



010

TOWNSHIP: BLAKELOCK

REPORT NO: 24

WORK PERFORMED FOR: Esso Resources Canada Ltd.

RECORDED HOLDER: Same as Above [xx]

: Other []

Claim No.	<u>Hole No.</u>	Footage	Date	Note
L 871909	HN88-22	202.69m	Jan/88	(1)
L 871912	HN88-23	128.63m	Jan/88	(1)
L 871909	HN88-24	282.24m	Jan/88	(1)
L 871908	HN88-25	233.48m	Feb/88	(1)
L 87912	HN88-26	175.56m	Feb/88	(1)

NOTES: (1) W8908-141, date filed Aug/89

Blakelock

ESSO MINERALS CANADA SUMMARY DRILL LOG

Project Name: HN	Hole Number: HN88-22
Project Number: 1677	Logged By: M.H. Lenters .
NTS: 42H/8	Date: February, 1988
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Location: 140+26W, 9+53S	Claim Number:
Azumith:	Length (m): 202.69m

PURPOSE: Test geology across Mag low trend between RC holes 112 and 113 which yielded anomalous gold in bedrock chip samples.

From (m)	To (m)	Description	Gold Assays (g/tonne)
0.00	15.24	Overburden (Vertical Depth = 11.3 metres)	
15.24	18.10	Fine-Grained Clastic Metasediment Dark slightly grey, fine grained, massive and homogeneous, magnetic, moderately hornfelsed?/altered siltstone. Intense rectilinear microfracture network of calcite veining. Minor to 1% disseminated pyrite.	0.01
18.10	26.30	Feldspar Porphyritic, Quartz Diorite Dyke Dark grey to light pinkish to brick red, plagioclase porphyritic hypabyssal intrusive with 5% weakly chloritized biotite and minor quartz grains and veining. 1 to 2% pyrite.	0.01 to 0.18
26.30	42.40	Complex Zone of Weakly Foliated to Strongly Sheared/(Mylonitized?) Feldspar Porphyritic Quartz Diorite Dykes and Well Sheared Metavolcanics 50% metavolcanics and 50% intrusives in a zone that is foliated and weakly to strongly sheared at 40 to 50° to the core axis, and contains minor to 10%, irregular, network quartz and calcite veining. Minor to 2% pyrite.	0.02 to 0.39
42.40	45.10	Mylonitized, Altered and Brecciated, Quartz Diorite Intrusive Light pastel pinkish, greenish and creamy coloured, intensely sheared at 40 to 50° to the core axis, but moderately brecciated in small (cm), offset blocks with 2 to 3% vugs, and 3 to 5% quartz veinlets that are often offset and boudinaged. Thin (5 mm) sphalerite vein. 3 to 5% pyrite.	1.02 to 1.81
45.10	52.30	Sericitized, Quartz-Veined and Mineralized, Leucocratic Feldspar Porphyritic Diorite Intrusive Very light apple green, to light creamy white, medium grained, moderately to intensely sericitized and silicified, containing 40 to 50%, white quartz veining at 0 to 20° to the core axis. 2 to 3% pyrite. Quartz veining contains minor pyrite, sphalerite, galena, molybdenite, chalcopyrite and traces of hessite, native bismuth and native gold.	0.19 to 210.0
52.30	52.45	Mylonitized, Altered and Brecciated, Quartz Diorite Intrusive As above.	1.04
52.45	71.75	Mafic Metavolcanics (Sheared and Epidotized) and Feldspar Porphyritic, Quartz Diorite Dykes Volcanics are dark green-grey, very fine grained, moderately to well foliated/sheared, with abundant, irregular, amastomosing light yellow-green epidote-diopside? altered patches and bands. Metavolcanics are cut by 4 thin intrusive dykes.	0.01 to 0.38

From To (m) To (m) Bescription Gold Asseys to from 1					
71.75 88.00 Mafic Metavolcanic (Pe Tholsitic Plows) Transitional zone between overlying well foliated/sheared volcanics, and the below wolcanics that are only weakly deformed and altered, and exhibit abundant volcanic flow textures. 88.00 131.10 Feldspar porphyritic, Quartz Diorite Intrusive Medium gray to greyish pink, medium grained, massive to weakly feldspar porphyritic, containing \$\frac{1}{2}\$ biotite and minor quartz verining. Minor to 0.52 pyrite. 131.10 202.69 131.10 202.69 The Metavolcanic (Fe Tholsitic Flows) with Minor, Thin Quartz Diorite and Feldspar Porphyry Dyken Volcanics are dark green, fine grained, weakly magnetic, massive to weakly foliated at 30 to 60° to the core axis, with some cherty (silica) and biotitic (potassic) alteration zones. Minor pyrite. 202.69 END OF HOLE	,	l l	11	Description	Gold Assays
Transitional zone between overlying well foliated/sheared volcanies, and the below volcanies that are only weakly deformed and altered, and exhibit abundant volcanie flow textures. Feldsmar Porphyritic, Quartz Diorite Intrusive Heddum grey to greyish pink, medium grained, massive to weakly feldsmar porphyritic, containing 5% biotite and minor quartz volcanies, Hinor to 0.5% pyrites. Nafic Metavolcanie (Fe Tholeitfe Flows) with Minor, Thin Quartz Diorite and Feldsmar Porphyry Dykes Volcanies are dark green, fine grained, weakly magnetic, massive to weakly foliated at 30 to 60° tothe core axis, with some cherty (silica) and biotitic (potassic) alteration zones. Minor pyrite. END OF HOLE		(m)	(m)		1971011107
Medium grey to greyish pink, medium grained, massive to weakly feldspar porphyrtic, containing S% biorite and minor quartz veining. Minor to 0.5% pyrite. 131.10 202.69 Mafic Metavolcania (Fe Tholeiite Flows) with Minor, Thin Quartz Diorite and Feldspar Porphyry Dykes Volcanics are dark green, fine grained, weakly magnetic, massive to weakly foliated at 30 to 60° to the core axis, with some cherty (silica) and bioritic (potassic) alteration zones. Minor pyrite. 202.69 END OF HOLE	.1	71.75	88.00	Transitional zone between overlying well foliated/sheared volcanics, and the below volcanics that are only weakly	0.01 to 0.60
Diorite and Feldspar Porphyry Dykes Volcanica are dark green, fine grained, weakly magnetic, massive to weakly foliated at 30 to 60° to the core axis, with some cherty (silica) and biotitic (potassic) alteration zones. Minor pyrite. END OF HOLE		88.00	131.10	Medium grey to greyish pink, medium grained, massive to weakly feldspar porphyritic, containing 5% biotite and minor quartz	0.01 to 0.04
cherty (silica) and biotitic (potassic) alteration zones. Minor pyrite. END OF HOLE	'	131.10	202.69	Diorite and Feldspar Porphyry Dykes Volcanics are dark green, fine grained, weakly magnetic, massive to weakly foliated at 30 to 60° to the core axis, with some	0.01 to 0.06
				cherty (silica) and biotitic (potassic) alteration zones. Minor pyrite.	
			202.69	END OF HOLE	
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B-W PROJECT (Ont. 77)		BSSO MINE			Hole: Page:	HM88-22 1
Hole Size: Core Size: Casing:	Atlas Drilling Limited BQ BQ Casing Removed	Azimuth: Dip: Acid Test	5:	182 -48	Claim No: Grid: Basting: Worthing: Blevation:	L-871909 West 40+26W 9+53S Level
	Peb. 7, 1988 Peb. 9, 1988	Depth 45.72	λz.	Dip -48.0	Parpose:	Test RC Bedrock Au Value
Date logged: Logging Method:	N.H.Lenters Pebruary 1988 Log II Metric	202.69		-18.0	Length: Vert. Proj: Bor. Proj: Ovb. Depth:	136.0 Metres

Interval Description Sample Interval Length Au	Ag	Te Pyrite	ALTERATION
(Metres) No. (Metres) (g/t)	(ppm)) (ppm) (%)	SIL CARB SER

.00 15.24 OVERBURDEN

15.24 18.10 SILTSTONE

Dark slightly brownish grey, fine grained, massive, homogeneous, slightly bornfelsed? siltstone.

Moderately to strongly magnetic throughout.

Weakly foliated at 50 to 60 degrees to the core axis.

Unit has an intense shattered fracturing with 5%, thin (hairline), calcite veinlets forming ladder, network and herring-bone tension fracture patterns.

Unit contains two, grey, feldspar porphyritic intrusive dykes with sharp, but irregular contacts, that are located at 16.55 to 16.77 and 16.88 to 17.07.

16.55 16.77 PP Quartz Diorite Dyke - Peldspar Porphyritic.

16.88 17.07 PP Quartz Diorite Dyke - Peldspar Porphyritic.

Minor to 1% finely disseminated pyrite.

Unit contains no large veining.

Lower contact is sharp but irregular.

HS 15.24 18.10 2.86 n/a n/a n/a 1% 275 15.24 18.10 2.86 .01 3.00 n/a 0.5-1%

BSSO NINBRALS CANADA DIAMOND DRILL RECORD Hole: Page: HN88-22 2

Interval (Metres)	Description	No.	{ Net		Length (Metres)		Ag (ppm)		Pyrite (%)	SIL	CARB	SEI
18.10 26.3	Description of the content of the co	276 277 278 279	18.10 19.00 21.00 23.00	19.00 21.00 23.00 25.00	2.00	n/a .02 .01 .13 .01	n/a .60 1.10 .80 .70 .90	n/a n/a n/a n/a n/a	1-2% 2% 1-2% 1-2% 1-2% 2%			
26.30 27.2	O SHEARED/DEPORMED FP QT: DIORITE AND SHEARED MAFIC METAVOLCAMIC 10 to 30t, thin (hairline to 2 mm), small, elongate/sheared, light pinkish grey intrusive fragments within very fine grained foliated/sheared, dark greenish black, weakly magnetic material that is probably sheared/mylonitized mafic volcanic. Unit includes several, 1 to 3 cm, irregular intrusive clasts that are floating within the foliated mafic volcanics, as well as numerous partly sheared and broken intrusive fragments. Sheared intrusive material suggests intrusive event preceeded, or was		26.30 26.30		.90 .90	n/a .02	n/a 2.50	n/a n/a	MINOR			

BSSO MINERALS CANADA DIAMOND DRILL RECORD Hole: HM88-22 Page: 3

Interval (Metres)	Description	Sample No.	Inte	rval	Length (Metres)	λu	Ag	Te	Pyrite		TERATION CARB	SER
	contemporaneous with the shearing event. Shearing is oriented at 40 to 50 degrees to the core axis. Minor, thin (1 to 3mm) quartz veinlets cut the shear zones. Veinlets are also broken and partially sheared or boudinaged. Minor pyrite. Lower contact is a sheared intrusive contact at 40 degrees to the core axis.											
27.20 29.0	FREDSPAR PORPHYRITIC QUARTI DIORITE INTRUSIVE - UNALTERED White, to light pinkish grey, medium grained hypidiomorphic to weakly feldspar porphyritic. 1 to 3%, thin (1 to 10mm), irregular silica veinlets and flooding. 1 to 3% pyrite, as fine disseminations, and along fractures. Pyrite concentrations are greatest near, or adjacent to, quartz veining. Unit is massive, and weakly sheared at 45 to 50 degrees to the core axis. Central opaque white zone contains 5 to 10%, irregular fracturing lined with dark blotite/chlorite minerals. Lower contact appears to be a sheared intrusive contact, but has been removed by sampling.				5 1.85 5 1.85	n/a .1\$	n/a 1.40	n/a n/a	1-3% 1-3%	V.VK	v. vk	V.YK
29.05 32.3	O SHEARED/DEFORMED FP QTI DIORITE AND SHEARED MAPIC METAVOLCAMIC (Same as unit between 26.30 and 27.20, but with less intrusive material). 1 to 25%, small, sheared, light pinkish grey intrusive clasts within very fine grained, weakly magnetic, well foliated sheared dark greenish black, mafic volcanic material, that is possibly, partly a sheared feldspar porphyry dyke. Shearing is oriented at 40 to 50 degrees to the core axis. 1 to 2%, thin (1 to 3mm), quartz veinlets cut the unit, but these are themselves broken and boudinaged. Minor to 1% pyrite. Lower contact removed during sampling.				1 3.25 0 3.25	n/a .03	n/a 2.20	n/a n/a	MINOR 0.5%			

BSSO NIMBRALS CAMADA DIAMOND DRILL RECORD Hole: HW88-22 Page: 4

Interval (Metres)	Description	Sample No.			Length (Metres)	λα (g/t)	Ag (ppm)		Pyrite (%)	al SIL	TBRATION CARB	SBR
	Light cream to medium greenish grey, medium (0.5 to 2mm) grained, hypidiomorphic to weakly feldspar porphyritic intrusive. 5%, Weak to moderately chloritized biotite. Minor quartz veining, as well as 5 to 10%, patchy quartz grains/flooding. 2% Finely disseminated pyrite. Abundant, hairline fractures oriented at various angles to the core axis, containing sericite coatings and minor pyrite. Upper contact removed by sampling. Lower contact is a sharp, irregular, fault/fracture contact.		32.30 32.30		.70 .70	n/a .04	n/a 1.00	n/a n/a	24 23	v.vr	v.vx	
33.00 33.70	O SHRARED/SCHISTOSE MAPIC METAVOLCANIC Dark greenish black, fine grained, weak to moderately magnetic, well foliated/schistose (mylonitic) mafic volcanic. Weak to moderately well developed foliation/shearing at 40 to 50 degrees to the core axis. Unit is quite vuggy with calcite? removed along some thin fractures. Several, thin (1 to 2mm), partly broken or boudinaged quartz veinlets, locally exhibiting small-scale ptygmatic folding. Lower contact removed by sampling.) .70) .76	n/a .05	n/a 2.90	n/a n/a	1-23			
33.70 34.09	5 PELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED (Same as units between 27.20 to 29.05, and 35.00 to 37.50). Buff white to light slightly greenish grey, medium grained intrusive. Well fractured and containing 5 to 10% quartz veinlets and flooding, locally offset by fracturing. 2 to 3%, finely disseminated pyrite often along slightly vuggy fractures. Upper contact removed by sampling. Lower contact is a sheared intrusive contact.				5 .35) 1.30	n/a .21	n/a 2.70	n/a n/a	2-3 \$ 2-3 \$	AK	-	V. VK
34.05 35.0	O SHEARED/SCHISTOSE MAPIC METAVOLCAMIC (Same as unit between 33.00 and 33.70). Upper and lower contacts are sharp sheared intrusive contacts.	15	34.05	35.01	0 .95	n/a	n/a	n/a	2-31			

BSSO HIMBRALS CANADA DIAMOND DRILL RECORD

H-W PROJECT (Ont. 77)

Hole: HW88-22 Page: 5

Interval (Metres)	Description	Sample No.			Length (Netres)	λα (g/t)	Ag (ppm)		Pyrite (%)	al SIL	TERATION CARB	SER
35.00 37.5	Description of coarse grained, white quartz, but also contains minor amounts of discontinuous, chloritic stylolitic fracture surfaces, as well as numerous intensely altered, white vailrock fragments.				2.50 2.50	n/a .39	n/a 6.40	n/a n/a	1-31			
37.50 40.0	Dark brownish black, slightly yellowish laminated, very fine grained, very weakly to non magnetic, mafic volcanic. Unit is strongly sheared at 40 to 45 degrees to the core axis, with abundant (5 to 10%), very thin, elongated, slightly yellowish buff calcite grains, as well as a few, thin (hairline to 3mm), boundinaged, shear-orientation parallel quartz veins that are often pulled apart and contain calcite in pullapart pressure shadows. Minor pyrite as fine disseminations, and along quartz veinlets and fractures. Unit is moderately reactive to BCl. Lower contact removed by sampling.) 2.50) 3.60	n/a .17	n/a 2.50	n/a n/a	0.5%			
40.00 41.1	O SHEARED/SCHISTOSE HAFIC METAVOLCANIC Nottled and crackled, light to medium buff, light grey and creamy, cherty looking silicified mafic volcanic.	NS	40.00	41.10	0 1.10	n/a	n/a	n/a	MINOR 1	IOD-INT	VK	· V.1

BSSO MINERALS CANADA DIAMOND DRILL RECORD Hole: Page: HN88-22

Interval (Metres)	Description	Sample No.			Length (Metres)	Au (g/t)	Ag (ppm)	Te (ppm)	Pyrite (%)	SIL	TERATION CARB	SER
	Hassive to weakly sheared, with no original textures due to the intense crackle fracturing and alteration. 5 to 10% network of silica crackle veinlets, often as larger (1 to 3mm), silica veins with intense development of thin (hairline), subperpendicular, tension fracture veinlets. The veining generally centers thin slightly lighter epidote?/altered zones. Minor finely disseminated pyrite. Upper and lower contacts were removed by sampling.											
41.10 42.4	O PP QUARTI DIORITE INTRUSIVE - WK TO MOD ALTERED Creamy to yellowish white to light pinkish, medium grained (0.5 to 2mm), hypidiomorphic to porphyritic, with 10 to 30%, white, 2 to 4 mm, subhedral to euhedral feldspar phenocrysts with zoned rims. Unit is white and more silicified in upper section, relatively unaltered in central section, and weakly altered with yellowish limonitic staining in lower section. 5% Biotite that is unaltered to weakly chloritized. Very little interstitial quartz, although locally it accounts for 5 to 10% of the unit. 3 to 7% quartz veining, generally as irregular, thin (1 to 3mm), patches and veinlets. Some veinlet fractures are vuggy and limonite stained. 1 to 2% finely disseminated pyrite, and minor amounts of thin, fracture controlled pyrite. Lower contact removed by sampling.		41.10			n/a .34	n/a 2.10	n/a	1-2%	AX	•	9 1
42.40 45.1	Light pastel pinkish, greenish, to cream coloured, relatively hard, siliceous, very fine grained, well foliated/sheared, generally at 45 degrees, but at various angles to the core axis unit is broken/brecciated into small (0.5 to lcm), angular blocks, with abundant, thin (hairline to lmm) open fractures. Locally, a few sections exhibit characteristics of the light coloured dioritic intrusive, and may be the sheared contact of the adjacent intrusive within this brecciated mylonite zone.	290 260	42.40 42.40 44.20 45.00	44.20 45.00	0 1.80 0 .80	n/a 1.02 1.81 5.57	n/a 5.00 10.10 25.70	n/a n/a 3.10 4.80	3-5% 3-4% 4-5% 1-2%	¥K	WK-MOD	¥

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	Au	λg	te Pyrite	ALTER	HOITK	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm) (%)		ARB	SBR

2 to 3%, thin, open wags along irregular breccia fractures.

2 to 4% pyrite, as fine disseminations, and along fractures with up to 5% occuring near the lower intrusive contact.

Unit contains a few moderately magnetic bands, which may represent sheared mafic volcanic wallrock xenoliths.

3 to 5%, thin (1 to 5mm), irregular but subplanar quartz veins, as well as a pervasive siliceous/silicified? character throughout the unit. Unit also contains a few, larger (1 to 2 cm) quartz vein fragments.

45.00 45.10 Lower contact zone, including thin (1cm), irregular, green to yellow-green sphalerite vein along a fracture oriented parallel to the core axis.

Lover contact is an irregularly broken and sheared transition into altered intrusive.

45.10 52.30 PP QUARTI DIORITE INTRUSIVE - NOD TO INT ALTERED

Very light apple green to creamy coloured, medium grained hypidiomorphic intrusive, that is moderately to intensely quartz veined and altered. Biotite is locally visible only as minor remnant chlorite. It is now almost competely replaced by sericite.

Peldspar grains are still discernable, but moderately sericitized.
The unit is intruded by approximately 50t, large, coarse grained, glassy white quartz as subplanar branching veins that are mostly oriented at 0 to 25 degrees to the core axis. The veins are locally offset across small slips and fractures. The quartz is vuggy and contains a few percent pyrite, sphalerite, and galena, minor amounts of molybdenite and chalcopyrite, and trace amounts of hessite, native bismuth, and native gold.

Unit is relatively competent although strongly fractured and veined.

45.10 45.45 10 to 15% quartz veining and biotite. Moderately chloritized.

45.45 45.90 95% quartz veining with 2 to 5% pyrite in a large (1 to 2cm), irregular, elongate (45.72 to 45.84m) band/lense containing abundant (20 counts), relatively coarse (1mm) visible gold and several percent, light greenish, coarse sphalerite, and galena, and lesser chalcopyrite, molybdenite, hessite (Agre2), and native bismuth. The gold is all associated with

118	45.10	52.30	7.20	n/a	n/a	n/a	2-3% MOD-INT	WK-HOD HOD-INT
262	45.45	15.90	. 45	26.10	141.50	59.00	3-5%	
263	45.90	46.30	.40	210.00	1200.00	n/a		
264	46.30	46.90	.60	2.66	48.00	19.00	1-24	
265	46.90	47.50	.60	1.83	60.00	22.00	2-31	
266	47.50	48.40	.90	3.72	174.00	12.00	2-31	
267	48.40	49.30	.90	1.04	57.60	.90	1-2%	
268	49.30	49.80	.50	.43	30.00	.80	1-2%	
269	49.80	50.60	.80	1.17	62.20	.60	1-2%	
270	50.60	50.95	.35	3.22	163.00	1.00	1-2%	
271	50.95	51.75	.80	.19	2.00	3.20	1-24	
272	51.75	52.30	.55	1.03	10.00	4.30	1-21	

BSSO MINERALS CANADA DIAMOND DRILL RECORD

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Hole: Page: HN88-22 8

Interval (Metres)	Description	Sample No.		Length (Ketres)	Au (g/t)	Ag (ppm)	Te (ppm)	Pyrite (%)		TERATION CARB	SER
	the pyrite band, although several of the other minerals form small, individual grains within the quartz vein. 15.90 50.95 40 to 60% quartz veining with 2% pyrite, partly as fine disseminations, as well as larger (0.5cm) grains/blebs occuring within the quartz veins. Pyrite occurs together with minor amounts of the grey metallic minerals along thin fractures. The grey minerals also occur as small, wispy fracture puffs within the quartz veins. 50.95 52.30 Altered intrusive that is similar to overlying section, but containing much less (10 to 15%) quartz veining, 1% pyrite, and only traces amounts of the grey minerals. The three sections in this intrusive unit are discribed using the divisions previously made during sampling. These divisions are somewhat arbitrary, dividing a single intrusive unit.										
52.30 52.4	5 MYLOHITE IONE Several fragments of light pastel pink and buff coloured finely sheared/foliation, fine grained rock that appears somewhat brecciated. Mylonitic foliation is planar and oriented at 40 degrees to the core axis. 1 to 2% finely disseminated pyrite, and 5%, thin (1 to 5mm) irregular, broken and boudinaed quartz veins. Upper and lower contacts removed by sampling.		52.30 52.30	5 .15 5 .35	n/a 1.04	n/a 4.50	n/a 7.20	1-2% 1-2%	VX	AK-XOD	VX
52.45 53.3	O FP QUARTI DIORITE INTRUSIVE - WK TO MOD ALTRRED Light to medium yellowish cream, to pinkish and yellowish cream coloured, medium (0.5 to 2mm) grained, hypidiomorphic granular to feldspar porphyritic intrusive. 5%, Subhedral, (partially resorbed?), 3 to 5 mm plgioclase phenocrysts in finer plagloclase-rich matrix, that also contains 5%, weak to moderately chloritized biotite, and 3 to 5%, thin, diffuse quartz veining/flooding/patches. Unit appears massive and is only weakly fractured. One, larger (2cm) quartz vein at 53.20 to 53.25 oriented at 45 degrees to the core axis with no pyrite or grey minerals.		52.45 52.65	0 .85 0 .65	n/a .01	n/a 2.00	n/a 1.80	1-2% 2-3%	VK	-	ĀĶ

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ESSO MIMERALS CAMADA DIAMOND DRILL RECORD Hole: Page: HN88-22

Interval (Metres)	Description	Sample Mo.			Length (Metres)	Au (g/t)	Ag (ppm)		Pyrite (%)	SIL	CARB	SI
	1 to 2% pyrite, as fine disseminations and along fractures. Lower contact is sharp, undeformed, irregular intrusive contact at 45 to 50 degrees to the core axis.											
3.30 58.3	Dark greenish grey with several anastomosing foliated and banded, patches and zones of lighter yellow green diopside/epidote altered and pinkish-orange hematitic staining, and minor garnet in a very fine grained strongly sheared/foliated rock. Unit is altered and hornfelsed due to the intrusion of adjacent quartz diorite. Poliation appears to be produced by shearing. It is wavy and somewhat irregular, but is generally oriented at 0 to 20 degrees to the core axis. Unit is composed of feldspar, quartz, calcite, chlorite, epidote and biotite. Unit is moderately magnetic, and contains minor finely disseminated magnetite. Unit contains 5%, irregularly broken, swirled and boudinaged intrusive frag's, that add to the identification of this zone as being sheared. Unit also contains minor quartz veining associated with the intrusive fragments. Unit is strongly calcitic and reactive to HCl. Relatively competent core. Upper contact is a sharp intrusive contact at 45 degrees to the core axis. Lower contact is a sharp intrusive contact with shearing foliation in mafic volcanic oriented parallel to intrusive contact.	291	53.30	56.1	0 5.00 0 2.80 0 2.20	n/a .09 .38	n/a 1.90 3.40	n/a n/a n/a	14 14 14 14	VX	V X	
58.30 58.9	O PELDSPAR PORPHYRITIC QUARTI DIORITE INTRUSIVE - UNALTERED Light to medium creamy grey to slightly pinkish, medium grained, and weakly altered. 5% Weakly chloritized biotite. 5% Weak veining/flooding. Minor finely disseminated pyrite. Lower contact is a sharp shear/intrusive contact.	293	58.30	60.1	0 1.80	.03	1.90	n/a	MINOR			

ESSO MINERALS CANADA DIAMOND DRILL RECORD Hole: HN88-22 Page: 10

Interval	Description	Sample			Length	λu	λg		Pyrite		PERATION	
(Metres)		No.	(Net	:res)	(Ketres)	(g/t)	(ppm)	(ppm)	(\$)	SIL	CARB	S:
8.90 59.30	SHBARED/SCHISTOSE MAPIC METAVOLCANIC											
	Medium to dark greyish with some lighter grey and pinkish banding in well foliated/sheared sections oriented at 40 to 50 degrees to the core axis. Weakly, and locally moderately, magnetic. Strongly reactive to HCl. Upper and lower contacts are sharp and oriented at 45 degrees to the core axis, with shear foliation parallel to contact edges.	YS	58.90	59.30	.40	n/a	n/a	n/a	0.5%	V.WK	V.VK	
9.30 62.15	PELOSPAR PORPHYRITIC QUARTE DIORITE INTRUSIVE - UNALTERED											
	Pinkish to pale brick red, medium grained, massive to weakly foliated,				2.85	n/a	n/a	n/a	11	V.VK	-	
	feldspar porphyritic intrusive.				.25	.21	3.00	n/a	4 1 1 1			
	Peldspar is generally medium (0.5 to 2mm) grained, with 10%, larger (2 to 10mm), subhedral, white, zoned phenocrysts.	233	60.33	97.13	5 1.80	.01	1.20	n/a	14			
	5%, Black biotite, locally weakly chloritized, particularly in shear zones A few, small shear/foliation zones, including a 25 cm zone between 60.10 and 60.35 in which colour is medium grey, grain size is much finer, and shearing and fracturing developed at 45 degrees to the core axis. Some late fractures are open, and contain a few percent pyrite. 2 to 3%, thin (5 to 15mm), subplanar, clean, milky white quartz veins. Minor to 0.5%, finely disseminated pyrite, but locally a few percent concentrated along fractures in thin foliation/shear zones. Lover contact is sharp at 45 degrees to the core axis.											
2.15 69.00	SHEARED/SCHISTOSE WAPIC METAVOLCANIC	¥A.	/4 1E	(0.0		- /-	- /-	- /-	18	VK	_	
	Well foliated and sheared carbonate-epidote-garnet altered/metamorphosed mafic volcanic.				0 6.85 0 1.85	n/a .01	n/a 3,30	n/a n/a	11	•**	-	
	Generally dark greyish green with 25 to 30%, thin pale yellowish green				1.80	.01	3.70		0.5-11			
	carbonate-epidote laminations as well as several thicker (1 to 20cm),				1.10	.01	3.70		0.5-1%			
	irregular anastomosing to foliated alteration bands that also contain minor, coarse (1 to 10cm), poikioblastic garnet megacrysts in irregularly swirled zones. Unit is generally fine grained, apart from the large garnets, is	299	66.90	69.0	2.10	.10	3.70	n/a	0.5-14			
	generally chloritic, and probably plagioclase-rich. It is moderately to											•

BSSO MINERALS CANADA DIAMOND DRILL RECORD Hole: Page: HN88-22 11

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Interval (Metres)	Description	Sample No.	Inter (Meti	res)	Length (Netres)	(g/t)	(ppm)	(ppm)		SIL	LTERATION CARB	SBR
	Minor quartz-carbonate veinlets occur within the epidote-garnet altered patches. Unit contains a few large (0.5 to 3cm), subplanar to wormy, irregularly cross-cutting quartz veins. Unit is well sheared/foliated at 40 degrees to the core axis with no original volcanic textures remaining. 0.5 to 1%, finely disseminated pyrite, particularly concentrated in thin zones within the wallrock adjacent to quartz veining. Lower contact is a sharp intrusive contact oriented at 65 degrees to the core axis.											
69.00 71.7	5 FELDSPAR PORPHYRITIC QUARTI DIORITE INTRUSIVE - UNALTERED Medium to dark grey with slight pinkish colour, medium grained, hypidiomorphic, but locally exhibiting a weak porphyritic character. 5 to 7% biotite, locally very weakly chloritic. Unit is moderately fractured and broken, with pyrite often occurring along fractures. 5%, Irregular, thin (1 to 10mm), quartz +/- carbonate veinlets, often offset across fractures. 1 to 2% pyrite, as fine disseminations concentrated along fractures. Lower 10 cm of the intrusive is sheared at 50 to 60 degrees to the core axis. Lower contact is sharp irregular intrusive contact.		69.00			n/a .02	n/a .40	n/a n/a	1-23	V.VK		
71.75 88.0	O SCHISTOSE MAFIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS Transitional in appearance between the well sheared/foliated overlying mafic volcanics, in which no volcanic textures are preserved, and the underlying mafic volcanics that are only weakly deformed and exhibit abundant flow rock textures. Generally dark slightly brownish to greenish grey, fine grained, moderately foliated/sheared, and locally weakly magnetitic. Several 1 to 50 cm bands exhibit volcanic flow textures, but these are often separated by similar widths of brown, biotitic and very fine grained, greyish cherty/siliceous material.	301 302 303	71.75 77.05 81.50 83.00 85.15	77.30 81.90 83.60	.25 .40 .60	n/a .01 .03 .60	n/a 2.70 2.20 2.10 2.00	n/a n/a n/a n/a	MINOR	AX	-	-

BSSO NIMERALS CANADA DIAMOND DRILL RECORD

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Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Netres)	•	Te (ppm)	Pyrite (%)	SIL	TERATION CARB	SBR
	Banding/foliation is moderately well developed and oriented at 40 to 50 degrees to the core axis. 2 to 3%, small, wormy (ptygmatic), 2 to 5 mm guartz veins, often slightly									

boudinaged or broken and offset across minor slips/fractures.

Minor (5%), pale green, carbonate-epidote lamina and banding that
parallel the foliation orientation, with the occasional small garnet band
Minor finely disseminated pyrite is often visible adjacent to quartz
veinlets.

Volcanics in the 50 cm zone above the lower contact with the intrusive has a greyer, more siliceous character suggesting much of the grey bands in this volcanics could be due to silica/plagioclase alteration by the adjacent intrusive.

Lover contact is a sharp, irregular intrusive contact at 70 degrees to the core axis.

88.00 131.10 PELDSPAR PORPHYRITIC QUARTE DIORITE INTRUSIVE - UNALTERED

Medium grey in the upper contact zone, medium greyish pink throughout most of the central zone, and sericitic green to pinkish in the lower contact zone, in which feldspar is weakly sericitized.

Medium grained, massive, hypidiomorphic granular to weakly feldspar porphyritic.

Nostly 0.5 to 1 mm grain size, crowded feldspar matrix with 5 to 10%, larger (2 to 10mm), subhedral to euhedral and often partially zoned, white plagioclase phenocrysts. Unit also contains about 5 to 7% black biotite that is locally weakly chloritized near the upper contact, and weak to moderately sericitized/chloritized near lower contact zone.

Unit contains a sheared mafic valcanic wallrock inclusion between 92.5

Unit contains a sheared mafic volcanic wallrock inclusion between 92.5 and 92.9.

2 to 3%, medium (2 to 20mm) grained, white, irregular to subplanar quartz veins, that are somewhat more abundant in the two contact zones.

Minor, small (1 to 20cm) fracture zones with weak shearing at 45 to 55 degrees to the core axis, particularly in the outer margins of the intrusive.

Minor to 0.5% finely disseminated pyrite.

Competent core, generally with moderate amount of chloritic coated

19	88.00	131.10	43.10	n/a	n/a	n/a	0.5%	V.VX	-	V.VK
305	88.80	90.00	1.20	.01	.60	n/a	0.5%			
306	90.00	92.50	2.50	.01	.70	n/a	0.5%			
374	100.15	100.80	.65	.03	1.10	n/a	0.5-1%			
375	104.05	104.55	.50	.01	1.10	n/a	0.5-1%			
376	111.65	112.15	.50	.04	1.00	n/a	0.5-1%			
307	125.20	126.20	1.00	.01	.70	n/a	0.5%			
308	126.20	127.20	1.00	.01	.50	n/a	0.5%			
309	127.20	128.40	1.20	.01	.60	n/a	13			
310	128.40	130.75	2.35	.03	.70	n/a	MINOR			
311	130.75	131.10	.35	.02	.70	n/a	1-24			

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval (Metres)	Description	V.	Interval (Metres)	/Notract	1-1-1	(non)	(nnel	Pyrite (%)	811	TERATION CARB	SER
	fractures/jointing. Lower contact is a sharp intrusive contact at 40 degrees to the core axis.										
131.10 149.2	O SCRISTOSE MAPIC METAVOLCANIC WITH RPIDOTE-CARBONATE BANDS Dark green, fine grained chloritic, non- to locally strongly magnetic with numerous sections exhibiting volcanic textures. Massive to weakly foliated, with the foliated zones having a slightly purplish grey, more siliceous appearance, possibly due to alteration effects of the intrusive. Unit exhibits a moderate degree of irregular, wispy patchyness of lighter coloured diopside?/epidote alteration banding, with minor coarse garnet development in the more intensely altered patches. Epidote altered zones appear to be separated from unaltered mafic volcanics by thin (0.5 to lcm), biotitic (potassic alteration) alteration selveges. Locally the epidote alteration patches appear pseudo-brecciated/brecciated, possibly due to local shearing. Poliation is weakly to moderately developed at 30 to 55 degrees to the core axis, but it is locally highly contorted within the intensely carbonate-epidotized-garnet patches. Minor to 0.5% disseminated pyrite, locally to 1%, and often as small, individual cubic crystals. Minor quartz veining, and locally several quartz flood zones up to 30 cm wide, generally associated with intense carbonate-epidote-garnet patches. Minor gouge material along thin (1 to 3m) fractures oriented at 45 degrees to the core axis at 148.0 metres. Competent core. Lover contact, diffuse intrusive contact.		31.10 149.2 34.45 135.5		n/a .02	n/a 2.30	n/a n/a	0.5%	V. VK	-	
149.20 150.2	PELDSPAR PORPHYRY DYKE Hedium to dark grey, fine to medium grained (0.25 to 1mm), consisting mostly of crowded feldspar crystals. Hoderately porphyritic with 10 to 20%, 1 to 3 mm, subhedral to euhedral and partially zoned, white plagioclase. Groundmass is finer grained and contains 5 to 7%, weakly chloritized		149.20 150.2 149.20 150.2		n/a .01	n/a 1.00	n/a n/a	MINOR MINOR			

BSSO NIMERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	λų	λg	Te Pyrite	ALTI	ERATION	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm) (%)	SIL	CARB	SER

biotite, and minor chlorite along shear-slip planes.
Unit is weakly foliated/sheared at 60 degrees to the core axis.
Minor silica blebs up to 5 mm in size.
Minor disseminated pyrite.
Bo large veining.
Competent core.
Lower contact is a sharp intrusive contact oriented at 65 degrees to the core axis.

150.20 192.35 SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Generally very fine to fine grained, dark green, non- to weakly magnetic, massive to weakly foliated mafic volcanic with 20 to 50% brownish to purplish grey altered zones forming thin (cm) to thick (m) bands. The latter are somewhat banded and cherty in appearance giving sections of the unit a sedimentary look although no sedimentary textures are apparent. These are probably silicified/altered mafic volcanic zones. Cherty sections also contain brownish more biotitic (potassic alteration) bands.

Unit, particularly the dark green, relatively unaltered volcanic sections, contain 5 to 10%, lighter green, irregular, patchy carbonate-epidote alteration bands that locally contain abundant coarse silica and garnet.

Dark green, relatively unaltered sections exhibit silica filled amydules across several cm wide sections, and include occasional zones where massive volcanic are separated by pillow selvege rims.

A few intensely carbonate-epidote altered sections could be flow top breccia sections.

Foliation/banding is weakly developed at 35 to 60 degrees to the core axis, but locally is irregularly swirled and offset by fracturing.

Unit contains no major quartz veining, although there are several silica

Unit contains no major quartz veining, although there are several silica patches within intensely altered epidote/diopside/garnet bands.

Minor fractures/slips oriented at various, but generally low (25 to 45 degrees), angles to the core axis.

Minor irregular white calcite tension fracture fillings within slightly brecciated/contorted zones.

WS 150.20 192.3	35 42.15	n/a	n/a	n/a	HINOR	V.VK
593 175.00 176.0	0 1.00	.06	1.40	n/a	1-2%	
594 176.00 177.0	0 1.00	.#1	1.10	n/a	1-24	
314 178.30 179.0	0 .70	.05	1.90	n/a	31	

BSSO HINERALS CANADA DIAMOND DRILL RECORD

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Interval (Metres)	Description	Sample No.	Interv (Metre		Length (Metres)	Au (g/t)	Ag (ppm)		Pyrite (%)	SIL	LTERATION CARB	SER
	Minor pyrite as fine to coarse (1 to 2mm) disseminations, and locally 1 to 2% very finely disseminated pyrite in cherty altered zones. Competent core. Upper and lower contacts are sharp intrusive contacts.											
192.35 194.6	O PELDSPAR PORPHYRY DYKE											
	Dark pinkish orange stained, aphanitic groundmass with 15 to 25%, small (0.5 to 3cm), white, crudely enhedral and zoned, randomly oriented plagioclase phenocrysts, and 1 to 3% biotite that is weakly chloritized. We quartz visible in this dyke.	NS 1	92.35 19	4.60	2.25	n/a	n/a	n/a	0.5%			
	Grundmass is weakly foliated at 50 to 65 degrees to the core axis. Dyke is weakly fractured with chlorite and epidote occuring along fractures.				-							
	Minor to 0.5% finely disseminated pyrite. No significant veining. Competent core. Upper and lower contacts are sharp, altough irregular intrusive.											
194.60 202.6	9 SCHISTOSE MAPIC METAVOLCAMIC WITH EPIDOTE-CARBONATE BANDS (same as unit between 150.20 to 192.35 metres). 202.69 (665 Peet) End of Hole.	315 1 316 1	94.60 20 94.60 19 95.40 19 97.50 19	5.40 6.00	.80	n/a .02 .05	n/a 2.80 2.30 2.00	n/a n/a n/a	MINOR 1% 0.5% 0.5%	7,7	· -	-

ESSO MINERALS CANADA SUMMARY DRILL LOG

Project Name: HN	•	Hole Number: HN88-23
Project Number, 1677		Logged By: M.H. Lenters .
NTS: 42H/8	ONTARIO GEOLOGICAL SURVEY ASSESSMENT FILES OFFICE	Date: February, 1988
Location <u>140+26W</u> , 9+30S	<u>.IIII 1 / 1989</u>	Claim Number: 871909/871912
Azumiths 180°.	DIR ECEIVED	Length (m): 128.63 m

PURPOSE: Test downdip extension of mineralization in HN88-22

		Y	
From	То	Description	Gold Assays
(m)	(m)		(g/tonne)
0.0	14.25	Overburden (Vertical Depth = 12.6 m)	
14.25	26.65	Feldspar Porphyritic, Quartz Diorite Intrusive	
	·	Light pink to white, medium grained, massive to weakly foliated containing subhedral, partially zoned plagioclase phenocrysts, 5 to 10% biotite, and a few percent quartz veining.	.0.01 to 0.03
26.65	41.80	Mafic Metavolcanic Dark green, very fine grained, magnetic, with abundant lighter yellow-green carbonate/epidote bands and patches. Locally weakly to moderately foliated/sheared at 70° to the core axis. Minor pyrite.	0.01 to 0.02
41.80	58.60	Feldspar Porphyritic, Quartz Diorite Intrusive Same as above with 2 minor shear zones at 25 to 70° to the core axis, and minor silicification/quartz veining.	0.01 to 0.14
58.60	64.25	Mafic Metavolcanic Same as above.	0.01 to (0.40
64.25	83.25	Weak to Moderately Altered, Quartz Veined, and Mineralized, Leucocratic Feldspar Porphyritic Diorite Intrusive Very light grey to white, weak to moderately sericitized and silicified with most of biotite partially or totally destroyed. Weakly to moderately foliated at 40 to 60° to the core axis, with 5 to 15% quartz veining at 0 to 50° to the core axis. 2 to 5% disseminated pyrite. Quartz veining contains minor pyrite & galena and traces of molybdenite, native bismuth and hessite.	0.01 to 1.80
83.25	90.05	Mafic Metavolcanic As above, but foliated/sheared at 20 to 45° to the core axis.	0.02 to 0.27
90.05	96.20	Feldspar Porphyritic, Quartz Diorite Dyke Light pinkish, medium grained, massive to weakly feldspar porphyritic, relatively unaltered intrusive. 1 to 3% disseminated pyrite.	Not Assayed
96.20	100.60	Biotite, Chlorite, Carbonate, Silica, Plagioclase Schist (Metasediment and/or Metavolcanic) Medium brownish-grey to dark greenish grey, fine grained, well banded/laminated? siltstone and/or schistose volcanic. Banding/ foliation at 50 to 55° to the core axis. Unit cut by several 10 to 100 cm irregular porphyritic quartz diorite dyklets. Minor quartz and calcite veining. Minor to 1% pyrite.	Not Assayed

From (m)	To (m)	Description	Gold Assays
100.60	106.25	Feldspar Porphyritic, Quartz Diorite Dyke Light to medium pink, medium grained, massive intrusive with several percent subhedral partially zoned plagioclase phenocrysts. Minor quartz veining and 1 to 2% disseminated pyrite.	Not Assayed
106.25	111.65	Biotite, Chlorite, Carbonate, Silica, Plagioclase Schist (Metasediment and/or Metavolcanic) As above.	Not Assayed
111.65	127.12	Mafic Metavolcanic As above, with foliation at 25 to 35° to the core axis.	0.01 to 0.05
127.12	128.63	Feldspar Porphyritic, Quartz Diorite Intrusive As above	0.01
	128.63	End Of Hole	
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H-W PROJECT (Ont. 77)	ESSO MIMERALS CANADA DIAMOND DRILL RECORD		Hole: Page:	HN88-23 1
Drilled by:	Atlas Drilling Limited	Azimuth: 180		Claim No:	L-871909
Hole Size:	BQ	Dip: -62		Grid:	Vest
Core Size:	BQ .	•		Basting:	40+26W
Casing:	Casing Removed			Worthing:	9+308
		Acid Tests:		Elevation:	Level
Started:	Peb. 11, 1988				
Pinished:	Peb. 13, 1988	Depth Az. Dip 128.63 -54.0		Purpose:	Test downdip of HN88-22
Logged by:	N.H.Lenters			Length:	128.63Metres
Date logged:	February 1988			Vert. Proj:	109.0 Metres
Logging Method:	Log II			Hor. Proj:	68.25Hetres
Measurement System:	Metric			Ovb. Depth:	12.6 Hetres
			~*****		
Interval	Description		Sample Interval L	ength Au Ag	Te Pyrite ALTERATION

.00 14.25 OVERBURDEN

(Metres)

14.25 26.65 PELDSPAR PORPHYRITIC QUA	ARTI DIORITE INTRUSIVE - UNALTERED
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Light pinkish to bleached white, medium (1 to 3mm) grained, massive to very weakly foliated intrusive.

70 to 85% plagioclase, with minor to 5%, larger (up to 5mm), subhedral plagioclase phenocrysts, locally giving the unit a porphyritic appearance. The unit does not appear to contain much primary silica (5 to 10%), generally as slightly bluish grey grains that appear interstitial to the feldspar.

- 5 to 10% biotite, as small (< lmm) books, as well as rectangular grains that may represent replacement of amphibole.
- 2 to 5% finely disseminated pyrite, as well as some fine pyrite along fractures. Pyrite is slightly more abundant in bleached zone between 16.20 and 20.25 metres.
- 3 to 5%, white to watery blue-grey quartz veining, generally as variably oriented (but mostly at 45 degrees to the core axis), thin (2 to 20mm), subplanar to planar veins. Veins are clean, containing no carbonate,

NS 14.25 26.65 12.40 2-5% V.VK V.VK n/a n/a 318 16.00 17.00 1.00 .50 1-21 n/a 319 17.00 18.00 1.00 .30 4-51 .01 n/a 320 18.00 19.00 1.00 .02 .40 n/a 3-51

.80

.60

.03

2-41

1-31

n/a

n/a

321 19.00 20.00 1.00

322 20.00 21.00 1.00

CARB

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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		- <i></i>	• • • • • • • • • • •							
Interval	Description	Sample	Interval	Length	λu	λg	Te Pyrite	λ	LTERATION	
(Metres)		Ko.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm) (%)	SIL	CARB	SER

pyrite, or wallrock inclusions, and appear to be more abundant within bleached zones of the intrusive. However, several veins cutting the pinkish (hematitic) intrusive exhibit no bleaching halos.

Unit is slightly vuggy.

Unit is well broken, with strong jointing (5 to 25cm spacing) at 40 to 50 degrees to the core axis. Minor jointing/fracturing at 20 degrees to the core axis. Several well broken rubble sections where irregular fractures parallel the core axis. Some of the fracture/joint surfaces exhibit slickensides and moderately flattened/smeared pyrite. Several fractures exhibit 1/2 to 1 cm, yellow (limonitic) stained zones, due to weathering by surface waters along the fractures.

Core is moderately well broken, generally into 5 to 15 cm pieces with some rubble sections.

Lower contact is a sharp intrusive contact, but with irregular embayed and flamed edges.

26.65 41.80 SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Dark green, with abundant lighter green carbonate/epidote altered patches and bands. Very fine grained, strongly magnetic, mafic volcanic. Alteration patches are well swirled and irregular in shape. Unit is mostly chloritic, but contains minor biotite with a slightly browner colour near lower contact.

Upper contact zone (<25.5m) is well sheared at 0 to 25 degrees to the core axis, with several pulled-apart and boudinaged quartz veinlets and veins up to 1 cm wide.

Central part is apanitic and massive with weak foliation defined by weak phyllitic partings at 70 degrees to the core axis.

Lower contact zone (>38m) is moderately sheared at 70 degrees to the core axis, and contains numerous angular pieces of quartz that look like broken veins in a shear zone. Section is slightly brownish and moderately reactive to HCl due to carbonate alteration. Shearing, irregular carbonate mottling, swirling, offset and broken network of hairline carbonate veining, and broken quartz veining impart a faulted character to this section.

Moderate amount of veining, including a 10 cm wide (29.00 to 29.10),

NS	26.65	41.80	15.15	n/a	n/a	n/a	1-2%	- WK-HOD
323	28.96	29.60	.64	.01	3.10	n/a	MINOR	
324	32.00	33.00	1.00	.01	3.20	n/a	MINOR	
325	38.00	39.00	1.00	.02	2.50	n/a	MINOR	
326	39.00	40.00	1.00	.01	2.70	n/a	1-24	
327	40.00	41.00	1.00	.01	2.80	n/a	2-31	
328	41.00	41.80	.80	.01	2.60	n/a	4-5\$	

ESSO HINERALS CANADA DIAMOND DRILL RECORD

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4400 2

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Interval	Description	Sample	Interval	Length	λu	λg	Te	Pyrite	ALT	ERATION	
(Metres)	•	No.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm)	(\$)	SIL	CARB	SER

clear to ice-white, coarse grained quartz vein, and 2 to 34, bluish white, 2 to 10 mm wide, subplanar silica/quartz veins at 45 to 60 degrees to the core axis. Most veins have a thin (1 to 3mm) rim of epidote and pyrite alteration.

Upper contact zone is a dark green to sooty brown colour and is quite vuggy with 34 wispy vugs. Lower contact zone also contains vuggy portions Entire unit, but particularly the contact zones and carbonate/epidote alteration patches have a moderate to intense, irregular and offset crackle network of hairline to 1 mm carbonate, as well as minor silica, veinlets. These are variably oriented, and appear to be offset by a weak? shearing at 20 degrees to the core axis.

Minor to 14, finely disseminated pyrite in the upper contact and central zones, generally adjacent to quartz/silica veinlets, or within alteration patches. 1 to 44, finely disseminated pyrite associated with the carbonate altered, sheared lower contact zone.

Unit may contain minor amounts of pyrrhotite, although none was visually identified. The complete unit is very magnetic, probably mostly due to finely disseminated magnetite, +/- minor pyrrhotite.

Moderately competent core, generally with 5 to 25 cm breakage at 60 to 75 degrees to the core axis along phyllitic foliation/cleavage surfaces. Upper and lower contacts are sharp intrusive contacts.

41.40 41.47 Feldspar Porphyry Dyke. Thin (7cm), feldspar porphyritic quartz diorite dyke/yein oriented approximately 90 degrees

quartz diorite dyke/vein oriented approximately 90 degrees to the core axis, but broken apart and containing bands/slivers of the sheared wallrock.

41.80 58.60 FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED

Light pinkish grey to light grey with some whitish grey bleached sections of medium grained (1 to 3mm), massive to weakly sheared/foliated intrusive, but including 2 zones of intensely sheared intrusive? The latter are possibly intensely sheared xenolithic wallrock inclusions. Unit is identical to intrusive body between 14.25 and 26.65. Contains mostly feldspar, and minor amounts of (5 to 10%) quartz, biotite, and finely disseminated pyrite. Unit contains 5% quartz veining as thin (1 to 10mm), subplanar, but slightly diffuse and irregular, white to watery

NS	41.80	58.60	16.80	n/a	n/a	n/a	1-5\$	WK-MOD	-	V.VK
329	41.80	12.85	1.05	.01	.60	n/a	3-51			
330	42.85	43.20	.35	.02	2.00	n/a	HINOR			
331	43.20	44.10	.90	.14	.80	n/a	2-3%		٠.	
332	46.50	47.45	.95	.01	.40	n/a	2-31			
333	56.45	57.60	1.15	.07	.50	n/a	3-44			
334	57.60	58.60	1.00	.08		n/a	4-61			

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Ag (ppm)	Te Pyrite (ppm) (%)	ALTERATION SIL CARB	SER
	blue-white veins, often with an adjacent, thin (<1 cm), orangy-pink hematitic alteration band containing increased amounts of pyrite.							

Unit includes several white bleached and sheared zones as follows:.
41.80 42.85 Light grey intrusive, more silicified than other bleached zones.

- 42.85 43.20 Sheared intrusive zone (xenolith?) containing numerous, angular, small ((3mm), plagioclase grains in a well foliated/sheared cataclastic appearing zone that may be sheared intrusive material. Zone also includes an irregular 1 to 5 cm wide, fine grained, pyritic, carbonate altered patch. Shearing oriented at 55 to 50 degrees to the core axis
- 43.20 44.85 Light grey, very porphyritic, bleached zone.
- 44.85 45.55 Shear zone. Upper contact at 70 degrees to the core axis and lower contact at 25 degrees to the core axis. Unit contains (1 to 4mm) angular, plagioclase in a well foliated/sheared, slightly magnetic dark grey matrix.
- 45.55 46.50 Light pink, feldspar porphyritic quartz diorite.
- 46.50 47.45 Bleached white, feldspar porphyritic gpartz diorite.
- 47.45 47.90 Light pink, feldspar porphyritic quartz diorite.
- 47.90 48.10 Bleached white, feldspar porphyritic quartz diorite.
- 48.10 56.45 Light pink to grey, feldspar porphyritic quartz diorite.
- 56.45 58.60 Bleached white, feldspar porphyritic quartz diorite. Well broken, moderately vuggy and pyritic.

Unit is moderately well fractured, particularly the white bleached sections which are often very rubbly. Unit generally has 5 to 15 cm breakage.

Minor to 1% finely disseminated pyrite in light pink, relatively unaltered intrusive sections, and 2 to 5% pyrite within the more altered white bleached zones, particularly near the lower end of this unit. Lower contact was poorly recovered (broken rubble).

58.60 64.50 SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Dark brown-grey, very fine grained, cherty to weakly phyllitic character. Unit appears weakly banded, and coarser grained in a few, weakly sheared sections. Locally weakly magnetic, generally hard with moderate to

NS 58.60 64.50 5.90 n/a n/a n/a 1-3% 335 58.60 60.00 1.40 .10 2.30 n/a 2-3% 336 60.00 61.50 1.50 .01 1.90 n/a 1%

Interval

(Metres)

axis.

axis.

hole).

veinlets.

degrees to the core axis.

degrees to the core axis.

the intrusive side of the contact.

diorite dyke.

64.50 83.25 PP QUARTE DIORITE INTRUSIVE - MOD TO INT ALTERED

BSSO HINERALS CANADA DIAMOND DRILL RECORD

Description

abundant (5%), fine disseminated pyrite.

Only one thin, more massive, weakly altered section between 73.75 and

veinlet at 58.80m contains a 2 x 2 mm chalcopyrite grain.

generally at 60 to 80 degrees to the core axis.

Hole: HN88-23 Page: ALTERATION Sample Interval Length Au Te Pyrite (Metres) (Metres) (g/t) (ppm) (ppm) (%) CARB SIL intense pervasive silicification. Local weak carbonatization, and 5% 337 61.50 62.48 .98 .01 2.50 n/a 11 irregular silica and silica-carbonate network crackle (1 to 5mm) veining .06 2-31 338 62.48 64.00 1.52 2.20 n/a 4-7% that is offset by minor shearing oriented at 20 to 40 degrees to the core 339 64.00 64.50 .50 .40 2.20 n/a Several lemon yellow to white, small (1 to 2cm), irregular epidote-carbonate bleached/altered patches adjacent to vuggy silica 5% Large (1 to 3cm), white, subplanar quartz veins oriented at 35 to 45 59.10 59.30 3cm quartz vein oriented at 40 degrees to the core axis, with 5 cm alteration zones adjacent to to both sides containing Generally 1 to 2% fine pyrite concentrated as disseminations in small zones adjacent to silica/quartz veining and along fractures. One small Unit is relatively hard, but moderately broken into 5 to 25 cm pieces, Shearing is moderate to intense and changes in orientation from the central section at 45 degrees to the core axis, to the lower section at 0 Upper contact is a sharp intrusive contact that was poorly recovered (broken core), but it appears to be oriented at 70 degrees to the core Lower contact is a sharp intrusive contact oriented at 0 degrees to the core axis. It is very pyritic, particularly in a thin (5mm) band along 60.80 60.90 Peldspar Porphyry Dyke. 10 cm felsic porphyritic quartz Very light grey to white, weak to moderately sericitized and silicified, NS 64.50 83.25 18.75 n/a n/a 2-41 MOD WK WK-HOD n/a with few chloritized mafic minerals remaining as these are mostly 340 64.50 65.68 1.18 .10 1.80 n/a 2-41 sericitized. (Same original composition as intrusives in upper part of 2-41 341 65.68 66.45 .77 .05 1.90 n/a 342 66.45 67.67 1.22 .06 6.30 n/a 2-3%

.33

3.70

n/a

2-31

343 67.67 68.60 .93

ESSO MINERALS CANADA DIAMOND DRILL RECORD Hole: Page: NN88-23 6

nterval	Description	Sample	Inte	rval	Length	λu	λg	Te	Pyrite	λ	LTBRATION	
Metres)	· 	No.	(Het	res)	(Metres)				(\$)	SIL	CARB	\$
	74.20 metres with slight pinkish colour, weakly chloritized biotite, and	344	68.60	69.50	.90	1.80	17.80	n/a	2-3%			
	vague porphyritic character still apparent.				.60	.23	10.60	n/a	2-31			
	Most of the unit is weakly foliated at 40 to 60 degrees to the core axis,				1.00	.60	26.40	n/a	2-3%			
	with the lower (>75m) section moderately foliated at 20 to 40 degrees to				1.00	,10	5.80	n/a	1-31			
	the core axis. Quartz veining in this lower section parallels the				.60	.16	9.20	n/a	1-31			
	foliation/shearing and locally appears sheeted.				1.05	.27	5.70	n/a	1-3\$			
	Apart from the pervasive silicification, the unit contains abundant (5 to				.45	.02	.90	n/a	2-31			
	10%), bluish white quartz veins as thin {1mm to 5cm}, slightly irregular and offset subplanar veins mostly oriented at 40 to 50 degrees to the		74.20			.44	20.30 2.10	n/a	2-3 \ 2-3 \			
	core axis, with a few steeper veins oriented between 0 and 20 degrees to		75.75			.40 .18	2.20	n/a n/a	2-34			
	the core axis. Yeining appears to center zones of increased				.50	.27	5.70	n/a	2-34			
	silicification, sericitization and pyritization. The veins are generally		77.00				129.60	n/a	2-31			
	very clean, containing no wallrock fragments and only occasional pyrite		77.50			.10	23.70	n/a	2-31			
	grains. Locally, minor galena occurs with the pyrite in the quartz veins,		78.00			.20	4.30	5\a	2-34			
	either as very small crystalline patches, or as steel grey coloured		78.60			.19	4.20	n/a	2-3%			
	wisps and fracture puffs.		19.25			.02	2.80	n/a	1-31			
	Galena mineralization within quartz veins noted at 66.50, 66.65, 67.00				1.08	.03	2.00	n/a	2-4%			
	(small 1x2 cm area with 1% galena and trace amounts of chalcopyrite)				.92	.06	1.70	n/a	1-3\$			
	67.50 69.60 , 70.85, 70.90, 71.00 to 71.10, 72.50, 74.70, 77.25 to 77.50	362	82.00	83.25	1.25	.01	.90	n/a	1-31			
	(quartz vein at 10 degrees to the core axis with several percent											
	galena), 77.60, 78.00 to 78.40 (minor galena on shears oriented at 35 degrees to the core axis), 79.10, and 79.65.											
	Sericitization strongest in intensely sheared/foliated zone in lower part											
	of unit, locally containing trace amounts of emerald green, fuchsite											
	within quartz yeins.					•						
	Abundant (3 to 5%), finely disseminated pyrite throughout the unit.				*							
	Core is moderately fractured and broken, generally into 5 to 10 cm pieces						5 .					
	and several rubble sections.											
	Upper contact oriented at 0 degrees to the core axis between 64.00 and											
	64.50, with abundant pyrite including a 0.5 cm band at the contact edge. Lower contact is sharp and oriented at 40 degrees to the core axis.											
25 90.05	SCHISTOSE MAPIC HETAVOLCANIC WITH EPIDOTE-CARBONATE BANDS	-	44 47								*** ***	
	Dark grey to black, weak to moderately foliated at 20 to 45 degrees to the core axis with local contortions and folding.			90.03 84.29	5 6.80	n/a .04	n/a 3.30	n/a n/a	0.5%	¥K	AK-HOD	

ESSO MINERALS CANADA DIAMOND DRILL RECORD Hole: Page: RN88-23

·Interval (Ketres)	Description Sample No.			Length (Metres)	(ppm)	re (ppm)	Pyrite (%)	 ERATION CARB	SER	
	coloured lime to lemon-yellow, irregular epidote-carbonat		88.70			 2.90	n/a	13		•••••

alteration banding and lenses that are generally 0.5 to 1 cm wide with vuggy diffuse edges. Alteration bands include a minor amount of large (Imm to Icm), poikioblastic grains and bands of pinkish garnet, as well as the occasional patch containing small (lmm), equant magnetite grains. Unit is hard and very fine grained, locally exhibiting a cherty appearance Generally moderately magnetic, but includes several 0.5 to 2 cm wide, very strongly magnetic bands.

Poliation planes exhibit some slippage/shearing with ladder crackle fractures filled by hairline carbonate veinlets.

Upper (<84.25) and lower (>88.70 m) sections are slightly browner and reactive to HCl suggesting moderate carbonatization adjacent to the intrusive contacts.

Unit is weakly crackled by network of hairline calcite veinlets and contains a few (2 to 3%), 1 to 3 mm wide, grey silica/quartz veinlets that appear to be weakly boudinaged and offset by shearing/faulting. Minor to 1% pyrite as fine disseminations, and a few thin foliation parallel laminae.

Core is relatively hard, but broken into 3 to 15 cm pieces mostly oriented at 50 to 60 degrees to the core axis.

Upper contact is well sheared and oriented a 40 degrees to the core axis. Lower contact is sharp, well sheared and oriented at 0 to 10 degrees to the core axis, containing increased pyrite along contact edge.

90.05 96.20 PELDSPAR PORPHYRITIC QUARTE DIORITE INTRUSIVE - UNALTERED

Mostly light pink, medium grained to slightly porphyritic, relatively unaltered intrusive with a few thin (10's of cm), greyer, weakly silicified and sericitized zones. Massive to weakly foliated, feldspar dominant with lesser quartz and biotite.

3 to 5%, thin (2 to 10cm), blue-white, subplanar silica/quartz veins, generally oriented at 45 to 60 degrees to the core axis, but including some very irregular veins.

2 to 3% finely disseminated pyrite locally occuring along small fractures. Relatively broken core, generally with 5 to 15 cm breakage.

Lower contact is sharp intrusive contact oriented at 40 degrees to the

ESSO MINERALS CANADA
DIAMOND DRILL RECORD

Hole: Page: HN88-23

Interval Description Sample Interval Length Au Ag Te Pyrite ALTERATION
(Metres) Ho. (Metres) (Metres) (g/t) (ppm) (ppm) (%) SIL CARB SE

core axis.

96.20 100.60 SHRARED/SCHISTOSE HAPIC METAVOLCANIC

Medium brownish grey to dark slightly greenish grey, well banded/foliated plagioclase-biotite-chlorite schist. Probably a potassic altered schistose mafic metavolcanic, but possibly an interflow sediment horizon. Schistosity/foliation is very regular and planar, and oriented at 50 to 55 degrees to the core axis.

Unit contains several, thin, weakly magnetic bands, and is generally moderately reactive to BCl. Unit does not contain the light green epidote-carbonate banding that is prevalent in other mafic volcanic units. 5%, Thin, irregular, network carbonate veining, and thin (hairline to lmm), silica tension gash to ladder veinlets veining suggesting minor shearing/faulting.

2 to 34, thin (lmm to lcm), blue-white silica/quartz veins occuring as lenses, and boudinaged, subplanar veins, that are often offset across minor fault/foliation planes.

Minor to 1%, finely disseminated pyrite, often occuring as small (0.5 mm) cubic crystals.

Unit contains several intrusive dykes that are much like the overlying intrusive. They are very weakly altered, feldspar porphyritic, and contain 2 to 3% finely disseminated pyrite. They contain no significant quartz veining, and generally exhibit irregular, but somewhat foliation parallel contacts. The dykes occur between:

96.75 96.95 PP Quartz Diorite Dyke - Peldspar Porphyritic.

97.25 97.40 PP Quartz Diorite Dyke - Peldspar Porphyritic.

97.55 97.65 PP Quartz Diorite Dyke - Peldspar Porphyritic.

97.70 98.00 PP Quartz Diorite Dyke - Peldspar Porphyritic.

98.15 98.37 PP Quartz Diorite Dyke - Peldspar Porphyritic.

Unit is moderately well broken, generally with 5 to 25 cm breakage.

100.60 106.25 PELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED Light to medium pink, medium (1 to 3mm) grained, containing subhedral and vaquely porphyritic, white plaqioclase phenocrysts up to 5 mm in size.

HS 96.20 100.60 4.40 n/a n/a n/a 0.5% V.WK WK-HOD

HS 100.60 106.25 5.65 n/a n/a n/a 1-2% V.W.

ESSO MINERALS CANADA
DIAMOND DRILL RECORD

Hole: Page: HN88-23

Interval Description Sample Interval Length Au Ag Te Pyrite ALTERATION (Metres) (Metres) (g/t) (ppm) (ppm) (%) SIL CARB S

NS 106.25 111.65 5.40

Unit consists mostly of white to slightly pink (hematitic stained) plagicclase, 10% bluish white quartz, and 5% black biotite. Relatively massive and unaltered intrusive with no foliation fabric. Minor (2 to 3%), small (1 to 10mm), clean blue-white silica veining often with thin (1 to 4mm) halos of slightly pink feldspar.

1 to 2% finely disseminated and (hairline) fracture pyrite.
Unit is well broken, generally into 2 to 5 cm pieces.
Upper contact is sharp and oriented at 70 degrees to the core axis.
Lower contact sharp but irregular and oriented at about 60 degrees to the core axis.

106.25 111.65 SHEARED/SCHISTOSE MAPIC METAVOLCANIC

Medium to dark green brown to brown green, albite-biotite-chlorite schist. Unit is well laminated/foliated at 40 degrees to the core axis. Locally the unit appears weakly silicified and carbonatized, and incudes several, small, buff to lime green or yellowish alteration epidote-carbonate alteration bands and patches. The latter are more prevalent in the other mafic volcanic units.

Unit contains a few, thin (0.5 to 2 cm), magnetic bands, but is generally non- to very weakly magnetic. Magnetic bands are more common in lower part of the unit adjacent to the transitional change into the underlying more magnetic mafic metavolcanic.

Unit contains a few large (1 to 3cm), clean, bluish white quartz veins, as well as a moderate amount of thin (hairline), calcite and silica network/crackle tension gash and ladder veins that are locally contorted and offset, particularly in slightly sheared sections throughout unit. Hinor to 1% finely disseminated pyrite.

Lower contact is transitional into more magnetic mafic metavolcanic.

111.65 127.12 SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Fine grained, massive, dark grey to almost black, with a few thin (1 to 3cm) dark grey-green schistose bands, as well as 5 to 15% light apple green to creamy buff, irregular, mottled, epidote-carbonate alteration bands and patches that tend to parallel the foliation orientation.

NS 111.65 127.12 15.47	n/a	n/a	n/a	11	VK	V)
366 111.65 112.75 1.10	.01	2.50	n/a	13		
367 112.75 114.28 1.53	.01	2.40	n/a	1\$		
368 114 28 115 65 1 22	ns.	2 50	n/a	11		

ESSO MINERALS CANADA DIAMOND DRILL RECORD Hole: Page: HN88-23 10

Interval (Hetres)	Description	Sample No.	Interval	Length (Metres		Ag (ppm)		Pyrite (%)	SIL	LTERATION CARB	SER
	The alteration bands and patches contain epidote and carbonate, 1 to 5 mm, subrounded to amoeboid poitioblastic, pink garnet, and minor small ((0.5mm) magnetite grains. These alteration patches contain increased, but still minor (1 to 2%) amounts of extremely finely disseminated pyrite. Unit contains several dark black-grey zones that are hard, cherty and very magnetic. Foliation and alteration banding oriented at 25 to 35 degrees to the core axis. Minor to moderate slippage/shearing generally oriented parallel to the foliation. Moderate (10 to 15%) amount of fine (hairline to 1 mm), irregular network crackling of calcite, as well as silica veinlets, and several small silica veinlets and lenses all offset along minor slips and shears. Minor (2%), subplanar, thin (0.5 to 3cm), blue-white silica/quartz veins. 1% Pyrite as fine disseminations, concentrated in light coloured alteration patches, and as slightly coarser grained along fractures. Moderately fractured core, with fractures generally oriented at 45 degrees to the core axis. Competent core, generally with 25 to 75 cm breakage. Lower contact is sharp intrusive contact oriented at 45 degrees to the core axis. Lower 1 metre of this unit, adjacent to intrusive, has a medium grey-brown to creamy colour, appears silicified and carbonatized and contains 1 to 2%, extremely fine sulphides (pyrite +/-?).	370	115.65 117 125.88 126 126.50 127	50 .62	.04	2.20 2.50 1.80	n/a n/a n/a	13 13 13			
127.12 128.6	3 FELDSPAR PORPHYRITIC QUARTI DIORITE INTRUSIVE - UNALTERED Light pink, medium (1 to 3mm) grained, porphyritic textured intrusive. Relatively unaltered and massive, with weakly foliated zones near upper contact. Unit contains a few, thin (1 to 2cm), blue-white quartz veins. 0.5 to 1 % disseminated pyrite. Minor (2 to 5%) quartz grains. Unit consists mostly of 1 to 3 mm plagioclase grains, as well as 5% larger plagioclase phenocrysts. Many of the feldspar grains are subhedral to euhedral, and weakly zoned. Unit contains 5%, weakly chloritized biotite.	372	127.12 128 127.15 127 127.65 128	65 .50	n/a .01 .01	n/a .80 .50	n/a n/a n/a	18 18 18	•	-	

ESSO MINERALS CANADA DIAMOND DRILL RECORD

Hole:

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Interval	Description	Sample	Interval	Length	Au	λg	Te Pyrite	ALT	ERATION	
(Hetres)	•	No.	(Metres)	(Metres)	$\{g/t\}$	(ppm)	(ppm) (%)	SIL	CARB	SER

Well developed fractures oriented at 45 to 50 degrees to the core axis. Moderately broken core, including a few short (5cm) rubble sections. 128.63 (422 feet) End of hole.

ESSO MINERALS CANADA SUMMARY DRILL LOG

Project Name: HN	Hole Number: HN88-24
Project Number, 1677	ONTARIO GEOLOGICAL SURVEY ASSESSMENT FILES Logged By: M.H. Lenters OFFICE
NTS: 42H/8	Date: February, 1988
	.100 17. 1989
Location L40+00W, 6+85S	RECEIVED Claim Number: L-871909
Azumith 183° Di	p: <u>-48°</u> Length (m): <u>282.24</u>

PURPOSE: North-south geology section north of holes HN88-22/23.

From	То	Description	Gold Assays
(m)	(m)	Casing left in hole.	(g/tonne)
0.0	6.70	Overburden (Vertical Depth = 5.0 metres)	
6.70	49.90	Intercalated Mafic Metavolcanics and Fine-Grained Clastic Metasediments (Tops are Uphole) 0.5 to 10 metre interbands of massive, dark green, fine grained, calcitic mafic volcanic flows exhibiting minor epidote alteration minor quartz and calcite veining, minor to 1% pyrite and trace chalcopyrite; and medium grey brown, biotitic, fine grained, laminated, cherty siltstones and schistose arenites, containing variable (minorto 3%) pyrite.	0.01 to 0.03
49.90	61.40	Fine-Grained Clastic Metasediments Medium to dark greenish-brown, laminated (60 to 75° to the core axis) phyllitic siltstones and massive, psammitic arenites. Minor to 1% pyrite.	0.02
61.40	62.25	Feldspar Porphyry Dyke Medium grey, aphanitic groundmass with 5 to 15%,0.5 to 2 mm, subhedral, white, partially zoned plagioclase phenocrysts. 2 to 3 percent pyrite.	0.03
62.25	136.90	Mafic Metavolcanic Medium grey-green to dark grey-green, very fine grained to medium grained, massive to weakly foliated volcanic flow rocks, exhibiting minor to moderate epidote alteration.	0. 01 to 0.42
136.90	142.58	Mafic Metavolcanic Intruded by Feldspar Porphyry Dykelets Mafic metavolcanics as above, including 30 to 50% dykes as below, but with diffuse contact boundaries.	Not Assayed
142.58	146.30	Feldspar Porphyry Dyke Dark grey, aphanitic to fine grained, massive to weakly föliated, containing 5 to 10%, small (1 to 2 mm), subhedral, weakly to euhedral, weakly zoned, white feldspar phenocrysts. 1 to 2% pyrite.	Not Assayed
146.30	152.45	Mafic Metavölcanic As above, with somewhat more (5%) quartz veining and 2 small porphyry dykes.	0.02 to 0.90
152.45	156.43	Feldspar Porphyry Dyke As above.	0.16 to 0.25

•	From (in)	To (m)	Description	Gold Assay
				() ()
	156,43	156.95	Mafic Metavolcanic As above	0.13
_	156.95	157.30	Feldspar Porphyry Dyke As above.	0.58
	157.30	158.50	Mafic Metavolcanic As above.	0.14
	158.50	205.44	Weakly Altered and Quartz-Veined Feldspar Porphyritic Quartz Diorite Light pink to light grey, medium grained, massive to very weakly foliated intrusive, containing 5 to 10% plagioclase, 5% biotite and minor quartz phenocrysts. Unit is very weakly to weakly sericitized and silicified, with thin, local, moderately altered zones. Contains minor quartz veining and 2 to 4% pyrite. 167.64 - 171.38, weak to moderately foliated, dark green-grey to grey-red feldspar porphyry dyke.	0.01 to 0.91
	205.44	240.75	Mafic Metavolcanic Dark green black, fine grained, hard, massive volcanic flow rock locally exhibiting plagioclase phenocrysts. Minor epidote alteration and minor disseminated pyrite. 230.75 - 232.35 Feldspar porphyry dyke (Anomalous Bismuth).	0.01
·	240.75	270.60	Weak to Moderately Altered, Quartz Veined and Mineralized, Feldspar Porphyritic, Leucocratic Quartz Diorite Light grey to white, medium grained, weak to moderately sericitized and silicified and cut by 15 to 30% quartz veining at 0 to 45° to the core axis. Unit contains 2 to 4% pyrite. Quartz veining locally contains minor pyrite and galena and traces of sphalerite, molybdenite and chalcopyrite. 254.55 to 256 Fault breccia zone subparallel to core axis.	
	270.60	271.18	Mylonite Zone Strongly altered and sheared quartz diorite intrusive rock forming mylonite shear zone at 45° to the core axis. Minor pyrite	Not Assayed
	271.18	282.24	Mafic Metavolcanic Dark green-black, fine grained, magnetic, massive flow rock with minor epidote alteration. Minor quartz +/- calcite veining, and minor Pyrite.	0.01 to 0.2
		282.24	END OF HOLE	
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H-N PROJECT (Ont. 7)	7)	BSSO MINBRALS CANADA DIAMOND DRILL RECORD	Hole: HM88-24 Page: 1
Drilled by:	Atlas Drilling Limited	Azimuth: 183	Claim No: L-871909
Hole Size:	BQ	Dip: -48	Grid: West
Core Size:	BQ	· •	Basting: 40+00V
Casing:	Casing Left In Hole		Worthing: 6+85S
•	·	Acid Tests:	Blevation: Level
Started:	Peb. 13, 1988		
Pinished:	Peb. 18, 1988	Depth Az. Dip	Purpose: N-S Geology Section
	·	121.92 -41.0	•
Logged by:	M.H.Lenters	227.38 -43.0	Length: 282.24Metres
Date logged:	Pebruary 1988	279.20 -36.0	Vert. Proj: 190.5 Metres
Logging Method:	Log II		Hor. Proj: 207.0 Metres
Measurement System:			Ovb. Depth: 5.0 Metres
·			
Interval	Description	Sample Interval Lengt	h Au Ag Te Pyrite ALTERATION

.00 6.70 OVERBURDEN

(Metres)

6.70 19.10 MAPIC METAVOLCANIC PLOWS (PR THOUBILTE)

Generally very fine grained, non-magnetitic, massive, dark green-black to dark grey-green, but containing a 100 cm section of coarser grained (1 mm), lighter coloured (medium grey-green), very calcitic rock.

Mafic sections exhibit a fine intergrowth of plagioclase and ferromagnesian minerals, that are now altered to amphibole and chlorite. No biotite or garnet is evident in the unit. No porphyroblastic amphibole is present. Unit is generally weakly magnetic and not calcitic. Generally massive, but upper coarser calcitic band exhibits a moderate foliation at 60 degrees to the core axis, with a few parallel parting/shearing laminae with clay coatings.

6.70 7.90 Dark, very fine grained mafic volcanic. Weakly unaltered.

7.90 8.90 Medium grey-green, medium grained, calcitic volcanic (felsic volcanic or intensely carbonatized mafic volcanic) with moderately developed foliation at 60 degrees to the core axis.

8.90 19.10 Dark, very fine grained, massive mafic volcanic.

BS 6.70 19.10 12.40 n/a n/a n/a MINOR - WK-MOD

(Metres) (Metres) (g/t) (ppm)

BSSO MINERALS CANADA
DIAMOND DRILL RECORD

Hole:

HN88-24

Page:

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***************************************				,,,,,,,,,,							
Interval	Description	Sample	Interval	Length	Au	λg	Te	Pyrite	XL.	TERATION	
(Metres)		Ho.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm)	{\$ }	SIL	CARB	SER

Whole unit is very weakly veined, mostly by thin (hairline to 2mm), individual, or anastomozing bands/networks (2 to 5 mm) of calcite veinlets that are irregular, but subplanar, in orientation. Several of these are offset along minor fractures across distances of 0.5 to 2 cm. Very minor amount of thin silica veinlets, and no quartz veins.

Several, thin (hairline), planar, calcite veins/laminae are oriented at 40 to 50 degrees to the core axis, but these are also offset by minor slips/fractures.

Minor to 0.5%, disseminated sulphides (mostly pyrite and locally pyrrhotite). Pyrrhotite often occurs as larger (1 to 3mm) blebs near calcite veining, while pyrite is finely disseminated throughout and concentrated along occasional fractures, as well as near calcite veining. Moderately fractured unit, generally with 20 to 100 cm breakage along calcite veinlets and fractures/joints oriented at 45 to 65 degrees to the core axis. Lower contact is sharp, but wavy, and oriented at 50 to 65 degrees to the core axis.

19.10 19.70 SILTSTONE

Dark grey, very fine grained, laminated, and weakly magnetic.

Laminations suggest unit is moderately deformed, as beds are somewhat swirled and offset along minor slips.

swirled and offiset along minor slips.

Unit contains a 20 cm band with regularly spaced, fine (0.2mm), elongate, whitish porphyroblasts of an unknown aluminous mineral.

1 to 2%, pyrite as very fine disseminations producing earthy brown laminae and bands (0.1 to 1mm) of finely disseminated pyrite crystals, and fine pyritic laminae and fracture coatings.

Very weak foliation and bedding oriented at 55 degrees to the core axis in center of unit, but bedding near upper contact is oriented at 60 to 65 degrees to the core axis, and at lower contact at 35 to 45 degrees to the core axis.

Unit contains no significant no veining.

Competent unit.

Lower contact is sharp, but irregular, at 35 to 45 degrees to the core axis.

NS 19.10 19.70 .60 n/a n/a n/a 1-2%

ESSO MINERALS CANADA DIAMOND DRILL RECORD Hole: Page: HN88-24 3

Interval (Metres)	Description		Interval (Metres)	Length (Netres)		Ag (ppm)		Pyrite (%)	ALTERATION SIL CARB	SE
19.70 28.8	7 MAPIC MBTAVOLCANIC PLOWS (PR THOLBIITE) Nedium to dark grey-green, fine grained volcanic with 50%, light whitish green, medium (0.5 to 1mm) grained, very calcitic patches (similar to the unit between 6.70 and 19.10). Minor calcite veining and minor disseminated pyrite.	¥S	19.70 20.1	37 1.17	n/a	n/a	n/a	MINOR	- ¥K-HOD	
20.87 22.6	20.87 21.25 Medium grey-brown to grey-green, fine grained arenite bed. 21.25 22.25 Medium to dark brown, laminated silty argillite grading into a siltstone bed. 22.25 22.66 Medium to dark brown, weakly magnetic, well laminated silty argillite bed. Siltstone and arenite have brownish colour due to abundant fine biotite. Arenite is psammitic with a weak foliation, and siltstone is phyllitic with well developed foliation that is generally oriented at 55 to 85 degrees to the core axis, but is highly variable due to minor (1 to 5mm) offsets along slips, that are most visible in the laminated sections. Argillite is black and interlaminated with siltstone. Laminations are strongly folded and contorted on a small scale, particularly near the top of the beds. Argillaceous sections are very weakly magnetic. Unit includes 2 to 3%, thin (hairline to 2 mm), irregular, but foliation/laminae subparallel, silica +/- calcite laminae and lensoid blebs. These are contorted within the argillaceous sections and generally planar and continuous through the coarser clastics. Minor finely disseminated pyrite, particularly in the finer argillite sections, as well as thin pyrite laminae/bands near the upper contact of the argilite-siltstone beds. Competent core, generally with 10 to 50 cm breakage along phyllitic foliation/slip/laminae surfaces which are generally oriented at 50 to 70 degrees to the core axis.	WS	20.87 22.4	56 1.79	n/a	n/a	n/a	HINOR		

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Interval (Metres)	Description	Sample No.			Length (Metres)	Au (g/t)	Ag (ppm)		Pyrite (%)	ALTERATION SIL CARB	f Ser
	Light to medium green, weakly calcitic volcanic band. Fine (0.2 to 0.5mm) grained with minor disseminated pyrite, and minor calcitic fractures. Upper contact is sharp and planar at 50 degrees to the core axis. Lower contact is sharp and planar at 40 degrees to the core axis.	NS	22.66	22.95	5 .29	n/a	n/a	n/a	MINOR	- dok	•
12.95 25.70	PSAMMITIC ARBNITE Mostly a medium brown, homogeneous, fine grained (0.1 to 0.5mm) arenite containing 5t, small (1 to 3mm long), elongate amphibole? porphyroblasts randomly oriented throughout the unit. Unit contains interbands and irregular patches of medium green, weakly to intensely calcitic, fine (0.1 to 0.5mm) grained, mafic volcanic, also containing minor amphibole porphyroblasts. Poliation and psammitic partings appear to be oriented between 50 to 70 degrees to the core axis. Minor disseminated pyrite. Unit contains no major veining. Minor irregular carbonate fracturing of volcanic zones. Competent core, generally with 20 to 100 cm breakage. Upper contact is sharp and planar at 40 degrees to the core axis. Lower contact is sharp, but slightly undulating, at 90 degrees to the core axis.	YS	22.95	25.70	2.75	n/a	n/a	n/a	MINOR	- VK-1XY	-
25.70 30.0	D PSAMMITIC ARENITE Several well bedded clastic sedimentary horizons, locally exhibiting well developed graded bedding. 25.70 26.97 Medium grey brown to slightly greenish grey, fine grained, homogeneous arenite with coarser, well graded section at base of bed. Sharp, planar, lower contact oriented at 50 degrees to the core axis. 26.97 27.68 Medium brown to grey brown unit, grading from well laminated fine siltstone at top, to very fine grained, massive arenite at base. Laminations oriented at 50 to 55 degrees to the core	`YS	25.70	30.00	0 4.30	n/a	n/a	n/a	0.5-1%	•	

axis. Lower contact is oriented at \$5 degrees to the core axis 27.68 27.87 Medium to dark, slightly green-grey, cherty, fine grained

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Interval Length Au Ag Te Pyrite ALTERATION
(Metres) No. (Metres) (Metres) (g/t) (ppm) (ppm) (%) SIL CARB SER

siltstone.

27.87 28.35 Medium greenish grey, weakly siliceous (cherty) siltstone, to fine grained arenite. Lower contact is oriented at 80 degrees to the core axis.

28.35 30.00 Medium brown, fine grained, homogeneous arenite. May consist of two or three separate beds of similar grain size, making separation of beds impossible. Section contains a few medium greenish coloured patches that are slightly calcitic.

Unit locally contains minor (2%) amounts of small (1 to 3mm long), elongate, needle-like amphibole (chloritized) porphyroblasts that are randomly oriented.

Minor carbonate filling thin (hairline to 1mm) fractures, that are locally developed in the finer grained, more siliceous (cherty) material. Minor to 1%, finely disseminated, and wispy laminated pyrite. Competent core, generally with 25 to 100 cm breakage. Lower contact is sharp and planar at 60 degrees to the core axis.

30.00 37.75 SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Medium to dark greyish green, aphanitic to very fine grained, very weakly magnetic, weakly calcitic, with a few, thin, white, crystalline calcium carbonate bands. Contains 10 to 20%, lighter green coloured alteration patches, often centered around calcite veinlets (similar to unit at top of hole).

10 to 20%, lighter green alteration bands and patches, with gradational boundaries. The most intensely altered zones are very light green coloured, and probably silica-carbonate-epidote? altered.

Mostly chloritic with no visible biotite. Locally, a few alteration bands contain fine (0.5mm), pinkish garnet porphyroblasts.

54, Thin (hairline to 3mm) fracture filling calcite +/- iron carbonate +/- silica veinlets. These are often branching and appear to fill late tension gash type fractures. Numerous hairline calcite laminae oriented at 40 to 45 degrees to the core axis.

Unit contains minor amounts, and locally a few percent, sulphides. These consist dominately of fine disseminated pyrite, but also include minor pyrrhotite, and trace amounts of chalcopyrite.

MS 30.00 37.75 7.75 n/a n/a n/a 0.5-1% 418 30.00 31.00 1.00 .03 1.20 n/a 1%

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Interval	Description		Sample	Interval	Length	Au Ag	Te Pyrite	ALTERATION
(Netres)		• • • • • • • • • • • • • • • • • • •	No.	(Metres)	(Metres)	(g/t) (ppm)	(ppm) (%)	SIL CARB SER

Minor offsetting slips/shears, generally at 45 degrees to the core axis, occur throughout the unit.

Moderately competent core, generally with 20 to 100 cm breakage, mostly along joints oriented at 40 to 50 degrees to the core axis.

Lower contact is sharp and oriented at 55 degrees to the core axis.

37.75 45.35 SILTSTONE

Mostly a medium brown, finely laminated, phyllitic siltstone, to fine grained, psammitic arenite, with some well laminated banded, light varicoloured, fine cherty sediment horizons, as well as one tuffaceous band.

- 37.75 38.70 Medium grey, siliceous, cherty siltstone, laminated at approximately 55 degrees to the core axis, but locally intensely folded. Unit locally exhibits a shattered fracturing with lighter alteration colour along fractures. Locally contains sulphide-rich (pyrite and minor chalcopyrite) horizons, that are 2mm to 20cm wide, as well as several pyritic laminae throughout. Mo significant veining. Lower contact is oriented at 50 degrees to the core axis.
- 39.10 39.68 Medium grey-green, massive, fine grained psammitic arenite.

 Contains 1t, pinhead size, white, subhexagonal garnet?

 porphyroblasts. Minor finely disseminated ((0.5mm) pyrite.

 Lower contact is oriented at 75 degrees to the core axis.
- 39.68 40.80 Chert and cherty siltstone. Light grey/brown, green and white laminate and bands alternating to give section a varicoloured laminated appearance. Banding generally oriented at 70 degrees to the core axis, and is mostly regular and planar. Well developed phyllitic cleavage oriented parallel to lamination/bedding orientation. Unit contains no significant veining. Section contains some weakly sericitic bands. Hinor pyrite as wispy laminae and fine disseminations.

40.80 45.35 Siltstone and arenite. Medium to dark brown, well laminated, phyllitic siltstone, and fine grained, massive, weakly psammitic arenite. Poliation/laminations oriented at 65

WS 37.75 45.35 7.60 n/a n/a n/a MINOR 419 37.75 38.70 .95 .01 .70 n/a 2-4% 420 44.00 45.35 1.35 .01 1.30 n/a 2-3%

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ALTERATION SIL CARB

2:

*									
Interval (Metres)	Description	Sample Wo.		l Length) (Metres)		Ag (ppm)		Pyrite (%)	
	degrees to the core axis. Minor (2%), thin (hairline to 2mm), subplanar and foliation parallel, calcite and silica veinlets. Several small (1 to 2 mm), bluish silica lensoids. Minor to 1% pyrite, in small blebs, wispy laminae, fine disseminations, and fracture fillings, but 2 to 3% pyrite, mostly as fracture fillings, in the lower metre of the section Mo significant veining throughout the unit. Moderately competent core, generally with 5 to 50 cm breakage, but including a few rubble sections, where fractures are parallel to the core axis. Lower contact is oriented at 80 degrees to the core axis.								
45.35 49.90	MAPIC METAVOLCANIC PLOWS (FE THOLBIITE) Dark green, very fine/aphanitic to medium (lmm) grained, non- to very weakly magnetic, massive flows locally exhibiting sharp contacts between fine and medium grained sections. Good volcanic intergrowth of plagioclase and ferromagnesian minerals is evident. The original fine grain size is overprinted by a minor amount of small (1 to 3mm), elongate to needle-like amphibole (chloritized) porphyroblasts. Unit contains no large veining. Minor amounts of (<1t) silica-calcite filling small, discontinuous tension-gash type fractures. Minor pyrite as fine disseminations, and larger grains along some fractures. Competent core, generally with 20 to 100 cm breakage.	48	45.35 4	0.90 4.55	n/a	n/a	n/a	MINOR	
49.90 61.40	Medium to dark brown, with more a siliceous composition and medium grey-green colour near the upper contact, and dark greenish with more mafic volcanic epiclastic component near lower contact. 49.90 53.28 Medium grey to green-grey, siliceous siltstone to silty chert, locally with a crackle fractured appearance. Hard, competent unit, with phyllitic foliation oriented at 70 to 80 degrees to the core axis. Minor amounts of small calcite			1.40 11.50 3.28 .98	n/a .82	n/a .80	n/a n/a	0.5-2% 1-3%	

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Page:

Interval Description Sample Interval Length Au Ag Te Pyrite ALTERATION (Metres) (Metres) (g/t) (ppm) (ppm) (%) SIL CARB SER

veining. 1 to 3% pyrite, as disseminations, laminae and fracture fillings. Gradational lower contact zone.

- 53.28 59.40 Typical, brown, laminated phyllitic siltstone and more massive, fine grained, psammitic arenite, locally containing thin (1 to 3mm), lensoid and boudinaged bands of bluish silica (cherty laminae?), as well as some irregular silica blebs in the upper part of the unit adjacent to the overlying cherty siltstone. Laminae/foliation and bedding are oriented at 60 to 70 degrees to the core axis. Minor to 1% pyrite as fine disseminations, 1 to 3mm wide laminae and fracture controlled veinlets.
- 59.40 61.40 Dark green, fine grained arenite derived from mafic volcanic material. Psammitic with biotite along foliation orientation of 70 to 75 degrees to the core axis. Minor finely disseminated pyrite.

Competent unit, generally with 5 to 30 cm breakage.

Lower contact is a sharp intrusive contact oriented at 70 degrees to the core axis.

61.40 62.25 PELDSPAR PORPHYRY DYKE

Medium grey, aphanitic, weakly foliated, consisting mostly of feldspar, US 61.40 62.25 .85 minor quartz? and 5% blotite/chlorite, with 5 to 15%, 0.5 to 2 mm, 422 61.40 62.25 .85 subheral, white, partly zoned and resorbed plagioclase phenocrysts.
2 to 3% fine pyrite as individual disseminations, and thin laminae.
Foliation oriented at 70 to 85 degrees to the core axis.
Weak sericitization along small fractures.
Hard, competent, intact unit with no core breakage.
Bo veining.

Lower contact is sharp at 85 degrees to the core axis.

62.25 99.43 SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Medium grey-green to dark green-grey, varying from aphanitic to medium (lnm) grained, with good volcanic flow texture. Weak to moderately magnetic.

NS 62.25 99.43 37.18 n/a n/a n/a 0.5% WX-HOD WX V.WX 423 68.00 69.00 1.00 .01 1.40 n/a 0.5%

WS 61.40 62.25 .85 n/a n/a n/a 2-3% 422 61.40 62.25 .85 .03 .80 n/a 2-3%

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Te Pyrite

ALTERATION

SIL CARB

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Description Interval Sample Interval Length Au (Metres) (Netres) (Metres) (g/t) (ppm) (ppm) (%)

Generally massive to very weakly foliated at 70 degrees to the core axis. Most of the unit exhibits a hairline crackle fracturing along which the rock is a lighter green colour due to epidotization, carbonatization and minor sericitization. Locally the epidote alteration forms irregular stringy alteration patches and bands that are a few to several cm in size. Some of these bands also contain minor pinkish garnet porphyroblastic bands and lenses.

Locally the unit exhibits a moderate degree of pervasive silicification, mostly adjacent to a thin (2 to 20mm) quartz veins, but the silicification also occurs with the epidote/carbonate +/- sericite patches and bands. Silicified zones, particularly those adjacent to quartz veining, contain abundant finely disseminated pyrite. Quartz veins occur at:.

68.85 68.88 Quartz vein with 10 cm alteration zones adjacent to both sides containing 5% finely disseminated pyrite.

70.17 70.20 Quartz vein oriented at 70 degrees to the core axis. Bull white with 10 cm alteration zones adjacent to both sides containing 2% disseminated pyrite and numerous other smaller quartz veins and patches.

0.5% Pyrite, locally as abundant disseminations in silicified zones adjacent to veining, and throughout unit as fine to coarse (3 mm) disseminated pyrite cubes.

Minor chalcopyrite, as large (1 to Jun) blebs, generally adjacent to veining, or within intensely altered patches.

Intense, irregular, silica crackle veining network, minor silica patches and veinlets, and a few small quartz veins.

Minor amount of silica flood/alteration veinlets also occur as planar surfaces oriented at various angles (0 to 90 degrees) to the core axis. Silica +/- calcite patches often have a salmon pink colour (albite/iron?

mineral/locally garnet).

Epidote-carbonate and salmon pink alteration bands and patches are larger within this unit and account for 10 to 15% of the section between \$1 and

Unit is relatively competent, generally with 10 to 50 cm breakage, often along irregular fractures.

Several large fractures exhibit a deep red, hematitic coating/staining.

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'. 											
Interval (Metres)	Description	Sample No.	Interval (Metres)			Ag (ppm)		Pyrite (%)	ALT SIL	ERATION CARB	
	Lower contact is sharp and oriented at 85 degrees to the core axis.										
162 68	INTERPLOW NETASEDINENT										
1.13 103.00	Medium grey to grey-green, very fine grained, vell foliated (laminated), weak to locally moderately magnetic, sediment with a large proportion of tuffaceous, epiclastic volcanic material (not as homogeneous and well laminated/bedded as the overlying clastic sediment sections). The unit may possibly be an altered mafic volcanic.	KS	99.43 103.0	3.57	n/a	n/a	n/a	0.5%			
	Unit contains some weakly magnetic, wavy foliated zones, that are oriented at 60 to 70 degrees to the core axis, but are locally intensely contorted.						•			,	
	Unit contains no large veining. Minor irregular, and diffuse silica carbonate laminae and patches, locally giving rock a foliated crackle-network appearance. Minor to 0.5%, disseminated pyrite. Pyrite is most common in greener,										
	nore tuffaceous (volcanic) sections. Competent core, generally with 30 to 100 cm breakage. Lower contact is oriented at 70 degrees to the core axis.					•					
		•									
.00 136.90	SCHISTOSE MAPIC METAVOLCAMIC WITH EPIDOTE-CARBONATE BANDS Generally medium to dark grey-green to green-grey colour with a few		103.00 136.9		n/a	n/a	n/a	0.5%	WX	YK	
	Mostly aphanitic, fine grained material with coarse (2 to 4mm long), amphibole/chlorite porphyroblasts.	425 : 426 :	114.60 115.7 115.70 116.7 135.94 136.9	70 1.00	.42 .02 .03	1.40 1.40 1.10	n/a n/a n/a	14 1-24 14			
	Light alteration patches consist of epidote and carbonate (calcite) and minor pink garnet. Biotite bands, within the more distinctly foliated section of unit,	<i>i</i>									

between 119 and 123.50 metres, has a slight bedded? appearance, but does

Alteration also occurs along thin (hairline to 1 or 2mm), anastomosing

Unit commonly exhibits a weak to moderately well developed network

Poliation oriented at 60 to 10 degrees to the core axis.

veinlets/fractures forming thin (0.5 to 3cm), Irregular bands.

crackle fracturing with calcitic-epidote altered surfaces/lines.

not appear to be a sediment.

BSSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sam	ple	Interval	Length	Au	Ag	Te	Pyrite	AL'	TERATION	
(Metres)		¥	0.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm)	(\$)	SIL	CARB	SER

Locally, the thin (hairline), calcite fractures form small meters or ladder fracture patterns, indicating development as late tension fractures. These are generally oriented at 45 to 55 degrees to the core axis.

Minor silicification throughout unit, often associated with lighter coloured epidote-carbonate alteration patches, but also as thin (1 to 5mm), irregular, pervasive, grey, silica patches and amoeboid bands/blebs. Minor quartz veining including:

113.70 113.76 1 cm quartz vein oriented at 35 degrees to the core axis. 116.58 116.68 10 cm quartz vein oriented at 75 degrees to the core axis.

127.15 127.17 2 cm quartz wein oriented at 55 to 70 degrees to the core axis, with 1% pyrite.

130.20 130.24 4 cm quartz vein oriented at 80 degrees to the core axis. Minor to 0.5% pyrite, as small blebs and fine disseminations often concentrated in silicified patches, along biotitic bands, along fractures, in some quartz veins, and as occasional 1 mm thick pyritic laminae.

Minor amounts of chalcopyrite are disseminated within the fine grained, massive, more mafic volcanic.

Competent core, generally with 30 to 100 cm breakage.

Lower contact is gradational through a zone of dark green-grey, porphyritic intrusive material within dark green-grey mafic volcanics, with very diffuse contacts between the two rock types.

136.90 142.58 WAPIC METAVOLCANIC PLOWS (PE THOLBIITE)

Dark grey to dark grey-green unit, consisting of very fine grained massive to weakly foliated mafic volcanic similar to that of overlying unit, but containing very minor lighter coloured epidote-carbonate+/-garnet alteration. Poliation oriented at 70 to 85 degrees to the core axis.

Unit includes 30 to 50%, dark grey, siliceous, very fine grained, slightly feldspar porphyritic, intrusive dykes and blebs with very diffuse contact edges. These dykes are 2 cm to 150 cm wide and are similar to underlying unit.

The two rock types generally grade into one another through transition

MS 136.90 142.58 5.68 n/a n/a n/a 1%

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Interval (Metres)	Description		Interval (Metres)			Ag (ppm)		Pyrite (%)	Als Jis	LTERATION CARB	SBR
	zones with mixed compositions.										
	The intrusive is somewhat siliceous, and the volcanic appears slightly silicified.										
	Unit is cut by 3%, thin (2 to 5mm), wormy, folded to subplanar veins of										
	blue-white silica. Subplanar veins are oriented at 45 degrees to the										
	core axis. Minor pyrite within the volcanic, and 1% disseminated pyrite in the	•									,
	intrusive portions of the unit.										
	Competent unit, generally with 30 to 100 cm breakage.	•									
	Lover contact is somewhat diffuse grading into the larger intrusive zone.										
142.58 146.30	PELDSPAR PORPHYRY DYKE										
	Dark grey, aphanitic to fine grained, massive to weakly foliated intrusive containing 5 to 10%, small (1 to 2mm), subhedral to enhedral,	VS 1	42.58 146.3	0 3.72	n/a	n/a	n/a	1-2%	VK	-	-
	weakly zoned, white feldspar phenocrysts. Unit contains 1 to 2% pyrite in small blebs an individual disseminations.		**.								
	Minor, thin (hairline to lum), planar, light blue-grey silica veinlets.										
	No significant alteration patches or large veining.		•								
	Competent unit, generally with 50 to 100 cm breakage. Lower contact is somewhat diffuse and oriented at 70 degrees to the core										
	axis.										
						•					
145 20 152 41	S SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS										
140.30 132.43	(Identical to the unit between 103.00 and 136.90 metres, but inlending	ES 1	46.30 152.4	5 6.15	n/a	n/a	n/a	MINOR			
	more quartz veins as well as two small porphyry dykes).		47.22 148.0		.90	2.20	n/a	1-2%			
	Medium to dark grey-green, fine grained, massive to weakly foliated		48.05 148.8		.17	2.40	-				
	volcanic with lighter green coloured patches and zones of epidote and carbonate alteration, and minor, pinkish garnet development.		48.80 148.8 48.85 150.1		.15	1.50 2.80	n/a	1-2% 0.5%			
	Unit generally contains an intense network crackle veining of calcite.		50.15 150.3		.02 .04	1.50	n/a n/a	11			
	146.65 146.70 Clay gouge material along several thin shear/faulted	600 1	50.36 151.7	5 1.39	. 27	3.70	n/a	1-2%			
	fractures oriented at 45 to 65 degrees to the core axis. 148.15 148.20 3 white guartz veins oriented at 75 degrees to the core axis	127 1	51.75 152.4	5 .70	.22	1.40	n/a	MINOR			
•	148.27 148.34 White quartz wein oriented at 60 degrees to the core axis										
	with trace amounts of chalcopyrite.										

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Interval (Hetres)	Description	No.	Interval (Metres)	(Metres)	(q/t)	(ppm)	(mon)	Pyrite (%)		LTERATION CARB	SBR
	148.50 148.51 Irregular, 1 cm wide, white quartz wein with 3% pyrite and 2% chalcopyrite.										
	148.80 148.85 Grey-white quartz veln oriented at 70 degrees to the core axis, containing minor pyrite, chalcopyrite and grey metallic minerals.										
	149.60 149.67 Bull white quartz vein oriented at 30 degrees to the core axis.										
	150.15 150.36 Peldspar Porphyry Dyke. Pinkish grey, feldspar porphyry dyke consisting of 60 to 70%, crowded, subhedral, white to slightly pinkish feldspar phenocrysts in an aphanitic, dark slightly brownish grey matrix. Dyke contains 2 to 4% biotite, and 0.5 to 1% disseminated pyrite. Sharp contacts										
	at 65 degrees to the core axis. 151.00 151.20 Irregular quartz vein containing 1% pyrite and trace amounts of chalcopyrite.										
	151.70 151.73 Peldspar Porphyry Dyke. Pinkish grey feldspar porphyry dyke as above.										
	Unit generally contains minor to 1% pyrite within the mafic volcanic sections, but 1 to 2% pyrite associated with the veining and dykes.										
	Moderately broken core, generally with 5 to 20 cm breakage. Lower contact is sharp a intrusive contact oriented at 60 degrees to the core axis.	·		V.	•						
						•					
152.45 156.4	3 PELDSPAR PORPHYRY DYKE Dark grev, fine grained groundmass with 20 to 25%, small (0.5 to 1mm) and	WS 1	52.45 156.4	3 3.98	n/a	n/a	n/a	1-21			
	occasionally some larger, white, subhedral feldspar phenocrysts often with minor calcite grains along edges of feldspar crystals. Massive, homogeneous unit with no foliation.	428 1 429 1	52.45 153.9 53.92 155.3 55.30 156.0	2 1.47 0 1.38	.20 .25	.80 .80 .70	n/a n/a n/a	1-2% 1-2% 3%			
,	Unit is relatively bard, but no quartz grains evident. 1 to 2% finely disseminated pyrite, and minor pyrite along fractures, including one with 3mm wide pyritic fracture band. Kinor white quartz veining cuts the intrusive. Competent core, generally with 5 to 50 cm breakage.		56.06 156.4		.16	.60	n/a	2\$			
	with minor calcite grains along edges of feldspar crystals. Massive, homogeneous unit with no foliation. Unit is relatively hard, but no quartz grains evident. 1 to 2t finely disseminated pyrite, and minor pyrite along fractures, including one with 3mm wide pyritic fracture band. Minor white quartz veining cuts the intrusive.	428 1 429 1 430 1	53.92 155.3 55.30 156.0	2 1.47 0 1.38 6 .76	.25 .18	.80 .70	n/a n/a		1-2% 1-2% 3%	1-2% 1-2% 3%	1-2% 1-2% 3%

Interval

(Metres)

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Description

Page: 14 Sample Interval Length Au Te Pyrite (Metres) (Metres) (g/t) (ppm) (ppm) (t) SIL CARB

Hole:

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156.43 156.95 MAPIC METAVOLCANIC PLOWS (PR THOURITE) Dark grey-green, aphanitic, weakly foliated, and exhibiting an intense network of hairline crackling that is reactive to HCl (calcite). Minor disseminated sulphides (pyrite). Hinor quartz veinlets.	NS 156.43 156.95 601 156.43 156.95		n/a .13	n/a 2.80	n/a n/a	0.5 \ 0.5 \	YK	HOD	-
156.95 157.30 PRLDSPAR PORPHYRY DYKE (Identical to the intrusive between 152.45 and 156.43, except this unit contains 34 pyrite, mostly as small stringers along discontinuous fractures. Upper and lover contacts are sharp but wavy and oriented at 65 to 75 degrees to the core axis.	MS 156.95 157.30 432 156.95 157.30		n/a .58	n/a .80	n/a n/a	3 \$			
157.30 158.50 MAPIC METAVOLCANIC PLOWS (PE THOLEIITE) (Same as unit on the other side of the overlying intrusive dyke, but slightly more silicified in appearance, and exhibiting very vague, (1 to 3mm) feldspar porphyroblasts).	MS 157.30 158.50 602 157.30 158.50		n/a .14	n/a 2.50	n/a n/a	0.5% 0.5%	AK-HOD	YK	-
158.50 167.64 PP QUARTI DIORITE INTRUSIVE - WK TO MOD ALTERED (Typical of the auriferous section in HM88-22, but this intrusive is only weakly altered). Light grey to white, fine to medium grained intrusive consisting dominantly of small (0.1 to 2mm), with 5 to 10% larger (2 to 5mm), euhedral to subhedral, white, often zoned plagioclase phenocrysts. Unit contains minor grey quartz and 5% blotite. Generally very weak to weak silicification and sericitization. Unit contains a white, bleached, more sericitic and quartz veined section from 160.65 to 161.24 metres. White quartz veining within this section is irregular, and appears somewhat broken/fractured. Large green, fine grained, mafic volcanic xenolith between 163.70 and 164.60 metres has irregular, but sharp, contact edges. Intrusive is finer grained, darker grey, and exhibits an intense pervasive	MS 158.50 167.64 433 158.50 159.50 434 159.50 160.65 435 160.65 161.24 436 161.24 162.50 437 162.50 163.70 603 163.70 164.60 438 164.60 164.85 439 164.85 165.75 440 165.75 166.65 441 166.65 167.64	1.00 1.15 .59 1.26 1.20 .90 .25 .90	n/a .13 .02 .01 .02 .05 .14 .91 .13 .15	n/a .50 .50 1.90 .80 .90 2.00 1.60 1.20	n/a	2-4\$ 2\$ 2\$ 2\$ 2\$ 3-4\$ 1-2\$ 3-4\$ 2\$ 2\$	WX.	V.V X	V.V K

ESSO MINERALS CANADA DIAMOND DRILL RECORD Hole: Page: HN88-24 15

Interval (Metres)	Description	Sample	Interval (Metres)	Length	λu	Ag	Te	Pyrite	TERATION CARB	SER
	silicification adjacent to both sides of the xenolith between 162.50 to 164.85 metres. Pyrite occurs as disseminations, blebs and stringers/fracture filling veinlets. Generally minor (2 to 3%), thin (2 to 5mm), white, quartz veins and patches, often with somewhat diffuse boundaries. Veins are clean with no pyrite. The intensely silicified and sericitized zone (160.65 to 161.24m) contains 10 to 20%, irregular and diffuse quartz veining. Core varies from soft and broken in the intensely altered section, to hard and competent in the intensely silicified grey zones adjacent to the xenolith. Lower contact not recovered as it was lost at the end of a core run (550°), but it is probably a sharp intrusive contact.									
167.64 171.3	SPELDSPAR PORPHYRY DYKE Speckled, medium grey to darker grey-green, to speckled medium pink to dark grey-red colour. 20 to 25%, fine to medium (1mm) grained, rounded, grey to pink feldspar, and 10 to 15% quartz phenocrysts, often exhibiting reaction rims and small pressure shadow material, occurring in a darker grey-green to grey-red, foliated, aphanitic matrix containing 10% biotite. Unit is very homogeneous, except for a transitional change in oxidation state of iron from green above 16%.40 metres to red below 16%.40 metres. Moderately well foliated at 0 to 20 degrees to the core axis. Contains a few small (up to 1 x 3cm), dark green, fine grained, mafic volcanic xenoliths. Minor quartz veining occurs as thin (1 to 3mm), subplanar veinlets. Minor to 0.5% pyrite as fine disseminations, and along some fractures. Competent core, generally with 20 to 100 cm breakage along fractures oriented at 45 to 75 degrees to the core axis. Lower contact is a sharp but irregular intrusive contact.	442 1 443 1 444 1	167.64 171.3 167.64 168.4 168.40 169.4 169.40 170.4 170.40 171.3	0 .76 0 1.00 0 1.00	n/a .07 .54 .80 1.16	n/a 3.50 2.40 4.30 4.80	n/a n/a n/a n/a	0.5% 0.5% 0.5% 0.5%		

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nterval Metres)	Description	Sample Ko.			Length (Netres)						LTERATION CARB	S
		BV.			(uccres)	(3/4)				318		
	intrusive, through a weakly foliated, weakly sericitized and silicified,	116	171.3	8 172.3	5 .97	.01	1.30	n/a	2-31			
	light grey intrusive, to thin zones of moderately silicified and	447	172.3	35 173.10	0 .75	.16	1.70	n/a	2-3%			
	sericitized, as well as quartz weined intrusive.			10 173.90		.01	1.00	n/a	11			
	Generally fine (0.5 to 2mm) grained, crowded feldspar in a finer,			0 175.2		.09	1.60	n/a	1-21			
	probably feldspar rich, matrix with little ((5%) visible quartz. 5%,			25 176.3		.01	1.00	n/a	1-24			
	small, scattered blotite, locally chloritized and sericitized, and			35 177.5		.04	1.10	n/a	2-3%			
	generally 1 to 3% disseminated, as well as fracture controlled, pyrite.			0 178.6		.04	.80	n/a	13			
	Minor to trace amounts of a dark grey, metallic mineral in a few quartz			1 179.3		.07	.90	n/a	11			
	velas.			30 180.5		.12	.70	n/a	1-2\$			
	Generally 2 to 3% quartz as small (lmm), to larger (3cm), bull white.			50 181.5		.23	1.60	n/a	2-31			
	veins in subplanar to planar veins oriented at various angles to the			0 182.8		.14	1.20	n/a	1-2%			
	core axis. Veins contain some feldspar, but very little other impurities			18 184.2		.17	1.90	n/a	11			
	or mineralization. Slightly more veining in altered sections, but veining about the same throughout the unit.			20 185.0		.15 .11	3.30 1.90	n/a	1-2 % 1-2 %			
	171.38 173.10 Light grey to white, weak to moderately sericitized and			0 186.0		.07	1.10	n/a	1-24			
	silicified.)0 187.4! 15 188.6'		.06	1.40	n/a n/a	1-24			
	173.10 175.25 Gradational into a light pink, very weakly sericitized and			13 100.0 17 190.0		.10	1.00	n/a	1-24			
	silicified intrusive.			00 190.8		.17	1.30	n/a	0.5%			
	175.25 177.50 Grey, weakly silicified and sericitized intrusive, with			10 192.0		.12	1.00		0.5-11			
	local zones/patches of white, moderately altered intrusive.			DD 192.9		.05	1.00		0.5-14			
	177.50 184.20 Generally light pink, unaltered to very weakly silicified			0 193.9		.01	.80	n/a	21			
	and sericitized, with minor light grey, weakly altered			90 195.0		.10	1.00		0.5-1%			
	patches, but including a central section with white, weak			00 195.8		.16	1.20		0.5-1%			
	to moderately altered patches between 180.5 and 181.5			80 196.5		.11	1.90		0.5-1%			
	metres.			50 197.50		.03	.90	n/a	2-3%			
	184.20 186.00 Light grey, weakly sericitized and silicified intrusive.	454	197.5	50 198.5	0 1.00	.22	1,30	n/a	2-31			
	186.00 196.50 Light pinkish, very weakly sericitized and silicified,	155	198.5	50 199.20	0 .70	.02	1.00	n/a	3-41			
	porphyritic intrusive containing a hematized fracture			20 199.80		.05	6.10	n/a	21			
	between 190.20 and 190.50 metres.			0 200.5		.01	1.30	n/a	2-31			
	196.50 202.85 Grey, weakly silicified and sericitized, to white			56 201.6		.01	1.40	n/a	2-31			
	noderately altered surrounding the quarts veining between			60 202.8		.02	1.80	n/a	2-31			
	199,20 and 199.80 metres.			85 203.9		.01	.90	n/a	1-21		*	
	202.85 205.44 Light pink, very weakly sericitized and silicified,			204.6		.01	.70	n/a	1-21			
	porphyritic intrusive with local zones of grey, weakly	462	204.0	65 205.4	4 .79	.01	1.00	n/a	13			
	silicified and sericitized intrusive. Between 204.65 and 205.44 metres the section is medium pink in colour with											

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	λu	λg	Te	Pyrite	AL	TERATION	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm)	(4)	SIL	CARB	SER

chloritized biotite and chloritic fractures.

The contacts between the above sections are all gradational. The section divisions are somewhat subjective as the alteration changes are highly variable, with some patches of less and more altered material occurring within each section.

Rock is well fractured, mostly at angles oriented between 45 and 70 degrees to the core axis, with the two extreme angles being the most dominant.

Unit is generally broken into 5 to 20 cm pieces, but includes some rubble sections.

Minor fractures with chloritic/sericitic surfaces having undergone some slippage.

205.44 230.75 NAPIC METAVOLCANIC PLOWS (PE THOLBIITE)

Generally very dark, slightly greenish black, very fine grained, extremely hard and siliceous volcanic, often with minor, vague, small (0.5 to 2mm), subhedral, light greenish to white feldspar phenocrysts, but locally containing 5 to 10%, well developed, subhedral feldspar phenocrysts.

Unit is generally pervasively silicified (unless silica content is indigenous to the metavolcanic). The unit is also cut by 3 to 5%, small (1 to 25mm), quartz veins, and irregular silica flood veinlets.

Unit has a slight crackle fracturing, with thin (hairline), epidote alteration in dark green, porphyritic sections, but also large sections of moderately to intensely epidotized rock. The latter form massive, epidote green coloured rock that is somewhat vuggy.

Locally the unit exhibits a flow breccia?/pseudobreccia? appearance with 50% unaltered, angular fragments of various size lying within epidotized matrix material.

Unit is generally massive, with no foliation development, suggesting a thick flow or intrusive origin.

Trace amounts of pyrite occurs within the intrusive, but locally it contains up to a few percent pyrite, associated with fractures and silica veining.

Unit contains trace amounts of chalcopyrite, as large (2 x 3mm) grains

MS 205.44 230.75 25.31 n/a n/a n/a -463 205.44 206.20 .76 .01 .70 n/a MINOR 464 210.62 211.53 .91 .01 1.50 n/a MINOR

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Interval	Description	Sample	Interval	Length	λū	Лg	Te Pyrite	Yr,	TERATION	
(Metres)		Bo.	(Metres)	(Metres)	(g/t)	(ppm)	{ppm} (*)	SIL	CARB	SBR

also associated with silica veining/flooding.

Unit is strongly magnetic where unaltered (not epidotized), but almost non-magnetic in the intensely epidotized sections.

- 205.44 209.65 Relatively unaltered with minor weak to moderately epidotized patches. Well developed porphyritic feldspar texture.
- 209.65 214.15 Relatively unaltered with only minor epidotization along hairline fractures. Local zones with vague feldspar phenocrysts, but mostly fine grained, dark, massive, magnetic intrusive. Includes a breccia/pseudobreccia zone from 210.20 to 210.45 metres with transitional contacts.
- 214.15 222.35 Moderately to intensely epidotized volcanic, locally with a granular texture. No feldspar phenocrysts are evident. Minor shear foliation is locally developed and oriented at 45 degrees to the core axis. Some fractures have red hematitic staining.
- 222.35 230.10 Relatively unaltered, with weak to modetately epidotized patches, and minor network, epidote crackling, that increases in abundance near the end of section producing a network/patchy altered rock zone.
- 230.10 230.75 Dark green-black, fine grained, well foliated, with slight brownish hue due to minor amounts of fine biotite. Weakly magnetic, with no epidotization, but including 5 to 10%, irregular wispy banded calcite patches/network veining. Probably more foliated and biotitic due to the adjacent intrusive. Section contains minor amounts of finely disseminated pyrite, increasing to a few percent in 25 cm zone adjacent to the intrusive. Section contains no veining

Large quartz veining (>1 cm) at:.

207.20 207.30 10 cm quarts vein oriented at 45 degrees to the core axis.

220.00 220.10 4 cm quartz vein oriented at 40 degrees to the core axis.

Core is relatively competent, very hard, with 20 to 150 cm breakage in the unaltered sections, and somewhat more broken in the epidotized sections.

Lower contact is a sharp but irregular intrusive contact oriented at 60 to 75 degrees to the core axis.

H-W PROJECT (Ont. 7)

H-N PROJECT (Ont. 77) ESSO MIMERALS CANAL DIAMOND DRILL RECO					Nole: Page:	RN	88-24 19		
1						,				
Interval (Metres)	Description	Sample No.	Interval (Metres)					Pyrite (%)	ALT SIL	ERATION CARB
230.15 232.3	5 PELDSPAR PORPHYRITIC QUARTI DIORITE INTRUSIVE - UNALTERED	**	498 FE 494 91	E 4 64	-1-	2/2	2/2			
	25 to 30%, white, 1 to 5 mm, crowded feldpsar phenocrysts in dark grey, fine grained, dominantly feldspar groundmass, also containing 5% biotite, 2 to 4% pyrite, and 5% bluish quartz grains. Unit contains the occasional, large (10mm), partly polkioclastic feldspar phenocrysts. Massive, unfoliated and unaltered, hard rock. Minor, small (1 to 2mm), subplanar silica veining, and small (0.5 to 2cm) silica patches.	465	230.75 232.31 230.75 231.41 231.45 232.31	5 .70	n/a .01 .01	n/a .80 .60	n/a n/a n/a	2-1 \ 3-1 \ 3-1 \		
	2 to 4% pyrite as fine disseminations, and concentrations along fractures. Competent unit, generally with 10 to 50 cm breakage.						•			
232.35 240.7	5 SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS (Probably the same rock as the unit between 205.44 to 230.10, but this unit is not quite as siliceous, has no feldspar phenocrysts, and has a carbonate alteration as well as the epidotization). Unit is generally dark greenish grey, with 40 to 50%, buff to light greenish to creamy yellow altered network veining, that grade into more altered patches and irregular bands.		232.35 240.7 239.57 240.7		n/a .01	n/a 1.20	n/a n/a	KOD 1%	AK-NOD	V.VK
	Massive to weakly foliated at 60 to 80 degrees to the core axis. 0.5% Pyrite as fine disseminations and blebs, often concentrated adjacent to thin silica veinlets. 2 to 3%, thin, irregular to subplanar, silica+/-calcite veinlets. Relatively competent core with 25 to 100 cm breakage generally along fractures oriented at 45 to 60 degrees to the core axis.									
	Lower contact is a sharp intrusive contact oriented at 45 degrees to the core axis. Underlying porphyritic intrusive cuts this unit as attested by the 25 cm contact zones exhibiting an intense calcitic alteration and									

SER

240.75 270.60 PP QUARTZ DIORITE INTRUSIVE - WK TO NOD ALTERED

strong foliation.

Light grey to white, fine to medium grained, moderately to intensely silicified, and weak to moderately sericitized. Unit is cut by abundant

MS 240.75 270.60 29.85 n/a WK-HOD WK WK-MOD n/a n/a 377 240.75 241.75 1.00 2.60 n/a 2-3%

Interval

(Metres)

to subplanar.

amounts of a purplish grey metallic mineral.

kaolinized? feldspar.

through the relatively clean quartz vein.

Wallrock is moderately foliated.

to the upper clean, white quartz phase.

trace amounts of chalcopyrite.

Larger quartz vein sections at:.

wallrock.

ESSO MINERALS CANADA DIAMOND DRILL RECORD

Description

Sample Interval Length Te Pyrite ALTERATION No. (Metres) (Metres) (g/t) (ppm) SIL CARB (ppm) (%) .54 15.40 (15 to 30%), white quartz veining. Most of the veining is at relatively 378 241.75 242.90 1.15 n/a 2-31 379 242.90 243.54 .64 1.91 31.60 2-31 steep (0 to 45 degree) angles to the core axis, with 20 to 35 degrees p/a .21 6.10 2-41 being predominant. Veining is small (mm) to large (10 cm), and irregular 380 243,54 244.75 1.21 n/a 381 244.75 245.20 .45 .61 28.40 2-41 n/a Unit also contains several fractures, many of these at steep (10 to 35 382 245.20 245.60 .40 1.02 10.80 n/a 2-3% degrees) to the core axis. These fractures often are coated with minor 383 245.60 246.00 .16 2.80 n/a 1-21 384 246.00 246.58 .58 .10 1.20 n/a 2-31 Larger quartz veins contain some altered wallrock fragments and minor 385 246.58 247.00 .12 2.83 64.80 n/a 2-31 3.20 sulphides, including pyrite, minor amounts of purple grey metallic 386 247.00 247.80 .80 .18 n/a 2-31 minerals (galena), and locally, minor amounts of yellow sphalerite and 387 247.80 248.50 .70 .04 2.00 n/a 3-41 388 248.50 249.40 .90 .05 2.20 3-41 n/a .07 3.60 3-41 389 249.40 249.80 .40 n/a 242.30 242.90 Large quartz vein oriented at 0 to 20 degrees to the core 390 249.80 250.45 .65 .50 6.80 n/a 2-31 axis, with minor pyrite and purple grey metallic minerals. 391 250.45 251.00 .55 .85 24.00 n/a 2-31 243.30 243.54 Large, irregular quartz vein patch containing 1% 392 251.00 251.55 .55 2.80 2-31 .05 n/a purple-grey mineral, as well as some peach coloured 2-41 393 251.55 252.55 1.00 .04 1.40 n/a 394 252.55 253.55 1.00 .02 1.00 n/a 2-43 2-31 395 253.55 254.55. 1.00 .01 1.20 n/a 244.75 244.95 Large quartz wein oriented at 10 degrees to the core axis, 396 254.55 256.00 1.45 1.40 1-21 with 3% pyrite, a few large (5 x10 mm), irregular, honey .05 n/a coloured to bright yellow sphalerite crystals, 0.5% purple 397 256.00 256.95 .95 .01 1.20 n/a 2-31 398 256.95 257.56 .61 1.20 2-31 grey mineral, and minor chalcopyrite, all disseminated .04 n/a 399 257.56 258.60 1.04 .01 1.40 n/a 2-31 245.20 245.60 Quartz vein oriented at 15 degrees to the core axis, with 400 258.60 259.10 .50 .04 2.80 n/a 2-3% 7.60 2-41 large (1cm), irregular, peach coloured koalinized 101 259.10 259.75 .17 n/a feldspar, 1t pyrite, and minor to 0.5t purple grey mineral, 402 259.75 260.50 4.00 2-41 .01 n/a within quartz vein and in the adjacent wallrock edges. 403 260.50 261.00 .50 .20 18.00 n/a 2-41 404 261.00 262.00 1.00 4.80 2-31 .11 n/a 246.90 246.91 1 cm polyphase (2 bands) quartz vein oriented at 30 degrees 405 262.00 263.00 1.00 .03 4.40 2-31 n/a to the core axis, with abundant, extremely finely 406 263.00 264.00 1.00 .02 2.80 2-31 n/a disseminated grey mineral in lower band (phase?), adjacent 407 264.00 265.00 1.00 .24 6.10 n/a 2-3% 408 265.00 266.00 1.00 .05 2.40 2-31 n/a 247.00 247.40 Abundant (25%), 1 to 3 mm, subparallel and subplanar, 109 266.00 266.50 .15 2.30 n/a 2-31 sheeted quartz vein section within foliated and altered 410 266.50 267.00 .02 2.00 n/a 2-31 411 267.00 268.00 1.00 .02 1.20 n/a 2-31 2-31 250.15 250.40 Quartz vein with irregular contacts, including minor pyrite 412 268.00 268.50 .50 .01 . .80 n/a and grey metallic mineral. Grey mineral (galena) occurs 413 268.50 269.00 .50 .05 3.80 n/a 2-3%

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ALTERATION

CARB

SIL

Interval Description Te Pyrite (Metres) No. (Metres) (Metres) (g/t) (ppm) (%) (ppm) along hairline fractures oriented at 0 to 20 degrees to the 414 269.00 269.50 .21 2.40 2-3% core axis within the wallrock. 415 269.50 270.00 .50 3.80 2-31 .02 253.80 254.10 Two, separate, 2 cm quartz veins oriented at 45 degrees to 416 270.00 270.60 .60 . 20 2.80 n/a 1-2% the core axis, with minor grey mineral. 254.55 256.00 Pault Ione. Large faulted breccia zone consisting of subrounded (abraided), to subangular, altered rock material in a finer grained, dark coloured matrix. Pragments range from un to several cu in size, but most are 0.25 to 1.5 cm. Pragments are closely packed with up to 30% matrix material. Above 255.12 metres the fault contact parallels the core axis at approximately 0 degrees to the core axis with a sharp but undulating contact between wallrock and fault zone. Below 255.12 metres the complete width of the recovered core is fault zone material. The core is well broken and about 30 cm of core at the lower contact was not recovered. 259.75 259.80 Small, Irregular quartz vein with several percent coarse purplish grey metallic mineral that exhibits striated surfaces on polished core faces. These also exhibit a weak cleavage when pricked by pin suggesting a relatively soft mineral. 264.00 264.50 Several, thin (1 to 5cm), quartz veins oriented at 10 to 20 degrees to the core axis, with minor grey mineral. 264.60 264.70 3 cm quartz vein oriented at 35 degrees to the core axis with polyphase band (0.5cm) on upper edge containing abundant extremely finely disseminated grey mineral. 269.60 269.90 Irregular quartz vein oriented at 10 degrees to the core axis. Main vein has several branching arms. 270.32 270.38 And. 270.48 270.55 2 well foliated wallrock fragments, with foliation oriented at 35 to 40 degrees to the core axis. The intervening intrusive material is silicified, but not as strongly sericitized. Biotite is generally chloritized or sericitized, except in the upper two metres. Unit contains 2 to 4% pyrite throughout the section, mainly as fine

disseminations and small blebs, but also as fracture fillings and

BSSO MINERALS CANADA DIAMOND DRILL PROORD

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					_				
Interval	Description	Samp]	e Interval	Length	λu	λg	Te Pyrite	ALTERATION	Ī
(Metres)	·	No.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm) (%)	SIL CARB	SER
, ,	·								

concentrations within, and along the edges of, quartz weining.

The soft purplish grey metallic mineral generally occurs in, or along the edges of, quartz veining, but also occurs as fine disseminations within the intensely silicified/silica-flooded wallrock zones of the veined sections. Locally this mineral accounts for 1% of thin intervals a few cm in width, but it generally forms only minor amounts of the sampled intersections. The purple grey metallic mineral also forms films on some low angle fractures.

The altered section is porous to vuggy, and contains several fractures at low angles to the core axis.

In the lower part of the unit several fractures that are oriented at 50 to 70 degrees to the core axis have 1 mm films of white, sericitic?, kaloinized? clay material.

Unit is well fractured at 45 to 70 degrees to the core axis, with several steeper fractures locally producing very vuggy sections, however, for the degree of alteration, the core is moderately competent, generally with 5 to 20 cm breakage along sericite-kaolin lined fractures.

Lower contact zone includes 2 well foliated (35 to 40 degrees to the core axis), wallrock fragments between 270.32 to 270.38m and 270.48 to 270.55m, with the adjacent intrusive only weakly sericitized.

Lower contact is sharp and oriented at 40 degrees to the core axis with a 10 cm clay gouge band.

270.60 271.18 NYLONITE TONE

Well banded, pastel greenish, greyish, purplish, pinkish colours of finely foliated intrusive material, but including a few larger fragments of the intrusive.

Unit is sericitic, and soft, and includes 2 sections between 270.60 to 270.65m and 270.81 to 270.87m that grade into zones of clay gouge material.

Mylonitic shearing is oriented at 45 degrees to the core axis, with surfaces easily separable to mm size laminae.
Unit contains no veining.

0.5% Finely disseminated pyrite, probably as remnant grains from the original intrusive material.

MS 270.60 271.18 .58 n/a n/a n/a 0.5% WK MOD-INT MOD-INT

ESSO MINERALS CANADA DIAMOND DRILL RECORD Role: Page: HK88-24

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Interval	Description	Sample	Interval	Length	λu	Ag	te Pyr	rite	alt	TERATION	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm) (1)	SIL	CARB	SBR

Lower contact is irregular, gradational changing into intensely altered (carbonate) mafic volcanic. Some of this altered material can also be seen as small fragment grains within the lower part of the mylonite zone.

271.18 282.24 CARBONATE ALTERED MAPIC METAVOLCANIC

Medium to dark grey to green-grey, weakly carbonatized and epidotized, and very weakly sericitized, massive, very fine grained, moderately magnetic volcanic.

Minor amounts of pinkish garnet banding associated with the epidote alteration.

Unit exhibits a moderate to intense degree of alteration within 1 metre of the adjacent mylonite zone, but is generally only weakly silicified and carbonatized.

Most of unit exhibits a network of hairline fractures and small patchy rones of alteration that are a lighter grey colour. This network fracturing is mainly silica veining, together with a weakly developed, patchy, pervasive silicification.

Unit is generally massive to weakly foliated above 278.5m, but well sheared at 10 to 30 degrees to the core axis below 278.5m.

281.30 281.90 Section with irregular black banding that is extremely fine grained and magnetic. Appears to be interflow sediment material within the volcanic flow units. This section also contains a 3 mm pyrite band that parallels the magnetic bands and the shearing orientation at 25 degrees to the core axis. It includes 0.5 to 1% chalcopyrite.

1% Pyrite as fine disseminations concentrated in carbonate-epidote altered patches, areas of silicification or veining, and as some thin pyritic laminae.

Minor quarts velning and laminae often slightly offset and stretched or boudinaged due to shearing.

Moderately fractured with most having a thin coating of sericite/kaolin clay, suggesting some slippage.

Several fractures have thin clay gouge zones and some of the sheared/foliated rock is very soft and consists of chlorite-sericite minerals also suggesting slippage.

15	271.18	282.24	11.06	n/a	n/a	n/a	13	VK	VX
621	279.20	280.50	1.30	.02	2.40	n/a	MINOR		
622	280.50	281.35	.85	.01	2.70	n/a	HINOR		,
117	281.35	282.24	. 89	,21	2.20	n/a	2%		

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Interval	Description	Sample	Interval	Length	Au	λg	7e	Pyrite	AL	TERATION	
(Metres)		Wo.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm)	(1)	SIL	CARB	SER

Lower contact was not encountered. 282.24 (926 Feet) End Of Hole.

ESSO MINERALS CANADA SUMMARY DRILL LOG

Project Name:HN	18 " " Later State Color
Project Number: 1677	O ASSESSMENT FILES
NTS: 42H/8	OT TOP
	.IIII 1 / 1989
Location: <u>L40+00W</u> , 11+2	RECELVED
Azumith, 180°	Din: -45°

Hole Number: HN88-25

Logged By: M.H. Lenters

Date: February, 1988

Claim Number: L-871908

Length (m): 233.48

PURPOSE: North-south geology section south of holes HN88-22/23

From	То	Description	Gold Assays
(m)	(m)	Casing left in hole	(g/tonne)
0.00	11.85	Overburden (Vertical Depth 8.4 metres)	
11.85	18.60	Mafic Metavolcanic Medium to dark grey-green, fine grained, magnetic, massive volcanic flow rock with moderate (20 to 25%), irregular anastomosing epidote-carbonate alteration patches and banding, and weak foliation at 60° to the core axis. Minor pyrite.	Not Assayed
18.60	39.79	Feldspar Porphyritic Quartz Diorite Intrusive Light pinkish to light grey, fine to medium grained with 5 to 7%, large, subhedral plagioclase phenocrysts, 2 to 3% quartz, and 5 to 7% biotite. A few, thin, weak to moderately silicified and sericitized zones adjacent to small quartz veins at 40 to 60° to the core axis. 1% pyrite.	0.01 to 0.18
39.79	50.30	Mafic Metavolcanics Mottled dark green, fine grained (chloritic) and massive; and sandy brown (biotite), fine to medium grained and schistose due to weak potassic, carbonate and silica alteration. Moderate irregular light cream to yellow green epidote-carbonate alteration banding and schistose foliation at 60 to 70° to the core axis. Minor pyrite.	Not Assayed
50.30	51.80	Feldspar Porphyry Dyke 20 to 25%, subhedral, white, zoned plagioclase phenocrysts in fine grained matrix consisting dominately of crowded feldspar crystals and 5 to 10% biotite. Minor pyrite.	
51.80	70.43	Intermediate to Mafic Metavolcanic As above, but slightly more felsic (siliceous) in appearance, and with only minor epidote-carbonate alteration banding. Minor pyrite.	Not Assayed
70.43	72.48	Feldspar Porphyry Dyke Same as above	Not Assayed
72.48	97.55	Intermediate to Mafic Metavolcanic Same as above	0.01
97.55	102.72	Mafic Metavolcanic (Fe Tholeiite Flows) Dark green, very fine grained, weakly magnetic with minor lighter grey siliceous? patches, and minor light yellow green epidote-carbonate banding. Minor pyrite and pyrrhotite	0.01
102.72	124.30	Mafic Metavolcanic; Largely Altered to a Feldspar-Carbonate-Biotite-Chlorite-Quartz Schist Dark green, fine grained and weakly foliated to brownish, biotitic and moderately schistose at 60 to 70° to the core axis. Weak to moderate irregular anastomozing to patchy epidote-carbonate alteration. Minor to 1% pyrite.	0.01 to 0.02

y	From	To	Description	Gold Assays
	(m)	(m)		(g/tonne)
•	124.30	131.50	Pyritic, Carbonate-Silica Band (Cherty Interflow Metasediments?) Medium greenish to creamy brown, strongly wavy laminated/banded at 60 to 80° to the core axis. Rock has a cherty banded and cracked texture, with weak to moderate epidote-chlorite alteration, moderate to intense carbonate and silica alteration and 4 to 12% discontinuous, wispy laminated pyrite.	0.01 to 0.06
	131.50	133.60	Chlorite-Amphibole Schist Dark green, massive, well foliated at 60 to 65° to the core axis with minor silica and calcite veining. Trace pyrite	Not Assayed
	133.60	144.05	Breccia Zone Abundant (50 to 75%), large (mostly 1 to 20 cm, but up to 100 cm) angular to subangular polylithic (including quartz diorite intrusive and porphyry dyke) fragments and blocks in a fine grained, hard, siliceous/chloritic/amphibole matrix. Zone is well "annealed"; hard with breakage across fragments/clasts, making fragment contacts difficult to distinguish from matrix material. Upper section is well foliated or sheared at 65° to the core axis. Minor quartz veining. Minor pyrite associated with some clasts.	
	144.05	160.95	Mafic Metavolcanic Dark green, very fine grained, massive to weakly foliated with some grey, more siliceous patches. Minor to moderate irregular epidote-carbonate-garnet alteration bands at 50 to 70° to the core axis. Stronger foliation, more schistose and biotite-rich adjacent to intrusive contacts. Minor pyrite.	0.01
	160.95	165.55	Feldspar Porphyritic Trondhjemite Intrusive Dyke Medium to dark green-grey to reddish grey containing 10 to 25%, subhedral, white plagioclase phenocrysts, 5% rounded quartz phenocrysts, and 3 to 5% weakly chloritized biotite in fine grained, siliceous, feldspar-rich matrix. Minor (2 to 3%) quartz veining parallel to weak foliation at 55 to 65° to the core axis. Minor fracture controlled pyrite.	0.03 to 0.11
	165.55	209.00	Mafic Metavolcanic As above.	
	209.00	214.68	Feldspar Porphyritic Quartz Diorite Dyke As above, but with minor visible quartz phenocrysts and very little quartz veining.	0.02 to 0.05
	214.98	218.60	Mafic Metavolcanic (Strongly Epidote-Carbonate Altered) As above but moderately biotitic and carbonatized adjacent to the two intrusives and moderately epidotized within the central portion. Abundant hairline calcite fracturing. Minor pyrite.	0.02 to 0.03
	218.60	224.95	Complex Contact Zone Between Mafic Volcanic and Feldspar Porphyritic Quartz Diorite Intrusive 75% intrusive as above, and 25% irregular, small to large, biotitic and calcite altered, well foliated/schistose mafic volcanic wallrock fragments. 3 to 5% irregular quartz veins. Minor to 0.5% pyrite.	0.01 to 0.04
,	224.95	233.48	Moderately Altered, Leucocratic, Feldspar Porphyritic Quartz Diorite Intrusive Light grey, weak to moderately, and locally intensely, silicified, but only weak, to locally moderately, sericitized intrusive. Moderately fractured, but only minor (2 to 5%) quartz veining at 0 to 20° to the core axis. Quartz veining contains 1-2% pyrite and minor molybdenite.	0.01 to 0.13
		233.48	END OF HOLE	

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H-N PROJECT (Ont. 77	1)	ESSO MINERALS CANADA	Hole: HN88-25
		DIAMOND DRILL RECORD	Page: 1
Drilled by:	Atlas Drilling Limited	Azimuth: 180	Claim No: L-871908
Hole Size:	80	Dip: -45	Grid: Vest
Core Size:	BQ		Basting: 40+00¥
Casing:	Casing Left In Hole		Northing: 11+258
		Acid Tests:	Rlevation: Level
Started:	Peb. 18, 1988		
Pinished:	Feb. 22, 1988	Depth Az. Dip 121.92 -41.0	Purpose: N-S Geology Section
Logged by:	M.H.Lenters	233.48 -39.0	Length: 233.48Metres
Date logged:	Pebruary 1988		Vert. Proj: 155.0 Metres
Logging Method:	LogII		Nor. Proj: 175.0 Hetres
Heasurement System:	Xetric		Ovb. Depth; 8.4 Metres

.00 11.85 OVERBURDEN

Interval

(Metres)

11.85 18.60 SCHISTOSE MAPIC METAVOLCANIC WITH BPIDOTE-CARBONATE BANDS

Medium to dark, slightly greenish grey, fine grained, magnetic, massive volcanic with 20 to 25%, irregular, anastomosing bands, fine stringy veinlets/fractures, as well as patches of lighter green, epidote +/-carbonate alteration, giving the rock a mottled appearance. Very heavy core, with a high specific gravity.

Description

Bpidote-carbonate alteration patches are weakly to moderately reactive to BCl, and often contain thin (1 to 5 mm), amoeboid blebs of pink, poikioblastic garnet growth. These patches also contain 0.5 to 14, very finely disseminated pyrite.

Bpidote-carbonate alteration patches, as well as the less altered mafic volcanic, are cut by minor amounts of thin (hairline), irregular, networks and subplanar veinlets of calcite. These often form subparallel sets suggesting tension gash fillings.

Minor silica and quartz veining often offset along minor slips.

Yeak foliation and banding of alteration patches appears to be oriented

MS 11.85 18.60 6.75 n/a n/a n/a MINOR V.WK W

λq

te Pyrite

ALTERATION

Sample Interval Length Au

(Metres) (Metres) (g/t) (ppm)

BSSO MINERALS CANADA DIAMOND DRILL RECORD

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[nterval Length Au Ag Te Pyrite ALTERATION
[Metres] No. (Metres) (Metres) (g/t) (ppm) (ppm) (%) SIL CARB SER

at 60 degrees to the core axis.

Minor pyrite as fine disseminations in alteration patches.

Hard, competent core, generally with 50 to 120 cm breakage.

Lower contact is an undulating intrusive contact oriented at 20 to 25 degrees to the core axis.

(Unit is similar to the section between 232.65 and 240.75 metres in HX88-24).

18.60 39.79 PELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED

Very light pinkish to bluish grey, generally light coloured, fine (0.5 to 2 mm) grained, relatively unaltered intrusive consisting of crowded feldspar phenocrysts, minor quartz, 5 to 7% black biotite, and 0.5 to 1% disseminated pyrite.

The unit also contains 3 to 7% larger, often subhedral, plagioclase phenocrysts giving unit a slight porphyritic appearance.

Several mottled, light grey, silicified zones occur within the unit, as well as a few, small (2 to 10 cm), white quartz veins, and several larger (5 to 20 cm) salmon pink (albite?) veins.

20.47 20.56 Salmon pink albite vein oriented at 70 degrees to the core axis with somewhat diffuse contacts.

20.80 20.85 Salmon pink albite vein oriented at \$5 degrees to the core axis.

21.45 22.00 Weak to moderately silicified (pervasive and veined), with one thin (3mm) quartz vein containing a minor amount of a purplish grey metallic mineral.

25.45 25.70 Dark green-black, late, aphanitic, fine grained dyke with 10 to 20%, 1 to 2 mm, subhedral to euhedral, dark plagioclase phenocrysts. 1% disseminated pyrite (could possibly be a xenolith, but has parallel contacts oriented at 75 degrees to the core axis).

30.50 31.50 Weak to moderately silicified (pervasive and veined) with minor thin silica/quartz veinlets.

33.20 33.92 Dark olive green-black (biotite-chlorite), non magnetic and schistose, with swirled foliation and intense network of irregular, hairline, calcite veining, as well as 5%, small

NS 18.60 39.79 21.19 n/a 1% WK-HOD V.VK n/a 468 21.45 22.00 .55 .03 n/a n/a 1-2% 469 22.00 22.50 .50 .01 n/a n/a 11 470 30.50 31.00 .50 .01 n/a n/a 21 471 31.00 31.50 .11 n/a n/a 21

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Interval Description Sample Interval Length Au Ag Te Pyrite ALTERATION (Metres) (Metres) (g/t) (ppm) (ppm) (%) SIL CARB SER

quartz veinlets offset on minor slips/fractures. This section may be a contorted xenolith fragment.

Several small (1 to 5 mm), quartz veins, all generally oriented at 40 to 60 degrees to the core axis.

Numerous, thin (hairline), black slip surfaces oriented at various angles to the core axis, but generally between 35 to 60 degrees). A few of these slips offset large quartz veins suggesting they all may have some slip movement.

14 Pyrite as fine disseminations and thin (hairline) stringers.

Moderately broken (blocky) core with 5 to 20 cm breakage, generally at 45 to 70 degrees to the core axis. Very broken below 30 metres into 1 to 3 cm pieces.

38.80 38.90 A few broken fragments exhibit a breccia or silica pseudobreccia appearance, but this zone is not very large.

39.18 39.31 And.

39.40 39.60 Two wallrock incusions/xenoliths that are dark green, magnetic, with a moderately developed, irregular foliation/shearing fabric, and 1 to 2% pyrite as disseminations and minor veinlets/stringers.

Lower contact is sharp, but irregular, and oriented at approximately 75 degrees to the core axis. Adjacent wallrock exhibits moderate to intense tension fracturing. Parallel, but slightly curving, sets of thin (hairline), calcite filled fractures that are oriented perpendicular to the lower contact.

39.79 50.30 SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

39.79 41.80 Relatively unaltered mafic volcanic flow. Medium to dark green, fine grained, massive, relatively hard, magnetic section with weak foliation oriented at 70 degrees to the core axis. Minor, thin (hairline), planar calcite veinlets oriented at various angles to core axis, but generally between 40 to 60 degrees. Pew lighter, medium green alteration patches, but section is relatively unaltered, except for weak to moderate carbonatization and intense hairline calcite tension fracturing adjacent to intrusive

WS 39.79 50.30 10.51 n/a n/a n/a 0.5% -V.WK-MOD

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DIAMOND DRILL RECORD

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Interval Length Au Ag Te Pyrite ALTBRATION
(Metres) No. (Metres) (Metres) (g/t) (ppm) (ppm) (t) SIL CARB SER

contact. Very minor, thin (hairline to 1 mm), planar silica veining. Minor to 0.5%, pyrite as fine disseminations and concentrations on some fractures and silica veinlets. Competent core, generally with 30 to 75 cm breakage. Lower contact is gradational.

- 41.80 46.75 Weakly silicified mafic volcanic. Mottled, dark sandy brown and green, very fine grained, magnetic, fairly homogeneous section with some alteration and colour banding oriented at 60 to 70 degrees to the core axis. Some sections are massive and even coloured, others are mottled. Brown colouration due to very fine biotite giving brown section a fine phyllitic character. Irregular, wispy banded, fine (hairline to 1 mm) calcite veining, lensing and foliation subparallel (flattened), network fracturing/veining, locally common but generally conspicuously absent. Lighter green altered sections form thin (0.5 to 2 cm), irregular zones around some fracturing. Minor quartz veinlets and patches. Minor to 0.5% pyrite mostly in thin fracture stringers. Relatively hard, competent core with 20 to 100 cm breakage. Lower contact is gradational.
- 46.75 50.30 Weak to moderately silicified mafic volcanic. Very fine grained, medium to dark green-grey to grey-green, hard, siliceous, very magnetic section. Several homogeneous sections exhibit 3 to 5%, small (0.5 to 1 mm), donut shaped, light coloured calcitic amygdules/porphyroblasts, and a fine fracture network of calcite veining/fracturing. 30 to 50% of the rock exhibits an irregular banded to intergrown amoeboid, worming of light cream to green coloured carbonate/epidote? alteration that is often associated with zones of grey silicification. Alteration banding and phyllitic foliation are oriented at 60 to 70 degrees to the core axis. Minor, thin (0.5 to 2 cm), brown, biotitic bands form thin, schistose (coarser) zones. Section contains minor amounts of disseminated pyrite, mostly along alteration veinlets. Ho large veining. Competent, extremely hard, core with 30 to 100 cm breakage, generally parallel to phyllitic foliation.

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DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	Au	λg	Te	Pyrite	AI.	LTERATION	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm)	(%)	SIL	CARB	SBR

Lower contact is a sharp intrusive contact oriented at 80 degrees to the core axis.

50.30 51.80 PRLDSPAR PORPHYRY DYKB

Medium grey, with 20 to 25%, large (0.5 to 2 mm, occasionally 2 to 4 mm), white, zoned plagioclase phenocrysts in a dark grey aphanitic groundmass crowded with finer plagioclase crystals, and also containing 5 to 10% small biotite phenocrysts, and minor to 0.5% disseminated pyrite. Unit is generally unaltered.

Massive to weakly foliated at 60 degrees to the core axis.

No veining.

Minor fracturing.

Very competent core with 30 to 100 cm breakage.

Lover contact is a sharp, but irregular, intrusive contact oriented at 25 degrees to the core axis.

52.15 52.20 Minor dyklet of this unit cuts the underlying unit at 50 to 65 degrees to the core axis.

51.80 70.43 MAPIC METAVOLCANIC PLOWS (PE TROLEIITE)

This unit very similar to section between 46.75 to 50.30, above the overlying dyke. These units are the same, only separated by the dyke. Generally siliceous, medium-dark bluish grey to grey green, with a few smaller less siliceous and weakly schistose biotitic/amphibole porphyroblastic patches.

Minor to moderate amount of lighter (medium) green, (epidote-carb?) alteration patches and anastomosing banding, but not as intense as in other volcanic units. These patches contain the occasional garnet, but no cream coloured intensely altered patches, possibly due to presilicification of the unit.

Unit exhibits a weak alteration banding, with a parallel phyllitic to locally schistose foliation oriented at 50 to 70 degrees to the core axis. More massive, very siliceous, grey zones exhibit a crackle fracturing filled by thin calcite network veining. These areas locally exhibit small (0.5 to 1 mm), white, donut shaped amygdules.

MS 50.30 51.80 1.50 n/a n/a n/a 0.5%

WS 51.80 70.43 18.63 n/a n/a n/a HINOR - V.WK

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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n/a TRACE

Interval Description Sample Interval Length Au Ag Te Pyrite ALTERATION (Metres) (Metres) (g/t) (ppm) (ppm) (%) SIL CARB SE

Moderate amount of calcite crackle veining, or subplanar to irregular veining, but no major veining except for one small, grey to clear, coarse grained, guartz vein between 55.95 and 56.00 metres oriented at 60 degrees to the core axis.

52.15 52.20 Hinor feldspar porphyry dyklet, with sharp contacts oriented at 50 to 65 degrees to the core axis.

Minor pyrite in patches adjacent to veining or fracturing.

Hard competent core, generally with 10 to 50 cm breakage often along fractures oriented at 45 degrees to the core axis, or at 70 degrees to the core axis.

Lower contact is a sharp intrusive contact oriented at 60 degrees to the core axis.

70.43 72.48 PELDSPAR PORPHYRY DYKE

Medium to dark grey, consisting of 25 to 35%, large (0.5 to 3 mm), and occasionally very large (1 cm), subhedral (partly resorbed?), zoned, white to salmon pink plagicclase phenocrysts in a very fine to aphanitic, dark grey matrix also containing several percent very fine chlorite and biotite.

Weakly, and very locally moderately, foliated (sheared?) at 60 degrees to the core axis.

We veining or alteration except for minor sericite along a few fractures.

Trace finely disseminated pyrite.

Moderately fractured at 45 to 60 degrees to the core axis.

Relatively competent core, generally with 5 to 20 cm breakage.

Lower intrusive contact is sharp but somewhat irregular at 65 degrees to the core axis.

72.48 97.55 HAPIC METAVOLCANIC PLOYS (PE THOLBIITE)

Dark green to grey-black, very fine grained, (aphanitic), very hard, siliceous unit. Unit contains several minor slightly brownish (but still very dark) bands/patches, a minor amount of hairline crackle networks and thin (1 to 2 mm), irregular anastomosing calcite veining/fracture-filling lling*, and some patches of lighter green

MS 70.43 72.48 2.05

MS 72.48 97.55 25.07 n/a n/a n/a 0.5% - V.WK 472 80.00 81.00 1.00 .01 n/a n/a 0.25% 473 87.00 88.00 1.00 .01 n/a n/a 1%

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	λu	λg	Te	Pyrite	λL	TERATION	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm)	{\$ }	SIL	CARB	SER

epidote-carbonate? alteration.

The slightly lighter green altered patches locally contain a few percent, small (1 to 2 mm), subrounded, pinkish garnet porphyroblasts.

Very weak to weakly, and locally moderately, magnetic.

Unit is generally massive to weakly foliated/phylltic, but locally exhibits a compositional banding that is quite planar and regular, as well as wispy pyrite lenses. Both of these suggest this unit could be sedimentary in orgin. The banding/bedding is oriented at 50 to 60 degrees to the core axis, and parallels the preferred orientation of the weak alteration banding.

A few coarser grained sections contain amphibole porphyroblasts.

Calcite patches and crackle fracture veining are locally moderately developed, but account for only a few percent of the volume of this unit. Minor (4 to 5%), thin (0.5 cm), opaque grey silica veins, form subplanar veins, as well as wormy (ptygmatic) folded bands/veinlets.

Minor to 0.5% pyrite as wispy lamination parallel grains, disseminations and grains associated with calcite veinlets/patches, and disseminations along fractures.

Trace chalcopyrite associated with some pyrite concentrations.

Minor disseminated pyrrhotite.

Unit is moderately fractured, with fractures often having sericitic-calcitic slip surfaces, that are occasionally smeared with pyrite. Fracturing is generally oriented at 45 to 75 degrees to the core axis.

Moderately competent core, generally with 10 to 50 cm breakage.

97.55 102.72 MAPIC METAVOLCANIC PLOYS (PR THOLBIITE)

Massive, unfoliated, weakly magnetic, very fine grained, siliceous, dark green with greyish (silicified/siliceous) patches, and a minor to moderate development of crackle network veining and tension fractures that are filled with white to yellowish calcite.

One, 5 cm, irregular, quartz pod at 102.20 to 102.25 metres, but no other veining.

Minor, lighter green, epidote-carbonate alteration patches and amastomosing bands, generally associated with tension and crackle

NS 97.55 102.72 5.17 n/a n/a n/a MINOR 474 101.75 102.72 .97 .01 n/a n/a 0.5-14

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Interval (Metres)	Description	Sample No.	Interval (Hetres)	Length (Netres)	λα (g/t)	Ag (ppm)		Pyrite (%)		RATION CARB	SBR
	calcite veined sections. Minor pyrite and pyrrhotite, as large (2 to 5 mm) blebs associated with the large quartz pods, and in a few thin (1 to 3 mm), sulphide bands. Fairly competent core, generally with 10 to 50 cm breakage. Lower contact is transitional.										
102.72 112.0	A SCHISTOSE MAPIC METAVOLCAMIC WITH EPIDOTE-CARBONATE BANDS Medium grained (up to 1mm), schistose, plagioclase-silica-chlorite (amphibole) rock with intermottled plagioclase-silica-biotite, producing alternating bands/patches with a fairly homogeneous, medium green-brown and brown colour. A few thin, aphanitic, siliceous green bands have an appearance similar to the overlying unit. Weak to moderately well developed foliation and compositional banding oriented at 60 to 70 degrees to the core axis. Minor epidote alteration occurs in thin bands but these do not contain garnet. Wavy compositional banding, as well as thin (0.5 to 1 cm), pinch and swell, purplish grey, cherty bands give rock a banded appearance that is probably metamorphic in origin, but could parallel original compositional banding. Minor, irregular to subplanar, thin (hairline) calcite fracturing. Wo significant veining. Won magnetic unit. Relatively competent unit, generally with 20 to 100 cm breakage. Lower contact is transitional.	TS 1	02.72 112.0	7 9.35	n/a	n/a	n/a ·	HINOR	YK	VK	
112.07 124.3	NAPIC METAVOLCANIC FLOWS (PR THOLBITE) Similar to unit between 97.55 to 102.72 metres, however, this unit grades into an underlying pyritic carbonate-silica band, that has adjacent zones with an increased pyrite content. Very fine grained to aphanitic, hard to very hard, siliceous, dark green-black to dark grey, with local zones having a slight brownish [biotite] colour.	475 1 476 1 477 1	112.07 124.3 120.68 121.6 121.62 122.7 122.70 123.7 123.75 124.3	52 .94 70 1.08 75 1.05	n/a .02 .01 .01	n/a n/a n/a n/a n/a	n/a n/a n/a n/a n/a	MINOR HINOR 1% 1%	- -	AK	

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	λu	λg	Te	Pyrite	AL	TERATION	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm)	(\$)	SIL	CARB	SER

Generally non to weakly magnetic, with very minor strongly magnetic bands that are 1 to 2 cm wide.

Generally a homogeneous, massive to weakly foliated/phyllitic unit with foliation oriented at 70 degrees to the core axis.

Minor grey cherty banding (metamorphic?), and minor, thin lighter green-brown carbonate+/-epidote anastomosing alteration banding. Bands vary from a few, thin (hairline) veinlets, to thin zones a few cm wide. Alteration bands often contain a few percent, small (1 to 3 mm), amphibole porphyroblastic overgrowths.

Banding/laminae locally appear to be original deposition/flow? features. Winor calcite crackle network veining, and 3%, small (1 to 5 mm), very lrregular, quartz-calcite veining and lenses.

Minor pyrite as disseminations, but locally concentrated (1 to 3%) in some thin, siliceous, chert bands, or in association with quartz-calcite veins/pods.

Hard competent core, but relatively broken due to steep (0 to 20 degree) fracturing. Core broken into 5 to 20 cm pieces with local, 10 to 20 cm wide, rubble zones.

Gradational change into more pyrite underlying unit.

120.68 124.30 Same as above, but with increased amounts of finely disseminated pyrite, and a medium grey-green alteration mottling. Mottling is not distinct, producing a subdued, irregular, patchy/anastomosing appearance to the section. Probably a silica-carbonate alteration, with minor epidote-chlorite. Section is hard, and massive to very weakly foliated. No significant veining. 1% pyrite, as fine disseminations, as well as small, discontinuous, wispy laminae, and fracture fillings. Lower contact is a gradational change into a pyritic carbonate-silica band.

124.30 131.50 CARBONATE- AND/OR SILICA-SULPHIDE PACIES IRON FORMATION

Medium green to creamy brown, non magnetic, siliceous, pyritic carbonate band.

Unit exhibits a well developed streaky banding, as well as crackling, due to weak to moderate chlorite-epidote alteration, and discontinuous wispy

WS 124.30 131.50 7.20 n/a 4-12\ n/a n/a KOD HOD 479 124.30 125.12 .82 .05 n/a 5-71 n/a 480 125.12 125.90 .78 .03 n/a 10-12% n/a 481 125.90 126.65 .75 n/a 10-12% .06

ESSO MINERALS CANADA DIAMOND DRILL RECORD Hole: Page: HN88-25 10

nterval Metres)	Description	Sample No.			Length (Metres)	Au (g/t)	Ag (ppm)		Pyrite (%)	SIL	ALTERATION CARB	SE
	laminated pyrite that constitutes 4 to 12% of the unit. The pyrite is				2 1.07	.01	n/a		10-124			
	evenly distributed and appears to be sedimentary in origin.				0 .78 0 1.00	.01 .01	n/a n/a		4-6%			
	Unit is weak to moderately reactive to HCl. Wispy pyrite, foliation, and alteration banding are generally oriented at				0 .50	.03	n/a s\n	n/a n/a	8-10%			
	60 to 80 degrees to the core axis.				0 1.00	.01	n/a	n/a				
	This unit may be an intensely altered flow top zone, or cherty interflow											
	sediment horizon.											
	No significant veining. Minor irregular calcite crackle veining.											
	Minor icing sugar textured calcite occurs on some fracture surfaces.										·	
	Competent core, generally with 20 to 50 cm breakage.							•				
	127.72 131.50 Similar to section between 120.68 to 124.30 metres on the											
	other side of the pyritic carbonate band, but this section						•					
	is somewhat more carbonate altered/banded and pyritic, but not to the degree of the overlying unit.											
	Grey-green to brown grey, finely laminated/banded.											
	Poliation alteration banding oriented at 60 to 70 degrees to the core axis											
	? to 10% pyrite as discontinuous, wispy bands and disseminations.											
	Contains a few strongly magnetic zones, but is generally weakly magnetic.					•						
	No significant veining. Lower contact is gradational.											
	Doser contact is gradational.											
.50 133.6	O CHLORITE-AMPHIBOLE SCHIST											
	Dark green, well foliated, chlorite-amphibole schist.	NS	131.50	133.6	0 2.10	n/a	n/a	n/a	TRACE			
	Upper metre is moderately hard, and includes some mottled biotite						•					
	patches, while lower half becomes progressively less competent and hard,											
	more schistose, and contains abundant fine amphibole needles. Poliation is oriented at 60 to 65 degrees to the core axis.											
	Minor calcite and silica, as hairline fracture fillings and irregular pods											
	Trace finely disseminated pyrite.											
	Relatively broken core, generally with 2 to 10 cm breakage.											
	Lower contact is sharp and oriented at 80 degrees to the core axis.											

ESSO MINERALS CANADA DIAMOND DRILL RECORD Hole: Page: HN88-25 11

ALTERATION

Interval Description Sample Interval Length te Pyrite (Netres) (Metres) (Metres) (g/t) (ppm) (ppm) (%) SIL CARB Abundant (50 to 75%), large (mostly 1 cm to 20 cm, with some intrusive NS 133.60 144.05 10.45 n/a n/a MINOR blocks up to 100cm), angular to subangular, polylithic fragments and . 20 624 138.80 139.65 .85 1.40 HINOR n/a blocks in a very fine grained, hard, matrix material with a 625 141.43 142.65 1.22 .03 2.70 n/a 0.5% siliceous/chloritic/amphibole mafic volcanic composition. Unit has a mottled dark grey appearance with the breccia fragments difficult to distinguish from the matrix material, except for the porphyritic dioritic to granitic intrusive clasts. The other clasts include very siliceous siltstone, cherty sediment, porphyry, black highly polished magnetite (iron formation), and lesser mafic volcanic. Upper section exhibits some foliation (matrix and clasts) or shearing at 65 degrees to the core axis, but most of the section is very hard, massive and silicified. Section breaks across cherty fraquents and siliceous matrix rather than along edges of fragments and matrix. Matrix material appears to be very fine grained, dark green, and chloritic mafic volcanic in composition. Porphyritic intrusive fragments are biotitic and relatively fresh. Large boulders/clasts have a trondhjemitic composition. 3 to 5%, irregular, small (hairline to 2 mm), discontinuous, calcite tension fracture fillings cut across both matrix and fragments. Minor amounts of small quartz veinlets/pods. Some of the fragments contain minor amounts of pyrite. Above 136 metres the unit is schistose/weakly sheared and well broken, but below 136 metres the unit is hard and competent with 10 to 60 cm

144.05 147.48 INTERPLOW METASEDIMENT

breakage.

this breccia zone.

Pine grained cherty sediment containing some sheared and silicified mafic

Upper and lower contact are somewhat transitional through foliated schistose zones that have similar compositions as the matrix material of

Dark slightly purplish-brownish grey, swirled marbly to cherty broken bands and pods in a dark grey-green, siliceous silty matrix. Veakly banded and foliated at 70 degrees to the core axis. Minor, thin (hairline), calcite veinlets forming a weak crackling network NS 144.05 147.48 3.43

ESSO MINERALS CANADA DIAMOND DRILL RECORD Hole: HN88-25 Page: 12

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Interval (Metres)	Description	Sample No.	Interval (Hetres)	Length (Metres)	Au (g/t)	(ppm)	Te (ppm)	Pyrite (%)		RATION CARB	SER
	pattern. Mo significant veining. Minor shearing/slippage along some fractures, including a stronger slip at 40 degrees to the core axis at 145.37 metres. 0.5% Pyrite as fine disseminations generally along foliation parallel surfaces. Lower contact is not distinct, and assumed to be gradational through a zone of interdigitated volcanic and sedimentary material.										
147.48 160.9	Dark green, very fine grained, massive to weakly foliated/phyllitic, homogeneous unit. Unit is not as siliceous as the other mafic volcanic units near top of this hole. Below 160.02 metres the unit is almost identical in appearance to the upper part, except for change from chlorite to biotite (i.e. Green to brown) and an increased amount of pyrite giving this section a more sedimentary appearance. Minor hairline crackle veinlets and network veining often slightly better developed in thin, weakly epidote altered patches. Minor silicification adjacent to some fractures, and a few, thin (0.5 to 1 cm), quartz veins. Minor pyrite concentrated in small, irregular, silica-carbonate blebs/pods along fractures, and 1% disseminated pyrite in lower 1 metre section adjacent to the intrusive. Lower contact is a sharp intrusive contact oriented at 40 degrees to the core axis.		47.48 160.9 60.00 160.9		n/a .01	n/a n/a	n/a n/a	HINOR 14			
160.95 165.5	5 FP QUARTI DIORITE DYKE - FELDSPAR PORPHYRITIC Medium to dark greenish grey to reddish-grey, fine grained, feldspar rich matrix containing 3 to 5% weakly chloritized biotite. 10 to 25%, 1 to 5 mm, subhedral, white, partially zoned, plagioclase phenocrysts and 5%, 0.5 to 1 mm, subrounded, blue-grey silica grains. Unit has a weak fractured appearance with minor alteration or fracturing. Unit is weakly foliated at 55 to 65 degrees to the core axis, with a few,	626 1 627 1	60.95 165.5 60.95 162.7 62.76 164.5 64.59 165.5	6 1.81 9 1.83	n/a .03 .05	n/a 1.70 1.50 1.80	n/a n/a n/a n/a	0.5% 0.5% 0.5% 0.5%	A'AK	• •	

ESSO MINERALS CANADA DIAMOND DRILL RECORD

Hole:

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Interval	Description		Sample	Interval	Length	λu	Ag	Te Pyrite	ALTER				
(Metres)			No.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm) (*)	SIL C	ARB	SER		

thin, (10 to 20 cm), weakly sheared zones oriented at 55 to 65 degrees to the core axis.

Minor to 0.5%, fracture controlled and disseminated pyrite.

Minor (2 to 3%), subplanar quartz veining, generally with a foliation subparallel orientation.

Hard, competent core, generally with 10 to 50 cm breakage.

Lower and upper contacts are sharp, and parallel to the foliation at 40 to 50 degrees to the core axis.

Adjacent volcanic zones are relatively more foliated, siliceous and pyritic closer to intrusive contact.

165.55 209.00 SCHISTOSE MAPIC METAVOLCARIC WITH EPIDOTE-CARBONATE BANDS

Dark green-grey to grey, very fine grained to almost aphanitic, weakly to moderately magnetic with local, thin (1 to 2 cm), intensely magnetic bands, and small (1 to 3 mm) magnetite grains in the more altered sections.

1mm, Ovoid, silica filled vesicles are locally evident.

Massive to weakly follated with some grey, more massive, moderately siliceous (cherty) zones.

Generally minor to moderate epidote-diopside+/-garnet alteration in thin (1 to 5 cm), anastomosing patches and bands, often as irregular cream, light green or light brown bandswa marbled and fractured appearance. Locally these strongly altered bands contain pink garnet porphyroblastic bands, as well as minor amounts of small (<2 mm), magnetite grains.

Unit contains a few, irregular banded/blebby cherty zones that are 5 to 10 cm wide.

Unit also contains several crackled alteration patches, as well as minor, hairline, calcite veining and network crackling (due to tension fracturing of this relatively competent unit).

Weak to moderately magnetic above 180 metres, moderately to strongly magnetic below 180 metres.

Minor silica veinlets, that are generally small (1 to 3 mm), subplanar but branching veinlets, often offset across fractures.

Minor, thin (1 to 3 cm), biotitic, coarse grained, schistose bands, particularly at end of the unit nearer the intrusive.

WS 165.55 209.00 43.45 n/a n/a n/a NINOR WK-MOD W

H-W PROJECT (Ont. 77)

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)		Ag (ppm)		Pyrite (%)	SIL	LTERATION CARB	SEI
	Unit exhibits a weak foliation, pyritic laminae, and alteration banding, that are all generally oriented at 50 to 70 degrees to the core axis, but are locally wavy and nonparallel. Minor pyrite as fine disseminations and larger blebs in alteration patches, and as very fine wispy, lenticular, disseminations oriented parallel to the foliation. Alteration crackling and patches also exhibit minor offsets across small fractures/slips that become more common nearer the intrusive contact. Minor to a few percent, small amphibole porphyroblasts in local schistose chlorite-amphibole patches a few cm in width. Unit is moderately fractured at 40 to 60 degrees to the core axis. Moderately competent core, generally hard to very hard, but broken along some fractures and the weak phyllitic folition into 10 to 50 cm pieces. Lower contact is an irregular, but sharp, intrusive contact oriented at 90 degrees to the core axis.										
209.00 214.6	Generally pink-red, particularly in the central part, becoming slightly darker, greyer, and finer grained across 1 metre widths along the chilled edges of the dyke. Relatively fresh, massive hypabyssal intrusive dyke. 20 to 30%, subhedral, white, plagioclase phenocrysts. Contains 5% blotite as individual disseminated grains often concentrated as thin coatings on fractures with chlorite. 10%, 1 To 3 mm, irregular, bluish quartz grains. Minor finely disseminated pyrite. No significant veining. Moderately well fractured, generally with 5 to 20 cm breakage, but including a few rubble zones. Lower contact is a sharp intrusive contact.	629 2 630 2 631 2	09.00 214. 09.00 210. 10.62 211. 11.84 213. 13.66 214.	1.62 14 1.22 16 1.82	n/a .07 .08 .02 .05	n/a 2.40 1.70 1.70	n/a n/a n/a n/a n/a	MINOR 0.5% 0.5% 0.5%			
214.68 218.6	O SCHISTOSE MARIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS Probably the same as the unit that occurs above the overlying intrusive dyte, except this zone exhibits more carbonatization adjacent to each of		14.68 218. 14.68 215.		n/a .03	n/a n/a	n/a n/a	MINOR 0.5%	Y	K WK-INT	

H-W PROJECT (Ont. 77)

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	λü (q/t)	Ag (ppm)	Te (ppm)	Pyrite		TERATION CARB	SER
	the intrusive contacts, and more epidotization adjacent to fracturing within the central portion of this unit, including a 30 cm (216.90 to 217.20m) zone of competely epidotized rock. Fine grained, massive, siliceous and hard, locally with abundant, small amygdules evident. Generally medium to dark brownish grey, with carbonatized zones having a dark green colour with epidote mottling and network alteration, and central portion exhibiting a bright emerald green epidote colour. Abundant (5%), fine calcite tension and crackle veining within the carbonate altered zones adjacent to the intrusives.		215.35 217.0 217.02 218.0		.03	3.70		HINOR			
218.60 224.9	5 PP QUARTI DIORITE AND SHISTOSE MAPIC METAVOLCAMIC 75% Quartz diorite porphyry. Contains 25% white, 1 to 3 mm, subhedral, plagloclase phenocrysts, within a dark grey, very fine grained to aphanitic matrix with 10% biotite, and 1% finely disseminated pyrite. 25% [rregular, small (1 cm) to large (50 cm), brownish grey, massive, sandy textured to more foliated, very calcitic carbonate wallrock fragments. These are extremely reactive to HCl. This material is cut but an intense network of thin calcitic tension fractures. Unit contains 3 to 5%, small, irregular, bluish quartz veins and quartz vein fragments, as well as silica flood patches. 0.5% Pyrite as disseminations and fracture fillings. Relatively hard, competent core with 5 to 30 cm breakage. Lower contact is a diffuse alteration front changing abruptly into the chilled porphyritic quartz diorite.	489 490 491 492 493 494	218.60 224.9 218.60 219.1 219.60 220.2 220.40 221.1 221.10 221.9 221.90 222.9 222.90 223.9	50 1.00 40 .80 10 .70 90 .80 90 1.00	n/a .01 .01 .02 .01 .01	n/a 2.50 3.30 1.20 2.40 1.50 1.50	n/a n/a n/a n/a n/a n/a			INT	VK
224.95 233.4	8 PP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED Generally light grey, weak to moderately and very locally intensely silicified (mostly silica flooding with only a few discrete veins), but generally only weakly sericitized, with a few, thin zones exhibiting moderate sericitization. Upper 30 cm is very weakly altered before changing to moderately altered zone that continues to end of hole. Biotite is slightly chloritized in the upper 30 cm, and generally	496 497 498 499 500	224.95 233. 224.95 225. 225.86 226. 226.75 227. 227.25 228. 228.00 228. 228.50 229.	86 .91 75 .89 25 .50 00 .75 50 .50	n/a .03 .01 .13 .04 .04	n/a .90 .60 .80 1.50 1.00	n/a n/a n/a n/a n/a n/a	1-31 2-31 2-31 21 2-31 2-31 2-31	KOD-INT	•	WK-HOD

H-M PROJECT (Ont. 77)

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval (Xetres)	Description	Sample No.	Interval (Metres)	•		Ag (ppm)		Pyrite (%)	SIL	LTERATION CARB	SER
	chloritic throughout rest of section, except for the intensely silicified and moderately sericitized zones where it is completely chloritized/sericitized. Core is relatively hard, and has a coarse but diffuse grain character, due to silica flooding. Unit is porous or vuggy, and contains 1 to 3% pyrite as fine to coarse disseminated grains. Moderately fractured, with dark green chlorite along some fractures. Practures are generally oriented at 0 to 20 degrees to the core axis. Locally, the unit exhibits small (1 cm), white, calcite grains that are surrounded by dark green rims of chlorite. Minor amounts of a grey metallic mineral occurs within two, separate, large (5 to 10 cm) silica flood/vein bands/patches, between 227.10 to 227.20, and at 228.50 metres. Moderately broken core, generally into 5 to 20 cm pieces. Lower contact was not encountered. Hole still within silicified porphyritic intrusive. 233.48 (766 Peet) End Of Hole.	503 504 505	229.00 230.01 230.00 231.01 231.00 232.01 232.00 233.01 233.00 233.41	1.00 1.00 1.00	.03 .01 .01 .07	1.10 .90 .80 .80 .40	n/a n/a n/a n/a n/a	1-3%			

ESSO MINERALS CANADA SUMMARY DRILL LOG

Project Name: HN	Hole Number: HN88-26
Project Number <u>1677</u>	G ASSESSMENT FILES Lagged By: M.H. Lenters
NTS:42H/8	Dore: February, 1988
**	/ July 1 / 1989
Location: L44+00W, 6+50S	RECEIVED Claim Number: L-871912
Azumith: 180° Di	p: -46° Length (m): 175.56

PURPOSE: Test IP anomaly on L44W between 7+00 and 7+75S

From (m)	To (m)	Description	Gold Assays (g/tonne)
0.00	6.90	Overburden (Vertical Depth = 5.0 metres)	
6.90	26.60	Mafic Metavolcanic (Fe Tholeiite Flows) Dark green, very fine grained, magnetic, hard and massive with abundant volcanic flow textures. Minor pyrite.	0.01 to 0.03
26.60	32.20	Feldspar Porphyritic, Quartz Diorite 30 to 50% plagioclase phenocrysts in dark purplish grey, fine- grained, plagioclase-rich matrix including 5% biotite and minor pyrite. Several large quartz veins cut the dyke at 30 to 48° to the core axis.	0.01 to 0.02
32.20	175.56	Mafic Metavolcanic with Minor Interflow Sediment/Breccia Bands 32.20 to 169.47 Dark green, fine grained, hard, very weakly magnetitic and generally weakly foliated but including an upper and lower section with increased calcite veining, biotite content and foliation at 65 to 75° to the core axis. Cut by a few, 1 to 20 cm bull white quartz veins. Minor pyrite	0.01 to 0.05
		169.47 to 175.56 Progressively more intense potassic (biotite) and carbonate alteration, and abundant (15%) carbonate and quartz veining. Foliation at 45 to 60° to the core axis. Minor to 2% pyrite.	0.01 to 0.03
	175.56	END OF HOLE	

H-M PROJECT (Ont. 77		ESSO MINERALS CANADA DIAMOND DRILL RECORD	Nole: HM88-26 Page: 1
Drilled by: Hole Size: Core Size: Casing:	Atlas Drilling Limited BQ BQ Casing Removed	Azimuth: 180 Dip: -46 Acid Tests:	Claim No: L-871912 Grid: Vest Basting: 44+00V Horthing: 6+50S
Started: Pinished:	Peb. 22, 1988 Peb. 25, 1988	Depth Az. Dip 88.39 -46.0	Purpose: Test IP Anomaly on L44W at 7+50S
Logged by: Date logged: Logging Method: Measurement System:	M.N.Lenters February 1988 Log II Metric	175.56 -42.0	Length: 175.56Hetres Vert. Proj: 124.0 Hetres Hor. Proj: 124.0 Hetres Ovb. Depth: 5.0 Hetres
Interval (Metres)	Description	Sample Interval Lengi No. (Metres) (Metr	

.00 6.90 OVERBURDEN

Dark

6.90 26.60 MAPIC METAVOLCANIC PLOWS (PE THOLEIITE)

grey-green

moderately magnetic and exhibits minor vesicles, and biotitic pillow selvages. Generally appears hard and massive. Unit locally exhibits well polished core surfaces that are extremely hard. Locally, the unit contains minor calcitic patches, thin (hairline), anastomosing calcite fracture veinlets, as well as minor, small (1 to 2mm) calcite porphyroblasts?. Weakly foliated/sheared, with biotitic alteration along thin shear zones producing a weakly banded appearance. Compositional banding in other places is less defined and generally is oriented between 50 and 60 degrees to the core axis.

Minor, lighter grey, moderately altered patches about 2 to 10 cm wide occur throughout the section, but includes one larger zone of

silicification and sericitization between 17.10 and 20.50 metres. The

plagioclase-chlorite-amphibole +/- silica rock, that is weak to

green,

very fine grained

MS 6.90 26.60 19.70

507 17.10 18.45 1.35

508 18.45 19.25 .80

509 19.25 20.00 .75

510 20.00 20.25

511 20.25 21.00

n/a

.03

.01

.01

.02

.01

. 25

n/a

HINOR

H-B PROJECT (Ont. 77)

BSSO MINERALS CANADA DIAMOND DRILL RECORD

Hole: Page: HN88-26

110 4 4

Interval	Description	Sample	Interval	Length	λu	λg	Te Pyri	te	ALT	ERATION	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	(ppm) (%)		SIL	CARB	SER

latter contains an intensely silicified band/vein between 20.10 and 20.20 with 5% finely disseminated pyrite, and a trace amount of grey metallic mineralization.

Unit contains minor pyrite as very fine disseminations that are generally associated with the veining.

Competent core, generally with 10 to 75 cm breakage.

Lower contact is a sharp intrusive contact oriented at 70 degrees to the core axis.

26.60 32.20 PRIDSPAR PORPHYRITIC QUARTE DIORITE INTRUSIVE - UNALTERED

30 to 50%, pale pink to white, subhedral to enhedral, partially zoned, 0.5 to 3 mm plagioclase phenocrysts with occasional ones up to 10mm in size, in a dark purplish grey, finer grained plagioclase-rich matrix, including 5% biotite and minor pyrite.

Unit is hard, massive, unfoliated and relatively unaltered except for minor silicification in thin zones adjacent to several quartz veins.

Unit is cut by several large (1 to 20cm), white, coarse grained quartz veins that have sharp planar contacts at 30 to 45 degrees to the core axis. Edges of the veins contain minor small impurity (chlorite) material, as well as minor disseminated pyrite along fractures. 1 to 3 cm bands of the vallrock adjacent to the veins are bleached white, due to a minor to moderate degree of silicification, and the destruction of biotite.

Quartz veins located at:.

27.65 27.90 At 45 degrees to the core axis.

28.15 28.23 At 30 degrees to the core axis.

28.35 28.37 At 30 degrees to the core axis.

28.80 28.82 At 30 degrees to the core axis.

0.5% Pyrite occurs as fine disseminations throughout the unit, as well as some coarse (lmm) grains and fracture stringers within, and adjacent to, the quartz veins.

Relatively hard, competent core but including several, thin (5 to 15 cm), relatively broken zones along fractures oriented at 45 to 70 degrees to the core axis.

Lower contact is an irregular, but sharp, intrusive contact.

HS	26.60	32.20	5.60	n/a	n/a	n/a	0.5% V.WK-
512	27.50	28.00	.50	.02	n/a	n/a	
513	29.00	29.70	.70	.02	n/a	n/a	

.11

514 29.70 30.30

Ħ	- 3	PP	1.0	RCT	font.	771

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval (Metres)	Description .	Sample No.		rval res)	Length (Metres)	Au (g/t)	Ag (ppm)		Pyrite (%)	Al SIL	CARB	SB
	•••••••••••••••••••••••••••••••••••••••											
2.20 44.2	O MAPIC METAVOLCAMIC PLOVS (PR THOLBIITE)											
	Generally dark grey to green-grey, aphanitic to very fine grained,	NS	32.20	33.80	1.60	n/a	n/a	n/a	MINOR			
	homogeneous, weakly phyllitic mafic volcanic with minor calcitic		33.80			n/a	n/a	n/a	HINOR			
	alteration patches and crackle (tension) fracturing, and 1% large (0.5				2.05	D/a	n/a	-	0.5-24			
	to 1cm) yellow carbonate bands/veins.		43.05			n/a	n/a	n/a	1-31			
	Very weakly to moderately magnetic, with the massive, homogeneous, dark		43.60			B\a	n/a	n/a	1-34			
	green grey section being more magnetic. At 39.80 is a 10 cm zone		41.00			.03	n/a	n/a				
	containing 5%, euhedral, 1 mm magnetite grains, but most of the magnetic		12.45		.45	.04 .02	n/a n/a	n/a n/a				
	sections contain very fine grained magnetite. Unit contains some coarser grained potassic (biotite) altered zones, and		43.60			.01	n/a n/a	n/a				
	a small fault gouge zone as outlined below.	710	33.00	1114			II/ a	u/ a				
	32.20 33.80 Biotitic, Schistose Mafic Metavolcanic. Potassic (biotitic)											
	alteration zone adjacent to the intrusive. Hedium brown,											
	biotitic, fine grained, well foliated/phyllitic, with											
	foliation oriented at 70 degrees to the core axis. 5% wispy,											
	lensoid, foliation parallel, white calcite blebs.											
	33.80 41.00 Mafic Metavolcanic Plovs (Pe Tholeilte). Typical, dark											
	green-grey, fine grained, homogeneous, magnetic, hard and											
	massive mafic volcanic.											
	41.00 43.05 Carbonate Altered Mafic Metavolcanic. Dark brownish-grey to											

medium buff brown, well banded at 70 to 75 degrees to the core axis. Section is silicified and carbonatized and contains minor to 2% disseminated pyrite, forming a carbonate

medium buff brown, well banded at 75 degrees to the core axis. Silicified and weakly carbonatized, containing 1 to 3% finely disseminated pyrite, forming a carbonate alteration

43.05 43.30 Pault Ione. Light grey, clay gouge zone with well weathered rock fragments. Contains 1 to 3% disseminated pyrite.
43.30 43.60 Lost core. Probably part of the adjacent fault zone, in which

43.60 44.20 Carbonate Altered Mafic Metavolcanic. Dark brown-grey to

alteration zone adjacent to fault.

gouge material was not recovered.

zone adjacent to fault.

ESSO MINERALS CANADA DIAMOND DRILL RECORD

Nole: Page: HN88-26

Interval (Metres)	Description	Sample No.			Length (Metres)	Au (g/t)	Ag (ppm)		Pyrite (%)	AL SIL	TERATION CARB	SER
4.20 94.00	MAPIC METAVOLCANIC PLOWS (PE THOLEIITE)											
	Dark green-black, aphanitic to very fine grained, homogeneous, generally		44.20			n/a	n/a	n/a	HINOR			
	very weakly to weakly magnetic with very minor amounts of hairline		55.90			.01	n/a	n/a				
	calcite veining, and a few large quartz +/- calcite veins. Very minor alteration (epidote) in one 20 cm patch, as well as along		57.00 65.55			.02 .02	n/a	n/a				
	hairline calcite veinlets.		67.60			.01	n/a 1.50	n/a n/a				
	Unit also contains a weakly banded and carbonate altered zone with 0.5%		12.60			.03	n/a	n/a				
	pyrite between 65.55 and 66.65.		73.30			.02	n/a	n/a				
	Unit contains large quartz veins at:.		74.30			.02	n/a	n/a				
	55.90 56.03 At 45 degrees to the core axis.		74.91			.01	n/a	n/a				
	56.10 S6.60 At 50 degrees to the core axis.		92.85			.04	n/a	n/a				
	58.30 58.31 1 cm vein at 65 degrees to the core axis.											
	66.25 60.30 At 65 degrees to the core axis is quartz-calcite vein.											
	67.60 67.85 At 45 degrees to the core axis.											
	The above quartz veins are bull white, coarse grained and contain only											
	traces of wallrock inclusions and pyrite.											
	Unit contains minor, thin (1 to 3mm), irregular calcite stringers, generally oriented at shallow angles to the core axis (0 to 35 degrees),											
	often with adjacent, 1 to 10 cm, carbonate alteration bands containing 1											
	to 10% disseminated pyrite.											
	Carbonate veins with stonger alteration banding located between:.											
	57.20 57.30 At 45 degrees to the core axis.											
	72.60 74.90 At 0 to 5 degrees to the core axis.											
	Unit contains epidote alteration patches generally oriented at 70 degrees											
	to the core axis, and with 5% pyrite from 75.20 to 75.25 and 75.45 to											
	75.50.											
	92.93 93.02 Small guartz veinlet at 40 degrees to the core axis, with						•					
	adjacent 3 cm pyritic altered zone.											
	Competent core, generally with 30 to 70 cm breakage. Lower contact is gradational.											
	books consect is graduationers											
4.00 169.47	MAPIC METAVOLCAMIC PLOWS (FE THOLEIITE) Hafic volcanic (fe tholeiite) flows, with minor interflow	MA	94.00	1/0		n/a	n/a	n/a	MINOR			

BSSO MINERALS CANADA DIAMOND DRILL RECORD Nole: Page: HN88-26 5

Interval (Netres)	Description	Sample No.	ė	Interval (Metres)	Length (Netres)	Au (a/t)	Ag (nom)	Te	Pyrite	IA.	TERATION CARB	SB
	Unit is similar to the overlying unit but contains more hairline			.25 152.01		.03	n/a	n/a				
	carbonate (calcitic +/- iron carb) crackle, as well as irregular to			.00 153.00		.02	n/a	n/a				
	subplanar veining.			.25 159.2		.05	n/a	n/a				
	Generally dark grey-green, non-magnetic, relatively hard, fine grained			.25 160.10		.01	n/a	n/a				
	mafic volcanic that appears silicified or hornfelsed. Unit contains			.10 161.0		.01	n/a	n/a				
	several, thin (1 to 3mm) biotitic foliated bands oriented at various			.00 168.70		.02	n/a	n/a				
	angles to core axis. These are spaced 0.5 to 2 metres apart, and are.	234	199	.70 169.4	1 .11	.02	n/a	n/a				
	Probably flow or pillow? selvages.											
	Volcanic generally appears massive, and only very weakly foliated on freshly broken surfaces. Locally small zones contain 1 to 3 mm, ovoid to	-										
	donut shaped varioles. Some larger zones with abundant varioles occur											
	from 112.20 to 112.50 and 123.50 to 129.90.											
	Unit contains several, thin (a few cm) to thick (1 to 2m), interflow			,								
	rubble/sediment bands that are generally coarser grained, have a more											
	varied composition and include abundant biotite. These zones are											
	moderately foliated to banded, and are medium brown in colour. Larger											
	interflow robble/sediment sections occur between:.											
	94.40 94.60 At 80 degrees to the core axis, 3% pyrite.											
	100.50 101.35 At 70 degrees to the core axis, and cut by 5% thin											
	quartz-carbonate veining which has altered											
	(potassic-biotite) the rock and introduced 3 to 4% pyrite.											
	110.90 112.00 Diffuse zone of interflow and volcanic material with minor											
	fine pyrite.											
	119.90 120.60 Biotitic, foliated zone with minor quartz-carbonate											
	veining, minor amphibole porphyroblasts, and minor pyrite.											
	Tone has irregular contacts oriented at 60 to 70 degrees											
	to the core axis.											
	147.90 149.00 Diffuse contact zone of interflow sediment and volcanic											
	- Material,											
	158.25 160.10 Well foliated/weakly sheared at 20 degrees to the core axis, biotitic, pyritic (1 to 3%) zone with 5%											
	quartz-carbonate patches/veining, with amphibole											
	porphyroblasts overprinting.						•					
	Most of the above interflow sediment horizons are relatively coarse											
	grained, and exhibit a minor amount of small (1 to 3mm), amphibole											
	porphyroblast development. These zones also tend to have a greater											

H-M PROJECT (Ont. 77)

ESSO MINERALS CANADA DIAMOND DRILL RECORD

Hole: Page: HN88-26

11000-

									•••••	
Interval	Description	Sample	Interval	Length	Au	λg	Te Pyrite	AL	TERATION	
(Metres)			(Metres)	(Metres)	(g/t)	(ppm)	(ppm) (%)	SIL	CARB	SER

percentage (5%) as well as larger carbonate and quartz-carbonate veins and patches.

Unit contains 2 to 3%, small (0.5 to 4cm), irregular quartz veins and pods Unit contains 2 to 3%, yellow weathering carbonate that is highly reactive to 8Cl, and generally occurs along irregular to crackle hairline width fractures that are often slightly offset along minor slips, in irregular bands and patches a few cm wide, and with quartz veining.

All of the quartz veining, and some of the larger carbonate veins, center thin (0.5 to 5cm) alteration bands containing increased amounts of biotite (potassic alteration?). and increased amounts of pyrite.

The mafic volcanic also contains several large irregular patches with minor increases in the biotite content, and a slightly browner colour, indicating increases in the degree of potassic alteration. These patches/bands generally occur along thin shears and fractures.

Unit generally contains minor amounts of pyrite within the fine grained, dark green, mafic volcanics, 0.5 to 2% pyrite within the interflow sediments, and increased amounts of pyrite in thin (1 to 5cm) alteration bands adjacent to some quarts +/- carbonate veining.

Unit contains minor amounts of pyrrhotite along fractures within the more unaltered mafic volcanics.

Relatively competent unit, generally with 30 to 100 cm breakage, but including a few well broken, veined sections that are a few tens of cm in length.

Lower contact is gradational.

169.47 175.56 BIOTITIC, SCHISTOSE MAPIC METAVOLCANIC

Medium/dark green-brown to brown, weak to moderately foliated/schistose biotitic altered mafic volcanic with abundant (15%) carbonate and quartz veining.

Unit contains a few, small (1 to 2cm), patches of very fine grained, dark green relatively unaltered mafic volcanic, but is mostly moderately altered, particularly near the 2 large quartz veins, and in the zones containing abundant (10%), thin, yellow weathered carbonate and lesser silica veining.

HS	169.47	175.56	6.09	n/a	n/a	n/a	0.5-2%
535	169.47	170.00	.53	.03	n/a	n/a	
536	170.00	170.85	.85	.01	n/a	n/a	
537	170.85	171.85	1.00	n/a	n/a	n/a	
538	171.85	172.80	.95	n/a	n/a	n/a	
539	172.80	174.10	1.30	n/a	n/a	n/a	
540	174.10	174.80	.70	.02	n/a	n/a	
541	174.80	175.56	.76	.01	n/a	n/a	

H-W PROJECT (Ont. 77)

BSSO MIMBRALS CANADA DIAMOND DRILL RECORD

Hole: Page: HN88-26

Interval Length Au Ag Te Pyrite ALTERATION
(Metres) (Metres) (Metres) (g/t) (ppm) (ppm) (%) SIL CARB SER

Moderate foliation within biotitic zones is oriented at 45 to 60 degrees to the core axis.

Overprinting the green-brown to brown biotitic alteration of the mafic volcanic are smaller patches containing 10%, small (1 to 3mm), needlelike amphibole (hornblende/actinolite) porphyroblasts.

Unit contains abundant (3 to 5%), yellow altered carbonate, as irregular discontinuous, patchy bands, stringers and veining. These are often occur with silica patches that have about the same abundance.

2 Larger quartz veins occur between:.

169.47 169.75 Quartz vein oriented at about 45 degrees to the core axis.

Consists of glassy, slightly brownish white, coarse grained quartz with minor chlorite, but little sulphides or other impurities and no significant adjacent alteration apart from the typical biotitic alteration characteristic of most of this unit.

174.30 174.55 Irregular, vuggy quartz vein oriented at 60 degrees to the core axis. Consists of glassy, white quartz with sericitic and carbonate crackle fractures, and a strongly carbonatized and pyritized adjacent alteration zone extending 10 to 20 cm to both side.

Last 20 cm of recovered core is only very weakly biotitic altered mafic volcanic. Thus, this zone may be ending or it may just be a local patch of relatively weakly altered material which commonly occur throughout the unit.

Relatively competent core, generally with 20 to 50 cm breakage. 175.56 (576 Feet) End Of Hole.



Power Stripping

Ministry of Natural Resources





Names and addresses of owner or operator together with dates when drilling/stripping

Work Sketch (as

done.

900

Esso Resources	Canada Limited				T-872		
	Terminal A, Tor	onto, On	tario, M5H 1	T 2			
	nce and Distribution of Credi						
Total Work Days Cr. claimed	Mining Claim	Work	Mining Claim	Work	Mining C	laim	Work
5170	Prefix Number	Days Cr. Pref		Days Cr.		umber	Days Cr.
5472 for Performance of the followin work. (Check one only)	See attached	list of	40 claims in	Hob1	itzell		
_	0.004 0.438	- Sig 700			4.00		
Manual Work	Township and	D6 C1	in Blakelo	CK TO	B. P.		
Shaft Sinking Drifting or other Lateral Work.				-			ļ
Compressed Air, other							
Power driven or mechanical equip.							
Power Stripping							
Diamond or other Core							
drilling				1			
Land Survey							
All the work was performed on	Mining Claimlely 01010	0.40101	071000 0710	0 071	011 0720	7 0720	10
	Mining Claim(s):L-848106			79,871	911,8/20	17,8720	19.
Required Information eg: 1	ype of equipment, Names, A	ddresses, etc.	See Table Below)				
ن ,						,	1
Holes HN88-13	to 27 are filed.	They we	re drilled	betwee	n January	, 21,	
1988 and Febru	iary 27, 1988. A	total of	6348.8 fee	t were	drilled	and	
4744.6 feet is	claimed. The dr	illing w	as done by	Atlas	Diamond		
	, 690 Braemar Dr	rive, Kam	loops, B. C	. usir	ig a		
Longyear 38 di	ill.		1 .				
	ONTA	RIO GEOLOGIC	AL SURVEY				ļ
The excess cre	edits of 727 HONA			rt by	Dane Bri	dge	
dated February	28, 1989 ate a	ંજુ કરામાં વા	edLES(W.908.	ـــدووه		·i	•
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1 4F)				H	eceipt #		
			Date of Report		Regorded Holde	r or Age (S)	gnature)
FIRST REC'D M			May 29,1	989	1 mm	12np	N/
Certification Verifying Rep						—— <i> </i>	
	a personal and intimate knowledg d/or after its completion and the			Nork annex	red hereto, having	performed th	e work
Name and Postal Address of Pe	erson Certifying						
Dane Bridge,	Box 290, Timmins	, Ontario	P4N 7N6		Certified by (Sig		
				000	Corping of Visit		in
Table of Information/Attac	chments Required by the Min	ning Recorder	May 29.1	707	154/11/1	The	
Type of Work	Specific Information p		Other information (C	ommon to	2 or more types)	Aluchr	nents
Manual Work			<u> </u>			Y	
	Nii		Names and addresses	of man wi	no performed	Mante Brees	.b., aba
Shaft Sinking, Drifting or other Lateral Work			manual work/operat	ed equipm	ent, together	Work Sketc are required	to show
Compressed air, other power	Type of equipment		with dates and hours	ot employ	rment.	the location extent of w	
driven or mechanical equip.						relation to	
1	Type of equipment and amount	habnenve	1		•	l	•

Note: Proof of actual cost must be submitted

Signed core for showing footage diameter of

within 30 days of recording.

List of 40 claims for Hoblitzell Township and 56 claims for Blakelock Township



HOBLITZELL, 57	days each		BLAKELOCK, 57	days each
L-805900			L-871903	L-871926
L-834451	L-834481		L-871304 .	L-B71927
L-834452	L-8344B2	9.4	L-871905 ·	L-871928
L-834453	L-834483	1	L-871906	L-871929
L-834454	L-834484		L-871907	L-871930
L-834455	L-834485	,	L-871308	L-872250
L-834456	L-834486		L-871909	L-872251
L-834457	L-834487		L-871910	L-872252
L-834458	L-834488	!	L-871911	L-872253
L-834459	L-834489		L-871912	L-872254
L-834460	2 001103		L-871313	L-872255
L-834461			L-871914	L-872256
L-834462			L-871915	L-872257
L-834463			L-871916	L-872258
L-834464			L-871917	L-872259
L-834465		·	L-871918	L-872260
L-834466			L-871919	L-872261
L-834467			L-871920 `	L-872262
L-834468		1 :	L-871921	L-872263
L-834469			L-871922	,
L-834470			L-871923	L-872264
L-834471			L-871924	L-872265 L-872266
L-834472		* *	L-871925	L-872267
L-834473				L-872268
L-823474				L-872263
L-834475		. *		L-872270
L-834476	The state of the s			L-872271
L-834477	Diditi			L-872272
L-834478		U 163		L-872273
L-834479		1989		L-872274
L-834480	1015	ian		L-872275
	100			L-B72276
	· ·			L-872277

IIN PROJECT (1677)
1988 DIAMOND DRILL HOLES

Drill Hole Number	ole Drill Hole Location (Westing, Northing)		Attitude (Azimuth/Dip)		Depth (Metres)	Claim			
IIN88-17A	L44+00E,	11+85N	180°	-46°	22.0 Abandoned in OB	968393			
HN88-17	L44+00E,	11+60N	180°	-50°	135.1 not claimed.	968395			
HN88-18	L 4+00E,	6+00N	180°	-44°	151.2	872017	496.06		
HN88-19	L 7+00W,	4+35N	180°	-45°	166.5	872019	546.25		
11N88-20	L10+75E,	5+00\$	180°	~43°	139.0	848121	456.03		
HN88-21	L10+00E,	2+00N	180°	-45°	123.8	848121	406.16		
HN88-22A	L40+26W,	9+53\$	180°	-45°	18.3 Abandoned in Bedrock		, , ,		
แพ88-22	L40+26W,	9+53\$	182°	-48°	202.7	871909	665.02		
HN88-23	L40+26W,	9+30S	180°	-62°	128.6	871909	421.91-		
HN88-24	L40+00W,	6+85\$	183°	-48°	282.2	871909_)	925.85		
HN88-25	L40+00W,	11+258	180°	-45°	233.5	871908-	766.07		
- HN88-26	L44+00W,	6+50\$	180°	-46°	175.6	871911-	574.11		
IIN88-27	L 8+00W,	2+50N	180°	-48°	154.2	848106	505.90		
				TOTAL	1932.7 metres (6348.8 feet)		5765.4'		

Excluding Lobs not counted

1757.3 m = 5-165.4' + 727.4 from W8908.093



ESSO MINERALS CANADA

THIRD FLOOR, HOLLINGER BUILDING
637 ALGONQUIN AVENUE EAST, P.O. BOX 290
TIMMINS, ONTARIO P4N 7N6
TELEPHONE: (705) 267-6680

DANE A. BRIDGE

District Geologist, Timmins

File: HN, 1677 A01

May 4, 1989

Mining Recorder 4 Government Road East, Kirkland Lake, Ontario P2N 1A2

ATTM: Francis

RE: Reports of Work for Diamond Drilling, Certification of Drill Logs by Geologist

Dear Francis:

I, Martin Lenters hereby certify that I have logged the drill logs accompanying a report of work for Hoblitzell, Noseworthy and Blakelock Townships, dated April 7, 1989. These holes are HN88-17 and 17A to HN88-27.

Yours truly

Martin Lenters

cc. D. Bridge







