with upper contact 70 degrees to the core axis and lower contact 70 degrees to the core axis.  Quartz phenocrysts at base.  99.2 99.8 ARGILLITE mudstone with 3% patchy coarse Pyrite.  99.8 101.8 RHYOLITE mudstone.	00004	99.2	99.8	.6	3													
101.8	108.5	\$\$\$\$\$\$\$\$\$	RHYOLITE Light to medium green-grey rhyolitic lapilli fine to coarse tuff with minor dark black argillaceous mudstone. 5% Quartz veining, low foliation intensity dip=25 deg and bedding angle=45 deg. 102.3 103.0 Quartz vein. 107.6 107.4 Fault zone, moderate broken core intensity with 2cm gouge seam.				:					:									
108.5	129.3	\$\$\$\$\$\$\$\$\$\$\$	RHYOLITE Intercolated lapilli, medium to coarse tuff, medium grey with 2% quartz veining. 108.5 120.2 Fault zone, increased foliation intensity with dip of 40 deg. 108.5 112.5 Broken core. Gouge at: (109.0, 1cm), (109.50, 2cm), (112.47, 2cm), (114.63, 1cm), (114.80-114.90, 10cm), (115.35, .5cm), (116.63, 1cm), (120.55, .5cm), (120.75, .5cm). Massive medium grain tuff with low foliation intensity at 120.15-129.27.															·			
129.3	137.6	\$\$\$\$\$\$\$	RHYOLITE  Flow breccia and porphyry flow, medium grey with 3% quartz veining.  Sub-rounded 10cm rhyolite-chert fragments. Upper contact 30 degrees to the core axis 20% FXPH and MXPH .8cm size.																		
137.6	138.2	<u> </u>	RHYOLITE Light grey siltstone with minor argillite fragments. Bedding	00005	137.6	138.2	.6	2													

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From (m)	To (m)		DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	X CU	PB %	ZN %	BA %	FE %	LEN (m)	RAGES ? AG CU	ZN
138.2	149.5	,	angle=70 deg. 2% Fine grain patchy Pyrite.  RHYOLITE/ANDESITE Coarse agglomerate tuff with variable size andesite (50%) and rhyolite (35%) fragments. 138.6 138.8 MASSIVE SULPHIDES. 20% medium grain massive Chalcopyrite and 20% medium grain massive Sphalerite Coarse patches and disseminations of Cu and Zn at: (138.76-138.85), (141.29-141.33), (143.56-143.61), (147.06-147.26), (148.07-148.12), (148.27-148.32), (148.57-148.68), (149.23-149.31). Sphalerite is of reddish-brown variety, appears to be infilling open spaces.	00006	138.6	138.8	.2	20 20										
	155.4	<b>33333</b>	ANDESITE Flow breccia, hornblende porphyritic, with moderate epidote alteration and sub-rounded 5cm andesite fragments. Lower contact 40 degrees to the core axis, 40% MXPH .5cm size. RHYOLITE/ANDESITE Agglomerate with 40% rounded 10cm rhyolite fragments, and 20% 4cm sub-rounded andesite fragments. Fine grain patchy Pyrite a .5%.	00007 909 910	.0 45.5 137.0 139.6 140.0 147.1	137.0 139.6 140.0 147.1 147.3	45.5 91.5 2.6 .4 7.1		1.50 .50			i	7.60 2.80	i	13.00 5.25			
156.1	168.3	33333	ANDESITE Beginning of footwall mafic andesite, flow breccia dark green with low epidote alteration and mafic andesite fragments. 156.1 156.4 Broken core. 157.6 158.5 Broken core.		•													
168.3	178.0	· [	ANDESITE Silicified section - possible minor felsic clasts. Brecciated.															
178.0	186.6		ANDESITE Flow Breccia with low epidote alteration and andesite fragments and gradational contacts.															
186.6	187.		FAULT ZONE Moderate broken core intensity and low foliation intensity, dip=15 deg. Quartz calcite veining @ 80%.															
187.6	195.	\$\$\$ <u>\$</u>	ANDESITE Flow breccia.															

page: 5 OF 5

K 112		,																		
From (m)		Ц	DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AU	ERAGES :	PB	ZN
195.2 203.0 208.3 212.1	208.3 212.1	3553555	Flow breccia with epidote alteration.										•							
218.9 224.6 229.4	229.4	\$\$\$\$\$	ANDESITE Dark green flow with low epidote alteration.  ANDESITE Feldspar porphyritic massive andesite dyke, medium grey. Upper contact 45 degrees to the core axis and lower contact 80 degrees to the core axis.  ANDESITE Flow breccia with various phases of footwall andesite. 247.5 249.0 MAFIC DYKE light grey. EOH.	916	228.5	305.4	76.9													
			·																	

	Drill Locati	Hole: PR116 EOH: 533.4 on: THELWOOD VALLEY			ESTMIN I Myra I Iamond I	FALLS O	PERATI	DN								Pag	e: 1	of 6	
	Northi Eastin Elevat	g: 5572.5	DIP TESTS DEPTH DIP NONE		DEPTH 0 280	-71	H DIP			COP	MENTS						e Size: ll Type		Q 7A
	Collar Collar				92.96m 153.92r 231.65r 309.37r	n 280 - n 279 -	71 71.5									Log Dat	ged by: e:		and G.D. 5/95
From To		DESCRIPT	TION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. X PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB X	ZN %	BA %	FE %	LEN (m)		AGES % G CU	PB ZN
.0 6.1 35.3 35.1 44.6 50.6 54.0 85.3 95.3	4.6 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	12.6 13.7 Light grey his 13.5 15.0 Broken core. 21.0 21.7 Broken core. 21.0 21.7 Broken core. ANDESITE Light to dark green siltstone-wacke. Contore 43.4 44.0 Fault zone. vein broken bearing.  ANDESITE Light green siliceous si  ANDESITE Medium to dark green pe alteration. 50.6 51.5 Fault zone si in part open si ANDESITE Dark green intermediat with dark green phenocry Unit contains numerous; 55.9 60.7 Fault zone. hematite, and 1% gouge. 61.5 62.2 Fault zone. quartz veining	Narrow sharp fault ca/05 deg with quartz along its length-open structure, H20 iltstone, bedding angle=45 deg.  ebble-conglomerate/wacke with low epidote hear dip=5 degrees, in part gouge filled,																

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From (m)	To (m		DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. % PY CPY SPH GAL	AU g/t	AG g/t	CU X	PB %	ZN %	BA %	FE %	IGES % G CU PB	ZN
92.2 111.1 114.2 117.3	11,4	.3 (>)	Light to moderate green andesite with low epidote alteration. Bedding angle=70 deg. 94.4 95.0 Broken core. Shear dip=20 deg. 109.6 111.1 Moderate hematite alteration. RHYOLITE/ANDESITE Tuff, transition with unit above and rhyolite below.													·	
118.9	130	.7															
130.7	7 134	3 <del>(?)</del> ?.? ?.	ANDESITE Light to dark green lapilli tuff with epidote alteration and sub-angular 2cm andesite (100%) fragments. Andesite breccia-tuff in part pyroclastic, in part sedimentary.														
134.3	3 138	1.9  }  }	ANDESITE/DACITE Lapilli tuff as in 118.91-130.73 unit above.														
138.9	142	2.6	ANDESITE/DACITE Light grey-green coarse to fine lapilli tuff, bedding angle=45 degrees.		·												
142.0	6 150	).9   <del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del>	ANDESITE Coarse to fine light to medium green andesite lapilli tuff with subrounded andesite clasts. 149.7 150.9 Fault zone. Low broken core intensity with shear dip=20 degrees.														
150.	9 152	2.0	DACITE/ANDESITE Lapilli tuff, top of DCm5 unit containing some rhyolite clasts.														
152.	0 164	4.7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	DACITE/ANDESITE  Fine to coarse lapilli tuff, medium grey-green with low hematite alteration. Well-sorted, bedded with bedding angle=55 degrees. Generally fines upward.														

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From (m)	To (m	•	DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)	MIN. X PY CPY SPH GAL	AU g/t	AG g/t	CU %	PB %	ZN %	BA %	FE %	LEN (m)	AGES %		ZN
164.7	168	.3 0	FELDSPAR PHYRIC ANDESITE Lapilli tuff agglomerate, light to moderate green with low epidote alteration. Poorly sorted brecciated flow or debris of low deposit. Variable size sub-angular andesite (90%) and 2cm feldspar (5%) fragments.																
168.3	187	1	FELDSPAR PHYRIC DACITE  Intermediate brecciated feldspar porphyry sill or flow, dark-medium grey with low to moderate bleaching.  FXPH 10% a .25cm. 177.7 180.6 Broken core.															·	
187.1	190	.8	RHYOLITE  Y Light grey lapilli tuff. Bedding angle=75 degrees, inverse grading-possible pyroclastic deposit.						-		  -  -					l L			
190.8	196	.6	FELDSPAR PHYRIC DACITE Intermediate breccia, light grey.																
196.6	206	.7	RHYOLITE/ANDESITE  Fine to coarse lapilli tuff, medium grey. Moderately well-sorted and bedded with angle of 45 degrees.  4% Fine grain disseminated Pyrite.	00001	196.6	206.7	10.1	4											
206.7	212	.2	FELDSPAR PHYRIC DACITE INTERMEDIATE INTRUSIVE breccia rhyolite, light to dark grey.																
212.2	220	.2	DACITE/ANDESITE Coarse to fine lapilli tuff, light to medium grey. Well sorted, poorly to moderately bedded-volcaniclastic. 220.0 220.2 Quartz calcite veining.																
220.2	226	.5	FELDSPAR PHYRIC ANDESITE  Description of the content of the conten		•														
226.5	248	3.6	RHYODACITE  Fine to coarse tuff. Moderate well bedded, well sorted, rhyolite epiclastics and wacke to chert beds.  5% Fine grain disseminated Pyrite and .1% medium grain disseminated Sphalerite.		226.5	248.6	22.1	1 0											
248.6	256	.3	RHYOLITE Flow breccia, lapilli tuff.																
256.3	277	'.1 	FELDSPAR PHYRIC DACITE																

dip=25 degrees, 10% gouge. 384.3 388.3 Feldspar porphyritic section of sill.

403.8 410.6 Broken core low to high intensity, shear dip=30 degrees, 2% gouge, moderate bleaching.

(continued) 4 OF 6 AVERAGES % MIN. % LEN Τo DESCRIPTION SAMPLE (m) PY CPY SPH GAL g/t g/t × X × X X (m) AU AG CU PB ZN NUMBER (m) (m) (m) (m) Flow breccia. 269.1 271.6 Fault zone. Low to moderate broken core with shear dip=40 degrees and 40 % quartz-calcite veining and 1% gouge. 274.7 276.1 Broken core. Low broken core intensity, shear dip=40, with quartz veining and 1% gouge. 277.1 289.2 ANDESITE/DACITE Medium grey-green fine lapilli tuff. Well sorted, thick bedded mixed volcaniclastic to pyroclastic. 289.2 300.4 DACITE/ANDESITE Medium to dark grey-green lapilli tuff. Poor-well sorted, non-bedded pyroclastic or debris flow. .5cm Sub-angular andesite (35%) and 3cm sub-rounded dacite (45%). 300.4 305.1 INTERMEDIATE INTRUSIVE Fine grain medium grey intermediate dyke or sill. 300.4 301.4 Fault zone. 10% quartz veining, shear dip=5 degrees with lower contact 25 degrees to the core axis and 2% gouge. 305.1 305.7 DACITE/ANDESITE Dacite andesite feldspar, lapilli tuff upper contact 25 degrees to the core axis and lower contact 25 degrees to the core axis. 305.7 307.9 INTERMEDIATE INTRUSIVE Intermediate dyke. 307.9 311.1 DACITE/ANDESITE Lapilli tuff. 311.1 355.1 INTERMEDIATE INTRUSIVE Medium grey, fine grain intermediate sill or dyke with chloritic filled vesicles in places. 341.0 342.4 Fault zone. Significant gouge (50%) filled fault, with high foliation intensity (fol. Dip=30 deg.). Shear dip=30 degrees. 342.4 350.4 Broken core. Medium broken core intensity with a shear dip=20 degrees and 3% gouge. 355.1 409.9 MAFIC DYKE Massive sill, dark green with low epidote alteration. 357.6 358.4 Broken core low intensity, shear dip=5 degrees. 379.7 379.9 Fault zone. High broken core intensity, shear

Kilo (contin	ued)															page	: 5 OF 6	
From To (m) (m)	DESCRIPTION	SAMPLE NUMBER	From (m)	To (m)	Len (m)		MIN. X PY SPH		AU g/t	AG g/t	CU %	P8 %	ZN %	BA %	FE %	LEN (m)	AVERAGE AU AG	PB ZN
409.9 413.2 VV	Fine lapilli tuff, well sorted, non-bedded, pyroclastic deposit - rhyolitic vitric tuff.																	
413.2 414.8	RHYOLITE/ANDESITE Light grey lapilli tuff with sub-rounded 2cm rhyolite (80%) and 1cm andesite (10%) fragments. 3% Fine grain disseminated Pyrite, .5% medium grain disseminated Chalcopyrite. 1% Fine grain stringers of Sphalerite.		413.2	414.8	1.6	3	1	1										
414.8 438.7	Flow breccia, with minor chert horizons. 416.4 417.5 MAFIC DYKE dark green. 418.9 433.6 Broken core, Wide zone of weak rock with moderate broken core intensity, shear dip=45 degrees, and 1% gouge. 424.3 430.3 ULTRAMAFIC dyke with upper contact 20 degrees to the core axis. 429.0 430.7 ULTRAMAFIC dyke. 436.8 438.2 ULTRAMAFIC dyke. 436.2 441.4 MAFIC DYKE.																	
*****	438.4 438.7 RHYOLITE Sulphide, xenolith of mineralized rhyolite lapilli tuff in mafic rock. 3% Fine grain disseminated Pyrite, .1% fine grain disseminated Chalcopyrite and 1% fine grain disseminated Sphalerite.	1	438.4	438.7	.3	3	0	1				i:						
438.7 444.0 VVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVV	RHYOLITE Agglomerate lapilli tuff, light to medium green with 1% fine grain wispy Pyrite, .1% fine grain disseminated Chalcopyrite and 1% fine grain disseminated Sphalerite. 442.5 442.7 MAFIC DYKE.		438.7	444.0	5.3	1	0	1										
444.0 447.4 (X) (X) (X) (X)	RHYOLITE  Lap tuff agglomerate with sulphides, 5% medium grain wispy  Pyrite, 1% coarse grain interstitual Chalcopyrite and 1% fine  grain patchy Sphalerite.	007	444.0	447.4	3.4	5	1	i									•	
447.4 450.8	SEMI-MASSIVE SULPHIDES Lapilli stringer zone with 15% fine grain patchy Pyrite, 2% coarse grain interstitual Chalcopyrite and 5% fine grain pervasive Sphalerite.		447.4	450.8	3.4	15	2	5										
450.8 452.8	MASSIVE SULPHIDES 5% Fine grain massive Pyrite, 8% fine grain massive Chalcopyrite and 1% fine grain disseminated Sphalerite.	009	450.8	452.8	2.0	45	8	1										
452.8 454.1	RHYOLITE/AMDESITE Lapilli tuff, upper contact 30 degrees to the core axis and lower contact 35 degrees to the core axis. Transition zone with mixed rhyolite-sulphides and andesite breccia fragments. 1%		452.8	454.1	1.3	1	0											

EOH.

6 OF 6 PR116 (continued) AVERAGES % LEN DESCRIPTION SAMPLE From Τo Len MIN. % ΑU AG CU BA % From Τo AU AG CU PB ZN PY CPY SPH GAL q/t g/t × (m) (m) NUMBER (m) (m) (m) (m) fine grain disseminated Pyrite,. .3% Fine grain patchy Sphalerite. 454.1 466.3 Intercolated, 50% dykes that cut the massive sulphides and the 454.1 466.3 12.2 1 0 1 underlying mixed zone. .0 46.5 46.5 918 46.5 100.0 Medium green dike and flow breccia. 1% fine grain patchy Pyrite, 53.5 .1% Fine grain Chalcopyrite as breccia fragments and 1% fine 919 100.0 123.5 23.5 920 123.5 193.0 69.5 grain Sphalerite as stringers. 193.0 201.9 .30 3.05 16.00 . 25 1.90 922 201.9 202.7 .8 .70 12.00 .10 .15 1.10 .40 2.75 923 202.7 203.6 924 203.6 270.5 925 270.5 303.7 33.2 926 303.7 350.5 46.8 927 350.5 413.2 62.7 1.10 58.30 .75 .35 3.95 1.90 3.90 928 413.2 414.8 929 930 414.8 424.0 9.2 424.0 433.4 9.4 931 433.4 433.7 25.60 1.20 .25 4.30 .40 9.20 1.20 932 433.7 441.4 933 934 935 1.00 2.90 441.4 442.5 6.50 . 10 .05 1.60 442.5 444.0 1.5 1.35 .80 11.00 41.50 3.15 444.0 445.1 936 937 . 15 1.60 28.20 445.1 445.7 6.80 71.60 3.75 .65 .90 27.50 .95 2.00 48.30 1.45 .25 .60 1.45 1.60 6.45 445.7 446.5 4.40 4.80 10.10 938 446.5 447.4 3.40 .50 939 447.4 448.6 3.60 88.50 3.80 5.00 19.50 7.05 13.30 12.20 7.55 6.10 20.90 .90 .50 940 448.6 449.6 2.60 85.50 2.30 941 4.90 91.20 3.40 449.6 450.8 .05 .95 .30 .10 35.75 8.00 105.50 6.85 942 450.8 451.8 943 451.8 452.8 6.60 139.90 7.50 . 05 .20 34.60 1.0 .30 . 10 1.60 .80 3.60 .30 6.10 944 452.8 454.0 945 454.0 465.8 11.8 946 465.8 466.3 .60 15.40 .70 .20 1.20 .90 5.75 464.6 465.1 Fault zone with 30% quartz veining and high broken .5 core intensity with shear dip=30 degrees, and 70% 466.3 468.5 RHYOLITE 1.60 33.00 1.35 .25 3.45 .90 9.25 948 466.3 468.3 Clastic sulphides and rhyolite chert, lapilli agglomerate tuff. Light grey with sub-rounded 4cm rhyolite (50%) and variable 949 468.3 533.4 65.1 size sulphide (50%) fragments. 468.5 533.4 ANDESITE Medium to dark green flow breccia with low epidote alteration. Massive fine grain andesite and feldspar porphyry. 486.0 499.5 Porphyritic section of footwall.

## LOGISTICAL REPORT

# SURFACE AND DOWNHOLE INDUCED POLARIZATION/RESISTIVITY SURVEYS

THELWOOD CREEK AREA MYRA FALLS, B.C.

on behalf of

MYRA FALLS OPERATIONS
WESTMIN RESOURCES LTD.
P.O. Box 8000,
Campbell River, B.C., V9W 5E2

Field work completed: December 6 to 17, 1994

by

Jim Hawkins, Geophysicist SCOTT GEOPHYSICS LTD. 4013 West 14th Avenue Vancouver, B.C., V6R 2X3

December 21, 1994

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1. Introduction	1
2. Survey Location and Coverage	1
3. Personnel	1
4. Instrumentation	2
5. Discussion and Recommendations	2
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APPENDIX	
Statement of Qualifications	rear of report
Maps included with report (copies)	
Surface Chargeability/Resistivity pseudosections - Thelwood Creek Area, 1:5000 scale	map pocket
Downhole IP - PR-113, E-W Section, 1:1250 scale	map pocket
Downhole IP - PR-113, N-S Section, 1:1250 scale	map pocket
Downhole IP - PR-114, E-W Section, 1:1250 scale	map pocket
Downhole IP - PR-114, N-S Section, 1:1250 scale	map pocket
Downhole IP - PR-115, E-W Section, 1:1250 scale	map pocket
Downhole IP - PR-115, N-S Section, 1:1250 scale	map pocket
Downhole IP - PR-111, Hole to Hole, 1:1250 scale	map pocket
Maps accompanying report (originals, reproducible vellums, two blackline copies)	
As above:	map roll
Additional materials - one copy only	
One floppy disk with all survey data	envelope

#### 1. INTRODUCTION

Surface and downhole induced polarization/resistivity surveys (IP surveys) were performed in the Thelwood Creek Area, Myra Falls, B.C. during the period December 6 to 17, 1994. The survey was conducted by Scott Geophysics Ltd. on behalf of Westmin Resources Ltd.

Six surface lines in the Thelwood Creek Area were surveyed with a pole-dipole array, using an "a" spacing of 50 metres and "n" spacings of 1 to 12. Four drillholes were also surveyed, three with detail and directional arrays and one with a "hole to hole" method.

This report describes the instrumentation and procedures, and presents the results of the survey.

#### 2. SURVEY LOCATION AND COVERAGE

The Thelwood Creek Area is located approximately 10 kilometers east of the Myra Falls operation of Westmin Resources, about 90 kilometers southwest of Campbell River, B.C. Access to the property is via the Western Mine Road, and locally on the Price Creek and Jim Mitchell trails.

A total of 6.0 line kilometers of surface IP survey were completed in the Thelwood Creek Area. Five lines were surveyed from the north to the south, with one additional cross line surveyed from east to west. The IP coverage on a given survey line is defined as the distance between the outermost electrodes on that line.

Three drillholes were surveyed with the detail and directional arrays for a total of 935 meters (detail) and 852 meters (directional - x 8 current electrodes) logged. A further drillhole was logged with a current in an adjacent drillhole at three seperate depths for a total of 428 meters. The downhole coverage of a given drillhole is defined as the distance between the uppermost and lowermost data plotting points, and as a result will vary according to the type of array used. An applied counter calibration factor results in the data plotting points being shifted off the even depth points.

#### 3. PERSONNEL

Jim Hawkins, Geophysicist, was the party chief on the survey, on behalf of Scott Geophysics.

Steve Juras, Geologist, was the Westmin Resources representative for the survey.

# 4. INSTRUMENTATION

A Scintrex IPR12 receiver and TSQ4 (10 kw) transmitter were used on the IP survey (a Scintrex 25w transmitter was used for the downhole detail array). Readings were taken in the time domain using a 2 second current pulse.

The chargeability plotted on the accompanying pseudosections and logs is for the interval 690 to 1050 milliseconds after shutoff (midpoint at 870 milliseconds).

## 5. DISCUSSION AND RECOMMENDATIONS

## SURFACE SURVEY

The Chargeability pseudosections of the five north-south lines are characterized by low values (1 to 2 mV/V) on the north ends, increasing to moderate values (7 to 9 mV/V) to the south. The south end of Line 5700E is quite noisy, probably due to the mine's power transmission lines where they enter the adit. The Resistivity pseudosections show a more or less direct correlation between higher chargeability values and higher resistivity values, generally increasing to the south. The Resistivity pseudosections also show more subtle anomalies that would have to be correlated with known geology before anything further can be inferred.

The one east-west line shows a slight increase in chargeability values as you go west, but has a much stronger resistivity anomaly on the western end (just east of the Jim Mitchell Road). This is likely due to a north-south trending fault that was also inferred from the geology.

#### DOWNHOLE SURVEY

NOTE: When referring to direction, N/S is parallel to the Price Creek Road, and E/W is perpendicular to it. It is not directly related to either true north or grid north (See survey line plan map, delivered separately).

PR-113 Small anomaly equally present on all directional electrodes (and detail log) at approximately 330 m depth. A broad band of anomalies (possibly three seperate levels) from approximately 90 to 200 m depth is present on all electode logs. The uppermost anomaly at about 110 m depth is slightly stronger on the 200 S electrode.

 $\overline{PR-114}$  Two broad anomalies, from 125 m to 170 m and from 170 m to 215 m depth are present on all electrodes, but are stronger and better defined to the south and east.

<u>PR-115</u> A very strong anomaly centred at approximately 130 m depth is present on the 200 W log, with little or no north/south component to the anomaly. Another anomaly at about the 90 m depth shows up on the 200 S log.

<u>PR-111</u> (Hole to Hole) The results from this survey are harder to interpret, but generally speaking, the mineralized zones in PR-101 seem to be connected to the corresponding zones in PR-111, but also connect (at least electrically speaking) to all other mineralized zones. The disseminated sulphides at the 402 m depth in PR-101 in particular seem to have strong cross-connections. This could be the result of mineralized faults cutting the different zones and creating "electrical connections".

A detailed interpretation of these geophysical survey results, and correlation to geological and geochemical information, is required before any further recommendations could be made.

Respectfully submitted,

Jim Hawkins, P. Geoph.

Vim Hawkins

# Statement of Qualifications

for

Jim Hawkins, Geophysicist

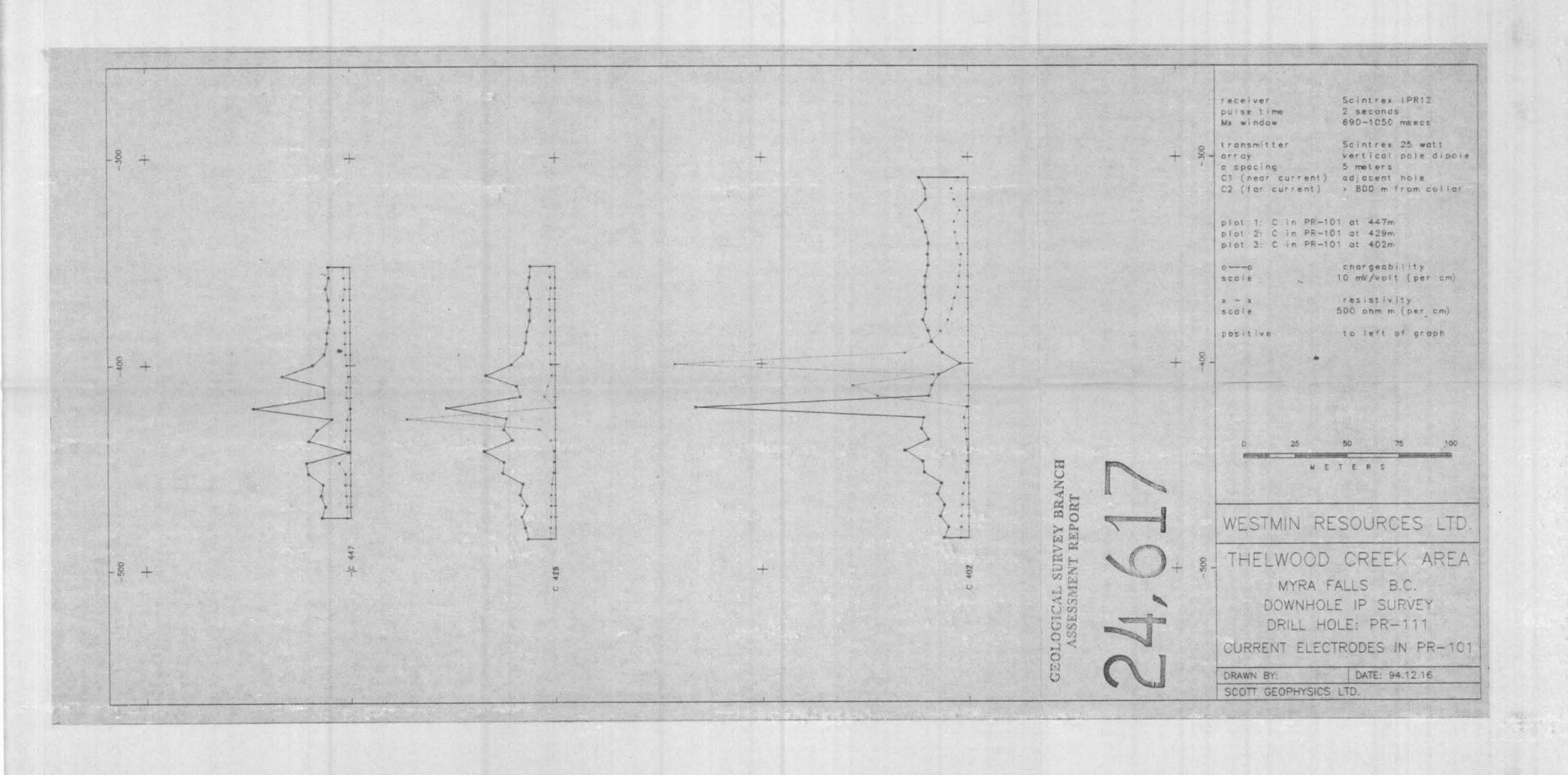
of

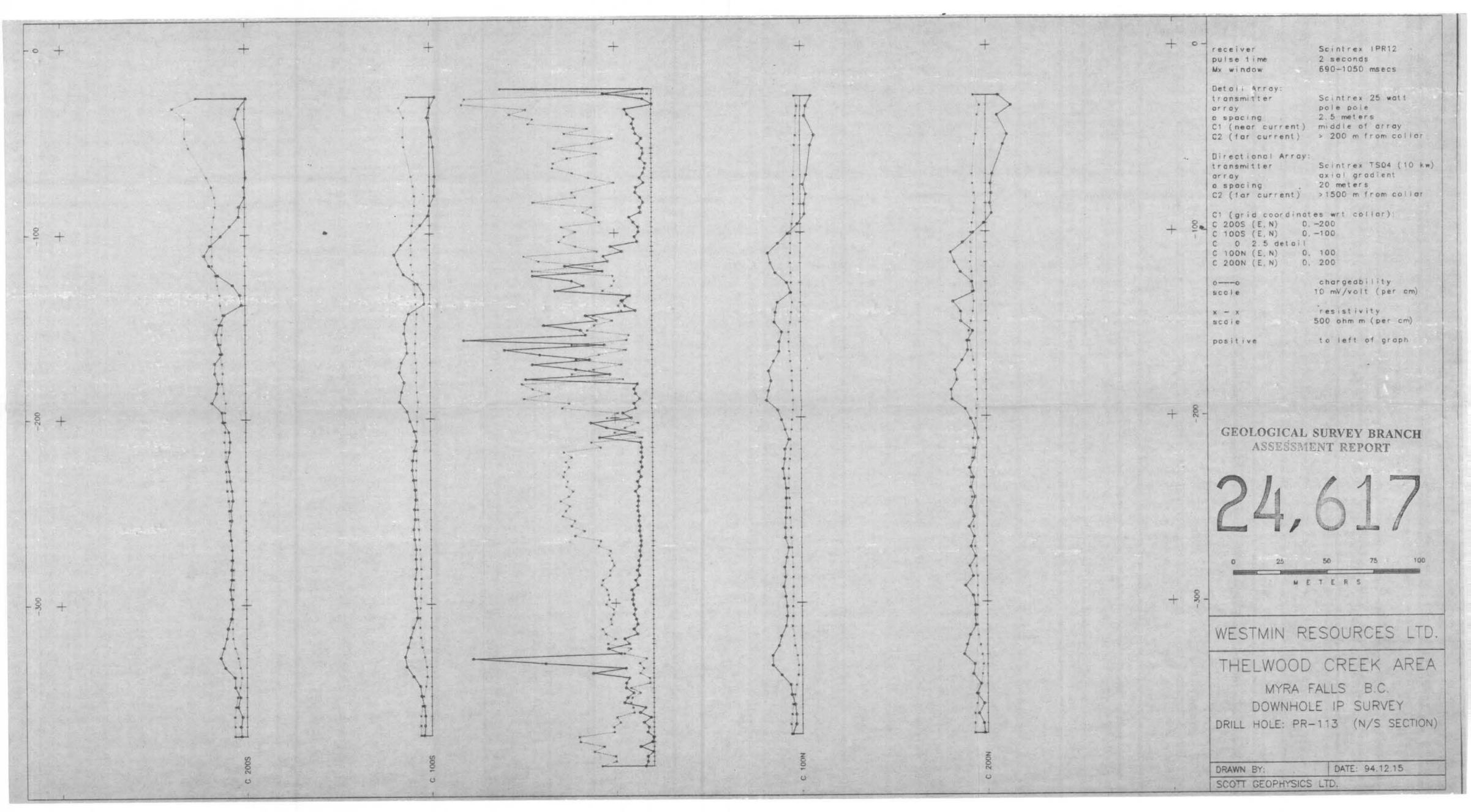
762 Dehart Road Kelowna, B.C. V1Y 8R3

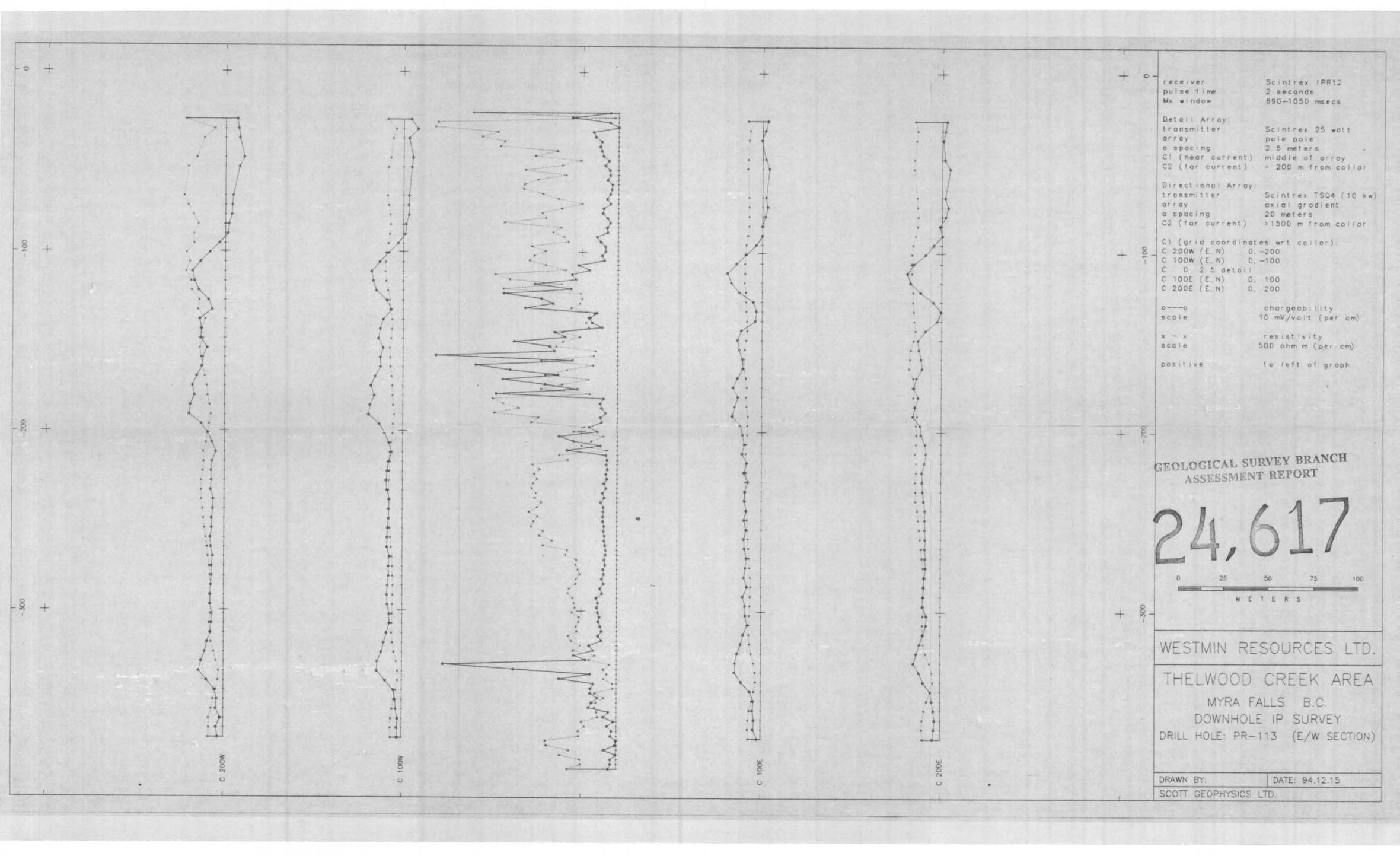
- I, Jim Hawkins, hereby certify the following statements regarding my qualifications, and my involvement in the program of work described in this report.
- 1. The work was performed by individuals sufficiently trained and qualified for its performance.
- 2. I have no material interest in the property under consideration in this report, nor in the company on whose behalf the work was performed.
- 3. I graduated from the University of Western Ontario with a Bachelor of Science degree (Geophysics) in 1977.
- 4. I am a licensee of the Association of Professional Engineers, Geologists, and Geophysicists of Alberta (P. Geoph.).
- 5. I have been practicing my profession as a Geophysicist since 1977.

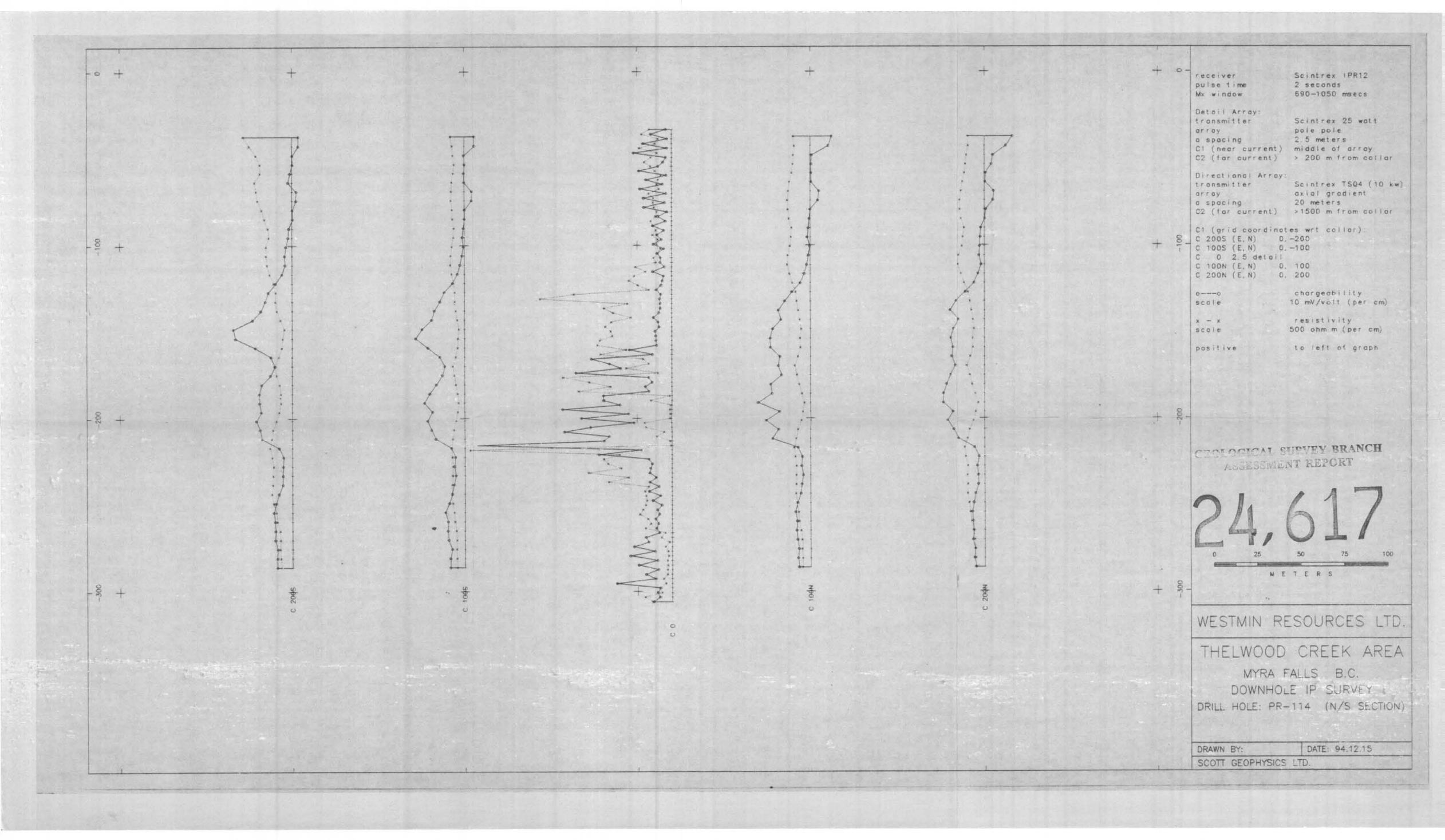
Respectfully submitted,

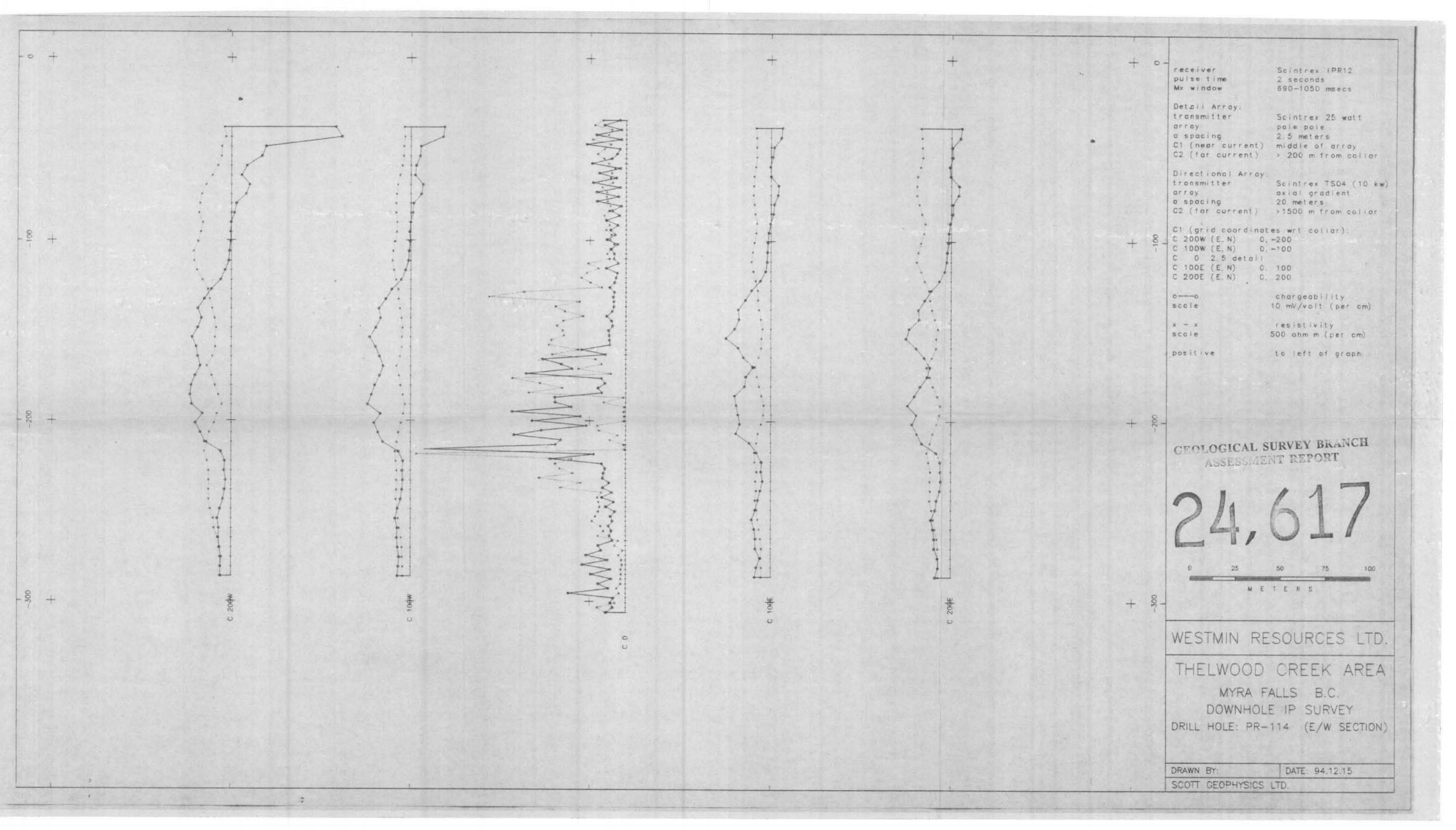
Jim Hawkins, P. Geoph.

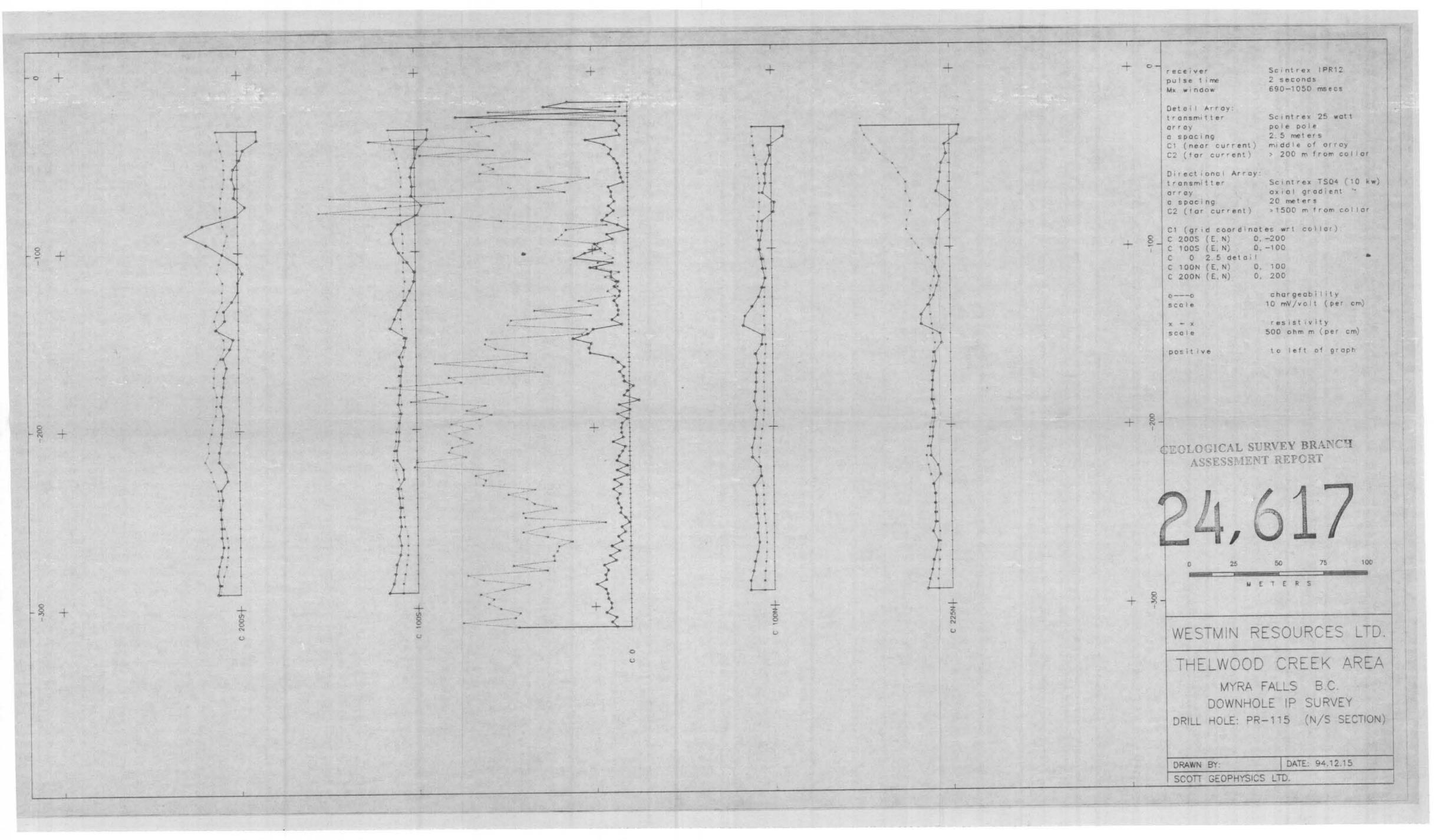


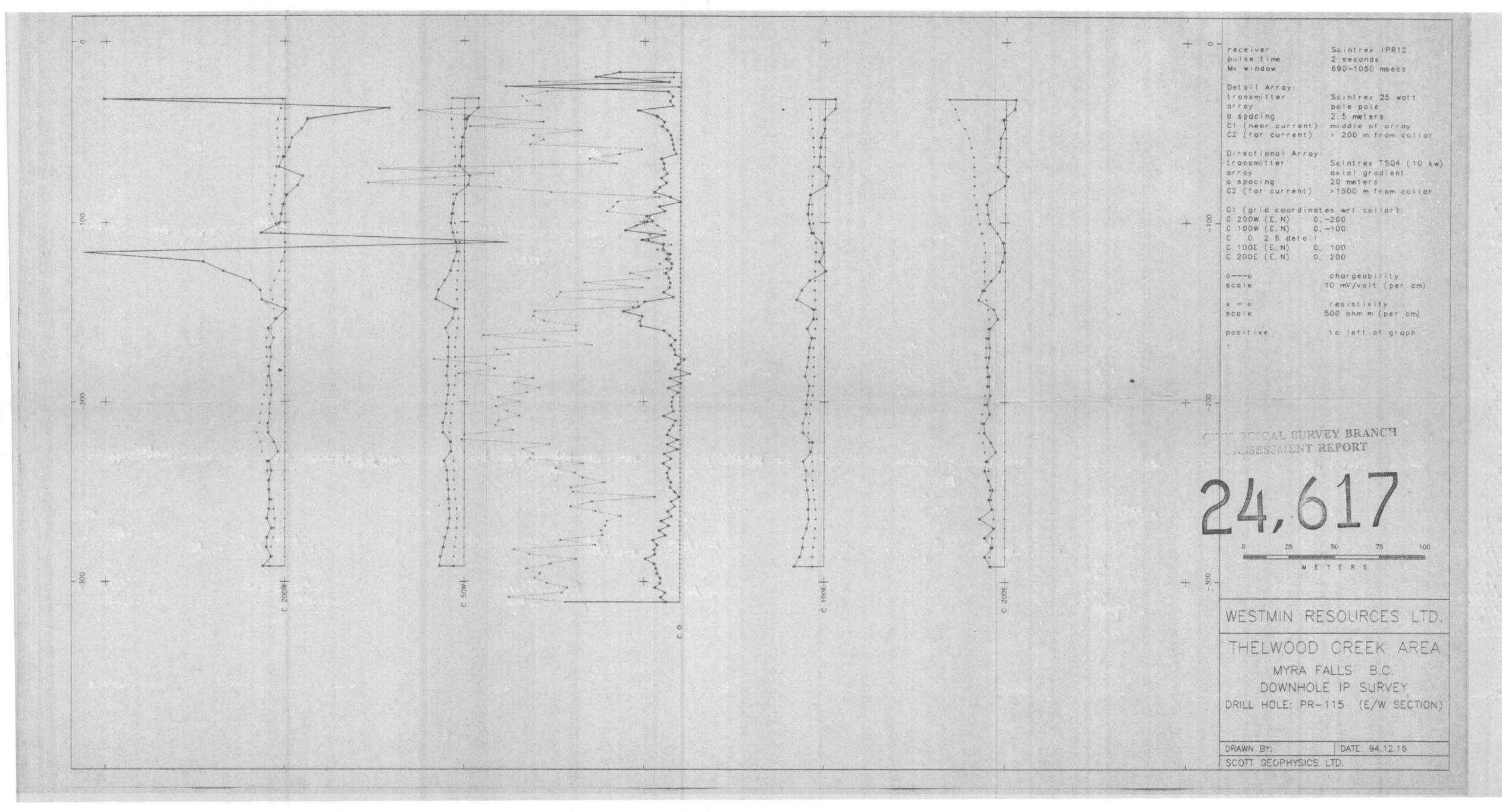












67 57 65 41 29 22 14 21 20 24 20 15 18 24 22 10 12 13 ESOURCES LIMITED

K AREA, MYRA FALLS, B.C.

C CROSS ROAD TRAVERSE

SUINEY Pole-Dipole Array
Sulface 1 PR 20 21 20 26 25 1.6 2.6 23 22 20 20 20 20 21 23 24 31 24 7.2 6.3 7.1 46 35 1.6 29 28 3.5 2.8 22 20 26 30 1.2 0.8 0.8 E N 35 28 30 38 31 29 20 32 27 27 25 24 22 27 28 30 29 50 5 -50 6 -50 6 -50 7 -73 75 88 68 53 45 42 30 45 44 42 31 27 多 50 7 -63 63 53 54 66 46 4.1 45 38 44 38 44 37 65 53 54 54 54 43 42 48 42 34 45 40 50 8 -50 8 -72 7.9 92 68 88 40 44 30 47 48 43 33 50 9 -25 7.0 9.0 6.0 5.5 4.8 44 4.0 44 4.5 4.3 50 9 -62 60 56 50 47 42 45 49 49 - 65 58 56 65 55 46 53 50 46 75 82 88 77 67 92 42 39 45 8.8 63 62 67 57 58 38 63 55 7.7 7.8 9.2 8.9 5.5 4.7 4.3 3.9 RE STMIN 170 2836 2900 1854 2245 1956 6500 1350 1424 1418 1295 1270 957 1014 1167 4827 1220 1006 80 4 -2464 2914 2533 2760 2188 1767 1448 1413 1272 1016, 1066 1102 045 50 4 -李 3 4 6 6 6 50 5 -50 5 -50 6 -E 50 6 -50 7 -50 8 -2318 2834 2941 2441 2835 2475 2882 -2925 886 1530 1966 1656 1975 1719 2525 5276 THELWOOD CREEK CROSS ROAD TRAVERSE LINE: 6000E 39 35 29 17 12 1.6 15 15 25 28 23 24 26 1.6 1.6 23 1.8 1.6 23 24 20 27 27 34 -25 28 20 20 24 20 18 1.6 1.6 1.6 1.5 1.4 20 21 1.8 1.6 41 32 24 1.8 .21 22 2.0 27 29 31 27 32 28 20 20 18 21 21 23 28 30 25 32 32 4.7 32 50 44 32 19 14 13 10 10 20 50 5 -50 5 -50 6 -S 50 6 -88 63 61 42 45 53 83 35 42 22 12 /25 £ 50 7 -50 7 -83 75 69 40 40 56 33 38 30 08 KA 50 8 -9.2 6.6 2 41 25 6 47 48 12 528 50 6 -50 9 -50 9 -93 71 54 39 36 40 50 38 28 50 10 -50 10 -9.1 7.1 8 33 40 53 44 40 50 11 + -5.1 3.0 S.0 4.1 4.7 4.2 4.6 35 50 53 51 56 4.8 8.0 5.6 3.8 70 43 1745 1762 1815 1826 1371 1520 1216 1425 1337 1662 1549 1563 1511 1231 1112 1345 933 1131 2540 1930 1300 1346 1377 1540 1910 2848 2798 1646 1735 1619 1949 2798 2502 279.9 2080 2156 2NE 1586 1506 1180 1351 1296 1374 1273 1158 1079-4092 1055 1413 (3286 2274 1915 1746 1863 1746 2486 3480 2409 1844 2283 1897 2623 2757 3284 2117 2006 1861 2330 1353 1448 1858 3564 2887 2314 1856 1825 2057 1946 3634 2571 1972 2138 2339 2670 3956 50 5 -50 6 -50 6 -50 7 -50 7 -50 6 -50 6 -50 9 -2496 3407 4587 2046 1136 1754 1837 2794 2785 2110 2430 2388 2441 1815 1678 1495 1684 1437 50 10 -2950 8953 5289 4146 3390 2793 3187 2758 3284 4082 4435 445 2075 7932 5630 4393 3220 3071 3336 2669 2276 3445 1335 1787 2178 PRICE CREEK ROAD TRAVERSE LINE: 5850E 28 3.2 3.5 3.5 2.6 1.9 1.8 1.9 2.1 1.7 1.6 1.8 2.0 2.4 1.6 1.0 1.0 2.2 21 103 117 81 57 63 60 37 21 22 15 18 22 22 24 60 48 37 24 22 22 22 17 14 12 17 15 13 13 20 19 11.7 11.3 26 66 52 63 40 21 1.6 13 21 23 25 26 10.5 121 | 9.7 (40 | 5.5 5.8) 40 22 1.8 1.8 2.2 | 2.5 2.8 50 4 -3.7 3.4 2.9 3.0 2.3 2.1 1.8 1.7 1.4 2.3 1.6 116 19 63 61 00 47 25 27 17 22 27 34 42 38 32 34 28 23 15 16 17 13 10.9 77 74 4.0 38 35 45 25 23 1.0 25 50 6 -\$ 50 6 -80 63 37 27 86 35 28 25 20 50 7 -75 68 71 75 61 44 43 35 30 32 27 24 22 E 50 7 -2.0 3.8 23 12 3.8 3.9 2.8 7.1 7.0 7.1 Y6 8.2 4.7 4.2 3.8 3.9 3.4 2.9 2.5 50 8 -11.6 /20 05 1/ 38 20 1 2 0 0 0 0 0 1.2 OLOGICAL SURVEY BRAN ASSESSMENT REPORT 50 10 -73 72 77 78 64 43 45 41 43 7.3 7.1 7.1 the 6.2 4.6 4.6 4.2 1818 2594 1959 2042 1814 1873 2225 1538 1856 1442 1624 1757 4528 1239 1272 1099 1190 1003 WESTMIN RESOURCES LTD 2348 2418 2200 2262 2106 1979 1670 1399 1493 1351 1578 1277 1096 3995 2515 3271 3760- 2758 ROOM 2052 2888 3202 2090 3338 3473 4471 1273 50 3 -7436 2012 2856 2543 3154 2743 2238 1802 346 THELWOOD CREEK AREA 50 4 -3784 2121 3265 3186 1701 1216 1409 1581 2336 2145 2905 2788 50 5 -50 6 -MYRA FALLS, B.C. 30 7 -1672 2008 (3117 7042 3410 3330 3060 1646 1306 1640 1656 1656 1550 CHARGEABILITY/RESISTIVITY 1353 2201 3301 2814 3554 4210 2369 1762 421 1621 1611 1623 2006 100 1952 2152 1369 534 1486 1965 PSEUDOSECTIONS 2762 (1364 16th 2300 100 de 50 10 a=50 m / n=1-121704 2146 2856 2788 3131 3241 2362 8007 1581 DRAWN BY jph LINE: 6150E LINE: 5700E SCOTT GEOPHYSICS LTD.

DATE: Dec/94