

42H08NE0016 23 BLAKELOCK

010

DIAMOND DRILLING

TOWNSHIP: BLAKELOCK TWP.

REPORT NO: 23

WORK PERFORMED FOR: Esso Resources Canada Ltd.

RECORDED HOLDER: Same as Above [xx] : Other []

<u>Claim No.</u>	<u>Hole No.</u>	Footage	Date	Note
L 871909	HN-88-28	374m	Sept/88	(1) (2)
L 871912	HN-88-32 HN-88-33	179m 141.1m	Sept/88 Sept/88	(1)(2) (1)(2)
L 871915	HN-88-37	149m	Oct/88	(1) (2)
L 871916	HN-88-38	191m	Oct/88	(1) (2)
L 871908	HN-88-39	194m	Oct/88	(1) (2)
L 817912	HN-88-40	242m	Oct/88	(1) (1)
L 872269	HN-88-41	221 m	Oct/88	(1) (2)
L 872267	HN-88-42	155m	Oct/88	(1)(Z)
L 871909	HN-88-43	267m	Oct/88	(1)(2)
L 871911	HN-88-44	266m	Oct/88	(1)(2)
L 871904	HN-88-45 २-	150m	Oct/88	(1)(2)

(1) W8908.093, date filed May/89

(2) Similar drill log added fully 190 from 0m88-6-C-236

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

HN PROJECT SUMMARY DRILL LOGS

HN88-28, 32 to 45

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			ESSO MINERALS CANADA	2			
			SUMMARY DRILL LOG				
	-			•			
	Pro	ject N	ome: <u>HN Blakeloch</u> +	Hole Number: <u>HNE</u>	8-28		
• • • •	Pro	ject N	umber <u>. 1677</u> L	Logged By: <u>M.H. Lenters</u> .			
	NT	S: <u>4</u>	2H/8 C	Date: <u>September 19</u>			
		,					
	Loc	ation .	L40+12.5W, 10+258	Claim Number: <u>.t-</u>	871909		
ONTARIO GEOLOGICAL SURVEY ASSESSMENT FILES OFFICE MAR 1 5 1989 RAR 1 5 1989 RECEIVED	Azi	muth	<u> 002° </u>	_ength (m) +374	•••••••••••••••••••••••••••••••••••••••		
CAL SI T FILE (989 (989	PUI	RPOSE	Test_mineralized_zones_encountered_in_DDH's				
MENT MENT FFICE EIV	1 01	052			•••••••••••••••••••••••••••••••••••••••		
MAR 1	From	To	Description		Gold Assays		
E WH	(m)	(m)	CASING REMAINS		(g/tonne)		
A D	0.0	22.90	Overburden				
		118.00	· · · · ·				
			Generally pink to pink-grey, coarse-grained, foliated, feldspar porphyritic granodiorite t with some light grey weakly silicified ± seri and a few, thin (10's cm) moderately altered latter generally occur in thin zones adjacent veining and flooding. Minor, thin (10 cm) shea	massive to weakly to quartz diorite icitized sections, sections. The t to quartz ar bands. and	0.01 - 2.04 (103)		
			minor to 5% quartz veining. Minor to 1% finel pyrite, but locally up to 6% in well altered generally also contain trace to 0.5% dissemin grey minerals. 100.20-101.80 Fine-grained metasediment inc	zones, which nated metallic			
	118.00	132.00	Moderately Silicified and Weakly Sericitized Qu Intrusive Generally grey-white, moderately silicified a seriticitized, with local patches and bands t intensely silicified and moderately sericitiz quartz veining. 0.5 to 1% pyrite with intense containing up to 5%. Minor to locally 1% diss metallic minerals.	and weakly that are white and ted. No significant thy altered zones	0.01 - 0.20 (21)		
	132.00	146.75	Schistose Mafic Metavolcanic Dark brown, very fine-grained, calcareous, no magnetic, sheared/schistose at 15° to 20° to fracture veinlets, and 3 to 5% quartz veining.	n to weakly CA. 5% calcite	0.02 - 0.17 (5)		
	146.75	151.20	Moderately Carbonate-Epidote Altered Mafic Meta Mottled dark green and light yellowish-green, non-magnetic, irregularly patchy altered mafi Foliation at 20° to 40° to CA. Minor calcite small quartz veins. Minor pyrite and trace ch	fine-grained, c metavolcanic. veinlets. 5%.	0.01 - 0.04 (3)		
	151.20	158.30	Weak to Moderately Silicified Granodiorite/Quar Similar to section between 118.00 to 132.00 m	tz Diorite etres.	0.01 - 0.10 (7)		
	158.30	160.65	Shear Mafic Metavolcanic and Intrusive Dyke Mat. Medium to dark green, fine-grained, well foli. at 30° to CA, mafic metavolcanic with several fragments forming approximately 25% of the un calcite patches and tension veining. 5%, broke quartz veining. 1 to 3% pyrite.	erial ated and sheared irregular dyke it. Abundant	0.01 - 0.02 (2)		
	160.65	180.50	Weak to Intensely Epidote-Carbonate Altered Maf Similar to 146.75 to 151.20 metres.	ic Metavolcanic	0.01 - 0.18 (6)		

	From	То	Description	Gold Assays
	(m)	(m)	HN88-28 (page 2)	(g/tonne)
•	180.50	180.70	Fault Zone 50%, broken wallrock fragments surrounded by coarse quartz and and calcite veining. Contacts are irregular but at approximately 40° to CA. Fault edges are moderately (2 to 6%) pyritic.	0.20 (1)
	180.70	182.30	Intensely Epidote-Carbonate Altered Mafic Metavolcanic Medium cream, pink and buff coloured, fine-grained, contorted, unit with weak foliation at 0° to 20° to CA. Minor offset and broken quartz veining. 5 to 6% disseminated pyrite.	0.61 - 0.68 (2)
	182,30	184.00	Mylonite Light pastel multicoloured, finely laminated, shear banded at 20° to CA. Intensely carbonate altered mafic metavolcanic with numerous rotated fragments in finer cataclastic banded matrix. Minor veining. 2 to 4% finely disseminated pyrite.	0.30 - 0.83 (2)
	184.00	185.15	Intensely Epidote-Carbonate Altered Mafic Metavolcanic Similar to 180.70 to 182.30 metres	0.41 (1)
	185.15	194.70	Moderately Sheared Mafic Metavolcanic Intruded by Variably Altered Quartz Diorite Dykes/Plugs Green, moderately foliated/sheared at 20° to 45° to CA. Minor to 3% calcite fracturing and quartz veining. 2 to 6% finely disseminated pyrite. Intruded by several 1 to 4 metre wide, silicified and sericitized quartz diorite dykes with 2 to 3% pyrite and minor metallic grey, minerals.	0.01 - 2.80 (10)
	194.70	199.45	Intensely Altered and Fractured Mafic Metavolcanic Medium grey-green, irregularly foliated, moderately to intensely brecciated, and 20% light yellow-green carbonate- epidote altered. 15% offset and broken quartz veining. 1 to 3% pyrite.	0.02 - 0.20 (4)
	199.45	201.10	Weakly Silicified and Sericitized Quartz Diorite Intrusive Similar to 118.00 to 132.00 metres.	0.49 (1)
	201.10	208.75	Intensely Sheared Mafic Metavolcanic with Mylonite Zones Intensely brecciated and epidote-carbonate altered mafic metavolcanic locally shear foliated into a mylonite with foliation at 0° to 30° to CA. Includes a few thin clay gouge shear/fault zones. Unit contains several, broken quartz vein fragments. 2 to 6% pyrite.	0.01 - 13.85 (11)
	208.75	374.00	metavolcanic Intruded by Variably (Unaltered to Moderately) Altered Granodiorite to Quartz Diorite Porphyry Dykes and Plugs 208.75-264.75 Weak to intensely epidote-carbonate altered, and locally brecciated mafic metavolcanic. Minor to 5% quartz veining. 0.5 to 4% pyrite. Includes intrusive dykes between: 215.40-217.15 Weak to mod. altered	0.01 - 0.33 (80)
			222.20-228.10 Very weakly altered 230.25-233.10 Relatively unaltered 241.50-244.40 Relatively unaltered 249.90-251.35 Very weakly altered 252.50-253.05 Unaltered to weakly altered 261.95-264.75 Relatively unaltered 264.75-283.50 Dark green, magnetic, massive to weakly foliated at 0° to 30° to CA, relatively unaltered mafic metavolcanic. 3 to 5% quartz ± calcite veining. Minor pyrite. Includes one unaltered_intrusive	
			 dyke between 271.75 to 273.15 metres. 283.50-287.70 Weak to moderately carbonate altered mafic metavolcanic, with thin unaltered zone exhibiting ovoid amygdules. Minor quartz veining. Minor to 1% pyrite. 287.70-310.50 Weak to moderately silicified ± sericitized quartz diorite intrusive. Similar to 118.00 to 132.00 metres. 	
•			310.50-316.35 Relatively unaltered mafic metavolcanic similar to 264.75 to 283.50 metres. 316.35-321.50 Weak to moderately altered quartz diorite intrusive. Similar to 118.00 to 132.00 metres.	

	From	To	Description	Gold Assays
	(m)	(m)	HN88-28 (page_3)	(g/tonne)
			321.50-346.90 Weak to moderately epidote-carbonate altered mafic metavolcanic. Foliation at 0° to 30° to CA.	
			5% irregular quartz veining. Minor to 1% pyrite. 346.90-356.15 Relatively unaltered quartz diorite intrusive. Similar to 22.90 to 118.00 metres.	
			356.15-374.00 Moderately epidote-carbonate altered/banded mafic metavolcanic. Cut by three thin intrusive dykes. Foliation and alteration banding at 30° to 45° to CA. Minor quartz veining. Minor pyrite.	
		374.00	END OF HOLE	
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		BSSO MINERALS CAMERA DIAMOND DRILL RUCKD	Hole: HN88-28 Page: 1
Drilled by:	Bradley Bros. Limited	Azimuth: 2	Claim No: L-871909
Hole Size:	BQ	Dip: -45	Grid: West
Core Size:	BQ		Basting: 40+12.5¥
Casing:	Casing Remains		Northing: 10+255
		Acid Tests:	Blevation: Level
Started:	Sept. 7, 1988		
Finished:	Sept. 12, 1988	Depth Az. Dip 23.00 -46.0	Purpose: Test mineralized zone in HN88-22
Logged by:	M.H.Lenters	125.00 -38.5	Length: 374.00Netres
Date logged:	September 1988	223.00 -36.5	Vert. Proj: 220.0 Netres
Logging Method:	Log II	323.00 -28.0	Hor. Proj: 299.0 Metres
Neasurement System:	Netric	371.00 -24.0	Ovb. Depth: 16.4 Metres
Interval (Metres)	Description	•	Interval Length Au Ag Grey Pyrite ALTERATION (Metres) (Metres) (g/t) (ppm) Metallic (%) SIL CARB SER

.00 22.90 OVERBURDEN

22.90 100.20 PP QUARTZ DIORITE INTRUSIVE - WK TO HOD ALTERED

Relatively fresh to weakly altered, with thin (10's of cm wide) moderately altered zones. The latter are generally centred by quartz veining and flooding, although more planar/discrete quartz veins cut through both the relatively unaltered and weakly altered zones.

Contacts between the subunits listed below are gradational, and represent changes in alteration intensely and/or color.

22.90 28.65 Pink to pink grey, coarse grained, massive to locally well foliated, relatively unaltered feldspar porphyritic granodiorite to quartz diorite. 70 to 75% plagloclase, as large (2 to 5mm), white, subhedral, often partially zoned, phenocrysts and smaller groundmass grains. 5 to 10% quartz, as 0.5 to 2mm, subrounded, phenocrysts. 15 to 20% biotite that is locally somewhat chloritic. 2 to 4% quartz veining, generally as 0.5 to 1cm, subplanar veins that are orientated at 40 to 60 degrees to the core axis, and often offset by

NS	22.90	100.20	77.30	n/a	n/a	TRACE	0.5-5%	UN-WK UN-V.WK
801	22.90	24.00	1.10	.03	1.20	-	1\$	
802	24.00	25.00	1.00	.02	1.50	-	0.5-1%	
803	25.00	26.00	1.00	.06	1.40	MINOR	0.5-11	
804	26.00	27.00	1.00	.02	1.50	-	0.5-1%	
805	27.00	28.00	1.00	.01	1.40	-	0.5-1%	
806	28.00	28.65	.65	.04	1.30	-	0.5-1%	
807	28.65	30.10	1.45	.01	2.30	TRACE	1-24	
808	30.10	31.30	1.20	.02	1.40	MINOR	1-21	
809	31.30	32.30	1.00	.02	.70	-	0.5-1%	
810	32.30	33.35	1.05	.03	1.30	-	3-4%	
811	33.35	34.10	.75	.20	1.60	-	5\$	
812	34.10	34.75	.65	2.04	7.20	-	5-61	
813	34.15	35.25	.50	.43	3.50	-	6-78	
814	35.25	36.25	1.00	.03	.40	-	21	

H-N PROJECT (On

Hole: Page:

HN88-28

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Interval	Description	Sample	Interval	Length	Au	λg	Grey	Pyrite	n.		
(Metres)	•	No.	(Metres)	(Metres)	(g/t)	(ppm)	Metallic		SIL	CARB	SBR

fracturing at an angle to the veining. Quartz veins are slightly bluish white and relatively clean, containing a few vallrock fragments and minor pyrite. Icm quartz vein at 25.1 metres, oriented at 50 degrees to the core axis, and offset by several vugay fractures oriented at 0 degrees to the core axis (perpendiclar to strike of vein) contains trace of a metallic grey minerals. 0.5cm yuggy guartz amounts vein oriented at 50 degrees to the core axis contains 1 to 3% pyrite, and 1 to 3% metallic grey minerals, both as thin wisps and bands that are concentrated at the vein edges. This vein is offset by fracturing subparallel to the core axis. Minor white-grey silica flood shear zone from 26.80 to 27.00m, with shearing oriented at 30 to 45 degrees to the Section generally contains 0.5 to 1% finely core axis. disseminated pyrite that is also concentrated along some chloritic fractures. Weak shearing/foliation locally oriented at 35 to 45 degrees to the core axis, but most of section is massive. Well fractured both subparallel to the core axis, and at 40 to 50 degrees to the core axis, producing relatively broken core. Section broken into 3 to 10 cm pieces with some small rubble zones. Some fractures are somewhat vuggy. Competent section.

28.65 33.35 Light to medium grey to pink-grey relatively unaltered to weakly silicified, medium to coarse grained, weakly feldspar porphyritic. Massive to weakly foliated. Unaltered zones are similar to the overlying section, while silicified zones, lack the porphyritic texture, contain 10 to 15% and locally silica flooding, are light grey with biotite greater chloritized and weakly schistose with some partially Section contains 10 to 20% guartz veining and sericite. silica flooding mostly oriented at 40 to 60 degrees to the core axis, although some more irregular veins are oriented at 20 to 30 degrees to the core axis. Locally the silica flood bands are somewhat swirled and horsetailed. Veins are often offset by late fractures. Veins are slightly blue-white, coarse grained, contain minor, small wallrock inclusions,

815	36.25	37.00	.75	.04	.90	TRACE	11	
816	37.00	38.00	1.00	.01	.60	TRACE	15	
817	38.00	38.90	.90	.06	8.20	•	2-31	
818	38.90	39.90	1.00	.12	1.30	-	11	
819	39.90	40.25	.35	.03	1.50	MINOR	2-31	
820	40.25	41.00	.75	.02	1.70	-	0.5-11	
821	41.00	42.00	1.00	.04	1.40	-	0.5-11	
822	42.00	43.00	1.00	.02	1.40	-	23	
823	43.00	44.40	1.40	.01	1.70	TRACE	0.5-11	
824	44.40	45.20		.02	.50	-	51	
825	45.20	46.00		.01	1.10	-	1-23	
826	46.00	47.00	1.00	.04	1.30	-	3-41	
827	47.00	48.00	1.00	.02	1.40	-	0.5%	
828	48.00	49.00	1.00	.01	.80	-	0.5-1%	
829	49.00	50.00	1.00	.03	1.00	-	0.5%	
830	50.00	50.90	.90	.02	1.60	-	0.5%	
831	50.90	52.00	1.10	.18	2.30	TRACE	1-2	
832	52.00	53.00	1.00	.02	. 80	-	0.5%	
833	53.00	54.00	1.00	.03	1.30	-	0.5-11	
834	54.00	55.00	1.00	.02	.50	-	0.5%	
835		55.60	.60	.01	.30		0.5-1%	
836	55.60	56.00	.40	.13	5.20	MINOR	3-41	
837	56.00	56.45		.02	.80	-	18	
838	56.45	57.00	.55	.48	3.30	-	23	
839	57.00	57.60	.60	.37	1.40	-	11	
840	57.60	58.50	.90	.04	1.20	-	2-3	
841	58.50	59.40	.90	.21	8.20	MINOR	2-31	
842	59.40	\$0.00	.60	.03	.90	-	3-41	
843	60.00	61.10	1.10	.05	.80	•	1-41	
844	61.10	61.75	.65	.04	2.30	MINOR	3-4%	
	61.75	62.30	.55	.02	1.60	-	2-31	
	62.30	63.50	1.20		.80	-	1-24	
	63.50	64.40			.90	-	2-3	
848		65.00			1.10	TRACE	1-2	
		65.50			1.70	MINOR	31	
850	65.50	66.00	.50	.02	2.80	-	31	

H-N PROJECT (On 1)

Hole: HN88-28 Page: 3

Interval (Netres <u>)</u>	Description	No.	(Net	res)		(g/t)	(ppm)	Grey Metallic		SIL	LTBRATION CARB	S
	traces of pyrite, and occasionally very fine grains of	851	66.00	66.50).50	.03	1.30	-	2-31			
	metallic grey minerals. Grey minerals noted at 30.25m in a				.50	.02	1.60	TRACE	31			
	0.5cm quartz vein oriented at 45 degrees to the core axis	853	67.00	67.50	.50	.49	17.70	0.5%	3-51			
	(trace), at 31.00 to 31.20m in an irregular 1cm vein).50	.03	3.70	0.25	3-41			
	oriented 25 degrees to the core axis (minor amounts of	855	68.00	69.00) 1.00	.09	2.90	KINOR	3-5\$			
	individual grains and needles}, and at 32.50 to 32.60m in an) 1.00	.02	1.40	TRACE	3-51			
	irregular silica flood zone. Unaltered zones contain 0.5 to) 1.00	.03	.60	-	2-43			
	1%, and silicified portions contain 1 to 2% finely				.80	.02	.80	TRACE	2-31			
	disseminated pyrite. Pyrite locally forms small				.70	.03	1.20	-	11			
	concentrations and stringers along fractures. Competent unit	,).50	.04	1.20		0.5-1%			
	that is well fractured both subparallel to the core axis, and				1.00	.18	1.10		0.5%			
	at 45 to 90 degrees to the core axis. Section is generally) 1.00	.03	.80	-	1			
	well broken into 5 to 10cm pieces, although the unit contains				.70	.02	.80	-	13			
	some thin (10 to 30cm) rubble zones.				5.45	.03	1.00		0.5-1			
33.	35 34.75 Light to medium grey, mottled, moderately to intensely				5 1.00	.12	1.00		0.5%			
	silicified, and moderately sheared/foliated. Section				.85	.05	.90	-	1-21			
	exhibits vague plagioclase phenocrysts in well silicified) 1.00	.03	.80	-	31			
	zones, and irregular chloritic/sericitic laminae parallel to) 1.00	.79	3.30					
	shearing oriented at 40 to 45 degrees to the core axis.				.60	.02	.60		0.5-1			
	Locally silica flooding forms bands/veins that parallel the) 1.20	.03	.80		0.5-1			
	shear direction. 3 to 5% finely disseminated pyrite, as well) .50	.17	1.60		0.5-1%			
	as thin (mm), stringers and irregular bands that are oriented along fractures and parallel to the shearing) .70) 50	.34	2.60 3.80	TRACB TRACB	1-23			
	• • •).50).50	.05	2.00	TRACE	1-23			
	direction. Noderately fractured subparallel to shearing at) .50	.03 .02	1.10	MINOR	2-34			
	approximately 45 degrees to the core axis, and irregularly fractured at 25 to 35 degrees to the core axis. Competent) .50	.02	1.40	-	3-5%			
	section, but moderately well broken.				5.75	.03	3.30	MINOR	1-24			
34	75 36.25 Medium grey to medium reddish-grey, fine to medium grained) .95	.01	1.10		0.5-1			
57.	(0.5mm), massive intrusive. Above 35.25m it is grey and				.80	.06	4.10		21			
	weakly to moderately silicified, and below 35.25m it is				5 1.25	.13	2.20		28			
	relatively unaltered with fresh biotite. Section is finer		88.75			.19	8.00	MINOR	11			
	grained, and not porphyritic like the typical intrusive. No				0 1.00	.02	1.20		11			
	significant quartz veining. Above 35.25 metres, the section) 1.00	.04	1.00	TRACE	23			
	contains 6 to 7% finely disseminated pyrite in patches, blebs				0 1.00	.01	1.70		1-21			
	and along fractures. Section is moderately fractured at 35				0 1.00	.03	1.50	TRACE	2-3			
	to 60 degrees to the core axis. Competent section, broken				0 1.00	.02	.80	-	23			

Nole: HN88-28 Page:

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Interval (Ketres)	Description	Sample No.	Interval (Netres)	Length (Netres)	Au (g/t)	-	Grey Netallic	Pyrite (%)	ALTERATI SIL CARE	
	into 10 to 25cm pieces.	887 9	4.00 95.0	0 1.00	.04	. 90		2-31		

- 36.25 38.00 Pink, coarse grained, feldspar porphyritic, massive to very weakly shear foliated. Relatively fresh to weakly silicified (silica flooded and veined). Section consists mainly of plagioclase. as coarser (1 to inn), white, subhedral, subzoned phenocrysts in matrix of pink very fine 5 to 10% subrounded, guartz grains, and 5 to plagioclase. 10%, biotite (very weakly chloritized). 2 to 3% quartz veining as 0.5 to 2cm planar veins oriented at 45 degrees to the core axis. These are coarse grained, slightly blue-white with minor pyrite, and traces of grey metallic mineral. Weak shearing/foliation is locally evident and generally oriented parallel to quartz veining at approximately 45 degrees to the core axis. 1% disseminated and fracture controlled pyrite. Section is well fractured at various angles to the core axis. but concentrated subparallel to the core axis, and at 35 to 50 degrees to the core axis. Competent section, but well broken along fractures into 3 to 10 cm pieces.
- 38.00 38.90 Similar to section between 34.75 to 36.25. Grey, very weakly silicified, fine grained, massive with 2 to 3% pyrite as fine disseminations and fracture fillings. No significant quartz veins.
- 38.90 44.40 Typical pink, coarse grained, massive, plagioclase porphyritic intrusive containing thin, grey silica flooded zones between 39.90 and 40.25, and 42.25 and 42.80 metres. 3 5%, subplanar quartz veining variably oriented but concentrating between 30 and 45 degrees to the core axis. Quartz veining concentrated in flood zones, with 25% veining between 39.90 and 40.25m, containing minor, needle-like, grey metallic minerals. Veining offset on thin fractures. Veining and flooding oriented at 45 degrees to the core axis. Veins rimed by thin (1 to 3mm) zones having dark pink 0.5 to 1% disseminated and fracture controlled colour. pyrite, with 2 to 4% in silica flood zones. Competent section, but well fractured at various angles to core axis resulting in broken recovery, and generally 3 to 10cm core

887	94.00	95.00	1.00	.04	.90	-	2-31
888	95.00	96.00	1.00	.01	1.30	-	21
889	96.00	97.00	1.00	.02	1.00	•	1-23
890	97.00	98.55	1.55	.10	1.60	-	11
891	98.55	100.20	1.65	.08	1.60	-	0.5-1%

H-N PROJECT (OD Hole: HN88-28 ESSO HINERALS DIAMOND DRILL ORD Page: 5 Description Interval Sample Interval Length λq Grey Pyrite ALTERATION Âu -(Netres) (Netres) (q/t) (ppm) Metallic (%) (Metres) No. SIL CARB SBR

2cm guartz vein at 43.10m oriented at 45 degrees to pieces. the core axis, and containing minor to 0.5% blue-grey mineral. 44.40 45.20 Identical to section between 38.00 and 38.90m, except this section contains slightly more pyrite, often concentrated along vuggy fractures, and this section contains a few quartz veins that are offset along fractures. 45.20 47.00 Pink to creamy grey, relatively unaltered to weakly silicified and locally moderately silicified, coarse grained intrusive. About 60% weak to moderately silicified zones. Silicified portions contain broken and offset/sheared quartz veins (0.5 to 1.5cm wide) in irregularly swirled orientations subparallel to shearing/slippage at low (0 to 40 degree) angles to the core axis. Altered (silicified) zones contain 2 to 4% pyrite concentrated along fractures, some of which cut across and locally offset guartz veining. Well fractured and broken section with fractures oriented at various angles to the core axis. 47.00 55.60 Pink, relatively unaltered, coarse grained, massive, plagioclase porphyritic intrusive, with a few, local, thin, light pinkish grey, weakly silicified zones. 70 to 75% plagioclase, including some 1 to 3mm and occasionally up to 5mm, subhedral, often weakly zoned phenocrysts, and mostly very fine grained, pink groundmass grains. 10%, subrounded, 1 to 2mm, bluish-clear quartz phenocrysts, and 10 to 15% biotite. 5%, irregular to subplanar, coarse grained, bluish-white, clean, quartz veins, generally oriented at 40 to 50 degrees to the core axis, but some at shallower angles. Veins locally branched and/or intersecting, offset, fractured, and occasionally have thin (lmm), pink feldspar rims (altered wallrock contact). Veins contain minor pyrite. Trace metallic grey minerals found in 2cm, irregular, vuggy quartz vein at 51.40 metres, within a 10cm wide grey, silicified zone. Section contains 0.5 to 1.0% disseminated pyrite, also concentrating along fractures. Competent section, but well fractured and broken into 5 to 10cm pieces with some fractured rubble zones.

I PROJECT (O		IINERALS CADA				Hole: Page:	HN 8	8-28 6			
Interval (Netres)	Description	Sample No.	Interval (Netres)	Length (Netres)	Au (g/t)	-	•	Pyrite (%)	AL SIL	TERATION	SE
	 55.60 56.00 Medium grey, moderately silicified zone, with 20%, quartz veining and 20% quartz flooding veining/flooding is irregular with no dominant apparent in the recovered fragments. 3 to 4% di and thin (hairline) fracture controlled pyrite. very clean, coarse grained, white, and contains set (1 to 3mm), wispy/buckshot/puffs of grey metalling Hard zone, but well fractured and broken into rubble zones. 56.00 56.45 Pink-grey, very weak to weakly silicified, mass: grained, plagioclase porphyritic intrusive. Ione 4 siliceous appearance, and biotite is weakly chlor few, thin (0.5cm), slightly wavy/wormy quartz vein at 30 to 45 degrees to the core axis. 1% finely di and fracture controlled pyrite. 56.45 57.00 Grey, weakly silicified, massive, coarse grained, plagiorlase to the core axis. 1% finely di and fracture controlled pyrite. 56.45 57.00 Grey, weakly silicified, massive, coarse grained, porphyritic intrusive. Minor quartz veining with some blebs and hairline, fracture filling Hard zone, but well fractured and broken into 1 to 57.00 57.60 Pink, coarse grained, massive, plagioclase py relatively unaltered intrusive. No quartz vei finely disseminated and hairline fracture control. Hard zone, but moderately fractured and broken in cm pieces. 57.60 59.40 Medium grey, weak to locally moderately silicified moderately sheared intrusive. 20% Quartz veining antly chloritized/sericitized. 20% Quartz veining and thairline fracture intrusing the intrusity oriented at 20 to 60 degrees to the core aconsist of relatively clean, bluish white, coarg quartz with minor pyrite and occasionally trace grey metallic minerals. Quartz veins occur at 57. 35 degrees to the core axis), 58.00m (5cm, 	Quartz prientation isseminated Veining is veral small c minerals. 0.5 to 3cm ive, coarse has a hard, ritized. A ns oriented isseminated plagioclase two, 0.5cm, e axis, but ated pyrite g veinlets. 10cm pieces prphyritic, ining. 1% led pyrite. nto 5 to 15 , weakly to ture partly g. Biotite ng, as thin ching veins axis. Veins rse grained amounts of 75m (2cm at									

H-N PROJECT (On Hole: HN88-28 ESSO MINERALS DIAMOND DRILL W Page: 1 Description ALTERATION Interval Sample Interval Length λu. Ŋ Grey Pyrite (Metres) No. (Netres) (Netres) (g/t) (ppm) Hetallic (%) SIL CARB SBR

> orientation), 58.20m (4cm at 60 degrees to the core axis), 58.40m (1cm at 60 degrees to the core axis), 58.55 (2cm at 40 degrees to the core axis), and 58.55 to 58.80m (a 7cm quartz vein oriented at 40 degrees to the core axis, and a thin vein oriented at 0 to 20 degrees to the core axis). The latter two veins contain numerous small (1 to 2mm), puffs of metallic grey minerals. 2 to 3% finely disseminated pyrite often forming small blebs, or occuring along fractures. Relatively well fractured section with strong fracture orientation at 45 degrees to the core axis having chloritic parting surfaces. Weak shearing, where evident, is oriented at 40 to 45 degrees to the core axis. Competent section, but well broken into 1 to 5cm pieces often as rubble.

- 59.40 60.00 White-grey, mottled, moderately to intensely silicified, weakly carbonatized, and weak to moderately sericitized intrusive. Massive, coarse grained texture still evident but somewhat subdued. Biotite completely chloritized/sericitized. Strongly silica veined (20 to 30%) and flooded by an irregular network of thin (hairline to 3cm), branching and anastomosing veins tending to be oriented at 40 degrees to the core axis. 3 to 4% pyrite as finely disseminated grains, small blebs, and discontinuous hairline fracture fillings. Moderately competent section, but moderately fractured and broken.
- 60.00 61.10 Mostly medium grey, weak to moderately silicified intrusive, as between 57.60 to 59.40m, but containing two moderately to intensely silicified (altered) zones as occurs in the section between 59.40 to 60.00 metres. The latter occur between 60.30 to 60.40 and 60.55 to 60.75 metres. No metallic grey minerals apparent in veining within this section
- 61.10 61.75 Same as section between 59.40 to 60.00m, including metallic grey mineral in thicker (3 to 5cm) guartz veins.
- 61.75 62.30 Similar to 57.60 to 59.40 metres. Nedium grey, but generally moderately silicified with strong guartz flooding, and local spots of moderate to intense silicification.

62.30 63.50 Pink, coarse grained, massive, plagioclase porphyritic

H-N PROJECT (Ont		ESSO MINERALS CORA Hole: DIAMOND DRILL CORA Page:								HN 88-28 8		
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Interval (Hetres)	Description	Sample No.	Interval (Metres)			Ag (ppm)	Grey Metallic		AL SIL	TERATION CARB	SBR	

intrusive with typical plagioclase, quartz and biotite contents. Minor, irregularly branching, 0.5 to 1cm quartz veining oriented at 40 to 60 degrees to the core axis. Veins have opaque, bluish clear-white quartz, with some thin (1 to 2mm), pink, plagioclase reaction rims/bands. Section contains 1 to 2% pyrite disseminated throughout, but concentrated on fractures. Well fractured section, broken into irregular, 1 to 5cm pieces and slices.

- \$3.50 67.00 Alternating zones of pink, very weakly silicified, and weakly silicified, with local bands of greenish grey, moderately silicified and weakly to moderately sericitized Nore altered zones are generally cut by guartz intrusive. veining that tends to be 0.5 to 10cm wide, subplanar, and oriented at 40 to 50 degrees to the core axis, although various orientations and crosscutting relationships occur. Probably 5% veining throughout section. Veining often centres thin (2 to 5cm), silica flood zones occasionally containing traces of grey metallic minerals. Grey minerals noted at 64.80m in 1cm quartz vein oriented at 50 degrees to the core axis, and between 65.40 and 65.50m in an irregularly veined flood zone where it is relatively abundant as very small blebs. Biotite is generally unaltered in pink sections, and slightly to mostly sericitized in altered sections, particularly along fractures. 1% pyrite in pink sections, and 2 to 4% pyrite in altered zones, generally as and blebs, and as discontinuous veinlets disseminations along fractures. Local shearing in thin, fanning (non-parallel) bands oriented at 45 to 60 degrees to the core Bxtremely broken section, into 1 to 3cm irregular axis. pieces.
- 67.00 69.00 Nottled white-grey, moderately to intensely silicified, weakly carbonatized, and weak to moderately sericitized. Biotite locally evident, but mostly chloritized/sericitized. Nassive, coarse grained texture is generally well preserved. Section contains 15 to 30%, irregular guartz flood zones/bands that pervasively alter the intrusive, and form,

H-N PROJECT (Opt HN88-28 **J**7) BSSO MINBRALS Hole: KADA DIAMOND DRILL ÖRD Page: 9 Description Interval Sample Interval Length λu λq Grey Pyrite ALTERATION (Netres) (Netres) (g/t) (ppm) Netallic (%) {Metres} No. SIL CARB SER

> or are centred by, small (0.5 to 1cm), irregular, wavy to anastomosing branching and crosscutting quartz veinlets. Section contains minor fuchsite as small (1 to 2mm) grains. Silica flood zones contain numerous very small clusters or puffs of metallic grey minerals, which occur throughout section. 3 to 5% pyrite as fine disseminations often concentrated along fractures, as well as several larger (0.5 to 1cm), irregular clusters of pyrite. Section is moderately competent, slightly vuggy, extremely well fractured, and well broken into 1 to 5cm, irregular shaped pieces.

- 69.00 71.80 Medium grey, weakly silicified with a few, thin (1 to 5cm), strongly silicified zones adjacent to quartz veins. Plagioclase porphyritic texture is well perserved, and biotite mostly unaltered. Weak shearing locally developed and oriented at 40 to 50 degrees to the core axis. Minor to 5%, thin (0.5 to 2cm), quartz veins generally oriented subparallel to shearing at 40 to 50 degrees to the core axis. 2 to 5% pyrite as fine disseminations, as larger blebs, and as hairline fracture veinlets. Extremely well fractured and broken section.
- 71.80 76.15 Pink to slightly greyish pink, relatively unaltered, feldspar porphyritic, coarse grained, massive to weakly foliated at approximately 30 degrees to the core axis. Biotite is black and unaltered. Several, thin (hairline), black, slip surfaces. Many small quartz veins are offset and appear pulled apart. Slips parallel shearing orientation at 30 degrees to the core axis. 5%, thin (0.1 to 3cm), subplanar quartz veins, generally oriented at 25 to 45 degrees to the core axis. 0.5 to 1% pyrite as fine disseminations often lining fractures. Competent section, generally with 10 to 25cm breakage along fractures oriented at 45 to 65 degrees to the core axis.
- 76.15 77.15 Creamy pinkish brown, weakly foliated at 10 degrees to the core axis. Zone appears weakly to possibly moderately silicified and carbonatized?. No blotite evident. 0.5% finely disseminated pyrite. Section is somewhat vuggy, and

H-N PROJECT (On		ESSO MINERALS CODA DIAMOND DRILL ROORD			Hole: Page:	HN 8	8-28 10				
interval (Metres)	Description	Sample No.	Length (Netres)	-	• •	Metallic		SIL	TERATION CARB	SBR	

exhibits hairline carbonate? veining subparallel to foliation/shear orientation. No significant guartz veining. Several chloritic fractures are oriented at 15 to 25 degrees to the core axis, with slickensides oriented at 45 degrees on the planar surfaces. Competent section, but broken into 5 to 10cm, irregular pieces along fractures.

- 77.15 80.60 Medium grey to mottled medium grey-white, weak to locally moderately silicified and weak sericitized. Biotite locally present, but mostly chloritized/sericitized. Massive with coarse grained, plagioclase porphyritic texture well preserved. 10%, 0.5 to 1cm, milky bluish white, quartz veins that are somewhat irregular and branching, but with a preferred orientation at 30 to 40 degrees to the core axis. Veins have somewhat diffuse contact margins and the adjacent rock is partially pervasively silicified. 2 to 3% pyrite, as disseminations often concentrated along fractures. fine Trace metallic grey mineral occurs near one guartz vein. Dominant fracturing direction oriented at 20 to 25 degrees to the core axis. Practures often have open vugs that locally occur in parallel sheeted sets. These fracture sets are subperdendicular to the orientation of guartz veins. Competent section, well broken along fractures into less than 10 cm pieces with some rubble zones.
- 80.60 82.30 Grey-pink to pink, massive, coarse grained, porphyritic intrusive. Very weakly silicified to unaltered. Minor, 0.5cm, irregular guartz veins, generally with shallow orientations to the core axis. 0.5 to 1%, finely disseminated pyrite. Competent section, but broken into less than 5cm pieces.
- 82.30 85.75 Nottled medium grey-white to creamy grey-white, weakly to locally moderately silicified and very weak to weakly carbonatized and sericitized, although the biotite is locally relatively unaltered. Generally 15 to 20%, though locally more concentrated diffuse silica veining and flooding that is generally oriented at 10 to 30 degrees to the core axis. Quartz flooding/veining locally gives section a

H-N PROJECT (On 7)

foliated appearance. Veining and adjacent flood zones contain numerous very small grains of metallic grey minerals. 3 to 4% pyrite as fine disseminations, as well as several clots and blebs up to 1cm in size occuring along fractures or veining. Relatively vuggy and broken section, generally broken into less than 10cm pieces with several short (10 cm) rubble zones.

- 85.75 86.70 Light pink-grey to slightly pinkish grey, massive, coarse grained, plagioclase porphyritic relatively unaltered section. 5%, subplanar, 0.5 to 1cm, bluish white quartz veins that are irregularly branching and generally oriented at 40 degrees to the core axis. Some veins are slightly (0.5 to 1cm) offset across thin fractures. Section contains several fractures oriented at 45 degrees to the core axis (perpendicular directions), as well as some irregular fractures oriented approximately perpendicular to the core axis. 0.5 to 1% pyrite as fine disseminations, as well as concentrations along fractures.
- 86.70 98.55 Medium grey to mottled medium grey-white, very weakly altered, but well quartz veined, to weakly altered (veined and pervasive) and locally weak to moderately silicified (veined and pervasive). Plagioclase porphyritic texture generally well preserved with euhedral grains up to 7mm, but commonly 3 to 4mm. Biotite locally relatively unaltered, but generally chloritized/sericitized. Section is generally massive and only locally weakly foliated in guartz flood zones with orientations at 30 to 35 degrees to the core axis. Less altered silicified zones contain minor (2 to 5%) amounts of planar, sharp bounded, guartz veins, while more altered sections contain 5 to 15%, subplanar to highly irregular veining with diffuse contacts that grade into silica flood zones. Locally the veining is highly irregular with various curving and crosscutting and branching relationships. Veins are locally offset along fractures. Veins are mostly oriented at 30 to 45 degrees to the core axis, although a vein oriented subparallel to the core axis

H-N PROJECT (Ont HN88-28 Hole: ESSO MINERALS DIAMOND DRILL Page: 12 Interval Description Sample Interval Length λu λq Grey Pyrite ALTERATION (Metres) (Metres) (Metres) (g/t) (ppm) Metallic (%) CARB SER No. SIL

> occurs between 90.50 to 91.00 metres. Quartz veins are generally 0.5 to 3cm in width, and consist of coarse white quartz containing minor, very small wallrock impurities, and trace to minor amounts of pyrite. A few of the larger veins also contain trace to minor amounts of grey metallic minerals, generally as fine explosion puffs, and/or needles. Section is moderately well fractured, generally at 45 to 60 degrees to the core axis, although most orientations occur. Competent section with 10 to 25 cm breakage, generally along fractures. 1 to 3% pyrite as fine disseminations, and concentrated into local blebs and along fractures.

98.55 100.20 Pink, relatively unaltered, coarse (0.5 to 2mm) grained, with 5%, small (2 to 5mm), euhedral, zoned plagioclase phenocrysts, 5 to 10%, 1 to 2mm, subrounded quartz grains, and 10 to 15% biotite (chloritized) in a fine grained plagioclase dominant matrix. A few, thin (1 to 2mm), bluish white quartz veinlets oriented at 35 to 40 degrees to the core axis. Minor to 1%, finely disseminated pyrite and also as concentrations on slip fractures. Several chloritic slip fractures with lineations orientated at 20 degrees on slip planes which are oriented at 20 to 30 degrees to the core axis. Competent section, but moderately broken into 5 to 10cm pieces with a rubbly lower contact zone. Lower contact with volcanic inclusion oriented at 40 degrees to the core axis.

100.20 101.80 PINE-GRAINED NETASEDIMENT INCLUSION

Dark greenish-black to brownish-black, very fine grained, moderately foliated/schistose/phyllitic with foliation oriented at 25 to 30 degrees to the core axis at top and bottom, and 5 degrees to the core axis in the central section.

Section has local banded character, consisting of coarser, darker, magnetic bands, within finer grained, phyllitic material that is generally weakly magnetic.

Unit is generally moderately reactive to HCl.

NS 100.20	101.80	1.60	n/a	n/a	-	0.5%
892 100.20	101.80	1.60	.05	.60	-	0.5%

H-N PROJECT (Ont		ESSO MINERALS CORPA DIAMOND DRILL			Hole: Page:	HN 8 I	3-28 13		
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Interval (Hetres)	Description	Sample No.	Interval (Netres)	Au (g/t)		Grey Metallic		ALTERATION SIL CARB	SBR

Minor guartz veining and intrusive material occurs as thin (1 to 2mm), discontinuous to boudinaged/strectched/sheared veins oriented parallel to the foliation, and as occasional irregular and often offset blebs up to a few cms. Offsets are generally on slips subparallel to foliation. Possibly volcanic in origin, but varying grain size in bands, strongly magnetic bands, brownish colour, and lack of any epidote alteration suggest that it is a sediment.

Includes hairline network fracturing throughout unit (late fractures).

0.5% Pyrite mostly as very fine disseminations, but incuding several small areas with 1mm cubic crystals.

Upper contact is sharp and oriented at 40 degrees to the core axis, and lower contact is in poorly recovered rubble zone with indeterminate contact orientation although foliation is oriented at 25 to 30 degrees to the core axis.

101.80 132.00 PRLDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED

101.80 118.00 Pink with minor pinkish grey sections, relatively unaltered, massive, coarsely (1 to 2mm) feldspar porphyritic, with a few larger (2 to 5mm), subhedral to euhedral phenocrysts, many that are partially resorbed.

5%, Subrounded guartz grains, and 10% fine patchy biotite.

3 to 5% quartz veins as 1mm to 2cm, subplanar veins oriented at various angles to the core axis, but concentrated at 30 degrees to the core axis. Veins are white with little or no inclusions or mineralization. Quartz veins are locally offset (1 to 5mm) along slips and fractures.

Some veins have thin (1mm) red alteration bands.

0.5 to 1% finely disseminated pyrite with concentrations along fractures. Moderately fractured at various angles to the core axis, but concentrating at 10 to 30 degrees and at 60 and 70 degrees to the core axis. These fractures are often chloritic, pyritic and weakly vuggy, locally with calcitic coatings.

Unit is weakly vuggy throughout.

A grey to weakly silicified zone occurs between 110.20 to 111.50 metres. Relatively competent unit, but well fractured and broken into pieces less than 5 cm with several short (5 to 20cm) rubble sections.

NS	101.80	132.00	30.20	n/a	n/a	TR-MNR	0.5-1%	UN-MOD	UN-WK	UN-WK
893	101.80	103.00	1.20	.10	5.00	-	13			
894	103.00	104.00	1.00	.40	3.40	-	1			
895	104.00	105.00	1.00	.22	7.60	-	1-23			
896	105.00	107.00	2.00	.10	1.50	-	0.5-11			
897	107.00	108.50	1.50	.01	1.40	-	0.5-11			
898	108.50	110.00	1.50	.01	1.10	-	0.5-1%			
899	110.00	111.50	1.50	.02	1.50	TRACE	1-23			
900	111.50	113.00	1.50	1.06	5.50	-	0.5-1%			
901	113.00	114.50	1.50	.07	2.00	-	0.5%			
902	114.50	116.00	1.50	.01	1.50	-	0.5-1%			
903	116.00	118.00	2.00	.01	1.50	-	0.5-1%			
904	118.00	119.00	1.00	.01	1.50	MINOR	1-24			
905	119.00	120.00	1.00	.01	1.30	TRACE	1-23			
906	120.00	120.50	.50	.02	1.70	0.5%	2-41			
907	120.50	120.80	.30	.01	1.30	TRACE	1-21			
908	120.80	121.00	.20	.01	1.10	0.5%	2-43			
909	121.00	122.00	1.00	.03	1.30	TRACE	2-31			
910	122.00	122.50	.50	.18	1.30	1-1.5%	2-3			

H-N PROJECT (Ont

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Description Sample Interval Length λq Grey Pyrite ALTERATION Interval Au -CARB (Metres) No. (Metres) (Metres) (q/t) (ppm) Metallic (%) SIL SBR

BSSO MINERALS DIAMOND DRILL

118.00 132.00 Generally mottled grey-white, moderately silicified and weakly sericitized with local patches (10's of cm) and bands (a few cm) that are white and intensely silicified and moderately sericitized.

Thin (1 to 5cm) alteration bands appear to grade outward in intensity from small fracture zones that are often oriented at 10 to 45 degrees to the core axis. These fractures locally contain thin (1 to 2mm), wavy, chloritic, alteration fringes, some of which surround calcite fragments that are cm sized.

Larger alteration zones are pervasively silicified with sericitization of biotite, but contain no significant guartz veining.

This section also contains 20% relatively unaltered to weakly silicified. slightly pinkish to purplish grey, intrusive. Typical granodiorite/quartz diorite. Coarse grained, plagioclase porphyritic, with minor quartz phenocrysts, and 10% black, unaltered biotite. Core recovered was very broken through the altered sections. Changes from unaltered to altered sections are often transitional over a few cm, but also rather sudden.

The white moderate to intensely silicified sections contain zones of silica flooding that contain minor to locally 1%, fine grey metallic minerals. These are usually small (visible in handlense), however several fractures between 122 to 122.5m contain smeared fracture coatings of a soft purplish grey mineral that appears to be molybdenite. These fractures are oriented at 5 to 25 degrees to the core axis.

No significant quartz veining through the unit.

Pyrite constitutes 0.5 to 1% of the relatively unaltered intrusive sections, and 2 to 5% in moderately to intensely altered zones. Pyrite is finely disseminated throughout and occurs as concentrations along most fractures, particularly through intensely altered rones. Pyritic hairline fractures through altered zones are often jagged, irregular and discontinuous.

Noderately foliated band 3cm wide and oriented at 25 degrees to the core axis occurs at 133.80 metres.

Section is well fractured, generally at 10 to 45 degrees to the core axis. Practures often planar, but altered zones are fractured/broken along irregular fracture orientations.

911	122.50	122.75	.25	.08	.80	-	23	
912	122.75	123.00	.25	.01	1.00	TRACE	2-3	
913	123.00	123.50	.50	.01	1.00	0.5%	2-3	
914	123.50	124.00	.50	.01	1.20	-	1-2	
915	124.00	125.00	1.00	.01	1.30	HINOR	1-23	
916	125.00	126.00	1.00	.01	1.20	-	1-2	
917	126.00	127.00	1.00	.01	1.10	MINOR	1-31	
918	127.00	127.70	.70	.01	1.00	-	2-31	
919	127.70	128.00	. 30	.01	1.10	KNR-0.5	2-33	
920	128.00	129.00	1.00	.20	.80	MNR-0.5	2-3	
921	129.00	130.00	1.00	.05	.90	KNR-0.5	2-43	
922	130.00	130.70	.70	,18	.70	-	23	
923	130.70	131.00	.30	.10	1.10	0.5-1%	2-43	
924	131.00	132.00	1.00	.02	.90	0.5%	2-31	

H-N PROJECT ()		ESSO MINERALS CORDA DIANOND DRILL				Hole: Page:	HN 8	8-28 15			
Interval (Netres)	Description	Sample No.	Interval (Netres)	Length (Netres)	Au (g/t)	Ag (ppm)	Grey Netallic	Pyrite (%)	AI SIL	LTBRATION CARB	SER
	Chlorite, calcite, and minor sericite occur on some fractures. Section is well broken, particularly in altered zones where it often forms irregular chips and rubble.										

132.00 146.75 SHBARBD/SCHISTOSB MAPIC METAVOLCANIC

Upper contact transitional.

at 70 degrees.

Dark brownish black and locally greenish black, very fine grained, schistose/sheared metavolcanic. Weakly reactive to HCl with local highly reactive sections. Generally non-magnetic with local magnetic patches.

Small mafic volcanic inclusion occurs between 122.50 to 122.75 metres. Dark brown, fine grained, schistose with foliation oriented at 40 degrees to the core axis. Upper contact parallel to foliation at 40 degrees to the core axis and lower contact subparallel to the core axis

Lover contact oriented at 30 to 40 degrees to the core axis.

Shearing foliation well developed throughout upper part of unit and oriented at 15 to 20 degrees to the core axis.

Lower few metres contains a few more massive sections with volcanic textures, and minor lime-yellow green epidote-carbonate alteration that is well developed in the underlying unit. Rest of this unit is not altered.

Unit contains 5%, thin (hairline to lmm), discontinuous calcite lined fractures, occasionally stretched parallel to foliation, but mostly as short, irregular to ladder sets of tension gash fillings.

Unit contains 3 to 5% quartz veins and quartz calcite laminae. The quartz-carbonate (calcite) veinlets are mostly thin (hairline), stretched out, and slightly boudinaged veinlets (laminae) oriented subparallel to the shear foliation. The quartz veins are 0.5 to 2cm and form irregular, disjointed, pinch and swell to boudinaged broken veins generally at 10 to 45 degrees to the core axis. Locally these are offset across thin fractures. These are generally clean white veins, occasionally with carbonate along the edges or in pressure shadows.

0.5 to 1% pyrite as fine disseminations often concentrated in laminae parallel to the shear foliation.

Small weakly altered intrusive dyke from the overlying intrusive occurs

NS 132.00 146.75	14.75	n/a	n/a	-	0.5-11
925 132.00 133.00	1.00	.17	.80	-	0.5-14
926 133.00 134.00	1.00	.04	1.30	-	0.5-11
927 134.00 134.85	.85	.05	1.00	-	1-23
928 134.85 136.00	1.15	.04	1.00	-	0.5-11
929 141.25 141.60	.35	.02	1.20	-	2-31

H-N PROJECT (O	BSSO MINERALS ODIANOND DRILL					Hole: Page:	HN 8	8-28 16			
Interval (Netres)	Description	No.	Interval (Netres)	-	Au (g/t)	-	-	Pyrite (%)	AL SIL	TERATION	SBR
146.75 151.20	between 134.00 to 134.85 metres. Contacts are highly sheared and oriented at 25 to 40 degrees to the core axis. Smaller intrusive dyke that is relatively fresh but irregular (caught in swirled schistose section) from 141.25 to 141.60m occurs as several broken pieces. Relatively competent unit, but moderately broken along shear foliation and several fractures generally into 10 to 50cm pieces. Upper contact is sharp, but wavy and oriented at 30 to 40 degrees to the core axis. Lower contact is sharp and oriented at 25 degrees to the core axis. Lower contact is sharp and oriented at 25 degrees to the core axis. SCHISTOSE MAFIC KETAVOLCANIC WITH EPIDOTE-CARBONATE BANDS Mottled light yellowish-lime epidote green to dark green, with 50% lighter coloured altered sections occuring as patches and somewhat irregular squares within network of darker bands of less altered mafic volcanic. No pervasive reaction to KC1. Light coloured altered patches are massive, non-magnetic, with no preserved original textures, while dark green weak to unaltered portions exhibit fine grained volcanic texture and are moderately magnetic, massive to moderately foliated at 20 to 40 degrees to the core axis. Unit contains a few percent irregular, hairline, calcite fracturing, but not as pervasive as in the overlying sheared unit. 54 Quartz veining like the overlying unit, and although slightly (1 to 2ca) offset on fractures, are not stretched and boudinaged like in the overlying unit. Trace pyrite and one chalcopyrite grain noted in quartz veins. Veins all oriented at 30 to 50 degrees to the core axis, and are generally planar. Veining cuts both altered and unaltered volcanic sections. Minor pyrite, generally as fine disseminations in wallrock adjacent to quartz veins. Competent unit with fractures generally oriented at 45 degrees to the core axis, and core broken along fractures into 20 to 100cm pieces. Lower contact with intrusive not recovered.	930 1 931 1	146.75 151.20 148.00 149.00 149.00 150.00 150.00 151.20	1.00 1.00	n/a .01 .04 .02	n/a 1.60 1.70 1.40		MINOR MINOR MINOR MINOR			

-N PROJECT (C	DI ESSO MINERALS	A D					Hole: Page:	HN 8	8-28 17			
Interval (Hetres)	Description	Sample No.			Length (Hetres)		Ag (ppm)	Grey Netallic	Pyrite (%)	AL1 SIL	TBRATION CARB	SBR
151.20 158.3(D FP QUARTI DIORITE INTRUSIVE - WK TO NOD ALTERED Hostly weak to moderately silicified and very weakly sericitized, but containing a large section between 157.0 and 158.3m at the bottom that is relatively fresh. Biotite is generally unaltered to weakly chloritized throughout unit. Altered zones have preserved the original coarse grained, plagioclase porphyritic texture, are mottled medium grey in colour, and massive to weak and locally moderately sheared/foliated at 20 to 25 degrees to the core axis. A few thin (1cm), planar quartz veins oriented at 20 to 30 degrees to the core axis, and some minor quartz patches and silica flood zones. The latter occasionally contain minor amounts of grey metallic minerals. Unit is moderately vuggy. Altered zones contain 2 to 4% pyrite as fine disseminations, often concentrated on fractures. Moderately fractured at shallow and subperpendicular angles to the core axis, with altered zones having more fracturing and orientations at 15 to 30 degrees to the core axis, and unaltered zones containing less fractures that are generally oriented at 45 to 70 degrees to the core axis Altered zones are well broken with several rubble sections, and unaltered zones are competent with 10 to 50cm breakage along fractures. Upper contact is sharp and somewhat sheared and undulating with orientation at 25 to 30 to the core axis. 	933 934 935 936 937 938	151.20 151.20 152.00 153.00 154.00 155.00 156.00 157.00	152.00 153.00 154.00 155.00 156.00 156.00	.80 1.00 1.00 1.00 1.00 1.00	n/a .01 .02 .10 .08 .01	n/a 1.10 1.00 1.00 2.20 1.30	TRACE TRACE	1-3% 2-3% 2-3% 2-3% 2% 1-2%	AK	-	V. 1
158.30 160.6	5 SHEARED/SCHISTOSE MAFIC METAVOLCANIC Medium to dark green, well foliated/sheared, fine grained, laminated/sheared mafic volcanic, including several irregular intrusive dyke fragments occurring between 158.50 to 158.60, 159.10 to 159.20, 159.25 to 159.30 and 159.50 to 159.85 forming approximately 25% of unit. Shearing orientation in the mafic volcanic is at 30 degrees to the core axis, although somewhat swirled and irregular. Very weakly epidote altered in shear/foliation parallel, laminae/bands, consisting mainly of carbonate/epidote/plagioclase. Abundant calcitic patches/networking and thin (hairline to 2mm),	940	158.30 158.30 159.85	159.85	1.55	n/a .01 .02	n/a 1.20 .90		MINOR 1% Minor			

H-N PROJECT (O	DIANOND DRILL	X D				Hole: Page:	HN88-2 1	28 18	•	
Interval (Netres)	Description	No.				-	Grey Py Metallic (ALTERATIO SIL CARB	N Ser
160.65 180.50	 irregular tension gash fillings. S4 Quartz veining, mostly as broken vein fragments separated along slips and shears, many with no continuity of the original vein apparent. Intrusive fragments are unaltered to veakly altered, containing 1 to 34 pyrite, and having irregular contacts. Minor pyrite in mafic volcanic. Coppetent unit with 25 to 75cm breakage along fractures generally oriented at 45 to 60 degrees to the core axis. Lover contact is sharp along quartz vein oriented at 40 degrees to the core axis, into underlying epidote altered mafic volcanic. SCHISTOSE NAFIC NETAVOLCANIC WITH REIDOTE-CARBONATE BANDS Similar to unit between 146.75 to 151.20 metres. Dark green with volcanic texture consisting of fine plagioclase in chloritic matrix. Presh sections are rare but highly magnetitic and massive. Nost of rock is veakly to intensely epidote-carbonate altered with the latter consisting of light cloudy pinkish to yellow-lime green coloured patches, irregular zones and bands. Pinkish alteration also forms bands along fractures and quartz veins. Altered zones are generally 20 degrees to the core axis. Minor hairline calcite veinlets along late tension fractures. Abundant (5 to 154) quartz veining, as 1 to 2cm, subplanar, but somewhat irregular and branching veins all offset along slips and fractures over distances of 1 to 3cm and occasionally up to 10 cm. Veins are bluish white and clean, generally with sharp contacts. Locally some veins exhibit fleshy pink, calcitic reaction bands a few m wide. Veins appear to have preferred orientations at 40 to 60 degrees to the core axis. Generally minor amounts of finely disseminated pyrite, but some veins and fractures have somewhat greater (1 to 34) concentrations. Several thin (3m to 1cm), intrusive dykelets cut the volcanic. These are planar and have various orientations between 20 and 45 degrees to the core axis, and at an angle	942 1 943 1 944 1 945 1 945 1	60.65 180.5 60.65 162.0 76.00 177.0 77.00 178.0 78.00 179.0 79.00 180.0 80.00 180.5	D 1.35 D 1.00 D 1.00 D 1.00 D 1.00 D 1.00	n/a .01 .05 .01 .04 .02 .18			LNOR D.5% D.5% D.5% D.5%		

H-N PROJECT (O	BSSO NINBRALS) A (D				Hole: Page:	HN 8	8-28 19		
Interval (Netres)	Description	No.		-	Au (g/t)	Ag {ppm}	-	Pyrite {\$}	TBRATION	SBR
180.50 180.70	PAULT ZONE Small fault zone with 50%, small (less than 1cm), broken wallrock fragments surrounded by quartz and coarse calcite. Central part of zone is a vuggy, irregular quartz-calcite vein. Edges of fault are moderately pyritic, and the underlying pink coloured, pyritic altered volcanic adjacent to this fault seems to occur between this fault and the mylonite occurring further below. Contacts of the fault somewhat irregular but oriented at approximately 40 degrees to the core axis.		180.50 180.70 180.50 180.70		n/a .20	n/a 1.90	-	23		
180.70 182.30	INTENSELY EPIDOTE-CARBONATE ALTERED METAVOLCANIC Pervasively and intensely altered volcanic lying below the overlying fault, and underlying mylonite. Medium creamy to purplish to pinkish buff colours. Ione is generally fine grained with highly contorted appearance due to broken and offset quartz veins, alteration banding, and pyritic fracture fillings. However, it is only weakly foliated at 0 to 20 degrees to the core axis above 181.5m, and more or less massive below. Above 181.5 it is also more altered, contorted and pyritic. Minor quartz veining, now as small broken offset fragments. 5 to 6% pyrite as fine disseminations concentrated on and along fractures forming irregular network patterns across the section. Hard competent section generally breaking into 10 to 100 cm pieces. Upper contact along fault at 40 degrees to the core axis. Lower contact with mylonite zone at 25 degrees to the core axis.	949	180.70 182.3 180.70 181.5 181.50 182.3	08.0	n/a .61 .68	n/a 5.20 2.40	-	3-6% 5-6% 3-4%		
182.30 184.00	NYLONITE ZONE Finely laminated/banded, multicoloured, well sheared mylonite zone. Light yellow-green, to purplish, to pink, to buff grey, weakly calcitic, strong carbonate altered. Upper part contains numerous 3mm and smaller rotated fragments in finer cataclastic matrix.	723	182.30 184.0 182.30 183.5 183.50 184.0	0 1.20	n/a .83 .30		-	2-5% 4-5% 2-4%		

H-N PROJECT (O	BSSO MINERALS DIAMOND DRILL	A D			Hole: Page:		8-28 20			
Interval (Hetres)	Description	No.	Interval (Hetres)			-	Pyrite (%)	AL SIL	TBRATION	SER
184.00 185.15	Several small (less than 3cm) guartz vein fragments caught in irregulaly swirled mylonite sections. Well banded shearing oriented at 20 degrees to the core axis, although it is somewhat undulating and nonparallel. 2 to 44 finely disseminated pyrite. Relatively soft section, broken into 10 to 50cm pieces along shear foliation. Upper contact, wavy and undulating at 25 degrees to the core axis. Lower contact, wavy and undulating at 25 degrees to the core axis. Lower contact, wavy and undulating at 25 to 30 degrees to the core axis. Creamy pinkish purplish to buff coloured, fine grained, intensely altered mafic volcanic. Also similar to overlying mylonite except this is massive to weakly foliated at 20 to 30 degrees to the core axis. Overlying mylonite unit is the cataclastically sheared portion of the volcanic unit on either side. Contains a few, small (1 to 2mm) quartz veins that are weakly stretched/elongated due to weak shearing and offset a few cm along fractures. 2 to 34 finely disseminated pyrite concentrated along fractures. Minor, hairline, calcitic tension fractures. Minor, hairline, calcitic tension fractures. Minor, hairline, calcitic tension fractures. Includes a few irregular, diffuse intrusive patches occupying 104 of the zone below 184.75 metres. Relatively competent core with 10 to 50cm breakage, often along weak foliation orientation. Lower contact is an irregular intrusive dyke, below which this unit grades into less altered, but well sheared mafic metavolcanics.		184.00 185.1 184.00 185.1	n/a .41			2-3 % 2-3 %			
185.15 185.85	SHEAR ZONE Hedium green to buff green, intensely sheared metavolcanic. Fine grained, moderately calcitic, non-magnetic. No original volcanic textures. Shear surfaces somewhat calcitic and containing minor sericite.		185.15 185.8 185.15 185.8	n/a 2. \$ 0	n/a 8.30	-	18 18			

-N PROJECT (SSO MINERALS AND A				lole: Page:	HN 8 (8-28 21		
									۲	
[nterval (Metres)	Description	Sample มัง.	[nterval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Hetallic	Pyrite (%)	BRATION CARB	SBR
	Well developed shear foliation oriented at 20 degrees to the Minor, thin (0.5cm) pieces of broken guartz veins.	e core axis.								

1% Pyrite as fine disseminations often concentrated along shear planes and calcitic fractures. One large (2 x 5mm) bleb of chalcopyrite occurs along a vuggy calcitic fracture.

Moderately competent unit with breakage along shear foliation.

185.85 194.70 WBAKLY BRECCIATED MAPIC METAVOLCANIC WITH BPIDOTE-CARB. BANDS

- Noderately sheared mafic metavolcanic intruded by several granodiorite/quartz diorite dykes.
- 185.85 186.55 Peldspar Porphyritic Quartz Diorite Dyke. Medium grey, weakly to moderately silicified, massive to sheared intrusive including several long (2cm x 20cm), irregular, highly altered mafic volcanic fragments oriented parallel to irregular shear foliation at 0 to 20 degrees to the core axis. Sericite occurs along shear fragments. Upper and lower contacts are oriented at 20 degrees to the core axis, but highly irregular (broken and sheared).
- 186.55 187.00 Medium green, moderate foliated/sheared mafic metavolcanic containing 5 to 6% disseminated pyrite. Poliation and contacts oriented at 20 degrees to the core axis. Minor calcitic fracturing.
- 187.00 187.75 Feldspar Porphyritic Quartz Diorite Dyke. Same as intrusive between 185.85 to 186.65m, although more sheared.
- 187.75 188.80 Dark green, moderately foliated/sheared mafic metavolcanic containing 15%, thin (1 to 2mm), discontinuous fracture gashes, forming an intense network of calcite veining yielding a pseudobrecciated appearance. Well sheared at 10 to 20 degrees to the core axis, with upper and lower contacts sharp but unulating at 20 to 30 degrees to the core axis. Section contains several broken pieces of offset and boudinaged guartz veining.
- 188.80 192.00 Feldspar Porphyritic Quartz Diorite Dyke. Mostly grey, biotitic, relatively unaltered, massive, coarse grained, porphyritic intrusive, but with a zone between 189 and 190m

NS 185	.85 194.70	8.85	n/a	n/a	-	2-31
954 185	.85 186.55	.70	1.42	4.90	-	2-3
955 186	.55 187.00	.45	1.52	3.50	•	5-8%
956 187	.00 187.75	.75	.11	1.90	-	1-2
957 187	.75 188.80	1.05	. 36	.60	-	0.5%
958 188	.80 190.00	1.20	.27	1.10	MINOR	3-48
959 190	.00 191.00	1.00	.01	1.00	-	1-21
960 191	.00 192.00	1.00	.01	.90	-	1-23
724 192	.00 193.60	1.60	.18	2.30	-	3-44
961 193	.60 194.70	1.10	.06	1.20	-	23

H-N PROJECT (O	ESSO MINERALS DIAMOND DRILL					Hole: Page:	HN 8	8-28 22			
Interval (Netres)	Description	Sample No.	Interval (Hetres)	•	λu {g/t}	-	-	Pyrite (%)	λί SIL	JERATION CARB	SBR
	 that is mostly weak to moderately altered. Local intens silicified/silica flood zones adjacent to several fracture oriented at 40 degrees to the core axis. The latter bleached white and contain 0.5 to 1% very fime disseminated grey metallic minerals. Fractures are vur with chloritic fringing of some calcite grains fractures noted in overlying altered intrusive at metres. 3 to 4% pyrite occurs as fine disseminations, along small fractures throughout the altered sections, i to 2% pyrite as disseminations throughout unalter intrusive sections. Lower contact of unaltered intrus highly sheared across 20cm zone and oriented at 20 to degrees to the core axis. 192.00 193.60 Dark green, moderately foliated/sheared mafic volcanic w foliation oriented at 20 to 35 degrees to the core axis. 193.60 194.70 Feldspar Porphyritic Quartz Diorite Dyke. Mottled pink to greenish grey, weakly silicified and sericiti intrusive. Hassive with subdued/clouded/resorbed/alter coarse grained texture. 5%, subplanar to irregular, ti 10 to 10cm) quartz veins often offset along fracture Fractures are often sericitic giving section a light gr colour. Upper and lower contacts are oriented at 40 and degrees to the core axis. 2%, pyrite occurs disseminations concentrated on fractures. 	res are ely ggy and 124 and and red ive 45 ith is. and rtz ear 45 ish zed ed, hin res. een 50									
194.70 199.45	WEAKLY BRECCIATED MAFIC METAVOLCANIC WITH BPIDOTE-CARB. BANDS Medium grey-green, irregularly swirled and moderately to intens brecciated and fractured, with 20% light yellow-green epidote-carboa alteration bands, and generally an overall moderate to intense carbon alteration.	inte 962 1 nate 725 1	94.70 199.4 94.70 196.00 96.00 197.0 97.00 198.50	D 1.30 D 1.00	n/a .20 .02 .03	1.10	- - -	1-3% 1-3% 2-4% 1-2%			

H-N PROJECT (O	DIANOND DRILL	À D				Hole: Page:	HN 8	8-28 23			
Interval (Netres)	Description	Sample No.	Interval (Netres)	•	Au (g/t)	Ag (ppm)	-	Pyrite (%)	AL' SIL	TERATION CARB	SER
	Locally intensely sheared at 20 degrees to the core axis, near both contacts. Altered sections of the volcanic unit are themselves brecciated and broken Several fractures have carbonate-sericitic slip surfaces. Generally 14, and locally up to 34, pyrite as fine disseminations and fracture linings. Relatively broken unit, often broken along irregular, as well as planar sericitic fractures. The latter are generally oriented at 20 to 40 degrees to the core axis. Lower contact along sharp chloritic slip at 20 degrees to the core axis.	727 1	98.50 199.4	5.95	.06	1.30	-	2-31			
199.45 201.10	 PP QUARTI DIORITE INTRUSIVE - WK TO MOD ALTERED Nottled medium grey and grey-green, weakly silicified but moderately sericitized and brecciated. Vague, coarse grained, massive texture evident, but mostly fine grained quartz-carbonate-plagioclase-sericite schist. Well mottled texture due to brecciation, silica flooding, and sericitization. No significant guartz veins, although silica flood zones often form irregular silica bands 0.5 to 2cm wide. 24 Pyrite as fine disseminations and fracture linings. Moderately competent unit, but moderately broken along carbonate-sercite-talc lined fractures at 20 to 40 degrees to the core axis. Lower contact occurs along an irregularly brecciated quartz vein, separating intrusive from intensely sheared mylonitic mafic volcanics below. 		99.45 201.10 99.45 201.10		n/a .49	n/a 1.90	-	24			
201.10 208.7	5 SHBAR ZONB Intensely altered and sheared mafic metavolcanic with soft banded clay gouge zones between 202.50 to 204.00, and 208.60 to 208.70 metres. The mylonite/clay gouge zones are soft and claylike with multicoloured, light pink to grey to green banding (lmm laminations). Several thin (1 x 5mm) guartz vein fragments occur in the fault gouge parallel to the	964 2 728 2 729 2	01.10 208.7 01.10 202.3 02.35 203.0 03.00 203.5 03.50 204.0	5 1.25 0 .65 0 .50	n/a 13.85 6.74 7.86 3.22	n/a 42.60 5.30 29.50 11.90	- - -	1-5% 3% 5-6% 3-4% 3-4%			

H-N PROJECT (On

HN88-28

24

SER

Interval (Netres)	Description	Sample No.	Interval (Netres)	•			Grey Netallic	-	ALTERATION SIL CARB
	shear foliation, which varies between 0 to 20 degrees to the core axis.	731 2	04.00 204.5	0.50	.34	2.10	-	3-44	
	The larger upper zone also includes a friable, altered, 3cm x 3cm,	732 2	04.50 205.0	0.50	.26	2.70	-	3-41	
	irregular, intrusive fragment.	733 2	05.00 205.5	0.50	.14	3.00	-	2-31	
	Gouge is relatively pyritic containing 1%, to locally 5%, finely	734 2	05.50 206.0	0.50	.03	2.00	-	- 11	
	disseminated pyrite above 202.50 metres. The unit is well sheared much	735 2	06.00 207.0	0 1.00	.02	1.70	-	1-21	
	like the mylonite adjacent to it, but not sheared into gouge. Section	736 2	07.00 208.0	0 1.00	.01	1.70	-	1-21	
	contains 15%, large, broken fragments of quartz veining and 3 to 4% pyrite. Section is somewhat similar to mylonite between 182.30 and 184.00 metres.	137 2	08.00 209.0	0 1.00	.02	1.90	-	2-43	

BSSO MINBRALS

Shear folition is wavy and irregular, and swirled around guartz vein fragments, but generally ranges between 0 and 30 degrees to the core axis Between the two gouge zones the volcanic is moderately to intensely brecciated, and similar to zone between 194.70 and 199.45m with 10% epidote-carbonate mottling.

Some darker, less altered, brecciated sections of this zone are locally magnetic, with 0.5% pyrite.

Unit is mostly massive and brecciated, but locally weakly sheared with well developed foliation oriented at about 20 degrees to the core axis. Soft, well broken to rubbly unit.

208.75 287.70 SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Martin Martin Martin Martin

Variably altered (weak to intense) mafic volcanic, intruded by variably (unaltered to locally moderate or intense) granodiorite to altered quartz diorite.

208.75 213.75 Intensely altered and brecciated, mottled medium to dark green and grey mafic volcanic adjacent to the overlying mylonite zone, grading into a well altered (epidote-carbonate) mafic volcanic that is more massive, but still slightly brecciated/deformed as shown by offset (1 to 3cm) quartz veining. Unit mostly altered to light green-yellow epidote patches, but a few dark green, fine grained, magnetic, unaltered mafic volcanic remnant fragments remain. 5%, intense, thin (1mm), calcitic, microfracture networking. 5%, 0.5 To 2cm, tension

I S 208.75	287.70 78.95	n/a	n/a	-	0.5-21
738 209.00	210.00 1.00	.14	2.00	-	3-43
739 210.00	211.00 1.00	.03	2.40	-	2-31
740 211.00	212.00 1.00	.02	2.30	-	1-23
741 212.00	213.00 1.00	.01	2.20	-	1-21
742 213.00	213.75 .75	.01	2.40	-	2-31
965 213.75	215.40 1.65	.07	1.40	-	21
966 215.40	216.55 1.15	.01	1.20	-	23
743 216.55	217.15 .60	.02	1.20	-	1-21
744 217.15	218.00 .85	.02	2.20	-	1-23
745 218.00	219.00 1.00	.04	196.60	-	2-31
746 219.00	220.00 1.00	.03	2.40	-	23
967 220.00	221.00 1.00	.21	1.90	-	1-31
	101 10 1 10	`	`		

H-N PROJECT (Ont

nterval	Description	-			Length				Pyrite		LTERATION	
Netres)		No.	(N)	etres) 	(Netres)	(g/t)	(ppm)	Metallic	(\$)	SIL 	CARB	SBI
	core axis. Weak alteration banding is often irregular but	968	222.20	0 223.0() .80	.10	2.00	-	1-24			
	mostly oriented at 20 degrees to the core axis.	969	227.3	5 228.10	.75	.03	1.40		1-23			
	213.75 215.40 Intrusive/mafic metavolcanic contact zone. 50%, irregular,			0 234.00		.04	1.50		0.5-1%			
	intrusive blocks as below with 50% mostly intensely			0 235.00		.05	1.50		0.5-1%			
	epidotized, lime green to salmon pink coloured altered			0 243.00		.02	1.40	-				
	mafic metavolcanic. Section is well fractured with sharp,			0 243.55		.07	1.00		TRACE			
	but irregular to somewhat subdued (metasonatized) contacts.				.85	.01	1.30	-	11			
	215.40 217.15 Quartz diorite intrusive. Slightly greenish to reddish			0 245.50		.19	.80		4-54			
	medium grey, weakly to moderately carbonate and epidote					.11			4-54			
	altered, coarse grained, feldspar porphyritic intrusive.			0 249.90) 1.10	.01	1.90 1.50	-	14 0.5%			
	30 to 40%, euhedral to subhedral, often zoned, 1 to 3mm and up to 1cm, white plagioclase phenocrysts, and 5%,) 1.50	.12 .02	1.20	-				
	subrounded, 2 to 5mm guartz phenocrysts in finer grained				5.55	.01	1.40		1-23			
	plagioclase rich matrix that is carbonatized and).95	.09	1.20	-				
	epidotized. Only minor unaltered biotite is evident.			0 255.0		.19	.90	-				
	Intrusive is massive and contains a few well altered,			0 256.00		.04	1.30		13			
	pyritic volcanic wallrock fragments that are intensely			0 257.0		.03	1.20	-				
	microfractured. No significant guartz veining. 2% pyrite			0 258.50		.07	1.30	-				
	as fine disseminations and fracture fillings. Competent			0 260.04		.22	1.20	-	11			
	section, with 5 to 50 cm breakage along fractures generally				5 1.35	.21	1.30	-	1-23			
	oriented at 45 degrees to the core axis. Lower contact is	982	261.3	5 261.9	5.60	.25	1.80	-	1-2			
	sharp and oriented at 35 degrees to the core axis.				1.05	.01	,80	-	11			
	217.15 221.15 Intensely altered mafic metavolcanic. 10%, dark green,				5 1.75	.01	1.10	-	11			
	magnetic, unaltered remnants, 50%, weak to moderately				0 1.25	.33	1.60	-				
	carbonate and epidote altered sections having a irregular,				0 1.50	.06	1.30	-				
	patchy, cream to light yellow-green colour, and 20%,					.04	1.10		14			
	intensely light-yellow epidote altered sections with small				0 1.50	.01	.90					
	irregular intrusive dykelets and veining. Section is					.09 .03	.90 1.00		1-2% Ninor			
	moderately to intensely fractured/brecciated, with 5%, calcite filling thin, irregular, tension fracture				5 1.35 D 1.85		1.00		0.5-1%			
	networking. Xinor, irregular, broken and offset guartz			0 276.5		.05	.90		0.5-1			
	veining. 1 to 2% finely disseminated pyrite. Competent			0 278.0		.02	.80		0.5-14			
	section but moderately well fractured at various angles to			0 287.7		.03	1.50		0.5-11			
	the core axis. Lower contact is an irregular transition						2					
	zone into intrusive.											
	221.15 222.20 Transitional contact between mafic metavolcanic and											

BSSO MINERALS COMPA DIAMOND DRILL RECEND H-N PROJECT ((77) **BSSO MINERAL** Hole: HN88-28 HADA DIAMOND DRILL CORD 26 Page: Interval Description Sample Interval Length Grey Pyrite λu ALTERATION λα (Metres) No. (Netres) (Netres) (g/t) (ppm) Metallic (%) CARB SIL SER

> intrusive. 60%, intensely altered mafic volcanic as above, and 40%, slightly deformed intrusive as below, with irregular to sheared contact edges between rock types.

- 222.20 228.10 Quartz diorite intrusive. Medium pink to purplish pink, relatively fresh to weakly altered with local sheared zones. Upper part is weak to moderately carbonate altered with little unaltered biotite. Central part is mostly relatively fresh with large plagioclase phenocrysts, minor quartz veining, and local weakly silicified zones. Lower part (227.60 to 228.10m) of this section is locally moderately sheared at 50 to 60 degrees to the core axis, and weak to moderately silicified. Lower contact is sharp and oriented at 40 degrees to the core axis. Unaltered intrusive contains 0.5%, finely disseminated pyrite, with 2 to 3% in the lower altered portion. 226.70 to 226.80m is an irregular, creamy grey, intensely altered, pyritic (2%), mafic volcanic wallrock fragment.
- 228.10 230.25 Weak to moderately altered mafic metavolcanic. Medium to dark green to grey-green, fine grained, weak to moderately magnetic sections, with 50%, patchy grey silicification adjacent to the upper contact, and 50%, yellow-green, irregularly banded to patchy, weak to moderately epidote alteration throughout most of the rest of the section. Dark green less altered zones are weakly banded at 20 to 30 degrees to the core axis, and exhibit fine volcanic flow textures. Bpidote banding often at 20 to 50 degrees to the core axis, but mostly irregular and strongest adjacent to veinelts. Carbonate-epidote banding occasionally silica contains minor porphyroblastic garnet in small (0.5cm), irregular clusters. Minor, thin (less than 0.5cm), subplanar, but irregular guartz veining, generally with offsets along parallel fractures. Minor, numerous irregular network of calcite fracturing. Upper contact is a sharp, planar intrusive contact oriented at 40 degrees to the core axis. Lower contact is a sharp, irregular contact oriented at 40 degrees to the core axis, truncating

H-N PROJECT (ON		BSSO HINBRALS CONDA			Hole: Page:	HN 8	8-28 27		
Interval (Netres)	Description	Sample No.	Interval (Metres)	Length (Ketres)		Grey Metallic		CARB	SBR

- compositional and alteration banding within the volcanic. 230.25 233.10 Relatively unaltered quartz diorite intrusive. Medium grey to medium pinkish grey, typical, massive, coarse grained, plagioclase porphyritic, biotite guartz diorite. Contains 3 to 5%, thin (1mm to 2cm), guartz vein bands with somewhat nonparallel and diffuse contacts, locally giving them a flood band appearance. Quartz veining is white, coarse grained, with some salmon pink (K-spar) laminae and contact bands along the edges of veins. Veins have various orientations, but mostly between 0 and 45 degrees to the core axis. 1 to 2% pyrite as fine disseminations and small, partial fracture fillings. Noderately fractured unit, generally oriented at 10 to 25 degrees, or 40 to 50 degrees to the core axis. Upper and lower contacts are sharp, but undulating, intrusive contacts oriented at 30 to 40 degrees to the core axis.
- 233.10 241.50 Weak to moderately altered mafic volcanic. Between 233.10 and 235.00 metres this section is mottled to weakly banded, to green-grey, with 15%, blue-white, medium grey-green irregular, 0.5 to 3cm, guartz blebs, and discontinuous to boudinaged veins. Weak shear banding oriented at 20 to 30 degrees to the core axis. Below 235 metres, this section consists of 50%, dark green, very magnetic, massive to foliated zones, and 50%, medium green to light weakly yellow-green, weak to moderately and locally strongly, altered with minor pink garnet epidote-carbonate porphyroblasts. Unaltered zones exhibit flow breccia or Alteration is patchy to irregularly flow top textures. banded at 10 to 40 degrees to the core axis. 5 to 10%, 0.5 to 10cm, subplanar, quartz veining oriented at 20 to 70 degrees to the core axis, but generally broken and offset along fractues. Generally minor to 0.5% pyrite as fine disseminations, but locally up to several percent along fractures, quartz veining, and the lower intrusive contact. Quartz veins in volcanic near the lower contact are cut by underlying intrusive. Lower contact sharp, but the

H-N PROJECT (Ont		BSSO MINBRALS			Kole: Page:	HN 8	8-28 28		
Interval (Metres)	Description	Sample No.	Interval (Netres)	Length (Ketres)	Ag (ppm)			ALTBRATION SIL CARB	SBR

irregular and undulating at 10 degrees to the core axis. 241.50 244.40 Relatively unaltered, coarse grained, plagioclase porphyritic, biotite, quartz diorite intrusive. Medium grey, unaltered or very weakly altered, massive to weakly foliated. Large quartz vein between 243.00 and 243.55 metres. Vein is watery white, coarse grained, and clean, and oriented at 10 degrees to the core axis.

- 244.40 249.90 Weak to moderately altered mafic metavolcanic. with 40% unaltered intrusive dykes. Medium to dark green, magnetic, mottled, and network fractured, with medium grey, weak and locally moderately epidote-carbonate altered zones. Unit is well fractured by thin network calcite veining, and by 30 to 40%, irregular, unaltered intrusive intruded dykelets (1 to 50cm wide), and some irregular guartz veins. Veining and dykes generally oriented at 0 to 40 degrees to the core axis. 1 to 5%, pyrite as fine disseminations, often concentrated in irregular bands in green mafic volcanic sections, as well as in dark fractures throughout unit. Moderately broken section, generally along fractures into pieces 10 to 50cm. Lower contact is a sharp, but irregular intrusive contact oriented at 20 degrees to the core axis.
- 249.90 251.35 Relatively unaltered to weakly silicified quartz diorite intrusive. Medium grey, typical, coarse grained, plagioclase porphyritic, biotitic quartz diorite, but with a slight washed out, pervasive silicification appearance. Massive and locally weakly foliated/sheared. Includes a few, 1 to 1.5cm white plagioclase megacrysts. Upper contact is sharp and curving from 20 to 60 degrees to the core axis. Lower contact is sharp, but irregular at 20 degrees to the core axis. Minor quartz veining, generally oriented at 45 to 60 degrees to the core axis.
- 251.35 252.50 Weak to moderately altered mafic metavolcanic. Similar to volcanic section between 244.40 and 249.90m, with slightly more (5%), thin calcite network tension microfracturing. Poliation/banding oriented at 20 to 30 degrees to the core

N PROJECT (Ont		ESSO NINERALS CORA DIAKOND DRILL				Hole: Page:	HN 88	-28 29			
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Interval (Netres)	Description	Sample No.	Interval (Metres)	Length (Netres)	λu (g/t)	Ag (ppm)	Grey Metallic		AL SIL	TERATION CARB	SER

- axis. Lower contact oriented at 25 degrees to the core axis. 252.50 253.50 Relatively unaltered to weakly silicified quartz diorite intrusive. Similar to dyke between 249.90 to 251.35m, but slightly more foliated at 10 to 20 degrees to the core axis, particularly near the the lower contact which is intensely carbonate altered.
- 253.05 261.95 Weak to moderately carbonate-epidote to carbonate altered Nostly dark greenish, hard, fine mafic metavolcanic. grained, moderately magnetic, weakly and thickly banded mafic metavolcanic, with an upper contact zone that is medium grey and moderately carbonate altered, and several patchy zones, and bands of light yellow-green epidote-carbonate alteration through the rest of the unit. Minor pink garnet porphyroblasts. Upper carbonate altered zone contains 5%, thin (hairline to 1mm), network of calcitic tension microfracturing, and 2 to 5%, finely disseminated pyrite. Dark green, relatively unaltered volcanic contains thin (0.5 to 1cm), lighter coloured bands at shallow (5 to 25 degree) angles to the core axis, that may be pillow selvages. Ninor to 5%, thin (1mm), network to calcite tension fracturing. 3 to 5%, thin (0.5 2cm), irregular, blue-white guartz veining, often to branching and at various angles to the core axis. 0.5 to 2% and locally to 3 or 4%, fine pyrite mostly along fractures. 5cm, grey, typical intrusive dyke occurs between 261.10 to 262.30m, and is oriented at 20 degrees to the core axis. Competent unit, with 25 to 75 cm breakage along fractures. Lower contact is sharp at 15 degrees to the core axis, with adjacent mafic volcanic that is well carbonate altered and moderately pyritized.
- 261.95 264.75 Medium grey, typical, massive, coarse grained, plagioclase porphyritic, quartz diorite intrusive with 3 to 5% quartz veining generally oriented at 50 to 70 degrees to the core axis. One, thin (1cm), green to salmon pink, epidote altered fracture at 263.55m oriented at 45 degrees to the core axis. Ninor silicification in thin (1cm) bands

H-N PROJECT (Op BSSO MINERALS KADA Hole: HN88-28 DIAMOND DRILL ORD Page: 30 Description Interval Sample Interval Length λu λg Grey Pyrite ALTERATION (Metres) No. (Netres) (Netres) (g/t) (ppm) Metallic (%) CARB SIL SBR _____

> adjacent to some fractures. Good euhedral, zoned plagioclase phenocrysts. 1 to 2% pyrite as fine disseminations, small clots, and fracture linings/fillings. Competent core, with 10 to 50cm breakage along fractures generally oriented at 45 to 80 degrees to the core axis. Lower contact is sharp and planar and oriented at 30 degrees to the core axis.

- 264.75 271.85 Relatively unaltered mafic metavolcanic. Dark green, weak to moderately magnetic, fine grained, mafic metavolcanic flow. Massive to weakly foliated at 0 to 30 degrees to the core axis, with well developed (5%), network of hairline calcite tension microfracturing. 3 to 5%, thin (1mm to 2cm), subplanar, blue-white guartz veining offset along parallel fractures, as well as some irregular, now vuggy, guartz-calcite veins/lenses. Minor, thin, wispy bands of epidote-carbonate alteration. Competent unit, with 20 to 50cm breakage. Lower contact is a sharp, planar intrusive contact oriented at 50 degrees to the core axis.
- 271.75 273.15 Relatively unaltered quartz diorite intrusive. Similar to section between 261.95 to 264.75m, but quartz veining is vuggy and oriented at 30 to 50 degrees to the core axis, and including two, large (2 x 5cm), intrusive wallrock fragments. Lower contact is a sharp, planar intrusive contact oriented at 20 degrees to the core axis.
- 273.15 281.85 Relatively unaltered mafic metavolcanic. Similar to section between 264.75 to 271.85m, but including several, thin to thicker, intrusive dykelets.
- 273.40 273.50 4cm, white guartz vein oriented at 20 degrees to the core axis.
- 273.90 273.95 4cm, white guartz vein oriented at 45 degrees to the core axis.
- 275.20 275.30 0.5cm intrusive dykelet oriented at 20 degrees to the core axis, and cut by an S folded, 3cm, blue quartz vein at an opposite, shallow angle to the core axis.

276.70 276.75 1cm intrusive dyke oriented at 25 degrees to the core axis. 276.80 276.85 2cm, white guartz vein oriented at 45 degrees to the core

I-N PROJECT (Ont		ESSO MINERALS CORDA DIANOND DRILL					Kole: Page:	HN88-28 31				
Interval (Metres)		Description	Sample No.	Interval (Netres)	Length (Netres)	Au (g/t)	-		Pyrite (%)	A SIL	UTBRATION CARB	SBI
	281.85 283.50	 axis. Weak to moderately epidote-carbonate altered zone of mafic volcanic, containing 5% quartz veining, and abundant (10 to 15%), thin, calcite tension microfracturing in parallel ladders, as well as irregular intrusive fragments between 279.70 to 279.85, 280.10 to 280.25, 280.35 to 280.50, 280.60 to 281.00, and 281.20 to 281.30, and quartz veins at 280.00 to 280.05 (at 40 degrees to the core axis), and 281.30 to 281.35 (irregular quartz fragment). Lower contact is sharp and oriented at 40 degrees to the core axis. Chlorite-biotite-plagioclase-calcite schist. Dark green-black, non-magnetic, relatively coarse (1mm) grained, with vell developed schistose follation oriented at 40 to 55 degrees to the core axis. Unit contains 5%, thin and irreuglar, white calcite patches and discontinuous veins. Section is pervasively reactive to HCL. Blotite is coarse grained (porphyroblastic), and except for the strong foliation gives section a semi-lamprophyric appearance. No significant quartz veining. Relatively competent section with 20 to 50cm breakage. Lower contact is sharp but undulating at 10 degrees to the core axis. Weak to moderately carbonate altered mafic metavolcanic. Above 285.90m, the section is relatively unaltered to weakly epidote-carbonate altered with the latter forming lighter green network fracturing as well as small blebs/patches in dark green, fine grained unaltered metavolcanic. Unaltered zone at 265 methibits small (0.5 to 1mm), ovoid amygdules. Minor calcite microfracturing, and minor, 1 to 3cm, irregular quartz blebs and patches, locally containing crystalline pyrite within the adjacent wallrock. Below 285.90m, the section is fine grained, weak to moderately magnetic, and intensely carbonate altered, particularly adjacent to the underlying intrusive. This section has strong medium yellow-green to buff-green mottling, with microfractured pseudobreccia appearance. Between 87.20 and 87.40m is a thin vell altered, intrusive 										

H-N PROJECT (On		ESSO MINERALS				Hole: Page:	HN 81	3-28 32		
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Interval (Netres)	Description	Sample No.	Interval (Netres)	Length (Metres)	Au (g/t)	Ag (ppm)		Pyrite (%)	ALTERATION SIL CARB	SBR

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dyke occurring within well foliated/sheared carbonate mafic volcanic. Dyke contacts and volcanic altered foliation oriented at 45 to 60 degrees to the core axis. Quartz veining and intrusive dykelets are boudinaged into small discontinuous lensoids that parallel to the shear foliation within this zone. Minor large (0.5 to 2.0cm). quartz veining within the upper less altered zone is partly boudinaged, generally at 20 to 30 degrees to the core axis, locally offset along fractures, and exhibits partially resorbed reaction rim contacts. Relatively competent unit with 10 to 30cm breakage, generally along oriented at 40 to 50 degrees to the core axis. fractures Lower contact is a sharp, planar intrusive contact oriented at 55 degrees to the core axis.

287.70 310.50 PP QUARTZ DIORITE INTRUSIVE - WK TO HOD ALTERED

Mottled light to medium grey, weak to moderately silicified and sericitized, with some very weak to weakly altered, medium pinkish grey zones, and a few white, moderately to intensely altered bands.

The unit is a typical, although altered, massive, coarse grained, plagioclase porphyritic, biotite intrusive plug.

The less altered pinkish zones are massive and coarse grained, with a weak silicified, resorbed, or faded appearance of the plagioclase phenocrysts although biotite is still relatively unaltered to weakly chloritized.

Weak to moderately altered zones are often weakly follated, with minor, thin guartz veining and flooding. Biotite is still locally evident but generally chloritized/sericitized.

Moderate to intensely altered zones are white, often well foliated and quartz veined, with abundant silica flooding, as well as sericite replacing all original biotite.

54 Quartz veining throughout unit as very irregular branching veins, generally oriented at 0 to 40 degrees to the core axis. Veining often centres moderate to intensely altered bands a few 10's of cm wide but also cuts more sharply across the less altered zones. Several guartz

NS 287.70 310.50 22.80 n/a n/a TRACE 1-44 WK-HOD VK-HOD V. 984 287.70 289.40 1.70 .01 1.60 - 0.5-14 985 289.40 290.00 .60 .02 1.60 - 14 986 290.00 291.00 1.00 .03 2.20 HINOR 2-34 987 291.00 291.50 .50 .02 1.50 TRACE 24 988 291.50 292.00 .50 .12 1.70 - 2-34 989 292.00 293.00 1.00 .03 1.30 HINOR 2-34 990 293.00 294.00 1.00 .09 1.30 - 2-34 991 294.00 295.00 1.00 .02 1.30 - 1-24 992 295.00 295.00 1.00 .01 1.10 TRACE 24 993 296.00 297.00 1.00 .02 1.40 - 24 994 297.00 298.00 1.00 .02 1.50 - 14	
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987 291.00 291.50 .50 .02 1.50 TRACE 24 988 291.50 292.00 .50 .12 1.70 - 2-34 989 292.00 293.00 1.00 .03 1.30 HINOR 2-34 990 293.00 294.00 1.00 .09 1.30 - 2-34 991 294.00 295.00 1.00 .02 1.30 - 1-24 992 295.00 296.00 1.00 .01 1.10 TRACE 24 993 296.00 297.00 1.00 .02 1.40 - 24 994 297.00 298.00 1.00 .02 1.50 - 14	
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991 294.00 295.00 1.00 .02 1.30 - 1-2% 992 295.00 296.00 1.00 .01 1.10 TRACE 2% 993 296.00 297.00 1.00 .02 1.40 - 2% 994 297.00 298.00 1.00 .02 1.50 - 1%	
992 295.00 296.00 1.00 .01 1.10 TRACE 24 993 296.00 297.00 1.00 .02 1.40 - 24 994 297.00 298.00 1.00 .02 1.50 - 14	
993 296.00 297.00 1.00 .02 1.40 - 2% 994 297.00 298.00 1.00 .02 1.50 - 1%	
994 297.00 298.00 1.00 .02 1.50 - 1%	
995 298.00 298.50 ,50 .03 1.50 - 2%	
996 298.50 299.00 .50 .06 1.80 TRACE 2%	
997 299.00 300.00 1.00 .04 1.90 - 2-3%	
998 300.00 301.00 1.00 .08 1.90 TRACE 2-3%	
999 301.00 302.00 1.00 .22 22.30 - 1-2%	
1000 302.00 303.00 1.00 .06 2.00 - 1%	
1301 303.00 304.00 1.00 .11 2.30 - 2%	

H-N E	ROJECT	(0n/7)
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Hole: HN88-28 Page: 33

Interval (Metres)	Description	Sample No.	interval (Netres)		Au (g/t)	Ag (ppm)	-	Pyrite (\)	ALTERATION SIL CARB	s
	veins, particularly those within well altered sections, contain minor	1302	304.00 305.0	0 1.00	.04	1.30	-	1-23		
	amounts of a fine metallic grey minerals. The best mineralized zone		305.00 306.0		.09	1.40		0.5-1%		
	occurs within an intensely altered and guartz veined section between		306.00 307.0		.02	4.00		1-24		
	290.40 to 291.00 metres, with other grey mineral locations identified on the sample description sheets.		307.00 308.0 308.00 309.0		.13 .01	1.50		1-2 % 1-2 %		
	1 to 4% pyrite as fine disseminations often concentrated along fractures.		309.00 310.0		.10	8.40		28		
	Greater amounts of pyrite generally occur within the altered intrusive		310.00 310.5		.03	5.40		1-23		
	sections.									
	Weakly to moderately competent unit and moderately broken along fractures									
	into 2 to 10cm pieces with less altered zones having 20 to 50cm									
	breakage, and more altered zones forming lcm rubble/friable zones. Several fractures are coated with thin, chloritic and/or sericitic									
	surfaces.									
	Near the upper contact is an intensely foliated shear zone between 289.40									
	and 290.00 metres. Above this is the only relatively unaltered intrusive									
	in this unit. Shearing and foliation oriented at 30 degrees to the core									
	axis. Lower contact is a planar, sharp, lcm wide shear zone oriented at 40									
	degrees to the core axis.									
0.50 316.3	5 NAPIC NBTAVOLCANIC FLOWS (PB THOLBIITB)									
	Dark green, fine grained, weak to moderately magnetic, massive to weakly	NS	310.50 316.3	5 5.85	n/a	n/a	-	18		
	foliated/banded at 0 to 25 degrees to the core axis, with some thin bands resembling pillow selvages.	1309	310.50 312.0	0 1.50	.11	1.50	-	14		
	Abundant fine (hairline to 1mm), calcitic tension microfracturing in									
	network and en echelon discontinuous veining patterns.									
	5%, Very irregular, 0.5 to 2cm, boudinaged and offset quartz									
	veins/lenses/blebs mostly oriented at shallow (0 to 40 degee) angles to									
	the core axis, although somewhat undulating and discontinuous. Upper and lower contact zones contain thin (20 to 50cm) zones of medium									
	green, moderately carbonatized and sheared (40 to 45 degrees to the core									
	axis) metavolcanic adjacent to sharp intrusive contacts parallel to the									
	shearing orientation.									
	Relatively competent unit with 25 to 50cm breakage along fractures									
	generally oriented at 40 to 45 degrees to the core axis.									

H-N PROJBCT ((Da (7) DIANOND DRILL (1) DIANOND DRILL		•			Hole: Page:	HN 8	8-28 34		
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Interval (Netres)	Description	Sample No.	Interval (Netres)	Length (Netres)	Au (g/t)	Ag (ppm)	-	Pyrite (%)	ALTERATIO SIL CARB	
316.35 321.5	O FP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED Above 320m, the unit is similar to the mottled, white, weak to moderately silicified intrusive zones between 287.70 to 310.50m, except with local salmon pink colour to some plagioclase phenocrysts within the white altered zones. This section contains minor (5%) quartz veining occasionally with minor metallic grey mineralization. Below 320m, it is slightly pinkish medium grey, and very weakly altered to relatively unaltered. Section is weakly sheared in more altered zones at 40 degrees to the core axis. Moderately broken core (1 to 10cm) in altered zones, and relatively competent with 10 to 30cm breakgage in unaltered zones.	1310 31 1311 31 1312 31 1313 31	16.35 321.50 16.35 317.00 17.00 318.00 18.00 319.00 19.00 320.00 20.00 321.50	0 .65 D 1.00 D 1.00 D 1.00 D 1.00	n/a .02 .04 .01 .02 .02	n/a 1.60 1.30 1.40 1.30 1.50	- NINOR TRACE	1% 1% 2-3% 2-3% 2-3% 1-2%		

Lower contact is sharp and planar at 40 degrees to the core axis, subparallel to the foliation orientation in the adjacent mafic volcanics.

321.50 346.90 SCHISTOSE MAPIC HETAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Generally dark green, with minor to moderate light green speckling, and well developed irregular banding that is often concentrated in thin (10 to 30cm), mostly light yellow-green epidote-carbonate altered patches. Locally, these form as small (10 to 50cm) patches and bands that are moderate to strongly altered. Banding may be in part original compositional, but is mostly due to alteration.

Dark green less altered zones are fine grained, often with fine volcanic textures as well as pillow selvages? evident.

Weakly to moderately magnetic.

Colour/alteration/compositional banding generally oriented at 10 to 30 degrees to the core axis, and locally weakly sheared at 0 to 20 degrees to the core axis.

Unit is well microfractured with 5%, very irregular, network of calcitic tension microfracturing, and minor offset quartz veining. Lower contact has intense microfractured band 50cm wide.

5%, Very irregular, broken, offset and occasionally swirled, thin (0.5 to 2cm), blue-white guartz veining.

NS	321.50	346.90	25.40	n/a	n/a	- HNR-0.5
1315	329.00	330.00	1.00	.06	.40	- MINOR

H-N PROJECT (O	DIANOND DRILL	A D	•			Hole: Page:	H N 8	8-28 35			
Interval (Netres)	Description	Sample No.	Interval (Xetres)	Length (Netres)	λu (g/t)	Ag {ppm}		Pyrite (%)	AL SIL	TERATION CARB	SBR
	A few fractures oriented at 30 degrees to the core axis have thin (1 to 3mm), calcite-sericite-talc coatings. Minor disseminated pyrite with local concentrations, generally forming adjacent to quartz veining. Unit includes a grey, plagioclase porphyritic (1 to 3mm), unfoliated dyke between 335.00 to 335.35m, with sharp contact edges at 30 degrees to the core axis, subparallel to foliation in the volcanic. Relatively competent unit with 20 to 75cm breakage. Lower contact is sharp, planar intrusive contact oriented at 50 degrees to the core axis.										
346.90 356.15	FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTEREDMostly medium grey to slightly pinkish grey, coarse grained, plagioclase porphyritic, bioite intrusive, with minor quartz veining, and minor weakly silicified zones.Two larger (1cm), irregular quartz veins oriented at 10 degrees to the core axis occur between 351.00 to 351.50 and 353.60 to 354.00 metres. Large volcanic xenolithic inclusion with 15cm quartz vein occurs between 355.15 to 355.45 metres. Competent unit, but relatively well fractured with 3 to 10cm breakage.		46.90 356.3 53.00 354.0		n/a .01	n/a 1.50	-	1-34 24	UN-VK	UN-AK D	N-V.VK
356.15 374.00	SCHISTOSE MAFIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS Mostly mottled to banded sequence of dark green, fine grained, weakly magnetic, and light yellow-green, non-magnetic altered bands and patches that are often irregularly swirled and contorted. Minor garnet porphyroblasts occur within the intensely altered zones. Unit has weak compositional and alteration banding oriented at 30 to 45 degrees to the core axis. Unit includes 3 mafic dykes between. 356.65 357.20 Feldspar Porphyritic Quartz Diorite Dyke. Upper contact oriented at 20 degrees to the core axis and lower contact perpendicular oriented at 45 degrees to the core axis. 357.50 357.65 Feldspar Porphyritic Quartz Diorite Dyke. With parallel contacts at 30 to 40 degrees to the core axis.		56.15 374.(56.65 357.2		n/a .04	n/a 1.60	-	MINOR MINOR			

(PROJECT ((Dr BSSO HINERALS DIAHOND DRILL			Hole: Page:	HN 8	8-28 36		
Interval (Netres)	Description	Sample No.	Length (Netres)	•		Pyrite (%)	STERATION CARB	SER
	 367.00 369.30 Feldspar Porphyritic Quartz Diorite Dyke. With upper and lower contacts at 45 degrees to the core axis, and including 20%, large volcanic wallrock inclusions. Dykes are dark grey in colour with 50%, uniform, 1mm, subhedral, weakly zoned plagioclase phenocrysts in black, aphanitic, weakly foliated, and weakly magnetic groundmass. Dykes are massive with no veining and contain minor pyrite. Unit contains minor quartz veining, but well developed, hairline width network and en echelon calcitic tension microfracturing. Some epidote-carbonate altered zones contain thin (1 to 10mm), irregular, silica flood veinlets. Minor pyrite as fine disseminations. Relatively competent unit with 20 to 75cm breakage along fractures generally oriented at 45 to 60 degrees to the core axis. Lower contact not encountered. 374.00 End of Hole. 							

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			ESSO MINERALS CANADA SUMMARY DRILL LOG	
•			Nome: <u>IN Blakelieck</u> Hole Number: <u>HNE</u>	
		-	Number 1677 Logged By: M.H. 42H/8 Date: September 1	
AL SURVEY FILES 89 E D			<u>42+00W. 8+50S</u> <u>180°</u> . Dip: <u>-45°</u> . Claim Number: <u>1</u> Length (m): <u>17</u>	
5 1989	PU	RPOSE	Test Mag. low and high background IP chargeability response west HN88-22	<u>of</u>
NAR 15	From (m)	To (m)	Description CASING REMOVED	Gold Assays (g/tonne)
ONTARIO GECLOGICAL S ASSESSMENT FIL OFFICE MAR 15 1989 RECEIVEC	0.0 7.00		Overburden Mafic Metavolcanic Flow (Relatively Unaltered) Dark green, fine-grained, weakly magnetic, and relatively unaltered, with minor, hairline epidote-carbonate fracturing. Weak to moderately well developed schistosity and foliation oriented at 60° to 80° to CA. Minor quartz veining and cherty bands. Minor to 1% pyrite.	Not Assayed
	23.60	41.00	Weak to Moderately Carbonate-Epidote Altered and Brecciated/ Fractured Mafic Metavolcanic Mottled to irregularly banded, light to medium green, buff and cream coloured, weak to moderately carbonate-epidote altered and weak to locally moderately brecciated. Fine-grained, non- magnetic, and cut by several, small quartz vein breccia zones. 0.5% pyrite.	0.01 - 0.15 (9)
. '	41.00	49.00	Quartz Vein and Intrusive Breccia Zone Brecciated, carbonate altered, silicified, and quartz flooded/ veined mafic metavolcanic and intrusive, including large quartz vein zones containing abundant altered and partially assimilated wallrock fragments. Minor fault zone rubble and clay gouge zone with some lost core. Minor pyrite.	0.01 - 0.03 (8)
	49.00	57.85	Mafic Metavolcanic Generally dark green-black, weak to moderately magnetic, fine- grained, massive, locally plagioclase phyric mafic metavolcanic, with a few weak to moderately epidote-carbonate altered zones, and one small fault zone. 51.70-52.10 Fault Breccia.	0.01 - 0.04 (3)
	57.85	124.60	 Variably Altered Quartz Diorite Intrusive 57.85-106.55 Light to medium grey to greenish white, generally weakly to moderately silicified and sericitized, coarse-grained, feldspar porphyritic intrusive with local intensely altered zones, often adjacent to quartz veining, and a few, thin, pinkish, relatively unaltered zones. Minor to 5%, irregular quartz veining. 1 to 5% pyrite and minor grey metallic mineralization. 106.55-124.60 Generally pinkish to purplish, medium-grey coloured, coarse-grained, plagioclase porphyritic, biotite, quartz diorite that is relatively unaltered to very weakly silicified, with local zones/bands of weak silicification and sericitization. Minor to 5% quartz veining. 1 to 3% pyrite. 	

	From	To		Description	Gold Assays (g/tonne)
	(m)	(m)	HN88-32		
•	124.60	179.00	124.60-131.00	ic Pillowed Flow Mottled and banded medium to dark green, epidote- carbonate altered mafic metavolcanic.Foliation and banding oriented at 60° to 70° to CA. Moderate calcitic microfracturing. Minor quartz veining. Several thin (5 to 50 cm) intrusive dykes. Minor to 1% pyrite +/- minor pyrrhotite and chalcopyrite Dark green, moderately magnetic, fine-grained with minor epidote-carbonate alteration stringers and patches. Pillow selvages, and amygdules locally evident. Minor quartz veining. Minor to 1% pyrite +/- minor pyrrhotite and chalcopyrite	
		179.00	END OF HOLE		
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				• •	
	·····	•	•••••••••••••••••••••••••••••••••••••••		

H-N PROJECT (Ont)	BSSO MINBRALS TO A DIANOND DRILL RECORD	Hole: Page:	RN88-32
Drilled by: Hole Size: Core Size: Casing:	Bradley Bros. Limited BQ BQ Casing Removed	Azimuth: 180 Dip: -45	Claim No: Grid: Basting: Northing:	L-871912 Vest 42+00V 8+50S
Started: Pinished:	Sept. 21, 1988 Sept. 22, 1988	Acid Tests:	Blevation:	Level
Logged by: Date logged:	N.H.Lenters September 1988	Depth Az. Dip 7.00 -45.0 137.00 -40.0 179.00 -39.5	Purpose: Length: Vert. Proj:	Test Mag Low & IP West of HM88-22 179.00Metres 120.0 Metres
Logging Nethod: Neasurement System:	Log II Netric		Hor. Proj: Ovb. Depth:	133.0 Netres
[nterval {Netres}	Description	Sample No.		rey Pyrite ALTBRATION Allic (%) SIL CARB SER

.00 7.00 OVERBURDEN

7.00 23.60 NAPIC NETAVOLCANIC PLOWS (PE THOLBIITE)

Dark green to greyish green, fine grained, weakly magnetic, with abundant, thin (hairline to 2mm), light green, epidote-carbonate altered fracture stringers, locally anastomosing and coalesing into weakly altered bands or zones. Compositional banding, alteration banding, fracturing, and a weak to

moderately developed phyllitic/schistose foliation are all oriented at 60 to 80 degrees to the core axis, although some alteration banding associated with fractures and quartz veins are oriented at somewhat shallower angles.

Unit cut by a few, thin (1 to 0.5mm), subplanar, guartz veins with sharp contacts, and oriented at various angles to the core axis.

7.80 8.00 4cm guartz vein with epidote altered fractures, oriented at 20 degrees to the core axis.

Unit contains two, thin, diffusely colour banded cherty horizons, with buff, tan, cream, salmon pink colours. These zones are hard,

NS 7.00 23.60 16.60 n/a n/a - MNR-1%

PROJECT ((DA BSSO NINBRALS DIAMOND DRILL RECO) a 10	·			Hole: Page:	HNO	8-32 2			
Interval (Hetres)	Description	Sample No.	Interva (Netres	l Length) (Netres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	SIL	TERATION	SE
	microfractured, and well banded/bedded at 60 to 65 degrees to the core axis. 12.60 12.75 Cherty horizon. 13.00 13.05 Cherty horizon. The two above bands could also be intensely silica-carbonate altered volcanic bands. Unit has strong microfractured appearance, with some veining offset 1 to 10mm along fracture slips. Minor to 14 pyrite as fine, often wispy, disseminations aligned parallel to the foliation. Locally minor amounts of coarser pyrite are disseminated in irregular patches. Relatively competent core, with 10 to 75 cm breakage generally parallel to foliation at 60 to 80 degrees to the core axis. Lower contact is transitional across a few metres into a weak to moderately epidote-carbonate altered mafic metavolcanic.										
3.60 41.0	Ø WEAKLY BRECCIATED MAFIC METAVOLCANIC WITH EPIDOTE-CARB. BANDS Weak to moderately epidote-carbonate altered, weak to locally moderately brecciated/fractured, and cut by several brecciated/faulted quartz veins/dykes. Mottled to irregularly banded, light to medium green, buff and cream colours, fine grained, non magnetic, weakly to mostly moderately epidote-carbonate altered, and fractured/brecciated. Weakly altered zones are medium to dark green, with abundant hairline fracturing, as well as containing small brecciated fragments or patches/bands of light green epidote/carbonate altered rock. Moderately altered sections have pale pastel yellow and green colouring that is generally banded at 60 to 90 degrees to the core axis, but also somewhat irregular and often moderately brecciated/fractured, and	1583 1584 1585 1586 1587 1588 1589 1590	23.60 41 25.00 26 26.00 27 33.50 35 35.00 36 36.00 37 37.00 38 38.00 39 39.00 40 40.00 41	.00 1.00 .00 1.00 .00 1.50 .00 1.00 .00 1.00 .00 1.00 .00 1.00 .00 1.00 .00 1.00 .00 1.00	n/a .02 .01 .15 .01 .03 .02 .01 .01 .03	n/a 1.90 2.00 2.10 2.90 2.10 1.80 1.80	-	0.5-1% NINOR D.5% NINOR 0.5-1% 0.5-1% 0.5-1% 0.5-1%			

somewhat irregular and often moderately brecciated/fractured, and containing thin, irregular guartz vein infilling. Alteration and brecciation is particularly strong adjacent to guartz veins and intrusive dykes, which are generally also brecciated. Significant guartz veins and intrusive dykes occur at:

25.30 26.00 Thin (1 to 3 cm), salmon pinkish, brecciated, but rehealed guartz vein containing abundant, angular vallrock fragments.

H-N PROJECT	(On BSSO HINBRALS DIAMOND DRILL	PA RD				Hole: Page:	HNB	8-32 3		
Interva (Netres	•	Sample No.		Length (Netres)	Au (g/t)	Ag (ppm)	-	Pyrite (%)	IBRATION CARB	SBR
	The adjacent mafic volcanics are well fractured/brecciated and intruded by quartz veinlets.									
	29.80 29.85 2 cm wide, white quartz vein with minor wallrock inclusions									
	oriented at 45 to 50 degrees to the core axis.									
	33.90 34.20 Brecciated multiphase quartz vein oriented at 30 degrees to the core axis.									
	36.00 41.00 Moderately to intensely epidote-carbonate+/-silica altered mafic metavolcanic containing 20 to 70%, light grey, sharp to subdued/resorbed and diffusely bounded porphyritic intrusive fragments. Band appears to be a fault/brecciated									
	hybrid zone with composition between altered volcanic and intrusive. Locally the band appears to be an intrusive breccia zone, that has a subdued and assimilated/rehealed appearance.									
	Unit is moderately competent.									
41.00 49	.00 QUARTI VBIN & INTRUSIVE BRECCIA JONE									
	41.00 43.30 Medium greenish grey, epidote-carbonate altered intrusive with composition similar to the assimilated fragments in the		41.00 49. 41.00 42.		n/a .01			HNR-1% 1-2%		
	overlying zone. Contains 15 to 20%, salwon pink, subhedral,		42.00 43.		.01	1.80		HINOR		
	1 to 3mm, plagioclase phenocrysts, and no biotite, in fine		43.39 44.		.01	1.40		MINOR		

grained altered groundmass. Ione is crackled and brecciated, and intruded either by volcanic and/or intrusive material. Ione itself is cut by some guartz veining/flooding, and includes a few, thin, guartz diorite intrusive fragments, or later, irregularly offset dykes. These are salmon pink in colour and also somewhat subdued/resorbed in appearance. The unit is possibly a sheared intrusive/metavolcanic contact zone 43.30 44.00 Quartz vein. White, coarse grained guartz vein containing 40% variably assimilated, altered wallrock fragments that are generally less than 1 cm in size. Vein also cut by a minor amount of diffuse, thin (1 to 3mm), irregular, grey quartz/silica veinlets. Contacts of guartz vein with the adjacent wallrock are irregular, brecciated zones, with the lower contact passing into the underlying fault gouge,

IS	41.00	49.00	5.09	n/a	n/a	-	MNR-1%	
1592	41.00	42.00	1.00	.01	1.70	-	1-23	
1593	42.00	43.30	1.30	.01	1.80	-	MINOR	
1594	43.39	44.00	.70	.01	1.40	•	MINOR	
1595	44.00	45.20	1.20	.01	1.30	•	MINOR	
1596	45.20	46.00	. 80	.02	1.10	-	MINOR	
1597	46.00	47.00	1.00	.01	.90	-	MINOR	
1598	47.00	48.00	1.00	.03	1.30	-	0.5%	
1599	48.00	49.00	1.00	.01	1.60	-	0.5%	

-N PROJECT (O	BSSO MINBRALS DIAMOND DRILL	À D					Hole: Page:	HN	18-32 4	i		
Interval (Netres)	Description	Sample No.			Length (Netres)		Ag (ppm)	Grey Netallic	Pyrite (%)	SIL	ALTERATION CARB	SBR
	breccia and lost core zone. 44.00 42.20 Lost core. 0.50m of recovered altered intrusive and brecciated/rehealed quartz vein rubble from below a 1 cm zone of hematitic, mud red, clay gouge along a thin (1 to 2cm), fault slip. 45.20 49.00 Intrusive (brecciated, altered and quartz flooded). Light greenish grey to pinkish, intensely silicified/silica flooded, and locally quartz veined, epidote-carbonate altered, quartz diorite intrusive. Unit has a diffuse resorbed appearance, and is locally brecciated. The upper contact not recovered, and the lower contact is a brecciated/shear zone oriented at 45 degrees to the core axis. Relatively competent core.											
49.00 57.85	SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS Generally dark green-black, weak to locally moderately magnetic, fine grained and massive, locally exhibiting a few, small (imm), greenish white, plagioclase phenocrysts. Unit is locally well fractured and weakly to moderately epidote-carbonate altered particularly in the upper metre adjacent to the overlying fault zone, adjacent to a few thin intrusive dykes, and near the lower contact with the underlying guartz diorite intrusive body. Fracturing, as well as epidote veinlets and banding, tend to concentrate along a 50 to 70	1600 1691	49.00 50.00	50.00 51.00	5 8.85 1.00 1.00 5 1.85	n/a .01 .04 .03	n/a 1.90 1.60 1.50	- - -				

irregular. 51.70 52.10 Fault Tone. Small, relatively late fault breccia zone consisting of small (0.5 to 5cm), very angular volcanic fragments exhibiting varying intensities of alteration, and sharply bounded by finer matrix. Tone contains numerous incompetent clay slip surfaces. Fault zone appears to be 4 to 6 cm wide, and is oriented at 10 to 20 degrees to the core axis. Core is well broken along fractures at 0 to 20 degrees to the core axis.

degrees to the core axis orientation, although it is generally guite

Several, small, flesh coloured intrusive dykelets with subdued textures, but sharp contacts occur at:

		BSSO MINERALS CONDA DIAMOND DRILL							
								۲	
Interval (Netres)	Description	Sample No.	Interval (Netres)				Grey Pyril Netallic (%)		SBR

50.25 50.40 Dyke at 30 to 35 degrees to the core axis. 52.40 52.50 Dyke at 35 degrees to the core axis. 53.30 53.40 Dyke at 30 to 35 degrees to the core axis. Unit contains a few, thin (0.5 to lcm), guartz veins/bands that are oriented at various angles to the core axis.

Minor finely disseminated pyrite.

Upper part of unit is well fractured and broken into irregular 3 to 15 cm pieces, while the lower part is more competent and consists of 25 to 75 cm pieces.

Lower contact is a sharp intrusive contact oriented at 25 degrees to the core axis.

57.85 124.60 PP QUARTZ DIORITE INTRUSIVE - WK TO NOD ALTERED

Generally weakly to moderately silicified and sericitized, with local intensely altered zones and a few very weakly altered zones above 106.55 metres, and very weakly to weakly altered with several relatively unaltered sections below 106.55 metres.

Unit contains a large (between 58.20 to 58.70m) mafic volcanic wallrock inclusion near the upper contact.

Relatively unaltered sections are pinkish, to purplish grey in colour, and generally exhibit the typical quartz diorite intrusive composition and texture, with minor quartz phenocrysts, 10 to 25%, white, plagioclase phenocrysts, and 10% biotite, in a medium to coarse grained, massive, feldspar dominant matrix.

The altered zones become progressively more bleached (white) in colour, with biotite altering to chlorite and then to a light green sericite.

Unit has less of a hard, silicified, silica flooded appearance than most other altered intrusive sections, and is more chalky white, porous and sericitic than HW88-31.

Unit contains only minor amounts of irregular guartz veining, although locally up to 5% in several thin, more altered zones.

Relatively unaltered zones contain 0.5 to 1% pyrite, with the pyrite content increasing to 5% with increasing alteration intensity (silicification and sericitization).

Noderate to intensely altered rones are generally white to light grey,

	Ï S	57.85	124.60	66.75	n/a	n/a	TR-MNR	0.5-41	
1	603	57.85	58.70	.85	.02	1.20	-	0.5%	
1	604	58.70	59.50	.80	.01	1.40	-	0.5-11	
1	605	59.50	60.50	1.00	.02	1.30	0.25%	2-31	
1	606	\$0.50	61.90	1.40	.01	1.30	-	1-21	
1	607	61.90	63.00	1.10	.01	1.30	0.5-11	5-61	
1	608	63.00	64.00	1.00	.01	1.20	-	1-21	
1	609	64.00	65.00	1.00	.03	1.20	-	1-23	
1	610	65.00	66.00	1.00	.02	1.20	-	0.5-11	
1	611	66.00	67.00	1.00	.03	.80	-	0.5-11	
1	612	67.00	68.00	1.00	.02	1.30	-	0.5%	
1	613	68.00	69.00	1.00	.06	1.30	TR-NNR	2-31	
1	614	69.00	70.00	1.00	.11	.80	TRACE	1-28	
1	615	70.00	71.00	1.00	.03	. 80	TRACE	1-23	
1	616	71.00	72.00	1.00	.06	1.00	-	1-2%	
1	617	72.00	72.75	.75	.03	1.10	TRACE	- 11	
1	618	72.75	73.30	.55	.04	1.20	0.5%	2-31	
1	619	13.30	74.50	1.20	.05	.60	TRACB	1-2\$	
1	620	74.50	75.00	.50	.03	.80	0.5%	3-41	
1	621	75.00	76.00	1.00	.02	.70	MINOR	2-31	
1	622	76.00	77.00	1.00	.02	1.50	0.25%	3-41	
1	623	77.00	78.00	1.00	.04	1.60	MINOR	3-41	

H-H PROJECT (On

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HN88-32

6

Interval (Netres)		Description	Sample No.			Length Au (Netres) (g/t)		Grey Netallic	-	TERATION CARB	SBR
		with biotite altered to chlorite/sericite, locally contain minor to	1674	78.00 79		0.01	.60	TRACE	1-21		
		abundant very finely disseminated purplish grey mineralization in		79.00 80			.80		1-21		
		needle-like clusters that are concentrated along fractures, or along the	1626	80.00 81	L.00 1.0	0.02	.80	TRACE	2-31		
		wallrock edges adjacent to quartz veins, both of which often centre	1627	\$1.00 \$1	L.80 .8	.01	.90	-	1-21		
		zones of increased alteration.	1628	\$1.80 87	2.50 .7	0.01	.50	0.25	2-31		
		Locally the intrusive contains thin (1 to 5cm), silica/cherty bands	1629	82.50 83	3.35 .8	5.02	.90	TRACE	2-31		
		ariented at 70 to 80 degrees to the care avis. These appear to be weak	1630	42.35 43		5 01	1 10	0 51	3-15		

oriented at 70 to 80 degrees to the core axis. These appear to be weak shear zones/bands, and occasionally contain slip surfaces coated with fine molybdenum.

Unaltered zones are competent and broken into 25 to 50 cm pieces, generally along fractures at various angles to the core axis, but concentrating at 60 to 75 degrees to the core axis.

Altered zones are moderately competent and more broken with 5 to 25 cm sized pieces.

Near the lower contact zone the intrusive is subdued and finer grained, appearing much like smaller intrusive dykes, and may be a later, intrusive phase.

Lower contact oriented at 60 degrees to the core axis.

1624	78.00	79.00	1.00	.01	.60	TRACE	1-23
1825	79.00	80.00	1.00	.02	. 80	TRACE	1-21
1626	80.00	81.00	1.00	.02	.80	TRACE	2-31
1627	\$1.00	\$1.80	. 89	.01	.90	-	1-21
1628	\$1.80	82.50	.70	.01	.50	0.25%	2-31
1629	82.50		.85	.02	.90		
1630	83.35	83.80	.45	.01	1.10	0.5%	3-41
1631	\$3.80	\$5.00	1.20	.01	.50	TRACE	5-61
1632	85.00	86.00	1.00	.03	.90	TRACE	3-41
1633	86.00	86.70	.70	.01	1.00	MINOR	2-31
1634	86.70	87.90	1.20	.03	.70	-	23
1635	87.90	88.25	.35	.01	3.90	0.5%	3-41
1636	88.25	89.00	.75	.02	.60	-	2-31
1637	89.00	89.65	.65	.02	.90	-	1-23
1638	89.65	91.00	1.35	.02	1.30	MINOR	2-41
1639	91.00	92.00	1.00	.03	.90	TR-NNR	3-41
1640	92.00		.60	.01	1.00	-	2-31
1641	92.60			.01	1.00	0.25%	
1642				.02	3.90	0.5%	
1643			.50	.01	1.80		2-31
1644				.02	1.00	0.5-1%	
1645			.50	.01	.70	NINOR	
1646			1.00				
1647			1.00	.02	1.00		
1648			1.00	.01	.90		
1649			1.00	.01	1.10	TRACE	
1650			1.00	.01	1.00	-	
			1.00	.02	1.30		
		101.85	.85	.02	1.20	TRACE	
1653	101.85	103.00	1.15	.01	1.20	MINOR	
	103.00		1.00	.02	1.70	MINOR	2-41
	104.00		.90	.02	2.20	TRACE	2-3
		105.65		.01	1.40	-	1-23
		106.55	.90	.02	.90	MINOR	1-24
	106.55		.95	.01	.90	NINOR	0.5-11
1659	107.50	108.60	1.10	.05	.70	-	0.5-1%

-H PROJECT (O	DIAMOND DRILL ABOUT	A RD					Hole: Page:	HN	88-32 7		
Interval (Metres)	Description	Sample No.		nterval (etres)	Length (Netres)	Au (g/t)	Ag (ppm)		Pyrite c (%)	ALTERATION SIL CARB	SE
		1660	108 1	50 109.50	.90	.01	1.40	NINOR	2-34		
				50 110.50		.14	1.40	nieve -	11		
				50 111.50		.08	1.20	TRACE	11		
				50 112.00		.14	2.50	TRACE	1-21		
				0 113.00		.28	2.10	0.25%	2-41		
				00 114.00		.12	2.10	-	1-23		
)0 115.0()0 116.0(.01 .98	.80 .60	TRACE	1N 1N		
						.01	.70	IARVD -	14		
				10 118.00		.14	10	-	2-31		
				0 118.70		.01	. 80	-	1-21		
				70 119.50		.01	1.00	-	1-21		
				50 120.00		.02	.70	-	3-41		
				BO 120.90 DO 122.00		.01 .05	1.00 .90	-	2-33 1-23		
				0 123.0		.10	1.30	-	1-23		
				00 123.80		.02	1.00		1-23		
				80 124.5		.02	.90		0.5-11		
24.60 179.00	NAFIC NETAVOLCANIC FLOWS (FE THOLEIITE)										
	Generally relatively unaltered except above 131.00m, which is weakly			60 179.0		n/a	n/a		0.5-11		
	epidote-carbonate altered and cut by several intrusive dykes.			50 126.00		.01	1.20	-	11		
	Generally dark greenish black, very fine grained, massive, weakly to strongly magnetic, with minor to moderate, hairline, calcitic			D5 133.2! D0 135.0(.01 .01	1.20 .40	-	MINOR 1-2%		
	microfracturing, and a few weakly epidote-carbonate altered stringers			00 144.5		.01	1.00		1-21		
	and patches. Between 124.60 and 131.00m in the upper contact zone the			50 146.00		.01	1.00	-	0.51		
	epidote-carbonate alteration patches and anastomosing stringer bands are			00 147.0		1.05	6.60	-	1\$		
	more numerous. These are often irregularly oriented, but concentrate in			00 148.00		.01	.90	-	0.5%		
	an orientation at 65 to 70 degrees to the core axis. This zone also			DØ 149.00		.01	1.40	-	0.5%		
	exhibits a well developed calcitic microfracturing that locally gives			00 150.50		.03	1.70	-	0.251		
	the unit a pseudo-brecciated appearance. Dark green, massive unaltered zones contain several thin (1 to 5 cm),	69A3	128.	50 152.0	9 1.30	.01	1.00	-	0.25%		
	coarser grained, biotitic, more schistose bands that appear to be pillow										
	selveges. These are definite pillow selveges between 132 and 134 metres.										
	These bands are also often more pyritic, with the pyrite forming thin										

•

K-N PROJBCT (DIAMOND DRILL RECO)A RD			Hole: Page:	HN 8	8-32 8			
Interval (Netres)	Description	Sample No.	Interval {Metres}	Au (g/t)	Ag (ppm)	-	Pyrite (\$)	A SIL	TERATION CARB	SBR
	 bands/laminae. Unaltered massive zones also contain patches with small, ovoid, amygdules. Weakly developed schistosity and foliation above 158m is oriented at 60 to 70 degrees to the core axis, but below 158m it is oriented at about 45 to 50 degrees to the core axis. Minor, thin (2 to 10mm), quartz veining that is often irregular and discontinuous, as well as a few small (0.5 to 1cm), subplanar veins, locally containing minor pyrite, pyrrhotite and chalcopyrite. Several diffuse or subdued, medium grey, fine grained porphyritic intrusive dykes with sharp contacts located between: 132.05 133.25 Dyke with chalcopyrite along fractures oriented at 40 degrees to the core axis. 136.60 136.65 Dyke with irregular contacts. 136.55 137.20 Dyke with upper and lower contacts oriented at 50 and 65 degrees to the core axis. Generally minor to 0.5% finely disseminated pyrite, locally as relatively coarse grains in irregular, coarser grained, often blotitic patches. Lower part of unit contains some thicker, brownish, massive bands containing an increased blotite content, and also giving the unit a slightly coarser grain size, and better developed schistose foliation. These zones could be due to potassic alteration. Competent core with 25 to 75 cm breakage. Lower contact not encountered. 173.00 End of hole. 									

		ESSO MINERALS CANADA SUMMARY DRILL LOG								
•	Pr	oject (Name: <u>HN Blabelucke</u> Hole Number: <u>H</u>	N88-33						
	Pr	oject N	lumber <u>1677</u> , Logged By: <u>M</u> .	H. Lenters						
	NT	rs:	42H/8 Date: September	1988						
ONTARIO SEOLOGICAL SURVEY ASSESSMENT FILES OFFICE MAR 15 7989 RECEIVED	Az	Location:46+00W, 7+75S Claim Number: L-87 Azimuth:180° Dip:43° Length (m):141. PURPOSE:Test mag. low, and anomalous IP chargeability response and IP res high west of bottom of DDH HN88-26.								
A A	From	То		Gold Assays						
ALIENT & TANK AND	(m)	(m)	Description CASING REMOVED	(g/tonne)						
	0.0	9.40	Overburden							
	9.40		Mafic Metavolcanic Flow (Relatively Unaltered) Dark green-black, fine-grained, massive to weakly schistose and relatively unaltered. Includes a few, thin (5 to 10 cm), medium brownish red, moderately carbonate altered zones/patches, adjacent to a few, thin, weakly sheared zones below 14.00 m, particularly at the contact zone with the underlying quartz veined shear zones. Schistose foliation oriented at 60° to CA. Minor quartz veinlets. Minor to 1% disseminated pyrite.	0.01 - 0.02 (5)						
	20.55	144.10	 Quartz Veined Shear/Fault Zone 16.50-17.40 70%, coarse-grained, quartz veining containing 30% medium green, moderately altered mafic meta- volcanic wallrock inclusions and stylolitic laminae and parting surfaces. Foliation, shearing and veining oriented at 70° to 80° to CA. 2 to 5% finely disseminated pyrite and minor to 1% grey metallic minerals. 17.40-20.00 80 to 85%, medium grey-green, well foliated and moderately sheared/altered mafic metavolcanic containing 15 to 20% irregular to broken and boudinaged calcite - quartz veining/patches. Shearing indicates N side up and S side down. 5 to 10% finely disseminated pyrite, and 0.5 to 1% grey metallic minerals including molybdenum. 20.00-20.55 Quartz viening with mafic metavolcanic wallrock inclusions, similar to 16.50 to 17.40, with ksser grey metallic minerals in quartz viening. 2 to 3% pyrite. Minor grey metallic minerals. Mafic Metavolcanic Flows (Relatively Unaltered) Generally dark green, fine-grained, massive, unaltered, weak to moderately magnetic, with minor calcitic microfracturing and local zones/bands with brown colour, and weak schistosity due to minor biotite content (Potassic alteration?). Unit includes one thin, sheared felsic intrusive dyke or silicified band between 75.80 and 76.75. Minor quartz veining. Minor to 2% pyrrhotite and pyrite, often as thin fracture veinlets. 	0.01 - 0.10 (6) 0.01 - 0.06 (25)						

H-N PROJECT (On])	BSSO NINBRALS	Hole: KN88-33 Page: 1
Drilled by: Hole Size: Core Size: Casing: Started: Finished:	Bradley Bros. Limited BQ BQ Casing Removed Sept. 23, 1988 Sept. 24, 1988	Azimuth: 180 Díp: -43 Acid Tests: Depth Az. Díp	Claim No: L-871912 Grid: West Basting: 46+00W Northing: 7+75S Blevation: Level Purpose: Test Mag Low & 1P West of HN88-26
Logged by: Date logged: Logging Method: Measurement System:	M.H.Lenters September 1988 Log II Netric	10.00 -43.0 110.00 -40.0	Length: 141.10Netres Vert. Proj: 93.0 Metres Hor. Proj: 106.0 Metres Ovb. Depth: 7.1 Metres
[nterval {Netres}	Description	Sample No.	Interval Length Au Ag Grey Pyrite ALTERATION {Hetres} (Hetres) (g/t) (ppm) Hetallic {%) SIL CARB SBR

.00 9.40 OVERBURDEN

9.40 16.50 HAFIC HETAVOLCANIC FLOWS (FE THOLEHITE)

Generally dark green-black, fine grained, massive to weakly schistose, unaltered mafic metavolcanic. Includes a few, thin (5 to relatively 10cm), medium brownish red, moderately carbonate altered zones/patches surrounded by medium green, very weakly altered volcanic, adjacent to a few, thin, weakly sheared zones below 14.00m, particularly at the contact zone with the underlying quartz veined shear zone. Unit is very fine grained and massive above 12.00m, and medium grained, to modetately schistose between 12.50 and 13.50m, with the weak schistose foliation oriented at 60 degrees to the core axis. This zone contains minor, large (1mm), euhedral pyrite cubes. Below 14.00m the unit exhibits minor to moderate amounts of subhedral, small (less than plagioclase phenocrysts, a weak to moderately developed foliation 1mm}. at 60 degrees to the core axis, and thin epidote-carbonate alteration bands that are also moderately pyritic (3 to 7% pyrite).

Unit contains minor, thin (hairline to 2mm), planar, guartz veinlets and

KS	9.40	16.50	7.10	n/a	n/a	-	HNR-11
1682	12.00	13.00	1.00	.01	1.20	-	11
1683	13.00	14.00	1.00	.01	1.50	-	0.5-1
1684	14.00	15.00	1.00	.01	1.20	-	MINOR
1685	15.00	16.00	1.00	.01	.90	-	0.5-1%
1686	16.00	16.50	.50	.02	.80	-	NUR-11

H-N PROJECT (On)		BSSO HINBRALS CODA DIAMOND DRILL CODDA		Hole: Page:	HN88-33 2				
Interval (Metres)	Description	Sample No.	Length (Netres)	Ag (ppm)		Pyrite (%)	AI SIL	TBRATION CARB	SBR

tension fracture fillings oriented at various angles to the core axis. Unit generally contains minor amounts of very finely disseminated pyrite, except for the coarser crystalline (cubic) concentrations in thin altered shear bands.

Moderately competent core with 5 to 25 cm breakage, generally along fractures oriented at 50 to 60 degrees to the core axis.

Lower contact is a sharp, planar quartz vein surface oriented at 50 degrees to the core axis.

16.50 20.55 QUARTZ VEINED SHEAR/PAULT ZONE

- 16.50 17.40 70%, coarse grained, cracked, ice-white guartz veining, containing 30% mafic volcanic wallrock inclusions, as both thin (1mm), vein parallel laminae that are occasionally weakly stylolitic, and as larger (0.5 to 10cm), well foliated bands. Locally the volcanic laminae and bands are irregular, but generally they are oriented at 60 to 80 degrees to the core axis. Quartz veining forms relatively clean bands containing minor, small, isolated volcanic wallrock pieces, and finely disseminated pyrite grains. Winor amounts of metallic grey minerals are often associated with the pyrite. Poliated mafic volcanic wallrock inclusions are medium green, and moderately altered containing 5 to 10%. fine, pyritic banding/laminae, often with thin purplish of grey metallic (molybdenite) mineralization. streaks Relatively competent core, but broken into 5 to 10 cm pieces along volcanic laminae in the quartz vein, and parallel to the foliation within volcanic inclusions. Upper contact is sharp and planar at 50 degrees to the core axis. Lower contact is undulating and sharp at 70 to 80 degrees to the core axis.
- 17.40 20.00 80 to 85%, medium grey-green to green-grey, well foliated, moderately sheared mafic metavolcanic containing 15 to 20%, thin (hairline to 3mm), lensoid, discontinuous, calcitic veining, and a few, thin (1 to 20cm), broken and boudinaged guartz veins. Foliation, banding, and veining generally

NS	16.50	20.55	4.05	n/a	n/a	NNR-1 %	3-71
1687	16.50	17.00	.50	.01	45.00	0.5%	5-68
1688	17.00	17.40	.40	.02	51.00	0.5-1%	23
1689	17.40	18.00	.60	.10	5.80	0.5%	5-10
1690	18.00	19.00	1.00	.05	10.00	MINOR	5-71
1691	19.00	20.00	1.00	.01	21.80	0.5%	1-61
1692	20.00	20.55	.55	.01	28.60	MINOR	2-31

H-N PR	OJECT (OR		BSSO HINBRALS				Hole: Page:	HN 8	8-33 3			
	nterval (etres)	Description		Sample No.	•	•		Grey Netallic		SIL	LTERATION CARB	SBR

oriented at 55 to 70 degrees to the core axis, with small scale structures indicating N side up and S side down if core oriented with foliation plane B-W and dipping steeply Unit locally well shear banded, and includes a thin north. (1 to 3cm), poorly recovered fault gauge clay zone at about 18.75 metres. Shear/slip surfaces, are often well lineated coated with greenish sericite-calcite. and Generally abundant (3 to 7%), finely disseminated pyrite generally concentrated in laminae. Locally, this section contains thin (0.5 to 1cm), purplish bands indicating significant amounts of very finely disseminated molybdenum. Section contains thin (0.5 to 2cm), bands of broken and boudinaged quartz veining. generally containing 0.5% relatively coarse, irregular explosion puffs of metallic grey mineral. One larger (10 cm) quartz vein zone between 19.65 and 19.75 metres. Vein contact is irregular with swirled foliation in the adjacent mafic volcanics, athough the shear zone is relatively planar (competent unit in shear). Lower contact with quartz vein zone is oriented at 55 degrees to the core Relatively incompetent broken zone with 1 to 5 cm axis. breakage, including several rubble zones.

20.00 20.55 70 to 80%, coarse grained, cracked ice-white quartz vein with 30% irregular blebs and thin, discontinuous laminae of mafic volcanic wallrock material. Similar to 16.50 to 17.40, with lesser amounts of grey mineral in quartz veining. Lower contact is a 30 cm fault breccia/shear zone with latest movement along 1 cm wide calcite breccia vein. Shearing and veining are planar and oriented at 30 to 45 degrees to the core axis. Volcanic adjacent to contact has abundant, anastomosing epidote veinlet banding parallel to shearing/faulting. Relatively broken core, generally with 5 to 10 cm pieces. Lower contact is calcite vein containing abundant, small, vallrock fragments, which is oriented at 30 degrees to the core axis.

H-N	PROJECT	(On) 7)

Interval (Netres)	Description	N.	(Notroe)	Length (Netres)	Au (g/t)	Ag . (ppm)	Grey I Metallic	Pyrite (%)	AL SIL	TERATION CARB	SE
20.55 144.10	NAFIC NETAVOLCANIC FLOWS (FE THOLBIITE)										
	Generally dark green, fine grained, massive, unaltered, weak to				n/a			NR-11			
	moderately magnetic mafic metavolcanic.		20.55 21.		.01	2.10		NINOR			
	20.55 23.00 Weak to moderately epidote veined, with irregular hairline		21.25 22.		.01	1.90		11			
	tension fracturing. Moderate calcite, tension		22.00 23.		.02	1.50		1 1			
	microfracturing throughout section, with slightly coarser grained biotitic bands adjacent to some zones of calcite		23.00 24. 24.50 26.		.06 .01	1.40		R-0.5 R-0.5			
	fracturing (potassic altereation?). These zones also tend to		26.00 27.		.01	1.40		NINOR			
	contain more {1 to 2%}, disseminated pyrite.		27.50 29.		.01	1.30		.5-11			
	Other larger biotitic patches and zones occur as follows.		29.00 30.		.01	1.40		.5-11			
	30.50 32.00 Weakly schistose biotitic zone with minor silica		30.50 32.		.01	1.70		2-31			
	patches/bands and increased (2 to 3%) pyrite content.	1702	32.00 33.	50 1.50	.02	1.70	-	MINOR			
	38.40 38.45 5cm, light grey, calcitic/silicified band adjacent to		38.00 39.		.01	1.00		R-0.5			
	fracture (calcitic) oriented at 40 degrees to the core axis,		48.50 50.		.03	1.00		2 \/ PO			
	and containing 5 to 10% finely disseminated pyrite.		53.00 54.		.02	1.60		21/20			
	55.00 56.00 Dark to medium grey to brownish grey, silicified and biotitic		54.00 55.		.03	1.00		2 % /P0			
	mafic metavolcanic.		55.00 56.		.01	1.30		41/20			
	73.00 75.80 Wafic volcanic containing minor amphibole porphyroblasts in biotitic bands.		56.00 57.		.04	1.40		4\/P0 5\/P0			
	75.80 76.75 Medium grey, well fractured and sheared, vuggy intrusive dyke		73.00 74. 74.00 75.		.01 .01	1.40		1 \ /P0			
	or possibly an intensely silicified mafic volcanic band.		75.00 75.		.01	1.20		.5/20			
	Contacts and shear/slip surfaces oriented at 40 to 50 degrees		75.80 76.		.01	1.30		4-68			
	to the core axis, parallel to the foliation in adjacent		16.75 18.		.01	1.00		R-0.5			
	volcanics. Dyke contains vugs exhibiting finely crystalline		99.00 100.		.01	1.30		0.5%			
	epidote. Yugs probably due to the removal of calcite. Dyke	1715	100.00 101.	00 1.00	.02	1.10	- 0.9	5 %/ PO			
	contains 4 to 5% fine to coarse pyrite often in laminae		109.00 110.		.01	1.60		3 %/ PO			
	parallel to shearing. Upper and lover contacts at 50 and 40	1717	120.70 122.	00 1.30	.01	2.50	- 1-3	2 \/ PO			
	degrees to the core axis. No significant guartz veining.										
	Relatively broken section of core, generally consisting of										
	small rubble to 10cm pieces. 100.30 100.35 5cm guartz vein oriented at 70 degrees to the core axis.										
	100.30 100.35 5cm guarcz vern orrented at 70 degrees to the core axis. 104.00 113.00 Several, thin (10 to 50cm), biotitic bands containing minor										
	epidote carbonate altered patches with a few percent large										
	garnets, as well as minor, geenish grey, weak silica flood										
	bands.										
	113.95 114.00 5cm guartz vein oriented at 60 degrees to the core axis.										

H-N PROJECT (OD		BSSO MINERALS				Hole: Page:	HN 8	8-33 5		
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Interval (Netres)	Description	Sample Ko.	Interval (Netres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION SIL CARB	SBR

120.60 130.80 Large zone of relatively coarser grained, schistose, brownish with a fine white speckled appearance, biotite altered mafic metavolcanic. Relatively homogeneous zone with minor calcite fracturing. Includes a 5 cm guartz vein between 120.80 and 120.85 oriented at 60 degrees to the core axis. Biotitic foliation produces a weak to moderate schistosity oriented at 50 to 60 degrees to the core axis. 139.55 139.65 10cm, white guartz vein oriented at 45 degrees to the core axis. Small patches (1 to 5cm) of biotitic alteration occur throughout the unit above 120.60m. Locally, small (10 to 100cm) bands contain minor to moderate (15%) amounts of fine (0.5 to 1mm) slightly pinkish, garnet porphyroblasts above 120.60 metres. Below 130.80 the unit is very fine grained, massive dark green and relatively unaltered with very little calcitic microfracturing. Unaltered mafic volcanic locally exhibits small (1mm), subrounded amyqdules. Minor to 2% pyrite and pyrrhotite, often as thin fracture veinlets. Foliation and alteration banding well developed between 72.00 to 77.00 metres, and generally oriented at 50 to 60 degrees to the core axis.

Unit is competent, generally with 50 to 100 cm breakage at 45 to 70 degrees to the core axis parallel to foliation and main fracture orientation.

Lower contact not encountered. 141.10 Bnd of hole.

				ESSO MINERALS CANADA SUMMARY DRILL LOG	
		Pr	oject I	Name: <u>HN DORBACE (7 100 -</u> Hole Number: <u>HN</u>	88-37
		Pr	oject N	Number <u>, 1677</u> Logged By: <u>M.H</u>	. Lenters .
		דא	rs:	42H/8 Date: October 198	8,
ONTARIO GEOLOGICAL SURVEY ASSESSMENT FILES OFFICE MAD 1 5 1000				<u>L48+00W, 16+255</u> <u>180°</u> . Dip: <u>-45°</u> . Cloim Number: <u>L-</u> Length (m): <u>14</u>	•
SESSME SESSME OFFI	≺ шI	PU	IRPOSE	Test anomalous IP chargeability response along edge of mag high from bedrock chip gold value at RC-109.	, up-ice
ARIO ISSE		From	To	Description	Gold Assays
8	æ	(m)	(m)	CASING REMOVED	(g/tonne)
	AND DESCRIPTION OF THE OWNER.	0.0	25.00	Overburden	
		25.00	40.10	Felsic to Intermediate Metavolcanic Flow Medium green, fine-grained, non-magnetic, weak to moderately phyllitic/schistose, with chloritic carbonate-plagioclase- silica composition, and local biotitic zones. Foliation oriented at 70° to 80° to CA. 3 to 5%, thin, irregular calcite patches/lenses, as well as calcite tension fracture veining. Minor to 1% finely disseminated pyrite.	0.01 - 0.02 (7)
		40.10	135.00	Felsic Volcanic Crystal/Lapilli Tuff Medium grey, fine-grained, massive to weakly foliated, weak to moderately magnetic, weakly calcareous crystal, and fine lapilli tuff. Possibly somewhat reworked as a volcaniclastic. Local, coarser (0.5 to 2 cm), flattened lapilli tuff horizons. Foliation/schistosity oriented at 65° to 85° to CA. 3% calcite blebs and irregular patches, locally weathered out producing coarse vugs. Minor quartz veining. Minor to 0.5% disseminated pyrite.	0.01 - 0.21 (29)
		135.00	143.00	Carbonate Facies Exhalite Horizon, or Carbonate Altered Ash Tuff Light yellowish-brown to creamy tan, massive to wispy laminated, fine-grained, non-magnetic, calcareous, with foliation oriented at 70° to CA. Local irregular silica flood zones/crackling. Minor to 1% disseminated pyrite.	
		143.00	149.00	Pebbly Arenite Medium grey, fine-grained arenite with pebbly sections containing 1 to 15%, small (1 to 20 mm), well flattened, polymictic pebbles. Weak to moderately magnetic. Minor irregular calcite patches/lenses. Foliation oriented at 50° to 70° to CA. Minor pyrite.	0.01 - 0.03 (4)
			149.00	END OF HOLE	
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N PROJECT (Onto))		BSSO MINBR DIAMOND DR		RD					Hole: Page:	Rł	188-37 1			
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illed by:	Bradley Bros. Limited		Azimuth:		180					Claim N		871915			
le Size:	BQ		Dip:		-45					Grid:		st			
re Size:	BQ Gasing Depayed									Basting		8+00¥			
sing:	Casing Removed		Acid Tests	•						Northin Blevati	-	+25\$ vel			
arted:	Oct. 1, 1988		ALIU ICSLA	•						PICAGLI	он. П(
nished:	Oct. 2, 1988		Depth 25.00		Dip -45.0					Purpose	: Te	st IP & M	lag up-i	ice from F	.C-109
gged by:	W.H.Lenters		125.00		-39.0					Length:	14	9.00Metre	8		
te logged:	October 1988									Vert. P		0.0 Netre	S		
gging Nethod:	Log 11									Hor. Pr		1.0 Metre			
asurement System:	Hetric									Ovb. De	pth: 1	.7.8 Hetre	S		
Interval		Description				Sample	Interval	Length	Âu	 Ag		Pyrite		TERATION	~ ~ ~ .
(Netres)						No.	(Netres)	(Metres)	(g/t)	(ppm)	Metalli	ic (\$)	SIL	CARB	SEF
.00 25.00 OVERB	URDRN										******				

Generally medium green, fine grained, weakly foliated, with dull carbonate appearance.

Unit is moderately phyllitic/finely schistose, with chloritic, carbonate-plagioclase-silica composition, and local biotitic zones. Foliation generally oriented at 70 to 80 degrees to the core axis. Locally reactive to HCl.

Generally non-magnetic.

26.00 27.00 Medium brown, biotitic band that is strongly reactive to HCL.
27.00 32.00 Weakly silicified zone, with local pseudobrecciation, and 1 to 3% finely disseminated pyrite.

Complete unit contains 3 to 5%, thin, irregular, white calcite patches/lenses that are oriented subparallel to foliation, and/or more irregularly crosscutting calcite tension filling veins/veinlets. No significant quartz veining.

Relatively competent unit, generally with 25 to 50cm breakage.

NS	25.00	40.10	15.10	n/a	n/a	-	0.5%	WK	¥K
8498	26.00	27.00	1.00 ·	.01	1.50	-	0.5%		
8499	27.00	28.00	1.00	.01	1.10	-	0.5-11		
8500	28.00	29.00	1.00	.01	.70	-	2-3		
8501	29.00	30.50	1.50	.02	1.00	-	1-21		
8502	30.50	32.00	1.50	.01	.60	-	11		
8503	38.00	39.00	1.00	.01	. 50	-	MINOR		
8504	39.00	40.10	1.10	.02	1.40	-	MINOR		

PROJECT (Ont 17)		BSSO NINBRALS CAMADA DIAHOND DRILL		Hole: Page:	HN 8 8	1-37 2		
Interval (Hetres)	Description	Sample No.	Length (Netres)				BRATION CARB	SER

Lower contact relatively sharp, and oriented at 70 degrees to the core axis.

40.10 135.00 FELDSPAR CRYSTAL/LAPILLI TUFP

Generally a medium grey, fine sandy texture. Weakly foliated to massive, weakly to moderately magnetic, and weakly calcareous crystal/lapilli tuff (possibly somewhat reworked in a shallow submarine environment).

Unit locally contains minor, coarser (0.5 to 2cm), well flattened, and metamorphic foliated/flattened, coarser lapilli tuff horizons, as well as minor, finely laminated tuff horizons, generally with gradational contacts.

Foliation/schistosity generally oriented at 65 to 85 degrees to the core axis.

Unit generally contains 3%, small, elongate, calcite blebs/patches, but in the upper few metres these have been weathered out producing a relatively coarse vuggy appearance.

Minor, small quartz veins, including a 10cm vein between 46.45 to 46.55m oriented at 35 degrees to the core axis.

Most of unit has a fine (1 to 2mm), plagioclase arenitic appearance, although the composition and texture suggest it is a fine crystal/lapilli tuff. Unit also contains minor, small (1 to 3mm), subrounded, blue guartz eyes that are locally common (5%) across thin (cm) widths.

Generally massive, relatively hard and competent unit, with 5 to 100cm breakage along foliation planes oriented at 65 to 85 degrees to the core axis. Upper several metres is vuggy and more broken. Rest of unit contains some thin (1cm), incompetant zones adjacent to fractures, and a few weahthered/clay (sericite) altered incompetent zones, including a 40cm band between 92.00 and 92.40 metres.

40.10 100.00 Mostly fine (1 to 2mm), sand-sized crystal/lapilli tuff, with minor ash tuff interbands.

100.00 111.00 Generally coarse lapilli tuff, although metamorphism and compressional deformation have made separation/identification of lapilli and matrix locally difficult.

NS	40.10	135.00	94.90	n/a	n/a	-	MNR-0.5	V.WK	¥K.	WK
8505	40.10	41.00		.03	1.30	-	11			
8506	41.00	12.50		.01	14.10	-	11			
8507	42.50	44.00	1.50	.02	7.60	-	11			
8508	44.00	45.50		.02	2.50	-	0.5%/PO			
8509	45.50	47.00	1.50	.01	1.70	-	HINOR			
8510	47.00	48.50		.01	1.30	-	MINOR			
8511	48.50	50.00		.01	1.10	-	MINOR			
8512		72.50		.01	1.00	-	MINOR			
8513		74.00		.01	1.30	-	MINOR			
8514	86.00	87.50		.02	.90	-	MINOR			
8515		89.00		.01	.90	-	MINOR			
8516				.01	.90	· _	MINOR			
8517	90.50	92.00		.02	1.00	-	MINOR			
8518				.01	.80	-	MINOR			
	107.00			.02	.70	-	0.5%			
	108.50			.01	.90	-	0.5%			
	110.00			.01	.90	-	0.5-11			
	111.50			.02	.80	-	0.5-1%			
	113.00			.01	.80	-	0.5%			
8524	114.50	116.00		.01	.70	-	0.5%			
8525	116.00	117.50	1.50	.02	.70	-	0.5%			
8526	117.50	119.00	1.50	.01	.60	-	0.5%			
8527	119.00	120.50	1.50	.01	.90	-	0.5%			
8528	120.50	122.00		.01	1.60	-	NINOR			
8529	122.00	123.50	1.50	.02	.70	-	MINOR			
	126.50			.16	1.00	-	0.5%			
	131.00			.01	.80	-	MINOR			
8532	132.50	134.00		.02	.70	-	MINOR			
8533	134.00	135.00	1.00	.21	.70	-	NINOR			

H-N PROJECT (O		DA RD				Hole: Page:	HN 8	8-37 3		
[nterval {Hetres}	Description	Sample No.	(Netres)	•	Au (g/t)	Ag (ppm)	•	Pyrite (%)	ALTERATION SIL CARB	SBR
135.00 143.00	 111.00 120.50 Hostly fine (1 to 2mm), sand-sized crystal/lapilli tuff, with minor ash horizons. 120.50 135.00 Hedium grey to medium green, very fine grained, moderately phyllitic to moderately laminated ash tuffs. Green sections are generally phyllitic, while grey to creamy zones are non-magnetic and laminated. Lower contact is gradational into more carbonate rich zone. O CARBONATE FACIES EXHALITE HORIZON Carbonate facies exhalite horizon, or carbonate altered ash tuff horizon. Light yellovish brown to creamy tan, fairly homogeneous coloured, mostly massive, but weakly phyllitic and wispy laminated. Unit is non-magnetic with moderate pervasive reaction to HCL. 14, Very finely disseminated pyrite concentrated in wispy laminations. Unit locally exhibits fine (hairline to a few mm), irregular branching, reddish, silica flood zones/crackling. Follation is oriented at 70 degrees to the core axis. Locally foliation exhibits a tight swirling, and locally the unit exhibits minor pseudobrecciation. Unit locally exhibits fine yellowish colouration, which may indicate minor sphalerite content. Competent unit, but relatively well broken into 5 to 10cm pieces, generally at 70 degrees to the core axis. Lower contact is particularly well broken into a few rubble sections due to a few, late, calcite-lined fractures oriented at a shallow (10 to 25) angles to the core axis, and intersecting the foliation at right angles. Lower contact zone exhibits a few, short intervals with foliation oriented at 0 degrees to the core axis, possibly indicating a small fault zone. 	8534 8535 8536 8537 8538 8539 8539	135.00 143.0 135.00 136.0 136.00 137.0 137.00 138.0 139.00 140.0 140.00 141.0 141.00 142.0 142.00 143.0	0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00 0 1.00	n/a 23 33 59 37 40 90 08	n/a 2.10 2.30 2.20 1.90 1.30 .80 .05		1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%	WK KOD-INT	¥
143.00 149.00) PSANNITIC ARENITE WITH PEBBLY INTERBEDS Nottled, medium grey, fine grained arenite, with pebbly sections containing 1 to 15%, well flattened and metamorphically assimilated, small (1mm to 2cm), polymitic pebbles. Most are elongated beyond	8542	143.00 149.0 143.00 144.5 144.50 146.0	0 1.50	n/a .01 .03	n/a .90 .90	- - -	MINOR MINOR MINOR		

H-N PROJECT (O	DIAMOND DRILL	A D				Hole: Page:	HN 8	8-37 4			
Interval	Description	Sample	Interval	Length	λ 11		GTAV	Pyrite		TERATION	
(Netres)		No.	(Netres)	(Netres)	(g/t)	(ppm)	Metallic		\$1L		SBR
	recognition but were probably originally subrounded. Unit is weak to moderately magnetic, and moderately reactive to HCl, particularly in the matrix material. Minor irregular calcite patches/lenses. Foliation/bedding oriented at 50 to 70 degrees to the core axis. Competent unit, with 20 to 100cm breakage. Lower contact not encountered. 149.00 Bnd of Hole.		146.00 147.50 147.50 149.00					MINOR MINOR			

OMIARIC GEOLOGICAL SURVEY ASSESSMENT FILES OFFICE MAR 15 1989 RECEIVED	Pr NT Lo Az	oject N S: cation imuth	ESSO MINERALS CANADA SUMMARY DRILL LOG Name:Black/2ellack Hole Number: Jumber:Logged By:MJ A2H/8Date:October 19 L48+00W, 13+755Claim Number: L48+00W, 13+755Claim Number: L48+00W, 13+755Claim Number: L48+00W, 13+755Length (m): L48+00W, 13+755Length (m):	Lenters
ASS ASS			RC-109 (anomalous bedrock gold value)	•
NO	From	То	Description	Gold Assays
A CARLES AND	(m) .	(m)	CASING REMOVED	(g/tonne)
	0.0	26.00	Overburden	
	26.00	191.00	Mafic Metavolcanic Pillowed Flows (Relatively Unaltered) Generally dark green to green-grey, very fine-grained, massive, unfoliated, chloritic, non-magnetic and non-calcareous, but including several biotitic (potassic altered?) bands and patches. These zones are brownish coloured, coarser-grained, weakly foliated/schistose at 60° to 75° to CA, often calcitic, and locally magnetic. Locally these zones also contain minor amphibole and garnet porphyroblasts. The unit appears to be a pillowed flow sequence locally exhibiting pillow selvages and amygdules. Unit is moderately fractured by thin (hairline to 1 mm) calcite veinlets and some thicker, irregular calcite patches/veining. Minor quartz veining. Trace to minor disseminated pyrite, but locally 1 to 5% pyrrhotite in thin bands or laminae.	0.01 - 2.60 (39)
		191.00	END OF HOLE	

H-N PROJECT (On))		ESSO MINERAL DIAMOND DRIL						Hole: Page:	HN88-38 1			
Drilled by:	Bradley Bros. Limited		Azimuth:	180					Claim No:	L-871916			
Hole Size: Core Size: Casing:	BQ BQ Casing Removed		Dip:	-45					Grid: Basting: Northing:	West 48+00W 13+75S			
Started: Pinished:	Oct. 2, 1988 Oct. 4, 1988		Acid Tests: Depth A	z. Dip					Blevation: Purpose:	Level Test Xag Lou	r ≴ TP Un-in	ce from RC-	-109
Logged by:	N.H.Lenters		26.00 126.00	-45.0 -42.0					Length:	191.00Metres	5		
Date logged: Logging Method: Measurement System:	October 1988 Log II Hetric		191.00	-38.0					Vert. Proj: Hor. Proj: Ovb. Depth:	141.0 Hetres	5		
Interval (Netres)		Description			Sample No.	Interval (Hetres)	Length (Metres)	Au (g/t)		rey Pyrite allic (%)	ALTERA Sil Ca		-

.00 26.00 OVBRBURDEN

26.00 191.00 MAPIC KETAVOLCANIC PLOWS (FE THOLEIITE)

Generally dark green to green-grey, very fine grained, massive, unfoliated, chloritic, non-magnetic and non-calcareous mafic volcanic flow cut by a few porphyry dykes. Generally unaltered, but includes a few biotitic (weakly potassic altered?) zones.

Above 48.50 metres the unit contains 10 to 25%, very weak to weak, brownish-grey, biotitic bands/zones, ranging from thin fracture bands to larger swirled irregular zones that are several 10's of cm wide. These zones contain fine biotite, as well as up to 10% coarse (1 mm) biotite books, and rarely, 1 mm, pinkish garnet porphyroblasts, or small (0.5mm), black magnetite grains. Biotitic zones are also generally calcitic. Locally, the brown biotitic bands and patches appear like pillow selvages, and/or irregular flow top zones.

Between 48.50 to 74.00 metres the unit contains fewer (5 to 10%) biotitic-calcitic bands, but these often have a moderately developed schistosity oriented at 60 to 70 degrees to the core axis. Locally,

NS	26.00	191.001	65.00	n/a	n/a	-	M-2%/PO
864	35.00	36.50	1.50	.01	1.30	-	MINOR
865	36.50	38.00	1.50	.01	1.50	-	MINOR
866	64.00	65.00	1.00	.02	.50	-	MINOR
867	68.00	69.00	1.00	.01	1.00	-	MINOR
868	69.00	69.65	.65	.03	1.00	-	0.51/20
869	69.65	70.40		.01	.70	-	1 1 P0
870	70.40	71.00	.60		.70	-	1 1 P0
						-	MINOR
						-	0.5%
	75.50					-	0.5%
	76.40	77.00			1.30	-	MINOR
	77.00	77.50			1.30	-	0.5%PO
						-	NINOR
	79.00					-	HINOR
	864 865 866 867 868 869	864 35.00 865 36.50 866 64.00 867 68.00 868 69.00 869 69.65 870 70.40 871 74.00 872 75.00 1873 75.50 1874 76.40 1875 77.00 1876 77.50	864 35.00 36.50 865 36.50 38.00 866 64.00 65.00 867 68.00 69.00 868 69.00 69.65 869 69.65 70.40 870 70.40 71.00 871 74.00 75.00 872 75.00 75.50 1873 75.50 76.40 1874 76.40 77.00 1875 77.00 77.50 1876 77.50 79.00	864 35.00 36.50 1.50 865 36.50 38.00 1.50 866 64.00 65.00 1.00 867 68.00 69.00 1.00 868 69.00 69.65 .65 869 69.65 70.40 .75 870 70.40 71.00 .60 871 74.00 75.00 1.00 872 75.00 75.50 .50 1873 75.50 76.40 .90 874 76.40 77.00 .50 1875 77.00 77.50 .50 1876 77.50 79.00 1.50	864 35.00 36.50 1.50 .01 865 36.50 38.00 1.50 .01 866 64.00 65.00 1.00 .02 867 68.00 69.00 1.00 .01 868 69.00 69.65 .65 .03 869 69.65 70.40 .75 .01 870 70.40 71.00 .60 .01 871 74.00 75.00 1.00 .92 872 15.00 75.50 .50 .03 1873 75.50 76.40 .90 .01 .874 76.40 77.00 .60 .01 1875 77.00 77.50 .50 .07 .876 77.50 79.00 1.50 .02	864 35.00 36.50 1.50 .01 1.30 865 36.50 38.00 1.50 .01 1.50 866 64.00 65.00 1.00 .02 .50 866 64.00 65.00 1.00 .01 1.00 866 64.00 69.00 1.00 .01 1.00 868 69.00 69.65 .65 .03 1.00 869 69.65 70.40 .75 .01 .70 870 70.40 71.00 .60 .01 .70 871 74.00 75.00 1.00 .92 .80 872 75.00 75.50 .50 .03 1.00 1873 75.50 76.40 .90 .01 1.30 1874 76.40 77.00 .60 .01 1.30 1875 77.00 77.50 .50 .07 1.30 1876 77.50 79.00 1.50 .02 1.20	864 35.00 36.50 1.50 .01 1.30 - 865 36.50 38.00 1.50 .01 1.50 - 866 64.00 65.00 1.00 .02 .50 - 866 64.00 65.00 1.00 .01 1.00 - 866 69.00 69.00 1.00 .01 1.00 - 868 69.00 69.65 .65 .03 1.00 - 869 69.65 70.40 .75 .01 .70 - 870 70.40 71.00 .60 .01 .70 - 871 74.00 75.00 1.00 .92 .80 - 872 75.00 75.50 .50 .03 1.00 - 873 75.50 76.40 .90 .01 1.30 - 874 76.40 77.00 .60 .01 1.30 - 875 77.00 77.50 .50 .07 1.30 - <t< td=""></t<>

H-N PROJECT (On

Hole: HN88-38 Page:

ALTERATION

CARB

SER

2

Description Aq "Grey Pyrite Interval Sample Interval Length λu (Netres) (Netres) (g/t) (ppm) Metallic (%) (Netres) No. SIL

> small garnets and amphibole crystals (blades) occur within these recrystallized zones. These zones are generally irregularly swirled and oatchy. Biotitic zones often have a somewhat variable and swirled foliation, but are generally oriented at 60 to 75 degrees to the core axis Trace to minor disseminated pyrite, locally concentrated along fractures. Pyrrhotite is common between 64.00 and 90.00m especially between 69.00 to 71.00 and 82.00 to 84.00m, as thin bands, wavy stringers/laminae, and blebs in slightly siliceous bands 1 to 5 cm wide containing 1 to 5% pyrrhotite. Bands are spaced 0.5 to 2 metres apart and may be altered flow edges?. A few of the bands contain fine grained semi-massive pyrrhotite.

- 74.00 129.50 The unit is brownish grey to greenish grey with large zones of weak to moderately pervasively biotitic (potassic) altered mafic metavolcanic containing a minor to moderate amount of fine, calcite tension fracturing. Section is massive, fine grained and non-magnetic.
- 129.50 139.50 Dark green, fine grained, massive, relatively unaltered with a minor to moderate amount of calcitic fracturing that is locally intense, forming a 10 to 20cm wide pseudobreccia zone.
- 139.50 151.00 Nottled medium green, calcitic mafic volcanic with abundant small (3mm long), amphibole porphyroblasts and weak biotitic alteration with a foliation orientation at 50 to 60 degrees to the core axis.
- 151.00 164.50 Dark green, fine grained, massive, relatively unaltered mafic metavolcanic.
- dark green, massive, fine grained, relatively 164.50 191.00 Minor unaltered zones with large patches of dark brownish grey, weakly schistose biotitic (potassic) altered mafic metavolcanic. Biotitic altered zones are weakly schistose and often have abundant needle-like, dark green amphibole porphyroblasts, although the latter also occur in some fine grained, massive, chloritic mafic volcanic sections.

Intrusive dykes occur between:

53.30 53.55 Sharp contacts oriented at 70 degrees to the core axis.

75.00 76.40 Sharp contacts oriented at 80 degrees to the core axis, and

80.00	\$1.00	1.00	.01	1.30	- MINOR
81.00	82.00	1.00	.01	1.30	- MINOR
82.00	83.00	1.00	.02	1.20	- 3-4NPO
83.00	84.00	1.00	.01	.60	- 5-10%PO
84.00	\$5.00	1.00	.01	.90	- 1120
85.00	86.00	1.00	.02	1.00	- MINOR
86.00	87.50	1.50	2.50	1.70	- 0.5 % PO
87.50	89.00	1.50	.02	.80	- 0.5%PO
89.00	90.00	1.00	.03	.90	- 1%PO
100.00	101.00	1.00	.02	1.50	- 1-2 % PO
104.30	105.10	.80	.01	.80	- 2-3 % PO
105.10	107.00	1.90	.03	1.00	- 0.5%PO
128.00	129.00	1.00	.01	1.80	- HINOR
129.00	129.50	.50	.02	1.60	- 11
129.50	130.00	.50	.01	1.50	- WINOR
140.00	141.50	1.50	.01	1.20	- 0.5%PO
141.50	142.50	1.00	.01	.50	- MINOR
142.50	143.30	.80	.02	1.00	- 23
143.30	144.30	1.00	.02	1.20	- 23
144.30	145.30	1.00	.01	.50	- MINOR
145.30	146.00	.70	,01	1.00	- MINOR
146.00	146.90	.90		.30	- 1 % PO
		1.00	.01	.50	- MINOR
161.00	162.00	1.00	.01	1.40	- 5-6 % PO
162.00	163.00	1.00	.02	.40	- MINOR
	81.00 82.00 83.00 84.00 85.00 85.00 87.50 89.00 100.00 104.30 105.10 128.00 129.00 129.00 140.00 141.50 142.50 143.30 145.30 145.30	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	\$1.00 $$2.00$ 1.00 $.01$ $$2.00$ $$3.00$ 1.00 $.02$ $$3.00$ $$4.00$ 1.00 $.01$ $$4.00$ $$5.00$ 1.00 $.01$ $$4.00$ $$5.00$ 1.00 $.01$ $$4.00$ $$5.00$ 1.00 $.01$ $$4.00$ $$5.00$ 1.00 $.01$ $$5.00$ $$6.00$ 1.00 $.02$ $$6.00$ $$7.50$ 1.50 2.60 $$7.50$ $$9.00$ 1.50 $.02$ $$9.00$ 90.00 1.00 $.03$ 100.00 101.00 1.00 $.02$ 104.30 105.10 $.80$ $.61$ 105.10 107.00 1.90 $.03$ 128.00 129.00 1.00 $.61$ 129.00 129.50 $.50$ $.02$ 129.00 129.50 $.50$ $.02$ 129.00 129.50 $.50$ $.02$ 129.00 142.50 1.60 $.01$ 140.00 141.50 1.50 $.01$ 142.50 143.30 $.80$ $.02$ 143.30 144.30 1.00 $.01$ 145.30 146.00 $.70$ $.01$ 145.30 146.00 $.90$ $.03$ 160.00 161.00 $.00$ $.01$	\$1.00 $$2.00$ 1.00 $.01$ 1.30 $$2.00$ $$3.00$ 1.00 $.02$ 1.20 $$3.00$ $$4.00$ 1.00 $.01$ $.60$ $$4.00$ $$5.00$ 1.00 $.01$ $.90$ $$5.00$ $$6.00$ 1.00 $.02$ 1.00 $$6.00$ $$7.50$ 1.50 2.60 1.70 $$7.50$ $$9.00$ 1.50 $.02$ $.80$ $$9.00$ 90.00 1.00 $.03$ $.90$ 100.00 101.00 1.00 $.02$ 1.50 104.30 105.10 $.80$ $.61$ $.80$ 105.10 107.00 1.90 $.03$ 1.00 128.00 129.00 1.00 $.01$ 1.80 129.00 129.50 $.50$ $.02$ 1.60 140.00 141.50 1.50 $.01$ $.50$ 144.30 1.00 $.01$ $.50$ 143.30 144.30 1.00 $.02$ 144.30 145.30 1.00 $.50$ 145.30 146.00 $.70$ $.01$ 146.00 146.90 $.90$ $.03$ 160.00 161.00 $.00$ $.50$

H-N	A PROJECT (Ont		ESSO MINERALS Q DIAMOND DRILL RE				Hole: Page:	H N 8 :	8-38 3			
	Interval (Metres)	Description		Sample No.	Interval (Metres)		λg (ppm)		Pyrite (%)	AL1 SIL	IBRATION CARB	SER

25cm wide foliated biotite altered schist contact zones. 142.50 144.30 Sharp contacts oriented at 80 degrees to the core axis, and containing 1 to 2% finely disseminated pyrite.

The above dykes are very hard and massive, consisting of 20 to 30%, 1 to 3mm, subhedral to euhedral, white, plagioclase in medium to dark brownish-grey, very fine grained to aphanitic groundmass. Larger dykes also exhibit 5%, 1 to 2mm wide biotite books, and contain somewhat coarser, and lighter coloured, plagioclase in the groundmass.

Unit is moderately (5 to 10%) fractured by thin (hairline to 1mm), subplanar, calcitic veinlets, and thicker calcitic patches and anastomosing veining/alteration. Most are tension fractures forming herring bone and en echelon fracture patterns at various orientations to the core axis. Occasionally the fractures centre, thin (1cm) blotite altered bands. Locally calcitic fracturing is intense forming pseudobreccia zones.

No significant veining, but a few veins with widths greater than 0.5 cm occur between:

62.80 62.90 Quartz vein with irregular contacts.

134.75 134.90 Irregular coarse grained quartz vein with contacts oriented at 75 degrees to the core axis.

175.40 175.45 Irregular quartz vein with contacts oriented at 45 degrees to the core axis.

177.90 177.95 Coarse grained quartz vein with contacts oriented at 45 degrees to the core axis.

Between 85 and 110m the unit is very massive and fine grained, locally exhibiting small zones with amygdules and minor, small (1mm), subhedral, white plagioclase phenocrysts.

129.50 130.00 Section containing several large (1 to 5mm), calcite amygdules.

Competent core, generally with 25 to 100 cm breakage along fractures oriented at 45 to 80 degrees to the core axis. Lower contact not encountered. 191.00 Bnd of hole.

			ESSO MINERALS CANADA SUMMARY DRILL LOG				
•	Pr	oject N	Name: <u>HN Blackeloch</u> Hole Number: <u>HNE</u>				
	Pr	oject N	lumber <u>1 1677</u> . Logged By: <u>M. H</u>	l. Lenters			
	N1	rs:	42H/8 Date: October 198				
ONTARIO GEOLODICAL SURVEY ASSESSMENT FILES OFFICE MAR 1 5 (389 RAR 1 5 (389 RECEIVED	Az	imuth:	<u>L40+00W, 12+50S</u> <u>180°</u> Dip: <u>-44°</u> <u>Length (m)</u> : <u>194</u> <u>Claim Number: 1</u> <u>Length (m)</u> : <u>194</u> <u>Length (m)</u> : <u>194</u> <u>Length (m)</u> : <u>194</u>	•			
MAR MAR	From	To	Description	Gold Assays			
	(m)	(m)	CASING REMOVED	(g/tonne)			
20	0.0	7.00	Overburden				
	7.00	11.25	Mafic Metavolcanic with biotitic, schistose bands Very fine-grained, wavy banded and laminated, weakly phyllitic, hard, dense, and non-calcareous. Composed of 50%, massive, dark green, mafic metavolcanic bands, and 50%, dark grey to sandy brown, cherty/siliceous interflow(?) metasediment, or schistose metavolcanic bands. Banding and foliation generally oriented at 70° to 80° to CA. 5% calcite, tension and crackle microfracturing. Several, 1 to 5 cm wide bands with 1 to 30%, finely laminated to fracture filling pyrrhotite, as well as minor pyrite and chalcopyrite.	0.01 - 0.02 (6)			
	11.25	22.25	Plagioclase-Chlorite-Amphibole Schist Fine-grained, weakly schistose, plagioclase-silica-chlorite (amphibole) unit, intermottled with medium-grained, weak to moderately schistose plagioclase-silica-biotite sections, producing irregularly alternating bands/patches 1 to 50 cm wide, with a fairly homogeneous, dark green-brown to grey- brown colour. Weak to moderately foliated at 60° to 80° to CA. No significant veining. Generally minor pyrite, but with thin zones containing 1 to 3%.	0.01 - 0.02 (2)			
	22.25	33.50	Mafic Metavolcanic with biotitic, schistose bands 22.25-30.80 Similar to unit between 7.00 and 11.25 metres. 5% calcite microfracturing. Minor pyrite. 30.80-33.50 Same as upper section, but pyritic (2 to 3%), locally magnetic, and weakly carbonate (calcite) and sericite? altered.	0,01 - 0.03 (3)			
	36.50	59.30	0.01 - 0.03 (9)				

	From	Tò	Description	Gold Assays
	(m)	(m)	HN88-39	(p/tonne)
• •			52.60-57.20 Interflow Metasediment Medium to dark brown, fine-grained, non-magnetic, non-calcareous, well laminated siltstone and fine-grained sandstone with minor grey, chert horizons. No veining. 0.5% pyrite	
	59.30	104.00	Schistose Mafic Metavolcanic with Minor Epidote-Carbonate Alteration Bands Generally dark greenish-black to brownish-black, fine-grained, non-magnetic to magnetic, non-calcareous and variably silicified. Weakly foliated and epidote-carbonate altered/banded at 40° to 60° to CA. One 2 metre intrusive dyke. No significant veining although there is abundant silica-calcite tension fracturing. Minor to 3% disseminated pyrite.	0.01 - 0.14 (27)
• • • •	104.00	185.30	Weak to locally Moderately Altered Quartz Diorite Intrusive Biotite, plagioclase porphyritic quartz diorite. Variably altered, ranging from relatively unaltered, to weakly silicified with minor quartz veining, and locally moderately to intensely silicified +/- sericitized with 5 to 15% quartz veining. Generally coarse-grained, vuggy, well broken unit with transi- tional contacts between variations in alteration intensity. Minor to abundant (10-20%), irregular to subplanar quartz veining. Minor to 4% disseminated pyrite, and locally minor to 0.5% grey metallic minerals, generally associated with quartz veining in white, silicified sections of the intrusive 176.00-185.30 Shear foliated intrusive with Quartz Vein Breccia/Fault Zone between 180.20 to 183.05	0.01 - 1.40 (80)
•	185.30	194.00	Sheared/Schistose Mafic Metavolcanic Dark greenish black, fine-grained, weakly magnetic, weak to moderately shear foliated at 55° to 70° to CA. Locally weakly carbonate-epidote altered. Minor quartz-calcite veining. Minor pyrite.	0.01 - 0.10 (7)
		194.00	END OF HOLE	
•				

H-N PROJECT (Ont) 	BSSO MINERALS CHARDA	Hole: HN88-39 Page: 1
Drilled by: Hole Size: Core Size: Casing: Started: Finished: Logged by:	Bradley Bros. Limited BQ BQ Casing Removed Oct. 13, 1988 Oct. 15, 1988 M.H.Lenters	Azimuth: 180 Dip: -44 Acid Tests: Depth Az. Dip 23.00 -44.0 107.00 -40.0	Claim No: L-871908 Grid: West Basting: 40+00W Worthing: 12+50S Blevation: Level Purpose: Extend L40W Drill Fence Length: 194.00Netres
Date logged: Logging Method: Measurement System: Interval (Metres)	October 1988 Log II	194.00 -39.0 Sample Interval Leng No. (Metres) (Metr	Vert. Proj: 127.0 Metres Hor. Proj: 146.00 Metres Ovb. Depth: 5.0 Metres

.00 7.00 OVBRBURDEN

7.00 11.25 NAFIC NETAVOLCANIC PLOWS (PE THOLBIITE)

Very fine grained, wavy banded and laminated, weakly phyllitic, hard, dense and non-calcareous. Winor to moderate development of thin (hairline), tension microfracturing containing white calcite.

Composed of 50%, massive, dark green, very fine grained, mafic metavolcanic bands, and includes 50%, dark grey to sandy brown, cherty, interflow? metasediment horizons. The metasediments range from thin laminae to bands a few cm thick, but are wavy to irregular, and locally patchy and/or anastomosing. Where the laminated brown-grey siliceous bands are well developed, the unit appears sedimentary, but where it is patchy, it appears that it could also be altered metavolcanic bands.

The grey-brown metasediment bands are slightly siliceous, and exhibit a weak phyllitic appearance due to biotite content.

Banding and foliation within the unit are generally oriented at 70 to 80 degrees to the core axis, but the irregular wavy character has a range between 50 to 90 degrees to the core axis.

NS	7.00	11.25	4.25	n/a	n/a	- 1-5%PO
1903	7.00	7.60	.60	.02	.90	- 5-12%20
1904	7.60	8.00	.40	.02	1.50	- 2 % /PO
1905	8.00	9.00	1.00	.02	1.40	- 2-4 \ /PO
1905	9.00	9.40	.40	.01	.50	- 8-12%PO
1907	9.40	10.00	. 60	.02	1.20	- 0.5%/PO
1908	10.00	11.25	1.25	.02	1.10	- 0.5%/PO

H-N PROJECT ()A ID					Hole: Page:	HN 8	8-39 2		
Interval (Netres)	Description	Sample No.			Length (Netres)	Au (g/t)	Ag (ppm)		Pyrite (%)	TERATION CARB	SBR
	Unit contains 5%, tension and crackle microfracturing, in irregular ladder and en echelon patterns. Unit contains several, 1 to 5 cm wide zones/bands containing abundant (1 to 30%), finely wispy laminated/disseminated, to discontinuous fracture filling pyrrhotite, as well as minor pyrite, and trace chalcopyrite. Where best developed the sulphides occur as swirled, wispy laminations. These zones are moderately to strongly magnetic, within a generally non-magnetic unit. Wo significant veining. Hard, competent unit, generally with 10 to 50 cm breakage along fractures oriented at 30 to 90 degrees to the core axis. Lower contact is transitional.										
11.25 22.2	5 PLAIGIOCLASE-CHLORITE-AMPHIBOLE SCHIST Pine grained (up to 1mm), generally weakly schistose, plagioclase-silica-chlorite (amphibole) unit, intermottled with medium grained, weak to moderately schistose plagioclase-silica-biotite sections, producing irregularly alternating bands/patches 1 to 50 cm wide, with a fairly homogeneous, dark green-brown to grey-brown colour. The unit also contains a few, thin (1 to 10cm), dark grey, aphanitic, siliceous, massive bands/patches similar to those in the overlying unit. The various rock compositions form irregular bands and patches that grade both quickly and/or slowly, and often irregularly into one another. Weak to moderately well developed compositional banding and foliation oriented at 60 to 80 degrees to the core axis.	1909	14.00	15.0	5 11.00 0 1.00 0 1.00	n/a .01 .02	n/a .90 1.30	- 0	.5%/P0 .5%/P0 HINOR		

Unit contains minor, thin (1 to 5mm), light green, pinch and swell, epidote-carbonate-garnet alteration bands that parallel foliation.

Wavy patchy compositional banding gives the unit a layered appearance that is mostly metamorphic in origin, but could parallel original metasediment/tuff compositional banding.

Dark green, very fine grained, massive sections exhibit a well developed, calcite microfracturing, while the coarser, more schistose sections contain 2 to 5%, more irregular, diffuse and patchy, thin (hairline to 2 mm), calcite veining.

Unit is non-magnetic.

N PROJECT (Or	BSSO MINERALS DIAMOND DRILL	A D					Hole: Page:	HN80-39 3		
Interval {Netres}	Description	Sample No.			Length (Netres)	Au (g/t)	Ag (ppn)	Grey Pyrite Metallic (%)	ALTERATION SIL CARB	 Si
	No significant veining. Generally trace to minor pyrite, although a few, dark green, fine grained, massive zones similar to those in the overlying unit contain 1 to 3%, wispy disseminated pyrrhotite and pyrite. Relatively competent unit, generally with 10 to 100 cm breakage along foliation or fractures oriented at 40 to 70 degrees to the core axis. Lower contact is transitional.									
22.25 30.80	<pre>HAFIC METAVOLCANIC FLOWS (FE THOLEHITE) Similar to unit between 7.00 and 11.25 metres. Dark green, very fine grained, massive, homogeneous, chloritic, mafic metavolcanic with dark grey, aphanitic, weakly biotitic and phyllitic, siliceous/cherty interbands. The latter constitute about 75% of the unit above 25.50m, and about 25% of the unit below 25.50 metres. The grey, cherty interbands/patches are less planar and less distinct than in the upper unit, and are often irregularly anastomosing, locally appearing to pervasively alter the massive, fine grained, green sections. Unit has a weak to moderately swirled and mottled appearance, but banding and foliation are generally oriented at 65 to 80 degrees to the core axis Unit also includes a few bands/patches of coarser grained, schistose silica-plagioclase-biotite altered rock that is more common in the overlying unit. Unit is generally non-magnetic, but includes a few, thin (lcm), magnetic bands near the lower contact zone. The grey cherty bands locally give the unit a metasedimentary appearance, but the dark green, fine grained massive sections appear to be mafic volcanic in origin. Locally, the latter exhibit variable, but pervasive, alteration changes to the grey cherty bands suggesting that these may be metamorphic and not sedimentary in origin. 5% Calcite veining, as thin (hairline), microfracturing that is best developed in the massive dark green sections. Locally, thin bands or veins of yellowish green epidote-carbonate alteration are oriented subparallel to the foliation direction. Pervasive to irregular calcitic patches also occur in the dark green, massive, homogeneous, metavolcanics in the lower part of the unit.</pre>	1911 1912	22.25 22.50 24.00 30.00	24.00 25.00	1.50 1.00	n/a .01 .03 .02	n/a 1.00 1.30 .50	- 0.5%/PO - MINOR - MINOR - NNR-0.5		

B PROJECT (Ont 27)		BSSO WINERALS CONDA DIAMOND DRILL			Hole: Page:		HN88-39 4		\bullet	
									۲	
Interval (Netres)	Description	Sample No.	Interval (Hetres)	Length (Netres)	Au (g/t)	Ag (ppm)	Grey Netallic		ALTERATION SIL CARB	SBR

No significant veining.

Minor pyrite, locally more common in the grey cherty sections. Hard competent unit, generally with 25 to 100 cm breakage along fractures at various angles to the core axis. Local, 10 to 20cm wide, rubble zones. Lower contact is transitional.

30.80 33.50 WAPIC MBTAVOLCANIC PLOWS (PE THOLBIITE)

Same as the overlying unit, but pyritic, locally magnetic, and weakly carbonate (calcitic) and sericite? altered.

Unit exhibits the same interbanding of fine grained, medium green, schistose zones, and grey, cherty bands as the overlying unit, but these are now more subdued and irregularly intermixed.

Banding and foliation are oriented at 65 to 80 degrees to the core axis. Unit is less competent and more broken than the overlying units, including abundant calcite-sericite coated slip fractures generally orientated at 65 to 85 degrees to the core axis.

Generally very weakly to non-magnetic, but many of the grey cherty bands are darker grey and strongly magnetitic, probably containing fine magnetite.

The complete unit contains 2 to 3%, wispy laminated, and finely disseminated pyrite that locally constitutes over 10% across thin (cm) zones.

No significant veining, but well developed calcitic fracturing and calcite-sericite slips.

Lower contact is gradational.

33.50 36.50 CARBONATE- AND/OR SILICA-SULPHIDE PACIES IRON FORMATION

33.50 35.00 Medium brownish-green to creamy brown, well-laminated/banded, carbonate rich section containing 5 to 10%, finely disseminated and wispy lamianted pyrite. Pyrite is evenly disseminated throughout the unit. Banding and laminations are oriented at 70 degrees to the core axis. Unit is weak to moderately reactive to HCl, and is generally non-magnetic with a few, thin, weak to moderately magnetic cherty bands.

NS	33.50	36.50	3.00	n/a	n/a	-	2-10%	
1917	33.50	34.00	.50	.01	.80	•	4-71	
1918	34.00	35.00	1.00	.01	.60	-	6-10%	
1919	35.00	36.00	1.00	.01	.50	-	2-31	
1920	36.00	36.50	.50	.03	.60	-	11	

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RS	30.80	33.50	2.70	n/a	n/a	-	2-5%
1914	31.00	32.00	1.00	.01	1.00	-	0.5%
1915	32.00	33.00	1.00	.02	.70	-	3-51
1916	33.00	33.50	.50	.01	.30	-	1-61

H-N PROJECT (On1-7) BSSO MINERALS Hole: HN88-39 DIAMOND DRILL Page: 5 Description Grey Pyrite ALTERATION Interval Sample Interval Length Au λq (Netres) (Netres) (q/t) (ppm) Metallic (%) CARB (Metres) No. SIL SER

.

Unit is weak to moderately crackled and fractured, with small offsets along fractures. Well developed slip fracturing, generally oriented parallel to the foliation, with calcite+/-sericite (icing sugar) coatings on fracture surfaces. Unit contains no significant veining. Unit is somewhat incompetent, with numerous slip surfaces and a pervasive calcitic alteration that is somewhat weathered away leaving a finely porous rock unit. Upper and lower contacts are gradational.

35.00 36.50 Dark grey to black, hard, cherty, moderately to strongly schistose/sheared? section containing 1 to 3%, finely laminated to vispy disseminated pyrite. Laminations and banding are oriented at 60 to 70 degrees to the core axis. Locally the unit contains a few, small (1 to 5cm), diffuse, boudinaged bands and footballs of vaguely porphyritic intrusive dyke material. These could be thin dykes that have been deformed within the unit, and could possibly be the source of some of the alteration/pyrite in this unit. Unit is moderately reactive to HCl, and strongly reactive along several foliation/banding subparallel, hairline to lmm, fracture veinlets. No large veining. Unit contains several foliation/banding parallel slips, often with calcite and green sericite coatings. Relatively hard, competent unit, but moderately broken into 5 to 25cm pieces, generally parallel to the foliation. Upper and lower contacts are gradational.

36.50 52.60 SCHISTOSE, BIOTITIC MAPIC METAVOLCANIC

Intermottled, very fine grained, medium to dark green, massive, homogeneous, chloritic metavolcanic, with brown, fine grained, biotitic zones/patches. The latter also locally exhibit a yellowish colour due to increased amounts of carbonate, is slightly coaser grained, and more phyllitic. The unit also contains a few brownish grey, siliceous bands that are more common in the overlying units. Locally the unit exhibits gradational changes along fractures from green, relatively unaltered

KS	36.50	52.60	16.10	n/a	n/a	- 0.5%/PO
1921	36.50	37.50	1.00	.02	.70	- 0.5-11
1922	37.50	38.40	.90	.01	1.10	- MNR-14
1923	44.00	45.00	1.00	.02	.60	- MINOR
1924	45.00	46.00	1.00	.01	.50	- MINOR
1925	46.00	46.50	.50	.01	.50	- MINOR
1926	46.50	47.00	.50	.03	.50	- 2-3%/PO

H-N PROJECT (OC) 7)		BSSO NINBRALS CADA DIAMOND DRILL				Hole: Page:	HN 8	8-39 6			
Interval (Metres)	Description	Sample No.	Interval (Netres)	Length (Netres)	Au (g/t)	Ag (ppm)		Pyrite (%)	AI SIL	TERATION CARB	SER

sections to grey, siliceous, or to brown, biotitic zones, suggesting the latter are in part alteration products of the former.

Unit also includes a few, thin (1 to 5cm), coarser, schistose, chlorite-biotite-calcite-plagioclase zones that are irregularly swirled, as well as a few, thin, lime green-yellow epidote-carbonate alteration bands. Unit also includes one 5cm epidote-garnet band oriented at 90 degrees to the core axis, between 36.70 to 36.75m, containing 10% pyrrhotite, and lesser pyrite and chalcopyrite.

Unit is generally weakly to strongly magnetic with small (0.5mm) disseminated magnetite grains locally visible.

Unit contains a moderate to intense development of calcitic microfracturing, particularly in finer grained, massive sections.

Unit contains a few, thin (2 to 5mm), subplanar to wormy (ptygmatic) guartz veins.

Unit locally has a pseudobrecciated to brecciated appearance due to alteration banding along, and adjacent to, intense microfracturing, but also includes a breccia zone.

44.00 46.00 Pault Breccia. Breccia consists of abundant, irregular, subangular, 0.5 to 5cm, fragments in massive to moderately sheared and foliated, fine grained, black to dark green, hard, siliceous matrix with a mafic volcanic composition. Pragments are mostly dark grey and cherty, similar to the cherty bands in the overlying unit, but include isolated, angular, medium grey, intrusive dyke fragments. Section is generally massive and has an annealed, silicified appearance, although locally it has a moderately well developed shear foliation oriented at 50 to 60 degrees to the core axis. 3 to 5%, thin (hairline to 2mm), discontinuous, calcite, tension microfracturing cuts across both fragments and matrix. Small fractures also locally offset breccia fragments by a few mm. No large veining. Minor amounts of disseminated pyrite. Transitional upper and lower contacts from the patchy biotitic altered, fine grained, chloritic metavolcanics above and below, which are similar in mafic composition to the matrix material of this breccia zone.

Below the annealed fault/breccia zone, the unit is moderately to

I-N PROJECT (O	DIAMOND DRILL					Hole: Page:	HN 8	8-39 7			
Interval (Metres)	Description	Sample No.	Interval (Hetres)	Length (Netres)	Aa (g/t)	•	-	Pyrite (%)	AL SIL	TBRATION CARB	SER
	intensely biotite altered, including several fine grained, homogeneous, non-magnetic, brown, biotitic zones that contain 10 to 40%, 1 to 3mm, subrounded, brownish, poorly developed, poikioblastic, garnet porphyroblasts. These are locally weakly deformed into swirled or wavy foliated patterns. Unit is relatively competent and hard, generally with 25 to 100 cm breakage. Lower contact is transitional.										
52.60 57.20	 INTERFLOW METASEDINENT Medium to dark brown, fine grained, well laminated siltstone, to very fine grained sandstone, with some thin (0.5 to 10cm), medium grey, hard, aphanitic, chert bands. Bedding and laminations are slightly wavy, but planar, and oriented at 60 to 85 degrees to the core axis. Unit is non-magnetic, non-calcareous with minor, thin, irregular, calcitic veining subparallel to bedding, as well as local zones of calcitic, tension microfracturing. No significant veining. 0.5% Disseminated pyrite, generally concentrated along some bedding laminae. Lower contact is transitional, and has been taken as the top of a cherty band, below which the underlying unit is greener in colour, lacks laminations, and has a distinct volcanic texture. 		52.60 57. 56.00 57.		n/a .01	n/a 1.50	-	0.5% MINOR			
57.20 59.30	D SCHISTOSE, BIOTITIC MAFIC NETAVOLCANIC Similar to the unit between 36.50 to 56.50m above the thin metasiltstone unit. 50%, Brownish-green, biotitic altered mafic metavolcanic, and 50%, dark, laminated, chert bands. The latter occur between 57.20 to 57.45m, and 58.65 to 59.30 metres. Unit contains minor, thin (0.5cm), wormy (ptygmatic) guartz veining, and minor, irregular calcite veining/patches and tension microfracturing. Minor finely disseminated and fracture controlled pyrite.	1928	57.20 59. 57.20 58. 58.65 59.	65 1.45	n/a .01 .02	n/a 1.10 1.40	- X	MINOR KR-0.5 KR-0.5			

H-M PROJECT (Ont 27)	ESSO NINERALS CANADA DIAMOND DRILL	Hole: Page:	HN88-39 B	\bullet
Interval Description (Netres)	Sample Interval Bo. (Netres)	Length Au Ag (Netres) (g/t) (ppm)	Grey Pyrite Metallic (%)	ALTERATION SIL CARB SER

Lower contact gradational.

59.30 104.00 SCHISTOSE MAPIC METAVOLCANIC WITH BPIDOTE-CARBONATE BANDS

Generally dark greenish black to brownish black to greyish black, fine grained, non-magnetic to magnetic, non-calareous, variably silicified and relatively homogeneous in appearance.

Above 75 metres, and between 79.00 to 79.50, and 86.00 to 102.00 metres, unit is not silicified, is greener, and exhibits a fine the plagioclase-amphibole intergrowth typical of mafic metavolcanic flow units. These zones also exhibit some potassic (biotite) alteration, particularly at the upper contact with the overlying unit, and the two contact zones with an intrusive dyke. These biotitic zones also contain some calcitic microfracturing but much less than is common in the overlying units. Locally the unit exhibits epidote coated microfracturing. These zones contain minor, to locally 1 or 2%, finely disseminated pyrite as well as minor, thin (0.2 to 1cm), irregular, wormy (ptyqmatic) quartz veining.

62.65 65.00 Feldspar Porphyritic Quartz Diorite Dyke. Medium, slightly pinkish grey, hard, massive to weakly foliated at 60 to 70 degrees to the core axis. 10 to 30%, white to pinkish white, subhedral to diffusely resorbed, 1 to 5mm, plagioclase phenocrysts in a finer grained plagioclase dominant matrix. Unit contains 5 to 10% biotite, 0.5% finely disseminated pyrite, and 5%, thin (0.5 to 1cm), subplanar to wormy and irregular, quartz veining. Upper and lower contacts are sharp and oriented at 65 degrees to the core axis.

Below 75m, except for a few, thin, zones including 79.00 to 79.50m, the unit is dark green-black to dark grey, moderately to strongly magnetic, hard, exhibits a mottled looking silicification, and locally exhibits a weak shearing. Unit contains 10 to 15%, quartz-silica, as well as silica-calcite in irregular crackle and tension gash fractures, but these are as often diffuse in appearance and weakly foliated. 75 to 86 and 102 to 104 metres, the unit is moderately silicified, and 86 to 102 metres, the unit is weakly silicified with minor bands of (weak) epidote alteration. Minor, thin (1 to 5mm), weak epidote-carbarbonate mottled

NS	59.30	104.00	44.70	n/a	n/a	-	0.5-31	WK-NOD	¥.WK	UN-VK
1930	62.00	62.65	.65	.01	.40	-	0.5%			
1931	62.65	63.30	.65	.01	2.10	-	MINOR			
1932	63.30	64.00	.70	.01	2.00	-	0.5%			
1933	64.00	65.00	1.00	.02	2.10	-	1-24			
1934	65.00	66.50	1.50	.01	.70	-	0.5-1%			
1935	66.50	68.00	1.50	.01	.80	-	0.5-11			
1936	68.00	69.50	1.50	.01	1.10	-	MINOR			
1937	69.50	71.00	1.50	.02	1.30	-	0.5%			
1938	74.00	75.00	1.00	.02	.80	-	0.5%			
1939	75.00	76.00	1.00	.13	1.00	-	2-31			
1940	76.00	77.00	1.00	.01	.50	-	2-31			
1941	77.00	78.50	1.50	.01	.80	-	13			
1942	78.50	80.00	1.50	.01	1.20	-	- 11			
1943	80.00	\$1.50	1.50	.02	.80	-	2-31			
1944	81.50	83.00	1.50	.01	.60	-	2-31			
1945	83.00	84.50	1.50	.01	. 60	-	23			
1946	\$4.50	86.00	1.50	.01	.50	-	1-23			
1947	\$6.00	87.50	1.50	.03	.50	-	11			
1948	\$7.50	\$9.00	1.50	.01	.50	-	0.5-1%			
1949				.02	.50	-	0.5%			
1950	90.50	92.00	1.50	.04	.30	•	0.5%			
1951		93.50	1.50	.02	.30	-	0.5%			
1952		95.00	1.50	.01	.60	-	0.5%			
1953				.01	.80	-	MNR-0.5			
		102.00	1.00	.01	.60	-	MINOR			
		103.00	1.00	.02	.40	-	0.5-11			
1956	103.00	104.00	1.00	.14	.20	-	2-3\$			

H-N PROJECT (Ont		BSSO MINBRALS CONDA DIAMOND DRILL				Hole: HNØ Page:		8-39 9	\bullet	
Interval (Hetres)	Description	Sample No.	Interval (Hetres)	Length (Netres)	Au (g/t)	Ag (ppm)	Grey Metallic		ALTERATION SIL CARB	SBR

alteration adjacent to some fractures, and some silica-carbonate veins. These bands/zones are generally slightly lighter green to brownish buff coloured. Below 89 metres this alteration begins to form anastomosing bands that are up to a few cm wide and light green to cream coloured. Bpidote banding, weak shearing, and locally the calcitic/silica tension fracturing are oriented at 40 to 60 degrees to the core axis.

Unit contains no significant (large) quartz veining, although there is abundant tension fracture veining.

Silicified metavolcanic unit contains abundant (1 to 3%), finely disseminated pyrite, concentrated in wispy foliated patches and zones generally in association with the silica and silica-calcite tension fracture velocity.

Hard, very competent unit, with 50 to 150 cm breakage often along planar fractures oriented at various angles to the core axis.

Lower contact is diffuse and gradational across a 0.5 metre wide zone into the underlying intrusive, with the contact probably oriented at approximately 20 to 30 degrees to the core axis.

104.00 185.30 FP QUARTE DIORITE INTRUSIVE - WK TO HOD ALTERED

Variably altered ranging from relatively unaltered, to weakly silicified with minor guartz veining, and locally moderately to intensely silicified and weakly to moderately sericitized with 5 to 15% guartz veining. Generally coarse grained, vuggy, well broken unit (1 to 10cm pieces), with transitional contacts between variations in alteration intensity.

104.00 106.65 Dark grey-black to dark wine red, relatively unaltered, although the section is weak to moderately silicified (but not sericitized) for 0.5m adjacent to the upper contact zone with the overlying metavolcanics. Section exhibits weak to locally moderate shearing, particularly in the dark grey coloured zone adjacent to overlying metavolcanics. This transitional contact zone is also very pyritic across 30 cm. Section is coarse grained, and plagioclase porphyritic, with 30 to 40%, white, subhedral, phenocrysts, that are 1 to 3mm in size and occasionally up

NS 104.00 185.30	81.30	n/a	n/a	TRACE	1-43	UN-HOD UN-	V.VK UN	-¥K
1957 104.00 104.55	, 55	.30	.80	-	10-121			
1958 104.55 105.50	.95	.12	1.30	-	3-41			
1959 105.50 106.65	1.15	.03	1.20	-	11			
1960 106.65 107.65	1.00	.12	.80	-1	NR-0.5%			
1961 107.65 108.80	1.15	.15	1.20	-	23			
1962 108.80 109.20	.40	.01	1.10	0.5%	2-41			
1963 109.20 110.65	1.45	.09	1.20	TRACE	1-21			
1964 110.65 112.00	1.35	.11	1.20	-	13			
1965 112.00 113.00	1.00	.05	1.80	NINOR -	2-31			
1966 113.00 114.00	1.00	.03	2.20	TRACE	2-31			
1957 114.00 114.90	.90	.06	1.60	TRACE	2-31			
1968 114.90 115.30	.40	.18	3.00	MINOR	1-2			
1969 115.30 115.80	.50	.06	1.40	-	2-31			
1970 115.80 116.50	.70	.01	1.20	-	0.5-1			
1971 116.50 118.00	1.50	.13	1.30	TRACE	23			

H-N PROJECT (Ontani)

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Interval (Netres)	Description	No.		(Netres)	(g/t)	(ppm)	Metallic		SIL CARB	SE
	to 1 cm. Section contains 10%, 2 to 3mm, ovoid, slightly	1972	118.00 119.0	0 1.00	.37	5.50	0.25%	2-31		
	blue grey quartz phenocrysts, and 5 to 10%, weakly		119.00 120.00		.13	1.60	TRACE	2-31		
	chloritized biotite in an aphanitic to fine grained, dark		120.00 120.6		.03	1.30		2-31		
	grey to red, plagioclase rich groundmass. No significant	1975	120.60 121.2	5.65	.01	1.20	-	13		
	veining. Generally 1 to 4% pyrite, as fine disseminations,	1976	121.25 122.2	5 1.00	.02	1.20	-	13		
	and foliation parallel blebs 2 to 5mm in size. The upper	1977	122.25 123.0	0.75	.16	1.20		2-31		
	silicified contact zone with the overlying mafic volcanics		123.00 124.0		. 39	1.30	MINOR	2-31		
	contains abundant (10 to 12%), fine disseminations and		124.00 125.4		.11	1.10	-	1-21		
	coarse aggregations of pyrite that are weakly foliated		125.40 126.2		.08	1.20		2-31		
	parallel to the contact/shearing orientation. Most larger		126.20 127.1		.03	1.10	TRACE	23		
	(5 to 15cm) shear foliated zones are moderately sheared and		127.10 128.0		.08	1.20	-	2-3		
	oriented at 20 to 35 degrees to the core axis, however		128.00 129.0		.09	1.30	0.25%	2-31		
	some foliation is oriented at 40 to 65 degrees to the core		129.00 130.0		.04	1.20	TRACE	2-31		
	axis. Competent section, but relatively broken into 2 to		130.00 131.3		.07	1.20	MINOR	3-41		
	20 cm pieces often along chloritic fractures oriented at		131.35 131.7		.01	1.10	-	2-31		
	various angles to the core axis. Lover contact with black		131.70 133.0		.02	1.30		2-3		
	mafic volcanics is poorly recovered, but appears to be		133.00 134.0		.19	2.20 2.10	HINOR TRACB	2-48 2-38		
	relatively sharp at 40 degrees to the core axis. 106.65 107.65 Silicified metavolcanic. Black, hard, siliceous,		134.00 135.00 135.00 136.00		.14 .18	1.70	-	1-23		
	moderately vuggy, moderately magnetic, non-calcareous,		136.00 136.7		.10		TRACE	2-31		
	silicified mafic metavolcanic. Contains several		136.75 137.9		.03	1.70	0.5 \	23		
	boudinaged and contorted intrusive fragments suggesting the		137.90 138.8		.05	2.00		2-31		
	zone is well sheared. Weak shearing foliation, locally		138.85 139.6		.03	1.30	-	2-31		
	moderately developed, is oriented at 40 to 45 degrees to		139.65 140.6		.02	1.50		2-48		
	the core axis. No significant veining. Nimor to 0.5%		140.65 142.0		.24	1.20		2-43		
	finely disseminated pyrite. Lower contact is a sharp		142.00 142.7		.16	1.00		2-31		
	intrusive contact oriented at 50 degrees to the core axis.		142.75 143.2		.32	.80		1-24		
	Section is well broken into 1 to 9 cm irregular pieces.		143.25 144.0		.03	.70	-	1-24		
	107.65 110.65 Hedium grey, weak to moderately silicified and very weakly	2000	144.05 145.1	5 1.10	.19	.80	TRACE	24		
	sericitized with a zone of intense silica flooding between	8001	145.15 146.0	0.85	.07	.50	NINOR	2-31		
	108.80 to 109.10 metres. The latter is vuggy, contains	8002	146.00 147.5	0 1.50	.10	1.90	MINOR	2-3		
	some white/cream coarsely crystalline calcite		147.50 149.0		.17	1.80	TRACE	2-31		
	patches/blebs fringed in chlorite, and often contains		149.00 150.0		.38	1.10	TRACE	21		
	abundant fine metallic grey minerals generally		150.00 151.3		.44	1.10	-	25		
	coating/rimming pyrite blebs. No significant quartz		151.35 152.1		.26	1.30	-	2-3		
	veining. Host biotite is partially altered to chlorite.	\$007	152.15 152.9	0.75	.21	1.20	-	2-31		

H-N PROJECT (Ont-27)

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Interval	Description	Sample		Length		-	•	Pyrite		LTERATION	
(Metres)		No.		(Hetres)		(ppm)	Metallic	(\$)	SIL	CARB	SE
	Moderately broken and fractured section, with irregular 2	8008	152.90 154.	00 1.10	.46	1.40	0.5%	2-31			
	to 10 cm pieces.	8009	154.00 154.	80 .80	. 29	1.20	0.5%	2-31			
	110.65 112.00 Hedium pink, relatively unaltered intrusive containing one,		154.80 156.		.20		0.5%	2-31			
	5cm, light orange, albite vein, minor irregular		156.00 157.		.18	.80	TRACE	2-41			
	fracturing/slips, minor, thin (hairline to 1mm), bluish		157.30 158.		.25	1.20		2-31			
	quartz veinlets, and numerous chloritic fractures oriented		158.25 158.		.03	.90	0.25	2-31			
	at a shallow (20 to 30 degrees) angles to the core axis.		158.75 160.		.02	.90	TRACE	1-23			
	No significant veining. Moderately broken and fractured		160.10 161. 161.20 162.		.22 1.40	.90	MINOR	23 23			
	section, with 1 to 10 cm irregular pieces. 112.00 115.80 Medium grey to light grey, weakly and locally moderately		162.00 163.		.05	5.60 .90	0.25%	23			
	silicified, with very weak to weak sericitization.		163.00 164.		.22	1.20	TRACE	1-24			
	Biotite partially chloritized, and locally sericitized,		164.00 164.		.63	3.80	TRACE	1-28			
	with several, thin (1 to 5cm), silica flood patches, and		164.80 166.		.13	1.20	-	11			
	several thin (1 to 5mm), subplanar quartz veins. Minor grey		166.10 167.		.03	1.00	-	0.51			
	mineralization is associated with the later. One, 5mm,		167.50 168.		.14	.80	MINOR	1-21			
	subplanar quartz vein at 112.40m, oriented at 45 degrees	8023	168.50 170.	00 1.50	.01	1.00	NINOR	21			
	to the core axis, contains abundant purple molybdenite	8024	170.00 171.	00 1.00	.02	1.10	-	23			
	along both vein contact edges. Section includes a zone of	8025	171.00 172.	00 1.00	.03	1.20	-	21			
	intense silica flooding between 114.90 to 115.30m also		172.00 173.		.03	1.20	-	23			
	containing minor metallic grey minerals. Section is vuggy		173.00 174.		.01	1.30	-	2-31			
	and well broken into pieces generally less than 10cm, with		174.50 176.		.01	1.40	-	23			
	numerous rubble zones. Pyrite forms fine disseminations		176.00 177.		.02	.70	•	1-23			
	and grains that are concentrated on fractures.		177.50 179.		.03	.90	-	1-23			
	115.80 116.50 Pink, relatively unaltered intrusive, with weakly chloritized biotite and minor, thin (1 to 3mm), planar		179.00 180.		.04	1.20		1-23 1-23			
	quartz veining.		180.20 181. 181.00 182.		.02 .01	.60	-	1-23			
	116.50 120.60 Light grey, weak to moderately silicified and very weak to		182.35 183.		.02	1.50	-	MINOR			
	weakly sericitized intrusive with a few, thin (1 to 10cm),		183.05 184.		.08	5.10	-	11008			
	irregular, intensely silicified silica flood zones.		184.00 185.		.13	1.30	-	11			
	Biotite is generally weakly chloritized to completely					1.00					
	sericitized in the intensely silicified zones. Section										
	includes some very vuggy and broken core. Section contains										
	10%, silica patches/flood zones in addition to pervasive										
	silicification, but only contains a few, thin (2 to Smm),										
	blue-white, planar quartz veins. 2 to 4% pyrite, as fine										

 \sum_{i}

(1 to 5mm), coarsely crystalline aggregates. Abundant, chloritic, planar fractures, mostly oriented at 55 to 80 degrees to the core axis.

- 120.60 122.25 Medium pink, relatively unaltered, coarse grained, plagioclase porphyritic intrusive also containing 5 to 10%, 1 to 3mm, ovoid, blue-white guartz phenocrysts, and 10%, black biotite. Minor, thin (1 to 3mm), subplanar, blue quartz veinlets, but no significant veining. Competent section with 5 to 20 cm breakage, generally along planar, chloritic fractures, mostly oriented at 50 to 75 degrees to the core axis.
- 122.25 135.00 Light to medium grey, weak to moderately silicified and sericitized with several, small (1 to 10cm), irregular quartz vein zones often centering local intensely altered zones. Several of the latter sections contain minor, 0.5 to irregular, white, coarsely crystalline 2cm. calcite/carbonate often fringed by a lan wide halo of chlorite. Section is vuqqy, well broken, and moderately fractured, with sericitic coatings on fractures. Generally 2 to 4% finely disseminated pyrite concentrated on fractures, and minor amounts of grey metallic mineralization. Well broken section, generally with 1 to 10cm breakage, and numerous rubble zones.
- 135.00 136.75 Pinkish grey to medium grey or slightly greenish grey, medium to coarse grained, very weak to weakly silicified, but locally finer (0.5 to 1mm) grained, non-porphyritic and weak to moderately pervasively sericitized. Section is not as vuggy or broken as the more silicified sections. Minor, irregular guartz veining centering zones with trace amounts of disseminated metallic grey minerals. Well broken section with breakage ranging from 1 to 10cm in size, but generally 1 to 3cm somewhat rubbly breakage.
- 136.75 137.90 50%, light grey to white, moderately to intensely silicified and sericitized intrusvie, with a large zone (50%) of guartz veining. Veining is clean, coarse grained, white, includes several intensely, altered wallrock

H-N PROJECT (Ont BSSO MINERALS Hole: HX88-39 DIAMOND DRILL Page: 13 Description Interval Interval Length Grey Pyrite ALTERATION Sample λu λq (Metres) No. (Netres) (Netres) (q/t) (ppm) Netallic (%) SIL CARB SBR

> inclusions, and has a cracked-ice appearance. Locally, along the vein edges are small (1 to 3cm), irregular, white, coarsely crystalline carbonate minerals. A few, small, greenish fuchsite grains locally visible. Section contains 2 to 3% finely disseminated pyrite, and 0.5% finely disseminated needles of a grey metallic minerals. Moderately fractured and broken into 1 to 10cm pieces. Fractures are often sericite coated.

- 137.90 152.90 25%, thin (10 to 50cm), pinkish grey, massive, biotitic, porphyritic, coarse grained, relatively plagioclase unaltered, typical quartz diorite intrusive, 50%, medium grey, yeakly silicified and sericitized intrusive generally with chloritized biotite, and 25%, moderately and very locally intensely altered (silicified and sericitized) intrusive, that generally occurs adjacent to irregular quartz veining. Unaltered zones contain 0.5%, finely disseminated pyrite, are massive, moderately broken along fractures oriented at 50 to 80 degrees to the core axis, and generally contain no guartz veining. Altered sections, contain 2 to 4% pyrite generally concentrated on fractures. 5%, irregularly shaped and oriented, generally large (1 to 5cm), coarse grained, white guartz veins, and a few, thin (1 to 10cm), shear foliated zones. Weak shear foliation at 139.65 to 139.70m is oriented at 50 degrees to the core axis, but a large zone between 46.20 to 46.40m is oriented at 25 degrees to the core axis and contains 2 to 5% finely disseminated molybdenite along the slip surfaces. Altered sections are somewhat vuggy, and rubbly to well broken into 1 to 10 cm size pieces. Section also includes a medium mottled, weakly silicified and weakly carbonate qrey altered zone between 151.25 to 152.15 metres.
- 152.90 163.00 Generally light to medium slightly greenish grey, moderately altered intrusive with 25%, weakly altered, and 15%, white, intensely silicified and sericitized zones. This section is more sericitic than most of the other overlying intrusive sections. Biotite is generally

H-N PROJECT (Ont HN88-39 ESSO HINERALS CAMADA Role: DIAMOND DRILL Page: 14 Description Interval Sample Interval Length Grey Pyrite ALTERATION λu **Å**q (Metres) No. (Metres) (Metres) (g/t) (ppm) Metallic (%) SIL CARB SER

> completely chloritized or sericitized. Unit contains 2 to 4%, pyrite as disseminations concentrated on fractures, and minor to 0.5%, extremely finely disseminated, metallic grey minerals concentrated in intensely silicified alteration zones, often adjacent to irregular guartz veining. Alteration (silicification and sericitization) is pervasive, although concentrated along fractures and irregular veining. The most intensely altered zones are extremely vuggy and broken, with 1 to 5cm breakage and numerous rubble zones. Section contains 10%, irregular quartz veining/patches, often including chloritic fringed carbonate grains. Section contains abundant fractures. often with chloritic or sericitic coatings. The coarse grained, porphyritic appearance of the original intrusive is still apparent but quite subdued due to the pervasive alteration. Weak foliation oriented at 45 to 60 degrees to the core axis is locally apparent, but section is generally massive.

- 163.00 164.80 Slightly pinkish to brownish medium grey, with a coarse mottled appearance typical of the overlying section, and most of those below. Upper part of the intrusive, though variably altered, is not as mottled or subdued as as sections below 152.90 metres. This section and lower sections are also not as vuggy or broken, although some rubble sections occur. Section is generally weakly silicified, sericitized and carbonatized. No significant veining. Hoderately broken section with 5 to 25 cm pieces. Minor finely disseminated metallic grey minerals, and 1 to 24 disseminated pyrite.
- 164.80 167.50 Pink to red, medium grained, relatively unaltered, and mottled medium pinkish to brownish grey intrusive as above. Locally weakly shear foliated at 50 to 60 degrees to the core axis. No significant veining. Section does not contain visible grey metallic mineralization. A few fractures exhibit thin calcite coatings. Noderately competent section, generally with 5 to 50 cm breakage.

H-N PROJECT (Ont		BSSO NINERALS CHINDA DIAMOND DRILL				Hole: HWN Page:		8-39 15			
Interval (Netres)	Description	Sample No.	Interval (Netres)	Length (Netres)	Au (g/t)				SIL	TBRATION CARB	SBR

- 167.50 176.00 Slightly pinkish to greenish grey, subdued and mottled, weak to moderately silicified, sericitized and carbonatized. Section exhibits a pervasive alteration with no significant veining. Section is locally weakly to moderately shear foliated at 50 to 70 degrees to the core axis. Locally contains minor metallic grey minerals, including some molybdenum along shear slips. Section is not vuggy and relatively competent, generally with 25 to 75cm breakage along planar fractures oriented at various angles to the core axis though mostly between 25 to 70 degrees.
- 176.00 180.20 Shear foliated intrusive. Same as the overlying medium brownish grey section, but well sheared and cut by abundant, thin (hairline), anastomosing crackle veinlets of carbonate-epidote that increases in intensity down the hole. Shear foliation generally sericitic and oriented at 60 degrees to the core axis. No significant quartz veining. 1 to 2% fine pyrite, often concentrated on shear foliation surfaces. Section is relatively broken, generally into 3 to 10 cm irregular pieces, with the bottom part between 179.00 and 180.20m a well broken rubble rone.
- 180.20 182.35 Quartz Vein Breccia Zone. Brecciated brownish to greenish grey, moderately altered intrusive as above, but broken into 0.5 to 2cm angular fragments, occurring in 20%, milky white quartz matrix. Lower contact along a calcitic fault breccia oriented at 20 degrees to the core axis. Hard, silicified, relatively competent unit with 10 to 50 cm breakage.
- 182.35 183.05 Fault Ione. Incompetent, fault breccia/gouge zone, containing 60%, 2mm to 2cm, angular, polymictic fragments in 40%, greenish to cream coloured, clay-like carboante-calcite rich matrix. Soft incompetent section. Upper contact sharp at 25 degrees to the core axis. Lower contact sharp and planar at 60 degrees to the core axis.
- 183.05 185.30 Shear foliated intrusive. Similar to 176.00 to 180.20 metres. Medium brownish grey, mottled, moderately altered,

N PROJECT (Ont		ESSO NINERALS CORRAD				Hole: Page:	HNS	3-39 16		
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Interval (Netres)	Description	8	Sample No.	Interval (Xetres)	Length (Netres)	Ag (ppm)	Grey Metallic		ALTERATION SIL CARB	SBR

and locally weak to moderately shear foliated at 70 degrees to the core axis. No significant veining. Numerous fractures, often with thin (1 to 5mm), incompetent calcitic altered bands. Relatively broken zone, with 5 to 15 cm breakage. Several fractures have 1 to 2mm sericitic calcite coatings. Lower contact with mafic metavolcanic is weakly sheared, but planar at 70 degrees to the core axis.

185.30 194.00 SHBARED/SCHISTOSE WAPIC NETAVOLCANIC

Dark greenish black, fine grained, mostly weakly to moderately shear foliated. Unit is particularly sheared near upper contact with the overlying fault zone. Weakly magnetic. Unit locally contains minor plagioclase phyric, massive slivers/fragments within the finer grained sheared matrix. Locally weakly carbonate and epidote altered in weakly sheared zones. Shearing oriented at 55 to 70 degrees to the core axis. A few, thin slivers of quartz diorite intrusive material also occur within sheared zones.

Minor guartz-calcite veining, generally as thin (1 to 5mm), subplanar veins that are locally broken. Lower contact not encountered.

Lower contact not encountered.

194.00 Bnd of Hole.

NS	185.30	194.00	8.70	n/a	n/a	-	NINOR
8037	185.30	186.00	.70	.03	.70	-	0.5%
8038	186.00	187.00	1.00	.01	1.30	-	MINOR
8039	187.00	188.00	1.00	.01	.70	-	NINOR
8040	188.00	189.50	1.50	.02	.90	-	MINOR
8041	189.50	191.00	1.50	.02	.90	-	MINOR
8042	191.00	192.50	1.50	.03	1.00	-	MINOR
8043	192.50	194.00	1.50	.10	.90	-	MINOR

			ESSO MINERALS CANADA SUMMARY DRILL LOG	
•	Pr	oject N	Iome: <u>HN ANALA</u> OOL Hole Number: <u>H</u>	N88-40 .
	Pr	oject N	lumber <u>1</u> 1677 Logged By: M.H.	Lenters.
·	NT	-s:	Date: October 1	988
NI AMO GEOLOGICAL SURVEY ASSESSMENT FILES OFFICE MAR 15 1989 R E C E I V E D	· ·		<u>L40+50W, 9+50S</u> <u></u>	
FFICE FFICE	PU	RPOSE	: <u>Intersect shear/mylonite zone encountered in HN88-28</u>	•
NAR OF	From	То	Description	Gold Assays
ASSC ASSC E	(m)	(m)	CASING REMAINS IN HOLE	(g/tonne)
	0.0	13.00	Overburden	
	13.00	25.15	Relatively Unaltered Granodiorite Intrusive Generally light pink, hard, massive, weakly plagioclase porphyritic intrusive. Contains 5% quartz veining which often centers thin (5 to 30 cm), moderately silicified and weakly sericitized, light grey, alteration zones, generally containing l to 2% pyrite and locally, minor amounts of grey metallic minerals. Unit also contains a few, thin (5 cm) shear foliated, siliceous bands oriented at 25° to CA.	
	25.15	27.75	Mafic Metavolcanic Xenolithic Inclusion Dark green-black, very fine-grained, calcitic, strongly magnetic massive to foliated mafic metavolcanic inclusion. 5%, thin calcitic, tension microfracturing. Minor, thin, offset and boudinaged quartz veinlets. Minor pyrite.	0.01 - 0.02 (3)
	27.75	78.20	Variably Altered Granodiorite Intrusive 65 to 75%, pink-red, relatively unaltered granodiorite intrusive with 25 to 35%, 1 to 30 cm bands and zones of light grey to white (bleached), weak to moderately and locally intensely silicified and sericitized intrusive often occurring within zones of quartz veining. Unaltered sections are massive, coarse-grained (2 mm), with 5 to 10%, large (2 to 5 mm), subhedral plagioclase phenocrysts, 10%, 1 to 3 mm, ovoid, bluish quartz grains, 10 to 15% biotite, and 0.5% disseminated pyrite, in a pinkish (hematitic), fine-grained, plagioclase rich matrix. 5 to 10%, irregular to subplanar, quartz veining/silica flooding. Locally 0.5 to 3% pyrite and trace amounts of grey metallic minerals associated with more altered zones/bands and quartz veining containing coarse almond-white calcite.	0.01 - 0.15 (38)
	78.20	81.90	Foliated Quartz-Feldspar Porphyry Dyke Slightly pinkish-brown, homogeneous, "augen-gneissic" dyke, containing 20% coarse (2 to 3 mm), rounded quartz phenocrysts, and lesser subhedral plagioclase in a well foliated, hematitic stained, biotitic matrix. Foliated at 20° to CA. No significant veining. Minor disseminated pyrite.	
	81.90	112.25	Weak to Moderately Altered Granodiorite Intrusive 35%, pink, very weakly altered to unaltered; 50%, light grey to white, weakly altered; and 15%, white, quartz veined, moderately to intensely altered intrusive. Similar to intrusive above the overlying intervening dyke, but with somehwat larger and more intense alteration zones/bands. Locally exhibits a weak foliation at 30 to 50° to CA. 5 to 10%, thin, irregular quartz veining. 0.5 to 4% disseminated pyrite, and locally minor amounts of grey metallic mineralization associated with more intensely altered and	0.01 - 0.29 (30)

From	То	Description HN88-40	Gold Assays
(m)	<u>(m)</u>		(g/tonne)
112.25	114.00	quartz veined zones. Mafic Metavolcanic Xenolithic Inclusion Dark brownish to greenish-grey, fine-grained, homogeneous, very weakly magnetic, strongly calcareous, with a weak to moderately well developed foliation oriented at 20° to CA. No veining. 1% fine cubic pyrite.	0.01 (2)
114.00	242.00		0.01 - 0.89 (108)
	242.00	END OF HOLE	
		۰. 	

H-N PROJECT (Ont)		ESSO MINB Diamond di		A					Hole: Page:	HN 8 8	-40 1			
Drilled by: Hole Size: Core Size:	Bradley Bros. Limited BQ BQ		Azimuth: Dip:		360 -45					Claim No: Grid: Basting:	L-87 West 40+5	OW		•	
Casing:	Casing Left in Hole		Acid Test	5:						Northing: Blevation:	9+5 Leve				
Started: Pinished:	Oct. 16, 1988 Oct. 18, 1988		Depth 13.00	λz.	Dip -45.0					Purpose:	Test	structu	ire enco	untered i	n HN88-
Logged by: Date logged:	N.H.Lenters October 1988		113.00 213.00		-43.5 -39.5					Length: Vert. Proj		00Metres 0 Metres			
Logging Nethod:	Log II Netric									Hor. Proj: Ovb. Depth	178.	0 Metres 3 Netres	;		
Interval (Netres)		Description				Sample No.	Interval (Hetres)	Length (Ketres)	λu (g/t)		Grey tallic	Pyrite (\)	ALT SIL	BRATION CARB	SBR

.00 13.00 OVBRBURDEN

13.00 25.15 FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED

Generally unaltered, light pink, leucocratic, coarse grained, massive, weakly plagioclase porphyritic intrusive. Plagioclase phenocrysts are white, subhedral, 2 to 5mm, and occasionally up to 1cm in size. Unit also contains 10%, bluish quartz phenocrysts that are 2 to 3mm and subrounded, as well as 10 to 15%, black biotite.

Unit is generally unaltered but contains 5% altered zones that are bleached white where moderately silicified and weakly sericitized. These generally occur as thin, relatively sharply bounded zones to more diffuse patches that are from 1cm to 10's of cm wide, and usually centred by thin (2 to 10mm), subplanar, bluish quartz veins.

Generally 5%, thin (2 to 10mm), irregular branching to subplanar quartz veins oriented at 20 to 70 degrees to the core axis.

locally weak to noderately shear foliated at 25 degrees to the core axis, account of a for our without.

Minor to 0.5% disseminated pyrite, with 1% pyrite and minor amounts of

NS	13.00	25.15	12.15	n/a	n/a	TRACE	0.5%	UN-NOD	UN-WK UN-V.WK
8044	16.00	17.00	1.00	.04	.80	TRACE	0.5%		
8045	17.00	18.50	1.50	.16	.80	TRACE	0.5-1		
8046	18.50	20.00	1.50	.02	.80	TRACE	0.5-11		
8047	24.00	25.15	1.15	.01	.80	-	0.5%		

I-N PROJECT (O	DIAMOND DRILL RECO) A RD				Hole: Page:	HN B	8-40 2	•	
Interval (Netres)	Description	No.		Length (Netres)	Au (g/t)	Ag (ppm)		Pyrite (%)	ALTBRATION SIL CARB	SER
	grey metallic mineralization associated with the white alteration zones. Competent, hard core, but moderately broken, generally into 3 to 10 cm lengths along planar chloritic fractures oriented at 45 to 70 degrees to the core axis. Lower contact with volcanic inclusion is sharp at 80 degrees to the core axis.									
25.15 27.75	 MAFIC METAVOLCANIC FLOWS (FE THOLENITE) Dark greenish to greyish black, very fine grained, calcitic, strongly magnetic, homogeneous, massive to foliated mafic metavolcanic inclusion(?). Same as uppermost part of HN88-22, although that unit was considered a metasediment. Unit contains 5%, hairline, calcite tension microfracturing forming abundant ladder, herring-bone, and en echelon patterns, as well as a few, thin (1 to 3mm) quartz veinlets which exhibit boundinaging and are locally discontinuous within the foliated zones. Other quartz veins are slightly offset along the calcitic microfracturing. Foliation is well developed in lower part where it is occasionally folded or wavy and oriented at 0 to 35 degrees to the core axis. Unit includes a few, small (1 to 10cm), irregular and broken intrusive fragments near the upper contact. Unit is relatively hard and competent with 10 to 50cm irregular breakage. Lower contact with intrusive is sharp, but sheared and oriented at 10 to 25 degrees to the core axis. 	8048 8049	25.15 27. 25.15 26. 26.00 27. 27.00 27.	00 .85 00 1.00	n/a .02 .01 .01	n/a .70 .50	- - -	MINOR MINOR MINOR WINOR		
27.75 78.20) FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED 65 to 75%, pink, relatively unaltered granodiorite intrusive, cut by 1 to 30 cm bands and zones of white (bleached), weak to moderately silicified and sericitized material often centred by thin, (1 to 5mm), irregularly oriented branching and crosscutting quartz veining. Much of the white altered bands contain black biotite even though the zones are well bleached. Only in moderately to intensely altered, well quartz veined altered zones/bands is the biotite chloritized and locally sericitized.	8051 8052 8053 8054 8055	27.75 78 27.75 29 31.00 31 31.90 32 32.50 33 33.00 34 34.00 35	00 1.25 90 .90 50 .60 00 .50	n/a .02 .03 .02 .12 .03 .03	n/a .80 .60 .90 .80 2.40	TRACE	0.5-3% 0.5-1% 0.5-1% 2-3% 2-3% 1-2% 1-2%	UN-KOD -	UN-VK

H-N PROJECT (Ont

Hole: HN88-40 Page: 3

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Altered zones are generally somewhat weggy and moderately broken.1057 35.60 36.50 1.50 .09 1.20 TRACS 11Unaltered sections of the unit are generally massive, coarse grained(2mail containing 5 to 10%, large, (2 to 5mail, subhedral, plnkishplagicolase phenorysts. 10% 10 to 3m, over 11black blotite, and 0.5% finely disseminated pyrite. Phenocrysts occur into 10% is 5m) but up to 1.5m in size, irregulate to subplameto 5mail colspan="2">to 5mail colspan="2">to 5mail colspan="2"to 10% is 5mil but up to 1.5m in size, irregulate to subplameto 5m in true up to 1.5m in size, irregulate to subplameto 5m in true up to 1.5m in size, irregulate to subplameto 5m in true up to 1.5m in size, irregulate to subplameto the core axis and often crosscuting from opposite angle.to the core axis.to the core axis. <th>No. (Met</th> <th>terval Length Au Ag Grey Pyrite ALTERAT Stres) (Netres) (g/t) (ppm) Netallic (%) SIL CAR</th> <th>8 S I</th>	No. (Met	terval Length Au Ag Grey Pyrite ALTERAT Stres) (Netres) (g/t) (ppm) Netallic (%) SIL CAR	8 S I
Unaltered sections of the unit are generally massive, coarse grained (208) 3.55 (208) 3	y and moderately broken. 8057 35.00) 36.50 1.50 .09 1.20 TRACE 1	
(2mm), containing 5 to 101, large, (2 to Smm), subhedral, pinkish (353 31.00 39.50 1.50 .15 4.30 TRACE 1.14 plagloclase phenocrysts, 104, 1 to 3mm, ovoid, bluish quartz, 10 to 154, 1650 39.50 41.00 1.50 .03 1.60 TRACE 0.5-14 black blottie, and 0.54 tinely dissentiated pyrite. Phenocrysts occur in the structure of the st	generally massive, coarse grained 8058 36.50	38.00 1.50 .02 1.30 HINOR 1-2%	
black block block <td< td=""><td>(2 to 5mm), subhedral, pinkish 8059 38.00</td><td></td><td></td></td<>	(2 to 5mm), subhedral, pinkish 8059 38.00		
a finer grained plagioclase +/- silica rich, pinkish (hematitic?) matrix. 8062 42.50 42.90 .00 1.20 - 2-31 SN, Thin (1 to 5mm) but up to 1.5c in size, irregular to subplanar 8063 42.90 44.50 1.60 .01 1.20 - 2-31 guartz veining, Subplanar veina are generally oriented at 415 to 65 8064 44.50 1.60 .01 1.20 7.40 7.40 1.40 .01 1.20 - 2-31 weining in altered zones. 1065 51.60 41.50 1.60 .01 1.20 7.40 1.40 .01 1.20 7.40 1.40 .01 1.20 7.40 1.40 .01 1.20 7.40 1.40 .01 1.20 7.40 1.40 .01 1.20 7.40 1.40 .01 1.20 7.40 1.40 .01 1.20 7.40 1.40 .01 1.20 7.40 1.40 .01 1.20 7.40 1.40 .01 1.20 7.40 1.40 1.40 .01 1.20 7.40 1.40 1.40 1.40 1.40 1.40 1.40 1.40 1.40 </td <td>, ovoid, bluish guartz, 10 to 15%, 8060 39.50</td> <td>41.00 1.50 .03 1.80 TRACE 0.5-1%</td> <td></td>	, ovoid, bluish guartz, 10 to 15%, 8060 39.50	41.00 1.50 .03 1.80 TRACE 0.5-1%	
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awiankad ne do da mo da ke ana ania	ited, planar fractures generally		
oriented at 40 to 70 degrees to the core axis.	axis.		
Altered zones are vuggy and well broken, generally into 1 to 10cm pieces	n, generally into 1 to 10cm pieces		

-N PROJECT (O	n (S) BSSO MINBRALS (S) DIANOND DRILL RECOR	D					Hole: Page:	HN B	8-40 4			
Interval (Netres)	Description	Sample	Int	erval trocl	Length (Notroc)	λu (π/t)	Ag (ppp)	Grey Metallic	141	611	TERATION CARB	SER
	Lower contact is a sharp intrusive dyke contact oriented at 35 degrees to the core axis.											
78.20 81.90	WELL FOLIATED QUARTZ FELDSPAR PORPHYRY DYKE Slightly pinkish brown with 20%, coarse (2mm), subrounded quartz phenocrysts in finer grained, foliated, hematitic stained, biotitic matrix. Unit called augen gneissic in HN88-24 where it was first encountered and where it is slightly auriferous. Well foliated at 20 degrees to the core axis, with moderate (10 to 50cm) fracturing paralleling the foliation orientation. Unit is very homogenerous in appearance, contains no veining, and only minor amounts of finely disseminated pyrite. Upper and lower contacts are sharp intrusive dyke contacts oriented at 35 to 40 degrees to the core axis.	8089 8090 8091	78.20 79.00 80.00	81.90 79.00 80.00 81.00 81.90	.80 1.00 1.00	n/a .31 .10 .17 .04		- - -	HINOR MINOR MINOR MINOR MINOR			
81.90 112.25	FP QUARTZ DIORITE INTRUSIVE - WK TO HOD ALTERED 35%, Pink, very weakly altered to unaltered; 50%, light grey to white to mottled light brownish grey, weakly altered; and 15%, white, well quartz veined, moderately to intensely altered intrusive. Similar to the other half of this intrusive unit between 27.75 to 78.20 metres, above the overlying dyke, but with somewhat larger and slightly more intensely altered zones, as well as less intervening unaltered intrusive material. Quartz veining is similar to the upper part of this unit above the dyke, but includes several veins that are parallel to the core axis, producing long core intersections with moderately to intensely altered material. This unit does not contain shear bands like the other half of this intrusive above the dyke, but exhibits local zones with a weak shearing foliation that is oriented at 30 to 50 degrees to the core axis. Lower contact with the mafic dyke-xenolith? Is poorly recovered, but appears to be very sharp, though irregular, and oriented at a relatively shallow angle to the core axis.	8093 8094 8095 8096 8097 8098 8099 8100 8101 8102 8101 8102 8104 8105 8106 8107	81.90 83.00 84.00 84.85 85.55 86.00 87.00 88.00 88.00 88.00 88.50 89.00 90.00 90.85 92.05 93.50 95.00		.85 .70 .45 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.20 1.45 1.50 1.00	n/a .19 .02 .03 .29 .01 .01 .01 .02 .01 .02 .02 .01 .02 .01 .02	3.20 .90 .70 12.80 2.30	0.25% MINOR TRACE 0.5% 0.25% MINOR TRACE MINOR - - - - - - TR-NNR	2-3% 2-3% 1-2% 2-3% 1-2% 2-3%	UN-INT	UN-WK	UN-KOD

H-N PROJECT (Ont BSSO NINERALS OF A)					Hole: Page:	HN 8	18-40 5			
Interval (Metres)	Description	Sample No.	Inter (Netr		-	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	AL' SIL	IBRATION CARB	SER
		8110 8111 8112 8113 8114 8115 8116 8117 8118 8119 8120 8121	96.80 98.00 98.75 10 100.40 1 101.00 10 101.70 10 103.00 10 103.65 10 105.00 10 105.00 10 106.00 1 107.10 10 108.50 1 109.65 1 110.55 1	98.75 00.40 01.00 03.00 03.65 05.00 06.00 06.00 07.10 08.50 09.65	.75 1.65 .60 .70 1.30 .65 1.35 1.00 1.10 1.40 1.15 .90	.01 .03 .02 .02 .04 .02 .01 .02 .02 .02 .01 .02 .01	.90 .80 3.00 .90 1.10 .90 1.00 .90 1.10 .80 1.00 1.00 1.00	TRACE MINOR TRACE MINOR MINOR TRACE MINOR TRACE TRACE TRACE	0.5% 0.5% 1-3% 0.5% 2-3% 1-2% 1-2% 1-2% 1-2% 1-2% 1-2% 1-2% 1-2			
112.25 114.0	0 NAFIC NETAVOLCANIC FLOWS (PE THOLEHITE) Very dark brownish to greenish grey, fine grained, very homogeneous, very weakly magnetic, strongly calcareous, with a weak to moderate foliation defined by the orientation of fine chlorite+/-biotite at 20 degrees to the core axis. This unit is probably a mafic volcanic xenolith inclusion, but could possibly be a mafic dyke. Unit contains no veining. 1%, Fine (0.5mm), cubic pyrite crystals disseminated throughout the unit. Numerous chloritic fractures, generally oriented at shallow angles (0 to 30 degrees) to to the core axis. Well broken, rubby unit, with breakage along fractures at shallow angles to to the core axis. Upper and lower contacts are sharp, but slightly irregular, and oriented at approximately 20 degrees to the core axis.	8123	112.25 1 112.25 1 113.00 1	13.00	.75	n/a .01 .01	n/a 1.40 1.40	-	1\$ 1\$ 1\$			
114.00 242.0	0 FP QUARTZ DIORITE INTRUSIVE - WK TO HOD ALTERED 114.00 124.50 White, weak to moderately silicified and sericitized, with local intensely silicified bands. 10 to 15%, irregularly oriented and branching to subplanar veining. Veining is	8125	114.00 2 114.00 1 115.00 1	15.00	1.00	n/a .02 .01	n/a 1.50 1.20		2-3% 2-3% 1-2%	UN-HOD	UN-WK	UN-HOD

H-N PROJECT (Ont

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nterval Netres)	Description	Sample	Interval	Length	λu	λg	Grey	Pyrite	AL	TERATION	S
	somewhat more abundant, as well as larger (1 to 5cm),		116.00 117.5		.02		MINOR	2-3%			
	within this upper part. Subplanar veins are variably		117.50 119.0				0.25%	2-31			
	oriented, and often criss-crossing, although most are		119.00 120.0		.02		TR-MNR	2-34			
	oriented at 45 to 50 degrees to the core axis. They are		120.00 121.0		.16		TR-MNR	1-21			
	white, clean, coarse grained, and contain only minor		121.00 122.0		.18	7.20	0.5%	1-24			
	amounts of wallrock inclusions, pyrite and metallic grey		122.00 123.0		.06	3.50		23			
	mineralization. Unit is coarse grained with the		123.00 124.1		.13	2.00	0.25%	2-34			
	porphyritic character difficult to observe, due to the lack		124.15 125.0		.02	2.50		1-2			
	of colour variation with the unit. However, the		125.00 126.5		.02	2.90		1-3			
	porphyritic character is still apparent. Unit is somewhat		126.50 128.0		.01	1.20	TRACE	1-23			
	porous or vuggy. 2 to 3% disseminated pyrite, generally		128.00 129.0		.01 .02	2.20 1.00	HINOR -	2 % 1-2 %			
	concentrated near veining and along fractures.		129.05 131.1 131.10 132.5		.02	1.70		1-23			
	broken unit, with a few fubble sections. No sheat forfaced bands are apparent.		132.50 134.0		.03	1.50	MINOR	1-23			
124	50 242.00 Similar to upper section, but consisting of 35% pink-purple		134.00 135.5		.02	1.50	-	13			
16111	to light pink-purple, relatively unaltered to very weakly		135.50 137.0		.02	2.40		1-23			
	altered zones; 50%, light to medium grey, weakly		137.00 138.5		.02	1.70	TRACE	1-23			
	silicified and sericitized zones; and 15%, light grey to		138.50 140.0		.01		TR-MNR	11			
	white moderate to intensely altered zones. Unit contains		140.00 141.5		.01	1.40	TR-MNR	11			
	5 to 10%, thin (1 to 5mm) to thicker (0.5 to 10cm),		141.50 143.0		.02	2.70	MINOR	11			
	irregular to subplanar quartz veining. Winor shear		143.00 144.5		.01	1.40		13			
	foliated/silica flooded bands, that are generally oriented		144.50 146.0		.01	1.10	TRACE	13			
	at 20 to 45 degrees to the core axis. These often exhibit		146.00 147.2		.01	.80	-	0.51			
	smeared pyrite and moly on the slip surfaces. One, small		147.20 148.0		.02	1.70		11			
	(50cm), xenolithic inclusion occurs between 178.05 and		148.00 149.0		.02	2.50	0.25	11			
	178.60m, including a minor fault clay/gouge in a well		149.00 150.5		.01	1.50		15			
	broken and lost core rubble zone between 178.50 and 178.60		150.50 152.0		.03	1.90 1.80	MINOR MINOR	13 13			
	metres. Inclusion is dark green, fine grained, well foliated at 20 degrees to the core axis, calcitic and		152.00 153.5 153.50 155.0		.01 .02	3.50	0.5%	1-23			
	non-magnetic. Contacts are oriented at approximately 20 to		155.00 156.0		.02		TR-MNR	1-23			
	25 degrees to the core axis. Quartz veining often contains		156.00 157.0		.02	3.10	TRACE	1-21			
	minor amounts of grey metallic minerals surrounding pyrite.		157.00 158.1		.04	3.40		1-23			
Seve	ral fractures exhibit chloritic, and locally sericitic coatings.		158.15 159.5		.18		TRACE	2-31			
	rately well fractured unit, with fracturing locally off-setting		159.50 161.0		.03		TRACE	1-28			
	tz veining across short (1 to 15mm) intervals.		161.00 162.0		.06	4.60		1-23			
	rately well broken core, with unaltered sections exhibiting 5 to 30		162.00 163.0		.02		TRACE	0.5%			

ESSO NINERALS

H-N PROJECT	(On (On)
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Hole: HN88-40 Page: 7

Interval	Description	Sample	Int	erval	Length	Au	λg	Grey	Pyrite	ALL AL	LTERATION	
Metres)		NO.	(Ne	tres) 	(Metres)	(g/t)	(ppm)	Metallic	(3)	SIL	CARB	S
	cm breakage, and well altered sections generally including some rubble	8163	163.00	164.00	1.00		7.40	0.5%	1-24			
	zones.					.04	2.20	MINOR	1-21			
	Lower contact not encountered.					.22	2.10	TRACE	13			
	242.00 Bnd of hole.				1.50	. 29	1.60		0.5-1%			
					1.50	. 89	14.40					
					1.50	.02	1.30	TRACB				
		8169	171.50	173.00	1.50	.03	1.00	TRACB				
		8170	173.00	174.50	1.50	.20	1.30	TRACE	0.5%			
					1.50	.11	1.00	TRACE	0.5%			
		8172	176.00	177.50	1.50	.03	.90	-	0.5%			
		8173	177.50	178.05	, 55	.26	1.30	-	0.5%			
					.55	. 22	1.20	-	0.5%			
					.40	.63	2.10	-	HINOR			
) 1.50	.19	1.10		1-21			
					1.50	.02	1.20	MINOR	1-23			
) 1.00	.03	2.40	0.25%	1-2			
					1.00	.01	1.30	TRACE	1-23			
					1.00	.04	2.40		21			
					.60	.02	2.30		1-23			
) 1.40	.01	1.20	TRACE				
					1.00	.01	1.10		0.5-1			
) 1.00	.02	2.40		1-2			
					1.00	.01	1.20		0.5-1			
					.60	.02	1.40		0.5-1			
					.90	.01	1.50		1-21			
) 1.20	.02	1.60	0.25%	1-2			
					1.30	.03	1.40	TRACE	11			
) 1.50	.04	1.40	-	0.5%			
					1.75	.01	.80	TRACE				
					5 .50	.02	1.00	0.25%	1-2			
					1.25	.01	.60	TRACE				
) 1.00	.01	.40	-	0.5%			
					1.50	.02	.70		0.5%			
					1.50	.01	7.90		0.5-1%			
					1.00	.01	1.40		0.5-1%			
		8198	204.00	205.00) 1.00	.30	11.60	MINOR	0.5-1			

Interval Description Sample Interval Length Au Ag Grey Pyrite (Hetres) 0. (Hetres) (g/t) (ppn) Metallic (t) #199 205.00 206.00 1.00 -0.5-14 200 206.00 1.00 -0.5-14 #200 206.00 207.00 1.00 -0.5-14 500 1.00 -0.5-14 #201 208.00 201.00 1.00 -0.5-14 500 1.00 -0.5-14 #202 208.00 201.00 1.00 -0.5 1.50 1.00 -0.5-14 #202 208.00 201.00 1.00 -0.2 1.50 HINOR 124 #203 208.00 21.00 1.00 -0.1 2.00 TRACE 1.4 #204 21.00 21.00 1.00 .01 1.20 TRACE 1.4 #205 21.00 21.50 1.55 1.50 .02 1.50 1.50		88-40 8	HNO	Hole: Page:				
#200 206.00 207.00 1.00 .01 1.00 - 0.5-14 #201 207.00 208.00 1.00 .10 .18 6.60 TRACE 14 #202 208.00 209.00 210.00 1.00 .02 1.50 HINOR 1-24 #202 208.00 210.00 1.00 .02 1.50 HINOR 1-24 #202 210.00 211.00 1.00 .02 1.50 HINOR 1-24 #204 210.00 211.00 1.00 .01 2.00 TRACE 14 #205 211.00 212.00 1.50 .02 1.50 TRACE 14 #206 212.00 213.50 1.50 .02 1.50 TRACE 1-24 #207 213.50 215.00 1.55 .65 .02 1.30 TRACE 1-24 #202 215.00 215.50 215.50 .155 .01 1.10 TRACE 1-24 #210 215.50 215.50 215.50 .155 .02 1.30 TRACE 1-24 #211 214.35 214.50 1.25 .22 .70 .255 .150 .01 .10 .53 <t< th=""><th>ALTERATION SIL CARB S</th><th></th><th></th><th>Ag (ppm)</th><th></th><th></th><th></th><th>-</th></t<>	ALTERATION SIL CARB S			Ag (ppm)				-
#200 206.00 207.00 1.00 .01 1.00 -0.5-14 #201 207.00 208.00 1.00 .18 6.60 TRACE 14 #202 208.00 209.00 1.00 .02 1.90 MINOR 1-24 #202 208.00 209.00 1.00 .02 1.50 MINOR 1-24 #202 209.00 210.00 1.00 .02 1.50 MINOR 1-24 #204 210.00 211.00 1.00 .02 1.50 TRACE 14 #205 212.00 213.50 1.50 .02 1.90 TRACE 1-24 #206 212.00 213.50 1.50 .02 1.90 TRACE 1-24 #207 213.50 215.00 .15 .02 1.30 TRACE 1-24 #209 215.65 1.65 .02 1.30 TRACE 1-24 #210 215.00 215.00 1.50 .15 .00 1.50 .15 #211 216.52 215.00 </td <td></td> <td>0.5-1%</td> <td></td> <td>1.60</td> <td>.03</td> <td>1.00</td> <td>05.00 206.00</td> <td>8199 7</td>		0.5-1%		1.60	.03	1.00	05.00 206.00	8199 7
8201 207.00 208.00 1.00 .18 6.60 TRACE 14 8202 209.00 1.00 .02 1.90 HINOR 1-24 8203 209.00 210.00 1.00 .02 1.50 HINOR 1-24 8204 210.00 211.00 1.00 .02 1.50 TRACE 14 8205 211.00 212.00 1.00 .01 2.00 TRACE 15 8206 212.00 215.00 1.50 .03 1.90 TRACE 0.5-14 8207 215.00 1.50 .02 1.50 TRACE 1.5 8207 215.00 1.50 .02 1.30 TRACE 1-24 8208 215.00 1.55 .65 .02 1.30 TRACE 1-24 8210 216.55 216.55 .65 .01 1.10 TRACE 1-24 8210 216.52 216.50 .65 .01 1.10 TRACE 1-24 8210 216.50 .65 .01 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
8203 209.00 210.00 1.00 .06 1.50 NHNOR 0.5-1% 8204 210.00 211.00 1.00 .02 1.50 TRACE 1% 8205 211.00 212.00 1.50 .02 1.50 TRACE 1% 8206 212.00 1.50 .150 .02 1.50 TRACE 1% 8207 213.50 1.50 .150 .02 1.50 TRACE 1% 8207 213.50 1.50 .150 .02 1.30 TRACE 1-2% 8208 215.00 215.65 .165 .02 1.30 TRACE 1-2% 8209 215.65 216.50 .15 .00 1.10 TRACE 1-2% 8210 216.50 218.35 1.85 .01 1.10 TRACE 1<%								
8204 210.00 211.00 1.00 .02 1.50 TRACE 1% 8205 211.00 212.00 1.00 .01 2.00 TRACE 1% 8205 212.00 213.50 1.50 .02 1.90 TRACE 0.5-1% 8207 213.50 215.00 1.50 .02 1.90 TRACE 1-2% 8208 215.00 215.65 .65 .02 1.30 TRACE 1-2% 8209 215.65 216.50 .85 .20 7.30 0.25% 2-3% 8210 216.50 218.35 1.85 .01 1.10 TRACE 1-2% 8212 219.60 220.00 .40 .01 1.20 - 0.5% 8212 221.00 220.00 .40 .01 1.20 - 0.5% 8212 221.00 220.00 .40 .01 1.20 - 0.5% 8212 221.00 220.00 .40 .05 1.4 8212 221.00 221.00 1.50 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
8205 211.00 212.00 1.00 .01 2.00 TRACE 1% 8206 212.00 213.50 1.50 .02 1.90 TRACE 0.5-1% 8207 213.50 215.00 1.50 .03 1.90 HIKOR 1-2% 8208 215.00 215.65 .65 .02 1.30 TRACE 1-2% 8209 215.65 .65 .02 1.30 TRACE 1-2% 8209 215.65 .65 .02 1.30 TRACE 1-2% 8209 215.65 .65 .02 1.30 TRACE 1-2% 8210 215.50 218.50 218.50 1.65 .01 1.10 TRACE 1-2% 8211 218.52 219.60 1.25 .02 2.70 0.25% 1% 8212 219.60 220.00 .40 .01 1.20 - 0.5% 8213 220.02 221.00 1.00 .02 3.40 0.5% 1-2% 8215 224.00 225.50								
8206 212.00 213.50 1.50 .02 1.90 TRACE 0.5-1% 8207 213.50 215.00 1.50 .03 1.90 HINOR 1-2% 8208 215.00 215.65 .65 .02 1.30 TRACE 1-2% 8209 215.65 216.50 .85 .20 7.30 0.25% 2-3% 8210 216.50 218.35 1.85 .01 1.10 TRACE 1-2% 8211 218.35 219.60 1.25 .02 2.70 0.25% 1-2% 8212 219.60 220.00 .40 .01 1.20 - 0.5% 8213 220.00 221.00 1.00 TRACE 1% 12% 8214 221.00 222.50 1.50 .03 1.60 TRACE 1% 8215 222.50 24.00 1.50 .19 12.50 TRACE 1% 8216 224.00 225.50 1.50 .02 .90 TRACE 1% 8216 224.00								
8207 213.50 215.00 1.50 .03 1.90 HINOR 1-24 8208 215.00 215.65 .65 .02 1.30 TRACE 1-28 8209 215.65 216.50 .85 .20 7.30 0.258 2-38 8210 216.50 218.35 1.85 .01 1.10 TRACE 1-28 8211 218.35 219.60 1.25 .02 2.70 0.258 1.8 8212 219.60 220.00 .40 .01 1.20 - 0.53 8212 221.00 220.00 .40 .01 1.20 - 0.53 8212 221.00 220.00 .40 .01 1.20 - 0.53 8213 220.00 221.00 1.00 .03 1.60 TRACE 1% 8214 221.00 225.0 1.50 .03 1.60 TRACE 1% 8216 224.00 225.50 1.50 .02 .90 TRACE 1% 8217 225.50 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
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\$209 215.65 216.50 .85 .20 7.30 0.25% 2-3% \$210 216.50 218.35 1.85 .01 1.10 TRACE 1-2% \$211 218.35 219.60 1.25 .02 2.70 0.25% 1% \$212 219.60 220.00 .40 .01 1.20 - 0.5% \$213 220.00 221.00 1.00 .02 3.40 0.5% 1-2% \$214 221.00 222.50 1.50 .03 1.60 TRACE 1% \$215 222.50 224.00 1.50 .19 12.50 TRACE 1% \$216 224.00 225.50 1.50 .02 .90 TRACE 1% \$216 224.00 225.50 1.50 .02 .90 TRACE 1% \$217 225.50 226.25 .75 .01 1.00 TRACE 1% \$218 226.25 227.00 .75 .01 1.00 TRACE 1% \$218 220.228.00 1.20 .00 .02 2.70 HINOR 0.5-1% \$220 228.00								
8210 216.50 218.35 1.85 .01 1.10 TRACE 1-24 8211 218.35 219.60 1.25 .02 2.70 0.254 14 8212 219.60 220.00 .40 .01 1.20 - 0.54 8213 220.00 221.00 1.00 .02 3.40 0.54 1-24 8214 221.00 222.50 1.50 .03 1.60 TRACE 14 8215 222.50 224.00 1.50 .19 12.50 TRACE 14 8216 224.00 225.50 1.50 .02 .90 TRACE 14 8216 224.00 225.50 1.50 .02 .90 TRACE 14 8216 224.00 225.50 1.50 .01 1.00 TRACE 14 8217 225.50 226.25 .75 .01 1.00 TRACE 14 8218 226.25 227.00 .75 .01 1.70 .254 1-24 8220 228.00								
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8212 219.60 220.00 .40 .01 1.20 - 0.5% 8213 220.00 221.00 1.00 .02 3.40 0.5% 1-2% 8214 221.00 222.50 1.50 .03 1.60 TRACE 1% 8215 222.50 224.00 1.50 .19 12.50 TRACE 1% 8216 224.00 225.50 1.50 .02 .90 TRACE 1% 8217 225.50 226.25 .75 .01 1.00 TRACE 1% 8218 226.25 27.00 .75 .01 .90 TRACE 0.5% 8219 227.00 228.00 1.00 .02 2.70 HINOR 0.5-1% 8220 228.00 229.50 1.50 .01 1.70 0.25% 1-2% 8221 229.50 231.00 1.50 .20 1.30 TRACE 1-2% 8222 231.00 232.00 1.00 .02 1.00 TRACE 1-2% 8223 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
8213 220.00 221.00 1.00 .02 3.40 0.5% 1-2% 8214 221.00 222.50 1.50 .03 1.60 TRACE 1% 8215 222.50 224.00 1.50 .19 12.50 TRACE 1% 8216 224.00 225.50 1.50 .02 .90 TRACE 1% 8217 225.50 226.25 .75 .01 1.00 TRACE 1% 8218 226.25 27.00 .75 .01 .90 TRACE 1% 8219 227.00 228.00 1.00 .02 2.70 HINOR 0.5-1% 8220 228.00 229.50 1.50 .01 1.70 0.25% 1-2% 8221 229.50 231.00 1.50 .20 1.30 TRACE 1-2% 8222 231.00 232.00 1.00 .02 1.00 TRACE 1-2% 8223 232.00 233.00 1.00 .03 1.30 MINOR 1-2%								
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8224 233.00 234.00 1.00 .01 1.00 TRACE 1-2%								
8226 234.75 235.75 1.00 .01 1.20 MINOR 0.5%								
8227 235.75 236.75 1.00 .01 1.60 TRACE 1% 8228 236.75 238.00 1.25 .02 1.00 - 0.5%								
8228 236.75 238.00 1.25 .02 1.00 - 0.5% 8229 238.00 239.00 1.00 .01 .80 - 0.5%			-					
			-					
			-					
8232 241.00 242.00 1.00 .01 1.00 MINOR 14								

			ESSO MINERALS CANADA SUMMARY DRILL LOG	
• •	Pro	oject N	Name: <u>HN Blanclock</u> Hole Number: <u>HNR</u>	
	Pro	oject N	lumber <u>1677</u> . Logged By: <u>M.H.</u>	Lenters .
	ΓN	`S :	42H/8 Date: October 199	
ONTARIC SEOLOGICAL SURVEY ASSESSMENT FILES OFFICE MAR 1 5 1989 R E C E I V E D	Az	imuth•.	L32+00W, 12+25S Cloim Number: 180° Dip:43° Length (m): '	21
NAR 1				•
R M SSEC	From (m)	To (m)	Description	Gold Assays (g/tonne)
			CASING REMOVED	
ALTERNATION OF THE OWNER AND	0.00	8.00	Overburden	0.01.0.00
	8.00	73.10	 Interbedded Felsic Metavolcaniclastic to Metavolcanic Pyroclastic Tuff Horizons with Minor Cherty Metasediments Thin to thickly, interbanded/interbedded sequence of felsic to intermediate chlorite-plagioclase-silica schists probably representing metavolcaniclastics and felsic ash, to fine lapilli tuff metavolcanics. Very few original textures are preserved, but locally felsic crystal tuffs, coarse felsic fragmentals, and cherty units are identifiable. Locally the units contain biotite, amphibole and minor magnetite. Felsic tuff units are grey, siliceous, fine-grained, magnetic and generally contain a few percent finely disseminated pyrrhotite and pyrite. Ash tuffs are locally finely laminated, crystal tuffs exhibit small (1 to 2 mm), euhedral plagioclase and ovoid, blue, quartz phenocrysts, and lapilli tuffs contain small (1-10 mm) angular volcanic fragments. Unit exhibits weak to strong foliation oriented at 50° to 65° to CA. Generally 3 to 5%, irregular calcite patches, and minor to a few percent green to red to brownish sphalerite, locally forming small grains, and foliation subparallel bands and laminae, as well as minor galena, and trace chalcopyrite. Zinc/lead sulphides also form within and in close proximity to quartz and/or calcite veins. 24.25-25.10 cherty exhalite bed with 3 to 5% pyrite and 0.5% sphalerite 61.90-62.00 small fault gouge 	(56) 0.01 - 0.04
		221.00	Medium grey, aphanitic plagioclase-silica dominant groundmass with 15 to 20%, 1 to 3 mm, white, subhedral plagioclase phenocrysts. Contact zones of the dyke are silicified and moderately shear foliated at 50° to CA, parallel to the dyke contacts. 5% irregular calcite veining. 1% pyrite Felsic Metavolcanic Ash/Crystal/Lapilli Tuffs with Minor Interbedded Intermediate to Mafic Tuffs	(2) 0.01 - 0.37 (68)
			Thickly interbedded sequence of felsic tuffs with lesser mafic/intermediate tuffs or volcaniclastics. Felsic volcanic tuffs consist mostly of fine ash, very fine lapilli and crystal tuffs with minor slightly coarser lapilli tuffs. These are generally medium grey, fine-grained, siliceous and massive to weakly foliated. Ash tuffs are aphanitic and locally laminated, lapilli tuffs contain small 1 to 3 mm, flattened volcanic fragments and crystal tuffs contain 5 to 10%, 1 to 3 mm plagioclase phenocrysts, and 2 to 5%, 1 to 2 mm, blue, ovoid quartz eyes. Felsic metavolcanics locally contain cherty exhalite horizons that are tan to light grey, aphanitic, finely laminated, hard, siliceous, and locally pyritic.	

	From (m)	To (m)	Description HN88-41	Gold Assays (g/tonne)
			Intermediate to mafic metavolcanic schist horizons are dark green to brownish green, fine-grained, magnetic, moderately schistose/phyllitic and generally composed of chlorite- plagioclase-silica and locally biotite and/or amphibole. Unit generally contains 5 to 10% irregular calcite patches, particularly in the mafic metavolcanic schists. Minor quartz veining. Foliation oriented at 50° to 55° to CA. Minor to 1% pyrite, but locally up to 2 to 5% particularly in slightly sericitic to carbonate altered felsic metavolcanic horizons. Felsic metavolcanic and cherty exhalite horizons locally contain minor to a few percent sphalerite, and trace amounts of galena.	
		221.00	END OF HOLE	
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H-N PROJECT (Ont. 27)		BSSO MINERALS CANADA DIANOND DRILL	Hole: HN88-41 Page: 1
Drilled by:	Bradley Bros. Limited	Azimuth: 180	Claim No: L-872269
Hole Size:	BQ	Dip: -43	Grid: West
Core Size:	BQ		Basting: L32+00W
Casing:	Casing Removed		Northing: 12+258
AL1-3.	0-1 10 1000	Acid Tests:	Blevation: Level
Started:	Oct. 19, 1988	north le Din	Durnage. Best 10 t seemslove bedreet chine
Finished:	Oct. 20, 1988	Depth Az. Dip 8.00 -43.0	Purpose: Test IP & anomalous bedrock chips
Logged by:	N.H.Lenters	108.00 -40.0	Length: 221.00Metres
	October 1988	208.00 -36.0	Vert. Proj: 141.0 Netres
Logging Method:	Log II		Hor. Proj: 170.0 Netres
Keasurement System:	Netric		Ovb. Depth: 5.7 Metres
Interval	Description	Sample Interval Length	Au Ag Grey Pyrite ALTERATION
(Netres)		No. (Metres) (Metres	• • •

.00 8.00 OVERBURDEN

8.00 73.10 FELDSPAR CRYSTAL/LAPILLI TUPP

Interbedded metavolcaniclastic to felsic metavolcanic horizons, and cherty metasediments.

Thin (cm) to thick (metres), relatively sharply bounded, interbanded/interbedded sequence of felsic to intermediate schists, probably representing metavolcaniclastic and felsic metavolcanic ash to fine lapilli tuffs. Very few original textures are preserved, but locally felsic crystal tuffs, coarse felsic fragmentals and cherty units are identifiable. The latter often contain abundant pyrite, minor to a few percent sphalerite and traces of galena.

Many of the units with no original textures are fissile, chloritic to biotitic schists.

8.00 8.45 Pelsic metavolcanic ash tuff. Medium greenish grey, felsic looking, aphanitic silica-plagioclase-chlorite horizon. Noderately, but somewhat irregularly, wavy banded at 60 degrees to the core axis. Contains minor biotite, and 5%, white,

NS	8.00	73.10	\$5.10	n/a	n/a	- MNR-2%
8233	8.00	9.50	1.50	.02	.70	- 1-5%PO
8234	9.50	11.00	1.50	.03	.50	- TR-1%PO
8235	11.00	12.00	1.00	.01	.50	- TR-1%PO
8236	12.00	13.00	1.00	.01	1.20	- TR-0.5%
8237	13.00	13.70	.70	.02	1.00	- XXR-0.5
8238	13.70	14.50	.80	.01	. 40	- MNR/PO
8239	17.00	18.50	1.50	.01	.50	- WNR/PO
8240	18.50	19.50	1.00	.02	1.30	- 0.5-11
8241	19.50	20.00	.50	.21	.80	- 0.5-11
8242	20.00	20.50	.50	.30	3.00	- 23
8243	20.50	21.05	.55	.02	.60	- 2%/PO
8244	21.05	22.00	.95	.02	1.10	- 2 \ /PO
8245	22.00	23.00	1.00	. 38	7.00	- 2%/PO
8246	23.00	24.25	1.25	.04	4.50	- 2-31

H-N PROJECT (Ont_____)

Hole: HN88-41 Page:

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Interval (Netres)	Description	No.		(Metres)	(g/t)	(ppm)	Metalli		SIL	TERATION CARB	SER

	irregular, foliation parallel calcitic patches. Strongly		24.25 25.3			8.40		3-5%			
	magnetic, with minor, 0.5 to 1mm, magnetite porphyroblasts. No significant veining. Winor disseminated pyrite and pyrrhotite.		25.10 26. 26.00 27.1		.06 .03	3.60 2.90		1-24 1-24			
	Lower contact is sharp and oriented at 65 degrees to the core		27.50 29.		.02	1.50		1-21			
	axis.		29.00 30.		.02	1.40	-	1-21			
	8.45 8.55 Felsic volcanic ash metatuff. Medium grey, siliceous, fine		30.50 32.		.01	1.20	-	1-24			
	grained silica-plagioclase horizon, much like most of the		32.00 32.		.03	1.40	-				
	overlying horizon, but this section is less chloritic. Unit		32.30 32.		.01	1.00	-	23			
	contains 5% biotite as small porphyroblasts oriented at 70	8255	32.55 33.	75 1.20	.02	1.10	-	15			
	degrees to the core axis. Very minor Pe-sulphides.		33.75 34.		.01	1.10		1-2			
	Non-magnetic. Upper and lower contacts are sharp, but slightly		34.50 35.		.01	.60	-	1-23			
	undulating and oriented at 50 to 70 degrees to the core axis.		35.25 35.		.01	1.00	-	11			
	8.55 9.15 Pelsic metavolcanic ash tuff. Similar to horizon between 8.00		35.50 36.		.15	10.00	MINOR	1-23			
	to 8.45, but with more (25%) biotite (1mm) porphyroblasts, a		36.00 36.		.01	2.10	TRACE	1-23			
	brownish medium grey colour, and a greater Pe-sulphide (5%)		36.50 37. 37.00 37.		.01 .06	3.00 8.80	TRACB MINOR	1-2% 1-2%			
	content. The later occur mostly as relatively coarse, wispy, pyrrhotite with lesser pyrite. Some Pe-sulphide grains are		37.75 38.		.02	3.40	TRACE	1-24			
	composed partly of both minerals. Horizon is moderately		38.15 38.		.01	.30	TRACE	13			
	metamorphic foliated/banded at 50 to 70 degrees to the core		38.80 39.		.02	.30		1-23			
	axis, with 5% calcitic patches just like the horizon between		39.40 41.		.01	1.30		0.5-11			
	8.00 to 8.45 metres. Lower contact very sharp and planar at 50		41.00 42.		.01	1.00		0.5-11			
	degrees to the core axis.	8268	42.50 44.	00 1.50	.01	.90	-	0.5-1%			
	9.15 9.50 Pelsic feldspar crystal tuff. Light to medium mottled grey,		44.00 45.		.01	1.00		0.5%			
	with 25%, coarse (1 to 5mm), irregular, diffuse, lighter		45.50 46.		.02	1.00		0.5%			
	coloured plagioclase phenocrysts/crystals in a medium grey,		46.75 48.		.01	2.20		2-34			
	moderately foliated/banded, fine grained, homogeneous		48.50 50.		.03	3.60		1-24			
	groundmass with 5%, foliation parallel biotite, minor		50.00 51.		. 39	3.90		1-23			
	chlorite, and minor pyrite. No significant veining, and		51.75 53.		.01	1.00		0.5-1			
	lacking the irregular calcitic patches common in the more		53.00 54. 54.50 56.		.01 .04	1.10 1.10		0.5-1% 0.5-1%			
	tuffaceous bands. Foliation oriented at 50 to 70 degrees to the core axis. Non-magnetic. Lower contact is sharp and		60.15 60.		.03	1.10		0.5-1			
	oriented at 50 degrees to the core axis.		60.95 61.		.11	.70		2-3			
	9.50 10.45 Felsic metavolcanic ash tuff. Similar to horizon between 8.55		62.00 63.		.18	1.70	-	2-31			
	to 9.15m, except more chloritic than biotitic giving it a		63.05 63.		.19	1.40	-	2-33			
	medium greenish-grey colour. Intermottled/banded, finely		63.90 65.		.04	.40	-	MINOR			
	fissile, chloritic schist, and medium grey, more siliceous	8282	65.00 66.	50 1.50	.02	1.00	-	0.5%			

H-N PROJECT (Ont

HN88-41

3

-	Interval (Netres)	Description	Sample No.	Interval (Metres)	Length	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite	 LTERATION CARB	SBR
-										 	

ESSO HINERALS CARDA

material with biotite porphyroblasts, producing several sharply bounded bands and beds of varying composition. Weak to moderately magnetic with fine magnetite locally evident. 5%, irregular wispy, discontinuous calcitic patches. Foliation/banding oriented at 50 degrees to the core axis. Lower contact is sharp and oriented at 45 degrees to the core axis.

- 10.45 12.00 Felsic metavolcanic ash tuff. Hostly similar to the green, finely fissile, chloritic schist horizons between 9.50 and 10.45m, but including a few, medium grey, siliceous bands with biotitic porphyroblasts. Noderately magnetic, with minor black, lmm, magnetite, and 1% pyrrhotite grains evident. Foliation/banding oriented at 55 degrees to the core axis. 5%, irregular, wispy, discontinuous, calcitic patches/banding. Lower contact is a sharp bedding contact oriented at 45 degrees to the core axis.
- 12.00 13.70 Felsic metavolcanic (fine fragmental) or possibly a crystal tuff. Medium grey, hard, siliceous, mottled, coarse grained, relatively homogeneous texture. Locally appears to be composed of small (0.5 to 2cm), monolithic fragments, as shown by vague outlines of flattened clasts. However, most of this section is massive. Contains 54 biotite oriented parallel to the foliation and clast orientation at 45 to 50 degrees to the core axis. 34, weakly calcitic patches, but not as foliated as in the more tuffaceous horizons. Minor, small (1 to 3mm), ovoid, blue guartz eyes. Lower contact poorly recovered, but appears to be sharp and planar and oriented at 45 degrees to the core axis.
- 13.70 24.25 Felsic metavolcanic ash tuff. Similar to the horizon between 9.50 to 10.45 metres. Green to greenish grey, mostly fissile, fine grained, and chloritic, with some greyer, more siliceous zones. The more chloritic sections are generally strongly magnetic with 1 to 3%, 1mm, magnetite, and often a few to 10% blotite, or a few percent dark green amphibole porphyroblasts. These porphyroblasts are generally 0.5 to 1mm in size, with blotite oriented parallel to foliation,

8283	66.50	68.00	1.50	.03	.90	-	MINOR	
8284	68.00	69.50	1.50	.02	1.10	-	MINOR	
8285	69.50	70.75	1.25	.03	.40	-	MINOR	
8286	70.75	71.35	.60	.05	2.00	-	2-31	
8287	71.35	72.50	1.15	.02	.40	-	0.5%	
8288	72.50	73.10	.60	.01	.70	-	11	

Hole: HN88-41 H-N PROJECT (Ont. 22) BSSO MINERALS CANADA DIAMOND DRILL R Page: 4 Interval Description Sample Interval Length λu λg Grey Pyrite ALTERATION (Metres) No. (Metres) (Metres) (q/t) (ppm) Metallic (%) SIL CARB SER

> and often banded, while amphibole forms variably oriented 5%, irregular calcitic patches, and occasional, 0.5 blades. to 2cm, irregular quartz-calcite veins. Well developed fissile foliation oriented at 50 degrees to the core axis. Calcitic guartz vein/patches occur at 17.80 to 17.85 and 19.70 to 19.80m, with the latter containing minor pyrite and traces of reddish sphalerite and galena. Unit contains thin, grey, siliceous bands between 20.00 to 20.05, as well as 20.30 to 20.50m, which contain minor, fine (0.5mm), red sphalerite grains, often in thin (1 to 3mm) bands, as well as traces of galena and chalcopyrite as small grains often adjacent to thin, calcite bands/veins. Above 20.05 metres the unit contains minor to 0.5%, disseminated pyrite+/-pyrrhotite, often in concentrations as individual visoy grains along foliation surfaces. Below 20.05 the unit contains more (1 to 2%) Pe-sulphides, as well as the occasional sphalerite laminae. Sphalerite often occurs with thin (1 to 3mm), light grey, siliceous laminae that occasionally appear boudinaged. The lowest 50cm has a slight greyish colour and is more siliceous, with a greater (2 to (13) concentration of very fine pyrite, and local reddish sphalerite bands. Lower contact is sharp and planar and oriented at 50 degrees to the core axis.

24.25 25.10 Cherty (In,Fe) exhalite horizon. Well banded, medium to relatively dark reddish brownish to purplish grey, fine grained, hard, siliceous, non-magnetic and non-calcareous, although some brownish coloured bands suggest a carbonate (Pe-carb) content. 5%, biotite porphyroblasts give the horizon a foliated/banded appearance. Horizon is banded at 45 to 60 degrees to the core axis. Contains 3 to 5%, fine pyrite concentrated in foliation parallel bands, as well as fine (0.25 to 0.5mm), ovoid, reddish sphalerite, also concentrated in thin (1 to 2mm) foliation parallel bands. Non-magnetic. No significant veining. Lower contact is gradational over 10cm into a green, finely fissile, chloritic metatuff.

H-N PROJECT (Ont. 27)		BSSO MINBRALS CANADA DIAMOND DRILL I			Hole: Page:	HN 8	8-41 5	\bullet	
Interval (Metres)	Description	Sample No.	Interval (Metres)			Hetallic		ALTERATION SIL CARB	SER

- 25.10 32.30 Felsic metavolcanic flow/tuff. Medium greenish-grev, fine grained, fissile, hard, very felsic, homogeneous unit. Has a slight green colour due to fine chlorite?, but probably contains very little chlorite. Unit also contains 5 to 10% biotite porphyroblasts, that are foliation parallel and often segregated into foliaton parallel laminae. Vnit locally exhibits a fine overprinting of variably oriented amphibole porphyroblasts. Very planar, fissile, foliation oriented at 55 to 60 degrees to the core axis. Minor calcitic banding, that is much more regular, foliation parallel, and not as common as in the overlying tuff horizons. 1 to 2%, very finely disseminated pyrite. Minor, thin (1 to 3mm), subplanar, often foliation parallel and slightly boudinaged, guartz+/-calcite veinlets, locally with a green epidote colour. Hard competent unit, generally with 0.5 to 2m breakage parallel to the foliation. Unit contains a few, thin (0.5 to 1cm), grey, cherty bands near 28 metres, locally with hematitic (jasper) colour. One thin cherty laminae at 29.60m contains minor sphalerite.
- 32.30 32.55 Felsic fragmental/pyroclastic netavolcanic Idefinite texture). fragmental Vari-coloured medium green-grey colours, with abundant (30%), small (1mm to 2cm), polylithic (though all felsic volcanic), flattened to subrounded fragments/clasts. Larger clasts are broken and fractured. Clasts are medium grey, hard, fine grained, siliceous, and probably originate from tuffaceous matrix material having a composition much like the overlying units. Unit is well laminated/banded with pebbles oriented parallel to foliation/bedding at 50 to 55 degrees to the core axis. Pebbles appear to be moderately (3:1) flattened. Unit contains 2%, finely disseminated pyrite, often concentrated Minor irregular calcitic foliation laminae. along Sharp lower contact oriented at 55 degrees patches/lenses. to the core axis.
- 32.55 33.75 Pelsic feldspar crystal tuff (Possibly an intrusive dyke). Similar to unit between 9.15 to 9.5 metres. Light to medium

H-N PROJECT (Ont_]) ESSO MINERALS CANADA Hole: HN88-41 DIAMOND DRILL Page: 6 Grey Pyrite Interval Description Sample Interval Length λu λq ALTERATION (Metres) (Metres) (g/t) (ppm) Metallic (%) (Metres) No. SIL CARB SER

> mottled grey, with 20%, small (1 to 4mm), subhedral and somewhat corroded looking, light grey-white plagioclase phenocrysts/crystals in a fine grained, siliceous, medium grey matrix, also containing 5%, fine biotite, and 1% finely disseminated pyrite. Relatively massive and homogeneous unit, with weak foliation due to aligned biotite oriented at 50 to 55 degrees to the core axis. Non-magnetic and non-calcareous. No significant veining. Ward, competent unit. Lower contact is a sharp planar surface oriented at 65 degrees to the core axis.

- 33.75 35.25 Felsic metavolcanic fragmental/fine pyroclastic. Identical to section between 32.30 32.55m, with slightly greater (50%) percentage of fragments/clasts, and several larger fragments that are up to 1cm wide and extend across the core width. Relatively sharp upper and lower contacts oriented at 50 degrees to the core axis.
- 35.25 35.50 Felsic feldspar crystal tuff. Identical to unit between 32.55 33.75 metres.
- 35.50 38.80 Felsic metavolcanic. Fine fragmental/pyroclastic unit with minor cherty exhalitive bands. Medium grey to browns, with nottled subdued appearance, but locally exhibiting a subdued clastic/pyroclastic appearance with abundant fine (1 to 20mm) larger fragment. Pragments are and the occasional polylithic, felsic in composition, and flattened, occasionally with flamed edges (welded tuff?). Unit is non-magnetic. Unit has a pervasive siliceous appearance which may account for the subdued/waque definition/outlines of clasts/fragments. Clasts are usually greyer and more siliceous, while matrix material is biotitic. Good foliation and parallel alignment of fragments at 65 to 70 degrees to the core axis. A few bands are light grey and partially laminated with a cherty appearance. Unit contains 1% finely disseminated pyrite. Unit also contains traces of finely disseminated galena, and a few thin, foliation parallel laminae containing yellowish red to brownish sphalerite. An irregular guartz lense/vein between 37.50 to 37.55m contains

H-N PROJECT (Ont ____7) ESSO MINERALS CANADA Hole: HN88-41 DIAMOND DRILL Page: Sample Interval Length Grey Pyrite ALTERATION Interval Description λu Åq (Metres) No. (Metres) (Metres) (g/t) (ppm) Metallic (%) SIL CARB SER

> 20%, irregularly anastomosing and finely networking yellowish-brown sphalerite. Another irregular quartz vein/lense between 35.90 to 36.00m contains a few percent more disseminated green sphalerite, and minor coarse galema. Minor sphalerite occurs in foliation parallel laminae in the wallrock adjacent to this vein/lense. Unit contains minor, calcitic veining/banding, but more foliation parallel, and not as patchy or irregular as in the finer grained felsic tuffs in upper part of this hole. Lower contact is gradational.

- 38.80 39.40 Pelsic metavolcanic. Fine fragmental/pyroclastic unit. Gradational change from the overlying unit into a more biotitic and less fragmental zone, but essentially the same unit. Well developed planar, fissile foliation oriented at 55 degrees to the core axis. Lower contact is sharp and planar and oriented at 55 degrees to the core axis.
- 39.40 46.75 Felsic metavolcanic feldspar-quartz crystal tuff. Similar to overlying crystal tuff units. Medium grey, hard, homogeneous unit with 15 to 20%, light grey, 1 to 3mm, subhedral to corroded plagioclase crystals, and lesser, smaller (1 to 2mm), ovoid, bluish quartz eyes in a finer grained, weak to moderately follated groundmass with 5% follation parallel biotite. Central section of this unit contains fever plagloclase crystals and appears somewhat similar to overlying grey tuff units. 0.5 to 1%, fine pyrite, often concentrated along wispy, biotitic, foliation parallel Hard competent unit, generally with 30 to 100cm surfaces. breakage. Unit includes one irregular guartz vein from 43.00 to 43.20m with coarse, clean, slightly smokey to clear quartz. Lower contact is sharp and planar and oriented at 50 degrees to the core axis.
- 46.75 48.50 Fine felsic metavolcanic fragmental/pyroclastic schist. Same as unit between 35.50 to 38.80m, but lacking any cherty bands although many fragments/clasts have siliceous/cherty composition giving the entire unit a siliceous appearance. Medium grey to green, composed mostly of small (0.5 to 2cm),

H-N PROJECT (Ont _____) Hole: BSSO MINERALS CANADA HN88-41 DIAMOND DRILL R Page: Interval Description Sample Interval Length λu λq Grey Pyrite ALTERATION (Netres) No. (Metres) (Metres) (g/t) (ppm) Metallic (%) SIL CARB SER

> flattened pebbles/fragments with a somewhat monolithic felsic volcanic composition, in a brownish green, fine, siliceous matrix also containing minor to a few percent chlorite, epidote, biotite and pyrite. Well developed planar fissile foliation, and parallel fragment/pebble flattening orientation at 50 degrees to the core axis. Hard, siliceous, non-magnetic unit. 2 to 3%, very finely disseminated pyrite, as wispy to elongate grains oriented parallel to the foliation. No significant veining. Unit contains traces of very fine galena often associated with whitish grey, siliceous pebbles, or silicified matrix bands/laminae. Lower contact is gradational over a cm or so into a more even textured, fine lithic/ash? tuff.

- 48.50 51.75 Pelsic to intermediate metavolcanic flow/tuff. Similar to unit between 25.10 to 32.30m, but slightly less felsic and fissile. Medium greenish-grey, fine grained, hard, moderately felsic, moderately fissile, very homogeneous unit. Unit locally exhibits a brownish grey colour. Green sections due to minor chlorite and epidote, while brown sections are due to 5%. fine biotite porphyroblasts. Unit contains no amphibole porphyroblasts. Unit locally exhibits a fine grained (0.25 to 0.5mm), volcanic flow texture. Minor calcitic veining, generally as discontinuous lenses to thin (1 to 3mm), subplanar veins, but there are no irregular calcitic patches as is common in overlying tuff horizons. Weak to moderately magnetic. 1 to 2% finely disseminated pyrite. Ninor epidote, often along hairline crackling. Small quartz veinlet at 51m has partial red (jasper) colouring. Upper zone contains two, large (5 to 10cm), subrounded, feldspar crystal tuff cobbles/fraqments, that exhibit a slight flattening and flamed edges. These occur directly beneath upper contact zone. Hard competent unit. Upper contact is gradational. Lower contact is sharp, planar and oriented at 70 degrees to the core axis.
- 51.75 60.95 Pelsic metavolcanic feldspar crystal tuff. (Possibly an intrusive dyke). Mottled, medium grey, with local salmon

H-N PROJECT (Ont ____) ESSO MINERALS CANADA Hole: HN88-41 DIAMOND DRILL Page: 9 Description Interval Sample Interval Length λu λq Grey Pyrite ALTERATION (Metres) (Netres) (Netres) (g/t) (ppm) Netallic (%) No. SIL CARB SBR

> pink alteration/colouration, generally along fractures. 5 to 10%, small (1 to 3mm), subhedral to corroded plagloclase crystals, and minor, ovoid, quartz in fine grained to aphanitic, weak to moderately foliated groundmass that also contains minor biotite and pyrite. Poliation oriented at 55 to 60 degrees to the core axis. Unit exhibits some variations in composition and grain size, including several lithic fragments suggesting the unit is a felsic crystal tuff as opposed to porphyritic dyke. Minor, thin (lmm), calcite and guartz-carbonate veinlets/lensing. Much of unit exhibits a weak crackle fracturing, locally with a slight salmon pink alteration/colouring. A few fractures are coated with thin (lmm), slightly greenish, icing-sugar calcite material. Non-magnetic. No significant veining. Hard, competent unit, with 25cm to 1m breakage, generally along foliation subparallel, planar, fractures. Lower contact is sharp and planar at 70 degrees to the core axis.

60.95 73.10 Intermediate metavolcanic flow.

- 60.95 61.95 Dark brownish green-grey, fine grained, chloritic with minor biotite, homogeneous, hard, weak to moderately foliated, strongly magnetic, weak to moderately calcareous. Unit has a weak silicified appearance, and locally contains minor, small (hairline to lmm), irregly branching, discontinuous, white to purplish red (jasper), silica veinlets. 2 to 34, finely disseminated pyrite, concentrated along foliation parallel laminae, giving unit a laminated/sulphide banded appearance. Foliation and pyritic laminae are oriented at 50 degrees to the core axis.
- 61.95 62.00 Fault Zone. Recovered 5cm of white to light green, calcitic, clay fault gouge, containing numerous small (1 to 5mm), angular, altered/partially decomposed volcanic fragments. Upper and lower contacts are poorly recovered, but appear to be parallel to the foliation at 50 to 55 degrees to the core axis.
- 62.00 63.90 Similar to section between 60.95 to 61.95m, but carbonate altered and biotitic, probably due to proximity to fault.

H-N PROJECT (Ont _____7) HN88-41 ESSO MINERALS CANADA Hole: DIAMOND DRILL Page: 10 Interval Description Interval Length Grey Pvrite ALTERATION Sample λu. ٨q (Metres) (Metres) (q/t) (ppm) Metallic (%) (Metres) No. SIL CARB SBR

> Dark brownish grey, very fine grained, hard, biotitic, homogeneous, non to weakly magnetic, with weak to moderately phyllitic foliation. Has a pervasive silicified appearance, but exhibits 5%, irregular, criss-crossing (network), hairline, calcitic fractures with thin (hairline to 5mm), light tan-grey carbonate alteration adjacent to fracturing. 2 to 3%, finely disseminated pyrite, concentrated along thin, foliation parallel laminae. Phyllitic foliation and pyritic laminae are generally oriented at 40 to 45 degrees to the core axis. Section also contains a few, thin (1 to 3mm), foliation parallel, calcitic, pyritic bands/laminae occasionally containing minor amounts of sphalerite. No significant veining.

- 63.90 72.50 Relatively unaltered, dark green, chloritic, fine grained, magnetic, homogeneous, weakly to moderately strongly phyllitic, intermediate to mafic metavolcanic flow. Good intergrown plagioclase-ferromagnesian volcanic flow texture is locally evident. Section includes a few zones with brownish colouration due to biotitic content, and minor silicification producing zones similar to that between 62.00 to 63.90m. These zones occur between 68.50 to 68.65m, and 70.75 to 71.35m, and have gradational contacts. Minor brown sphalerite occurs in two, thin (5mm), guartz-calcite bands that are oriented parallel to foliation. Dark green, sections locally exhibit small amphibole chloritic porphyroblasts with irregular orientations. Winor, thin (1 to Smm), guartz+calcite veining, often oriented subplanar to foliation. Generally hard, competent unit, with 25 to 100cm breakage, but including a rubble zone between 72.35 to 72.75 metres.
- 72.50 73.10 Similar to section between 62.00 to 63.90 metres. Dark brownish grey, fine grained, hard, silicified, homogeneous, non to very weakly magnetic, with weak to moderate foliation oriented at 45 degrees to the core axis. Lower contact is a sharp, planar intrusive contact oriented at 45 degrees to the core axis.

H-N PROJECT (C	Diamond drill N						Hole: Page:	HN	88-41 11	•	
Interval (Netres)	Description	No.			Length (Netres)						
73.10 74.40	 PELDSPAR PORPHYRITIC QUARTZ DIORITE DYKE 73.10 73.65 Shear foliated edge of dyke, with moderate silicification, and moderate foliation oriented at 50 degrees to the core axis. 73.65 74.15 Irregularly swirled and moderately silicified, more massive intrusive dyke including large mafic metavolcanic inclusion. Intrusive is generally medium grey, aphanitic, with 15 to 20%, 1 to 3mm, white, subhedral, plagioclase phenocrysts. 1% pyrite. 5% irregular, calcite veining, particularly common near and within the mafic volcanic inclusion. 74.15 74.40 Shear foliated and silicified edge of intrusive dyke, with foliation oriented at 45 degrees to the core axis. Upper and lower contacts are relatively sharp and oriented at 45 degrees to the core axis. 	e 8289 8290 e o n d	73.10	73.65	1.30 .55 .75	n/a .01 .04	n/a 1.20 1.00	-	MNR-1% MINOR 0.5%		
74.40 85.20	D PLAIGIOCLASE-CHLORITE-AMPHIBOLE SCHIST Intermediate to mafic metavolcanic flows. Dark green to brownish green, marbled looking unit, due to irregular calcitic vein patches, as well as biotitic and amphibolitic porphyroblastic zones. Groundmass is normally a dark green, very fine grained, chloritic, weakly to moderately phyllitic, with some greyer more siliceous (felsic to intermediate), fine grained sections, and some brownish, biotitic, fine grained sections. Unit locally contains 0.5 to 1mm, magnetite porphyroblasts. Locally the fine grained zones contain irregular, buckshot to weakly banded, relatively coarse (1mm), reddish brown, biotite porphyroblasts (generally 1 to 5%, and locally to 30%), as well as minor to a fer percent, 1mm, randomly oriented amphibole porphyroblasts. Unit contains 5 to 15%, and locally (over a few cm) 50%, irregular to almost stockwork, calcitic patches that are somewhat aligned parallel to the foliation direction. Foliation oriented at 55 to 56 degrees to the core axis.	r 8291 c 8292 8293 y 8294 o e y 8294 o e	74.40 75.50 83.00	75.50 77.00	10.80 1.10 1.50 1.50 .70	n/a .01 .02 .02		-	NINOR MINOR MINOR MINOR		

H-N PROJECT (C)A Id					Hole: Page:	HN 8	8-41 12		
Interval (Netres)	Description	Sample No.			Length (Netres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	TERATION CARB	SBR
85.20 86.0	No significant veining. Minor pyrite. Competent unit, with 25 to 150 cm breakage. Lower contact is sharp and planar and oriented at 65 degrees to the core axis. 5 FELDSPAR CRYSTAL/LAPILLI TUFF Similar to unit between 12.00 to 13.70 metres. Medium grey with slight coarse grained mottled appearance. Hard, siliceous, homogeneous, with massive to weakly foliated texture. Massive sections exhibit very poorly defined, 1 to 3mm, white plagioclase, and guartz crystals with corroded/resorbed edges in medium grey matrix. Finer grained, grey, weakly foliated zones contain 54, fine, foliation		85.20 85.20			n/a .01	n/a 1.40	-	MINOR WINOR		
\$6 A5 \$9 3	parallel biotite. Foliation oriented at 55 degrees to the core axis. Minor calcitic veinlets, generally oriented parallel to foliation. Upper and lower contacts are sharp and planar and oriented at 65 and 60 degrees to the core axis. 5 PLAIGIOCLASE-CHLORITE-AMPHIBOLE SCHIST										
	Intermediate to mafic metavolcanic flow unit, similar to unit between 74.40 to 85.20 metres. Hostly fine grained and chloritic, except for thin (10 to 50cm), blotitic, upper and lower contact zones that contain magnetite, blotite, and amphibole porphyroblasts, as well as 10 to 15% calcitic patches. Foliation oriented at 55 degrees to the core axis. Lower contact is transitional.	8296	86.05	87.50	5 3.30) 1.45 5 1.85	n/a .04 .01	n/a 1.00 .40	-	MINOR MINOR MINOR		
89.35 94.4	5 FBLDSPAR CRYSTAL/LAPILLI TUFF Similar to unit between 85.20 to 86.05 metres. Hedium grey, with mottled coarse grained appearance, locally exhibiting a well developed weakly foliated, crystal tuff texture. Contains several percent, 2 to 4mm, ovoid, blue guartz eyes. Non-magnetic, and very	8298 8299	89.35 90.10	90.10 91.00		n/a .02 .05 .01	n/a .50 1.20 1.00	- - -	MINOR HINOR MINOR HINOR		

K-N PROJECT	(Ont
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Interval (Netres)	Description	Sample No.		Length (Netres)	λu (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	TBRATION CARB	SE
	 weakly calcareous. Upper zone between 89.35 to 90.10m is transitional between overlying intermediate to mafic metavolcanic, and this unit. Medium to dark grey, with moderate chlorite/biotite foliation/banding oriented at 50 degrees to the core axis. Lower zone between 93.45 to 94.45m may partly include exhalative chert/carbonate component. Grey to tan, locally finely laminated, with very fine grained, cherty/carbonate bands having planar contacts parallel to foliation at 50 degrees to the core axis. Unit contains minor calcitic veinlets and fracturing, but is generally a very homogeneous unit and except for upper and lower contact zones contains very minor porphyroblasts. Central section contains minor fine biotite producing a weak foliation oriented at 55 degrees to the core axis. Minor disseminated pyrite, except for 1 to 2% in the lower cherty carbonate zone which also contains minor amounts of brown-red sphalerite. No significant veining. Hard, competent unit, generally with 50 to 100 cm breakage often parallel to foliation. 			1.45	.01 .02	1.10		HINOR 1-2%		
.45 103.5	 5 PLAIGIOCLASE-CHLORITE-AMPHIBOLE SCHIST Intermediate to mafic metavolcanic. Dark green-black, very fine grained, chloritic, very hard, with minor, thin (1 to 2cm), patches/bands of 1mm, biotite porphyroblasts, and minor, scattered, 1mm, dark green, amphibole porphyroblasts. Unit is relatively homogeneous, strongly magnetic, weakly phyllitic, and foliated at 55 degrees to the core axis. 5 to 10%, irregular, somewhat foliation subparallel, calcitic mottling. 1 to 2%, wispy laminated/disseminated pyrite as well as minor pyritic laminae bands with minor red sphalerite. 98.95 99.35 Coarse grained, white guartz vein oriented at 25 degrees to the core axis. 	8303 8304 8305 8306 8307 8308 8309 8310 8311	95.00 96.00 98.95 99.35 99.95 101.00 101.65 102.05 102.90	.95 .40 .60 1.05 .65 .40 .85	n/a .01 .01 .01 .12 .02 .01 .02 .18 .01	n/a 1.40 .50 .90 5.90 2.20 1.80 1.60 2.90		1-2% 2-3% HINOR 1-2% TRACB 2-3% 1-2% 1-2% 0.5-1% 2-3%		

99.35 99.95 Zone adjacent to quartz vein. Well banded, medium brownish to purplish grey, with abundant (3 to 5%), finely laminated pyrite as well as foliation parallel calcitic veinlet bands

I-N PROJECT (O	DIAMOND DRILL)A ID				Kole: Page:	HN 8	8-41 14		
Interval (Netres)	Description	No.		(Metres)	Au (g/t)	Ag (ppm)		Pyrite (%)	TERATION CARB	SB
103.55 109.65	and red sphalerite. Zone exhibits gradational change to green metavolcanic. 101.70 102.00 And 102.90 103.55 Both bands are more biotitic, coarser grained, moderately schistose to vell foliated, with abundant (3 to 6%), finely disseminated/laminated pyrite and minor red sphalerite, as well as minor, irregular, coarse, calcite fractures with sphalerite (1%) at contacts. Competent, hard unit with 25 to 50 cm breakage generally along foliation surfaces. Irregular lower contact along calcite fractures with sphalerite mineralization. PELDSPAR CRYSTAL/LAPILLI TUPF Medium mottled grey to greenish grey, coarsely textured, locally with subdued crystal tuff texture, and locally with subdued, fine (1 to 10mm), flattened, mostly monolithic lapilli tuff texture. Locally exhibits more massive, greenish (sericitic and carbonate) alteration patches/bands. Foliation, bedding and alteration banding are moderately developed at 55 to 60 degrees to the core axis. Mon-magnetic. Minor calcitic patches and fracturing. No significant veining, except one, 5cm, white, quartz vein oriented at 45 degrees to the core axis between 105.25 to 105.30 metres. Minor to 1%, finely disseminated to vispy laminated pyrite. Minor, coarse (1mm), yellowish orange to reddish sphalerite in irregular, but foliation subgralle bands. Relatively hard, competent unit, with 10 to 50cm breakage, generally parallel to foliation. Lower contact is gradational.	NS 1 8313 1 8314 1 8315 1 8316 1 8316 1 8317 1	03.55 109.65 03.55 104.00 04.00 105.50 05.50 107.15 07.15 107.45 07.45 108.50 08.50 109.65	6.10 .45 1.50 1.65 .30 1.05	n/a .01 .01 .01 .01 .00	n/a 1.00 .90 1.10 3.00 1.80 n/a		HNR-14 MINOR MINOR MINOR 14 13		
109.65 112.05	ASH TUFF / FINE LAPILLI TUFF Somewhat similar to biotitic and chloritic ash tuffs in upper part of hole	NS 1	09.65 112.05	5 2.40	n/a	n/a	-	0.5-1%		

H-N PROJECT (O		X D				Hole: Page:	HN 8	8-41 15			
Interval (Netres)	Description	Sample No.	Interval (Netres)		Au (g/t)	Ag (ppm)	-	Pyrite : (\$)	AL SIL	TERATION CARB	SBR
	 Brown, fine grained, non-magnetic to weakly magnetic, biotitic, even texture, phyllitic unit with some grey, irregular, more siliceous bands. 54, Irregular networking patches of calcite as was typical in tuffs in upper part of hole. Moderate phyllitic foliation, and weak banding oriented at 55 to 65 degrees to the core axis. 0.5 to 14, finely disseminated to wispy laminated pyrite grains. Minor red sphalerite, often along irregular, hairline, late fractures. Minor, irregular, quartz blebs (1 to 5mm), locally with pyrite and trace galena. Unit is moderately broken into 1 to 20cm pieces, generally parallel to phyllitic foliation. Lower contact is a sharp planar surface oriented at 75 degrees to the core axis. 		09.65 111.00 11.00 112.50		.01 .02	.60 1.50		0.5-1%			
112.05 119.45	 QUARTZ-FELDSPAR CRYSTAL TUFF Unit locally has a felsic intrusive dyke-like appearance. Nottled medium grey, slightly pinkish coloured, with porphyritic appearance although this is probably a crystal tuff. 10%, large (3 to 5mm), white, subhedral plagioclase crystals and 2%, large (2 to 4mm), ovoid, blue guartz eyes in wavy a foliated, coarse grained (0.5 to 2mm), plagioclase/quartz matrix containing minor (5%) biotite. Matrix appears slightly augen gneissic. Relatively homogeneous unit, although some banding of crystal richer and crystal poorer zones occurs. Hard, non-magnetic, very weakly calcareous, with foliation oriented at 60 degrees to the core axis. Locally, some guartz eyes exhibit calcite in pressure shadows. Minor disseminated pyrite. No significant veining. Hard, competent unit with 5 to 50cm breakage generally parallel to foliation. Upper and lower contacts are sharp and planar and oriented at 75 and 65 degrees to the core axis respectively. 	8321 1 8322 1	12.05 119.45 12.50 114.00 14.00 115.00 18.00 119.45	1.50 1.00	n/a .12 .02 .01	n/a .90 1.10 1.10	- - -				

H-N PROJECT (C	BSSO MINERALS CAN DIAMOND DRILL R					Xole: Page:	HN	8-41 16			
[nterva] (Netres)	Description	Sample No.	e Interval (Netres)	Length (Netres)				Pyrite : (%)	AL SIL	TERATION CARB	SER
119.45 139.80	PLAIGIOCLASE-CHLORITE-AMPHIBOLE SCHIST Intermediate to mafic metavolcanic. Dark green-grey to slightly brownish grey, very fine grained, chloritic, moderately to strongly magnetic, weakly phyllitic, relatively homogeneous unit. 5 to 10%, vague, patchy networking, or irregular, discontinuous calcite forming irregular cloud patterns. Also minor (1 to 2%), poorly formed, concentric filled, irregular fractures often with central white-grey silica that is bounded by bluish grey calcite, and locally by minor, red (jasper) silica bands containing pyrite. These also form irregular (1 to 10cm) patches. Foliation and calcitic patches generally oriented at 55 to 65 degrees to the core axis. Minor, 1 to 5 cm quartz veins. Minor to 0.5%, finely disseminated and vispy laminated pyrite, as well as some thin (5 to 25 cm) zones containing 2 to 4% pyrite. One zone of pyritic, brownish carbonate altered material between 135.5 and 136.00m has appearance similar to felsic metavolcanics of the underlying unit. Competent unit with 10 to 50 cm breakage, generally along planar fractures (often with calcite coatings) variably oriented at 45 to 90 degrees to the core axis. Lower contact sharp and planar at 70 degrees to the core axis, but contact zones to either side exhibit alteration effects and are somewhat different than the main parts of unit.	8324 8325 8326 8327 8328 8329 8330 8331 8332 8333 8333 8334	119.45 139.8 119.45 121.0 121.00 122.8 122.85 123.3 123.30 125.0 125.00 126.5 132.50 133.5 134.50 135.0 135.00 136.0 136.00 137.0 137.00 138.5 138.50 139.8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	n/a .01 .23 .01 .01 .01 .01 .01 .01	n/a .50 .50 .50 .50 .40 .50 .40 2.20 .30 .40 .80		INR-0.5 MINOR 0.5% 2-3% MINOR 0.5% 1-2% 1-2% 3-5% 0.5% 1.5% 0.5%			
139.80 147.40	FBLDSPAR CRYSTAL/LAPILLI TUFF Light to medium greenish grey, generally weak to moderately sericitic and weakly carbonate altered, with mottled coarse grained, and weak to moderately laminated/banded texture. Unit contains 2 to 4%, 1 to 3mm, ovoid, blue guartz eyes. Well developed sericitic cleavage, parallel to foliation at 65 degrees to the core axis. Non-magnetitic, and weakly reactive to HCL.	8336 8337 8338 8339 8340	139.80 147.4 139.80 141.0 141.00 142.0 142.00 143.2 143.20 144.5 144.50 145.0 145.00 146.0	0 1.20 0 1.00 0 1.20 0 1.30 0 .50	n/a .01 .02 .01 .03 .01	n/a 1.10 .70 1.00 1.00 .80 .70	- - - - TRACB	0.5-1% 1% 0.5% 0.5% 0.5% TRACB 1%			

-N PROJECT (O	BSSO MINBRALS CANAD DIAMOND DRILL R	b				Hole: Page:	HN 8	8-41 17)
Interval (Netres)	Description	Sample No.	Interval (Netres)		λu (g/t)	Ag (ppm)		Pyrite (%)	ALTERATIO SIL CARB	N SBR
	Cut by several, large (1 to 50cm), coarse grained, white, clean quartz veins, generally at shallow (20 to 40 degree) angles to the core axis, but veins are also somewhat irregular and branching. 0.5 to 1%, finely disseminated and wispy laminated pyrite. Moderately broken unit, with 2 to 15cm breakage along sericitic cleavage surfaces. Transitional lower contact, into more mafic, chloritic tuffs.	8342 1	46.00 147.4	0 1.40	.01	1.60	-	1-23		
147.40 180.70	PLAIGIOCLASE-CHLORITE-AMPHIBOLE SCHIST Intercalated mafic and felsic tuffs. Alternating, thick (several metre) bands of dark green, chloritic, fine grained, weakly phyllitic and laminated, magnetic, pyritic (2 to 4%), mafic metavolcanic tuffs, and medium grey to green, sericitic and carboante altered, well foliated/laminated, fine grained, pyritic, non-magnetic, felsic metavolcanic tuffs. Pelsic tuffs exhibit tuffaceous banding, but only locally have quartz eyes (not the typical blue ovoid grains), and appear more pyritic and carbonate altered than the overlying felsic metavolcanics. More felsic sections contains some thinner (10 to 50cm), more mafic bands, and more mafic sections contain a few, thin (10 to 50cm), more felsic bands. Contacts between sections are somewhat gradational. 147.40 149.90 Mafic metavolcanic tuff. 149.90 153.85 Felsic carbonate altered metavolcanic tuff. 153.85 157.60 Mafic metavolcanic tuff. 157.60 159.15 Felsic metavolcanic tuff. 164.25 170.40 Felsic metavolcanic tuff. 172.60 173.50 Feldspar Porphyritic Quartz Diorite Dyke. Medium grey, feldspar porphyritic intrusive dyke. 173.50 180.70 Mafic metavolcanic tuff, including well laminated/banded zones, and minor, greenish yellow, (limonitic?) weathered pyrite. Well developed lamination/foliation oriented at 55 to 65 degrees to the	8343 1 8344 1 8345 1 8346 1 8346 1 8347 1 8348 1 8349 1 8350 1 8350 1 8351 1 8352 1	47.40 180.7 47.40 149.0 49.00 149.9 49.90 152.0 52.00 153.0 53.85 155.0 64.00 165.5 65.50 167.0 76.00 177.5 77.50 179.0 79.00 180.7	0 1.60 0 .90 0 2.10 0 1.00 5 .85 10 1.15 0 1.50 1.50 0 1.50 0 1.50 0 1.50	n/a .01 .01 .01 .01 .01 .01 .06 .37 .06	n/a .70 .50 .90 1.40 .60 .20 .60 1.90 2.30 2.50		2-4% 3-4% 3-4% 2% 5-8% 2% 3-4% 3-4% 2-3%		

H-N PROJECT (O	DIAMOND DRILL					Hole: Page:	HN 8	8-41 18			
Interval (Netres)	Description	Sample No.	Interval (Netres)		λu (g/t)	Ag (ppm)	-	Pyrite (%)	A SIL	LTERATION CARB	SBR
	core axis.								*****		
	Bntire unit contains 2 to 4%, finely disseminated pyrite, locally										
	concentrated as wispy grains along planar horizons parallel to foliation. Ninor, thin (1 to 5cm), irregular quartz lenses/veins, locally with minor										
	orange-red jasper veinlets. 165.70 165.85 Large guartz vein with irregular contacts oriented at 50										
	degrees to the core axis.										
	Generally 5%, irregular, patchy networking of calcite mottling throughout unit.										
	Generally moderately competent unit, with 5 to 25cm breakage parallel to										
	foliation at 60 degrees to the core axis. Lower contact is sharp but poorly recovered.										
180.70 185.15	FBLDSPAR CRYSTAL/LAPILLI TUFF	¥6 1	NA 74 145 14	rr		- /-					
	Light to medium grey to pinkish grey, mottled, coarse grained, sericitic crystal tuff, locally with tuffaceous, augen-gneissic foliated texture,		B0.70 185.1 B0.70 182.0		n/a .05	n/a 1.00	-	0.5% Minor			
	but generally fairly massive. Weak foliation oriented at 45 to 55 degrees to the core axis.										
	Ninor to 0.5% finely disseminated pyrite.										
	No significant veining. Relatively competent unit, with 10 to 50cm breakage along irregular										
	fractures.	,									
	Lower contact is sharp and oriented at 80 degrees to the core axis.										
185.15 221.00	ASH TUPP / PINE LAPILLI TUPP										
	Interbanded ash and fine quartz-feldspar crystal tuffs, locally		85.15 220.5		n/a	n/a	-	1-3			
	exhibiting graded bedding. Light to medium grey to green, well laminated, non-magnetic, weak to		86.50 188.00 88.00 189.5		.13 .15	1.70 2.10	-	1-2% 2-3%			
	moderately calcitic.	8357 2	18.00 219.5	0 1.50	.08	1.30	TRACE	2-31			
	Foliation and banding oriented at 70 to 85 degrees to the core axis. Locally contains zones with brownish mustard or emerald green coloured laminae.	8358 2	19.50 220.5	5 1.05	.10	1.40	-	1-2%			
	Winor quartz-calcite veining.										
	Generally 1 to 2%, finely disseminated pyrite, but locally up to 3 or 4%										

H-N PROJECT (((1, 17)	ESSO MINERALS CANADA DIAMOND DRILL				Hole: Page:	HN 8	8-41 19		
Interval (Netres)	Description	Sample No.	Interval (Netres)	Length (Netres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (\)	ALTERAT SIL CARI	
	concentrated along bedding laminations. Unit has weak to moderte sericitic, and slightly lesser	carbonate altered								

appearance.

End of Hole.

and/or 1 cm pieces.

Relatively clean, homogeneous unit.

Lower contact not encountered.

Unit locally exhibits minor folding of laminations adjacent to veining.

Moderately competent unit, generally with 5 to 50cm breakage along foliation/bedding planes, but locally more broken into thin discs,

			ESSO MINERALS CANADA SUMMARY DRILL LOG	
••	Pr	oject N	Name: <u>HN</u> Blacklock Hole Number: <u>HN</u> Number: <u>1677</u> . Logged By: <u>Dane</u> 42H/8 . Date: <u>October 198</u>	Bridge
MITARIO GEOLOCICAL SURVEY ASSESSMENT FILES OFFICE MAR 1 5 1989 BECEIVED	Az	imuth).	L32+00W, 5+25S Claim Number: L- 180° Dip: -45° Length (m): 155 : Test elevated IP chargeability anomaly in broad magnetic low.	
NAR MAR	5	То		Cold Assess
E K SSE	From (m)	10 (m)	Description CASING REMOVED	Gold Assays (g/tonne)
NO	0.00	7.00	Overburden	
	7.00	8.45	Mafic Metavolcanics	Not Assayed
	8.45	19.90	Feldspar Porphyry Dykes (Two Phases) 20% white plagioclase phenocrysts in fine-grained groundmass with biotite, cut by a finer-grained phase. Minor pyrite.	0.01 (3)
•	19.90	32.85	Mafic Metavolcanics Dark green, very weakly magnetic basalt. Trace pyrite, pyrrhotite.	Not Assayed
	32.85	34.50	Feldspar Porphyry Dyke As above	Not Assayed
	34.50	155.00	Mafic Metavolcanics Mainly aphanitic, non-magnetic basalt. Minor siltstone interbeds and biotitic basaltic tuff or mafic sediments. Minor calcite veining. Trace pyrite	0.01 (1)
		155.00	END OF HOLE	
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			•.	
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H-N PROJECT (Onter 7)	ESSO MINERALS DIAMOND DRILL	DA RD					Hole: Page:	HN	58-42 1			
Drilled by: Hole Size: Core Size: Casing:	Bradley Bros. Limited. BQ BQ Casing Removed	Øip:	190 -45					Claim No Grid: Basting: Northing	Ves 324 : 54	+00¥ +258		•	
Started: Pinished:	Oct. 21, 1988 Oct. 22, 1988	Acid Tests: Depth Az.	Dip					Blevatio Purpose:		vel st weak I	P respons	e in Mag	j lov
Logged by: Date logged: Logging Method: Measurement System:	Dane Bridge October 1988 Log II Metric	107.00 -4	5.0 11.5 18.5					Length: Vert. Pr Hor. Pro Ovb. Dep	oj: 10 j: 11	5.00Hetre 1.0 Netre 5.0 Netre 5.0 Netre	5		
Interval (Netres)	Description		No.	e Inte (Net			Au {g/t}	λg {ppm)		Pyrite c (%)		RATION	SBR
Mafic	NETAVOLCANIC FLOWS (FE THOLEIITE)		M	7.00	8.45	1.45	n/a	n/a	-	TRACB			
8.45 19.90 PBLDS	PAR PORPHYRITIC QUARTI DIORITE INTRUSIVE 16.55 Main, earlier phase. Pine grained, disseminated biotite. 20%, 1 to plagioclase phenocrysts. Local, m to 1% pyrite.	- UNALTERED feldspathic groundmass with o Smm, anhedral to subhedral	8360	8.45 11.00 13.09 14.60	13.00 14.60	1.60	n/a .01 .01 .01	n/a .90 1.10 1.20	- - -	NINOR 18			

H-N PROJECT (Or	at (12) DIAMOND DRILL	A D	at.				Hole: Page:	HN 8	8-42 2		}	
Interval (Metres)	Description	Sample No.	Interv (Netre			Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	AL! Sil	BRATION CARB	SBR
19.90 32.85	MAPIC NETAVOLCANIC PLOWS (PE THOLEIITE) Mafic volcanic. Fine grained, very dark green basalt. Very weakly foliated. 10%, fine acicular hornblende. 1%, irregular calcite-quartz veining. Very weakly magnetic. Trace pyrrhotite and pyrite.	¥S	19.90 3	2.85	12.95	n/a	n/a	-	TRACE			
32.85 34.50	FBLDSPAR PORPHYRITIC QUARTI DIORITE DYKE Intrusive dyke. Fine grained groundmass with 10%, 1 to 6mm, anhedral to subhedral, plagioclase phenocrysts. Similar to earlier dike phase above. Won-magnetic. Trace pyrite. Sharp upper and lower contacts oriented 75 and 70 degrees to the core axis.	B S	32.85 3	4.50	1.65	n/a	n/a	-	MINOR			
34.50 155.00	 MAPIC METAVOLCANIC PLOWS (PE THOLEHITE) Mafic volcanic. Aphanitic to fine-grained, dark green to greenish grey. Minor, fine, metamorphic hornblende and biotite throughout. Absent to trace disseminated pyrrhotite and pyrite. Trace to minor calcite and quartz-calcite veinlets and patches. 51.85 52.85 And 53.90 54.65 Very fine grained, medium grey quartz siltstone, interbedded with mafic volcanics. 1cm quartz vein containing 10% pyrite, and 1% chalcopyrite at 52.35 metres. Weakly foliated at 80 to 85 degrees to the core axis. 67.25 69.65 Moderately foliated, extremely biotite rich section with 10%, lmm augen-shaped calcite-quartz? grains. Possibly a basaltic tuff, or epiclastic interflow material derived from mafic volcanics. Foliation approximately 80 degrees to the core axis 80.10 80.35 Siltstone, interbanded in medium green basalt. Dark purplish gray biotitic siltstone with 50% hornblende metacrysts and 1% pyrrhotite. 86.00 90.30 Interbedded siltstone and mafic volcanic debris. Contains sections of siliceous siltstone interbeds. 5% calcite-quartz veinlets garallel to weak foliation oriented at 80 degrees to the core axis. 	8362	34.50 15 38.75 4 144.10 14	0.40	1.65	n/a .01 .01	n/a .40 1.00	-	HUR-1% HINOR 2%/PO			

H-N PROJECT ((Date (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	k }			Hole: Page:	HN 8	\$-42 3		B	
Interval (Netres)	Description	No.	Iaterval (Netres)	Length (Netres)		Grey Metallic		AL SIL	TBRATION CARB	SBR
	 90.30 94.00 Fine grained, dark green basalt, with 25%, coarse (up to icm), hornblende metacrysts. Non-magnetic. 94.00 120.15 Basalt. Mainly aphanitic, dark gray, hard, uniform, with 5 to 10%, fine hornblende metacrysts, and minor chloritic bands. About 2% calcite veinlets as occur in units above. Non-magnetic. 120.15 136.60 Basalt. Aphanitic to very fine grained, very hard and moderately hard interbanded sections. Fine hornblende metacrysts more common in slightly more chloritic sections. Trace calcite veining. Non-magnetic. 136.60 139.35 Slightly biotitic and weakly foliated basalt with 5% calcite-quartz veins. 139.35 155.00 Aphanitic to fine grained, hard, uniform, dark gray-green basalt. 2% calcite veining. Non-magnetic. 144.10 146.70 3% quartz veining. Average 1% pyrite and up to 1% pyrrhotite. Sulphides mainly disseminated in basalt. Lower contact not encountered. 155.00 Bnd of hole. 									

			1			ESSO MINERALS CANADA	
	•	,				SUMMARY DRILL LOG	
				Pr	oject N	Nome: <u>HN Blakelock</u> Hole Number: <u>HN8</u>	8-43
				Pr	oject N	lumber <u>1677</u> . Logged By: <u>Dan</u>	e Bridge .
				N T	-s:	42H/8 Date: October 19	88
SURVEY	ņ	N. R. / Mrs. Tell, and a series	۵	Lo	cation 1	L39+00W, 7+255 Claim Number: _L	-871909
		1989	ш >	Az	imuth:	<u>180°</u> . Dip: <u>-45°</u> . Length (m): <u>27</u>	6
SECLOCICAL	ACCECCIMENT - OFFICE	MAR 15	с Ш С	PU	RPOSE	: Test IP anomaly and extend drill section on L39W to the north of DDH HN88-31	
0.5	0 0 0	7 W	ш	From	To	Description	Gold Assays
ONT ARIC ACCT	Ŕ		α	(m)	(m)	Description CASING REMOVED	(g/tonne)
O and a constant	n 752722	STRACT	Comme	0.00	18.60	Overburden	
				18.60	70.80	Mafic Metavolcanic with minor Intrusive Dykes	0.01
						Dark, chloritic basalt with minor to abundant metamorphic hornblende, locally biotitic. 2% calcite veinlets. Minor pyrite.	(4)
				70.80	80.40	Feldspar Porphyry Dyke 25% subhedral, white, plagioclase phenocrysts in fine-grained biotitic matrix.	0.01 - 0.02 (4)
		·		80.40	124.35	Mafic Metavolcanic with minor Feldspar Porphyry Dykes Dark green, aphanitic and fine-grained, porphyritic basalt. Very minor garnet-epidote patches and calcite veinlets. Trace to 1% pyrite.	0.01 - 0.06 (6)
				124.35	128.60	Felsic Crystal Tuff Fine-grained, massive, with minor 1 mm quartz phenocrysts.	Not Assayed
				128.60	130.85	Feldspar Porphyry Dyke Same as above	0.01 (1)
		•		130.85	149.20	Mafic Metavolanic with minor Feldspar Porphyry Dyke Mainly dark, aphanitic basalt with bleached patches and epidote- garnet patches. Slightly calcitic. Minor pyrite. Locally fractured with minor silica-pyrite alteration.	0.01 (6)
				149.20	178.85	Biotite Quartz Diorite with minor Mafic Metavolcanic Inclusions	0.01 - 1.46 (9)
						and Feldspar Porphyry Dyke Light pinkish-grey, feldspar porphyritic diorite with minor quartz veining and 1% pyrite. Fractured and weakly silicified at contact for 4.65 m.	(3)
				178.85	276.00	Biotite Quartz Diorite Fink to grey, and locally reddish-grey, feldspar porphyritic biotite quartz diorite. Commonly 1 to 2% quartz veining, and 1% disseminated pyrite. Minor sections of 5-10% quartz veining.	0.01 - 32.50 (23)
					276.00	END OF HOLE	
							a. 1
							,
						· ·	

H-N PROJECT (Ont)	BSSO MINBRAL Dianond Dril			Hole: Page:	HN88-43 1	8
Drilled by: Hole Size:	Bradley Bros. Limited BQ	Azimuth: Dip:	180 -45		Clai n X Grid:	io: L-871909 Vest	
Core Slze: Casing:	BQ Casing Removed	Acid Tests:			Basting Northin Blevati	ig: 7+258	
Started: Finished:	Oct. 23, 1988 Oct. 27, 1988	Depth A 17.00	r. Dip -45.0		Parpose	: Test IP anoma	ly & extend section N of
Logged by: Date logged: Logging Nethod:	Dane Bridge October 1988 Log II Vatala	117.00 217.00 276.00	-40.0 -38.0 -38.5		Hor. Pr	roj: 179.0 Netres oj: 210.0 Metres	
Neasurement System:	Netric				 Ovb. De	pth: 13.3 Metres	
Interval (Netres)	Description		\$	anple Interval No. (Netres)	Au Ag (g/t) (ppm)	Grey Pyrite Netallic (%)	ALTERATION SIL CARB SER

.00 18.60 OVERBURDEN

18.60 70.80 WAPIC NETAVOLCANIC PLOVS (PE THOLBIITE)

- 18.60 25.55 Aphanitic, massive, black basalt, with 2% calcite veinlets in very weak foliation. Trace pyrite. Sharp contact oriented at 85 degrees to the core axis. Very slightly magnetic.
- 25.55 32.40 Medium grained, dark grey-green basalt, with minor to 20%, metamorphic hornblende. Trace pyrite. Very slightly magnetic. Sharp contact oriented at 60 degrees to the core axis.
- 32.40 36.65 Massive, aphanitic to fine grained, basalt with fine plagioclase phenocrysts. Patchy epidote-garnet surrounding one quartz vein. Very weakly magnetic.
- 36.65 50.85 Aphanitic, dark greenish black basalt. Weakly foliated sections. Minor bleaching along fractures in massive sections. Averages trace pyrite. Won-magnetic to weakly magnetic.
- 37.70 37.90 Intrusive dike. Aphanitic, dark groundmass, with 20%, 1 to

I S	18.60	70.80	52.20	n/a	n/a	-	TRACE
8364	32.40	34.10	1.70	.01	.60	-	23
1365	34.10	35.10	1.00	.01	.80	•	TRACE
8366	37.90	39.90	2.00	.01	1.00	-	23
8367	47.00	47.65	. 65	.01	.70	-	21

-N PROJECT (Onter 7)	BSSO MINBRALS DA DIANOND DRILL						Hole: Page:	H N S	8-43 2		B	
Interval (Hetres))escription				Length (Netres)				Pyrite : (%)		JERATION CARB	SE
with minor bands quartz-calcite vein	ise phenocrysts. grained, basalt. Mainly dark greenish gray, and patches of biotitic basalt. Up to 1% lets. Average trace pyrite. Weakly magnetic l at 45 degrees to the core axis.											
groundmass, with biotite. 2	e grained, dark brown-gray, feldspathic \$4, 1 to 5mm, white, subhedral, plagioclase erage 0.5% pyrite. Upper contact sharp at	3868 3869 8370	70.80 72.50 72.85	72.50 72.85 74.95		n/a .01 .01 .02 .01	1.20	- - -	0.5% 1% TRACB 1% 0.5%	. - u, u		
grained dark br from 60 to 80 de locally calcitic a primary. Non magnet 87.90 91.60 Feldspar Porphyri feldspathic grou plagioclase phenocr 93.55 98.85 Aphanitic, very da garnet-epidote patc 98.55 118.80 Porphyritic basal commonly 1 to 30	intrusive dikes. Teen basalt, with foliated bands of fime own-gray, biotitic basalt. Core angles wary egrees to the core axis. Biotitic bands are and are probably metamorphic rather than	8372 8373 8374 8375 8375	104.00 108.50 117.30 118.80 120.50	105.60 108.90 118.80 120.50 122.10		n/a .01 .01 .06 .02 .02	n/a 1.10 1.10 1.60 1.20 1.20	-	MNR-1% TRACB 2% TRACB 0.5% 0.5% 3%			
locally calcitic a primary. Non magnet 87.90 91.60 Feldspar Porphyri feldspathic grou plagioclase phenocry 93.55 98.85 Aphanitic, very da garnet-epidote patc 98.55 118.80 Porphyritic basal commonly 1 to 3 Minor, local (100 magnetic. Pyrite description sheets metres. Dike is m	and are probably metamorphic rather than ic. tic Quartz Diorite Dyke. Pine grained, admass with biotite. 30%, 1 to 4mm, ysts. 1% pyrite. Non-magnetic. ck green basalt. 1% disseminated pyrite. 1% hes. Strongly magnetic. t. Aphanitic, very dark green with 15%, mm, subhedral, plagioclase phenocrysts.	8375 8376	118.80 120.50	120.50) 1.70) 1.60	.02	1.20	-	0.5%			

H-N PROJECT (O	at BSSO MINERALS O DIAMOND DRILL R							HN88-43 3		8	
Interval (Metres)	Description	No.		(Metres)	(g/t)	Ag (ppm)		Pyrite (%)	۸۱ SIL	LTERATION CARB	SBR
	Plagioclase locally has hematitic rims at contacts, and near veinlets of epidote. Average up to 1% pyrite. Mon magnetic. 122.10 124.35 Porphyritic basalt. Very fine grained, very dark grey-green. Minor to 10% plagioclase phenocrysts. 3% Disseminated pyrite. 1% guartz-calcite veinlets.										
124.35 128.60	QUARTI-FELDSPAR CRYSTAL TUFF Pelsic crystal tuff. Pine grained, massive, felsic rock with minor, 1mm, quartz phenocrysts. Winor banding at approximately 90 degrees to the core axis, due to sections with biotite.	NS :	124.35 128.6	D 4.25	a/a	n/a	-				
128.60 130.85	FBLDSPAR PORPHYRITIC QUARTI DIORITE DYKE Intrusive dike. Hedium graimed, dark gray, feldspathic groundmass with biotite. Average 30%, 1 to 4mm, subhedral, plagioclase phenocrysts. Up to 1% guartz veins with trace pyrite, and up to 1%, hairline, calcite and quartz-calcite veinlets cutting guartz veins. Non-magnetic.		128.60 130.8 128.60 130.8		n/a .01	n/a .90		TRACE 0.5%			
130.85 149.20	 SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS Mafic volcanic unit. Locally weakly altered. 130.85 135.50 Aphanitic, dark gray basalt. Mainly intensely fractured and variably altered and bleached. Varies from bleached halos on fractures to pervasive silica-pyrite alteration. Average weak silicification. Weak calcite veinlets. Average 14 pyrite. Moderately magnetic. 135.50 142.90 Aphanitic basalt. Average 1 to 24 fine quartz-calcite veinlets. Local epidote and garnet-epidote patches. Average up to 14 pyrite. Moderately magnetic. 142.90 145.40 Feldspar Porphyritic Quartz Diorite Dyke. Intrusive dike in mafic section. Medium grained, hydidiomorphic granular, biotite diorite. Locally very veakly silicified. Crackle fractured. Average 14 disseminated pyrite. 	8379 8380 8381 8382 8383	130.05 149.2 130.85 133.2 133.25 134.7 134.70 135.5 135.50 137.0 137.00 137.7 142.90 145.4	5 2.40 D 1.45 D .80 D 1.50 D .70	n/a .01 .01 .01 .01 .01	. 60		1% 0.5% TRACB 2% 0.5% 1% 1%			

H-N PROJECT (Ont		ESSO MINERALS TOPA DIAMOND DRILL				Hole: Page:	KN 8	8-43 4		B	
[nterval (Hetres)	Description	Sample Xo.	Interval (Netres)	Length (Netres)	Au (g/t)	Ag (ppm)		Pyrite (%)	AL SIL	TBRATION CARB	SBR

creamy in bleached patches. Minor epidote-garnet patches. Strongly magnetic. Trace pyrite near contacts.

149.20 178.85 PP QUARTI DIORITE INTRUSIVE - WK TO HOD ALTERED

Intrusive rock with minor mafic volcanic sections.

- 149.50 153.75 Quartz diorite intrusive. Weakly altered, medium grained, medium gray, slightly porphyritic diorite. Locally intensely fractured and silicified. Overall weakly silicified, with 3% quartz and minor quartz-calcite veining. Average 1 to 1.5% pyrite. Won-magnetic.
- 153.75 154.50 Mafic volcanic. Very fine grained, weakly foliated, biotitic basalt. 1% guartz-calcite veinlets. Foliation oriented at 45 to 50 degrees to the core axis. Won-magnetic.
- 154.50 162.90 Quartz diorite. Hedium grained, slightly feldspar porphyritic. Hainly reddish brown due to minor K-spar or hematite. Locally gray. Average 10% primary biotite. Minor guartz. 10%, white, porphyritic plagloclase. Trace to 1% pyrite. Minor guartz veining. Hon-magnetic.
- 156.50 158.10 Mainly dark gray, later?, plagioclase porphyritic dike.
- 162.90 166.20 Nafic volcanic. Black, very fine grained, slightly biotitic, moderately foliated basalt. 2%, fine calcite veinlets. 3%, coarse, guartz-calcite veinlets. Ninor epidote-garnet patches. 1% pyrite. Strongly magnetic.
- 166.20 173.60 Quartz diorite. Light pinkish gray, biotite quartz diorite. Average 1% disseminated and fracture-controlled pyrite. 1 to 2% quartz veining.
- 173.60 178.85 Porphyritic diorite. Dark gray with 25%, 1 to 5mm, white to slightly pinkish, plagioclase phenocrysts. Average 2% pyrite. Won-magnetic.
- 175.30 177.90 Average 15% quartz veins with trace pyrite internally, and minor pyrite along edges.

1-23	-	n/a	n/a	29.65	178.85	149.20	15
11	-	1.50	.41	2.30	151.50	149.20	8385
15	-	.90	.02	2.25	153.75	151.50	8386
TRACE	-	1.00	.02	.75	154.50	153.75	8387
1\$	-	.90	.01	2.00	156.50	154.50	1311
0.5%	-	1.00	.04	2.00	158.50	156.50	8389
0.5%	-	.90	.01	2.00	160.50	158.50	8390
11	-	.90	.01	2.40	162.90	160.50	\$391
28	-	4.10	1.45	2.60	177.90	175.30	1392
11	-	.90	.14	.95	178.85	177.94	1393

178.85 276.00 PP QUARTI DIORITE INTRUSIVE - WK TO NOD ALTERED

Pink to light gray, biotite guartz diorite. Hypidiomorphic granular with

I PROJECT (OI	ESSO NINBRALS DIAMOND DRILL	A				Nole: Page:	H N 8	8-43 5		5	
Interval (Netres)	Description	Sample No.			Au (g/t)	Ag (ppm)		Pyrite (%)		TBRATION CARB	SB
	minor, 5 to 8mm, plagloclase phenocrysts. Commonly 1 to 2% guartz		178.85 181.00	3 15	.06	1.20		0.51	******	********	
	veining, 1% pyrite, and trace calcite.		181.00 183.00		.00	.90	-	11			
	190.00 192.30 3% quartz veining in white diorite. Trace gray mineral				.09	1.00	-	0.5%			
	associated with calcite veinlets with chloritic margins.		185.15 185.90		32.50	90.60	-	23			
	196.80 197.20 2% quartz veining in light gray patch surrounded by pink		185.90 188.25		.21	1.90	-	11			
	diorite. Minor calcite veinlets with chlorite rims. Trace		188.25 190.60		.18	1.10	-	13			
	gray mineral.	\$400	190.60 191.40	.80	.02	1.50	•	11			
	200.30 200.40 Basalt inclusion.	8491	191.40 192.30	.90	.01	1.10	-	18			
	202.60 202.85 Basalt inclusion.	\$402	196.80 197.20	. 40	.05	2.90	TRACE	1\$			
	203.00 204.40 15% guartz veining, and 1 to 1.5% pyrite in pink-gray		203.00 204.40		.15	1.00	•	1-21			
	diorite.		205.05 205.55		.24	1.10	-	18			
	205.05 205.55 Trace sericite in pinkish gray diorite.		214.85 215.70		.52	2.30	-	18			
	208.30 217.15 Increase in guartz veining to about 5%.		215.70 217.15		.04	1.00	-	11			
	214.85 215.70 Gray section in predominately red-pink section with 10%		227.30 229.30		.01	.80	-	0.5%			
	quartz veining.		229.30 231.30		.67	3.20	-	0.5%			
	215.70 217.15 Reddish diorite with 10% quartz veining.		231.30 233.4		.02	.90	-	0.5%			
	217.15 227.30 Very uniform pinkish biotite (10%), quartz (1%) diorite.		233.45 234.09 256.10 256.70		.20 .39	1.00 .90	-	13			
	Hoderately plagioclase porphyritic, with minor plagioclase up to 8mm. Very minor quartz veining. Trace pyrite.		256.70 258.29		.19	. 80	-	23			
	Non-magnetic.		267.75 269.5		.10	1.00	-	13			
	227.30 233.45 Average 4% guartz veins in diorite as at 217.15 to 227.30		269.55 271.00		.05	1.00	-	0.51			
	netres.		271.00 273.00		.07	1.20	-	13			
	233.45 234.05 Very slightly silicified, gray diorite with 1% pyrite and		273.00 275.00		.12	1.20	-	11			
	10% guartz veining.										
	234.05 256.10 Mainly pinkish gray diorite, locally with 1% coarse										
	oscillatory zoned plagioclase phenocrysts, and locally										
	with 5%, 3 to 5mm, guartz phenocrysts. Overall average 1%										
	quartz veining. Trace to locally 1% pyrite. Mon-magnetic.										
	256.10 256.70 Partly brecciated gray diorite with chlorite on clast										
	boundaries. 2% disseminated pyrite. 3% guartz veining.										
	256.70 258.25 2% pyrite. 3% quartz veining.										
	267.75 271.00 Minor sections with weak foliation and weak silica-sericite										
	alteration containing disseminated pyrite. Maximum pyrite										
	content is 10% over 3 cm. Average pyrite is 1%. Weak foliation oriented at 75 to 80 degrees to the core axis.										
	Trace calcite on fractures.										

H-N PROJECT (Ont		BSSO NINBRALS CANNOA DIANOND DRILL RECO			Hole: Page:	HN 88-	-43 6		
								۲	
Interval (Hetres)	Description	Sample No.	Interval (Hetres)	Au (g/t)	Ag (ppm)	Grey P Metallic		ALTERATION SIL CARB	SBR

Lover contact not encountered. 276.00 Bnd of hole.

		·····		
			ESSO MINERALS CANADA	·
			SUMMARY DRILL LOG	
	Pr	oject I	Name: <u>HN Blakelig</u> ck Hole Number: <u>HN</u>	188-44.
	Pr	oject N	Number <u>1677</u> . Logged By: <u>Dan</u>	e Bridge
	NT	rs:	42H/8 Date: October 198	38
e o				
	Lo	cation :	L42+00W. 6+50S Claim Number:L	871911
NT FIL. DE 1989 VEC	Az	imuth.	<u>180°</u> , Dip: <u>-45°</u> , Length (m): _ <u>266</u>	, ,
Sur no -				
MAR I	PU	IRPOSE	: Search for a mineralized shear north of the north contact of a	
			biotite quartz diorite body	•
	From	То	Description	Gold Assays
Statistics & Transition of the Astronomy Manager	(m)	(m)	CASING REMOVED	(g/tonne)
	0.00	8.00	Overburden	
	8.00	99.30	Mafic Volcanic Unit, with Minor Feldspar Porphyry Dykes	0.01
			Mainly fine-grained, chloritic basalt with minor calcite veinlets.	(6)
	99.30	129.00	Mafic Volcanic Unit with Weak Calcite Alteration, and Weak to Strong Bleaching Associated with Late Faults	0.01 (4)
	129.00	140.55	Siliceous Siltstone and Felsic Crystal Tuff Mainly dark grey, chloritic, siliceous siltstone. Locally with mafic debris and minor biotite and amphibole. Includes minor gritty and fragmental sections that may be crystal tuff or arenite-wacke.	0.01 - 0.47 (4)
	140.55	221.15	Mafic Volcanic Unit and minor Interbedded Siltstone and Mafic Derived Epiclastic Rocks Minor silicified zones in basalt. Unit becomes contact metamorphosed towards base and locally feldspar metacrystic. Minor late fault zones.	0.01 - 0.53 (16)
	221.15	266.00	Biotite, Quartz Diorite Intrusive Medium-grained, pinkish-gray, hypidiomorphic granular to feldspar porphyritic diorite. About 40% of unit is bleached to a light grey colour and weakly sericitic and/or silicified. Minor pyrite and trace grey mineral.	0.01 - 0.15 (12)
		266.00	END OF HOLE	
•				
-				
		}	·	

H-N PROJECT (Ont		BSSO MINBRALS CAMPA DIAMOND DRILL REAL	Hole: HN88-44 Page: 1
Drilled by: Hole Size: Core Size: Casing:	Bradley Bros. Limited BQ BQ Casing Removed	Azimuth: 180 Dip: -45 Acid Tests:	Claim No: L-871911 Grid: Vest Basting: 42+00W Worthing: 6+50S Blevation: Level
Started: Finished: Logged by: Date logged: Logging Method: Measurement System:	Oct. 27, 1988 Oct. 31, 1988 Dane Bridge Movember 1988 Log II Metric	Depth Ax. Dip 8.00 -45.8 108.00 -39.0 208.00 -40.8 265.00 -41.0	Purpose: Test for mineralized shear structure Length: 266.00Metres Vert. Proj: 174.0 Metres Hor. Proj: 201.0 Metres Ovb. Depth: 5.7 Metres
Interval (Netres)	Description	Sample Interval Length No. (Netres) (Netres)	Au Ag Grey Pyrite ALTBRATION (g/t) (ppm) Hetallic (%) SIL CARB SBR

.00 8.00 OVERBURDEN

8.00 50.10 MAPIC HETAVOLCANIC PLOWS (PE THOLEIITE)

- 8.00 29.75 Aphanitic to fine grained, very hard, dark gray-green basalt. Non-magnetic to locally slightly magnetic. No sulphides. Average 1% calcite and calcite-quartx-epidote? patches, which are bleached and weakly foliated at 35 to 70 degrees to the core axis.
- 15.25 15.85 Fragmental section with fine, shard-like clasts and patches of serpentine. May be a flow-top breccia with glass altered to paragonite and then to serpentine.
- 24.80 29.75 5% calcite alteration as white veinlets, coarse, pink patches and foliated epidote-carbonate patches.
- 27.80 27.95 Pault gouge oriented at 80 degrees to the core axis.
- 29.75 31.70 Feldspar Porphyritic Quartz Diorite Dyke. Fine grained, very dark brownish gray, biotitic groundmass with 25%, mainly 1 to 3mm and locally to 5mm, mainly anhedral, white plagioclase phenocrysts. Both contacts are sharp. Upper at 60

18	8.00	59.10	42.10	n/a	n/a	-	- 11
8417	36.90	38.00	1.10	.01	.30	-	- 45
8418	38.00	39.30	1.30	.01	1.10	-	11
1419	39.30	41.10	1.80	.01	.40	-	3\$
8420	41.10	43.55	2.45	.01	.50	-	0.5%
1421	43.55	45.85	2.30	.01	.30	-	NINOR
8422	45.85	46.65	.80	01	.40	-	MINOR

H-N PROJECT (C	Dat (1) ESSO NINBRALS (1) DIAMOND DRILL	A D				Hole: Page:	HR §	8-11 2			
Interval (Netres)	Description			Length (Netres)		•	-	Pyrite (%)	AI SIL	TERATION CARB	SBR
	 degrees, and lower at 45 degrees to the core axis. 31.70 50.10 Mafic volcanic unit with section of strong calcite alteration. Fine grained, dark green, normal hardness basalt. Non-magnetic to locally moderately magnetic. 31.70 38.00 Locally mottled with bleached patches and minor calcite veinlets. May be a series of thin flows with flow rubble. Average 1% pyrite. 38.00 43.55 Weakly calcite altered. Calcite veins, calcite patches and bands up to 2 cm thick. Massive to locally slightly blotitic and vell foliated at 45 degrees to the core axis. Average 1% pyrite. 43.55 45.85 Almost total replacement of basalt by medium-grained, off-white calcite. 25%, irregular patches of basalt remaining. One 15 cm guartz vein and minor guartz patches. 45.85 50.10 Aphanitic, very dark green, hard basalt with veak calcite alteration. Average 3% calcite-quartz veinlets. Non-magnetic. No sulphides. 										
50.10 53.2	0 FELDSPAR PORPHYRITIC QUARTI DIORITE DYKE Nottled light gray to dark gray dike. Feldspathic groundmass with minor to absent biotite. 30%, 1 to 5mm, subhedral plagioclase phenocrysts. Won-magnetic. Sharp contacts. Upper at 70 degrees, lower at 85 degrees to the core axis.	K S	50.10 53.	20 3.10	n/a	n/a	-	0.51			
53.20 71.6	O SCHISTOSE MAPIC METAVOLCANIC WITH BPIDOTE-CARBONATE BANDS Mafic volcanic with feldspar porphyry dykes. 53.20 54.35 Mainly massive basalt. Locally veakly foliated. Weakly carbonate altered with 5% calcite patches and veinlets. Hon-magnetic. No sulphides. 54.35 71.60 Very fine grained, hard, dark green, massive basalt. 1 to 2% calcite and calcite-quartz veinlets. Mon-magnetic. No sulphides. 55.75 56.30 Awygdaloidal with 3%, 1mm and locally 2 to 3mm, calcite-filled awygdules.	WS	53.20 71.	60 18.40	n/a	n/a	-	TRACE			

H-N PROJECT (On	BSSO NINBRALS CHAN DIAMOND DRILL) D				Nole: Page:	HKS	8-44 3			
Interval	Description		Interval	landh			Grav	Pyrite		TERATION	
(Netres)	VESCLIPTION		(Netres)						SIL		SBR
	 71.60 74.30 Feldspar Porphyritic Quartz Diorite Dyke. Nedium pinkish gray porphyry dike. Fine grained, feldspathic groundmass with 10% biotite. 30%, 1 to 3mm, white plagioclase phenocrysts, and minor, anhedral plagioclase up to 1cm. 74.30 81.85 Basalt as at 54.35 to 71.60m. Up to 1% calcite. 81.85 \$2.90 Feldspar Porphyritic Quartz Diorite Dyke. Porphyry dike as at 71.60 74.30. 15 cm, gray-green bleached and brecciated zone in adjacent basalt at lower contact. 										
	NAFIC MBTAVOLCANIC FLOWS (FE THOLBIITE) Very fine-grained, dark green to black, massive basalt. Minor, 1cm, foliated and quartz-epidote sections. Minor, 1 to 2cm zones of brecciation. Wo sulphides. 1% calcite veinlets. Mon-magnetic.	NS	71.60 99.3	80 27.70	R/a	n/a		TRACE			
	 WBAKLY BRECCIATED NAFIC METAVOLCANIC WITH EPIDOTE-CARB. BANDS Nafic volcanic unit with weak carbonate alteration, and weak to strong bleaching associated with late faults. 99.30 113.45 Fine grained, mottled, medium gray to medium green basalt. Minor weak calcite alteration, and very weak bleaching. Minor scattered sections with 0.5 to 12cm guartz-epidote and calcite-quartz veins. Average trace pyrite. Mon-magnetic. 100.90 105.20 Four quartz-pyrite veins, and up to 1% disseminated pyrite in basalt. 113.45 124.90 Variably weakly to strongly bleached, and weakly calcite altered basalt. Colour varies from gray-green to pale greenish white, with soft talc?-chlorite patches. Alteration is centered around late faults. No sulphides except in minor guartz veins. Non-magnetic. 114.00 114.50 Fault Breccia. Dark green, talc-serpentime fault breccia with vuggy calcite. 118.20 118.50 Bleached fragments in calcite matrix. Fractures and possibly the fault oriented at 15 degrees to the core axis. 122.15 122.55 3 quartz-epidote-pyrite veins in weakly bleached basalt. 	8423 1 8424 1 8425 1	99.30 129.0 00.90 103.0 03.00 105.2 22.15 122.5 27.90 129.0	0 2.10 20 2.20 5 .40	n/a .01 .01 .01	n/a 1.00 1.70 1.50 1.60		0.5-1% TRACB 0.5% 2% 1%			

H-N PROJECT (Ont		BSSO MINERALS CHERAD DIANOND DRILL NORD				Hole: Page:	HN 8	8-44 4	۲	
									۲	
Interval (Netres)	Description	Sample No.	Interval (Netres)	Length (Netres)	Au (g/t)	Ag (ppm)	Grey Netallic	Pyrite (%)	ALTBRATION SIL CARB	SBR
qua	rtz-pyrite veins.									
129.00 140.55 SILTSTONE							,			

Mixed siltstone and felsic crystal tuff unit.

- 129.00 129.85 Dark gray, very fine grained, chloritic, siliceous siltstone. Sharp upper contact oriented at 90 degrees to the core axis, with epidotized basalt. Trace pyrite. Non-magnetic.
- 129.85 132.70 Light gray, fine grained, felsic crystal tuff with 1 to 2%, 1mm guartz phenocrysts. (Nay be siliceous siltstone with minor arenite grains). 2% pyrite. Non-magnetic.
- 129.85 131.00 Winor, crudely laminated silicate iron formation. Light red to cream coloured.
- 131.50 132.70 Crystal tuff? with 54 disseminated pyrite, and 254, white, irregular quartz veins. Veins contain minor chlorite and calcite, trace pyrite and gray mineral along vein-wallrock contacts.
- 132.70 140.55 Dark greenish gray, impure siliceous siltstone. Commonly with 5 to 10% biotite, minor chlorite and locally, 5 to 10%, fine grained, amphibole. Local sections contain 25% amphibole. Probably impure mafic debris in a mainly siliceous siltstone unit. Average 1% pyrite. Non-magnetic.

140.55 221.15 SCHISTOSE WAPIC METAVOLCANIC WITH BPIDOTE-CARBONATE BANDS

Variable mafic volcanic unit including flows and tuffs, as well as minor siltstone and mafic epiclastic horizons.

- 140.55 147.85 Very dark gray-green, medium grained, speckled basalt, with 25% amphibole in a hard, siliceous-looking matrix. Strongly magnetic.
- 147.85 151.30 Mafic to siliceous siltstone. Dark gray to light gray siltstone with variable mafic component. Moderately foliated at 80 degrees to the core axis. Weakly to strongly magnetic. 1 to 2% pyrite, and 1% calcite-quartz veins.

151.30 155.70 Walic tuff?. Medium gray-green, fine grained, moderately

NS 129.00	140.55	11.55	n/a	n/a	-	23
8427 129.85	131.50	1.65	.01	2.20	-	13
8428 131.50	132.70	1.20	.47	23.90	TRACE	51
8429 132.70	134.00	1.30	.12	8.90	•	11
\$430 138.00	140.55	2.55	. 32	9.90	-	23

NS 1	40.55	221.15	80.60	p/a	n/a	-	23
8431 1	47.45	149.20	1.35	.01	. 40	-	13
8432 1	49.20	150.60	1.40	.01	.50	•	11
8433 1	50.60	151.30	.70	.01	.80	-	31
8434-1	51.30	152.50	1.20	.01	1.10	-	TRACE
8435 1	52.50	152.90	.40	.05	2.80	-	5%
8436-1	58.65	159.40	.75	.01	. 80	-	- 41
8437 1	63.30	164.00	.70	.21	1.20	-	31
8438 1	79.00	100.55	1.55	.01	2.30	-	0.5%
8439 1	80.55	182.00	1.45	.01	1.40	-	0.5%

H-N PROJECT (Ontal)

Hole: HH88-44 Page: 5

Interval (Netres)	Description	Sample No.	[nterval (Hetres)	Length (Netres)	Au (g/t)	Ag (ppm)		Pyrite {\}	AL SIL	TBRATION CARB	SBR
	 vell laminted and deformed mafic, epidote-chlorite rich section, locally vith shards. Epidote-hematite-pyrite patches around quartz veins. Non-magnetic. 155.70 163.30 Aphanitic to fine grained, dark green-black basalt. Mottled from dark to locally cream coloured, with 1 to 2% scattered patches of epidote-quartz-garnet and locally pyrite. Section is more hornfelsed and metamorphosed than mafic sections higher in the hole. Non-magnetic. 158.65 159.45 4% disseminated pyrite with minor quarts veins and bleaching 163.30 179.00 As at 155.70 to 163.70 ercept weakly to variably strongly magnetic. Minor bleached and brecciated sections. 163.30 164.00 Intensely silicified basalt with 3% disseminated pyrite. Mottled medium to light gray. Non-magnetic. 179.00 213.00 Metamorphosed and epidote altered basalt. Highly variable section with metamorphic contact effects from intrusive body to the south (down the hole). Sections with 5 to 15%, 1 to 3mm, euhedral to subhedral, plagioclase metacrysts in basalt. Sections of brecciation and bleaching vith overall weak and locally strong epidote development. 202.80 207.40 Fault Ione. Variably to locally totally epidotized basalt, with local reddish hematite coloration. Intensely brecciated to sheared. Core recovery approximately 70%. Fracturing and shearing commonly at 0 degrees to the core axis. Non-magnetic. 213.00 221.15 Aphanitic to fine grained, hornfelsed basalt. Slightly biotitic, siliceous looking. Very minor epidote. Crackle fractures with thin bleached halos. Weakly magnetic. Trace pyrite but increasing to 2% at contact. 	8441 8442 8443 8444 8444	102.00 183.0 103.00 105.5 197.20 198.7 198.75 200.0 200.00 201.4 201.40 202.0 218.50 221.3	1.70 5 1.55 0 1.25 10 1.40 0 1.40	.01 .02 .01 .02 .01 .53	1.00 1.10 1.10 1.50 1.70 1.40 1.70	- - -	TRACE TRACE TRACE 0.5% 0.5% 2%			
221.15 266.00	PP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED Nedium grained, light gray and pinkish gray, hypidiomorphic granular to feldspar porphyritic. Locally bleached white around fractures and guartz veins. Non-magnetic. 221.15 222.50 Very weakly silicified, with trace white bleaching (sericite?) on fractures. 3% disseminated pyrite.	8447 8448 8449	221.15 266. 221.15 222.5 222.50 224.5 224.50 226.7 226.20 228.0	50 1.35 50 2.00 20 1.70	n/a .14 .03 ~ .05 .02	n/a 3.00 1.70 2.20 1.50	•	0.5-3% 3% 1% 1%			

H-N PROJECT (On 17)

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Interval (Hetres)	Description	Sample No.		nterval Metres)				Grey Netallic	Pyrite (%)	TBRATION CARB	S 8
,	222.50 226.20 Pinkish-gray and unaltered.	1 451	22 8	00 230.00	2 11	R4	2.00	-	11		
	226.20 231.90 Light gray, weakly silicified, with 4% guartz, and 1%			00 231.90		.10	1.80	•	13		
4	calcite-chlorite velaing. Trace pyrite. Trace gray mineral			70 238.85		.03	1.80	-			
	in 2 veins.			85 240.90		.15			0.5%		
2	231.90 253.10 Slightly pinkish gray diorite, with overall weak sericitic			40 245.00		.08	2.80	-			
•	alteration. 1 to 2 cm wide bleached, white, sericitic			80 252.40		.01	2.70		0.51		
	halos on fractures or sections of up to 1m of white,			40 253.10		.93			0.5%		
	chalky sericitic alteration with minor quartz-calcite-chlorite veinlets. Average up to 1% disseminated pyrite. Non-magnetic.			10 254.00		01	2.30		0.51		
2	237.70 238.85										
2	244.40 245.00										
2	249.80 252.40 Three sections with almost total bleaching of feldspars. Overall moderately intense sericite alteration, but no foliation or deformation.										
2	252.40 266.00 Slightly pinkish gray, biotite quartz diorite. Winor patches of weak silicification. Average 1% guartz veining. Up to 1% pyrite. Mon-magnetic.										
L	lower contact not encountered.										
2	266.00 Bnd of hole.										

ESSO NINERALS

			ESSO MINERALS CANADA	
			SUMMARY DRILL LOG	
	Pro	oject N	Iame:Blakelocke Hole Number:	HN88-45
	Pro	oject N	lumber: 1677 Logged By: _D.	Bridge.
	ł –		Date: November,	1988
à	Lo	cation :	L36+00W, 9+00S Claim Number: L	-871904
C GEOLOGICAL SURVEY SESSMENT FILES OFFICE MAR 15 1989 E C E I V E D	Az	imuth•.	Dip: Length (m):	
ASSESSMENT FIL ASSESSMENT FIL OFFICE MAR 15 1980	PU	RPOSE	: Test coincident magnetic low and anomalous IP north of anomalou	s
MAR MAR			overburden tills in RC-102, 103, 104	•••••••••••••••••••••••••••••••••••••••
ASSA R	From	То	Description	Gold Assays
2.	(m)	(m)	CASING REMOVED	(g/tonne)
	0.00	7.35	Overburden	
	7.35	48.25	Mafic Metavolcanic (Relatively Unaltered) Aphanitic to fine-grained, massive, chloritic basalt with 20% biotitic bands and patches, and 5% bleached, silicified or epidotized patches. Minor epidote-garnet patches and calcite veinlets. Minor pyrite.	Not Assayed
	48.25	150.00	Biotite Quartz Diorite 75% pinkish-grey diorite, with minor disseminated pyrite and minor quartz and calcite veins. 25% bleached zones with weak sericitic? alteration of feldspar, local silicification, and local quartz-pyrite veins and traces of grey mineral. Minor silicified shear zones in diorite from 81.00 to 100.65 m.	0.01 - 14.22 (39)
		150.00	END OF HOLE	
			•	
•				
			, , ,	
				_ <u></u>

Drilled by: Bradley Bros. Limited Azimuth: 180 Claim No: L-871904 Hole Size: B0 Dip: -45 Grid: West Core Size: B0 Acid Tests: Basting: 36400W Started: Nov. 1, 1988 Acid Tests: Blevation: Level Started: Nov. 3, 1988 Depth Az. Dip Jogged by: Dane Bridge 107.00 -45.0 Length: 150.00Metres Date logged: November 1988 107.00 -45.0 Hor. Proj: 109.0 Metres Logging Method: Log II Bescription Sample interval Ast Ag Grey Pyrite ALTERATION	H-N PROJECT (Ont)		BSSO MINE Diamond d		DA RD					Kole: Page:	HN88-45 1			
Hole Size: BQ Dip: -45 Grid: West Basting: 36400W Core Size: BQ Acid Tests: Basting: 36400W Casing: Casing Removed Acid Tests: Blevation: Level Started: Wov. 1, 1988 Depth Ar. Dip Purpose: Test Mag low & anomalous IP respo Started: Wov. 3, 1988 Depth Ar. Dip Purpose: Test Mag low & anomalous IP respo Logged by: Dane Bridge 107.00 -45.0 Length: 150.00Metres Date logged: Wovember 1988 150.00 -49.0 Vert. Proj: 109.0 Metres Logging Method: Log II Boscription Sample Interval Leagth Au Ag Grey Pyrite ALTERATION	P=111-3 L	Puradhan Pran tambésa		be trouble		144)	
Core Size: BQ Basting: 36400W Casing: Casing Removed Worthing: 9400S Started: Wov. 1, 1988 Bepth Ar. Dip Pinished: Wov. 3, 1988 Depth Ar. Dip Logged by: Dane Bridge 107.00 -47.5 Length: 150.00Metres Date logged: Wovember 1988 150.00 -49.0 Vert. Proj: 109.0 Metres Logging Method: Log II Hor. Proj: 103.0 Metres Nov. Depth: 5.3 Metres Interval Description Sample Interval Length Au Ag Grey Pyrite ALTERATION	-	-													
Casing: Casing Removed Northing: 9+005 Started: Nov. 1, 1988 Acid Tests: Blevation: Level Started: Nov. 3, 1988 Depth Ar. Dip Purpose: Test Hag low & anomalous IP respo Logged by: Dane Bridge 107.00 -47.5 Length: 150.00Metres Date logged: November 1988 150.00 -49.0 Vert. Proj: 109.0 Metres Logging Method: Log II Hor. Proj: 103.0 Metres Measurement System: Metric Ovb. Depth: 5.3 Metres															
Started: Nov. 1, 1988 Pinished: Nov. 3, 1988 Depth Ax. Dip Purpose: Test Mag low & anomalous IP respo Logged by: Dane Bridge 107.00 -47.5 Length: 150.00Metres Date logged: November 1988 107.00 -45.0 Length: 150.00Metres Date logged: November 1988 150.00 -49.0 Vert. Proj: 109.0 Metres Logging Method: Log II Hor. Proj: 103.0 Metres Netres Measurement System: Netric Ovb. Depth: 5.3 Metres Interval Description Sample Interval Length Au Ag	Casing:	Casing Removed									Northing:				
Finished: Nov. 3, 1988 Depth Ar. Dip Purpose: Test Mag low & anomalous IP respo Logged by: Dane Bridge 107.00 -47.5 Length: 150.00 Netres Date logged: November 1988 107.00 -45.0 Length: 150.00 Netres Logging Method: Log II Hor. Proj: 103.0 Metres November Neasurement System: Metric Ovb. Depth: 5.3 Metres Interval Description Sample Interval Length Au Ag Grey Pyrite ALTBRATION	•1 1 - 1 -	N		Acid Test	5:						Blevation:	Level			
7.00-47.5Logged by:Dane BridgeDate logged:November 1988Date logged:November 1988Logging Method:Log IILogging Method:Log IIHeasurement System:HetricIntervalDescriptionSample Interval LeagthAuAgGrey PyriteALTERATION				Denth	1.	Din					Dernase ·	Test Man low	t anomalous	ID TASDO	
Logged by:Dane Bridge107.00-45.0Length:150.00MetresDate logged:November 1988150.00-49.0Vert. Proj:109.0 MetresLogging Method:Log IIHor. Proj:103.0 MetresMeasurement System:MetricOvb. Depth:5.3 MetresIntervalDescriptionSample Interval Length AuAgGrey PyriteALTERATION												tese nag to	e unomeroso	IL LEDPO	
Logging Method: Log II Heasurement System: Metric Interval Description Sample Interval Length Au Ag Grey Pyrite ALTBRATION				107.00	•	45.0									
Measurement System: Metric Ovb. Depth: 5.3 Netres Interval Description Sample Interval Length Au Ag Grey Pyrite ALTBRATION				150.00	•	49.0									
Interval Description Sample Interval Length Au Ag Grey Pyrite ALTBRATION		•									-				
	neasurement system:	MECTIC						,			uvo. vepta:	J.J MELLES			
			Description												
(Metres) Wo. (Metres) (g/t) (ppm) Metallic (%) SIL CARB SER	(Metres)					1	Ho. (Me	tres)	(Netres)	(g/t)	(ppm) Neta	allic (%)	SIL CARB	SBR	

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.00 7.35 OVERBURDEN

7.35 48.25 NAPIC NETAVOLCANIC PLOWS (PE THOLEIITE)

Aphanitic to fine grained, mainly dark green to brown basalt. Contact metamorphosed. Mainly chloritic, but 20%, thin bands and irregular patches of biotite-rich basalt. Rare patches with 5%, 1mm secondary amphibole. 5%, hard, light green to cream, bleached and locally epidotized patches. Trace garnet-epidote patches. Up to 1% quartz veining. About 1% calcite veins and hairline veiniets in fractures. Very minor pyrite. Pew recognizable textures. Trace 1mm, slightly elongate, possibly vesicules.

Biotitic bands commonly oriented at 60 degrees to the core axis.

7.35 13.00 Average moderately magnetic.

13.00 33.50 Non-magnetic.

33.50 41.00 Average weakly magnetic.

41.00 48.25 Non-magnetic, except locally weakly magnetic at lower contact.

NS 7.35 40.25 40.90 n/a n/a - MINOR

-N PROJECT (Ont	BSSO NINERALS COND. DIANOND DRILL	A D					Hole: Page:	88 (8-45 2			
	·····											
Interval (Netres)	Description	Sample No.			Length (Netres)				Pyrite (%)	ALYBRA SIL CA	ATION Arb	\$
48.25 150.00 PBLDSI	PAR PORPHYRITIC QUARTI DIORITE INTRUSIVE - UNALTERED											
		NS	48.25	150.00	101.75	n/a	n/a	TRACE	0.5-31			
	to 3mm, white to gray plagloclase, and 1 to 2% quartz, in a	8459	50.25	51.50	1.25	.07	1.70	-	11			
	fine grained, feldspathic groundmass with 10% biotite.	8460	51.50	52.75	1.25	.98	1.90	-	15			
	Contains inclusions of basalt. Transition to a crowded		52.75			.02	1.60	-	13			
	porphyry at contacts. Nay be a late dyke introded into		53.60			. 79	11.30	-	78			
	diorite-basalt contact. Non-magnetic. Trace pyrite.		54.95			.14	1.70	-	1-23			
50.25	54.95 Pinkish gray, biotite guartz diorite. Mainly bleached to a		67.30			.11	2.20	-	51			
	dirty white colour, and overall weakly sericitized. Average		68.15			.01	1.80	-	1-21			
	4% quartz veining. Average 1 to 2% pyrite, but 20% pyrite		71.25			.13	2.00	-	11			
	over 15cm on downhole side of one, 3cm guartz vein oriented		72.25 73.25			.11	3.20	11	13			
	at 30 degrees to the core axis. Ninor calcite with quartz veins.		13.25			.03 .10	2.40 2.20		11			
54.95	71.25 Pinkish gray, slightly potassic? diorite. Commonly aphanitic,		75.25			.01	2.20	-	14			
	feldspathic groundmass with 10% biotite, and minor to 20%, 1		16.25			.01	4.00	-	21			
	to 3mm, gray plagioclase phenocrysts. Minor to 5%, guartz		17.25			.01	6.80	-	34			
	phenocrysts, but commonly up to 14 visible. Non-magnetic.		78.25			.20	3.00	-	23			
	Average trace pyrite, but locally to 1% pyrite. Rare quartz	8474	79.30	80.45	1.15	.#7	2.20	-	MINOR			
	veining. Wimor weakly silicified and pyritic patches around	1475	\$0.45	\$1.10	.65	.42	19.30	-	23			
	two quartz veins.		81.10			.01	2.10	-	13			
71.25	\$1.10 Veakly sericitized and very veakly silicified diorite with		\$3.00			.01	2.30	-	18			
	average 5% guartz veins with minor chlorite, and 5% calcite		85.00			.03	3.60	-	11			
	patches in veins. Average 1 to 2% disseminated pyrite, mainly		87.00			.01	1.80	-	11			
	in diorite. Trace gray mineral in some guartz veins.		88.10			.33	4.10	-	11			
/1.10	74.55 Veakly ribboned quartz vein. Finely sucrose. 2% pyrite.		88.80			.13	1.50	-	1-21			
80 JS	Oriented at 40 degrees to the core axis. \$1.10 25%, irregular guartz veins with 5% calcite, 2% pyrite, and		91.15 93.00			.01	1.60	-	11			
00.13	minor gray mineral.				.35	.03 14.22	1.10 84.50	11	18 18			
81.10	100.65 Mainly unaltered, pinkish gray diorite, with section of weak		95.35			.18	2.20	-	21			
•••••	sericitic alteration and minor shear zones cutting diorite.		95.85			.04	1.60	-	11			
	Average 1% pyrite. Average 1% quartz veins and up to 1%		97.50			.01	1.40	-	15			
	quartz-calcite-chlorite veinlets. Shear zones are as follows:		99.10			.20	1.20	-	1			
85.35	15.40 6 cm zone of fine grained, granular diorite with minor		100.25			.39	1.00	-	11			
	sericite, 24 pyrite. Oriented at 70 degrees to the core axis.		117.00			.11	1.30	TRACE	14			
86.65	86.70 5 cm, pinkish feldspathic zone with minor quartz veins and				1.60	.01	.90	-	13			

H-N PROJECT (Ont_17)

Interval (Metres)	Description	Sample No.			Length (Netres)	Au (g/t)			Pyrite (%)	AI SIL	TBRATION CARB	SE
	sericite. Oriented at 60 degrees to the core axis.	8492	120.10	0 121.70	D 1.60	.02	1.20	TRACE	28			
	88.10 88.50 Scattered sections of fine grained, moderately sericitic diorite oriented at 70 degrees to the core axis.) 123.40) 124.10		. 25 . 64	1.70 11.00	- NINOR	3N 15N			
	95.00 95.35 Moderately sheared, weakly to moderately sericitic diorite, with minor quartz veins. 1% gray mineral. Oriented at 50	8495 8496	124.10 125.0) 125.00) 126.60	0 .90 0 1.60	.01 .01	1.20 1.40	-	3% 2%			
	degrees to the core axis. 100.25 100.65 Strongly sheared diorite. Moderately silicified, weakly sericitized. 2% pyrite. Oriented at 75 degrees to the core	8497	126.60	0 128.70	0 2.10	.02	1.50	-	1\$			
	axis. 100.65 117.00 Pink, medium grained, biotite (10%), guartz (5%) diorite. Mainly subhedral, white to pinkish gray, plagioclase with interstitial biotite and guartz.											
	110.65 108.40 2 small basalt xenoliths, and three, 15 to 70cm xenoliths of mafic diorite, containing 25%, fine grained, biotite in reddish feldspathic groundmass.											
	116.80 116.95 Xenolith of amphibolite-grade metamorphosed basalt. Dark gray, fine grained, with 20% elongate amphibole, and 5% red garnet.											
	117.00 128.70 Light gray, weakly sericitized and locally weakly to strongly silicified diorite. Winor quartz and quartz-calcite veins. Locally fine gray mineral in silicified patches and quartz veins. Average 2% pyrite.											
	120.10 126.60 Scattered zones of silicification, and trace to minor gray mineral.											
	123.40 124.10 Strongly silicified section, with quartz-calcite-pyrite veins and locally 1% gray mineral. Average 15% pyrite in section.											
	128.70 150.00 Pinkish gray, botite quartz diorite. Average up to 1% disseminated pyrite. Up to 1% quartz veins. Up to 1% thin quartz-calcite-chlorite veinlets. Trace gray mineral in 1cm silicified patch at 146.6 metres.											
	139.50 141.70 Weakly sericite or clay alteration of feldspar. Section is still pinkish gray, but feldspars are clouded and opaque.											
	Lower contact not encountered. 150.00 Bnd of hole.											

ESSO HINERALS CONDA

		ESSO MINERALS CANADA CM88- SUMMARY DRILL LOG	6-(-236
Pr	oject N	lame: <u>HN</u> Hole Number: <u>HN</u>	88-28
Pr	oject N	lumber <u>, 1677</u> . Logged By: <u>M.H</u>	Lenters
N	rs: <u>4</u>	2H/8 Date: <u>September 1</u>	988
		L40+12,5W, 10+25S Claim Number:	-871909
Az	imuth'.	Dip: <u>-45°</u> , Length (m): <u>37</u>	4
Ρι	JRPOSE	:Test mineralized zones encountered in DDH's HN88-22,23 & 24	······
From (m)	To (m)	Description	Gold Assay (g/tonne)
		CASING REMAINS	(g/ tolling)
0.0 22.90	22,90 118,00		0.01 - 2.04
		foliated, feldspar porphyritic granodiorite, massive to weakly with some light grey weakly silicified ± sericitized sections, and a few, thin (10's cm) moderately altered sections. The latter generally occur in thin zones adjacent to quartz veining and flooding. Minor, thin (10 cm) shear bands, and minor to 5% quartz veining. Minor to 1% finely disseminated pyrite, but locally up to 6% in well altered zones, which generally also contain trace to 0.5% disseminated metallic grey minerals. 100.20-101.80 Fine-grained metasediment inclusion.	
18.00	132.00	Moderately Silicified and Weakly Sericitized Quartz Diorite Intrusive Generally grey-white, moderately silicified and weakly seriticitized, with local patches and bands that are white and intensely silicified and moderately sericitized. No significant quartz veining. 0.5 to 1% pyrite with intensely altered zones containing up to 5%. Minor to locally 1% disseminated, grey metallic minerals.	0.01 - 0.20 (21)
32.00	146.75	Schistose Mafic Metavolcanic Dark brown, very fine-grained, calcareous, non to weakly magnetic, sheared/schistose at 15° to 20° to CA. 5% calcite fracture veinlets, and 3 to 5% quartz veining. 0.5 to 1% pyrite.	0.02 - 0.17 (5)
46.75	151.20	Moderately Carbonate-Epidote Altered Mafic Metavolcanic Mottled dark green and light yellowish-green, fine-grained, non-magnetic, irregularly patchy altered mafic metavolcanic. Foliation at 20° to 40° to CA. Minor calcite veinlets. 5%, small quartz veins. Minor pyrite and trace chalcopyrite.	0.01 - 0.04 (3)
51.20	158.30	Weak to Moderately Silicified Granodiorite/Quartz Diorite Similar to section between 118.00 to 132.00 metres.	0.01 - 0.10 (7)
58.30	160.65	Shear Mafic Metavolcanic and Intrusive Dyke Material Medium to dark green, fine-grained, well foliated and sheared at 30° to CA, mafic metavolcanic with several irregular dyke fragments forming approximately 25% of the unit. Abundant calcite patches and tension veining. 5%, broken and sheared quartz veining. 1 to 3% pyrite.	0.01 - 0.02 (2)
60.65	180.50	Weak to Intensely Epidote-Carbonate Altered Mafic Metavolcanic Similar to 146.75 to 151.20 metres.	0.01 - 0.18 (6)

From	То	Description	Gold Assay (g/tonne)
(m)	(m)	HN88-28 (page 2)	(g/ronne)
180.50	180.70	Fault Zone 50%, broken wallrock fragments surrounded by coarse quartz and and calcite veining. Contacts are irregular but at approximately 40° to CA. Fault edges are moderately (2 to 6%) pyritic.	0.20 (1)
180.70	182.30	Intensely Epidote-Carbonate Altered Mafic Metavolcanic Medium cream, pink and buff coloured, fine-grained, contorted, unit with weak foliation at 0° to 20° to CA. Minor offset and broken quartz veining. 5 to 6% disseminated pyrite.	0.61 - 0.68 (2)
182.30	184.00	Mylonite Light pastel multicoloured, finely laminated, shear banded at 20° to CA. Intensely carbonate altered mafic metavolcanic with numerous rotated fragments in finer cataclastic banded matrix. Minor veining. 2 to 4% finely disseminated pyrite.	0.30 - 0.83 (2)
184.00	185.15	Intensely Epidote-Carbonate Altered Mafic Metavolcanic Similar to 180.70 to 182.30 metres	0.41 (1)
185.15	194.70	Moderately Sheared Mafic Metavolcanic Intruded by Variably Altered Quartz Diorite Dykes/Plugs Green, moderately foliated/sheared at 20° to 45° to CA. Minor to 3% calcite fracturing and quartz veining. 2 to 6% finely disseminated pyrite. Intruded by several 1 to 4 metre wide, silicified and sericitized quartz diorite dykes with 2 to 3% pyrite and minor metallic grey, minerals.	0.01 - 2.80 (10)
194.70	199.45	Intensely Altered and Fractured Mafic Metavolcanic Medium grey-green, irregularly foliated, moderately to intensely brecciated, and 20% light yellow-green carbonate- epidote altered. 15% offset and broken quartz veining. 1 to 3% pyrite.	0.02 - 0.20 (4)
199.45	201.10	Weakly Silicified and Sericitized Quartz Diorite Intrusive Similar to 118.00 to 132.00 metres,	0.49 (1)
201.10	208.75	Intensely Sheared Mafic Metavolcanic with Mylonite Zones Intensely brecciated and epidote-carbonate altered mafic metavolcanic locally shear foliated into a mylonite with foliation at 0° to 30° to CA. Includes a few thin clay gouge shear/fault zones. Unit contains several, broken quartz vein fragments. 2 to 6% pyrite.	0.01 - 13.8 (11)
208.75	374.00	 Variably (Weak to Intense) Epidote-Carbonate Altered Mafic metavolcanic Intruded by Variably (Unaltered to Moderately) Altered Granodiorite to Quartz Diorite Porphyry Dykes and Plugs 208.75-264.75 Weak to intensely epidote-carbonate altered, and locally brecciated mafic metavolcanic. Minor to 5% quartz veining. 0.5 to 4% pyrite. Includes intrusive dykes between: 215.40-217.15 Weak to mod. altered 222.20-228.10 Very weakly altered 230.25-233.10 Relatively unaltered 241.50-244.40 Relatively unaltered 249.90-251.35 Very weakly altered 25.50-253.05 Unaltered to weakly altered 264.75-283.50 Dark green, magnetic, massive to weakly foliated at 0° to 30° to CA, relatively unaltered mafic metavolcanic. 3 to 5% quartz ± calcite veining. Minor pyrite. Includes one unaltered intrusive dyke between 271.75 to 273.15 metres. 283.50-287.70 Weak to moderately carbonate altered mafic metavolcanic, with thin unaltered zone exhibiting ovoid amygdules. Minor quartz veining. Minor to 1% pyrite. 287.70-310.50 Weak to moderately silicified ± sericitized quartz diorite intrusive. Similar to 118.00 to 132.00 metres. 310.50-316.35 Relatively unaltered mafic metavolcanic similar to 264.75 to 283.50 metres. 316.35-321.50 Weak to moderately altered mafic metavolcanic similar to 118.00 to 132.00 metres. 	0.01 - 0.3

4	From (m)	To (m)				Description	n _.			Gold Assay
•	<u>(m)</u>	<u>(m)</u>	HN88-28 () 321.50-34		Weak to mo	lerately epic volcanic. Fo	lote-carl	oonate al	tered	
			346.90-35	6.15	5% irregul Relatively	ar quartz ve: unaltered qu	ining. Mi vartz dio	inor to l prite int	% pyrite.	
			356.15-37	4.00	Similar to Moderately metavolcan Foliation	22.90 to 118 epidote-carb ic. Cut by th and alteratio	8.00 metro conate al hree thir on bandir	res. ltered/ba n intrusi ng at 30°	nded mafic ve dykes. to 45° to	
		374.00	END OF HO	LE	CA. Minor	quartz veinin	ng. Minor	pyrite.	· ·	
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								•		
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	•									
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	·							;		

H-N PROJECT (Ont. 7)	7)		ESSO MINERA Dianond dri			Hole: Page:	HN88-28 1	
Drilled by: Hole Size:	Bradley Bros. Limited BQ		Azimuth: Dig:	2 - 45		Claim No: Grid:	L-871909 Vest	
Core Size: Casing:	BQ Casing Remains					Basting: Northing:	40+12.5W 10+25S	
Started: Pinished:	Sept. 7, 1988 Sept. 12, 1988		Acid Tests: Depth	Az. Dip		Blevation: Purpose:	Level Test mineralize	d zone in HN88-22
Logged by:	N.H.Lenters		23.00 125.00 223.00	-46.0 -38.5 -36.5		Length:	374.00Netres 220.0 Netres	
Date logged: Logging Hethod: Neasurement System:	September 1988 Log II Metric		323.00 371.00	-28.0 -24.0		Vert. Proj: Hor. Proj: Ovb. Depth:	299.0 Metres	
Interval (Metres)		Description			ple Interval o. (Netres)		rey Pyrite allic (%) SI	ALTERATION L CARB SER

.00 22.90 OVERBURDEN

22.90 100.20 FP QUARTE DIORITE INTRUSIVE - WK TO HOD ALTERED

Relatively fresh to weakly altered, with thin (10's of cm wide) moderately altered zones. The latter are generally centred by quartz veining and flooding, although more planar/discrete quartz veins cut through both the relatively unaltered and weakly altered zones.

Contacts between the subunits listed below are gradational, and represent changes in alteration intensely and/or color.

22.90 28.65 Pink to pink grey, coarse grained, massive to locally well foliated, relatively unaltered feldspar porphyritic granodiorite to quartz diorite. 70 to 75% plagioclase, as large (2 to 5mm), white, subhedral, often partially zoned, phenocrysts and smaller groundmass grains. 5 to 10% guartz, as 0.5 to 2mm, subrounded, phenocrysts. 15 to 20% biotite that is locally somewhat chloritic. 2 to 4% guartz veining, generally as 0.5 to 1cm, subplanar veins that are orientated at 40 to 60 degrees to the core axis, and often offset by

NS	22.90	100.20	77.30	n/a	n/a	TRACE	0.5-5%	UN-WK	UN-V.WK
801	22.90	24.00	1.10	.03	1.20	-	- 15		
802	24.00	25.00	1.00	.02	1.50	-	0.5-1%		
803	25.00	26.00	1.00	.06	1.40	MINOR	0.5-1%		
804	26.00	27.00	1.00	.02	1.50	-	0.5-1%		
805	27.00	28.00	1.00	.01	1.40	-	0.5-1%		
806	28.00	28.65	.65	.04	1.30	-	0.5-1%		
807	28.65	30.10	1.45	.01	2.30	TRACE	1-23		
808	30.10	31.30	1.20	.02	1.40	MINOR	1-2		
809	31.30	32.30	1.00	.02	.70		0.5-1%		
810	32.30	33.35	1.05	.03	1.30	-	3-41		
811	33.35	34.10	.15	.20	1.60	-	5%		
812	34.10	34.75	.65	2.04	7.20	-	5-61	•	
\$13	34.75	35.25	.50	. 43	3.50	-	6-71	•	
814	35.25	36.25	1.00	.03	.40	-	23		

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H-N PROJECT (Ont. 77)

ESSO MINERALS CANADA DIAMOND DRILL RECORD Hole: HN88-28 Page:

2

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

fracturing at an angle to the veining. Quartz veins are slightly bluish white and relatively clean, containing a few vallrock fragments and minor pyrite. Icm quartz vein at 25.1 metres, oriented at 50 degrees to the core axis, and offset by several vuggy fractures oriented at 0 degrees to the core axis (perpendiclar to strike of vein) contains trace amounts of a metallic grey minerals. 0.5cm vuggy quartz vein oriented at 50 degrees to the core axis contains 1 to 3% pyrite, and 1 to 3% metallic grey minerals, both as thin wisps and bands that are concentrated at the vein edges. This vein is offset by fracturing subparallel to the core axis. Minor white-grey silica flood shear zone from 26.80 to 27.00m, with shearing oriented at 30 to 45 degrees to the core axis. Section generally contains 0.5 to 1% finely disseminated pyrite that is also concentrated along some chloritic fractures. Weak shearing/foliation locally oriented at 35 to 45 degrees to the core axis, but most of section is massive. Well fractured both subparallel to the core axis, and at 40 to 50 degrees to the core axis, producing relatively broken core. Section broken into 3 to 10 cm pieces with some small rubble zones. Some fractures are somewhat vuqqy. Competent section.

28.65 33.35 Light to medium grey to pink-grey relatively unaltered to weakly silicified, medium to coarse grained, weakly feldspar porphyritic. Massive to weakly foliated. Unaltered zones are similar to the overlying section, while silicified zones, lack the porphyritic texture, contain 10 to 15% and locally greater silica flooding, are light grey with biotite chloritized and weakly schistose with some partially sericite. Section contains 10 to 20% guartz veining and silica flooding mostly oriented at 40 to 60 degrees to the core axis, although some more irregular veins are oriented at 20 to 30 degrees to the core axis. Locally the silica flood bands are somewhat swirled and horsetailed. Veins are often offset by late fractures. Veins are slightly blue-white, coarse grained, contain minor, small wallrock inclusions,

815	36.25	37.00	.15	.04	,90	TRACE	11
B16	37.00	38.00	1.00	.01	.60	TRACE	15
817	38.00	38.90	.90	.06	8.20	-	2-31
818	38.90	39.90	1.00	.12	1.30	-	11
819	39.90	40.25	.35	.03	1.50	MINOR	2-3
820	40.25	41.00	.75	.02	1.70	-	
821	41.00	42.00	1.00	.04	1.40	-	0.5-1%
822	42.00	43.00	1.00	.02	1.40	-	23
823	43.00	44.40	1.40	.01	1.70	TRACE	0.5-11
824	44.40	45.20	. 80	.02	.50	-	5%
825	45.20	45.00	.80	.01	1.10	-	1-21
826	45.00	47.00	1.00	.04	1.30	-	3-41
827	47.00	48.00	1.00	.02	1.40	-	0.5%
828	48.00	49.00	1.00	.01	.80	-	0.5-11
829	49.00			.03	1.00	•	0.5%
830	50.00	50.90	.90	.02	1.60	-	0.5%
831	50.90	52.00	1.10	.18	2.30	TRACE	1-2
832	52.00	53.00	1.00	.02	.80	-	0.5%
833	53.00	54.00	1.00		1.30	-	0.5-1
	54.00	55.00			.50	-	
835	55.00				.30		0.5-11
836		56.00			5.20	NINOR	3-41
	56.00	56.45		.02	.80	-	
	56.45	57.00	.55	. 48	3.30	-	21
839	57.00	57.60	.60	.37	1.40	-	
		58.50			1.20	-	2-3
841	58.50	59.40				HINOR	2-31
		60.00				-	3-41
843	60.00		1.10		.80	•	1-48
		61.75			2.30	MINOR	3-41
845	61.75	62.30	,55		1.60	-	2-31
		63.50	1,20		.80	-	
		64.40			.90	-	
		65.00			1.10		
		65.50			1.70		
850	65.50	66.00	.50	.02	2.80	-	3\$
850	65.50	66.00	.50	.02	2.80	-	



(Ont. 77)	ESSO MINERALS CANADA Diamond drill record	Hole: Page:	HN88-28 3

Interval	Description	Sample	Interval	Length	Au	λg	Grey	Pyrite	λL	TERATION	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	Metallic	(*)	SIL	CARB	SER
*************************									******		

1

traces of pyrite, and occasionally very fine grains of metallic grey minerals. Grey minerals noted at 30.25m in a 0.5cm quartz vein oriented at 45 degrees to the core axis (trace), at 31.00 to 31.20m in an irregular 1cm vein oriented 25 degrees to the core axis (minor amounts of individual grains and needles), and at 32.50 to 32.60m in an irregular silica flood zone. Unaltered zones contain 0.5 to 1%, and silicified portions contain 1 to 2% finely disseminated pyrite. Pyrite locally forms small concentrations and stringers along fractures. Competent unit that is well fractured both subparallel to the core axis, and at 45 to 90 degrees to the core axis. Section is generally well broken into 5 to 10cm pieces, although the unit contains some thin (10 to 30cm) rubble zones.

- 33.35 34.75 Light to medium grey, mottled, moderately to intensely silicified, and moderately sheared/foliated. Section exhibits vague plagioclase phenocrysts in well silicified zones, and irregular chloritic/sericitic laminae parallel to shearing oriented at 40 to 45 degrees to the core axis. Locally silica flooding forms bands/veins that parallel the shear direction. 3 to 5% finely disseminated pyrite, as well as thin (mm), stringers and irregular bands that are oriented along fractures and parallel to the shearing direction. Hoderately fractured subparallel to shearing at approximately 45 degrees to the core axis. Competent section, but moderately well broken.
- 34.75 36.25 Medium grey to medium reddish-grey, fine to medium grained {0.5mm}, massive intrusive. Above 35.25m it is grey and weakly to moderately silicified, and below 35.25m it is relatively unaltered with fresh biotite. Section is finer grained, and not porphyritic like the typical intrusive. No significant guartz velning. Above 35.25 metres, the section contains 6 to 7% finely disseminated pyrite in patches, blebs and along fractures. Section is moderately fractured at 35 to 60 degrees to the core axis. Competent section, broken

851	66.00	66.50	.50	.03	1.30	•	2-31
852	66.50	67.00	,50	.02	1.60	TRACE	31
853	67.00	67.50	.50	. 19	17.70	0.5%	3-51
854	67.50	68.00	.50	.03	3.70	0.25%	3-41
855	68.00	69.00	1.00	.09	2.90	MINOR	3-51
856	69.00	70.00	1.00	.02	1.40	TRACE	3-51
857	70.00	71.00	1.00	.03	. 60	-	2-41
858	71.00	71.80	. 80	.02	.80	TRACE	2-3
859	71.80	72.50	.70	.03	1.20	-	11
860	72.50	73.00	.50	.04	1.20	-	0.5-11
861	73.00	74.00	1,00	.18	1.10	-	0.5%
862	74.00	75.00	1.00	.03	.80	-	11
863	75.00	75.70	.10		. 80	-	1\$
864	75.70	76.15	.45	.03	1.00	-	0.5-11
865	76.15	77.15	1,00	.12	1.00	-	0.5%
866	77.15	78.00	.85	.05	.90	-	1-23
867	78.00	79.00	1.00	.03	.80	-	3\$
868	79.00	80.00		. 79	3.30	TRACE	
869	80.00	80.60		.02	.60	-	0.5-1%
870		81.80	1.20	.03	.80	-	0.5-1%
171		82.30	, 50	.17	1.60	-	0.5-1%
872		B 3.00		. 34	2.60	TRACE	3-51
873	83.00		.50	.05	3.80	TRACE	
874			.50	.03	2.00	TRACE	
875	81.00	84.50		.02	1.10	MINOR	
876	84.50				1.40	-	
	85.00					MINOR	
878	\$5.75					-	
879	86.70	87.50			4.10	MINOR	2%
880		88.75		.13	2.20	-	23
881		89.00		.19	8.00	MINOR	18
882		90.00		.02	1.20	-	11
883	90.00			.04	1.00	TRACE	23
		92.00		.01	1.70	TRACE	
885	92.00			.03	1.50	TRACE	
886	93.00	94.00	1.00	.02	.80	-	21

H-N PROJECT (Ont. 77

Hole: Page:

Interval (Metres)	Description	Sample No.			Length (Netres)			Grey Netallic	Pyrite (%)	TERATION CARB	SEI
	into 10 to 25cm pieces.		92.	00 95.01	0 1.00	.04	.90	-	2-31	 	
	36.25 38.00 Pink, coarse grained, feldspar porphyritic, massive to very			00 96.00		.01	1.30		23		
	weakly shear foliated. Relatively fresh to weakly silicified			00 97.00		.02	1.00		1-21		
	(silica flooded and veined). Section consists mainly of			00 98.5		.10	1.60	-	18		
	plagioclase, as coarser (1 to 4mm), white, subhedral, subzoned phenocrysts in matrix of pink very fine plagioclase. 5 to 10% subrounded, quartz grains, and 5 to 10%, biotite (very weakly chloritized). 2 to 3% guartz veining as 0.5 to 2cm planar veins oriented at 45 degrees to the core axis. These are coarse grained, slightly blue-white with minor pyrite, and traces of grey metallic mineral. Weak shearing/foliation is locally evident and generally oriented parallel to quartz veining at approximately 45 degrees to the core axis. 1% disseminated and fracture controlled pyrite. Section is well fractured at various angles to the core axis,	891	98.	55 100.20	U 1.65	.08	1.60	-	0.5-1%		
	but concentrated subparallel to the core axis, and at 35 to										
	50 degrees to the core axis. Competent section, but well broken along fractures into 3 to 10 cm pieces.										
	20 00 20 00 dimilar to conting between 24 26 to 20 Cm piccos.										

- 38.00 38.90 Similar to section between 34.75 to 36.25. Grey, very weakly silicified, fine grained, massive with 2 to 3% pyrite as fine disseminations and fracture fillings. No significant quartz veins.
- 38.90 44.40 Typical pink, coarse grained, massive, plagioclase porphyritic intrusive containing thin, grey silica flooded zones between 39.90 and 40.25, and 42.25 and 42.80 metres. 3 to 5%, subplanar guartz veining variably oriented but concentrating between 30 and 45 degrees to the core axis. Quartz veining concentrated in flood zones, with 25% veining between 39.90 and 40.25m, containing minor, needle-like, grey metallic minerals. Veining offset on thin fractures. Veining and flooding oriented at 45 degrees to the core axis. Veins rimed by thin (1 to 3mm) zones having dark pink colour. 0.5 to 1% disseminated and fracture controlled pyrite, with 2 to 4% in silica flood zones. Competent section, but well fractured at various angles to core axis resulting in broken recovery, and generally 3 to 10cm core

HN88-28

4

ESSO	HI	IERALS	CANADA
DIAXO	JND.	11190	RECORD

Hole: Page:

Description Interval Sample Interval Length Au λq Grey Pyrite ALTERATION (Xetres) No. (Metres) (Metres) (g/t) (ppm) Metallic (%) SIL CARB SER

> pieces. 2cm quartz vein at 43.10m oriented at 45 degrees to the core axis, and containing minor to 0.5% blue-grey mineral.

- 44.40 45.20 Identical to section between 38.00 and 38.90m, except this section contains slightly more pyrite, often concentrated along vuggy fractures, and this section contains a few quartz veins that are offset along fractures.
- 45.20 47.00 Pink to creamy grey, relatively unaltered to weakly silicified and locally moderately silicified, coarse grained intrusive. About 60% weak to moderately silicified zones. Silicified portions contain broken and offset/sheared quartz veins (0.5 to 1.5cm wide) in irregularly swirled orientations subparallel to shearing/slippage at low (0 to 40 degree) angles to the core axis. Altered (silicified) zones contain 2 to 4% pyrite concentrated along fractures, some of which cut across and locally offset quartz veining. Well fractured and broken section with fractures oriented at various angles to the core axis.
- 17.00 55.60 Pink, relatively unaltered, coarse grained, massive, plagioclase porphyritic intrusive, with a few, local, thin, light pinkish grey, weakly silicified zones. 70 to 75% plagioclase, including some 1 to 3mm and occasionally up to 5mm, subhedral, often weakly zoned phenocrysts, and mostly very fine grained, pink groundmass grains. 10%, subrounded, 1 to 2mm, bluish-clear guartz phenocrysts, and 10 to 15% 51, irregular to subplanar, coarse grained, biotite. bluish-white, clean, guartz veins, generally oriented at 40 to 50 degrees to the core axis, but some at shallower angles. Veins locally branched and/or intersecting, offset, fractured, and occasionally have thin (lmm), pink feldspar rims (altered wallrock contact). Veins contain minor pyrite. Trace metallic grey minerals found in 2cm, irregular, vuggy quartz vein at 51.40 metres, within a 10cm wide grey, silicified zone. Section contains 0.5 to 1.0% disseminated pyrite, also concentrating along fractures. Competent section, but well fractured and broken into 5 to 10cm pieces with some fractured rubble zones.

HN88-28 5

H N PROJECT (Ont. 77)		ESSO NINERALS CANA Diakond drill reco					Hole: Page:	HN 8	8-28 6			
Interval (Netres)	Description		Sample No.	Interval (Netres)	Length (Netres)	Au (g/t)	λς (ppm)	Grey Netallic	Pyrite (%)	AL SIL	TBRATION CARB	SER

ŝ

- 55.60 56.00 Medium grey, moderately silicified zone, with 20%, irregular quartz veining and 20% quartz flooding. Quartz veining/flooding is irregular with no dominant orientation apparent in the recovered fragments. 3 to 4% disseminated and thin (hairline) fracture controlled pyrite. Veining is very clean, coarse grained, white, and contains several small (1 to 3mm), wispy/buckshot/puffs of grey metallic minerals. Hard zone, but well fractured and broken into 0.5 to 3cm rubble zones.
- 56.00 56.45 Pink-grey, very weak to weakly silicified, massive, coarse grained, plagioclase porphyritic intrusive. Lone has a hard, siliceous appearance, and biotite is weakly chloritized. A few, thin (0.5cm), slightly wavy/wormy quartz veins oriented at 30 to 45 degrees to the core axis. 1% finely disseminated and fracture controlled pyrite.
- 56.45 57.00 Grey, weakly silicified, massive, coarse grained, plagioclase porphyritic intrusive. Minor quartz veining with two, 0.5cm, planar veins oriented at 45 degrees to the core axis, but perpendicular to each other. 24 finely disseminated pyrite with some blebs and hairline, fracture filling veinlets. Nard zone, but well fractured and broken into 1 to 10cm pieces
- 57.00 57.60 Pink, coarse grained, massive, plagioclase porphyritic, relatively unaltered intrusive. No guartz veining. 1% finely disseminated and hairline fracture controlled pyrite. Hard zone, but moderately fractured and broken into 5 to 15 cm pieces.
- 57.60 59.40 Hedium grey, weak to locally moderately silicified, weakly to moderately sheared intrusive. Coarse grained texture partly preserved, but locally destroyed by weak shearing. Biotite partly chloritized/sericitized. 20% Quartz veining, as thin (0.5cm) to thick (5cm), cross-cutting and branching veins variably oriented at 20 to 60 degrees to the core axis. Veins consist of relatively clean, bluish white, coarse grained quartz with minor pyrite and occasionally trace amounts of grey metallic minerals. Quartz veins occur at 57.75m (2cm at 35 degrees to the core axis), 58.00m (5cm, irregular

B-N PROJECT (Ont. 77)

ESSO HINERALS CANADA DIAMOND DRILL RECORD

Interval Description Sample Interval Length Au Ag Grey Pyrite ALTERATION (Netres) No. (Netres) (Netres) (g/t) (ppm) Netallic (%) SIL CARB SER												
(Netres) No. (Netres) (g/t) (ppm) Hetallic (%) SIL CARB SER	Interval	Description	Sample	Interval	Length	λu	λg	Grey	Pyrite	λĹ	TERATION	
	(Metres)		No.									

orientation}, 58.20m (4cm at 60 degrees to the core axis), 58.40m (1cm at 60 degrees to the core axis), 58.55 (2cm at 40 degrees to the core axis), and 58.55 to 58.80m (a 7cm quartz vein oriented at 40 degrees to the core axis, and a thin vein oriented at 0 to 20 degrees to the core axis). The latter two veins contain numerous small (1 to 2mm), puffs of metallic grey minerals. 2 to 3% finely disseminated pyrite often forming small blebs, or occuring along fractures. Relatively well fractured section with strong fracture orientation at 45 degrees to the core axis having chloritic parting surfaces. Weak shearing, where evident, is oriented at 40 to 45 degrees to the core axis. Competent section, but well broken into 1 to 5cm pieces often as rubble.

- 59.40 60.00 White-grey, mottled, moderately to intensely silicified, weakly carbonatized, and weak to moderately sericitized intrusive. Massive, coarse grained texture still evident but somewhat subdued. Biotite completely chloritized/sericitized. Strongly silica veined (20 to 30%) and flooded by an irregular network of thin (hairline to 3cm), branching and anastomosing veins tending to be oriented at 40 degrees to the core axis. 3 to 4% pyrite as finely disseminated grains, small blebs, and discontinuous hairline fracture fillings. Moderately competent section, but moderately fractured and broken.
- 60.00 61.10 Hostly medium grey, weak to moderately silicified intrusive, as between 57.60 to 59.40m, but containing two moderately to intensely silicified (altered) zones as occurs in the section between 59.40 to 60.00 metres. The latter occur between 60.30 to 60.40 and 60.55 to 60.75 metres. No metallic grey minerals apparent in veining within this section
- 61.10 61.75 Same as section between 59.40 to 60.00m, including metallic grey mineral in thicker (3 to Scm) guartz veins.
- 61.75 62.30 Similar to 57.60 to 59.40 metres. Medium grey, but generally moderately silicified with strong quartz flooding, and local spots of moderate to intense silicification.

62.30 63.50 Pink, coarse grained, massive, plagioclase porphyritic

H-N PROJECT (Ont. 77)

ESSO NINERALS CANADA DIANOND DRILL RECORD

Hole: HN88-28 Page: 8

Interval	Description	Sample	Interval	Length	λυ	Ag	Grey	Pyrite	N L	TERATION	
(Hetres)		No.	(Metres)	(Metres)	(g/t)		Metallic		SIL	CARB	SER

intrusive with typical plagioclase, guartz and biotite contents. Kinor, irregularly branching, 0.5 to 1cm guartz veining oriented at 40 to 60 degrees to the core axis. Veins have opague, bluish clear-white guartz, with some thin (1 to 2mm), pink, plagioclase reaction rims/bands. Section contains 1 to 24 pyrite disseminated throughout, but concentrated on fractures. Well fractured section, broken into irregular, 1 to 5cm pieces and slices.

63.50 67.00 Alternating zones of pink, very weakly silicified, and greenish grey, weakly silicified, with local bands of moderately silicified and weakly to moderately sericitized intrusive. Nore altered zones are generally cut by guartz veining that tends to be 0.5 to 10cm wide, subplanar, and oriented at 40 to 50 degrees to the core axis, although various orientations and crosscutting relationships occur. Probably 5% veining throughout section. Veining often centres thin (2 to 5cm), silica flood zones occasionally containing traces of grey metallic minerals. Grey minerals noted at 64.80m in 1cm guartz vein oriented at 50 degrees to the core axis, and between 65.40 and 65.50m in an irregularly veined flood zone where it is relatively abundant as very small blebs. Biotite is generally unaltered in pink sections, and slightly to mostly sericitized in altered sections, particularly along fractures. 1% pyrite in pink sections, and 2 to 4% pyrite in altered zones, generally as disseminations and blebs, and as discontinuous veinlets along fractures. Local shearing in thin, fanning (non-parallel) bands oriented at 45 to 60 degrees to the core Extremely broken section, into 1 to 3cm irregular axis. pieces.

67.00 69.00 Nottled white-grey, moderately to intensely silicified, weakly carbonatized, and weak to moderately sericitized. Biotite locally evident, but mostly chloritized/sericitized. Massive, coarse grained texture is generally well preserved. Section contains 15 to 30%, irregular guartz flood zones/bands that pervasively alter the intrusive, and form,

H-N PROJECT (Ont. 77)		ESSO MINERALS CA Diakond drill reg				Hole: Page:	HN 8	8~28 9			•
Interval Di (Netres)	escription		Sample No.	Interval (Metres)	Length (Netres)		Grey Metallic		SIL	ALTERATION CARB	SBR

or are centred by, small {0.5 to 1cm}, irregular, wavy to anastomosing branching and crosscutting guartz veinlets. Section contains minor fuchsite as small (1 to 2mm) grains. Silica flood zones contain numerous very small clusters or puffs of metallic grey minerals, which occur throughout section. 3 to 5% pyrite as fine disseminations often concentrated along fractures, as well as several larger (0.5 to 1cm), irregular clusters of pyrite. Section is moderately competent, slightly vuggy, extremely well fractured, and well broken into 1 to 5cm, irregular shaped pieces.

- 69.00 71.80 Medium grey, weakly silicified with a few, thin (1 to 5cm), strongly silicified zones adjacent to quartz veins. Plagioclase porphyritic texture is well perserved, and biotite mostly unaltered. Weak shearing locally developed and oriented at 40 to 50 degrees to the core axis. Minor to 5%, thin (0.5 to 2cm), quartz veins generally oriented subparallel to shearing at 40 to 50 degrees to the core axis.
 2 to 5% pyrite as fine disseminations, as larger blebs, and as hairline fracture veinlets. Bxtremely well fractured and broken section.
- 71.80 76.15 Pink to slightly greyish pink, relatively unaltered, feldspar porphyritic, coarse grained, massive to weakly foliated at approximately 30 degrees to the core axis. Biotite is black and unaltered. Several, thin (hairline), black, slip surfaces. Many small quartz veins are offset and appear pulled apart. Slips parallel shearing orientation at 30 degrees to the core axis. 5%, thin (0.1 to 3cm), subplanar quartz veins, generally oriented at 25 to 45 degrees to the core axis. 0.5 to 1% pyrite as fine disseminations often lining fractures. Competent section, generally with 10 to 25cm breakage along fractures oriented at 45 to 65 degrees to the core axis.
- 76.15 77.15 Creamy pinkish brown, weakly foliated at 10 degrees to the core axis. Zone appears weakly to possibly moderately silicified and carbonatized?. No biotite evident. 0.5% finely disseminated pyrite. Section is somewhat vuggy, and

ESSO HINERALS CANADA DIAMOND DRILL RECORD Hole: HN88-28 Page: 10

Interval Description Sample Interval Length Au Ag Grey Pyrite ALTERATION (Netres) No. {Netres} {Netres} (g/t) (ppm) Netallic {\$} SIL CARB SER

> exhibits hairline carbonate? veining subparallel to foliation/shear orientation. No significant quartz veining. Several chloritic fractures are oriented at 15 to 25 degrees to the core axis, with slickensides oriented at 45 degrees on the planar surfaces. Competent section, but broken into 5 to 10cm, irregular pieces along fractures.

- 77.15 80.60 Medium grey to mottled medium grey-white, weak to locally moderately silicified and weak sericitized. Biotite locally present, but mostly chloritized/sericitized. Massive with coarse grained, plagioclase porphyritic texture well preserved. 10%, 0.5 to 1cm, milky bluish white, quartz veins that are somewhat irregular and branching, but with a preferred orientation at 30 to 40 degrees to the core axis. Veins have somewhat diffuse contact margins and the adjacent rock is partially pervasively silicified. 2 to 3% pyrite, as fine disseminations often concentrated along fractures. Trace metallic grey mineral occurs near one quartz vein. Dominant fracturing direction oriented at 20 to 25 degrees to the core axis. Practures often have open vugs that locally occur in parallel sheeted sets. These fracture sets are subperdendicular to the orientation of quartz veins. Competent section, well broken along fractures into less than 10 cm pieces with some rubble zones.
- 80.60 82.30 Grey-pink to pink, massive, coarse grained, porphyritic intrusive. Very weakly silicified to unaltered. Kinor, 0.5cm, irregular quartz veins, generally with shallow orientations to the core axis. 0.5 to 1%, finely disseminated pyrite. Competent section, but broken into less than 5cm pieces.
- 82.30 85.75 Mottled medium grey-white to creamy grey-white, weakly to locally moderately silicified and very weak to weakly carbonatized and sericitized, although the biotite is locally relatively unaltered. Generally 15 to 20%, though locally more concentrated diffuse silica veining and flooding that is generally oriented at 10 to 30 degrees to the core axis. Quartz flooding/veining locally gives section a

H-N PROJECT (Ont. 77)



ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	Au	λg	Grey	Pyrite	AL T	ERATION	
(Netres)		No.	(Metres)	(Metres)		(ppn)	Netallic		SIL	CARB	SBR

foliated appearance. Veining and adjacent flood zones contain numerous very small grains of metallic grey minerals. 3 to 4% pyrite as fine disseminations, as well as several clots and blebs up to 1cm in size occuring along fractures or veining. Relatively vuggy and broken section, generally broken into less than 10cm pieces with several short (10 cm) rubble zones.

- 85.75 86.70 Light pink-grey to slightly pinkish grey, massive, coarse grained, plagioclase porphyritic relatively unaltered section. 54, subplanar, 0.5 to 1cm, bluish white quartz veins that are irregularly branching and generally oriented at 40 degrees to the core axis. Some veins are slightly (0.5 to 1cm) offset across thin fractures. Section contains several fractures oriented at 45 degrees to the core axis (perpendicular directions), as well as some irregular fractures oriented approximately perpendicular to the core axis. 0.5 to 14 pyrite as fine disseminations, as well as concentrations along fractures.
- 86.70 98.55 Medium grey to mottled medium grey-white, very weakly altered, but well quartz veined, to weakly altered (veined and pervasive) and locally weak to moderately silicified (veined and pervasive). Plagioclase porphyritic texture generally well preserved with euhedral grains up to 7mm, but commonly 3 to 4mm. Biotite locally relatively unaltered, but generally chloritized/sericitized. Section is generally massive and only locally weakly foliated in guartz flood zones with orientations at 30 to 35 degrees to the core axis. Less altered silicified zones contain minor (2 to 5%) amounts of planar, sharp bounded, guartz veins, while more altered sections contain 5 to 15%, subplanar to highly irregular veining with diffuse contacts that grade into silica flood zones. Locally the veining is highly irregular with various curving and crosscutting and branching relationships. Veins are locally offset along fractures. Veins are mostly oriented at 30 to 45 degrees to the core axis, although a vein oriented subparallel to the core axis

ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	λu	λg	Grey	Pyrite	λĽ	TERATION	
(Netres)		No.	(Metres)	(Metres)	(g/t)	(ppn)	Metallic	(1)	SIL	CARB	SBR
	***************************************		*********								

occurs between 90.50 to 91.00 metres. Quartz veins are generally 0.5 to 3cm in width, and consist of coarse white guartz containing minor, very small wallrock impurities, and trace to minor amounts of pyrite. A few of the larger veins also contain trace to minor amounts of grey metallic minerals, generally as fine explosion puffs, and/or needles. Section is moderately well fractured, generally at 45 to 60 degrees to the core axis, although most orientations occur. Competent section with 10 to 25 cm breakage, generally along fractures. 1 to 34 pyrite as fine disseminations, and concentrated into local blebs and along fractures.

98.55 100.20 Pink, relatively unaltered, coarse (0.5 to 2mm) grained, with 5%, small (2 to 5mm), euhedral, zoned plagioclase phenocrysts, 5 to 10%, 1 to 2mm, subrounded quartz grains, and 10 to 15% biotite (chloritized) in a fine grained plagioclase dominant matrix. A few, thin {1 to 2mm}, bluish white quartz veinlets oriented at 35 to 40 degrees to the core axis. Minor to 1%, finely disseminated pyrite and also as concentrations on slip fractures. Several chloritic slip fractures with lineations orientated at 20 degrees on slip planes which are oriented at 20 to 30 degrees to the core axis. Competent section, but moderately broken into 5 to 10cm pieces with a rubbly lower contact zone. Lower contact with volcanic inclusion oriented at 40 degrees to the core axis.

100.20 101.80 FINE-GRAINED NETASEDINENT INCLUSION

Dark greenish-black to brownish-black, very fine grained, moderately foliated/schistose/phyllitic with foliation oriented at 25 to 30 degrees to the core axis at top and bottom, and 5 degrees to the core axis in the central section.

Section has local banded character, consisting of coarser, darker, magnetic bands, within finer grained, phyllitic material that is generally weakly magnetic.

Unit is generally moderately reactive to HCl.

NS	100.20	101.80	1.60	n/a	n/a	-	0.51
***	******	141144		11/14			4341
892	100.20	101.80	1.60	,05	.60	•	0.5%

H-N PROJECT (ont. 77) ESSO MINERALS CANA DIAMOND DRILL RECO					Hole: Page:	HN	88-28 13			
laterval (Hetres)	Description	No.	Interval (Hetres)							TERATION CARB	SBR
	Kinor quartz veining and intrusive material occurs as thin (1 to 2mm), discontinuous to boudinaged/strectched/sheared veins oriented parallel to the foliation, and as occasional irregular and often offset blebs up to a few cms. Offsets are generally on slips subparallel to foliation. Possibly volcanic in origin, but varying grain size in bands, strongly magnetic bands, brownish colour, and lack of any epidote alteration suggest that it is a sediment. Includes hairline network fracturing throughout unit (late fractures). 0.5% Pyrite mostly as very fine disseminations, but incuding several small areas with 1mm cubic crystals. Upper contact is sharp and oriented at 40 degrees to the core axis, and lower contact is in poorly recovered rubble zone with indeterminate contact orientation although foliation is oriented at 25 to 30 degrees to the core axis.										
101.80 132.0	 DO FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED 101.80 118.00 Pink with minor pinkish grey sections, relatively unaltered, massive, coarsely (1 to 2mm) feldspar porphyritic, with a few larger (2 to 5mm), subhedral to euhedral phenocrysts, many that are partially resorbed. 54, Subrounded quartz grains, and 104 fine patchy biotite. 3 to 54 quartz veins as 1mm to 2cm, subplanar veins oriented at various angles to the core axis, but concentrated at 30 degrees to the core axis. Veins are white with little or no inclusions or mineralization. Quartz veins are locally offset (1 to 5mm) along slips and fractures. Some veins have thin (1mm) red alteration bands. 0.5 to 14 finely disseminated pyrite with concentrations along fractures. 	893 1 894 1 895 1 896 1 897 1 898 1 899 1 900 1 901 1	01.80 132.0 01.80 103.0 03.00 104.0 05.00 105.0 07.00 108.5 08.50 110.0 10.00 111.5 11.50 113.0 13.00 114.5	0 1.20 0 1.00 0 1.00 0 2.00 0 1.50 0 1.50 0 1.50 0 1.50 0 1.50 0 1.50	n/a .10 .40 .22 .10 .01 .01 .02 1.06 .07 .01	5.00 3.40 7.60 1.50 1.40 1.10	- - - TRACB -	1% 1* 1-2% 0.5-1% 0.5-1%	UN-NOD	UN-WK	NN-AX

1.50

1.50

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903 116.00 118.00 2.00

904 118.00 119.00 1.00

905 119.00 120.00 1.00

909 121.00 122.00 1.00

910 122.00 122.50 .50

906 120.00 120.50

907 120.50 120.80

908 120.80 121.00

- 0.5-11

1-24

1-21

2-41

1-21

2-41

2-31

2-31

MINOR

TRACE

0.51

TRACE

0.5%

TRACE

1.30 1-1.5%

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0.5 to 14 linely disseminated pyrite with concentrations along fractures. Moderately fractured at various angles to the core axis, but concentrating at 10 to 30 degrees and at 60 and 70 degrees to the core axis. These fractures are often chloritic, pyritic and weakly vuggy, locally with calcitic coatings.

Unit is weakly vuggy throughout.

A grey to weakly silicified zone occurs between 110.20 to 111.50 metres. Relatively competent unit, but well fractured and broken into pieces less than 5 cm with several short (5 to 20cm) rubble sections. H-N PROJECT (Ont. 77)

ESSO MINERALS CANADA DIAMOND DRILL RECORD

Hole: HN88-28 Page: 14

Interval	Description	Sample	Interval	Length	Au	λg	Grey	Pyrite	ALTERATION	
(Hetres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	Metallic	(1)	SIL CARB	SER

118.00 132.00 Generally nottled grey-white, moderately silicified and weakly sericitized with local patches (10's of cm) and bands (a few cm) that are white and intensely silicified and moderately sericitized.

Thin (1 to Scm) alteration bands appear to grade outward in intensity from small fracture zones that are often oriented at 10 to 45 degrees to the core axis. These fractures locally contain thin (1 to 2mm), wavy, chloritic, alteration fringes, some of which surround calcite fragments that are cm sized.

Larger alteration zones are pervasively silicified with sericitization of biotite, but contain no significant guartz veining.

This section also contains 20% relatively unaltered to weakly silicified, pinkish to purplish grey, Intrusive. Typical slightly granodiorite/quartz diorite. Coarse grained, plagioclase porphyritic, with minor quartz phenocrysts, and 10% black, unaltered biotite. Core recovered was very broken through the altered sections. Changes from unaltered to altered sections are often transitional over a few cm, but also rather sudden.

The white moderate to intensely silicified sections contain zones of silica flooding that contain minor to locally 1%, fine grey metallic minerals. These are usually small (visible in handlense), however several fractures between 122 to 122.5m contain smeared fracture coatings of a soft purplish grey mineral that appears to be molybdenite. These fractures are oriented at 5 to 25 degrees to the core axis.

No significant quartz veining through the unit.

Pyrite constitutes 0.5 to 1% of the relatively unaltered intrusive sections, and 2 to 5% in moderately to intensely altered zones. Pyrite is finely disseminated throughout and occurs as concentrations along most fractures, particularly through intensely altered zones. Pyritic hairline fractures through altered zones are often jagged, irregular and discontinuous.

Noderately foliated band 3cm wide and oriented at 25 degrees to the core axis occurs at 133.80 metres.

Section is well fractured, generally at 10 to 45 degrees to the core axis. Practures often planar, but altered zones are fractured/broken along irregular fracture orientations.

911 122.50	122.75	.25	.08	.80	-	23
912 122.75	123.00	.25	.01	1.00	TRACE	2-31
913 123.00	123.50	.50	.01	1.00	0.5%	2-31
914 123.50	124.00	.50	.01	1.20	-	1-23
915 124.00	125.00	1.00	.01	1.30	MINOR	1-2
916 125.00	126.00	1.00	.01	1.20	-	1-2
917 126.00	127.00	1.00	.01	1.10	MINOR	1-31
918 127.00	127.70	.70	.01	1.00	-	2-31
919 127.70	128.00	.30	.01	1.10	MNR-0.5	2-31
920 128.00	129.00	1.00	.20	.80	XNR-0.5	2-31
921 129.00	130.00	1.00	.05	.90	MNR-0.5	2-45
922 130.00	130.70	.70	.18	.70	-	23
923 130.70	131.00	.30	.10	1.10	0.5-11	2-43
924 131.00	132.00	1.00	.02	.90	0.5%	2-31



ESSO NINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	λu	kg	Grey	Pyrite	AL!	TERATION	
(Hetres)	-	No.	(Metres)	(Metres)	(g/t)	(ppn)	Netallic	(\$)	SIL	CARB	SER
										<i></i>	

Chlorite, calcite, and minor sericite occur on some fractures. Section is well broken, particularly in altered zones where it often forms irregular chips and rubble. Small mafic volcanic inclusion occurs between 122.50 to 122.75 metres. Dark brown, fine grained, schistose with foliation oriented at 40 degrees to the core axis. Upper contact parallel to foliation at 40 degrees to the core axis and lower contact subparallel to the core axis at 70 degrees. Upper contact transitional. Lower contact oriented at 30 to 40 degrees to the core axis.

132.00 146.75 SHEARED/SCHISTOSE MAPIC METAVOLCANIC

Dark brownish black and locally greenish black, very fine grained, schistose/sheared metavolcanic. Weakly reactive to HCl with local highly reactive sections. Generally non-magnetic with local magnetic patches. Shearing foliation well developed throughout upper part of unit and oriented at 15 to 20 degrees to the core axis.

Lower few metres contains a few more massive sections with volcanic textures, and minor lime-yellow green epidote-carbonate alteration that is well developed in the underlying unit. Rest of this unit is not altered.

Unit contains 5%, thin (hairline to 1mm), discontinuous calcite lined fractures, occasionally stretched parallel to foliation, but mostly as short, irregular to ladder sets of tension gash fillings.

Unit contains 3 to 54 quartz veins and quartz calcite laminae. The quartz-carbonate (calcite) veinlets are mostly thin (hairline), stretched out, and slightly boudinaged veinlets (laminae) oriented subparallel to the shear foliation. The quartz veins are 0.5 to 2cm and form irregular, disjointed, pinch and swell to boudinaged broken veins generally at 10 to 45 degrees to the core axis. Locally these are offset across thin fractures. These are generally clean white veins, occasionally with carbonate along the edges or in pressure shadows.

0.5 to 1% pyrite as fine disseminations often concentrated in laminae parallel to the shear foliation.

Small weakly altered intrusive dyke from the overlying intrusive occurs

NS	132.00	146.75	14.75	n/a	n/a	-	0.5-1%
925	132.00	133.00	1.00	.17	.80	-	0.5-1
926	133.00	134.00	1.00	.04	1.30	-	0.5-11
927	134.00	134.85	.85	.05	1.00	-	1-23
928	134.85	136.00	1.15	.04	1.00	-	0.5-1%
929	141.25	141.60	. 35	.02	1.20	-	2-31

ESSO NINERALS CANADA Diahond drill record

Hole: HN88-28 Page: 16

Interval	Description	Sample	Interval	Length	Åu	λg	Grey	Pyrite	AL	TERATION	
(Metres)		No.	(Netres)	(Metres)	(g/t)	(ppm)	Metallic	(\$)	SIL	CARB	SER
**********************						******					

between 134.00 to 134.85 metres. Contacts are highly sheared and oriented at 25 to 40 degrees to the core axis.

Smaller intrusive dyke that is relatively fresh but irregular (caught in swirled schistose section) from 141.25 to 141.60m occurs as several broken pieces.

Relatively competent unit, but moderately broken along shear foliation and several fractures generally into 10 to 50cm pieces.

Upper contact is sharp, but wavy and oriented at 30 to 40 degrees to the core axis.

Lower contact is sharp and oriented at 25 degrees to the core axis.

146.75 151.20 SCHISTOSE MAPIC METAVOLCAMIC WITH EPIDOTE-CARBONATE BANDS

Hottled light yellowish-lime epidote green to dark green, with 50% lighter coloured altered sections occuring as patches and somewhat irregular squares within network of darker bands of less altered mafic volcanic. No pervasive reaction to HCl.

Light coloured altered patches are massive, non-magnetic, with no preserved original textures, while dark green weak to unaltered portions exhibit fine grained volcanic texture and are moderately magnetic, massive to moderately foliated at 20 to 40 degrees to the core axis.

Unit contains a few percent irregular, hairline, calcite fracturing, but not as pervasive as in the overlying sheared unit.

5% Quartz veining like the overlying unit, and although slightly (1 to 2cm) offset on fractures, are not stretched and boudinaged like in the overlying unit. Trace pyrite and one chalcopyrite grain noted in guartz veins. Veins all oriented at 30 to 50 degrees to the core axis, and are generally planar. Veining cuts both altered and unaltered volcanic sections.

Kinor pyrite, generally as fine disseminations in wallrock adjacent to quartz veins.

Competent unit with fractures generally oriented at 45 degrees to the core axis, and core broken along fractures into 20 to 100cm pieces. Lower contact with intrusive not recovered.

NS 14	6.75 151.20	4.45	∎/a	n/a	-	MINOR
930 14	8.00 149.00	1.00	.01	1.60	-	MINOR
931 14	9.00 150.00	1.00	.04	1.70	-	MINOR
932 15	0.00 151.20	1.20	.02	1.40	-	MINOR

H-N PROJECT (Ont. 77) BSSO MINBRALS CANAG DIAMOND DRILL RECOR					Hole: Page:	HN B	8-28 17		
[nterval (Netres)	Description	Sample No.		Length (Metres)		Ag (ppm)		Pyrite (%)	ALTERATIO SIL CARB	N Ser
151.20 158.3	O FP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED Mostly weak to moderately silicified and very weakly sericitized, but containing a large section between 157.0 and 158.3m at the bottom that is relatively fresh.	933	151.20 158.3 151.20 152.0 152.00 153.0	0.80	n/a .01 .01	n/a 1.10 1.00	TRACB - TRACB	1-3% 2-3% 2-3%	VK -	V.WK

Biotite is generally unaltered to weakly chloritized throughout unit. Altered zones have preserved the original coarse grained, plagioclase porphyritic texture, are mottled medium grey in colour, and massive to weak and locally moderately sheared/foliated at 20 to 25 degrees to the core axis.

A few thin (lcm), planar quartz veins oriented at 20 to 30 degrees to the core axis, and some minor quartz patches and silica flood zones. The latter occasionally contain minor amounts of grey metallic minerals.

Unit is moderately vuqqy.

Altered zones contain 2 to 4% pyrite as fine disseminations, often concentrated on fractures.

Moderately fractured at shallow and subperpendicular angles to the core axis, with altered zones having more fracturing and orientations at 15 to 30 degrees to the core axis, and unaltered zones containing less fractures that are generally oriented at 45 to 70 degrees to the core axis Altered zones are well broken with several rubble sections, and unaltered zones are competent with 10 to 50cm breakage along fractures.

Upper contact not recovered.

Lower contact is sharp and somewhat sheared and undulating with orientation at 25 to 30 to the core axis.

158.30 160.65 SHEARED/SCHISTOSE WAFIC METAVOLCANIC

Medium to dark green, well foliated/sheared, fine grained, laminated/sheared mafic volcanic, including several irregular intrusive dyke fragments occurring between 158.50 to 158.60, 159.10 to 159.20, 159.25 to 159.30 and 159.50 to 159.85 forming approximately 25% of unit. Shearing orientation in the mafic volcanic is at 30 degrees to the core axis, although somewhat swirled and irregular.

Very weakly epidote altered in shear/foliation parallel, laminae/bands, consisting mainly of carbonate/epidote/plagioclase.

Abundant calcitic patches/networking and thin (hairline to 2mm),

933 151.20	152.00	.80	.01	1.10	-	2-31	
934 152.00	153.00	1.00	.01	1.00	TRACE	2-3	
935 153.00	154.00	1.00	.02	1.00	-	23	
936 154.00	155.00	1.00	.10	1.00	TRACE	2-31	
937 155.00	156.00	1.00	.08	.90	-	21	
938 156.00	157.00	1.00	.01	2.20	TRACE	1-24	
939 157.00	158.30	1.30	.01	1.30	-	1\$	

NS 158.30 160.65	2.35	n/a	n/a	-	MINOR
940 158.30 159.85	1.55	.01	1.20	-	11
941 159.85 160.65	. 80	.02	.90	-	MINOR

-N PROJECT (Ont. 77)		ESSO MINERALS CANADA DIAMOND DRILL RECORD		Hole: Page:	8 N.R	18-28 18		
Interval (Metres)	Description	Sample ¥o.	Length (Netres)	Ag (ppm)	Grey Metallic	Pyrite : (%)	RATION CARB	SE

irregular tension gash fillings.

5% Quartz veining, mostly as broken vein fragments separated along slips and shears, many with no continuity of the original vein apparent. Intrusive fragments are unaltered to weakly altered, containing 1 to 3% pyrite, and having irregular contacts.

Minor pyrite in mafic volcanic.

5

Competent unit with 25 to 75cm breakage along fractures generally oriented at 45 to 60 degrees to the core axis.

Lower contact is sharp along a quartz vein oriented at 40 degrees to the core axis, into underlying epidote altered mafic volcanic.

160.65 180.50 SCHISTOSE NAFIC RETAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Similar to unit between 146.75 to 151.20 metres.

Dark green with volcanic texture consisting of fine plagloclase in chloritic matrix. Presh sections are rare but highly magnetitic and massive.

Nost of rock is weakly to intensely epidote-carbonate altered with the latter consisting of light cloudy pinkish to yellow-lime green coloured patches, irregular zones and bands. Pinkish alteration also forms bands along fractures and guartz veins.

Altered zones are generally well foliated at 0 to 40 degrees to the core axis, but mostly at approximately 20 degrees to the core axis.

Minor hairline calcite veinlets along late tension fractures.

Abundant (5 to 15%) quartz veining, as 1 to 2cm, subplanar, but somewhat irregular and branching veins all offset along slips and fractures over distances of 1 to 3cm and occasionally up to 10 cm. Veins are bluish white and clean, generally with sharp contacts. Locally some veins exhibit fleshy pink, calcitic reaction bands a few mm wide.

Veins appear to have preferred orientations at 40 to 60 degrees to the core axis.

Generally minor amounts of finely disseminated pyrite, but some veins and fractures have somewhat greater (1 to 34) concentrations.

Several thin (3mm to 1cm), intrusive dykelets cut the volcanic. These are planar and have various orientations between 20 and 45 degrees to the core axis, and at an angle to the guartz veining.

NS 160.65	180.50	19.85	n/a	n/a	-	0.5-1%
942 160.65	162.00	1.35	.01	1.60	-	MINOR
943 176.00	177.00	1.00	.05	2.00	-	0.5%
944 177.00 1	178.00	1.00	.01	1.80	-	0.5%
945 178.00	179.00	1.00	.04	1.70	-	0.5%
946 179.00	180.00	1.00	.02	. 10	-	0.5%
947 180.00	180.50	.50	.18	1.90	-	2-31

H-N PROJECT (I	Ont. 77) BSSO MINBRALS CANAD DIAMOND DRILL RECOR					Hole: Page:	HN 8	8-28 19		•
Interval (Netres)	Description	No.		(Metres)	(g/t)				ALTERATION SIL CARB	SBR
180.50 180.7	O FAULT IONE Small fault zone with 50%, small (less than lcm), broken wallrock fragments surrounded by guartz and coarse calcite. Central part of zone is a vuggy, irregular guartz-calcite vein. Edges of fault are moderately pyritic, and the underlying pink coloured, pyritic altered volcanic adjacent to this fault seems to occur between this fault and the mylonite occurring further below. Contacts of the fault somewhat irregular but oriented at approximately 40 degrees to the core axis.		80.50 180.70 80.50 180.70		n/a .20	n/a 1.90		23		
180.70 182.3	0 INTENSELY EPIDOTE-CARBONATE ALTERED HETAVOLCANIC Pervasively and intensely altered volcanic lying below the overlying fault, and underlying mylonite. Medium creamy to purplish to pinkish buff colours. Jone is generally fine grained with highly contorted appearance due to broken and offset guartz veins, alteration banding, and pyritic fracture fillings. However, it is only weakly foliated at 0 to 20 degrees to the core axis above 181.5m, and more or less massive below. Above 181.5 it is also more altered, contorted and pyritic. Minor guartz veining, now as small broken offset fragments. 5 to 6% pyrite as fine disseminations concentrated on and along fractures forming irregular network patterns across the section. Hard competent section generally breaking into 10 to 100 cm pieces. Upper contact along fault at 40 degrees to the core axis. Lower contact with mylonite zone at 25 degrees to the core axis.	949 1	180.70 182.34 80.70 181.50 181.50 182.34	.80	n/a .61 .68	-		3-6% 5-6% 3-4%		
182.30 184.0	O MYLONITE 20NE Finely laminated/banded, multicoloured, well sheared mylonite zone. Light yellow-green, to purplish, to pink, to buff grey, weakly calcitic, strong carbonate altered. Upper part contains numerous 3mm and smaller rotated fragments in finer cataclastic matrix.	123 1	182.30 184.00 82.30 183.50 183.50 184.00) 1.20	n/a .83 .30	n/a 7.80 .30	- -	2-58 4-58 2-48		

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H-N PROJECT (O	nt. 77) BIANOND DRILL RECOR					Hole: Page:		8-28 20		•
Interval (Metres)	Description	Sample	Interval	Length	Au (= (+)	Àg	Grey	Pyrite	ALTERATION	SER
184.00 185.15	Several small (less than 3cm) guartz vein fragments caught in irregulaly swirled mylonite sections. Well banded shearing oriented at 20 degrees to the core axis, although it is somewhat undulating and nonparallel. 2 to 44 finely disseminated pyrite. Relatively soft section, broken into 10 to 50cm pieces along shear foliation. Upper contact, wavy and undulating at 25 degrees to the core axis. Lower contact, wavy and undulating at 25 to 30 degrees to the core axis. Lower contact, wavy and undulating at 25 to 30 degrees to the core axis. Creawy pinkish purplish to buff coloured, fine grained, intensely altered mafic volcanic. Also similar to overlying mylonite except this is massive to weakly foliated at 20 to 30 degrees to the core axis. Overlying mylonite unit is the cataclastically sheared portion of the volcanic unit on either side. Contains a few, small (1 to 2mm) guartz veins that are weakly stretched/elongated due to weak shearing and offset a few cm along fractures. 2 to 34 finely disseminated pyrite concentrated along fractures. Minor, hairline, calcitic tension fractures. Includes a few irregular, diffuse intrusive patches occupying 104 of the zone below 184.75 metres. Relatively competent core with 10 to 50cm breakage, often along weak foliation orientation. Lower contact is an irregular intrusive dyte, below which this unit grades into less altered, but well sheared mafic metavolcanics.		84.00 185.1 84.00 185.1	-	n/a .41	n/a .90	-	2-31 2-31		
185.15 185.85	SHBAR ZONG Hedium green to buff green, intensely sheared metavolcanic. Pine grained, moderately calcilic, non-magnetic. No original volcanic textures. Shear surfaces somewhat calcitic and containing minor sericite.		85.15 185.8 85.15 185.8		n/a 2.80	n/a 8.30	-	13 13		

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ESSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	Au	λg	Grey	Pyrite	λL	TERATION	
(Hetres)		No.	(Metres)	(Metres)	(g/t)				SIL	CARB	SBR
*****************************	***************************************									********	

Well developed shear foliation oriented at 20 degrees to the core axis. Minor, thin (0.5cm) pieces of broken guartz veins.

14 Pyrite as fine disseminations often concentrated along shear planes and calcitic fractures. One large (2 x 5mm) bleb of chalcopyrite occurs along a vuggy calcitic fracture.

Noderately competent unit with breakage along shear foliation.

185.85 194.70 WEAKLY BRECCIATED WAPIC METAVOLCANIC WITH BPIDOTE-CARB. BANDS

Noderately sheared mafic metavolcanic intruded by several granodiorite/quartz diorite dykes.

- 185.85 186.55 Feldspar Porphyritic Quartz Diorite Dyke. Medium grey, weakly to moderately silicified, massive to sheared intrusive including several long (2cm x 20cm), irregular, highly altered mafic volcanic fragments oriented parallel to irregular shear foliation at 0 to 20 degrees to the core axis. Sericite occurs along shear fragments. Upper and lower contacts are oriented at 20 degrees to the core axis, but highly irregular (broken and sheared).
- 186.55 187.00 Medium green, moderate foliated/sheared mafic metavolcanic containing 5 to 6% disseminated pyrite. Poliation and contacts oriented at 20 degrees to the core axis. Minor calcitic fracturing.
- 187.00 187.75 Feldspar Porphyritic Quartz Diorite Dyke. Same as intrusive between 185.85 to 186.65m, although more sheared.
- 187.75 188.80 Dark green, moderately foliated/sheared mafic metavolcanic containing 15%, thin (1 to 2mm), discontinuous fracture gashes, forming an intense network of calcite veining yielding a pseudobrecciated appearance. Well sheared at 10 to 20 degrees to the core axis, with upper and lower contacts sharp but unulating at 20 to 30 degrees to the core axis. Section contains several broken pieces of offset and boudinaged guartz veining.
- 188.80 192.00 Peldspar Porphyritic Quartz Diorite Dyke. Mostly grey, biotitic, relatively unaltered, massive, coarse grained, porphyritic intrusive, but with a zone between 189 and 190m

NS 185.	85 194.70	8.85	n/a	n/a	•	2-3
954 185.	85 186.55	.70	1.42	4.90	•	2-31
955 186.	55 187.00	. 45	1.52	3.50	-	5-81
956 187.	00 187.75	.75	.71	1.90	-	1-24
957 187.	75 188.80	1.05	.36	.60	-	0.5%
958 188.	80 190.00	1.20	.27	1.10	HINOR	3-41
959 190.	00 191.00	1.00	.01	1.00	-	1-21
960 191.	00 192.00	1.00	.01	.90	-	1-2
724 192.	00 193.60	1.60	.18	2.30	-	3-41
961 193.	60 194.70	1.10	.06	1.20	-	25

BSSO	MINERALS	CANADA
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Interval Description Sample Interval Length λŋ Grev Pyrite ALTERATION λa (Metres) No. (Metres) (Metres) (g/t) (ppm) Metallic (%) SIL CARB SRR

that is mostly weak to moderately altered. Local intensely silicified/silica flood zones adjacent to several fractures oriented at 40 degrees to the core axis. The latter are bleached white and contain 0.5 to 1% very finely disseminated grey metallic minerals. Practures are yuggy with chloritic fringing of some calcite grains and fractures noted in overlying altered intrusive at 124 metres. 3 to 4% pyrite occurs as fine disseminations, and along small fractures throughout the altered sections, and 1 to 2% pyrite as disseminations throughout unaltered intrusive sections. Lover contact of unaltered intrusive highly sheared across 20cm zone and oriented at 20 to 45 degrees to the core axis.

- 192.00 193.60 Dark green, moderately foliated/sheared mafic volcanic with foliation oriented at 20 to 35 degrees to the core axis. 10%, hairline, calcitic tension microfracture network, and several large pieces of broken and boudinaged quartz veins. 2% pyrite as disseminations concentrated along shear foliation parallel laminae. Lower contact oriented at 45 degrees to the core axis.
- 193.60 194.70 Feldspar Porphyritic Quartz Diorite Dyke. Mottled pinkish to greenish grey, weakly silicified and sericitized intrusive. Massive with subdued/clouded/resorbed/altered, coarse grained texture. 5%, subplanar to irregular, thin (1 to 10cm) guartz veins often offset along fractures. Practures are often sericitic giving section a light green colour. Upper and lower contacts are oriented at 40 and 50 degrees to the core axis. 2%, pyrite occurs as disseminations concentrated on fractures.

194.70 199.45 WEAKLY BRECCIATED NAFIC RETAVOLCANIC WITH EPIDOTE-CARB. BANDS

Kedium grey-green, irregularly swirled and moderately to intensely brecciated and fractured, with 20% light yellow-green epidote-carboante alteration bands, and generally an overall moderate to intense carbonate alteration.

NS.	194.70	199.45	4.75	n/a	n/a	-	1-31
962	194.70	196.00	1.30	.20	1.10	•	1-31
725	195.00	197.00	1.00	.02	1.70	-	2-41
726	197.00	198.50	1.50	.03	1.90	-	1-21

H-N PROJECT (Ont. 77)

H-N PROJEC 7 ((Dnt. 77) BIAMOND DRILL RECON				Kole: Page:	HN88-28 23		•
Interval (Hetres)	Description	Sample Interval No. (Netres)		Au (g/t)	Ag (ppm)	Grey Pyrite Metallic (%)	ALTERATION SIL CARB	SBR
	Locally intensely sheared at 20 degrees to the core axis, near both contacts. Altered sections of the volcanic unit are themselves brecciated and broken Several fractures have carbonate-sericitic slip surfaces. Generally 1%, and locally up to 3%, pyrite as fine disseminations and fracture linings. Relatively broken unit, often broken along irregular, as well as planar sericitic fractures. The latter are generally oriented at 20 to 40 degrees to the core axis. Lower contact along sharp chloritic slip at 20 degrees to the core axis.	727 198.50 199.4	5.95	.06	1.30	- 2-38		
199.45 201.10	 D FP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED Nottled medium grey and grey-green, weakly silicified but moderately sericitized and brecciated. Vague, coarse grained, massive texture evident, but mostly fine grained quartz-carbonate-plagioclase-sericite schist. Well mottled texture due to brecciation, silica flooding, and sericitization. No significant quartz veins, although silica flood zones often form irregular silica bands 0.5 to 2cm wide. 24 Pyrite as fine disseminations and fracture linings. Noderately competent unit, but moderately broken along carbonate-sercite-talc lined fractures at 20 to 40 degrees to the core axis. Lover contact occurs along an irregularly brecciated quartz vein, separating intrusive from intensely sheared mylonitic mafic volcanics below. 	NS 199.45 201.1 963 199.45 201.1		n/a .49	n/a 1.90	- 23 - 23		
201.10 208.7	5 SHEAR 20HB Intensely altered and sheared mafic metavolcanic with soft banded clay gouge zones between 202.50 to 204.00, and 208.60 to 208.70 metres. The mylonite/clay gouge zones are soft and claylike with multicoloured, light pink to grey to green banding (1mm laminations). Several thin (1 x 5mm) quartz vein fragments occur in the fault gouge parallel to the	NS 201.10 208.7 964 201.10 202.3 728 202.35 203.0 729 203.00 203.5 730 203.50 204.0	5 1.25 0 .65 0 .50	n/a 13.85 6.74 7.86 3.22	n/a 42.60 5.30 29.50 11.90	- 1-5% - 3% - 5-6% - 3-4% - 3-4%		

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Interval	Description	Sample	Interval	Length	λu	λg	Grey	Pyrite	ALTERATION		
(Netres)		Ko.	(Metres)	(Metres)	(g/t)	(ppm)	Metallic	(1)	SIL	CARB	SER
********************************						******	********			********	

shear foliation, which varies between 0 to 20 degrees to the core axis. The larger upper zone also includes a friable, altered, 3cm x 3cm, irregular, intrusive fragment.

Gouge is relatively pyritic containing 1%, to locally 5%, finely disseminated pyrite above 202.50 metres. The unit is well sheared much like the mylonite adjacent to it, but not sheared into gouge. Section contains 15%, large, broken fragments of guartz veining and 3 to 4% pyrite. Section is somewhat similar to mylonite between 182.30 and 184.00 metres.

Shear folition is wavy and irregular, and swirled around guartz vein fragments, but generally ranges between 0 and 30 degrees to the core axis Between the two gouge zones the volcanic is moderately to intensely brecciated, and similar to zone between 194.70 and 199.45m with 10% epidote-carbonate mottling.

Some darker, less altered, brecciated sections of this zone are locally magnetic, with 0.5% pyrite.

Unit is mostly massive and brecciated, but locally weakly sheared with well developed foliation oriented at about 20 degrees to the core axis. Soft, well broken to rubbly unit.

208.75 287.70 SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Variably altered (weak to intense) mafic volcanic, intruded by variably altered (unaltered to locally moderate or intense) granodiorite to quartz diorite.

208.75 213.75 Intensely altered and brecciated, mottled medium to dark green and grey mafic volcanic adjacent to the overlying mylonite zone, grading into a well altered (epidote-carbonate) mafic volcanic that is more massive, but still slightly brecclated/deformed as shown by offset (1 to 3cm) guartz veining. Unit mostly altered to light green-yellow epidote patches, but a few dark green, fine grained, magnetic, unaltered mafic volcanic remnant fragments remain. 5%, intense, thin (lmm), calcitic, microfracture networking. 5%, 0.5 To 2cm, tension subplanar quartz veins oriented at 30 to 55 degrees to the

731 204.00	204.50	.\$0	.34	2.10	•	3-41
732 204.50	205.00	.50	.26	2.70	-	3-41
733 205.00	205.50	.50	.14	3.00	-	2-31
734 205.50	206.00	.50	.03	2.00	-	11
735 206.00	207.00	1.00	.02	1.70	-	1-23
736 207.00	208.00	1.00	.01	1.70	-	1-24
737 208.00	209.00	1.00	.02	1.90	-	2-43

I S	208.75	287.70	78.95	n/a	n/a	-	0.5-2%	
738	209.00	210.00	1.00	.04	2.00	-	3-41	
739	210.00	211.00	1.00	.03	2.40	-		
740	211.00	212.00	1.00	.02	2.30	-	1-21	
741	212.00	213.00	1.00	.01	2.20	-	1-24	
742	213.00	213.75	.75	.01	2.40	-	2-31	
965	213.75	215.40	1.65	.07	1.40	-	21	
966	215.40	216.55	1.15	.01	1.20	-	21	
743	216.55	217.15	.60	.02	1.20	-	1-21	
744	217.15	218.00	.85	.02	2.20	-	1-21	
745	218.00	219.00	1.00	.04	196.60	-	2-31	
746	219.00	220.00	1.00	.03	2.40	-	21	
967	220.00	221.00	1.00	.21	1.90	-	1-31	
747	221.00	222.20	1.20	.19	2.20	-	2-31	

Interval	Description	Sample	Interva	Length	Åu	λg	Grey	Pyrite	ALTER	ATION	
(Metres)		No.	(Metres	(Netres)	(g/t)	(ppm)	Hetallic	: (1)	SIL C	AR B 	SB
	core axis. Weak alteration banding is often irregular but	968	222.20 223	00 .80	.10	2.00	-	1-24			
	mostly oriented at 20 degrees to the core axis.		227.35 228		.03	1.40	TRACE	1-23			
	213.75 215.40 Intrusive/mafic metavolcanic contact zone. 50%, irregular,	970	233.10 234	00.90	.04	1.50	-	0.5-1%			
	intrusive blocks as below with 50% mostly intensely	971	234.00 235	00 1.00	.06	1.50	-	0.5-1%			
	epidotized, lime green to salmon pink coloured altered	972	241.50 243	00 1.50	.02	1.40	-	0.5%			
	mafic metavolcanic. Section is well fractured with sharp,	973 (243.00 243	55 .55	.07	1.00	•	TRACE			
	but irregular to somewhat subdued (metasonatized) contacts.	974	243.55 244	40 .85	.01	1.30	•	1			
	215.40 217.15 Quartz diorite intrusive. Slightly greenish to reddish	975	244.40 245	50 1.10	.19	.80	-	4-54			
	medium grey, weakly to moderately carbonate and epidote	976	248.00 249	00 1.00	.11	1.00	-	4-5%			
	altered, coarse grained, feldspar porphyritic intrusive.	977	249.00 249	90 .90	.01	1.90	•	14			
	30 to 40%, euhedral to subhedral, often zoned, 1 to 3mm and	978	249.90 251	00 1.10	.12	1.50	-	0.5%			
	up to icm, white plagioclase phenocrysts, and 5%,	8546	251.00 252	50 1.50	.02	1.20	-	0.5%			
	subrounded, 2 to 5mm quartz phenocrysts in finer grained	979	252.50 253	05 .55	.01	1.40	-	1-23			

- rich matrix that is carbonatized and plagioclase Only minor unaltered biotite is evident. epidotized. Intrusive is massive and contains a few well altered, pyritic volcanic wallrock fragments that are intensely microfractured. No significant quartz veining. 2% pyrite as fine disseminations and fracture fillings. Competent section, with 5 to 50 cm breakage along fractures generally oriented at 45 degrees to the core axis. Lower contact is sharp and oriented at 35 degrees to the core axis. 217.15 221.15 Intensely altered mafic metavolcanic. 10%, dark green,
- magnetic, unaltered remnants, 50%, weak to moderately carbonate and epidote altered sections having a irregular, patchy, cream to light yellow-green colour, and 20%, intensely light-yellow epidote altered sections with small irregular intrusive dykelets and veining. Section is moderately to intensely fractured/brecciated, with 5%. calcite filling thin, irregular, tension fracture Minor, irregular, broken and offset guartz networking. veining. 1 to 2% finely disseminated pyrite. Competent section but moderately well fractured at various angles to the core axis. Lower contact is an irregular transition zone into intrusive.

221.15 222.20 Transitional contact between mafic metavolcanic and

980 253.05 254.00 .95 3-44 .09 1.20 .19 2-31 981 254.00 255.00 1.00 .90 8547 255.00 256.00 1.00 .04 1.30 • 13 8548 256.00 257.00 1.00 1.20 1-21 .03 8549 257.00 258.50 1.50 .07 1.30 1\$ 8550 258.50 260.00 1.50 .22 1.20 -11 8551 260.00 261.35 1.35 .21 1.30 1-23 982 261.35 261.95 . 60 .25 1.80 -1-23 8552 261.95 263.00 1.05 .01 .80 -1\$ 8553 263.00 264.75 1.75 .01 11 1.10 8554 264.75 266.00 1.25 .33 1.60 -0.5% .06 8555 266.00 267.50 1.50 1.30 -0.5% .04 1.10 -1\$ 8556 267.50 269.00 1.50 .01 0.5% 8557 269.00 270.50 1.50 .90 8558 270.50 271.80 1.30 .09 .90 -1-23 .03 8559 271.80 273.15 1.35 1.00 -MINOR 8560 273.15 275.00 1.85 .10 .80 - 0.5-1% .05 8561 275.00 276.50 1.50 .90 - 0.5-1% 8562 276.50 278.00 1.50 .02 .80 - 0.5-1%

.03

1.50

- 0.5-1%

983 285.90 287.70 1.80

H-N PROJECT (Ont. 77)

ESSO MINERALS CANADA DIAMOND DRILL RECORD

Hole: HN88-28 Page:

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H-N PROJECT (Ont. 77)		BSSO MINBRALS CANADA DIAMOND DRILL RECORD					Hole: Page:	HN 8	8-28 26		
Interval {Ketres}	Description		Sample No.	Interval (Netres)	Length (Netres)	Au (g/t)	Ag {ppm}	Grey Metallic	Pyrite (%)	RATION CARB	SER

intrusive. 60%, intensely altered mafic volcanic as above, and 40%, slightly deformed intrusive as below, with irregular to sheared contact edges between rock types. 222.20 228.10 Quartz diorite intrusive. Medium pink to purplish pink, relatively fresh to weakly altered with local sheared zones. Upper part is weak to moderately carbonate altered with little unaltered biotite. Central part is mostly relatively fresh with large plagioclase phenocrysts, minor quartz veining, and local weakly silicified zones. Lower part (227.60 to 228.10m) of this section is locally mediately characted at 60 to 60 decrease to the pare part

moderately sheared at 50 to 60 degrees to the core axis, and weak to moderately silicified. Lower contact is sharp and oriented at 40 degrees to the core axis. Unaltered intrusive contains 0.5%, finely disseminated pyrite, with 2 to 3% in the lower altered portion. 226.70 to 226.80m is an irregular, creamy grey, intensely altered, pyritic (2%), mafic volcanic wallrock fragment.

228.10 230.25 Weak to moderately altered mafic metavolcanic. Medium to dark green to grey-green, fine grained, weak to moderately magnetic sections, with 50%, patchy grey silicification adjacent to the upper contact, and 50%, yellow-green, irregularly banded to patchy, weak to moderately epidote alteration throughout most of the rest of the section. Dark green less altered zones are weakly banded at 20 to 30 degrees to the core axis, and exhibit fine volcanic flow textures. Bpidote banding often at 20 to 50 degrees to the core axis, but mostly irregular and strongest adjacent to silica veinelts. Carbonate-epidote banding occasionally contains minor porphyroblastic garnet in small (0.5cm), irregular clusters. Ninor, thin (less than 0.5cm), subplanar, but irregular quartz veining, generally with numerous offsets along parallel fractures. Minor, irregular network of calcite fracturing. Upper contact is a sharp, planar intrusive contact oriented at 40 degrees to the core axis. Lower contact is a sharp, irregular contact oriented at 40 degrees to the core axis, truncating

ESSO HINERALS CANADA DIAMOND DRILL RECORD

Hole: Page:

Interval	Description	Sample	Interval	Length	Au	λg	Grey	Pyrite	AL'	TERATION	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	Metallic	(1)	SIL	CARB	SBR
								*******		********	

- compositional and alteration banding within the volcanic. 230.25 233.10 Relatively unaltered quartz diorite intrusive. Medium grey to medium pinkish grey, typical, massive, coarse grained, plagioclase porphyritic, biotite guarts diorite. Contains 3 to 5%, thin (lmm to 2cm), guartz vein bands with somewhat nonparallel and diffuse contacts, locally giving them a flood band appearance. Quartz veining is white, coarse grained, with some salmon pink (K-spar) laminae and contact bands along the edges of veins. Veins have various orientations, but mostly between 0 and 45 degrees to the core axis. 1 to 2% pyrite as fine disseminations and small, partial fracture fillings. Noderately fractured unit, generally oriented at 10 to 25 degrees, or 40 to 50 degrees to the core axis. Upper and lower contacts are sharp, but undulating, intrusive contacts oriented at 30 to 40 degrees to the core axis.
- 233.10 241.50 Weak to moderately altered mafic volcanic. Between 233.10 and 235.00 metres this section is mottled to weakly banded, medium grey-green to green-grey, with 15%, blue-white, irregular, 0.5 to 3cm, guartz blebs, and discontinuous to boudinaged veins. Weak shear banding oriented at 20 to 30 degrees to the core axis. Below 235 metres, this section consists of 50%, dark green, very magnetic, massive to weakly follated zones, and 50%, medium green to light yellow-green, weak to moderately and locally strongly, epidote-carbonate altered with minor pink garnet porphyroblasts. Unaltered zones exhibit flow breccia or flow top textures. Alteration is patchy to irregularly banded at 10 to 40 degrees to the core axis. 5 to 10%, 0.5 to 10cm, subplanar, quartz veining oriented at 20 to 70 degrees to the core axis, but generally broken and offset along fractues. Generally minor to 0.5% pyrite as fine disseminations, but locally up to several percent along fractures, guartz veining, and the lower intrusive contact. Quartz veins in volcanic near the lower contact are cut by underlying intrusive. Lower contact sharp, but the

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ESSO NINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	λu	Åg	Grey	Pyrite	ALTERATION	
(Metres)		No.	(Netres)	(Metres)	(g/t)	(ppm)	Metallic	(\$)	SIL CARB	SER

- irregular and undulating at 10 degrees to the core axis. 241.50 244.40 Relatively unaltered, coarse grained, plagloclase porphyritic, biotite, guartz diorite intrusive. Medium grey, unaltered or very weakly altered, massive to weakly foliated. Large guartz vein between 243.00 and 243.55 metres. Vein is watery white, coarse grained, and clean, and oriented at 10 degrees to the core axis.
- 244.40 249.90 Weak to moderately altered mafic metavolcanic, with 40% unaltered intrusive dykes. Medium to dark green, magnetic, nottled, and network fractured, with medium grey, weak and locally moderately epidote-carbonate altered zones. Unit is well fractured by thin network calcite veining, and intruded by 30 to 40%, irregular, unaltered intrusive dykelets (1 to 50cm wide), and some irregular quartz veins. Veining and dykes generally oriented at 0 to 40 degrees to the core axis. 1 to 5%, pyrite as fine disseminations, often concentrated in irregular bands in green mafic volcanic sections, as well as in dark fractures throughout unit. Moderately broken section, generally along fractures into pieces 10 to 50cm. Lower contact is a sharp, but irregular intrusive contact oriented at 20 degrees to the core axis.
- 249.90 251.35 Relatively unaltered to weakly silicified guartz diorite intrusive. Medium grey, typical, coarse grained, plagioclase porphyritic, biotitic guartz diorite, but with a slight washed out, pervasive silicification appearance. Massive and locally weakly foliated/sheared. Includes a few, 1 to 1.5cm white plagioclase megacrysts. Upper contact is sharp and curving from 20 to 60 degrees to the core axis. Lower contact is sharp, but irregular at 20 degrees to the core axis. Minor guartz veining, generally oriented at 45 to 60 degrees to the core axis.
- 251.35 252.50 Weak to moderately altered mafic metavolcanic. Similar to volcanic section between 244.40 and 249.90m, with slightly more (5%), thin calcite network tension microfracturing. Poliation/banding oriented at 20 to 30 degrees to the core

DIAMOND DRILL RECORD	Role: Page:	29

Interval	Description	Sample	Interval	Length	λu	λg	Grey	Pyrite	¥Ľ.	TERATION	
(Hetres)	·	No.	(Hetres)	(Netres)	(g/t)	(ppm)	Metallic	(\$)	SIL	CARB	SER
	***************************************										*****

- axis. Lower contact oriented at 25 degrees to the core axis. 252.50 253.50 Relatively unaltered to weakly silicified guartz diorite intrusive. Similar to dyke between 249.90 to 251.35m, but slightly more foliated at 10 to 20 degrees to the core axis, particularly near the the lower contact which is intensely carbonate altered.
- 253.05 261.95 Weak to moderately carbonate-epidote to carbonate altered mafic metavolcanic. Nostly dark greenish, hard, fine grained, moderately magnetic, weakly and thickly banded mafic metavolcanic, with an upper contact zone that is medium grey and moderately carbonate altered, and several patchy zones, and bands of light vellow-green epidote-carbonate alteration through the rest of the unit. Minor pink garnet porphyroblasts. Upper carbonate altered zone contains 5%, thin (hairline to 1mm), network of calcitic tension microfracturing, and 2 to 5%, finely disseminated pyrite. Dark green, relatively unaltered volcanic contains thin (0.5 to 1cm), lighter coloured bands at shallow (5 to 25 degree) angles to the core axis, that may be pillow selvages. Winor to 5%, thin (law), network to calcite tension fracturing. 3 to 5%, thin (0.5 to 2cm), irregular, blue-white guartz veining, often branching and at various angles to the core axis. 0.5 to 2% and locally to 3 or 4%, fine pyrite mostly along fractures. 5cm, grey, typical intrusive dyke occurs between 261.10 to 262.30m, and is oriented at 20 degrees to the core axis. Competent unit, with 25 to 75 cm breakage along fractures. Lower contact is sharp at 15 degrees to the core axis, with adjacent mafic volcanic that is well carbonate altered and moderately pyritized.
- 261.95 264.75 Medium grey, typical, massive, coarse grained, plagioclase porphyritic, quartz diorite intrusive with 3 to 5% quartz veining generally oriented at 50 to 70 degrees to the core axis. One, thin (lcm), green to salmon pink, epidote altered fracture at 263.55m oriented at 45 degrees to the core axis. Minor silicification in thin (lcm) bands

H-N PROJECT (Ont. 77)



[nterval (Netres)	Description	Sample No.	Interval (Netres)		Ag (ppn)	Grey Metallic	ALTERAT SIL CAR	SER
	adjacent to some fractures. Good euhedral, zoned			 				
	plagioclase phenocrysts. 1 to 2% pyrite as fine							
	disseminations, small clots, and fracture linings/fillings.							
	Competent core, with 10 to 50cm breakage along fractures							
	generally oriented at 45 to 80 degrees to the core axis.							
	Lover contact is sharp and planar and oriented at 30 degrees to the core axis.							
	264.75 271.85 Relatively unaltered mafic metavolcanic. Dark green, weak							
	to moderately magnetic, fine grained, mafic metavolcanic							
	flow. Massive to weakly foliated at 0 to 30 degrees to the							
	core axis, with well developed (5%), network of hairline							
	calcite tension microfracturing. 3 to 5%, thin (1mm to							
	2cm), subplanar, blue-white quartz veining offset along parallel fractures, as well as some irregular, now vuggy,							
	quartz-calcite veins/lenses. Winor, thin, wispy bands of							
	epidote-carbonate alteration. Competent unit, with 20 to							
	50cm breakage. Lower contact is a sharp, planar intrusive							
	contact oriented at 50 degrees to the core axis.							
	271.75 273.15 Relatively unaltered guartz diorite intrusive. Similar to section between 261.95 to 264.75m, but guartz veining is							
	vuggy and oriented at 30 to 50 degrees to the core axis,							
	and including two, large {2 x 5cm), intrusive wallrock							
	fragments. Lower contact is a sharp, planar intrusive							
	contact oriented at 20 degrees to the core axis.							
	273.15 281.85 Relatively unaltered mafic metavolcanic. Similar to							
	section between 264.75 to 271.85m, but including several, thin to thicker, intrusive dykelets.							
	273.40 273.50 4cm, white guartz vein oriented at 20 degrees to the core							
	axis.							
	273.90 273.95 4cm, white guartz vein oriented at 45 degrees to the core							
	axis.							

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BSSO MINBRALS CANADA

DIAMOND DRILL RECORD

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275.20 275.30 0.5cm intrusive dykelet oriented at 20 degrees to the core axis, and cut by an S folded, 3cm, blue quartz vein at an opposite, shallow angle to the core axis.
276.70 276.75 1cm intrusive dyke oriented at 25 degrees to the core axis.
276.80 276.85 2cm, white quartz vein oriented at 45 degrees to the core

H-N PROJECT (Ont. 77)

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Interval	Description	Sample	Interval	Length	Au	λg	Grey	Pyrite	AU	TERATION	
(Ketres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	Metallic	(1)	SIL	CARB	SER
	***************************************			********			********				

axis.

- 278.75 281.85 Weak to moderately epidote-carbonate altered zone of mafic volcanic, containing 5% guartz veining, and abundant (10 to 15%), thin, calcite tension microfracturing in parallel ladders, as well as irregular intrusive fragments between 279.70 to 279.85, 280.10 to 280.25, 280.35 to 280.50, 280.60 to 281.00, and 281.20 to 281.30, and guartz veins at 280.00 to 280.05 (at 40 degrees to the core axis), and 281.30 to 281.35 (irregular guartz fragment). Lover contact is sharp and oriented at 40 degrees to the core axis 281.85 283.50 Chlorite-biotite-plagioclase-calcite schist. Dark green-black, non-magnetic, relatively coarse (1mm) grained, with well developed schistose foliation oriented at 40 to 55 degrees to the core axis. Unit contains 5%, thin and irreuglar, white calcite patches and discontinuous veins. Section is pervasively reactive to HCl. Biotite is coarse grained (porphyroblastic), and except for the strong foliation gives section a semi-lamprophyric appearance. No significant quartz veining. Relatively competent section with 20 to 50cm breakage. Lower contact is sharp but undulating at 10 degrees to the core axis.
- 283.50 287.70 Weak to moderately carbonate altered mafic metavolcanic. Above 285.90m, the section is relatively unaltered to weakly epidote-carbonate altered with the latter forming lighter green network fracturing as well as small blebs/patches in dark green, fine grained unaltered metavolcanic. Unaltered zone at 285m exhibits small (0.5 to lmm), ovoid anygdules. Minor calcite microfracturing, and minor, 1 to 3cm, irregular guartz blebs and patches, locally containing crystalline pyrite within the adjacent wallrock. Below 285.90m, the section is fine grained, weak to moderately magnetic, and intensely carbonate altered, particularly adjacent to the underlying intrusive. This section has strong medium yellow-green to buff-green mottling, with microfractured pseudobreccia appearance. Between 87.20 and 87.40m is a thin well altered, intrusive

	DIAHOND	DRILL RECORD		P	age:		32		
Interval (Netres)	Description	No. {N	terval Length etres) (Netres)	(g/t)	••	Metallic		ALTERAT SIL CAR	SER SER

RSSO NINERALS CANADA

dyke occurring within well foliated/sheared carbonate altered mafic volcanic. Dyke contacts and volcanic foliation oriented at 45 to 60 degrees to the core axis. Quartz veining and intrusive dykelets are boudinaged into small discontinuous lensoids that parallel to the shear foliation within this zone. Minor large (0.5 to 2.0cm), quartz veining within the upper less altered zone is partly boudinaged, generally at 20 to 30 degrees to the core axis, locally offset along fractures, and exhibits partially resorbed reaction rim contacts. Relatively competent unit with 10 to 30cm breakage, generally along fractures oriented at 40 to 50 degrees to the core axis. Lower contact is a sharp, planar intrusive contact oriented at 55 degrees to the core axis.

287.70 310.50 PP QUARTI DIORITE INTRUSIVE - WK TO HOD ALTERED

H-N PROJECT (Ont. 77)

Nottled light to medium grey, weak to moderately silicified and sericitized, with some very weak to weakly altered, medium pinkish grey zones, and a few white, moderately to intensely altered bands.

The unit is a typical, although altered, massive, coarse grained, plagioclase porphyritic, biotite intrusive plug.

The less altered pinkish zones are massive and coarse grained, with a weak silicified, resorbed, or faded appearance of the plagioclase phenocrysts although biotite is still relatively unaltered to weakly chloritized.

Weak to moderately altered zones are often weakly foliated, with minor, thin guartz veining and flooding. Biotite is still locally evident but generally chloritized/sericitized.

Noderate to intensely altered zones are white, often well foliated and quartz veined, with abundant silica flooding, as well as sericite replacing all original biotite.

5% Quartz veining throughout unit as very irregular branching veins, generally oriented at 0 to 40 degrees to the core axis. Veining often centres moderate to intensely altered bands a few 10's of cm wide but also cuts more sharply across the less altered zones. Several quartz

N.C.	287.70	310 50	22 ±0	n/a	n/a	TRACE	1-45	WK - NOD	¥8-NOD	V.WK
				•				MV. UAD	WK NVD	4. WA
984	287.70	289.40	1.70	.01	1.60	•	0.5-14			
985	289.40	290.00	.60	.02	1.60	-	11			
986	290.00	291.00	1.00	.03	2.20	MINOR	2-31			
987	291.00	291.50	.50	.02	1.50	TRACE	23			
988	291.50	292.00	.50	.12	1.70	-	2-31			
989	292.00	293.00	1.00	.03	1.30	MINOR	2-31			
990	293.00	294.00	1.00	.09	1.30	-	2-31			
991	294.00	295.00	1.00	.02	1.30	-	1-23			
992	295.00	296.00	1.00	.01	1.10	TRACE	24			
993	296.00	297.00	1.00	.02	1.40	-	23			
994	297.00	298.00	1.00	.02	1.50	-	11			
995	298.00	298.50	,50	.03	1.50	-	23			
996	298.50	299.00	.50	.06	1.80	TRACE	23			
997	299.00	300.00	1.00	.04	1.90	-	2-31			
998	300.00	301.00	1.00	.08	1.90	TRACE	2-31			
999	301.00	302.00	1.00	.22	22.30	-	1-23			
1000	302.00	303.00	1.00	.06	2.00	-	11			
1301	303.00	304.00	1.00	.11	2.30	-	25			

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	DIAMOND DRILL RECO	RD				Page:		33	
Interval (Hetres)	Description	Sample No.	Interval (Netres)	(Metres)			Metalli		SER
	 veins, particularly those within well altered sections, contain minor amounts of a fine metallic grey minerals. The best mineralized zone occurs within an intensely altered and guartz veined section between 290.40 to 291.00 metres, with other grey mineral locations identified on the sample description sheets. 1 to 44 pyrite as fine disseminations often concentrated along fractures. Greater amounts of pyrite generally occur within the altered intrusive sections. Weakly to moderately competent unit and moderately broken along fractures into 2 to 10cm pieces with less altered zones having 20 to 50cm breakage, and more altered zones forming icm rubble/friable zones. Several fractures are coated with thin, chloritic and/or sericitic surfaces. Near the upper contact is an intensely foliated shear zone between 289.40 and 290.00 metres. Above this is the only relatively unaltered intrusive in this unit. Shearing and foliation oriented at 30 degrees to the core axis. Lower contact is a planar, sharp, 1cm wide shear zone oriented at 40 degrees to the core axis. 	1303 3 1304 3 1305 3 1306 3 1307 3	04.00 305.00 05.00 306.00 06.00 307.00 07.00 308.00 08.00 309.00 09.00 310.00 10.00 310.50	D 1.00 D 1.00 D 1.00 D 1.00 D 1.00 D 1.00	.01	1.30 1.40 4.00 1.50 1.40 8.40 5.40		1-2% 0.5-1% 1-2% 1-2% 1-2%	
310.50 316.3	5 MAPIC METAVOLCANIC PLOWS (PE THOLBIITE) Dark green, fine grained, weak to moderately magnetic, massive to weakly foliated/banded at 0 to 25 degrees to the core axis, with some thin bands resembling pillow selvages. Abundant fine (hairline to 1mm), calcitic tension microfracturing in network and en echelon discontinuous veining patterns. 5%, Very irregular, 0.5 to 2cm, boudinaged and offset guartz veins/lenses/blebs mostly oriented at shallow (0 to 40 degee) angles to the core axis, although somewhat undulating and discontinuous. Upper and lower contact zones contain thin (20 to 50cm) zones of medium green, moderately carbonatized and sheared (40 to 45 degrees to the core axis) metavolcanic adjacent to sharp intrusive contacts parallel to the shearing orientation. Relatively competent unit with 25 to 50cm breakage along fractures generally oriented at 40 to 45 degrees to the core axis.		10.50 316.3 10.50 312.00		n/a .11	n/a 1.50	:	14 13	

H-N PROJECT (Ont. 77)

8550 NINERALS CANADA DIAMOND DRILL RECORD

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BSSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	Au	Åg	Grey	Pyrite	¥.	TERATION	
(Hetres)		No.	(Netres)	(Metres)	(g/t)	(ppm)	Netallic	(\$)	SIL	CARB	SER

316.35 321.50 PP QUARTZ DIORITE INTRUSIVE - WK TO WOD ALTERED

H-N PROJECT (Ont. 77)

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Above 320m, the unit is similar to the mottled, white, weak to moderately silicified intrusive zones between 287.70 to 310.50m, except with local salmon pink colour to some plagioclase phenocrysts within the white altered zones. This section contains minor (5%) quartz veining occasionally with minor metallic grey mineralization.

Below 320m, it is slightly pinkish medium grey, and very weakly altered to relatively unaltered.

Section is weakly sheared in more altered zones at 40 degrees to the core axis.

Moderately broken core (1 to 10cm) in altered zones, and relatively competent with 10 to 30cm breakgage in unaltered zones.

Lower contact is sharp and planar at 40 degrees to the core axis, subparallel to the foliation orientation in the adjacent mafic volcanics.

321.50 346.90 SCHISTOSE MAPIC RETAVOLCANIC WITH BPIDOTE-CARBONATE BANDS

Generally dark green, with minor to moderate light green speckling, and vell developed irregular banding that is often concentrated in thin (10 to 30cm), mostly light yellow-green epidote-carbonate altered patches. Locally, these form as small (10 to 50cm) patches and bands that are moderate to strongly altered. Banding may be in part original compositional, but is mostly due to alteration.

Dark green less altered zones are fine grained, often with fine volcanic textures as well as pillow selvages? evident.

Weakly to moderately magnetic.

Colour/alteration/compositional banding generally oriented at 10 to 30 degrees to the core axis, and locally weakly sheared at 0 to 20 degrees to the core axis.

Unit is well microfractured with 5%, very irregular, network of calcitic tension microfracturing, and minor offset quartz veining. Lower contact has intense microfractured band 50cm wide.

5%, Very irregular, broken, offset and occasionally swirled, thin (0.5 to 2cm), blue-white quartz veining.

#S	316.35	321.50	5.15	n/a	n/a	TRACE	11
1310	316.35	317.00	.65	.02	1.60	-	15
1311	317.00	318.00	1.00	.04	1.30	HINOR	2-31
1312	318.00	319.00	1.00	.01	1.40	TRACE	2-31
1313	319.00	320.00	1.00	.02	1.30	-	2-31
1314	320.00	321.50	1.50	.02	1,50	-	1-23

IS .	321.50	346.90	25.40	n/a	n/a	- HNR-0.5
1315	329.00	330.00	1.00	.05	. 40	- MINOR

H-N PROJECT ((Ont. 77) BSSO MINERALS DIAMOND DRILL						Hole: Page:	HN 8	8-28 35			
[nterval (Notros)	Description		Sample	Interval	Length	Au (m/th)	Ag (non)	Grey	Pyrite	AL:	TERATION	SBR
346.90 356.1	 A few fractures oriented at 30 degrees to the core axis have thin (1 3mm), calcite-sericite-talc coatings. Minor disseminated pyrite with local concentrations, generally form adjacent to quartz veining. Unit includes a grey, plagioclase porphyritic (1 to 3mm), unfoliated d between 335.00 to 335.35m, with sharp contact edges at 30 degrees to core axis, subparallel to foliation in the volcanic. Relatively competent unit with 20 to 75cm breakage. Lower contact is sharp, planar intrusive contact oriented at 50 degrees to the core axis. 5 FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED Mostly medium grey to slightly pinkish grey, coarse grained, plagiocl porphyritic, biolte intrusive, with minor quartz veining, and mi weakly silicified zones. Two larger (1cm), irregular quartz veins oriented at 10 degrees to core axis occur between 351.00 to 351.50 and 353.60 to 354.00 metres. Large volcanic xenolithic inclusion with 15cm quartz vein occurs betw 355.15 to 355.45 metres. Competent unit, but relatively well fractured with 3 to 10cm breakage. 	ning lyke the rees lase inor the		16.90 356.1 33.00 354.00			n/a 1.50		1-33 23	NN-AK	UN-AK O	N-V. ¥K
356.15 374.00	 D SCHISTOSE MAPIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS Mostly mottled to banded sequence of dark green, fine grained, wea magnetic, and light yellow-green, non-magnetic altered bands and patc that are often irregularly swirled and contorted. Minor gar porphyroblasts occur within the intensely altered zones. Unit has weak compositional and alteration banding oriented at 30 to degrees to the core axis. Unit includes 3 mafic dykes between. 356.65 357.20 Feldspar Porphyritic Quartz Diorite Dyke. Upper cont oriented at 20 degrees to the core axis and lower cont perpendicular oriented at 45 degrees to the core axis. 357.50 357.65 Feldspar Porphyritic Quartz Diorite Dyke. With paral contacts at 30 to 40 degrees to the core axis. 	ches rnet 5 45 cact tact		56.15 374.01 56.65 357.20		n/a .04	n/a 1.60		NINOR Minor			

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H-N PROJECT (Ont. 77)

BSSO MINERALS CANADA DIAMOND DRILL RECORD

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Interval	Description	Sample	Interval	Length	λu	Åg	Grey	Pyrite	λĽ	TERATION	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	Metallic	(\$)	SIL	CARB	SER
										• • • • • • • • • • •	

367.00 369.30 Peldspar Porphyritic Quartz Diorite Dyke. With upper and lower contacts at 45 degrees to the core axis, and including 20%, large volcanic wallrock inclusions.

Dykes are dark grey in colour with 50%, uniform, 1mm, subhedral, weakly zoned plagioclase phenocrysts in black, aphanitic, weakly foliated, and weakly magnetic groundmass. Dykes are massive with no veining and contain minor pyrite.

Unit contains minor guartz veining, but well developed, hairline width network and en echelon calcitic tension microfracturing. Some epidote-carbonate altered zones contain thin (1 to 10mm), irregular, silica flood veinlets.

Ninor pyrite as fine disseminations.

Relatively competent unit with 20 to 75cm breakage along fractures generally oriented at 45 to 60 degrees to the core axis.

Lower contact not encountered.

374.00 Bnd of Hole.

		ESSO MINERALS CANADA 00188-6- SUMMARY DRILL LOG	C-2310
		Name: <u>IIN</u> Hole Number: <u>IIN</u>	<u>38-32</u> .
Pro	oject N	Number, 1677 Logged By: M.H.	Lenters
TN	`S :	42H/8 Date: September 1	.988
		<u>42+00W, 8+50S</u> <u>180°</u> , Dip: <u>-45°</u> Length (m): <u>17</u>	•
PU	RPOSE	: <u>Test Mag. low and high background IP chargeability response west</u> <u>HN88-22</u>	<u>of</u>
From	То	Description	Gold Assays
(m)	(m)	CASING REMOVED	(g/tonne)
0.0		Overburden	
7.00	23,60	Mafic Metavolcanic Flow (Relatively Unaltered) Dark green, fine-grained, weakly magnetic, and relatively unaltered, with minor, hairline epidote-carbonate fracturing. Weak to moderately well developed schistosity and foliation oriented at 60° to 80° to CA. Minor quartz veining and cherty bands. Minor to 1% pyrite.	Not Assayed
23.60	41.00	Weak to Moderately Carbonate-Epidote Altered and Brecciated/ Fractured Mafic Metavolcanic Mottled to irregularly banded, light to medium green, buff and cream coloured, weak to moderately carbonate-epidote altered and weak to locally moderately brecciated. Fine-grained, non- magnetic, and cut by several, small quartz vein breccia zones. 0.5% pyrite.	0.01 - 0.15 (9)
41.00	49.00	Quartz Vein and Intrusive Breccia Zone Brecciated, carbonate altered, silicified, and quartz flooded/ veined mafic metavolcanic and intrusive, including large quartz vein zones containing abundant altered and partially assimilated wallrock fragments. Minor fault zone rubble and clay gouge zone with some lost core. Minor pyrite.	0.01 - 0.03 (8)
49.00	57.85	Mafic Metavolcanic Generally dark green-black, weak to moderately magnetic, fine- grained, massive, locally plagioclase phyric mafic metavolcanic, with a few weak to moderately epidote-carbonate altered zones, and one small fault zone. 51.70-52.10 Fault Breccia.	0.01 - 0.04 (3)
57.85	124.60	 Variably Altered Quartz Diorite Intrusive 57.85-106.55 Light to medium grey to greenish white, generally weakly to moderately silicified and sericitized, coarse-grained, feldspar porphyritic intrusive with local intensely altered zones, often adjacent to quartz veining, and a few, thin, pinkish, relatively unaltered zones. Minor to 5%, irregular quartz veining. 1 to 5% pyrite and minor grey metallic mineralization. 106.55-124.60 Generally pinkish to purplish, medium-grey coloured, coarse-grained, plagioclase porphyritic, biotite, quartz diorite that is relatively unaltered to very weakly silicified, with local zones/bands of weak silicification and sericitization. Minor to 5% quartz veining. 1 to 3% pyrite. 	
1			L,

From	То		Description		
<u>(m)</u>	<u>(m)</u>	HN88-32		(g/tonne)	
124.60	179.00	124.60-131.00	ic Pillowed Flow Mottled and banded medium to dark green, epidote- carbonate altered mafic metavolcanic Foliation and banding oriented at 60° to 70° to CA. Moderate calcitic microfracturing. Minor quartz veining. Several thin (5 to 50 cm) intrusive dykes. Minor to 1% pyrite +/- minor pyrrhotite and chalcopyrite Dark green, moderately magnetic, fine-grained with minor epidote-carbonate alteration stringers and patches. Pillow selvages, and amygdules locally evident. Minor quartz veining. Minor to 1% pyrite +/- minor pyrrhotite and chalcopyrite		
	179.00	END OF HOLE			

H-W PROJECT (Ont. 77))	BSSO MINBR Diamond dri				Hole: Page:	RW88-32 1
Drilled by:	Bradley Bros. Limited	Azieuth:	180			Claim No:	L-871912
Nole Size:	BQ	Dig:	-45			Grid:	Vest
Core Size:	BQ					Basting:	42+00W
Casing:	Casing Removed					Northing:	8+50S
•	-	Acid Tests				Blevation:	Level
Started:	Sept. 21, 1988						
Pinished:	Sept. 22, 1988	Depth 7.00	λz. Dip -15.0			Purpose:	Test Mag Low & IP West of HN88-22
Logged by:	N.H.Lenters	137.00	-40.0			Length:	179.00Netres
Date logged:	September 1988	179.00	-39.5				120.0 Metres
Logging Nethod:	Log II					Hor. Proj:	133.0 Hetres
Neasurement System:	Netric					Ovb. Depth:	5.0 Metres

Interval	Des	cription	Sa	mple Interval	Length Au	Ag Gr	ey Pyrite ALTERATION
(Netres)		-		No. (Metres)	(Metres) (g/t)		

.00 7.00 OVERBURDEN

7.00 23.60 MAPIC METAVOLCANIC PLOWS (PE THOLEIITE)

Dark green to greyish green, fine grained, weakly magnetic, with abundant, thin (hairline to 2mm), light green, epidote-carbonate altered fracture stringers, locally anastomosing and coalesing into weakly altered bands or zones.

Compositional banding, alteration banding, fracturing, and a weak to moderately developed phyllitic/schistose foliation are all oriented at 60 to 80 degrees to the core axis, although some alteration banding associated with fractures and quarts veins are oriented at somewhat shallower angles.

Unit cut by a few, thin (1 to 0.5mm), subplanar, quartz veins with sharp contacts, and oriented at various angles to the core axis.

7.80 8.00 4cm quartz vein with epidote altered fractures, oriented at 20 degrees to the core axis.

Unit contains two, thin, diffusely colour banded cherty horizons, with buff, tan, cream, salmon pink colours. These zones are hard,

NS 7.00 23.60 16.60 n/a n/a - XWR-1%

BSSO NINBRALS CANADA	Hole:	HN88-32
Diamond Drill Record	Page:	2

Interval	Description	Sample	Interval	Length	λu	λg	Grey	Pyrite	AL.	TERATION	
(Metres)		No.	(Metres)	(Netres)	(g/t)	(ppm)	Metallic	(1)	SIL	CARB	SBR
*******************			*********								

microfractured, and well banded/bedded at 60 to 65 degrees to the core axis.

12.60 12.75 Cherty horizon.

13.00 13.05 Cherty horizon.

The two above bands could also be intensely silica-carbonate altered volcanic bands.

Unit has strong microfractured appearance, with some veining offset 1 to 10mm along fracture slips.

Ninor to 1% pyrite as fine, often wispy, disseminations aligned parallel to the foliation. Locally minor amounts of coarser pyrite are disseminated in irregular patches.

Relatively competent core, with 10 to 75 cm breakage generally parallel to foliation at 60 to 80 degrees to the core axis.

Lover contact is transitional across a few metres into a yeak to moderately epidote-carbonate altered mafic metavolcanic.

23.60 41.00 VEAKLY BRECCIATED NAPIC METAVOLCANIC WITH BPIDOTE-CARB. BANDS

Weak to moderately epidote-carbonate altered, weak to locally moderately brecciated/fractured, and cut by several brecciated/faulted quarts veins/dykes.

Nottled to irregularly banded, light to medium green, buff and cream colours, fine grained, non magnetic, weakly to mostly moderately epidote-carbonate altered, and fractured/brecciated.

Weakly altered zones are medium to dark green, with abundant hairline as well as containing small brecciated fragments or fracturing, patches/bands of light green epidote/carbonate altered rock.

Moderately altered sections have pale pastel yellow and green colouring that is generally banded at 60 to 90 degrees to the core axis, but also somewhat irregular and often moderately brecciated/fractured, and containing thin, irregular quarty vein infilling. Alteration and brecclation is particularly strong adjacent to quarte veins and intrusive dykes, which are generally also brecciated.

Significant quartz veins and intrusive dykes occur at:

25.30 26.00 Thin (1 to 3 cm), salmon pinkish, brecciated, but rehealed quartz vein containing abundant, angular wallrock fragments.

¥S.	23.60	41.00	17.40	n/a	n/a	-	0.5-1%
1583	25.00	26.00	1.00	.02	1.90	-	NINOR
1584	26.00	27.00	1.00	.01	2.00	-	MINOR
1585	33.50	35.00	1.50	.15	2.10	-	0.5%
1586	35.00	36.00	1.00	.01	2.90	-	NINOR
1587	36.00	37.00	1.00	.03	2.10	-	0.5-11
1588	37.00	38.00	1.00	.02	1.80	-	0.5-1%
1589	38.00	39.00	1.00	.01	1.80	-	0.5-1%
1590	39.00	40.00	1.00	.01	1.70	-	0.5-1%
1591	40.00	41.00	1.00	.03	1.80	-	0.5-11

N-M PROJECT (Ont. 77)		ESSO MINERALS CAWADA DIANOND DRILL BECORD			Nole: Page:		HN 8	8-32 3		
[nterval {Hetres}	Description	Sample No.	Interval (Netres)		Au (g/t)			Pyrite (%)	ALTERATION SIL CARB	SBR

The adjacent mafic volcanics are well fractured/brecciated and intruded by guartz veinlets.

- 29.80 29.85 2 cm wide, white quartz vein with minor wallrock inclusions oriented at 45 to 50 degrees to the core axis.
- 33.90 34.20 Brecciated multiphase quartz vein oriented at 30 degrees to the core axis.
- 36.00 41.00 Moderately to intensely epidote-carbonate+/-silica altered mafic metavolcanic containing 20 to 70%, light grey, sharp to subdued/resorbed and diffusely bounded porphyritic intrusive fragments. Band appears to be a fault/brecciated hybrid zone with composition between altered volcanic and intrusive. Locally the band appears to be an intrusive breccia zone, that has a subdued and assimilated/rehealed appearance.

Unit is moderately competent.

41.00 49.00 QUARTE VEIN & INTRUSIVE BRECCIA TONE

41.00 43.30 Medium greenish grey, epidote-carbonate altered intrusive with composition similar to the assimilated fragments in the overlying zone. Contains 15 to 20%, salmon pink, subhedral, 1 to 3mm, plagioclase phenocrysts, and no biotite, in fine grained altered groundmass. Sone is crackled and brecciated, and intruded either by volcanic and/or intrusive material. Ione itself is cut by some guartz veining/flooding, and includes a few, thin, quartz diorite intrusive fragments, or later, irregularly offset dykes. These are salmon pink in colour and also somewhat subdued/resorbed in appearance. The unit is possibly a sheared intrusive/metavolcanic contact zone 43.30 44.00 Quartz vein. White, coarse grained guartz vein containing 40% variably assimilated, altered wallrock fragments that are generally less than 1 cm in size. Vein also cut by a minor amount of diffuse, thin (1 to 3mm), irregular, grey quartz/silica veinlets. Contacts of quartz vein with the adjacent wallrock are irregular, brecciated zones, with the lower contact passing into the underlying fault gouge,

NS	41.00	49.00	8.00	n/a	n/a	-	XNR-14
1592	41.00	12.00	1.00	.01	1.70	-	1-21
1593	42.00	43.30	1.30	.01	1.80	-	NINOR
1594	43.30	11.00	.70	.01	1.40	•	HINOR
1595	44.00	45.20	1.20	.01	1.30	-	NINOR
1596	45.20	46.00	.80	.02	1.10	-	NINOR
1597	46.00	47.00	1.00	.01	.90	-	MINOR
1598	47.00	48.00	1.00	.03	1.30	-	0.5%
1599	48.00	49.00	1.09	.01	1.60	-	0.5%

BSSO MINBRALS CANADA DIANOND DRILL RECORD

Hole: Page:

Interval	Description	Sample	Interval	Length	Au	Ag	Grey	Pyrite	AL	TERATION	
(Hetres)		No.	(Metres)	(Netres)	(g/t)	(ppm)	Netallic	(\$)	SIL	CARB	SBR
************************				*********		• • • • • • • •					

breccia and lost core zone.

- 44.00 42.20 Lost core. 0.50m of recovered altered intrusive and brecciated/rehealed quarts vein rubble from below a 1 cm zone of hematitic, mud red, clay gouge along a thin (1 to 2cm), fault slip.
- 45.20 49.00 Intrusive (brecciated, altered and guartz flooded). Light greenish grey to pinkish, intensely silicified/silica and locally quartz veined, epidote-carbonate flooded. altered, quartz diorite intrusive. Unit has a diffuse resorbed appearance, and is locally brecciated. The upper contact not recovered, and the lower contact is a brecciated/shear zone oriented at 45 degrees to the core axis. Relatively competent core.

49.00 57.85 SCHISTOSE WAFIC NETAVOLCANIC WITH SPIDOTE-CARBONATE BANDS

Generally dark green-black, weak to locally moderately magnetic, fine grained and massive, locally exhibiting a few, small (lmm), greenish white, plagioclase phenocrysts.

Unit is locally well fractured and weakly to moderately epidote-carbonate particularly in the upper metre adjacent to the overlying fault altered zone, adjacent to a few thin intrusive dykes, and near the lower contact with the underlying quartz diorite intrusive body. Practuring, as well as epidote veinlets and banding, tend to concentrate along a 50 to 70 degrees to the core axis orientation, although it is generally guite irregular.

51.70 52.10 Pault Ione. Small, relatively late fault breccia zone consisting of small (0.5 to 5cm), very angular volcanic fragments exhibiting varying intensities of alteration, and sharply bounded by finer matrix. Ione contains numerous incompetent clay slip surfaces. Pault zone appears to be 4 to 6 cm wide, and is oriented at 10 to 20 degrees to the core axis. Core is well broken along fractures at 0 to 20 degrees to the core axis.

Several, small, flesh coloured intrusive dykelets with subdued textures, but sharp contacts occur at:

X S	49.00	57.85	8.85	n/a	n/a	-	MINOR
1600	49.00	50.00	1.00	.01	1.90	-	NINOR
1601	50.00	51.00	1.00	.04	1.60	-	NINOR
1602	56.00	57.85	1.85	.03	1.50	-	MINOR

RSSO NINERALS CANADA DIAMOND DRILL RECORD

Role: HN88-32 Page:

5

Interval	Description	Sample	Interval	Length	Au	λg	Grey	Pyrite	AL!	TERATION	
(Metres)		No.	(Metres)	(Netres)	(g/t)	(ppm)	Metallic	(\$)	SIL	CARB	SBR

52.40 52.50 Dyte at 35 degrees to the core axis. 53.30 53.40 Dyke at 30 to 35 degrees to the core axis. Unit contains a few, thin (0.5 to lcm), quartz veins/bands that are oriented at various angles to the core axis. Minor finely disseminated pyrite. Upper part of unit is well fractured and broken into irregular 3 to 15 cm pieces. while the lower part is more competent and consists of 25 to 75 cm pieces. Lower contact is a sharp intrusive contact oriented at 25 degrees to the

50.25 50.40 Dyke at 30 to 35 degrees to the core axis.

core axis.

57.85 124.60 PP QUARTE DIORITE INTRUSIVE - WE TO HOD ALTERED

Generally weakly to moderately silicified and sericitized, with local intensely altered zones and a few very weakly altered zones above 106.55 metres, and very weakly to weakly altered with several relatively unaltered sections below 106.55 metres.

Unit contains a large (between 58.20 to 58.70m) mafic volcanic wallrock inclusion near the upper contact.

Relatively unaltered sections are pinkish, to purplish grey in colour, and generally exhibit the typical quartz diorite intrusive composition and texture, with minor quartz phenocrysts, 10 to 25%, white, plagioclase phenocrysts, and 10% biotite, in a medium to coarse grained, massive, feldspar dominant matrix.

The altered zones become progressively more bleached (white) in colour, with biotite altering to chlorite and then to a light green sericite.

Unit has less of a hard, silicified, silica flooded appearance than most other altered intrusive sections, and is more chalky white, porous and sericitic than HN88-31.

Unit contains only minor amounts of irregular guartz veining, although locally up to 5% in several thin, more altered zones.

Relatively unaltered zones contain 0.5 to 1% pyrite, with the pyrite content increasing to 5% with increasing alteration intensity (silicification and sericitization).

Noderate to intensely altered zones are generally white to light grey,

N S	57.85	124.60	66.75	n/a	n/a	TR-NNR	0.5-4%
1603	57.85	58.70	.85	.02	1.20	-	0.5%
1604	58.70	59.50	.80	.01	1.40	-	0.5-11
1605	59.50	60.50	1.00	.02	1.30	0.25%	2-31
1606	60.50	61.90	1.40	.01	1.30	-	1-2\$
1607	61.90	63.00	1.10	.01	1.30	0.5-11	5-61
1608	63.00	64.00	1.00	.01	1.20	-	1-21
1609	61.00	65.00	1.00	.03	1.20	-	1-23
1610	65.00	66.00	1.00	.02	1.20	-	0.5-1%
1611	66.00	67.00	1.00	.03	. 80	-	0.5-11
1612	67.00	68.00	1.00	.02	1.30	-	0.5%
1613	68.00	69.00	1.00	.06	1.30	TR-NNR	2-3
1614	69.00	70.00	1.00	.11	.80	TRACE	1-23
1615	70.00	71.00	1.00	.03	.80	TRACE	1-21
1616	71.00	72.00	1.00	.06	1.00	-	1-21
1617	72.00	12.15	.15	.03	1.10	TRACE	11
1618	12.15	73.30	.55	.04	1.20	0.5%	2-31
1619	73.30	74.50	1.20	.05	.60	TRACE	1-23
1620	74.50	75.00	.50	.03	. 80	0.5%	3-41
1621	75.00	76.00	1.00	.02	.70	NINOR	2-31
1622	76.00	77.00	1.00	.02	1.50	0.25%	3-41
1623	77.00	78.00	1.00	.04	1.60	MENOR	3-48
						HE BAR	



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2-31

2-41

2-31

1-21

- 0.5-11

Interval (Hetres)	Description	Sample No.			Length (Netres)		Ag (ppm)	Grey Metallic	Pyrite (%)	N Sil	CARB	SB
											•••••	
	with biotite altered to chlorite/sericite, locally contain minor to				1.00	.01	.60		1-24			
	abundant very finely disseminated purplish grey mineralization in) 1.00	.02	. 80	TRACE	1-24			
	needle-like clusters that are concentrated along fractures, or along the				1.09	.02	. 80	TRACE	2-3\$			
	wallrock edges adjacent to quarts veins, both of which often centre				.80	.01	.90	•	1-21			
	zones of increased alteration.				.70	.01	.50	0.25%	2-31			
	Locally the intrusive contains thin (1 to 5cm), silica/cherty bands				5 .85	.02	.90	TRACE	2-31			
	oriented at 70 to 80 degrees to the core axis. These appear to be weak				.45	.01	1.10	0.5%	3-41			
	shear zones/bands, and occasionally contain slip surfaces coated with				1.20	.01	.50	TRACE	5-6%			
	fine molybdenum.				0 1.00	,03	.90	TRACE	3-41			
	Unaltered zones are competent and broken into 25 to 50 cm pieces,			46.70		.01	1.00	NINOR	2-31			
	generally along fractures at various angles to the core axis, but				0 1.20	.03	.70	-	21			
	concentrating at 60 to 75 degrees to the core axis.				5.35	.01	3.90	0.5%	3-41			
	Altered zones are moderately competent and more broken with 5 to 25 cm				0.75	.02	.60	-	2-31			
	sized pieces.			89.6		.02	.90	-	1-21			
	Near the lower contact zone the intrusive is subdued and finer grained,				0 1.35	,02	1.30	MINOR	2-41			
	appearing much like smaller intrusive dykes, and may be a later,	1639	91.00	92.00	1.00	.03	.90	TR-NNR	3-41			
	intrusive phase.	1640	92.00	92.6	0.60	.01	1.00	-	2-31			
	Lower contact oriented at 60 degrees to the core axis.	1641	92.60	93.0	0.40	.01	1.00	0.251	4-51			
		1642	93.00	93.5	0.50	.02	3.90	0.5%	3-51			
		1643	93.50	94.0	.50	.01	1.80	0.25%	2-31			
		1644	94.00	94.5	0.50	.02	1.00	0.5-1%	58			
		1645	94.50	95.0	0.50	.01	.70	MINOR	1-31			
		1646	95.00	96.0	0 1.00	.03	4.70	MINOR	2-31			
		1647	96.00	97.0	0 1.00	.02	1.00	0.25%	2-31			
		1648	97.00	98.0	0 1.00	.01	.90	TRACE	11			
		1649	98.00	99.0	0 1.00	.01	1.10	TRACE	11			
		1650	99.00	100.0	0 1.00	.01	1.00	-	1-21			
					0 1.00	.02	1.30	TRACE	2-31			
					5.85	.02			2-31			
					A 1 15	61	1 14		1.26			

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1653 101.85 103.00 1.15

1654 103.00 104.00 1.00

 1655
 104.00
 104.90
 .90

 1656
 104.90
 105.65
 .75

 1657
 105.65
 106.55
 .90

1658 106.55 107.50 .95 1659 107.50 108.60 1.10

.01

.02

.02

.01

.02

,01 .05 1.20

1.70

2.20

1.40

.70

MINOR

NINOR

TRACE

-.90 MINOR 1-2% .90 MINOR 0.5-1%

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PROJECT (Ont. 77)	ESSO NIMERALS CANADA Dianond drill record					Hole: Page:	X N I	18-32 7		
Interval Description (Metres)	Sample No.		nterval Netres)		λu (g/t)	Ag (ppm)	Grey Netalli	Pyrite : (%)	ALTERATION SIL CARB	SER
			60 109.50		.01	1.40	HINOR	2-31		
			50 110.50 50 111.50		.04 .08	1.40 1.20	TRACE	14 14		
			50 112.00		.04	2.50	TRACE	1-24		
	1664	112.	00 113.00	1.00	.28	2.10	0.25%	2-41		
			00 114.00		.12	2.10	-	1-21		
			00 115.00 00 116.00		.01 .08	.80 .60	TRACE	18 18		
			00 117.10		.01	.70	-	11		
	1669	117.	10 118.00	.90	.14	. 80	-	2-31		
			00 118.70		.01	. \$0	-	1-23		
			70 119.50		.01	1.00	-	1-2% 3-4%		
			50 120.00 00 120.90		.02 .01	.70 1.00	-	2-31		
			90 122.00		.05	.90	-	1-21		
	1675	122.	00 123.00	1.00	.10	1.30	-	1-2%		
			00 123.80		,02	1.00	-	1-2% 0.5-1%		
.60 179.00 MAPIC NETAVOLCANIC PLOVS (PE THOLEIITE)	1077	123.	80 124.60	08.0	.02	.90	-	0.3-14		
Generally relatively unaltered except a	bove 131.00m. which is weatly MS	124.	60 179.00	0 54.40	n/a	n/a	-	0.5-11		
epidote-carbonate altered and cut by sever	al intrusive dykes. 1678	124.	60 126.00	1.40	.01	1.20	-	18		
Generally dark greenish black, very fi			05 133.2		.01	1.20	-	HINOR		
			00 135.00 00 144.50		.01	.40 1.00	-	1-2% 1-2%		
microfracturing, and a few weakly epid and patches. Between 124.60 and 131.00			50 146.00		.01 .01	1.00	-	0.5%		
epidote-carbonate alteration patches and			00 147.00		1.05	6.60	-	11		
more numerous. These are often irregularl	y oriented, but concentrate in \$602	147.	00 148.00	1.00	.01	.90	-	0.5%		
an orientation at 65 to 70 degrees t			00 149.00		.01	1.40		0.5%		
exhibits a well developed calcitic mic the unit a pseudo-brecciated appearance.			00 150.50		.03 .01	1.70 1.00		0.25% 0.25%		
Dark green, massive unaltered zones co coarser grained, biotitic, more schistose selveges. These are definite pillow selve These bands are also often more pyritic	ntain several thin (1 to 5 cm), bands that appear to be pillow ges between 132 and 134 metres.	130.	50 152.00	7' <u>7</u> A	.41	1.00	-	U. 231		

H-N PROJECT (Ont. 77)

ESSO MINERALS CANADA DIAMOND DRILL RECORD

Hole: HN88-32 Page: 8

(nterval Netres)	Description	Sample No.	Interval (Metres)	Length (Netres)		Pyrite {\}	TERATION CARB	SBI
	bands/laminae. Unaltered massive zones also contain patches with small,							
	ovoid, amygdules. Weakly developed schistosity and foliation above 158m is oriented at 60							
	to 70 degrees to the core axis, but below 150m it is oriented at about 45							
	to 50 degrees to the core axis.							
	Minor, thin (2 to 10mm), quartz veining that is often irregular and							
	discontinuous, as well as a few small (0.5 to 1cm), subplanar veins,							
	locally containing minor pyrite, pyrrhotite and chalcopyrite.							
	Several diffuse or subdued, medium grey, fine grained porphyritic intrusive dykes with sharp contacts located between:							
	132.05 133.25 Dyke with chalcopyrite along fractures oriented at 40							
	degrees to the core axis, and with contacts oriented at 75							
	degrees to the core axis.							
	136.60 136.65 Dyke with Irregular contacts.							
	136.95 137.20 Dyke with upper and lower contacts oriented at 50 and 65 degrees to the core axis.							
	Generally minor to 0.5% finely disseminated pyrite, locally as relatively							
	coarse grains in irregular, coarser grained, often biotitic patches.							
	Lover part of unit contains some thicker, brownish, massive bands							
	containing an increased biotite content, and also giving the unit a slightly coarser grain size, and better developed schistose foliation.							
	These zones could be due to potassic alteration.							
	Competent core with 25 to 75 cm breakage.							
	Lover contact not encountered.							
	179.00 Bnd of hole.							

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		E		ALS CANAD Drill log	DA OM88-	·6(-2310
Pr	oject (Name: <u>HN</u>	•••••••••••••••••••••••••••••••••••••••		Hole Number :H	<u>N88-33</u>
Pr	oject N	Number <u>1677</u>	,		Logged By:M.	H. Lenters
NT	rs:	42H/8			Dote: <u>September</u>	1988
Az	imuth.	<u>46+00W, 7+755</u> <u>180°</u> .	Dip: <u>-43°</u> ,		Claim Number: <u>L-</u> Length (m) : <u>14</u>	1.1
PU	JRPOSE			IP chargeabilit N88-26.	y response and IP re	<u>esistivity</u>
From	To		Des	cription		Gold Assays
(m)	(m)	CASING_REMOVED				(g/tonne)
0.0	9.40	Overburden				
9.40	16.50	relatively unal brownish red, m adjacent to a f particularly at	k, fine-grained tered. Includes oderately carbo ew, thin, weak the contact zo nes. Schistose	d, massive to we s a few, thin (! onate altered zo ly sheared zones one with the und foliation orien	eakly schistose and 5 to 10 cm), medium ones/patches, 5 below 14.00 m, derlying quartz nted at 60° to CA.	(5)
16.50	20.55	17.40-20.00	70%, coarse-gra 30% medium gree volcanic wallre laminae and par and veining or 5% finely disse grey metallic 80 to 85%, med moderately shea containing 15 boudinaged cal Shearing indic 5 to 10% finel	en, moderately a ock inclusions a rting surfaces. iented at 70° to eminated pyrite minerals. ium grey-green, ired/altered maf to 20% irregula cite — quartz v ates N side up a y disseminated p	Foliation, shearing o 80° to CA. 2 to and minor to 1% well foliated and ic metavolcanic r to broken and	0.01 - 0.10 (6)
		20.00-20.55	Quartz viening inclusions, sin lesser grey met	with mafic meta milar to 16.50 a allic minerals :	avolcanic wallrock	
20.55	144.10	moderately magn local zones/ban	green, fine-gra etic, with min- ds with brown e content (Pot- ed felsic intr- nd 76.75. Minor	ained, massive, or calcitic mic colour, and weal assic alteration usive dyke or s quartz veining	unaltered, weak to rofracturing and k schistosity due n?). Unit includes ilicified band . Minor to 2%	0.01 - 0.06 (25)
	144.10	END OF HOLE				

H-N PROJECT (Ont. 77))		BSSO MINBRALS CAN Diamond drill rec			Ho 1 Pag		KN88-33 1	
Drilled by:	Bradley Bros. Limited		Azimuth:	80		Cla	in No:	6-871912	
	BQ		Dip:	-43		Gri	d:	Vest	
Core Size:	BQ					Bas	ting:	46+00W	
Casing:	Casing Removed					Noz	thing:	7+75\$	
			Acid Tests:			Ble	vation:	Level	
	Sept. 23, 1988								
Pinished:	Sept. 24, 1988		Depth Az. 10.00 -4)ip).0		Pur	pose:	Test Xag Low	& IP West of HN88
Logged by:	N.H.Lenters		110.00 -4).0		Len	gth:	141.10Metres	
Date logged:	September 1988					Ver	t. Proj:	93.0 Netres	
	Log II						. Proj:	106.0 Metres	
Neasurement System:	Netric					Ovb	. Depth:	7.1 Hetres	
				famila		 			31 #P0 3#10H
Interval (Netres)		Description		Sample No.	Interval (Netres)			rey Pyrite allic (%)	ALTERATION SIL CARB S

.00 9.40 OVERBURDEN

9.40 16.50 MAPIC METAVOLCANIC PLOWS (PE THOLBIITE)

Generally dark green-black, fine grained, massive to weakly schistose, relatively unaltered mafic metavolcanic. Includes a few, thin (5 to 10cm), medium brownish red, moderately carbonate altered zones/patches surrounded by medium green, very weakly altered volcanic, adjacent to a few, thin, weakly sheared zones below 14.00m, particularly at the contact zone with the underlying quartz veined shear zone. Unit is very fine grained and massive above 12.00m, and medium grained, weak to modetately schistose between 12.50 and 13.50m, with the schistose foliation oriented at 60 degrees to the core axis. This zone contains minor, large (1mm), euhedral pyrite cubes. Below 14.00m the unit exhibits minor to moderate amounts of subhedral, small (less than 1mm), plagioclase phenocrysts, a weak to moderately developed foliation at 60 degrees to the core axis, and thin epidote-carbonate alteration bands that are also moderately pyritic (3 to 74 pyrite). Unit contains minor, thin (hairline to 2mm), planar, guartz veinlets and

NS	9.40	16.50	7.10	n/a	n/a	-	HNR-14
1682	12.00	13.00	1.00	.01	1.20	-	1\$
1683	13.00	14.00	1.00	.01	1.50	-	0.5-1%
1684	14.00	15.00	1.00	.01	1.20	•	MINOR
1685	15.00	16.00	1.00	.01	.90	-	0.5-11
1686	16.00	16.50	.50	.02	.80	-	NNR-11

ESSO MINERALS CANADA DIAMOND DRILL RECORD

Nole: HN88-33 Page: 2

Interval	Description	Sample	Interval	Length	Au	λg	Grey	Pyrite	M	TERATION	
(Metres)		No.	(Netres)	(Metres)	(g/t)	(ppm)	Metallic	(1)	SIL	CARB	SER

tension fracture fillings oriented at various angles to the core axis. Unit generally contains minor amounts of very finely disseminated pyrite, except for the coarser crystalline (cubic) concentrations in thin altered shear bands. Woderately competent core with 5 to 25 cm breakage, generally along fractures oriented at 50 to 60 degrees to the core axis. Lower contact is a sharp, planar guartz vein surface oriented at 50 degrees to the core axis.

16.50 20.55 QUARTZ VEINED SHEAR/FAULT ZONE

- 16.50 17.40 70%, coarse grained, cracked, ice-white guartz veining, containing 30% mafic volcanic wallrock inclusions, as both thin (lmm), wein parallel laminae that are occasionally weakly stylolitic, and as larger (0.5 to 10cm), well foliated bands. Locally the volcanic laminae and bands are irregular, but generally they are oriented at 60 to 80 degrees to the core axis. Quartz veining forms relatively clean bands containing minor, small, isolated volcanic vallrock pieces, and finely disseminated pyrite grains. Winor amounts of metallic grey minerals are often associated with the pyrite. Poliated mafic volcanic wallrock inclusions are medium green, and moderately altered containing 5 to 10%, fine, pyritic banding/laminae, often with thin purplish of grey metallic (molybdenite) mineralization. streaks Relatively competent core, but broken into 5 to 10 cm pieces along volcanic laminae in the guartz vein, and parallel to the foliation within volcanic inclusions. Upper contact is sharp and planar at 50 degrees to the core axis. Lower contact is undulating and sharp at 70 to 80 degrees to the core axis.
- 17.40 20.00 80 to 85%, medium grey-green to green-grey, well foliated, moderately sheared mafic metavolcanic containing 15 to 20%, thin (hairline to 3mm), lensoid, discontinuous, calcitic veining, and a few, thin (1 to 20cm), broken and boudinaged guartz veins. Foliation, banding, and veining generally

XS	16.50	20.55	4.05	n/a	n/a	MNR-1%	3-71
1687	16.50	17.00	.50	.01	45.00	0.5%	5-6%
1688	17.00	17.40	.40	.02	51.00	0.5-11	23
1689	17.40	18.00	.60	.10	5.80	0.5%	5-10%
1690	18.00	19.00	1.00	.05	10.00	HINOR	5-71
1691	19.00	20.00	1.00	.01	21.80	0.5%	4-64
1692	20.00	20.55	.55	.01	28.60	MINOR	2-31





G NINBRALG CANADA	Hole:	HN88-33
NOOND DRILL RECORD	Page:	3

Interval	Description	Sample	Interval	Length	λυ	λg	Grey	Pyrite	AL	TERATION	
(Netres)	·	No.	(Netres)	(Netres)	(g/t)	(ppm)	Metallic	(1)	SIL	CARB	SER

oriented at 55 to 70 degrees to the core axis, with small scale structures indicating N side up and S side down if core oriented with foliation plane B-V and dipping steeply Unit locally well shear banded, and includes a thin north. (1 to 3cm), poorly recovered fault gauge clay zone at about 18.75 metres. Shear/slip surfaces, are often well lineated and coated with greenish sericite-calcite. Generally abundant (3 to 7%), finely disseminated pyrite generally concentrated in laminae. Locally, this section contains thin (0.5 to 1cm), purplish bands indicating significant amounts of very finely disseminated molybdenum. Section contains thin (0.5 to 2cm), bands of broken and boudinaged guartz veining, generally containing 0.5% relatively coarse, irregular explosion puffs of metallic grey mineral. One larger (10 cm) quartz wein zone between 19.65 and 19.75 metres. Vein contact is irregular with swirled foliation in the adjacent mafic volcanics, athough the shear zone is relatively planar (competent unit in shear). Lower contact with quartz vein zone is oriented at 55 degrees to the core axis. Relatively incompetent broken zone with 1 to 5 cm breakage, including several rubble zones.

20.00 20.55 70 to 80%, coarse grained, cracked ice-white guartz vein with 30% Irregular blebs and thin, discontinuous laminae of mafic volcanic wallrock material. Similar to 16.50 to 17.40, with lesser amounts of grey mineral in guartz veining. Lover contact is a 30 cm fault breccia/shear zone with latest movement along 1 cm wide calcite breccia vein. Shearing and veining are planar and oriented at 30 to 45 degrees to the core axis. Volcanic adjacent to contact has abundant, anastomosing epidote veinlet banding parallel to shearing/faulting. Relatively broken core, generally with 5 to 10 cm pieces. Lover contact is calcite vein containing abundant, small, wallrock fragments, which is oriented at 30 degrees to the core axis.

H-N PROJECY (Ont. 17)

ESSO NINERALS CANADA DIANOND DRILL RECORD Hole: HN88-33 Page: 4

Interval	Description	Sample	Interval	Length	λu	λg	Grey	Pyrite	AL	TERATION	
(Netres)		No.	(Metres)	(Netres)	(g/t)	(ppm)	Metallic	(1)	SIL	CARB	SER

- 20.55 144.10 MAPIC METAVOLCANIC FLOWS (FE THOLBIITE)
 - Generallydarkgreen,finegrained,massive,unaltered,weaktomoderatelymagneticmaficmetavolcanic.1693220.5523.00Weaktomoderatelyepidoteveined,withirregularhairline16942tensionfracturing.Moderatecalcite,tension16952microfracturingthroughoutsection,withslightlycoarser16952grainedbiotiticbandsadjacenttosome zonesof calcite16972fracturing{potassicaltereation?}.These zonesalsotend16982
 - contain more (1 to 2%), disseminated pyrite. Other larger biotitic patches and zones occur as follows.
 - 30.50 32.00 Weakly schistose blotitic zone with minor silica patches/bands and increased (2 to 3%) pyrite content.
 - 38.40 38.45 Scm, light grey, calcitic/silicified band adjacent to fracture (calcitic) oriented at 40 degrees to the core axis, and containing 5 to 10% finely disseminated pyrite.
 - 55.00 56.00 Dark to medium grey to brownish grey, silicified and biotitic mafic metavolcanic.
 - 73.00 75.80 Mafic volcanic containing minor amphibole porphyroblasts in biotitic bands.
 - 75.80 76.75 Medium grey, well fractured and sheared, vuggy intrusive dyke or possibly an intensely silicified matic volcanic band. Contacts and shear/slip surfaces oriented at 40 to 50 degrees to the core axis, parallel to the foliation in adjacent volcanics. Dyke contains vugs exhibiting finely crystalline epidote. Vugs probably due to the removal of calcite. Dyke contains 4 to 6% fine to coarse pyrite often in laminae parallel to shearing. Upper and lower contacts at 50 and 40 degrees to the core axis. No significant guartz veining. Relatively broken section of core, generally consisting of small rubble to 10cm pieces.
 - 100.30 100.35 Scm guartz vein oriented at 70 degrees to the core axis.
 - 104.00 113.00 Several, thin (10 to 50cm), biotitic bands containing minor epidote carbonate altered patches with a few percent large garnets, as well as minor, geenish grey, weak silica flood bands.
 - 113.95 114.00 5cm guartz vein oriented at 60 degrees to the core axis.

NS	20.55	141.101	20.55	n/a	n/a	- MNR-1%
1693	20.55	21.25	.70	.01	2.10	- MINOR
1694	21.25	22.00	. 75	.01	1.90	- 11
1695	22.00	23.00	1.00	.02	1.50	- 11
1696	23.00	24.50	1.50	.06	1.40	- MNR-0.5
1697	24.50	26.00	1.50	.01	1.20	- XXR-0.5
1698	26.00	27.50	1.50	.01	1.40	- NINOR
1699	27.50	29.00	1.50	.01	1.30	- 0.5-11
1700	29.00	30.50	1.50	.01	1.40	- 0.5-1%
1701	30.50	32.00	1.50	.01	1.70	- 2-31
1702		33.50	1.50	.02	1.70	- NINOR
1703	38.00	39.00	1.00	.01	1.00	- XNR-0.5
1704	48.50	50.00	1.50	.03	1.00	- 1-2 \ /PO
1705	53.00	54.00	1.00	.02	1.60	- 1-2%/PO
1706	54.00	55.00	1.00	.03	1.00	- 1-2 \ /PO
1707	55.00	56.00	1.00	.01	1.30	- 2-4 \ /PO
1708	56.00	57.00	1.00	.04	1.40	- 2-41/PO
1709	73.00	74.00	1.00	.01	1.40	- 0.5 \ /PO
1710	74.00	75.00	1.00	.01	1.40	- 1 \/ PO
1711	75.00	75.80	.80	.04	1.20	- 0.5/PO
1712	75.80	76.75	.95	.01	1.30	- 4-6\$
1713	76.15	78.00	1.25	.01	1.00	- MNR-0.5
1714	99.00	100.00	1.00	.01	1.30	- 0.5%
1715	100.00	101.00	1.00	.02	1.10	- 0.5%/20
1716	109.00	110.00	1.00	.01	1.60	- 2-3%/PO
1717	120.70	122.00	1.30	.01	2.50	- 1-2 \ /PO

Hole: HN88-33 Page: 5

Interval	Description	Sample	Interval	Length	λυ	λg	Grey	Pyrite	AL1	TERATION	
(Metres)		¥o.	(Metres)	(Metres)	(g/t)	(ppm)	Hetallic	(1)	SIL	CARB	SER

- 120.60 130.80 Large zone of relatively coarser grained, schistose, brownish with a fine white speckled appearance, biotite altered mafic metavolcanic. Relatively homogeneous zone with minor calcite fracturing. Includes a 5 cm quartz vein between 120.80 and 120.85 oriented at 60 degrees to the core axis. Biotitic foliation produces a weak to moderate schistosity oriented at 50 to 60 degrees to the core axis.
- 139.55 139.65 10cm, white guartz vein oriented at 45 degrees to the core axis.

Small patches (1 to 5cm) of biotitic alteration occur throughout the unit above 120.60m.

Locally, small (10 to 100cm) bands contain minor to moderate (15%) amounts of fine (0.5 to 1mm) slightly pinkish, garnet porphyroblasts above 120.60 metres.

Below 130.80 the unit is very fine grained, massive dark green and relatively unaltered with very little calcitic microfracturing. Unaltered mafic volcanic locally exhibits small {1mm}, subrounded amygdules.

Minor to 2% pyrite and pyrrhotite, often as thin fracture veinlets.

Poliation and alteration banding well developed between 72.00 to 77.00 metres, and generally oriented at 50 to 60 degrees to the core axis.

Unit is competent, generally with 50 to 100 cm breakage at 45 to 70 degrees to the core axis parallel to foliation and main fracture orientation.

Lower contact not encountered. 141.10 Bnd of hole.

		ESSO MINERAL SUMMARY DI	J CANADA	6 C - 236
Pre	oject N	lame:	Hole Number :	88-37
Pr	oject N	lumber <u>. 1677</u> ,	Logged By:M.H	. Lenters
NT	`S:	4211/8	Date: _October 198	8
		<u>148+00W, 16+255</u> <u>180°</u> , Dip: <u>-45°</u>	Claim Number: <u>L-</u> Length (m) : <u>14</u>	
PU	IRPOSE	: Test anomalous IP chargeability from bedrock chip gold value at		a, up⊷ice
From	То	Descri	ption	Gold Assay
(m)	(m)	CASING REMOVED		(g/tonne)
0.0 25.00	25.00 40.10	Overburden Felsic to Intermediate Metavolcani Medium green, fine-grained, non- phyllitic/schistose, with chlori silica composition, and local bi oriented at 70° to 80° to CA. 3 patches/lenses, as well as calci Minor to 1% finely disseminated	magnetic, weak to moderately tic carbonate-plagioclase- totitic zones. Foliation to 5%, thin, irregular calcite te tension fracture veining.	0.01 - 0.02 (7)
40.10	135.00	Felsic Volcanic Crystal/Lapilli Tu Medium grey, fine-grained, massi moderately magnetic, weakly calc lapilli tuff. Possibly somewhat Local, coarser (0.5 to 2 cm), fl Foliation/schistosity oriented a blebs and irregular patches, loc coarse vugs. Minor quartz veinin pyrite.	ive to weakly foliated, weak to careous crystal, and fine reworked as a volcaniclastic. lattened lapilli tuff horizons. at 65° to 85° to CA. 3% calcite cally weathered out producing	0.01 - 0.21 (29)
135.00	143.00	Carbonate Facies Exhalite Horizon Light yellowish-brown to creamy fine-grained, non-magnetic, calc at 70° to CA. Local irregular s Minor to 1% disseminated pyrite	tan, massive to wispy laminated, careous, with foliation oriented ilica flood zones/crackling.	0.08 - 0.90 (8)
143.00	149.00	Pebbly Arenite Medium grey, fine-grained arenit containing 1 to 15%, small (1 to polymictic pebbles. Weak to mode irregular calcite patches/lenses 70° to CA. Minor pyrite.	o 20 mm), well flattened, erately magnetic. Minor	0.01 - 0.03
	149.00	END OF HOLE		
			!	
			·	
		•		

H-N PROJECT (Ont. 77))	BSSO MINBRALS CANAD Diamond drill record		Hole: Page:	HN88-37 1
Hole Size: Core Size:	Bradley Bros. Limited BQ BQ Casing Removed	Azimuth: 180 Dip: -45		Claim No: Grid: Basting: Northing:	L-871915 Vest L48+00W 16+25S
Started:	Oct. 1, 1988	Acid Tests:		Blevation:	Level
	Oct. 2, 1988 M.H.Lenters	Depth Az. Dip 25.00 -45.0 125.00 -39.0	0	Purpose: Length:	Test IP & Wag up-ice from RC-109 149.00Metres
Date logged: Logging Hethod:	October 1988 Log II Metric			Vert. Proj: Hor. Proj: Ovb. Depth:	: 100.0 Metres 111.0 Metres
[nterva]	Description		Sample Interval Length		Srey Pyrite ALTERATION

.00 25.00 OVERBURDEN

25.00 40.10 FINE-GRAINED FELSIC VOLCANIC PLOW (EXTRUSIVE)

Generally medium green, fine grained, weakly foliated, with dull carbonate appearance.

Unit is moderately phyllitic/finely schistose, with chloritic, carbonate-plagioclase-silica composition, and local biotitic zones.

Poliation generally oriented at 70 to 80 degrees to the core axis.

Locally reactive to HCl.

Generally non-magnetic.

26.00 27.00 Medium brown, biotitic band that is strongly reactive to HCl. 27.00 32.00 Weakly silicified zone, with local pseudobrecciation, and 1

to 3% finely disseminated pyrite.

Complete unit contains 3 to 5%, thin, irregular, white calcite patches/lenses that are oriented subparallel to foliation, and/or more irregularly crossculting calcite tension filling veins/veinlets. No significant quartz veining.

Relatively competent unit, generally with 25 to 50cm breakage.

NS	25.00	40.10	15.10	n/a	n/a	-	0.5%	WK	¥K.
8498	26.00	27.00	1.00	.01	1.50	-	0.5%		
8499	27.00	28.00	1.00	.01	1.10	-	0.5-14		
8500	28.00	29.00	1.00	.01	.70	-	2-31		
8501	29.00	30.50	1.50	.02	1.00	-	1-23		
8502	30.50	32.00	1.50	.01	.60	-	1		
8503	38.00	39.00	1.00	.01	.60	-	MINOR		
8504	39.00	40.10	1.10	.02	1.40	-	MINOR		

\$

PROJECT (C	ont. 77) ESSO MINERALS CANA DIAMOND DRILL RECO					Kole: Page:	H N 8 I	8-37 2			
Interval (Metres)	Description	No,	Interval (Netres)	Metres	(g/t)	(ppm)	Metallic	(1)	SIL		SER
	Lover contact relatively sharp, and oriented at 70 degrees to the core axis.										
0.10 135.00) FELDSPAR CRYSTAL/LAPILLI TUFF										
	Generally a medium grey, fine sandy texture. Weakly foliated to massive,		40.10 135.		n/a	n/a	- K	NR-0.5	V.WK	WK	1
	weakly to moderately magnetic, and weakly calcareous crystal/lapilli tuff (possibly somewhat reworked in a shallow submarine environment).		40.10 41.		.03 .01	1.30 14.10	-	18 18			
	Unit locally contains minor, coarser (0.5 to 2cm), well flattened, and		42.50 44.		.02	7.60	-	14			
	metamorphic foliated/flattened, coarser lapilli tuff horizons, as well		44.00 45.		.02	2.50		.5 \ /PO			
	as minor, finely laminated tuff horizons, generally with gradational		45.50 47.		.01	1.70		MINOR			
	contacts.		47.00 48.		.01	1.30		MINOR			
	Poliation/schistosity generally oriented at 65 to 85 degrees to the core	8511	48.50 50.	00 1.50	.01	1.10	-	MINOR			
	axis.		71.00 72		.01	1.00		MINOR			
	Unit generally contains 3%, small, elongate, calcite blebs/patches, but		72.50 74		.01	1.30		MINOR			
	in the upper few metres these have been weathered out producing a		86.00 87.		.02	.90		MINOR			
	relatively coarse vuggy appearance.		87.50 89.		.01	.90	-	MINOR			
	Minor, small quartz veins, including a 10cm vein between 46.45 to 46.55m oriented at 35 degrees to the core axis.		89.00 90. 90.50 92.		.01 .02	.90 1.00		NINOR MINOR			
	Nost of unit has a fine (1 to 2mm), plagioclase arenitic appearance,		92.00 93		.02	.80					
	although the composition and texture suggest it is a fine		107.00 108.		.02	.70	-				
	crystal/lapilli tuff. Unit also contains minor, small (1 to 3mm),		108.50 110		.01	.90	-				
	subrounded, blue quartz eyes that are locally common (5%) across thin		110. 0 0 111.		.01	.90	-	0.5-11			
	(cn) widths.		111.50 113		.02	.80	-	0.5-1%			
	Generally massive, relatively hard and competent unit, with 5 to 100cm		113.00 114.		.01	.80		0.5%			
	breakage along foliation planes oriented at 65 to 85 degrees to the core		114.50 116		.01	.70		0.5%			
	axis. Upper several metres is vuggy and more broken. Rest of unit		116.00 117.		.02	.70	-				
	contains some thin (lcm), incompetant zones adjacent to fractures, and a		117.50 119		.01	.60	-	0.5%			
	fev veahthered/clay (sericite) altered incompetent zones, including a 40cm band between 92.00 and 92.40 metres.		119.00 120. 120.50 122.		.01 .01	.90 1.60	-	0.5% HINOR			
	40.10 100.00 Mostly fine (1 to 2mm), sand-sized crystal/lapilli tuff,		120.30 122.00 123.00		.01	1.60	-	MINOR			
	with minor ash tuff interbands.		126.50 128		.16	1.00	-	0.5%			
	100.00 111.00 Generally coarse lapilli tuff, although metamorphism and		131.00 132		.01	.80	-	MINOR			
	compressional deformation have made		132.50 134		.02	.70	-	MINOR			
	separation/identification of lapilli and matrix locally		134.00 135		. 21	.70	-	MINOR			

N PROJECT (Or	ot. 77) BSSO MINBRALS CANAD DIAMOND DRILL RECOR					Hole: Page:	HN 81	8-37 3		
Interval (Netres)	Description	Sample No.	Interva (Metres	Length (Metres)	۸u (a/t)	λg (mag)	Grey Metallic	Pyrite (%)	ALTERAT SIL CAF	B SE
	 111.00 120.50 Mostly fine (1 to 2mm), sand-sized crystal/lapilli tuff, with minor ash horizons. 120.50 135.00 Hedium grey to medium green, very fine grained, moderately phyllitic to moderately laminated ash tuffs. Green sections are generally phyllitic, while grey to creamy zones are non-magnetic and laminated. Lower contact is gradational into more carbonate rich zone. 									
35.00 143.00	CARBONATE FACIES SINALITE HORIZON Carbonate facies exhalite horizon, or carbonate altered ash tuff horizon. Light yellowish brown to creamy tan, fairly homogeneous coloured, mostly massive, but weakly phyllitic and wispy laminated. Unit is non-magnetic with moderate pervasive reaction to HCL. 14, Very finely disseminated pyrite concentrated in wispy laminations. Unit locally exhibits fine (hairline to a few mm), irregular branching, reddish, silica flood zones/crackling. Foliation is oriented at 70 degrees to the core axis. Locally foliation exhibits a tight swirling, and locally the unit exhibits minor pseudobrecciation. Unit locally exhibits fine yellowish colouration, which may indicate minor sphalerite content. Competent unit, but relatively well broken into 5 to 10cm pieces, generally at 70 degrees to the core axis. Lower contact is particularly well broken into a few rubble sections due to a few, late, calcite-lined fractures oriented at a shallow (10 to 25) angles to the core axis, and intersecting the foliation at right angles. Lower contact zone exhibits a few, short intervals with foliation oriented at 0 degrees to the core axis, possibly indicating a small fault zone.	8534 8535 8536 8537 8538 8539 8539 8540	135.00 143 135.00 136 136.00 137 137.00 138 138.00 139 139.00 140 140.00 141 141.00 142 142.00 143	00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00 00 1.00	n/a .23 .39 .39 .37 .40 .90 .08	2.10	-	1% 1% 1% 1% 1% 1% HINOR HINOR	WK MOD-1	NT

••• PROJECT (C		ESSO HINERALS CANADA DIAMOND DRILL RECORD			Hole: Page:	H N 8	8-37 4	•	
Interval (Netres)	Description	Sample No.	Interval (Metres)			Grey Netallic			SER
	recognition but were probably originally subrounded. Unit is weak to moderately magnetic, and moderately reactive to HCl, particularly in the matrix material. Hinor irregular calcite patches/lenses. Foliation/bedding oriented at 50 to 70 degrees to the core axls. Competent unit, with 20 to 100cm breakage. Lower contact not encountered. 149.00 End of Hole.		146.00 147.50 147.50 149.00		1.00	-	MINOR MINOR		

		ESSO MINERALS CANADA OMSS-6- SUMMARY DRILL LOG	(-236
Pro	oject N	lame:HNHole Number:H lumber:Logged By:M.H 42H/8 Date:October 19	Lenters
		<u>L48+00W, 13+755</u> <u>180°</u> , Dip: <u>-45°</u> , Claim Number: <u>1</u> Length (m): <u>191</u>	
PU	IRPOSE	: <u>Test Mag. low and anomalous IP chargeability response up-ice from</u> <u>RC-109 (anomalous bedrock gold value)</u>	•
From (m)	To (m)	Description	Gold Assays (g/tonne)
0.0	26.00	CASING REMOVED	
26.00	191.00	Mafic Metavolcanic Pillowed Flows (Relatively Unaltered) Generally dark green to green-grey, very fine-grained, massive, unfoliated, chloritic, non-magnetic and non-calcareous, but including several biotitic (potassic altered?) bands and patches. These zones are brownish coloured, coarser-grained, weakly foliated/schistose at 60° to 75° to CA, often calcitic, and locally magnetic. Locally these zones also contain minor amphibole and garnet porphyroblasts. The unit appears to be a pillowed flow sequence locally exhibiting pillow selvages and amygdules. Unit is moderately fractured by thin (hairline to 1 mm) calcite veinlets and some thicker, irregular calcite patches/veining. Minor quartz veining. Trace to minor disseminated pyrite, but locally 1 to 5% pyrrhotite in thin bands or laminae. END OF HOLE	0.01 - 2.60 (39)

H-N PROJECT (Ont. 77	1)		ESSO MINBRALI DIAMOND DRILI				Hole: Page:	HN 88-38 1		
Drilled by: Hole Size: Core Size:	Bradley Bros. Limited BQ BQ		Azimuth: Dip:	180 -45			Claim No: Grid: Basting:	L-871916 West 48+00W		
Casing:	Casing Removed		Acid Tests:				Northing: Blevation:	13+75S Level		
Started: Pinished:	Oct. 2, 1988 Oct. 4, 1988		Depth A:	z. Dip			Purpose:		€ IP Up-ice	from RC-109
Logged by:	N.H.Lenters		26.00 126.00	-45.0 -42.0			Length:	191.00Metres		
Date logged: Logging Method: Measurement System:	October 1988 Log II Metric		191.00	-38.0			Vert. Proj: Hor. Proj: Ovb. Depth:	141.0 Metres	•	
Interval (Netres)		Description		Sample No.	Interval (Netres)	Length Au (Netres) (g/t)		rey Pyrite allic (%)	ALTERATIO SIL CARB	SBR

.00 26.00 OVERBURDEN

26.00 191.00 NAPIC NETAVOLCANIC PLOWS (PE THOLEIITE)

Generally dark green to green-grey, very fine grained, massive, unfoliated, chloritic, non-magnetic and non-calcareous mafic volcanic flow cut by a few porphyry dykes. Generally unaltered, but includes a few biotitic (veakly potassic altered?) zones.

Above 48.50 metres the unit contains 10 to 25%, very weak to weak, brownish-grey, biotitic bands/zones, ranging from thin fracture bands to larger swirled irregular zones that are several 10's of cm wide. These zones contain fine biotite, as well as up to 10% coarse (1 mm) biotite books, and rarely, 1 mm, pinkish garnet porphyroblasts, or small (0.5mm), black magnetite grains. Biotitic zones are also generally calcitic. Locally, the brown biotitic bands and patches appear like pillow selvages, and/or irregular flow top zones.

Between 48.50 to 74.00 metres the unit contains fewer (5 to 10%) biotitic-calcitic bands, but these often have a moderately developed schistosity oriented at 60 to 70 degrees to the core axis. Locally,

KS	26.00	191.001	65.00	n/a	n/a	- M-2%/PO
1854	35.00	36.50	1.50	.01	1.30	- MINOR
1865	36.50	38.00	1.50	.01	1.50	- MINOR
1866	64.00	65.00	1.00	.02	.50	- MINOR
1867	68.00	69.00	1.00	.01	1.00	- HINOR
1868	69.00	69.65	.65	.03	1.00	- 0.5%/PO
1869	69.65	70.40	.75	.01	.70	- 1%PO
1870	70.40	71.00	.60	.01	.70	- 1 \ PO
1871	74.00	75.00	1.00	.02	.80	- MINOR
1872	75.00	75.50	.50	.03	1.00	- 0.5%
1873	75.50	76.40	.90	.01	1.30	- 0.5%
1874	76.40	77.00	.60	.01	1.30	- HINOR
1875	77.00	77.50	.50	.07	1.30	- 0.5%PO
1876	77.50	79.00	1.50	.02	1.20	- MINOR
1877	79.00	80.00	1.00	.02	1.00	- MINOR

H-N PROJECT (Ont. 77)

ESSO MINERALS CANADA DIAMOND DRILL RECORD

HN88-38 Hole: Page:

2

Interval	Description	Sample	Interval	Length	λu	λg	Grey	Pyrite	AL	TERATION	
(Netres)		No.	(Netres)	(Netres)	(g/t)	(ppm)	Metallic	(\$)	SIL	CARB	SER
	***************************************			********							

small garnets and amphibole crystals (blades) occur within these recrystallized zones. These zones are generally irregularly swirled and patchy. Biotitic zones often have a somewhat variable and swirled foliation, but are generally oriented at 60 to 75 degrees to the core axis Trace to minor disseminated pyrite, locally concentrated along fractures. Pyrrhotite is common between 64.00 and 90.00m especially between 69.00 to 71.00 and 82.00 to 84.00m, as thin bands, wavy stringers/laminae, and blebs in slightly siliceous bands 1 to 5 cm wide containing 1 to 5% pyrrhotite. Bands are spaced 0.5 to 2 metres apart and may be altered flow edges?. A few of the bands contain fine grained semi-massive pyrrhotite.

- 74.00 129.50 The unit is brownish grey to greenish grey with large zones of weak to moderately pervasively biotitic (potassic) altered mafic metavolcanic containing a minor to moderate amount of fine, calcite tension fracturing. Section is massive, fine grained and non-magnetic.
- 129.50 139.50 Dark green, fine grained, massive, relatively unaltered with a minor to moderate amount of calcitic fracturing that is locally intense, forming a 10 to 20cm wide pseudobreccia zone.
- 139.50 151.00 Nottled medium green, calcitic mafic volcanic with abundant small (3mm long), amphibole porphyroblasts and weak biotitic alteration with a foliation orientation at 50 to 60 degrees to the core axis.
- 151.00 164.50 Dark green, fine grained, massive, relatively unaltered mafic metavolcanic.
- 164.50 191.00 Minor dark green, massive, fine grained, relatively unaltered zones with large patches of dark brownish grey, weakly schistose biotitic (potassic) altered mafic metavolcanic. Biotitic altered zones are weakly schistose and often have abundant needle-like, dark green amphibole porphyroblasts, although the latter also occur in some fine grained, massive, chloritic mafic volcanic sections.

Intrusive dykes occur between:

53.30 53.55 Sharp contacts oriented at 70 degrees to the core axis. 75.00 76.40 Sharp contacts oriented at 80 degrees to the core axis, and

1878	80.00	81.00	1.00	.01	1.30	- MINOR
1879	81.00	82.00	1.00	.01	1.30	- MINOR
1880	82.00	83.00	1.00	.02	1.20	- 3-4%PO
1881	83.00	84.00	1.00	.01	.60	- 5-10%PO
1882	84.00	85.00	1.00	.01	.90	- 1%PO
1883	85.00	86.00	1.00	.02	1.00	- MINOR
1884	86.00	87.50	1.50	2.60	1.70	- 0.5%PO
1885	87.50	89.00	1.50	.02	.80	- 0.5%PO
1885	89.00	90.00	1.00	.03	.90	- 11PO
1887	100.00	101.00	1.00	.02	1.50	- 1-2%P0
1888	104.30	105.10	. 80	.01	.80	- 2-3%PO
1889	105.10	107.00	1.90	.03	1.00	- 0.5%PO
1890	128.00	129.00	1.00	.01	1.80	- MINOR
1891	129.00	129.50	.50	.02	1.60	- 11
1892	129.50	130.00	.50	.01	1.50	- MINOR
1893	140.00	141.50	1.50	.01	1.20	- 0.5%PO
1894	141.50	142.50	1.00	.01	.50	- MINOR
1895	142.50	143.30	. 80	.02	1.00	- 21
1896	143.30	144.30	1.00	.02	1.20	- 21
1897	144.30	145.30	1.00	.01	.50	- MINOR
1898	145.30	146.00	.70	.01	1.00	- MINOR
1899	146.00	146.90	.90	.03	.30	- 1 \ PO
1900	160.00	161.00	1.00	.01	.50	- MINOR
1901	161.00	162.00	1.00	.01	1.40	- 5-6%PO
1902	162.00	163.00	1.00	.02	. 10	- MINOR



H-N PROJECT (Ont. 77)		ESSO MINERALS CANADA DIAMOND DRILL RECORD				Hole: Page:	HN 8	8-38 3			
Interval (Netres)	Description	Sample No.	Interval (Netres)	Length (Netres)	λu (q/t)	Ag (ppm)	Grey Netallic	Pyrite (%)	AL SIL	TERATION CARB	SER

25cm wide foliated biotite altered schist contact zones. 142.50 144.30 Sharp contacts oriented at \$0 degrees to the core axis, and containing 1 to 2% finely disseminated pyrite.

The above dykes are very hard and massive, consisting of 20 to 30%, 1 to 3mm, subhedral to euhedral, white, plagioclase in medium to dark brownish-grey, very fine grained to aphanitic groundmass. Larger dykes also exhibit 5%, 1 to 2mm wide biotite books, and contain somewhat coarser, and lighter coloured, plagioclase in the groundmass.

Unit is moderately (5 to 10%) fractured by thin (hairline to 1mm), subplanar, calcitic veinlets, and thicker calcitic patches and anastomosing veining/alteration. Most are tension fractures forming herring bone and en echelon fracture patterns at various orientations to the core axis. Occasionally the fractures centre, thin (1cm) biotite altered bands. Locally calcitic fracturing is intense forming pseudobreccia zones.

No significant veining, but a few veins with widths greater than 0.5 cm occur between:

62.80 62.90 Quartz vein with irregular contacts.

134.75 134.90 Irregular coarse grained quartz vein with contacts oriented at 75 degrees to the core axis.

175.40 175.45 Irregular quartz vein with contacts oriented at 45 degrees to the core axis.

177.90 177.95 Coarse grained quartz vein with contacts oriented at 45 degrees to the core axis.

Between 85 and 110m the unit is very massive and fine grained, locally exhibiting small zones with amygdules and minor, small (1mm), subhedral, white plagioclase phenocrysts.

129.50 130.00 Section containing several large (1 to 5mm), calcite anygdules.

Competent core, generally with 25 to 100 cm breakage along fractures oriented at 45 to 80 degrees to the core axis.

Lover contact not encountered.

191.00 Bnd of hole.

		E		ALS CANAD	DA CM25-6-1	C-236
	-	lame: <u>HN</u>			Hole Number: <u>HN8</u> Logged By: <u>M. H</u>	
		42H/8			Date: October 198	
Az	imuth•_	<u>L40+00W, 12+50S</u> <u>180°</u> .	Dip: <u>-44°</u>		Claim Number: <u>L</u> Length (m): <u>194</u> DH HN88-24	
FU	RFUSE	· Excella N=5 df1	II TENCE arong	Lique Bouch of D		•
From (m)	To (m)	CASING REMOVED	Des	cription		Gold Assay (g/tonne)
0.0 7.00	7.00 11.25	Overburden Mafic Metavolcan Very fine-grai hard, dense, a dark green, ma sandy brown, c	ned, wavy band nd non-calcare fic metavolcan herty/siliceou	ed and laminated ous. Composed of ic bands, and 50 s interflow(?) m	, weakly phyllitic, 50%, massive, %, dark grey to	0.01 - 0.02 (6)
11.25	22.25	oriented at 70 microfracturin finely laminat minor pyrite a Plagioclase-Chlo Fine-grained, (amphibole) un moderately sch producing irre wide, with a f brown colour. No significant	* to 80° to CA g. Several, 1 ed to fracture nd chalcopyrit rite-Amphibole weakly schisto it, intermottl istose plagioc gularly altern airly homogene Weak to modera veining. Gene	. 5% calcite, te to 5 cm wide ban filling pyrrhot e. Schist se, plagioclase- ed with medium-g lase-silica-biot ating bands/patc ous, dark green- tely foliated at	nsion and crackle ds with 1 to 30%, ite, as well as esilica-chlorite grained, weak to tite sections, ches 1 to 50 cm	0.01 - 0.02 (2)
22.25	33.50	zones containi Mafic Metavolcan 22.25-30.80 30.80-33.50	nic with biotit Similar to uni 5% calcite mic Same as upper	t between 7.00 a rofracturing. M section, but py ic, and weakly o	and 11.25 metres.	0.01 - 0.03 (3)
33.50	36,50	Carbonate-and/or 33.50-35.00 35.00-36.50	Medium brown-g laminated/band containing 5 t wispy laminate oriented at 70 Dark grey to b strongly schis 1 to 3% finely	reen to creamy l ed, carbonate-r o 10%, finely d d pyrite. Folia ° to CA. lack, hard, che tose/sheared? s	brown, well ich section,	0.01 - 0.03 (4)
36.50	59.30	moderately may abundant, brow patches, 3 to	very fine-grai gnetic, chlorit wn, fine-graine 5% fine calcit Fault Breccia.	ned, medium to ic mafic metavo d, calcareous, e fracturing. M Abundant, suba gments in dark,	biotitic zones/	0.01 - 0.0 (9)

From	To	Description	Gold Assays
<u>(m)</u>	<u>(m)</u>	HN88-39	lg/tonne)
		52.60-57.20 Interflow Metasediment Medium to dark brown, fine-grained, non-magnetic, non-calcareous, well laminated siltstone and fine-grained sandstone with minor grey, chert horizons. No veining. 0.5% pyrite	
59.30	104.00	Schistose Mafic Metavolcanic with Minor Epidote-Carbonate Alteration Bands Generally dark greenish-black to brownish-black, fine-grained, non-magnetic to magnetic, non-calcareous and variably silicified. Weakly foliated and epidote-carbonate altered/banded at 40° to 60° to CA. One 2 metre intrusive dyke. No significant veining although there is abundant silica-calcite tension fracturing. Minor to 3% disseminated pyrite.	0.01 - 0.14 (27)
104.00	185.30	Weak to locally Moderately Altered Quartz Diorite Intrusive Biotite, plagioclase porphyritic quartz diorite. Variably altered, ranging from relatively unaltered, to weakly silicified with minor quartz veining, and locally moderately to intensely silicified +/- sericitized with 5 to 15% quartz veining. Generally coarse-grained, vuggy, well broken unit with transi- tional contacts between variations in alteration intensity. Minor to abundant (10-20%), irregular to subplanar quartz veining. Minor to 4% disseminated pyrite, and locally minor to 0.5% grey metallic minerals, generally associated with quartz veining in white, silicified sections of the intrusive 176.00-185.30 Shear foliated intrusive with Quartz Vein Breccia/Fault Zone between 180.20 to 183.05	0.01 - 1.40 (80)
185.30	194.00	Sheared/Schistose Mafic Metavolcanic Dark greenish black, fine-grained, weakly magnetic, weak to moderately shear foliated at 55° to 70° to CA. Locally weakly carbonate-epidote altered. Minor quartz-calcite veining. Minor pyrite.	0.01 - 0.10 (7)
	194.00	END OF HOLE	

H-N PROJECT (Ont. 7)	()	BSSO MINBRALS CANADA Diahond drill record	Hole: HN88-39 Page: 1
Drilled by: Hole Size: Core Size: Casing:	Bradley Bros. Limited BQ BQ Casing Removed	Azimuth: 180 Dip: -44 Acid Tests:	Claim No: L-871908 Grid: Vest Basting: 40+80W Northing: 12+50S Blevation: Level
Started: Pinished:	Oct. 13, 1988 Oct. 15, 1988	Depth Az. Dip 23.00 -44.0	Purpose: Bxtend L40W Drill Pence
Logged by: Date logged: Logging Hethod: Measurement System:	N.H.Lenters October 1988 Log II Netric	107.00 -40.0 194.00 -39.0	Length: 194.00Netres Vert. Proj: 127.0 Metres Hor. Proj: 146.00 Metres Ovb. Depth: 5.0 Metres
[nterva] (Netres)	Description		Interval Length Au Ag Grey Pyrite ALTERATION (Metres) (Netres) (g/t) (ppm) Metallic (%) SIL CARB SER

.00 7.00 OVERBURDEN

7.00 11.25 WAPIC METAVOLCANIC PLOWS (PE THOLELITE)

Very fine grained, wavy banded and laminated, weakly phyllitic, hard, dense and non-calcareous. Minor to moderate development of thin {hairline}, tension microfracturing containing white calcite.

Composed of 50%, massive, dark green, very fine grained, mafic metavolcanic bands, and includes 50%, dark grey to sandy brown, cherty, interflow? metasediment horizons. The metasediments range from thin laminae to bands a few cm thick, but are wavy to irregular, and locally patchy and/or anastomosing. Where the laminated brown-grey siliceous bands are well developed, the unit appears sedimentary, but where it is patchy, it appears that it could also be altered metavolcanic bands.

The grey-brown metasediment bands are slightly siliceous, and exhibit a weak phyllitic appearance due to biotite content.

Banding and foliation within the unit are generally oriented at 70 to 80 degrees to the core axis, but the irregular wavy character has a range between 50 to 90 degrees to the core axis.

I S	7.00	11.25	4.25	n/a	n/a	- 1-5%PO
1903	7.00	7.60	.60	.02	.90	- 5-12%PO
1904	7.60	8.00	.40	.02	1.50	- 2 \ /PO
1905	8.00	9.00	1.00	.02	1.40	- 2-4 \ /PO
1906	9.00	9.40	.40	.01	.50	- 8-12%PO
1907	9.40	10.00	.60	.02	1.20	- 0.5%/PO
1908	10.00	11.25	1.25	.02	1.10	- 0.5%/PO

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N PROJECT (C	Ont. 77) BSSO MINBRALS CANAL DIAMOND DRILL RECON				Hole: Page:	HNÖ	8-39 2			
Interval (Netres)	Description	Sample No.	Interval (Hetres)	Length (Netres)				AI SIL	JTERATION CARB	SBI
	Unit contains 54, tension and crackle microfracturing, in irregular ladder and en echelon patterns. Unit contains several, 1 to 5 cm wide zones/bands containing abundant (1 to 30%), finely wispy laminated/disseminated, to discontinuous fracture filling pyrrhotite, as well as minor pyrite, and trace chalcopyrite. Where best developed the sulphides occur as swirled, vispy laminations. These zones are moderately to strongly magnetic, within a generally non-magnetic unit. No significant veining. Hard, competent unit, generally with 10 to 50 cm breakage along fractures									

Fine grained (up to lmm), generally weakly schistose, plagioclase-silica-chlorite (amphibole) unit, intermottled with medium grained, weak to moderately schistose plagioclase-silica-biotite sections, producing irregularly alternating bands/patches 1 to 50 cm wide, with a fairly homogeneous, dark green-brown to grey-brown colour. The unit also contains a few, thin (1 to 10cm), dark grey, aphanitic, siliceous, massive bands/patches similar to those in the overlying unit. The various rock compositions form irregular bands and patches that grade both quickly and/or slowly, and often irregularly into one another. Weak to moderately vell developed compositional banding and foliation oriented at 60 to 80 degrees to the core axis.

Unit contains minor, thin (1 to Smm), light green, pinch and swell, epidote-carbonate-garnet alteration bands that parallel foliation.

Vavy patchy compositional banding gives the unit a layered appearance that is mostly metamorphic in origin, but could parallel original metasediment/tuff compositional banding.

Dark green, very fine grained, massive sections exhibit a well developed, calcite microfracturing, while the coarser, more schistose sections contain 2 to 5%, more irregular, diffuse and patchy, thin (hairline to 2 mm), calcite veining. Unit is non-magnetic.
 NS
 11.25
 22.25
 11.00
 n/a
 n/a
 - 0.5%/P0

 1909
 14.00
 15.00
 1.00
 .01
 .90
 - 0.5%/P0

 1910
 21.50
 22.50
 1.00
 .02
 1.30
 - MINOR

H-N PROJECT (O	nt. 77) BIAMOND DRILL RECOR					Hole: Page:	HN88-39 3	٠	
interval (Netres)	Description	Sample No.	Interval (Metres)	(Netres)	(q/t)	Ag (ppm)	Grey Pyrite Metallic (%)		SBR
22.25 30.80	No significant veining. Generally trace to minor pyrite, although a few, dark green, fine grained, massive zones similar to those in the overlying unit contain 1 to 34, vispy disseminated pyrthotite and pyrite. Relatively competent unit, generally with 10 to 100 cm breakage along foliation or fractures oriented at 40 to 70 degrees to the core axis. Lower contact is transitional. NAFIC METAVOLCANIC FLOWS (FE THOLEHITE) Similar to unit between 7.00 and 11.25 metres. Dark green, very fine grained, massive, homogeneous, chloritic, mafic metavolcanic with dark grey, aphanitic, weakly biotitic and phyllitic, siliccous/cherty interbands. The latter constitute about 754 of the unit above 25.50m, and about 254 of the unit below 25.50 metres. The grey, cherty interbands/patches are less planar and less distinct than in the upper unit, and are often irregularly anastonosing, locally appearing to pervasively alter the massive, fine grained, green sections. Unit has a weak to moderately switled and mottled appearance, but banding and foliation are generally oriented at 55 to 80 degrees to the core axis Unit also includes a few bands/patches of coarser grained, schistose silica-plagioclase-biotite altered rock that is more common in the overlying unit. Unit is generally non-magnetic, but includes a few, thin (1cm), magnetic bands near the lower contact zone. The grey cherty bands locally give the unit a metasedimentary appearance, but the dark green, fine grained massive sections appear to be mafic volcanic in origin. Locally, the latter exhibit variable, but pervasive, alteration changes to the grey cherty bands suggesting that these may be metanorphic and not sedimentary in origin. St Calcite veining, as thin (hairline), microfracturing that is best developed in the massive dark green sections. Locally, thin bands or veins of yellowish green epidote-carbonate alteration are oriented subparallel to the foliation direction. Pervasive to irregular calcitic patches also occur in the dark green,	1911 1912	22.25 30.8 22.50 24.0 24.00 25.0 30.00 31.0	0 1.50 0 1.00	n/a .01 .03 .02	n/a 1.00 1.30 .50			

PROJBCT (C	Ont. 77) BSSO MINBRALS CANAD DIAMOND DRILL RECOB						Hole: Page:	HN 8	8-39 4		
Interval (Netres)	Description	Sample Ko.			Length (Netres)	Au {g/t}	Ag (ppn)	Grey Netallic	Pyrite (%)	ALTERATION SIL CARB	SBR
	No significant veining. Hinor pyrite, locally more common in the grey cherty sections. Hard competent unit, generally with 25 to 100 cm breakage along fractures at various angles to the core axis. Local, 10 to 20cm wide, rubble zones. Lower contact is transitional.										
1.80 33.50	O MAFIC METAVOLCANIC PLOWS (FE THOLENITE) Same as the overlying unit, but pyritic, locally magnetic, and weakly carbonate (calcitic) and sericite? altered. Unit exhibits the same interbanding of fine grained, medium green, schistose zones, and grey, cherty bands as the overlying unit, but these are now more subdued and irregularly intermixed. Banding and foliation are oriented at 65 to 80 degrees to the core axis. Unit is less competent and more broken than the overlying units, including abundant calcite-sericite coated slip fractures generally orientated at 65 to 85 degrees to the core axis. Generally very weakly to non-magnetic, but many of the grey cherty bands are darker grey and strongly magnetitic, probably containing fine magnetite. The complete unit contains 2 to 34, wispy laminated, and finely disseminated pyrite that locally constitutes over 104 across thin (cm) zones. No significant veining, but well developed calcitic fracturing and calcite-sericite slips. Lower contact is gradational.	1914 1915	31.00 32.00	33.50 32.00 33.00 33.50	1.00	n/a .01 .02 .01	n/a 1.00 .70 .30	-	2-5% 0.5% 3-5% 4-6%		42HØBNEØØ16 23 BLAKELOCK
).50 36.50	D CARBONATE- AND/OR SILICA-SULPHIDE FACIES IRON FORMATION 33.50 35.00 Medium brownish-green to creamy brown, well-laminated/banded, carbonate rich section containing 5 to 10%, finely disseminated and wispy lamianted pyrite. Pyrite is evenly disseminated throughout the unit. Banding and laminations are oriented at 70 degrees to the core axis. Unit is weak to moderately reactive to HCl, and is generally non-magnetic	1917 1918 1919	33.50 34.00 35.00	36.50 34.00 35.00 36.00 36.50	.50 1.00 1.00	n/a .01 .01 .01 .03	n/a .80 .60 .50 .60		2-10% 4-7% 6-10% 2-3% 1%		202

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H-N PROJECT (C	W PROJECT (Ont. 77)		BSSO MINERALS CANADA DIAMOND DRILL RECORD				Hole: H Page:		NN 88 - 39 5			
						•••••						
Interval {Metres}	Description		Sample No.		Length (Metres)	-		Metallic		SIL	ALTBRATION CARB	SER

Unit is weak to moderately crackled and fractured, with small offsets along fractures. Well developed slip fracturing, generally oriented parallel to the follation, with calcite+/-sericite (icing sugar) coatings on fracture surfaces. Unit contains no significant veining. Unit is somewhat incompetent, with numerous slip surfaces and a pervasive calcitic alteration that is somewhat weathered away leaving a finely porous rock unit. Upper and lower contacts are gradational.

35.00 36.50 Dark grey to black, hard, cherty, moderately to strongly schistose/sheared? section containing 1 to 3%, finely laminated to vispy disseminated pyrite. Laminations and banding are oriented at 60 to 70 degrees to the core axis. Locally the unit contains a few, small (1 to Scm), diffuse, boudinaged bands and footballs of vaguely porphyritic intrusive dyke material. These could be thin dykes that have been deformed within the unit, and could possibly be the source of some of the alteration/pyrite in this unit. Unit is moderately reactive to HCl, and strongly reactive along several foliation/banding subparallel, hairline to imm, fracture veinlets. No large veining. Unit contains several foliation/banding parallel slips, often with calcite and green sericite coatings. Relatively hard, competent unit, but moderately broken into 5 to 25cm pieces, generally parallel to the foliation. Upper and lower contacts are gradational.

36.50 52.60 SCHISTOSE, BIOTITIC MAPIC METAVOLCANIC

Intermottled, very fine grained, medium to dark green, massive, homogeneous, chloritic metavolcanic, with brown, fine grained, biotitic zones/patches. The latter also locally exhibit a yellowish colour due to increased amounts of carbonate, is slightly coaser grained, and more phyllitic. The unit also contains a few brownish grey, siliceous bands that are more common in the overlying units. Locally the unit exhibits gradational changes along fractures from green, relatively unaltered

I S	36.50	52.60	16.10	n/a	n/a	- 0.5%/PO
1921	36.50	37.50	1.00	.02	.70	- 0.5-11
1922	37.50	38.40	.90	.01	1.10	- MNR-1%
1923	44.00	45.00	1.00	.02	.60	- MINOR
1924	45,00	46.00	1.00	.01	.50	- MINOR
1925	46.00	46.50	.50	.01	.50	- MINOR
1926	46.50	47.00	.50	.03	.50	- 2-31/20

N PROJECT (Ont. 77)		BSSO NINBRALS CANADA DIAMOND DRILL RECORD				Kole: Page:	HN 8	8-39 6		
Interval {Netres}	Description	Sample No.	Interval (Metres)	Length (Netres)	λu (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION SIL CARB	SER

sections to grey, siliceous,	or to brown, biotitic rones, suggesting the
latter are in part alteration	products of the former.

Unit also includes a few, thin (1 to Scm), coarser, schistose, chlorite-biotite-calcite-plagioclase zones that are irregularly swirled. as well as a few, thin, lime green-yellow epidote-carbonate alteration bands. Unit also includes one 5cm epidote-garnet band oriented at 90 degrees to the core axis, between 36.70 to 36.75m, containing 10% pyrrhotite, and lesser pyrite and chalcopyrite.

Unit is generally weakly to strongly magnetic with small (0.5mm) disseminated magnetite grains locally visible.

Unit contains a moderate to intense development of calcitic microfracturing, particularly in finer grained, massive sections.

Unit contains a few, thin (2 to 5mm), subplanar to wormy (ptyqmatic) quartz veins.

Unit locally has a pseudobrecciated to brecciated appearance due to alteration banding along, and adjacent to, intense microfracturing, but also includes a breccia zone.

14.00 16.00 Pault Breccia. Breccia consists of abundant, irregular, subangular, 0.5 to 5cm, fragments in massive to moderately sheared and foliated, fine grained, black to dark green, hard, siliceous matrix with a mafic volcanic composition. Pragments are mostly dark grey and cherty, similar to the cherty bands in the overlying unit, but include isolated, angular, medium grey, intrusive dyke fragments. Section is generally massive and has an annealed, silicified appearance, although locally it has a moderately well developed shear foliation oriented at 50 to 60 degrees to the core axis. 3 to 5%, thin (hairline to 2mm), discontinuous, calcite, tension microfracturing cuts across both fragments and matrix. Small fractures also locally offset breccia fragments by a few mm. Wo large veining. Minor amounts of disseminated pyrite. Transitional upper and lower contacts from the patchy biotitic altered, fine grained, chloritic mafic metavolcanics above and below, which are similar in composition to the matrix material of this breccia zone.

Below the annealed fault/breccia zone, the unit is moderately to

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-N PROJECT (Ont. 77) ESSO MINERALS CANAD DIAMOND DRILL RECOR						Hole: Page:	HN	18-39 7			
Interval (Netres)	Description	Sample No.	Interv (Metre	al (s)	Length (Netres)	λu (q/t)	Ag (DDM)	Grey Metallio	Pyrite : (%)	SIL	TBRATION CARB	SF
	intensely biotite altered, including several fine grained, homogeneous, non-magnetic, brown, biotitic zones that contain 10 to 40%, 1 to 3mm, subrounded, brownish, poorly developed, poikioblastic, garnet porphyroblasts. These are locally weakly deformed into swirled or wavy foliated patterns. Unit is relatively competent and hard, generally with 25 to 100 cm breakage. Lower contact is transitional.											
52.60 57.2	O INTERFLOW METASEDIMENT Medium to dark brown, fine grained, well laminated siltstone, to very fine grained sandstone, with some thin (0.5 to 10cm), medium grey, hard, aphanitic, chert bands. Bedding and laminations are slightly wavy, but planar, and oriented at 60 to 85 degrees to the core axis. Unit is non-magnetic, non-calcareous with minor, thin, irregular, calcitic veining subparallel to bedding, as well as local zones of calcitic, tension microfracturing. No significant veining. 0.5% Disseminated pyrite, generally concentrated along some bedding laminae. Lower contact is transitional, and has been taken as the top of a cherty band, below which the underlying unit is greener in colour, lacks laminations, and has a distinct volcanic texture.		52.60 5 56.00 5			n/a .01	n/a 1.50	-	0.5% XINOR			
57.20 59.3	Ø SCHISTOSE, BIOTITIC MAPIC METAVOLCANIC Similar to the unit between 36.50 to 56.50m above the thin metasiltstone unit. 50%, Brownish-green, biotitic altered mafic metavolcanic, and 50%, dark, laminated, chert bands. The latter occur between 57.20 to 57.45m, and 58.65 to 59.30 metres. Unit contains minor, thin (0.5cm), wormy (ptygmatic) guartz veining, and minor, irregular calcite veining/patches and tension microfracturing. Minor finely disseminated and fracture controlled pyrite.	1928	57.20 5 57.20 5 58.65 5	58.65	1.45	n/a .01 .02	n/a 1.10 1.40	- 1	MINOR INR-0.5 INR-0.5			

H-N PROJECT (Ont. 77)

BSSO NINERALS CANADA DIAMOND DRILL RECORD Hole: H#88-39 Page:

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Interval Description	Sample	Interval	Length	Au	λg	Grey	Pyrite	ALTERATION	
(Netres)	Ko.	(Netres)	(Metres)	(g/t)	(ppm)	Metallic		SIL CARB	SER

Lover contact gradational.

59.30 104.00 SCHISTOSE NAPIC NETAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Generally dark greenish black to brownish black to greyish black, fine grained, non-magnetic to magnetic, non-calareous, variably silicified and relatively homogeneous in appearance.

Above 75 metres, and between 79.00 to 79.50, and 86.00 to 102.00 metres, unit is not silicified, is greener, and exhibits a fine the plagioclase-amphibole intergrowth typical of mafic metavolcanic flow units. These zones also exhibit some potassic (biotite) alteration. particularly at the upper contact with the overlying unit, and the two contact zones with an intrusive dyke. These biotitic zones also contain some calcitic microfracturing but much less than is common in the overlying units. Locally the unit exhibits epidote coated microfracturing. These zones contain minor, to locally 1 or 2%, finely disseminated pyrite as well as minor, thin (0.2 to 1cm), irregular, wormy (ptyqmatic) guartz veining.

62.65 65.00 Feldspar Porphyritic Quartz Diorite Dyke, Hedium, slightly pinkish grey, hard, massive to weakly foliated at 60 to 70 degrees to the core axis. 10 to 30%, white to pinkish white, subhedral to diffusely resorbed, 1 to 5mm, plagioclase phenocrysts in a finer grained plagioclase dominant matrix. Unit contains 5 to 10% biotite, 0.5% finely disseminated pyrite, and 5%, thin (0.5 to 1cm), subplanar to wormy and irregular, guartz veining. Upper and lower contacts are sharp and oriented at 65 degrees to the core axis.

Below 75m, except for a few, thin, zones including 79.00 to 79.50m, the unit is dark green-black to dark grey, moderately to strongly magnetic, hard, exhibits a mottled looking silicification, and locally exhibits a weak shearing. Unit contains 10 to 15%, guartz-silica, as well as silica-calcite in irregular crackle and tension gash fractures, but these are as often diffuse in appearance and weakly foliated. 75 to 86 and 102 to 104 metres, the unit is moderately silicified, and 86 to 102 metres, the unit is weakly silicified with minor bands of (weak) epidote alteration. Minor, thin (1 to 5mm), weak epidote-carbarbonate mottled

	FA							
¥S		104.00		n/a	n/a	-	0.5-31	AK-NOD
1930	62.00	62.65	.65	.01	.40	-	0.5%	
1931	62.65		.65	.01	2.10	-	MINOR	
1932	63.30	61.00	.70	.01	2.00	•	0.5%	
1933	64.00	65.00	1.00	.02	2.10	-	1-24	
1934	65.00	66.50	1.50	.01	.70	-	0.5-11	
1935	66.50	68.00	1.50	.01	.80	-	0.5-11	
1936	68.00	69.50	1.50	.01	1.10	-	MINOR	
1937	69.50	71.00	1.50	.02	1.30	-	0.5%	
1938	74.00	75.00	1.00	.02	. 80	-	0.5%	
1939		76.00	1.00	.13	1.00	-	2-31	
1940	76.00	77.00	1.00	.01	.50	-	2-31	
1941	77.00	78.50	1.50	.01	. 80	-	11	
1942	78.50	\$0.00	1.50	.01	1.20	-	11	
1943		\$1.50	1.50	.02	. 80	-	2-31	
1944	\$1.50	83.00	1.50	.01	.60	-	2-31	
1945	83.00	84.50	1.50	.01	.60	-	23	
1946	\$1.50	86.00	1.50	.01	.50	-	1-21	
1947	86.00	87.50	1.50	.03	.50	-	18	
1948	\$7.50	\$9.00	1.50	.01	.50	-	0.5-11	
1949	89.00	90.50	1.50	.02	.50	-	0.5%	
1950	90.50	92.00	1.50	.04	. 30	-	0.5%	
1951	92.00	93.50	1.50	.02	.30	-	0.5%	
1952	93.50	95.00	1.50	.01	.60	-	0.5%	
1953		96.50	1.50	.01	.80	-	MNR-0.5	
	101.00		1.00	.01	. 60	-	HINOR	
		103.00	1.00	.02	.40	-		
	103.00		1.00	.14	.20		2-3	
\$144	******	******	T + A A	111	164			

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N PROJBCT ((Dnt. 77) BSSO HINBRALS CANA DIAMOND DRILL RECO					Hole: Page:	HN 8 (8-39 9			
Interval (Netres)	Description	No.	Interval (Hetres)	(Metres)						TERATION CARB	SE
	alteration adjacent to some fractures, and some silica-carbonate veins. These bands/zones are generally slightly lighter green to brownish buff coloured. Below 89 metres this alteration begins to form anastomosing bands that are up to a few cm wide and light green to cream coloured. Bpidote banding, weak shearing, and locally the calcitic/silica tension fracturing are oriented at 40 to 60 degrees to the core axis. Unit contains no significant (large) quartz veining, although there is abundant tension fracture veining. Silicified metavolcanic unit contains abundant (1 to 3%), finely disseminated pyrite, concentrated in wispy foliated patches and zones generally in association with the silica and silica-calcite tension fracture veining. Hard, very competent unit, with 50 to 150 cm breakage often along planar fractures oriented at various angles to the core axis. Lower contact is diffuse and gradational across a 0.5 metre wide zone into the underlying intrusive, with the contact probably oriented at approximately 20 to 30 degrees to the core axis.										
4.00 185.30	9 PP QUARTI DIORITE INTRUSIVE - WI TO MOD ALTERED Variably altered ranging from relatively unaltered, to weakly silicified with minor quartz veining, and locally moderately to intensely silicified and weakly to moderately sericitized with 5 to 15% quartz veining. Generally coarse grained, vuggy, well broken unit (1 to 10cm pieces), with transitional contacts between variations in alteration intensity.	1957 1 1958 1 1959 1 1959 1 1960 1	04.00 185.3 04.00 104.5 04.55 105.5 05.50 106.6 06.65 107.6 07.65 108.8	55 .55 50 .95 55 1.15 55 1.00	n/a .30 .12 .03 .12 .15	.80 1.30	-	1-4% 10-12% 3-4% 1% R-0.5% 2%	UN-NOD	UN-V. VK	UN-

104.00 106.65 Dark grey-black to dark wine red, relatively unaltered, although the section is weak to moderately silicified (but not sericitized) for 0.5m adjacent to the upper contact zone with the overlying metavolcanics. Section exhibits weak to locally moderate shearing, particularly in the dark grey coloured zone adjacent to overlying metavolcanics. This transitional contact zone is also very pyritic across 30 cm. Section is coarse grained, and plagioclase porphyritic, with 30 to 40%, white, subhedral, phenocrysts, that are 1 to 3mm in size and occasionally up

NO TAILAA	******	47994	4/4	41/ W	1		AU UAA AU 1142	
1957 104.00	104.55	.55	.30	.80	-	10-12		
1958 104.55	105.50	.95	.12	1.30	-	3-4%		
1959 105.50	106.65	1.15	.03	1.20	-	11		
1960 106.65	107.65	1.00	.12	.80	-)	NR-0.5%		
1961 107.65	108.80	1.15	.15	1.20	-	23		
1962 108.80			.01	1.10	0.5%	2-41		
1963 109.20			.09	1.20	TRACE	1-23		
1964 110.65			.11	1.20	-	18		
1965 112.00			.05	1.80	NINOR	2-31		
1966 113.00			.03	2.20	TRACE	2-31		
1967 114.00			.06	1.60	TRACE	2-31		
1968 114.90			.18	3.00	NINOR	1-21		
1969 115.30			.06	1.40	-	2-31		
1970 115.80			.01	1.20	-	0.5-11		
1971 116.50			.13	1.30	TRACE	21		

BSSO MINBRALS CANADA DIAMOND DRILL RECORD Hole: HN88-39 Page: 10

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

- to 1 cm. Section contains 10%, 2 to 3mm, ovoid, slightly blue grey quartz phenocrysts, and 5 to 10%, weakly chloritized blotite in an aphanitic to fine grained, dark grey to red, plagioclase rich groundmass. No significant veining. Generally 1 to 4% pyrite, as fine disseminations, and foliation parallel blebs 2 to Smm in size. The upper silicified contact zone with the overlying mafic volcanics contains abundant (10 to 12%), fine disseminations and coarse aggregations of pyrite that are weakly foliated parallel to the contact/shearing orientation. Nost larger (5 to 15cm) shear foliated zones are moderately sheared and oriented at 20 to 35 degrees to the core axis, however some foliation is oriented at 40 to 65 degrees to the core axis. Competent section, but relatively broken into 2 to 20 cm pieces often along chloritic fractures oriented at various angles to the core axis. Lower contact with black mafic volcanics is poorly recovered, but appears to be relatively sharp at 40 degrees to the core axis.
- 106.65 107.65 Silicified metavolcanic. Black, hard, siliceous, moderately vuggy, moderately magnetic, non-calcareous, silicified mafic metavolcanic. Contains several boudinaged and contorted intrusive fragments suggesting the zone is well sheared. Weak shearing foliation, locally moderately developed, is oriented at 40 to 45 degrees to the core axis. No significant veining. Nimor to 0.54 finely disseminated pyrite. Lover contact is a sharp intrusive contact oriented at 50 degrees to the core axis. Section is well broken into 1 to 9 cm irregular pleces.
- 107.65 110.65 Medium grey, weak to moderately silicified and very weakly sericitized with a zone of intense silica flooding between 108.80 to 109.10 metres. The latter is vuggy, contains some white/cream coarsely crystalline calcite patches/blebs fringed in chlorite, and often contains abundant fine metallic grey minerals generally coating/rimming pyrite blebs. No significant quartz veining. Most biotite is partially altered to chlorite.

1972 118.00 119.00	1.00	.37	5.50	0.25%	2-31
1973 119.00 120.00	1.00	.13	1.60		
1974 120.00 120.60				0.25%	
1975 120.60 121.25	. 65	.01	1.20	-	11
1976 121.25 122.25	1.00	.02	1.20	-	- 11
1977 122.25 123.00	.15	.16	1.20	TRACE	2-31
1978 123.00 124.00	1.00	. 39	1.30	MINOR	2-31
1979 124.00 125.40	1.40			-	1-23
1980 125.40 126.20			1.20	MINOR	2-31
1981 126.20 127.10	.90	.03	1.10	TRACE	21
1982 127.10 128.00	.90	.08	1.20	-	2-31
1983 128.00 129.00	1.00	.09	1.30	0.25%	2-31
1984 129.00 130.00	1.00	.04	1.20	TRACE	2-31
1985 130.00 131.35	1.35		1.20	NINOR	3-41
1986 131.35 131.70	.35	.01	1.10	-	2-31
1987 131.70 133.00	1.30	.02	1.30	0.25%	2-31
1988 133.00 134.00	1.00	.19	2.20	MINOR	2-43
1989 134.00 135.00	1.00	.14	2.10	TRACE	2-31
1990 135.00 136.00	1.00	.18	1.70		
1991 136.00 136.75				TRACE	2-31
1992 136.75 137.90	1.15	.03	1.70	0.5%	23
1993 137.90 138.85		.05	2.00	TRACE	2-31
1994 138.85 139.65	. 80	.03	1.30	•	2-31
1995 139.65 140.65	1.00	.02	1.50	0.5%	2-41
1996 140.65 142.00		.24	1.20	MINOR	2-41
1997 142.00 142.75	.15	.16		TRACE	2-31
1998 142.75 143.25	.50	.32	. 80	TRACE	1-28
1999 143.25 144.05					1-21
2000 144.05 145.15			.10		23
8001 145.15 146.00			.50		
8002 146.00 147.50					
8003 147.50 149.00					
8004 149.00 150.00					
8005 150.00 151.35					•••
8006 151.35 152.15					2-31
#007 152.15 152.90	.75	. 21	1.20	-	2-38



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HN88-39 Hole: Page:

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Interval Description Sample Interval Length λu **k**a Grey Pyrite ALTERATION (Netres) No. (Netres) (Netres) (g/t) (ppm) Netallic (%) SIL CARB SBR Noderately broken and fractured section, with irregular 2 8008 152.90 154.00 1.10 .46 1.40 0.5% 2-3% to 10 cm pieces. 110.65 112.00 Medium pink, relatively unaltered intrusive containing one, orange, albite vein, minor irregular 5cm, light fracturing/slips, minor, thin (hairline to 1mm), bluish quartz veinlets, and numerous chloritic fractures oriented at a shallow (20 to 30 degrees) angles to the core axis. No significant veining. Hoderately broken and fractured

section, with 1 to 10 cm irregular pieces.

- 112.00 115.80 Hedium grey to light grey, weakly and locally moderately silicified. with very weak to weak sericitization. Biotite partially chloritized, and locally sericitized, with several, thin (1 to 5cm), silica flood patches, and several thin (1 to 5mm), subplanar quartz veins. Minor grey mineralization is associated with the later. One, 5mm, subplanar quartz vein at 112.40m, oriented at 45 degrees to the core axis, contains abundant purple molybdenite along both vein contact edges. Section includes a zone of intense silica flooding between 114.90 to 115.30m also containing minor metallic grey minerals. Section is vuggy and well broken into pieces generally less than 10cm, with numerous rubble zones. Pyrite forms fine disseminations and grains that are concentrated on fractures.
- 115.80 116.50 Pink, relatively unaltered intrusive, with weakly chloritized biotite and minor, thin (1 to 3mm), planar quartz veining.
- 116.50 120.60 Light grey, weak to moderately silicified and very weak to veakly sericitized intrusive with a few, thin (1 to 10cm), irregular, intensely silicified silica flood zones, Biotite is generally weakly chloritized to completely sericitized in the intensely silicified zones. Section includes some very vuggy and broken core. Section contains 10%, silica patches/flood zones in addition to pervasive silicification, but only contains a few, thin (2 to 5mm), blue-white, planar quartz veins. 2 to 4% pyrite, as fine disseminations concentrated along fractures, and as larger

8009 154	.00 154.80	. 10	. 29	1.20	0.5%	2-31
8010 154	.80 156.00	1.20	. 20	1.00	0.5%	2-31
8011 156	.00 157.30	1.30	.14	. 80	TRACE	2-41
	.30 158.25			1.20	MINOR	2-31
1013 158	.25 158.75	.50	.03	.90	0.25	2-31
8014 158	.75 160.10	1.35	.02	. 99	TRACE	1-21
8015 160	.10 161.20	1.10	. 22	.90	-	23
8016 161	.20 162.00	. 80	1.40	5.60	MINOR	23
8017 162	.00 163.00	1.00	.05	.90	0.25%	23
8018 163	.00 164.00	1.00	. 22	1.20	TRACE	1-21
8019 164	.00 164.80	. 80	.63	3.80	TRACE	1-24
8020 164	.80 166.10	1.30	.13	1.20	-	11
8021 166	.10 167.50	1.40	.03	1.00	-	0.5%
8022 167	.50 168.50	1.00	.14	.80	MINOR	1-23
1023 168	.50 170.00	1.50	.01	1.00	NINOR	28
8024 170	.00 171.00	1.00	.02	1.10	-	21
4025 171	.00 172.00	1.00	.03	1.20	-	21
8026 172	.00 173.00	1.00	.03	1.20	-	23
8027 173	.00 174.50	1.50	.01	1.30	-	2-31
	.50 176.00			1.49	-	23
8029 176	.00 177.50	1.50	.02	. 70	•	1-21
8030 177	.50 179.00	1.50	.03	.90	-	1-21
4031 179	.00 180.20	1.20	.04	1.20	-	1-21
	.20 181.00				-	1-21
	.00 182.35			.60	-	1-21
	.35 183.05			1.50		
	.05 184.00			5.10	-	- 11
8036 184	.00 185.30	1.30	.13	1.30	•	18

Interval (Xetres)	Description	Sample Interval Length Au Ag Grey Pyrite No. (Metres) (Metres) (g/t) (ppm) Metallic (%) SI	ALTERATION

(1 to 5mm), coarsely crystalline aggregates. Abundant, chloritic, planar fractures, mostly oriented at 55 to 80 degrees to the core axis.

- 120.60 122.25 Medium pink, relatively unaltered, coarse grained, plagloclase porphyritic intrusive also containing 5 to 10%, 1 to 3mm, ovoid, blue-white quartz phenocrysts, and 10%, black biotite. Minor, thin (1 to 3mm), subplanar, blue quartz veinlets, but no significant veining. Competent section with 5 to 20 cm breakage, generally along planar, chloritic fractures, mostly oriented at 50 to 75 degrees to the core axis.
- 122.25 135.00 Light to medium grey, weak to moderately silicified and sericitized with several, small (1 to 10cm), irregular quarts wein zones often centering local intensely altered zones. Several of the latter sections contain minor, 0.5 to irregular. white, coarsely crystalline 2cm. calcite/carbonate often fringed by a lan wide halo of chlorite. Section is vuggy, well broken, and moderately fractured, with sericitic coatings on fractures. Generally 2 to 4% finely disseminated pyrite concentrated on fractures, and minor amounts of grey metallic mineralization. Well broken section, generally with 1 to 10cm breakage, and numerous rubble zones.
- 135.00 136.75 Plakish grey to medium grey or slightly greenish grey, medium to coarse grained, very weak to weakly silicified, but locally finer (0.5 to 1mm) grained, non-porphyritic and weak to moderately pervasively sericitized. Section is not as vuggy or broken as the more silicified sections. Minor, irregular guartz veining centering zones with trace amounts of disseminated metallic grey minerals. Well broken section with breakage ranging from 1 to 10cm in size, but generally 1 to 3cm somewhat rubbly breakage.
- 136.75 137.90 50%, light grey to white, moderately to intensely silicified and sericitized intrusvie, with a large zone (50%) of guartz veining. Veining is clean, coarse grained, white, includes several intensely, altered wallrock

Bole: HN88-39 Page:

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BSSO MINERALS CANADA DIAMOND DRILL RECORD

BSSO	MINBRALS	CANADA
DIAN	OND DRILL	RECORD

Hole: HN88-39 Page:

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Description Sample Interval Length λu λq Grey Pyrite ALTERATION Interval (Metres) No. (Netres) (Netres) (g/t) (ppm) Netallic (%) SIL CARB SBR

> inclusions, and has a cracked-ice appearance. Locally, along the vein edges are small (1 to 3cm), irregular, white, coarsely crystalline carbonate minerals. A few, small, greenish fuchsite grains locally visible. Section contains 2 to 3% finely disseminated pyrite, and 0.5% finely disseminated needles of a grey metallic minerals. Moderately fractured and broken into 1 to 10cm pieces. Practures are often sericite coated.

- 137.90 152.90 25%, thin (10 to 50cm), pinkish grey, massive, biotitic, porphyritic, coarse grained, relatively plagioclase unaltered, typical guartz diorite intrusive, 50%, medium grey, weakly silicified and sericitized intrusive generally with chloritized biotite, and 25%, moderately and very locally intensely altered (silicified and sericitized) Intrusive, that generally occurs adjacent to irregular quartz veining. Unaltered zones contain 0.5%, finely disseminated pyrite, are massive, moderately broken along fractures oriented at 50 to 80 degrees to the core axis, and generally contain no guartz veining. Altered sections, contain 2 to 4% pyrite generally concentrated on fractures, 5%, irregularly shaped and oriented, generally large (1 to 5cm), coarse grained, white quartz veins, and a few, thin (1 to 10cm), shear foliated zones. Weak shear foliation at 139.65 to 139.70m is oriented at 50 degrees to the core axis, but a large zone between 46.20 to 46.40m is oriented at 25 degrees to the core axis and contains 2 to 5% finely disseminated molybdenite along the slip surfaces. Altered sections are somewhat vuqqy, and rubbly to well broken into 1 to 10 cm size pieces. Section also includes a medium grey mottled, weakly silicified and weakly carbonate altered zone between 151.25 to 152.15 metres.
- 152.90 163.00 Generally light to medium slightly greenish grey, moderately altered intrusive with 25%, weakly altered, and 15%, white, intensely silicified and sericitized zones, This section is more sericitic than most of the other overlying intrusive sections. Biotite is generally

H-N PROJECT (Ont. 77)

H-N PROJECT (Ont. 77)		BSSO NINBRALS CANADA Diamond drill record			Bole: Page:	HN C I	14		
[aterval (Netres)	Description	Sang Ng		Au (g/t)	Ag (ppn)	Grey Netallic	Pyrite (%)	RATION CARB	SBR

completely chloritized or sericitized. Unit contains 2 to 4%, pyrite as disseminations concentrated on fractures, and minor to 0.5%, extremely finely disseminated, metallic grey minerals concentrated in Intensely silicified alteration zones, often adjacent to irregular quartz veining. Alteration (silicification and sericitization) is pervasive, although concentrated along fractures and irregular veining. The most intensely altered zones are extremely yuggy and broken, with 1 to 5cm breakage and numerous rubble zones. Section contains 10%, irregular quartz veining/patches, often including chloritic fringed carbonate grains. Section contains abundant fractures, often with chloritic or sericitic coatings. The coarse grained, porphyritic appearance of the original intrusive is still apparent but quite subdued due to the pervasive alteration. Weak foliation oriented at 45 to 60 degrees to the core axis is locally apparent, but section is generally massive.

- 163.00 164.80 Slightly pinkish to brownish medium grey, with a coarse mottled appearance typical of the overlying section, and most of those below. Upper part of the intrusive, though variably altered, is not as mottled or subdued as as sections below 152.90 metres. This section and lower sections are also not as vuggy or broken, although some rubble sections occur. Section is generally weakly silicified, sericitized and carbonatized. Wo significant veining. Noderately broken section with 5 to 25 cm pieces. Ninor finely disseminated metallic grey minerals, and 1 to 2% disseminated pyrite.
- 164.80 167.50 Pink to red, medium grained, relatively unaltered, and mottled medium pinkish to brownish grey intrusive as above. Locally weakly shear foliated at 50 to 60 degrees to the core axis. No significant veining. Section does not contain visible grey metallic mineralization. A few fractures exhibit thin calcite coatings. Hoderately competent section, generally with 5 to 50 cm breakage.

H-W PROJECT (Ont. 77)		SO NINBRALS CANADA Anond Drill Record			Hole: Page:	H¥ 81	8-39 15			
interval (Netres)	Description	Sanple ¥o.	Length (Netres)	Au (g/t)		Netallic		ALTBRATI SIL CARB	SE	

- 167.50 176.00 Slightly pinkish to greenish grey, subdued and mottled, weak to moderately silicified, sericitized and carbonatized. Section exhibits a pervasive alteration with no significant veining. Section is locally weakly to moderately shear foliated at 50 to 70 degrees to the core axis. Locally contains minor metallic grey minerals, including some molybdenum along shear slips. Section is not vuggy and relatively competent, generally with 25 to 75cm breakage along planar fractures oriented at various angles to the core axis though mostly between 25 to 70 degrees.
- 176.00 180.20 Shear foliated intrusive. Same as the overlying medium brownish grey section, but well sheared and cut by abundant, thin (hairline), anastomosing crackle weinlets of carbonate-epidote that increases in intensity down the hole. Shear foliation generally sericitic and oriented at 60 degrees to the core axis. No significant quartr weining. 1 to 24 fine pyrite, often concentrated on shear foliation surfaces. Section is relatively broken, generally into 3 to 10 cm irregular pieces, with the bottom part between 179.00 and 180.20m a well broken rubble zone.
- 180.20 182.35 Quartz Vein Breccia Ione. Brecciated brownish to greenish grey, moderately altered intrusive as above, but broken into 0.5 to 2cm angular fragments, occurring in 20%, milky white guartz matrix. Lower contact along a calcitic fault breccia oriented at 20 degrees to the core axis. Hard, silicified, relatively competent unit with 10 to 50 cm breakage.
- 182.35 183.05 Pault Ione. Incompetent, fault breccia/gouge zone, containing 60%, 2mm to 2cm, angular, polymictic fragments in 40%, greenish to cream coloured, clay-like carboante-calcite rich matrix. Soft incompetent section. Upper contact sharp at 25 degrees to the core axis. Lower contact sharp and planar at 60 degrees to the core axis.
- 183.05 185.30 Shear foliated intrusive. Similar to 176.00 to 180.20 metres. Hedium brownish grey, mottled, moderately altered,

	DIAMOND	DRILL RECORD			Pa	ge:		16		
Interval	Description	Sannie	Interval	Length	20	14	Grev	Purite	ALTERATION	

Interval	Description	Sample	Interval	Length	ÂU	Åg	Grey	Pyrite	ALT	BRATION	
(Netres)		No.	(Netres)	(Metres)	(g/t)	(ppm)	Metallic	(1)	SIL	CARB	SBR

and locally weak to moderately shear foliated at 70 degrees to the core axis. No significant veining. Numerous fractures, often with thin (1 to 5mm), incompetent calcitic altered bands. Relatively broken zone, with 5 to 15 cm breakage. Several fractures have 1 to 2mm sericitic calcite coatings. Lower contact with mafic metavolcanic is weakly sheared, but planar at 70 degrees to the core axis.

185.30 194.00 SHEARED/SCHISTOSE NAPIC NETAVOLCANIC

Dark greenish black, fine grained, mostly weakly to moderately shear foliated. Unit is particularly sheared near upper contact with the overlying fault zone. Weakly magnetic. Unit locally contains minor plagioclase phyric, massive slivers/fragments within the finer grained sheared matrix. Locally weakly carbonate and epidote altered in weakly sheared zones. Shearing oriented at 55 to 70 degrees to the core axis. A few, thin slivers of guartz diorite intrusive material also occur within sheared zones.

Minor quartz-calcite veining, generally as thin {1 to 5mm}, subplanar veins that are locally broken. Lower contact not encountered.

LOWEL CONTACT NOT ENCOUNCEIED.

194.00 End of Hole.

N S	185.30	194.00	8.70	n/a	n/a	-	MINOR
1037	185.30	186.00	.70	.03	.70	•	0.5%
8038	186.00	187.00	1.00	.01	1.30	-	MINOR
1039	187.00	188.00	1.00	.01	.70	•	NINOR
8040	148.00	189.50	1.50	.02	.90	•	MINOR
1011	189.50	191.00	1.50	.02	.90	-	MINOR
8042	191.00	192.50	1.50	.03	1.00	-	NINOR
8043	192.50	194.00	1.50	.10	.90	•	MINOR

BSSO MINERALS CANADA DIANOND DRILL RECORD Hole: HN88-39 Page: 16

			RALS CANADA OMS8-6 DRILL LOG	o-C-Z3lo
	-	lame: <u>HN</u>		
		lumber <u>. 1677</u>		
NT	`S:	42H/8	Date:October 19	988
		L40+50W, 9+50S 360° Dip:45°		•
PU	RPOSE	: Intersect shear/mylonite zon	e encountered in HN88-28.	
From	To	.		Gold Assays
(m)	(m)	De: CASING REMAINS IN HOLE	scription	(g/tonne)
0.0	13.00	Overburden		
13.00		Relatively Unaltered Granodior Generally light pink, hard, porphyritic intrusive. Conta centers thin (5 to 30 cm), mo sericitized, light grey, alt l to 2% pyrite and locally,	massive, weakly plagioclase ins 5% quartz veining which often derately silicified and weakly eration zones, generally containing minor amounts of grey metallic a few, thin (5 cm) shear foliated,	l
25.15	27.75		grained, calcitic, strongly mafic metavolcanic inclusion. 5%, fracturing. Minor,thin, offset and	0.01 - 0.02
27.75	78.20	grey to white (bleached), we intensely silicified and ser within zones of quartz vein massive, coarse-grained (2 r 5 mm), subhedral plagioclase ovoid, bluish quartz grains, disseminated pyrite, in a p plagioclase rich matrix. 5 t quartz veining/silica floodi trace amounts of grey metal	vely unaltered granodiorite to 30 cm bands and zones of light eak to moderately and locally ricitized intrusive often occurring	0.01 - 0.15 (38)
78.20	81.90	Slightly pinkish-brown, home containing 20% coarse (2 to and lesser subhedral plagio	ogeneous, "augen-gneissic" dyke, 5 3 mm), rounded quartz phenocrysts, clase ina well foliated, hematitic pliated at 20° to CA. No significant	
81.90	112.25	35%, pink, very weakly alter to white, weakly altered; an moderately to intensely alter intrusive above the overlyin somehwat larger and more in Locally exhibits a weak fol 10%, thin, irregular quartz pyrite, and locally minor an	red to unaltered; 50%, light grey nd 15%, white, quartz veined, ered intrusive. Similar to ng intervening dyke, but with tense alteration zones/bands. iation at 30 to 50° to CA. 5 to veining. 0.5 to 4% disseminated	0.01 - 0.29 (30)

From	To	Description	Gold Assay: (g/tonne)
<u>(m)</u>	(m)		(9/10009)
		quartz veined zones.	
112.25	114.00	Mafic Metavolcanic Xenolithic Inclusion Dark brownish to greenish-grey, fine-grained, homogeneous, very weakly magnetic, strongly calcareous, with a weak to moderately well developed foliation oriented at 20° to CA. No veining. 1% fine cubic pyrite.	0.01 (2)
114.00	242.00	Weak to Moderately Altered Granodiorite Intrusion 114.00-124.50 White, weak to moderately silicified and sericitized, with local intensely silicified bands in an intrusive similar to that in upper part of the hole. 10 to 15%, irregular branching quartz veining. 1 to 3% disseminated pyrite and minor grey metallic minerals generally associated with intensely silicified zone adjacent to quartz veining.	0.01 - 0.89 (108)
		124.50-242.00 Similar to upper section but slightly less altered. 35% pink-purple, relatively unaltered to weakly altered; 50%, light to medium grey, weakly silicified and sericitized; and 15%, light grey to white, moderately to intensely altered intrusive. 5 to 10%, thin (2 to 50 mm), irregular to subplanar quartz veining, as well as minor silica flood bands. 1 to 2% pyrite, as well as minor grey metallic minerals often adjacent to quartz veining.	
	242.00	END OF HOLE	
1			
		•	
	1		

-N PROJECT (Ont. 77)	ESSO MINERALS C DIAMOND DRILL R				Nole: Page:	HN88-40 1		
rilled by:	Bradley Bros. Limited	Azimuth:	360			Claim No:	L-871912		
ole Size:	BQ	Dip:	-45			Grid:	Vest		
ore Size:	BQ Desides to (b. in Mala					Basting:	40+50W		
asing:	Casing Left in Hole	Acid Tests:				Northing: Blevation:	9+50S Level		
tarted:	Oct. 15, 1988	ACIU IESUS.				PICAGCION:	PEACT		
inished:	Oct. №, 1988		Dip -45.0			Purpose:	Test struct	ure encountered in	HN88-7
ogged by:	N.H.Lenters		-43.5			Length:	242.00Metre	S	
ate logged:	October 1988	213.00	-39.5			Vert. Proj	: 164.0 Metre		
ogging Nethod:	Log II					Hor. Proj:			
leasurement System:	Netric					Ovb. Depth	: 9.3 Metre	S	
interval	Descripti	 DR	Sample		Length	Au Ag	Grey Pyrite		
(Netres)			No.	(Metres)	(Metres) (g	/t) (ppm) Me	tallic (%)	SIL CARB	SBR

13.00 25.15 PELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED

Generally unaltered, light pink, leucocratic, coarse grained, massive, weakly plagioclase porphyritic intrusive. Plagioclase phenocrysts are white, subhedral, 2 to 5mm, and occasionally up to 1cm in size. Unit also contains 10%, bluish guartz phenocrysts that are 2 to 3mm and subrounded, as well as 10 to 15%, black biotite.

Unit is generally unaltered but contains 5% altered zones that are bleached white where moderately silicified and weakly sericitized. These generally occur as thin, relatively sharply bounded zones to more diffuse patches that are from 1cm to 10's of cm wide, and usually centred by thin (2 to 10mm), subplanar, bluish quartz veins.

Generally 5%, thin (2 to 10mm), irregular branching to subplanar guartz veins oriented at 20 to 70 degrees to the core axis.

Locally weak to moderately shear foliated at 25 degrees to the core axis, across thin (1 to 5cm) widths.

Minor to 0.5% disseminated pyrite, with 1% pyrite and minor amounts of

NS	13.00	25.15	12.15	n/a	n/a	TRACE	0.5%	UN-NOD	UN-WK UN-V.WK
8044	16.00	17.00	1.00	.04	.80	TRACE	0.5%		
8045	17.00	18.50	1.50	.16	. 80	TRACE	0.5-14		
8046	18.50	20.00	1.50	.02	.80	TRACE	0.5-1%		
8047	24.00	25.15	1.15	.01	.80	-	0.5%		

-N PROJECT (O		ESSO NINERALS CANADA Dianond drill record				Hole: Page:	HN 8	8-40 2				
Interval (Metres)	Description	No.	(Net		Length (Netres)				Pyrite (%)		TERATION CARB	SB
25.15 27.75	<pre>grey metallic mineralization associated with the white alteration zones. Competent, hard core, but moderately broken, generally into 3 to 10 cm lengths along planar chloritic fractures oriented at 45 to 70 degrees to the core axis. Lower contact with volcanic inclusion is sharp at 80 degrees to the core axis.</pre> MAFIC METAVOLCANIC FLOWS (FE THOLEHITE) Dark greenish to greyish black, very fine grained, calcitic, strongly magnetic, homogeneous, massive to foliated mafic metavolcanic inclusion(?). Same as uppermost part of HN88-22, although that unit was considered a metasediment. Unit contains 54, hairline, calcite tension microfracturing forming abundant ladder, herring-bone, and en echelon patterns, as well as a few, thin (1 to 3mm) quartz veinlets which exhibit boundinaging and are locally discontinuous within the foliated zones. Other quartz veins are slightly offset along the calcitic microfracturing. Poliation is well developed in lower part where it is occasionally folded or wavy and oriented at 0 to 35 degrees to the core axis. Unit includes a few, small (1 to 10cm), irregular and broken intrusive fragments near the upper contact. Unit is relatively hard and competent with 10 to 50cm irregular breakage. Lower contact with intrusive is sharp, but sheared and oriented at 10 to 25 degrees to the core axis.	8048 8049	25.15 26.00	26.00 27.00	5 2.60 .85 1.00 5 .75	n/a .02 .01 .01	.50		MINOR HINOR HINOR MINOR			
27.75 78.20	FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED 65 to 75%, pink, relatively unaltered granodiorite intrusive, cut by 1 to 30 cm bands and zones of white (bleached), weak to moderately silicified and sericitized material often centred by thin, (1 to 5mm), irregularly oriented branching and crosscutting guartz veining. Much of the white altered bands contain black biotite even though the zones are well bleached. Only in moderately to intensely altered, well guartz veined altered zones/bands is the biotite chloritized and locally sericitized.	8051 8052 8053 8054 8055	27.75 31.00 31.90 32.50 33.00	29.00 31.90 32.50 33.00 34.00).90).60).50	n/a .02 .03 .02 .12 .03 .03	n/a .80 .60 .90 .80 2.40	TRACE	0.5-3% 0.5-1% 0.5-1% 2-3% 2-3% 1-2% 1-2%	UN-KOD	-	UN-

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Hole: HN88-40 Page:

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						•••••		<i>-</i> -			
Interval	Description	Sample	Interval	Length	¥0	λg	Grey	Pyrite	AL	TERATION	
(Metres)		No.	(Metres)	(Metres)	(g/t)	(ppm)	Netallic	(1)	SIL	CARB	SER

Altered zones are generally somewhat vuggy and moderately broken. Unaltered sections of the unit are generally massive, coarse grained (2mm), containing 5 to 10%, large, (2 to Smm), subhedral, pinkish plagioclase phenocrysts, 10%, 1 to 3mm, ovoid, bluish quartz, 10 to 15%, black biotite, and 0.5% finely disseminated pyrite. Phenocrysts occur in a finer grained plagioclase +/- silica rich, pinkish (hematitic?) matrix. 5%, Thin (1 to 5mm) but up to 1.5cm in size, irregular to subplanar quartz veining. Subplanar veins are generally oriented at 45 to 65 degrees to the core axis and often crosscutting from opposite angles. Ninor coarse grained, white calcite is associated with some quartz veining in altered zones.

Unit contains several mottled, medium grey, well silicified/silica flooded +/- sericitized shear bands. The largest of these bands occur between:

31.90 32.10 Oriented at 30 degrees to the core axis.

32.70 32.80 Oriented at 30 degrees to the core axis.

42.50 42.70 Oriented at 40 to 55 degrees to the core axis.

61.75 61.90 Oriented at 50 to 55 degrees to the core axis.

62.00 62.10 Oriented at 40 degrees to the core axis.

62.40 62.60 Oriented at 30 to 35 degrees to the core axis.

White alteration bands appear more like zones exhibiting a bleaching of feldspar and hematite, and are not as silicified and much less sericitized than the white alteration zones in other drill holes.

White alteration bands often exhibit sharp changes across a few mm from the pink unaltered zones. All quartz veins do not alter the adjacent vallrock, as several quartz veins cut through unaltered pink coloured zones.

0.5 to 2% disseminated pyrite, and trace to minor amounts of disseminated grey metallic minerals. Locally, the coarsest metallic grey minerals appear to be associated with quartz veins containing coarse grained, white calcite.

Unit is moderately well broken with unaltered zones exhibiting 5 to 25cm breakage, often along chloritic coated, planar fractures generally oriented at 40 to 70 degrees to the core axis.

Altered zones are vuggy and well broken, generally into 1 to 10cm pieces with some rubble zones.

8057	35.00	36.50	1.50	.09	1.20	TRACE	15
8058	36.50	38.00		.02	1.30		
8059	38.00	39.50	1.50	.15	4.30	TRACE	
8060	39.50	41.00	1.50	.03	1.80	TRACE	0.5-11
8061	41.00	42.50	1.50	.02	1.00	TRACE	0.51
8062	42.50	42.90	.40	.01	1.20	-	2-31
8063	42.90	44.50	1.60	.03	2.80	TRACE	0.5-11
8064	44.50	45.60	1.10	.02	2.40	MINOR	2-31
8065	45.60	47.00	1.40	.01	1.20	TRACE	1-21
8066	53.00	54.50	1.50	.02	1.30	TRACE	11
8067	54.50	55.50	1.00	.10	9.90	MINOR	21
8068	55.50	56.00	.50	.03	1.00	0.25%	23
8069	56.00	57.35	1.35	.01	.90	-	0.5%
8070	57.35	57.80	.45	.02	1.00	NINOR	1-23
8071	57.80	59.00	1.20	.02	1.10	TRACE	0.5-11
8072	61.00	62.00	1.00	.03	. 80	-	0.5-11
8073	62.00	63.00	1.00	.03	1.10	TRACE	0.5-11
8074	63.00	64.00	1.00	.01	. 60	TRACE	1-24
8075	64.00	65.00	1.00	.02	. 80	-	11
8076	65.00	65.80	. 80	.03	.80	MINOR	1-25
8077	65.80	66.50	.70	.02	1.70	0.5%	2-31
8078	66.50	68.00	1.50	.01	1.30	TRACE	0.5-1%
8079	68.00	69.50	1.50	.01	2.30	MINOR	1-21
8080	69.50	71.00	1.50	.02	1.20	TRACE	28
8081	71.00	72.35	1.35	.01	.90	TRACE	1-21
8082	72.35	73.00	.65	.03	1.00	-	3-41
8083	73.00	74.00	1.00	.01	.80	-	2-31
8084	74.00	75.00	1.00	.01	.90	MINOR	23
8085	75.00	75.70	.70	.03	.70	0.5%	
8086	75.70	76.10		.02	.90	TRACE	
8087	76.10				.80	0.5-1%	
8088	76.65	78.20		.01	. 60		

I PROJECT (C	Dut. 77) BSSO MINERALS CANAD DIAMOND DRILL RECOR						Hole: Page:	HN 8	8-40 4			
Interval (Metres)	Description	Sample No.	(Net	tres)	Length (Hetres)	(q/t)	(ppm)	Metallic	Pyrite (%)	SIL		SER
	Lower contact is a sharp intrusive dyke contact oriented at 35 degrees to the core axis.											
8.20 81.90	 WELL FOLIATED QUARTZ FELDSPAR PORPHYRY DYKE Slightly pinkish brown with 20%, coarse (2mm), subrounded quartz phenocrysts in finer grained, foliated, hematitic stained, blotitic matrix. Unit called augen gneissic in HN88-24 where it was first encountered and where it is slightly auriferous. Well foliated at 20 degrees to the core axis, with moderate (10 to 50cm) fracturing paralleling the foliation orientation. Unit is very homogenerous in appearance, contains no veining, and only minor amounts of finely disseminated pyrite. Upper and lower contacts are sharp intrusive dyke contacts oriented at 35 to 40 degrees to the core axis. 	8089 8090 8091	78.20 79.00 80.00	81.90 79.00 80.00 81.00 81.90	.80 1.00 1.00	n/a .31 .10 .17 .04	n/a 1.40 1.10 1.20 1.20	-	MINOR MINOR MINOR MINOR MINOR			
91.90 112.29	5 FP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED 35%, Pink, very weakly altered to unaltered; 50%, light grey to white to mottled light brownish grey, weakly altered; and 15%, white, well quartz veined, moderately to intensely altered intrusive. Similar to the other half of this intrusive unit between 27.75 to 78.20 metres, above the overlying dyke, but with somewhat larger and slightly more intensely altered zones, as well as less intervening unaltered intrusive material. Quartz veining is similar to the upper part of this unit above the dyke, but includes several veins that are parallel to the core axis, producing long core intersections with moderately to intensely altered material. This unit does not contain shear bands like the other half of this intrusive above the dyke, but exhibits local zones with a weak shearing foliation that is oriented at 30 to 50 degrees to the core axis. Lower contact with the mafic dyke-xenolith? is poorly recovered, but appears to be very sharp, though irregular, and oriented at a relatively shallow angle to the core axis.	8093 8094 8095 8096 8097 8098 8099 8100 8101 8102 8103 8104 8105 8106 8107	81.90 83.00 84.00 84.85 85.55 86.00 87.00 88.00 88.50 89.00 90.00 90.85 92.05 93.50 95.00	112.25 83.00 84.00 84.85 85.55 86.00 87.00 88.00 88.00 88.00 90.00 90.85 92.05 92.05 93.50 95.00 96.00 96.80	1.10 1.00 .85 .70 .45 1.00 1.00 .50 1.00 .85 1.20 1.45 1.50 1.00	n/a .19 .02 .03 .29 .01 .01 .02 .01 .02 .02 .02 .01 .02 .01 .02	n/a 3.20 .90 12.80 2.30 .90 .90 .60 .60 .80 .70 .80 .80 .90 .80	NINOR - - - TR-NNR	2-3 2-3 1-2 2-3 1-2 2-3 1-2 2-3	UN-INT	UN-WK	UN-¥(

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X PROJECT (On	t. 77) B550 MINBRALE CANAU DIAMOND DRILL RECON						Hole: Page:	HNS	8-10 5.			
Interval (Netres)	Description	Sample No.	: In (M	terval etres}	Length (Metres)	Au (q/t)	Ag (ppm)	Grey Netallic	Pyrite (\)	ALS SIL	IERATION CARB	SER
					0 1.20			-				
		8110	98.0	0 98.7	5.75	.03		TRACE	0.51			
						.02	3.00	MINOR	1-3			
					0.60 0.70	.02 .04	.90	TRACE	0.5% 2-3%			
					0 1.30	.02	.90		1-24			
					5 .65	.02	1.00	KINOR	1-21			
					0 1.35	.01	.90	-	11			
					0 1.00	.02		TRACE	1-24			
					0 1.10	.02	.80		1-23			
					0 1.40 5 1.15	.02 .01	1.00	TRACE TRACE	1-2% 1-2%			
					5 .90		1.00		0.5-1%			
					5 1.70	.01		0.25%				
	NAPIC METAVOLCANIC PLOWS (PE THOLBIITE) Very dark brownish to greenish grey, fine grained, very homogeneous, very	NG	112 2	5 114 0	0 1.75	n/a	n/a	-	11			
	weakly magnetic, strongly calcareous, with a weak to moderate foliation				0.75				11			
	defined by the orientation of fine chlorite+/-biotite at 20 degrees to				0 1.00			-	14			
	the core axis. This unit is probably a mafic volcanic xenolith											
	inclusion, but could possibly be a mafic dyke.											
	Unit contains no veining.											
	1%, Fine (0.5mm), cubic pyrite crystals disseminated throughout the unit. Numerous chloritic fractures, generally oriented at shallow angles (0 to											
	30 degrees) to to the coze axis.											
	Well broken, rubby unit, with breakage along fractures at shallow angles											
	to to the core axis.											
	Upper and lower contacts are sharp, but slightly irregular, and oriented at approximately 20 degrees to the core axis.											
14 00 242 00	PP QUARTZ DIORITE INTRUSIVE - WK TO HOD ALTERED											
	PP QUARTZ DIORITE INTRUSIVE - WE TO HOD ALTERED 114.00 124.50 White, weak to moderately silicified and sericitized, with	NG	114 0	0 242 0	0128.00	n/a	n/a	MINOR	2-25	UN-NOD	UN-VK	118-1
	local intensely silicified bands. 10 to 15%, irregularly				0 1.00	.02		0.25%	2-3	00-000	UN "WA	V#-1
					0 1.40		1.75	0./14	/- \.			

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H-N PROJECT	(Ont. 77)	
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ESSO MINERALS CANADA DIAMOND DRILL RECORD

Hole: HN88-40 Page: 6 **،** ۱

Interval	Description	Sample	Interval	Length	Au	λg	Grey	Pyrite	A L	TERATION	
(Metres)	-	No.	(Metres)	(Metres)	(g/t)	(ppm)	Netallic	(\$)	SIL	CARB	SER

somewhat more abundant, as well as larger (1 to 5cm), within this upper part. Subplanar veins are variably oriented, and often criss-crossing, although most are oriented at 45 to 50 degrees to the core axis. They are white, clean, coarse grained, and contain only minor amounts of wallrock inclusions, pyrite and metallic grey mineralization. Unit is coarse grained with the porphyritic character difficult to observe, due to the lack colour variation with the unit. However, the of porphyritic character is still apparent. Unit is somewhat porous or vuggy. 2 to 3% disseminated pyrite, generally concentrated near veining and along fractures. Moderately broken unit, with a few rubble sections. No shear foliated bands are apparent.

124.50 242.00 Similar to upper section, but consisting of 35% pink-purple to light pink-purple, relatively unaltered to very weakly altered zones; 50%, light to medium grey, weakly silicified and sericitized zones; and 15%, light grey to white moderate to intensely altered zones. Unit contains 5 to 10%, thin (1 to 5mm) to thicker (0.5 to 10cm), irregular to subplanar guartz veining. Ninor shear foliated/silica flooded bands, that are generally oriented at 20 to 45 degrees to the core axis. These often exhibit smeared pyrite and moly on the slip surfaces. One, small (50cm), xenolithic inclusion occurs between 178.05 and 178.60m, including a minor fault clay/gouge in a well broken and lost core rubble zone between 178.50 and 178.60 metres. Inclusion is dark green, fine grained, well foliated at 20 degrees to the core axis, calcitic and non-magnetic. Contacts are oriented at approximately 20 to 25 degrees to the core axis. Quartz veining often contains minor amounts of grey metallic minerals surrounding pyrite.

Several fractures exhibit chloritic, and locally sericitic coatings. Moderately well fractured unit, with fracturing locally off-setting guartz veining across short (1 to 15mm) intervals.

Noderately well broken core, with unaltered sections exhibiting 5 to 30

8127	116.00	117.50	1.50	.02	.90	MINOR	2-31
8128	117.50	119.00	1.50	.02	1.80	0.25%	2-31
8129	119.00	120.00	1.00	.02	2.20	TR-MNR	2-3
8130	120.00	121.00	1.00	.16	1.70	TR-MNR	1-23
8131	121.00	122.00	1.00	.18	1.20	0.5%	1-21
8132	122.00	123.00	1.00	.06	3.50	0.25	23
8133	123.00	124.15	1.15	.13	2.00	0.25	2-31
8134	124.15	125.00	.85	.02	2.50	TRACE	1-21
		126.50			2.90		1-31
		128.00			1.20		1-24
8137	128.00	129.05	1.05		2.20		21
8138	129.05	131.10	2.05	.02	1.00		1-2
		132.50		.01	1.70		
		134.00		.03	1.50		
		135.50			1.50		1\$
		137.00			2.40		
		138.50			1.70		1-24
		140.00			2.30	TR-MNR	1\$
		141.50			1.40	TR-NNR	11
		143.00			2.70	MINOR	14
		144.50			1.40		- 14
		146.00			1.10		
		147.20			. 80		0.5%
		148.00			1.70		
		149.00			2.50		
		150.50			1.50		11
		152.00			1.90		11
		153.50			1.80		
		155.00	1.50		3.50	0.5%	
		156.00	1.00		1.90	TR-MNR	
		157.00	1.00	.02	3.10	TRACE	1-21
		158.15			3.40	MINOR	1-21
		159.50		.18	3.90		2-31
		161.00			3.60		1-21
		162.00			1.60		
8162	162.00	163.00	1.00	.02	2.30	TRACE	0.5%

PROJECT (O	ont. 77) ESSO MINERALE CANAD DIAMOND DRILL RECOM							Kole: Page:	KN	18-40 7		
Interval (Netres)	Description	No.		(Metres)		(g/t)	(ppm)	Metallic		SIL CARB	S
	cm breakage, and well altered sections generally including some rubble			.00 164			.19	7.40		1-2%		
	zones.			.00 165			.04	2.20	MINOR	1-24		
	Lover contact not encountered.			.50 167			.22	2.10	TRACE	11		
	242.00 Bnd of hole.			.00 168 .50 170			.29	1.60 14.40	HINOR	0.5-1%		
				0.00 171			.02	1.30	TRACE			
				.50 173			.03	1.00	TRACE			
				.00 174			.20	1.30	TRACE	0.5%		
				.50 176			.11	1.00	TRACE	0.5%		
				.00 177			.03	.90		0.5%		
				.50 178			.26	1.30		0.5%		
				.05 178 .60 179			.22 .63	1.20 2.10	•	0.5% Minor		
				.00 180			.19	1.10		1-2		
				.50 182			.02	1.20	MINOR	1-23		
				2.00 183			.03	2.40	0.25%	1-24		
				.00 184			.01	1.30	TRACE	1-23		
				.00 185			.04	2.40		21		
				.00 185 5.60 187			.02 .01	2.30 1.20		1-24		
				.00 188			.01	1.10		0.5-1		
				.00 189			.02			1-23		
				.00 190			.01	1.20		0.5-1%		
				.00 190			.02	1.40		0.5-1%		
				.60 191			.01	1.50				
				.50 192			. 02	1.60		1-24		
				1.70 194 1.00 195			.03 .04	1.40 1.40	TRACE	1% 0.5%		
				.50 197			.01	.30				
				.25 197			.02	1.00				
				.75 199			.01	.60				
		8194	199	.00 200	.00	1.00	.01	.40	-	0.5%		
				.00 201			.02	.70				
				.50 203			.01	7.90		0.5-1		
				00 204			.01	1.40		0.5-14		
				.00 205			. 30		MINOR			

-N PROJECT (Ont. 77)		ESSO NINERALS CANADA DIAMOND DRILL RECORD			lole: Page:	HN88-40 8		
Interval (Metres)	Description	Sample Interval No. (Netres)	Length (Netres)	ÂU (g/t)	Ag {ppm}	Grey Pyrite Wetallic (%)	ALTBRATION SIL CARB S	SER
		8199 205.00 206. 8200 205.00 207.	00 1.00	.03 .01	1.60	- 0.5-1%		
		8201 207.08 208.		.18	6.60	TRACE 13		
		8202 208.00 209. 8203 209.00 210.		.02 .06	1.90 1.50	MINOR 1-2% MINOR 0.5-1%		
		8204 210.00 211.		.02 .01	1.50 2.00	TRACE 14 TRACE 14		
		8205 211.00 212. 8206 212.00 213.	50 1.50	.02	1.90	TRACE 0.5-1%		
		8207 213.50 215. 8208 215.00 215.		.03 .02	1.90 1.30	HINOR 1-2% TRACE 1-2%		
		\$209 215.65 216.	50 .85	. 20	7.30	0.25% 2-3%		
		8210 216.50 218. 8211 218.35 219.		.01 .02	1.10 2.70	TRACE 1-2% 0.25% 1%		
		8212 219.60 220.	00 .40	.01	1.20	- 0.5%		
		8213 220.00 221. 8214 221.00 222.		.02 .03	3.40 1.60	0.5% 1-2% TRACE 1%		
		\$215 222.50 224.	00 1.50		12.50	TRACE 1		
		8216 224.00 225. 8217 225.50 226.		.02 .01	.90 1.00	TRACE 1% TRACE 1%		
		8218 226.25 227.	00 .75	.01	.90	TRACE 0.5%		
		8219 227.00 228. 8220 228.00 229.		.02 .01	2.70 1.70	MINOR 0.5-1% 0.25% 1-2%		
		8221 229.50 231.		.20	1.30	TRACE 1-2%		
		8222 231.00 232. 8223 232.00 233.		.02 .03	1.00 1.30	TRACE 1-2% MINOR 1-2%		
		8224 233.00 234.		.03	1.00	TRACE 1-2%		
		#225 234.00 234. #226 234.75 235.		.02 .01	1.40 1.20	0.5 1-2% NINOR 0.5%		
		8227 235.75 236.		.01	1.60	TRACE 1		
		\$228 236.75 238. \$229 238.00 239.		.02 .01	1.00	- 0.5% - 0.5%		
		8230 239.00 240.		.01	.80 .90			
		8231 240.00 241.	00 1.00	.01	.90	- 0.5%		
		8232 241.00 242.	00 1.00	.01	1.00	MINOR 14		

		ESSO MINERALS CANADA OM88-6-0 SUMMARY DRILL LOG	-236
P	roject N	Name: <u>HN</u> Hole Number: <u>HNR</u>	38-41.
P	roject N	lumber <u>1677</u> . Logged By: <u>M.H.</u>	Lenters
N N	тs:	42H/8 Date: October 194	88
	-	<u>L32+00W, 12+25S</u> <u>180°</u> . Dip: <u>-43°</u> . Length (m): <u>2</u>	
P	URPOSE	Test anomalous IP chargeability response up-ice from anomalous b. values in bedrock chips	ase metal
From	To	Description	Gold Assays
(m)	(m)	CASING REMOVED	(g/tonne)
0.00	8.00	Overburden	
8.00		Interbedded Felsic Metavolcaniclastic to Metavolcanic Pyroclastic Tuff Horizons with Minor Cherty Metasediments Thin to thickly, interbanded/interbedded sequence of felsic to intermediate chlorite-plagioclase-silica schists probably representing metavolcaniclastics and felsic ash, to fine lapilli tuff metavolcanics. Very few original textures are preserved, but locally felsic crystal tuffs, coarse felsic fragmentals, and cherty units are identifiable. Locally the units contain biotite, amphibole and minor magnetite. Felsic tuff units are grey, siliceous, fine-grained, magnetic and generally contain a few percent finely disseminated pyrrhotite and pyrite. Ash tuffs are locally finely laminated, crystal tuffs exhibit small (1 to 2 mm), euhedral plagioclase and ovoid, blue, quartz phenocrysts, and lapilli tuffs contain small (1-10 mm) angular volcanic fragments. Unit exhibits weak to strong foliation oriented at 50° to 65° to CA. Generally 3 to 5%, irregular calcite patches, and minor to 2% quartz veins. Felsic volcanic horizons contain minor to a few percent green to red to brownish sphalerite, locally forming small grains, and foliation subparallel bands and laminae, as well as minor galena, and trace chalcopyrite. Zinc/lead sulphides also form within and in close proximity to quartz and/or calcite veins. 24.25-25.10 cherty exhalite bed with 3 to 5% pyrite and 0.5% sphalerite 61.90-62.00 small fault gouge	(56)
73.1	0 74.40	Silicified and Weakly Sheared Quartz Diorite Intrusive Dyke Medium grey, aphanitic plagioclase-silica dominant groundmass with 15 to 20%, 1 to 3 mm, white, subhedral plagioclase phenocrysts. Contact zones of the dyke are silicified and moderately shear foliated at 50° to CA, parallel to the dyke contacts. 5% irregular calcite veining. 1% pyrite	0.01 - 0.04 (2)
74.4	0 221.00	Felsic Metavolcanic Ash/Crystal/Lapilli Tuffs with Minor Interbedded Intermediate to Mafic Tuffs Thickly interbedded sequence of felsic tuffs with lesser mafic/intermediate tuffs or volcaniclastics. Felsic volcanic tuffs consist mostly of fine ash, very fine lapilli and crystal tuffs with minor slightly coarser lapilli tuffs. These are generally medium grey, fine-grained, siliceous and massive to weakly foliated. Ash tuffs are aphanitic and locally laminated, lapilli tuffs contain small 1 to 3 mm, flattened volcanic fragments and crystal tuffs contain 5 to 10%, 1 to 3 mm plagioclase phenocrysts, and 2 to 5%, 1 to 2 mm, blue, ovoid quartz eyes. Felsic metavolcanics locally contain cherty exhalite horizons that are tan to light grey, aphanitic, finely laminated, hard, siliceous, and locally pyritic.	0.01 - 0.37 (68)

From (m)	To (m)	Description HN88-41	Gold Assa {g/tonne
		Intermediate to mafic metavolcanic schist horizons are dark green to brownish green, fine-grained, magnetic, moderately schistose/phyllitic and generally composed of chlorite- plagioclase-silica and locally biotite and/or amphibole. Unit generally contains 5 to 10% irregular calcite patches, particularly in the mafic metavolcanic schists. Minor quartz veining. Foliation oriented at 50° to 55° to CA. Minor to 1% pyrite, but locally up to 2 to 5% particularly in slightly sericitic to carbonate altered felsic metavolcanic horizons. Felsic metavolcanic and cherty exhalite horizons locally contain minor to a few percent sphalerite, and trace amounts of galena.	
	221.00	END OF HOLE	
1			
2			
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H-N PROJECT (Ont. 77)	BSSO MINERALS CANADA DIAMOND DRILL RECORD	Hole: HN88-41 Page: 1
Drilled by: Hole Size:	Bradley Bros. Limited BQ	Azimuth: 180 Dip: -43	Claim No: L-872269 Grid: West
Core Size: Casing:	BQ Casing Removed		Basting: L32+00W Northing: 12+25S
Started:	Oct. 19, 1988	Acid Tests:	Blevation: Level
Finished:	Oct. 20, 1988	Depth Az. Dip 8.00 -43.0	Purpose: Test IP & anomalous bedrock chips
Logged by:	N.H.Lenters	108.00 -40.0	Length: 221.00Metres
Date logged: Logging Hethod:	October 1988 Log II	208.00 -36.0	Vert. Proj: 141.0 Metres Hor. Proj: 170.0 Metres
Neasurement System:	Netric		Ovb. Depth: 5.7 Metres
Interval	Decoriation	Canal Tal	terval Length Au Ag Grey Pyrite ALTERATION
(Metres)	Description		terval Length Au Ag Grey Pyrite ALTERATION etres) (Metres) (g/t) (ppm) Metallic (%) SIL CARB SER

.00 8.00 OVERBURDEN

8.00 73.10 FELDSPAR CRYSTAL/LAPILLI TUFF

Interbedded metavolcaniclastic to felsic metavolcanic horizons, and cherty metasediments.

Thin (cm) to thick (metres), relatively sharply bounded, interbanded/interbedded sequence of felsic to intermediate schists, probably representing metavolcaniclastic and felsic metavolcanic ash to fine lapilli tuffs. Very few original textures are preserved, but locally felsic crystal tuffs, coarse felsic fragmentals and cherty units are identifiable. The latter often contain abundant pyrite, minor to a few percent sphalerite and traces of galena.

Hany of the units with no original textures are fissile, chloritic to biotitic schists.

8.00 8.45 Felsic metavolcanic ash tuff. Medium greenish grey, felsic looking, aphanitic silica-plagioclase-chlorite horizon. Hoderately, but somewhat irregularly, wavy banded at 60 degrees to the core axis. Contains minor biotite, and 5%, white,

n/a n/a	- HNR-2%
.02 .70	- 1-5%PO
.03 .50	- TR-11PO
.01 .50	- TR-1%PO
.01 1.20	- TR-0.5%
.02 1.00	- XNR-0.5
.01 .40	- MNR/PO
.01 .50	- MNR/PO
.02 1.30	- 0.5-11
.21 .80	- 0.5-1%
.30 3.00	- 21
.02 .60	- 2 %/ PO
.02 1.10	- 21/PO
.38 7.00	- 2 \ /PO
.04 4.50	- 2-3
	.02 .70 .03 .50 .01 .50 .01 1.20 .02 1.00 .01 .40 .01 .50 .02 1.30 .21 .60 .30 3.00 .02 .60 .02 1.10 .38 7.00

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ESSO HINERALS CANADA DIAMOND DRILL RECORD

Hole: HB88-41 Page: 2

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Interval (Netres)	Description	No.	(Neti	res)	Length (Netres)	(g/t)	(ppm)	Metallic		SIL	TERATION CARB	SB
	irregular, foliation parallel calcitic patches. Strongly	8247	24.25	25.10).85	.19	8,40	-	3-51			
	magnetic, with minor, 0.5 to 1mm, magnetite porphyroblasts. No				0.90	.06	3.60	-	1-24			
	significant veining. Winor disseminated pyrite and pyrrhotite.				1.50	.03	2.90	-				
	Lower contact is sharp and oriented at 65 degrees to the core				0 1.50	.02	1.50	-	1-23			
	axis.				1.50	.02	1.40	-	1-21			
	8.45 8.55 Felsic volcanic ash metatuff. Kedium grey, siliceous, fine		32.00		0 1.50) .30	.01 .03	1.20 1.40	-	1-2% 1-2%			
	grained silica-plagioclase horizon, much like most of the overlying horizon, but this section is less chloritic. Unit		32.30			.03	1.00	2	21			
	contains 5% biotite as small porphyroblasts oriented at 70				5 1.20	.02	1.10	-	11			
	degrees to the core axis. Very minor Fe-sulphides.		33.75			.01	1.10	-	1-23			
	Non-magnetic. Upper and lower contacts are sharp, but slightly		34.50			.01	.60	-	1-23			
	undulating and oriented at 50 to 70 degrees to the core axis.		35.25			.01	1.00	-	1\$			
	8.55 9.15 Pelsic metavolcanic ash tuff. Similar to horizon between 8.00		35.50			.15	10.00	MINOR	1-21			
	to 8.45, but with more (25%) biotite (lmm) porphyroblasts, a		36.00			.01	2.10	TRACE	1-23			
	brownish medium grey colour, and a greater Pe-sulphide (5%)		36.50			.01	3.00	TRACE	1-2%			
	content. The later occur mostly as relatively coarse, wispy,		37.00			.06	8.80	MINOR	1-21			
	pyrrhotite with lesser pyrite. Some Pe-sulphide grains are		31.15			.02	3.40	TRACE	11			
	composed partly of both minerals. Horizon is moderately		38.15			.01	.30	TRACE	14			
	metamorphic foliated/banded at 50 to 70 degrees to the core		38.10			.02	.30		1-21			
	axis, with 5% calcitic patches just like the horizon between 8.00 to 8.45 metres. Lower contact very sharp and planar at 50				D 1.60 D 1.50	.01 .01	1.30 1.00		0.5-1% 0.5-1%			
	degrees to the core axis.				D 1.50	.01	.90		0.5-11			
	9.15 9.50 Pelsic feldspar crystal tuff. Light to medium mottled grey,				0 1.50	.01	1.00	-				
	with 25%, coarse (1 to 5mm), irregular, diffuse, lighter				5 1.25	.02	1.00	-	0.5%			
	coloured plagioclase phenocrysts/crystals in a medium grey,				0 1.75	.01	2.20	TRACE	2-31			
	moderately foliated/banded, fine grained, homogeneous				0 1.50	.03	3.60	-	1-23			
	groundmass with 5%, foliation parallel biotite, minor	8273	50.00	51.7	5 1.75	. 39	3.90	-	1-23			
	chlorite, and minor pyrite. No significant veining, and	8274	51.75	53.0	D 1.25	.01	1.00		0.5-11			
	lacking the irregular calcitic patches common in the more				0 1.50	.01	1.10		0.5-1%			
	tuffaceous bands. Poliation oriented at 50 to 70 degrees to				0 1.50	.04	1.10		0.5-1%			
	the core axis. Non-magnetic. Lower contact is sharp and				5.80	.03	1.00		0.5-1			
	oriented at 50 degrees to the core axis.				5 1.00	.11	.70		2-31 2-31			
	9.50 10.45 Pelsic metavolcanic ash tuff. Similar to horizon between 8.55 to 9.15m, except more chloritic than biotitic giving it a				5 1.05 0 .85	.18 .19	1.70 1.40		2-31			
	nedium greenish-grey colour. Intermottled/banded, finely				0 1.10	.04	.40	-	KINOR			
	fissile, chloritic schist, and medium grey, more siliceous				0 1.50	.02	1.00		0.5%			

ESSO MINERALS CANADA DIAMOND DRILL RECORD

Hole: HN88-41 Page: 3

Interval	Description	Sample	Interval	Length	ku	Ag	Grey	Pyrite	AL	TERATION	
(Hetres)		No.	(Hetres)	(Metres)	(g/t)	(ppm)	Ketallic	(\$)	SIL	CARB	SER

material with biotite porphyroblasts, producing several sharply bounded bands and beds of varying composition. Weak to moderately magnetic with fine magnetite locally evident. 5%, irregular wispy, discontinuous calcitic patches. Poliation/banding oriented at 50 degrees to the core axis. Lower contact is sharp and oriented at 45 degrees to the core axis.

- 10.45 12.00 Felsic metavolcanic ash tuff. Hostly similar to the green, finely fissile, chloritic schist horizons between 9.50 and 10.45m, but including a few, medium grey, siliceous bands with biotitic porphyroblasts. Moderately magnetic, with minor black, 1mm, magnetite, and 1% pyrrhotite grains evident. Foliation/banding oriented at 55 degrees to the core axis. 5%, irregular, wispy, discontinuous, calcitic patches/banding. Lover contact is a sharp bedding contact oriented at 45 degrees to the core axis.
- 12.00 13.70 Felsic metavolcanic (fine fragmental) or possibly a crystal tuff. Medium grey, hard, siliceous, mottled, coarse grained, relatively homogeneous texture. Locally appears to be composed of small (0.5 to 2cm), monolithic fragments, as shown by vague outlines of flattened clasts. However, most of this section is massive. Contains 5% biotite oriented parallel to the foliation and clast orientation at 45 to 50 degrees to the core axis. 3%, weakly calcitic patches, but not as foliated as in the more tuffaceous horizons. Minor, small (1 to 3mm), ovoid, blue guartz eyes. Lower contact poorly recovered, but appears to be sharp and planar and oriented at 45 degrees to the core axis.
- 13.70 24.25 Felsic metavolcanic ash tuff. Similar to the horizon between 9.50 to 10.45 metres. Green to greenish grey, mostly fissile, fine grained, and chloritic, with some greyer, more siliceous zones. The more chloritic sections are generally strongly magnetic with 1 to 3%, 1mm, magnetite, and often a few to 10% biotite, or a few percent dark green amphibole porphyroblasts. These porphyroblasts are generally 0.5 to 1mm in size, with biotite oriented parallel to foliation,

66.50	68.00	1.50	.03	.90	-	MINOR
68.00	69.50	1.50	.02	1.10	-	MINOR
69.50	70.75	1.25	.03	.40	-	MINOR
70.75	71.35	.60	.05	2.00	-	2-31
71.35	72.50	1.15	.02	. 40	-	0.54
72.50	73.10	.60	.01	.70	-	14
	68.00 69.50 70.75 71.35	68.00 69.50 69.50 70.75 70.75 71.35 71.35 72.50	66.50 68.00 1.50 68.00 69.50 1.50 69.50 70.75 1.25 70.75 71.35 .60 71.35 72.50 1.15 72.50 73.10 .60	68.00 69.50 1.50 .02 69.50 70.75 1.25 .03 70.75 71.35 .60 .05 71.35 72.50 1.15 .02	68.00 69.50 1.50 .02 1.10 69.50 70.75 1.25 .03 .40 70.75 71.35 .60 .05 2.00 71.35 72.50 1.15 .02 .40	68.00 69.50 1.50 .02 1.10 - 69.50 70.75 1.25 .03 .40 - 70.75 71.35 .60 .05 2.00 - 71.35 72.50 1.15 .02 .40 -

H-N PROJECT (Ont. 77)		ESSO MINERALS CAN DIAMOND DRILL REC					Hole: Page:	HN 8 8	-41 -4		
Interval (Metres)	Description		Sample No.	Interval (Metres)	Length (Metres)	λu (g/t)	λg (ppm)		Pyrite (%)	ALTERATION SIL CARB	SER

and often banded, while amphibole forms variably oriented 5%, irregular calcitic patches, and occasional, 0.5 blades. to 2cm, irregular guartz-calcite veins. Well developed fissile foliation oriented at 50 degrees to the core axis. Calcitic quartz vein/patches occur at 17.80 to 17.85 and 19.70 to 19.80m, with the latter containing minor pyrite and traces of reddish sphalerite and galena. Unit contains thin, grey, siliceous bands between 20.00 to 20.05, as well as 20.30 to 20.50m, which contain minor, fine (0.5mm), red sphalerite grains, often in thin (1 to 3mm) bands, as well as traces of galena and chalcopyrite as small grains often adjacent to thin, calcite bands/veins. Above 20.05 metres the unit contains minor to 0.5%, disseminated pyrite+/-pyrrhotite, often in concentrations as individual wispy grains along foliation surfaces. Below 20.05 the unit contains more (1 to 2%) Pe-sulphides, as well as the occasional sphalerite laminae. Sphalerite often occurs with thin (1 to 3mm), light grey, siliceous laminae that occasionally appear boudinaged. The lowest 50cm has a slight greyish colour and is more siliceous, with a greater (2 to (1) concentration of very fine pyrite, and local reddish sphalerite bands. Lower contact is sharp and planar and oriented at 50 degrees to the core axis.

24.25 25.10 Cherty (In,Fe) exhalite horizon. Well banded, medium to relatively dark reddish brownish to purplish grey, fine grained, hard, siliceous, non-magnetic and non-calcareous, although some brownish coloured bands suggest a carbonate (Fe-carb) content. 5%, biotite porphyroblasts give the horizon a foliated/banded appearance. Horizon is banded at 45 to 60 degrees to the core axis. Contains 3 to 5%, fine pyrite concentrated in foliation parallel bands, as well as fine (0.25 to 0.5mm), ovoid, reddish sphalerite, also concentrated in thin (1 to 2mm) foliation parallel bands. Non-magnetic. No significant veining. Lower contact is gradational over 10cm into a green, finely fissile, chloritic metatuff.

H-N PROJECT (Ont. 77)		ESSO MINERALS CANADA Diamond Drill Record				Hole: Page:	HN 8	8-41 5			
Interval (Metres)	Description		Sample No.	Interval (Hetres)	Length (Netres)		Grey Metallic		A SIL	LTERATION CARB	SER

- 25.10 32.30 Pelsic metavolcanic flow/tuff. Medium greenish-grey, fine grained, fissile, hard, very felsic, homogeneous unit. Has a slight green colour due to fine chlorite?, but probably contains very little chlorite. Unit also contains 5 to 10% biotite porphyroblasts, that are foliation parallel and often segregated into foliaton parallel laminae. Unit locally exhibits a fine overprinting of variably oriented amphibole porphyroblasts. Very planar, fissile, foliation oriented at 55 to 60 degrees to the core axis. Minor calcitic banding, that is much more regular, foliation parallel, and not as common as in the overlying tuff horizons. 1 to 2%, very finely disseminated pyrite. Minor, thin (1 to 3mm), subplanar, often foliation parallel and slightly boudinaged, guartz+/-calcite veinlets, locally with a green epidote colour. Hard competent unit, generally with 0.5 to 2m breakage parallel to the foliation. Unit contains a few, thin (0.5 to 1cm), grey, cherty bands near 28 metres, locally with hematitic (jasper) colour. One thin cherty laminae at 29.60m contains minor sphalerite.
- 32.30 32.55 Felsic metavolcanic fragmental/pyroclastic (definite fragmental texture). Vari-coloured medium green-grey colours, with abundant (30%), small (1mm to 2cm), polylithic all felsic volcanic), flattened to subrounded (though fragments/clasts. Larger clasts are broken and fractured. Clasts are medium grey, hard, fine grained, siliceous, and probably originate from tuffaceous matrix material having a composition much like the overlying units. Unit is well laminated/banded with pebbles oriented parallel to foliation/bedding at 50 to 55 degrees to the core axis. Pebbles appear to be moderately (3:1) flattened. Unit contains 2%, finely disseminated pyrite, often concentrated along foliation laminae. Ninor irregular calcitic patches/lenses. Sharp lower contact oriented at 55 degrees to the core axis.
- 32.55 33.75 Felsic feldspar crystal tuff (Possibly an intrusive dyke). Similar to unit between 9.15 to 9.5 metres. Light to medium

PROJECT (Ont. 77)		ESSO MINERALS (Diamond drill s				Hole: Page:	HN 8	8-41 5			
Interval {Hetres}	Description		San, N	l Length) (Netres)	Au (g/t)	λg (ppm)	Grey Netallic	Pyrite (%)	AL SIL	TERATION CARB	SBR

mottled grey, with 20%, small (1 to 4mm), subhedral and somewhat corroded looking, light grey-white plagioclase phenocrysts/crystals in a fine grained, siliceous, medium grey matrix, also containing 5%, fine biotite, and 1% finely disseminated pyrite. Relatively massive and homogeneous unit, with weak foliation due to aligned biotite oriented at 50 to 55 degrees to the core axis. Non-magnetic and non-calcareous. No significant veining. Hard, competent unit. Lower contact is a sharp planar surface oriented at 65 degrees to the core axis.

33.75 35.25 Felsic metavolcanic fragmental/fine pyroclastic. Identical to section between 32.30 32.55m, with slightly greater (50%) percentage of fragments/clasts, and several larger fragments that are up to lcm wide and extend across the core width. Relatively sharp upper and lower contacts oriented at 50 degrees to the core axis.

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- 35.25 35.50 Felsic feldspar crystal tuff. Identical to unit between 32.55 33.75 metres.
- 35.50 38.80 Felsic metavolcanic. Fine fragmental/pyroclastic unit with minor cherty exhalitive bands. Hedium grey to browns, with nottled subdued appearance, but locally exhibiting a subdued clastic/pyroclastic appearance with abundant fine (1 to 20mm) and the occasional larger fragment. Pragments are polylithic, felsic in composition, and flattened, occasionally with flamed edges (welded tuff?). Unit is non-magnetic. Unit has a pervasive siliceous appearance which may account for the subdued/vague definition/outlines of clasts/fragments. Clasts are usually greyer and more siliceous, while matrix material is biotitic. Good foliation and parallel alignment of fragments at 65 to 70 degrees to the core axis. A few bands are light grey and partially laminated with a cherty appearance. Unit contains 1% finely disseminated pyrite. Unit also contains traces of finely disseminated galena, and a few thin, foliation parallel laminae containing yellowish red to brownish sphalerite. An irregular guartz lense/vein between 37.50 to 37.55m contains

H-N PROJECT (Ont. 77)		ESSO MINERALS CANADA DIANOND DRILL RECORD				Hole: Page:	HN 8	8-41 7			
Interval (Metres)	Description	Sample No.	Interval (Netres)	Length (Hetres)	-		Metallic		SIL	TERATION CARB	SER

20%, irregularly anastomosing and finely networking yellowish-brown sphalerite. Another irregular guartz vein/lense between 35.90 to 36.00m contains a few percent more disseminated green sphalerite, and minor coarse galema. Ninor sphalerite occurs in foliation parallel laminae in the wallrock adjacent to this vein/lense. Unit contains minor, calcitic veining/banding, but more foliation parallel, and not as patchy or irregular as in the finer grained felsic tuffs in upper part of this hole. Lower contact is gradational.

- 38.80 39.40 Felsic metavolcanic. Pine fragmental/pyroclastic unit. Gradational change from the overlying unit into a more biotitic and less fragmental zone, but essentially the same unit. Well developed planar, fissile foliation oriented at 55 degrees to the core axis. Lower contact is sharp and planar and oriented at 55 degrees to the core axis.
- 39.40 46.75 Pelsic metavolcanic feldspar-quartz crystal tuff. Similar to overlying crystal tuff units. Medium grey, hard, homogeneous unit with 15 to 20%, light grey, 1 to 3mm, subhedral to corroded plagioclase crystals, and lesser, smaller (1 to 2mm), ovoid, bluish quartz eyes in a finer grained, weak to moderately foliated groundmass with 5% foliation parallel biotite. Central section of this unit contains fewer plagioclase crystals and appears somewhat similar to overlying grey tuff units. 0.5 to 1%, fine pyrite, often concentrated along wispy, biotitic, foliation parallel surfaces. Hard competent unit, generally with 30 to 100cm breakage. Unit includes one irregular quartz vein from 43.00 to 43.20m with coarse, clean, slightly smokey to clear quartz. Lover contact is sharp and planar and oriented at 50 degrees to the core axis.
- 46.75 48.50 Pine felsic metavolcanic fragmental/pyroclastic schist. Same as unit between 35.50 to 38.80m, but lacking any cherty bands although many fragments/clasts have siliceous/cherty composition giving the entire unit a siliceous appearance. Hedium grey to green, composed mostly of small (0.5 to 2cm),

H-N PROJECT (Ont. 77)		ESSO MINERALS CANA DIAHOND DRILL RECO				Hole: Page:	HN88	8-41 8				
Interval (Hetres)	Description		Sample No.	Interval (Hetres)	Length (Metres)	λg (ppm)	Grey Metallic		AL' SIL	TERATION CARB	SER	

- flattened pebbles/fragments with a somewhat monolithic felsic volcanic composition, in a brownish green, fine, siliceous matrix also containing minor to a few percent chlorite, epidote, biotite and pyrite. Well developed planar fissile foliation, and parallel fragment/pebble flattening orientation at 50 degrees to the core axis. Hard, siliceous, non-magnetic unit. 2 to 3%, very finely disseminated pyrite, as vispy to elongate grains oriented parallel to the foliation. No significant veining. Unit contains traces of very fine galena often associated with whitish grey, siliceous pebbles, or silicified matrix bands/laminae. Lower contact is gradational over a cm or so into a more even textured, fine lithic/ash? tuff.
- 48.50 51.75 Pelsic to intermediate metavolcanic flow/tuff. Similar to unit between 25.10 to 32.30m, but slightly less felsic and Hedium greenish-grey, fine grained, hard, fissile. moderately felsic, moderately fissile, very homogeneous unit. Unit locally exhibits a brownish grey colour. Green sections due to minor chlorite and epidote, while brown sections are due to 5%, fine biotite porphyroblasts. Unit contains no amphibole porphyroblasts. Unit locally exhibits a fine grained (0.25 to 0.5mm), volcanic flow texture. Minor calcitic veining, generally as discontinuous lenses to thin (1 to 3mm), subplanar veins, but there are no irregular calcitic patches as is common in overlying tuff horizons. Weak to moderately magnetic. 1 to 2% finely disseminated pyrite. Ninor epidote, often along hairline crackling. Small quartz veinlet at 51m has partial red (jasper) colouring. Upper zone contains two, large (5 to 10cm), subrounded, feldspar crystal tuff cobbles/fragments, that exhibit a slight flattening and flamed edges. These occur directly beneath upper contact zone. Hard competent unit. Upper contact is gradational. Lower contact is sharp, planar and oriented at 70 degrees to the core axis.
- 51.75 60.95 Felsic metavolcanic feldspar crystal tuff. (Possibly an intrusive dyke). Nottled, medium grey, with local salmon

		AMOND DRILL RECORD			Page:		9			
Interval (Metres)	Description	Sample No.	Interval (Hetres)	Length (Metres)	Ag (ppm)	Grey Metallic	Pyrite (\)	ALTERATION SIL CARB	SER	

Holes

HN88-41

RSSO NUMERALS CANADA

pink alteration/colouration, generally along fractures. 5 to 104, small (1 to 3mm), subhedral to corroded plaqioclase crystals, and minor, ovoid, quartz in fine grained to aphanitic, weak to moderately foliated groundmass that also contains minor biotite and pyrite. Poliation oriented at 55 to 60 degrees to the core axis. Unit exhibits some variations in composition and grain size, including several lithic fragments suggesting the unit is a felsic crystal tuff as opposed to porphyritic dyke. Minor, thin (lmm), calcite and quartz-carbonate veinlets/lensing. Much of unit exhibits a weak crackle fracturing, locally with a slight salmon pink alteration/colouring. A few fractures are coated with thin (lmm), slightly greenish, icing-sugar calcite material. Non-magnetic. No significant veining. Hard, competent unit, with 25cm to 1m breakage, generally along foliation subparallel, planar, fractures. Lower contact is sharp and planar at 70 degrees to the core axis.

60.95 73.10 Intermediate metavolcanic flow.

H-N PROJECT (Ont. 77)

- 60.95 61.95 Dark brownish green-grey, fine grained, chloritic with minor biotite, homogeneous, hard, weak to moderately foliated, strongly magnetic, weak to moderately calcareous. Unit has a weak silicified appearance, and locally contains minor, small (hairline to 1mm), irregly branching, discontinuous, white to purplish red (jasper), silica veinlets. 2 to 34, finely disseminated pyrite, concentrated along foliation parallel laminae, giving unit a laminated/sulphide banded appearance. Poliation and pyritic laminae are oriented at 50 degrees to the core axis.
- 61.95 62.00 Fault Zone. Recovered 5cm of white to light green, calcitic, clay fault gouge, containing numerous small (1 to 5mm), angular, altered/partially decomposed volcanic fragments. Upper and lower contacts are poorly recovered, but appear to be parallel to the foliation at 50 to 55 degrees to the core axis.
- 62.00 63.90 Similar to section between 60.95 to 61.95m, but carbonate altered and biotitic, probably due to proximity to fault.

		DIAMOND DRILL RECORD		I	Page:		10		
Interval (Hetres)	Description	Sample No.	Interval (Metres)	λu {g/t}		Grey Metallic	Pyrite {%}	ALTERATION SIL CARB	SER

ESSO HINERALS CANADA

HN88-41

Hole:

Dark brownish grey, very fine grained, hard, biotitic, homogeneous, non to weakly magnetic, with weak to moderately phyllitic foliation. Has a pervasive silicified appearance, but exhibits 5%, irregular, criss-crossing (network), hairline, calcitic fractures with thin (hairline to 5mm), light tan-grey carbonate alteration adjacent to fracturing. 2 to 3%, finely disseminated pyrite, concentrated along thin, foliation parallel laminae. Phyllitic foliation and pyritic laminae are generally oriented at 40 to 45 degrees to the core axis. Section also contains a few, thin (1 to 3mm), foliation parallel, calcitic, pyritic bands/laminae occasionally containing minor amounts of sphalerite. Wo significant veining.

H-N PROJECT (Ont. 77)

- 63.90 72.50 Relatively unaltered, dark green, chloritic, fine grained, magnetic, homogeneous, weakly to moderately strongly phyllitic, intermediate to mafic metavolcanic flow. Good intergrown plagioclase-ferromagnesian volcanic flow texture is locally evident. Section includes a few zones with brownish colouration due to biotitic content, and minor silicification producing zones similar to that between 62.00 to 63.90m. These zones occur between 68.50 to 68.65m, and 70.75 to 71.35m, and have gradational contacts. Minor brown sphalerite occurs in two, thin (5mm), quartz-calcite bands that are oriented parallel to foliation. Dark green, chloritic sections locally exhibit small amphibole porphyroblasts with irregular orientations. Minor, thin (1 to 5mm}, guartz+calcite veining, often oriented subplanar to foliation. Generally hard, competent unit, with 25 to 100cm breakage, but including a rubble zone between 72.35 to 72.75 metres.
- 72.50 73.10 Similar to section between 62.00 to 63.90 metres. Dark brownish grey, fine grained, hard, silicified, homogeneous, non to very weakly magnetic, with weak to moderate foliation oriented at 45 degrees to the core axis. Lower contact is a sharp, planar intrusive contact oriented at 45 degrees to the core axis.

PROJECT (Ont. 77)	ESSO MINERALS CAN Diamond Drill Rec				Hole: Page:	HN88-41 11	
Interval (Metres)	Description	Sample No.	Interval (Ketres)	λu (g/t)	Ag (ppm)	Grey Pyrite Metallic (%)	ERATION CARB

- 73.65 74.15 Irregularly swirled and moderately silicified, more massive intrusive dyke including large mafic metavolcanic inclusion. Intrusive is generally medium grey, aphanitic, with 15 to 20%, 1 to 3mm, white, subhedral, plagioclase phenocrysts.
 1% pyrite. 5% irregular, calcite veining, particularly common near and within the mafic volcanic inclusion.
- 74.15 74.40 Shear foliated and silicified edge of intrusive dyke, with foliation oriented at 45 degrees to the core axis. Upper and lower contacts are relatively sharp and oriented at 45 degrees to the core axis.

74.10 85.20 PLAIGIOCLASE-CHLORITE-AMPHIBOLE SCHIST

Intermediate to mafic metavolcanic flows.

Dark green to brownish green, marbled looking unit, due to irregular calcitic vein patches, as well as biotitic and amphibolitic porphyroblastic zones.

Groundmass is normally a dark green, very fine grained, chloritic, weakly to moderately phyllitic, with some greyer more siliceous (felsic to intermediate), fine grained sections, and some brownish, biotitic, fine grained sections.

Unit locally contains 0.5 to lmm, magnetite porphyroblasts.

Locally the fine grained zones contain irregular, buckshot to weakly banded, relatively coarse (1mm), reddish brown, biotite porphyroblasts (generally 1 to 5%, and locally to 30%), as well as minor to a few percent, 1mm, randomly oriented amphibole porphyroblasts.

Unit contains 5 to 15%, and locally (over a few cm) 50%, irregular to almost stockwork, calcitic patches that are somewhat aligned parallel to the foliation direction.

Foliation oriented at 55 to 56 degrees to the core axis.

NS	74.40	85.20	10.80	n/a	n/a	•	KINOR
8291	74.40	75.50	1.10	.01	. 40	-	MINOR
8292	75.50	77.00	1.50	.01	.40	-	MINOR
8293	83.00	84.50	1.50	.02	.50	-	MINOR
8294	84.50	85.20	.70	.02	1.00	-	MINOR

H-N PROJECT (O	nt. 77} ESSO MINERALS CANAD DIAMOND DRILL RECOR					Kole: Page:	HN 8	8-41 12		•	
Interval (Netros)	Description	Sample	Interval (Netres)	Length (Netres)	Au (a/t)	Ag (nom)	Grey Wetallic	Pyrite	ALT		SER
85.20 86.05	No significant veining. Minor pyrite. Competent unit, with 25 to 150 cm breakage. Lower contact is sharp and planar and oriented at 65 degrees to the core axis. FELDSPAR CRYSTAL/LAPILL1 TUFF Similar to unit between 12.00 to 13.70 metres. Medium grey with slight coarse grained mottled appearance. Hard, siliceous, homogeneous, with massive to weakly foliated texture. Massive sections exhibit very poorly defined, 1 to 3mm, white plagioclase, and guartz crystals with corroded/resorbed edges in medium grey matrix. Finer grained, grey, weakly foliated zones contain 5%, fine, foliation parallel biotite. Foliation oriented at 55 degrees to the core axis. Minor calcitic veinlets, generally oriented parallel to foliation. Upper and lower contacts are sharp and planar and oriented at 65 and 60 degrees to the core axis.		85.20 86.0 85.20 86.0		n/a .01	n/a 1.40	-	NINOR Minor			
86.05 89.35	PLAIGIOCLASE-CHLORITE-AMPHIBOLE SCHIST Intermediate to mafic metavolcanic flow unit, similar to unit between 74.40 to 85.20 metres. Nostly fine grained and chloritic, except for thin (10 to 50cm), blotitic, upper and lower contact zones that contain magnetite, blotite, and amphibole porphyroblasts, as well as 10 to 15% calcitic patches. Poliation oriented at 55 degrees to the core axis. Lower contact is transitional.	8296	86.05 89.3 86.05 87.5 87.50 89.3	0 1.45	n/a .04 .01	n/a 1.00 .40	-	MINOR HINOR HINOR			
89.35 94.45	FELDSPAR CRYSTAL/LAPILLI TUFP Similar to unit between 85.20 to 86.05 metres. Medium grey, with mottled coarse grained appearance, locally exhibiting a well developed weakly foliated, crystal tuff texture. Contains several percent, 2 to 4mm, ovoid, blue guartz eyes. Non-magnetic, and very	8298 8299	89.35 94.4 89.35 90.1 90.10 91.0 91.00 92.0	0.75 0.90	n/a .02 .05 .01	n/a .50 1.20 1.00	- - -	HINOR HINOR HINOR HINOR HINOR			

PROJECT (C	Dnt. 77) BSSO MINBRALS CANAD DIAMOND DRILL RECOR						Hole: Page:	HN 8	8-41 13			
Interval (Netres)	Description	Sample No.	Inte (Net	rval res)	Length (Netres)	Au (a/t)	Ag (nom)	Grey Metallic	Pyrite (%)	۸L STL	TERATION	S
	 weakly calcareous. Upper zone between 89.35 to 90.10m is transitional between overlying intermediate to mafic metavolcanic, and this unit. Medium to dark grey, with moderate chlorite/biotite foliation/banding oriented at 50 degrees to the core axis. Lower zone between 93.45 to 94.45m may partly include exhalative chert/carbonate component. Grey to tan, locally finely laminated, with very fine grained, cherty/carbonate bands having planar contacts parallel to foliation at 50 degrees to the core axis. Unit contains minor calcitic veinlets and fracturing, but is generally a very homogeneous unit and except for upper and lower contact zones contains very minor porphyroblasts. Central section contains minor fine blotite producing a weak foliation oriented at 55 degrees to the core axis. Hinor disseminated pyrite, except for 1 to 24 in the lower cherty carbonate zone which also contains minor amounts of brown-red sphalerite. No significant veining. Hard, competent unit, generally with 50 to 100 cm breakage often parallel to foliation. 				1.45				MINOR 1-2%			
4.45 103.5	 5 PLAIGIOCLASE-CHLORITE-AMPHIBOLE SCHIST Intermediate to mafic metavolcanic. Dark green-black, very fine grained, chloritic, very hard, with minor, thin (1 to 2cm), patches/bands of 1mm, biotite porphyroblasts, and minor, scattered, 1mm, dark green, amphibole porphyroblasts. Unit is relatively homogeneous, strongly magnetic, weakly phyllitic, and foliated at 55 degrees to the core axis. 5 to 10%, irregular, somewhat foliation subparallel, calcitic mottling. 1 to 2%, wispy laminated/disseminated pyrite as well as minor pyritic laminae bands with minor red sphalerite. 98.95 99.35 Coarse grained, white quartz vein oriented at 25 degrees to the core axis. 99.35 99.95 Ione adjacent to quartz vein. Well banded, medium brownish to purplish grey, with abundant (3 to 5%), finely laminated pyrite as well as foliation parallel calcitic veinlet bands 	8303 8304 8305 8306 8306 8308 8309 8310 8311	94.45 95.00 98.00 98.95	95.00 96.00 98.95 99.35 99.95 101.00 101.65 102.05 102.90	.95 .40 .60 1.05 .65 .65 .40 .85	.01 .01 .01	1.40 .50 .40 .90		1-24 2-38 HINOR 1-28 TRACE 2-38 1-28 1-28 1-28 0.5-18 2-38			

-N PROJECT (C	int. 77) ESSO MINERALS CANAD DIAMOND DRILL RECOR					Hole: Page:	HN 8	8-41 14		
Interval {Ketres)	Description	No.		(Netres)	(g/t)	λg (ppm)		Pyrite (%)	ALTERATION SIL CARB	SBR
103.55 109.65	and red sphalerite. Zone exhibits gradational change to green metavolcanic. 101.70 102.00 And 102.90 103.55 Both bands are more biotitic, coarser grained, moderately schistose to vell foliated, with abundant (3 to 6%), finely disseminated/laminated pyrite and minor red sphalerite, as well as minor, irregular, coarse, calcite fractures with sphalerite (1%) at contacts. Competent, hard unit with 25 to 50 cm breakage generally along foliation surfaces. Irregular lower contact along calcite fractures with sphalerite mineralization. FELDSPAR CRYSTAL/LAPILLI TUFF Hedium mottled grey to greenish grey, coarsely textured, locally with subdued crystal tuff texture, and locally with subdued, fine (1 to 10mm), flattened, mostly monolithic lapilli tuff texture. Locally exhibits more massive, greenish (sericitic and carbonate) alteration, bedding and alteration banding are moderately developed at 55 to 60 degrees to the core axis.	8313 1(8314 1) 8315 1(8316 1) 8316 1	03.55 109.65 03.55 104.00 04.00 105.50 05.50 107.15 07.15 107.45 07.45 108.50 08.50 109.65	.45 1.50 1.65 .30 1.05	n/a .01 .01 .02 .01 .01	n/a 1.00 .90 1.10 3.00 1.80 n/a	-	HNR-1% Minor Minor Minor 1% 1%		
	Non-magnetic. Ninor calcitic patches and fracturing. No significant veining, except one, 5cm, white, quartz vein oriented at 45 degrees to the core axis between 105.25 to 105.30 metres. Ninor to 1%, finely disseminated to wispy laminated pyrite. Ninor, coarse (1mm), yellowish orange to reddish sphalerite in irregular, but foliation subparallel bands. Relatively hard, competent unit, with 10 to 50cm breakage, generally parallel to foliation. Lower contact is gradational.									

109.65 112.05 ASH TUFF / FINE LAPILLI TUFF Somewhat similar to biotitic and chloritic ash tuffs in upper part of hole , ,

N PROJBCT (C	ont. 77) ESSO MINERALS CANAD DIAMOND DRILL RECOR					Hole: Page:	H N 8	8-41 15		
Interval (Hetres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppn)	Grey Metallic	Pyrite (%)	ALTERATION SIL CARB	SEI
	 Brown, fine grained, non-magnetic to weakly magnetic, biotitic, even texture, phyllitic unit with some grey, irregular, more siliceous bands. 5%, Irregular networking patches of calcite as was typical in tuffs in upper part of hole. Moderate phyllitic foliation, and weak banding oriented at 55 to 65 degrees to the core axis. 0.5 to 1%, finely disseminated to wispy laminated pyrite grains. Minor red sphalerite, often along irregular, hairline, late fractures. Minor, irregular, guartz blebs (1 to 5mm), locally with pyrite and trace galena. Unit is moderately broken into 1 to 20cm pieces, generally parallel to phyllitic foliation. Lower contact is a sharp planar surface oriented at 75 degrees to the core axis. 		.09.65 111.00 111.00 112.50			.60 1.50		0.5-1%		
12.05 119.4	5 QUARTZ-FELDSPAR CRYSTAL TUFF Unit locally has a felsic intrusive dyke-like appearance. Mottled medium grey, slightly pinkish coloured, with porphyritic appearance although this is probably a crystal tuff. 10%, large (3 to Smm), white, subhedral plagioclase crystals and 2%, large (2 to 4mm), ovoid, blue quartz eyes in wavy a foliated, coarse grained (0.5 to 2mm), plagioclase/quartz matrix containing minor (5%) blotite. Matrix appears slightly augen gneissic. Relatively homogeneous unit, although some banding of crystal richer and crystal poorer zones occurs. Hard, non-magnetic, very weakly calcareous, with foliation oriented at 60 degrees to the core axis. Locally, some quartz eyes exhibit calcite in pressure shadows. Minor disseminated pyrite. No significant veining. Hard, competent unit with 5 to 50cm breakage generally parallel to foliation. Upper and lower contacts are sharp and planar and oriented at 75 and 65 degrees to the core axis respectively.	8321 1 8322 1	112.05 119.45 112.50 114.00 114.00 115.00 118.00 119.45	1.50 1.00	n/a .12 .02 .01	n/a .90 1.10 1.10	-	HINOR MINOR MINOR WINOR		

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-N PROJECT (O	nt. 77) ESSO MINERALS CANAI DIAMOND DRILL RECON							Hole: Page:	KNE	8-41 16			
[nterval (Ketres)		Sample No.	1	nterval Netres)	Ler (Net	ngth tres 1	Au (g/t)	Ag (maa)	Grey Ketallio	Pyrite	SIL	LTERATION CARB	SE
119.45 139.80	PLAIGIOCLASE-CHLORITE-ANPHIBOLE SCHIST												
	Intermediate to mafic metavolcanic.			45 139.						INR-0.5			
	Dark green-grey to slightly brownish grey, very fine grained, chloritic,			45 121.						MINOR			
	moderately to strongly magnetic, weakly phyllitic, relatively			00 122.						0.5%			
	homogeneous unit. 5 to 10%, vague, patchy networking, or irregular, discontinuous calcite			85 123. 30 125.				3.10 .50		2-3% Hinor			
	forming irregular cloud patterns.			00 126.				.50		0.5%			
	Also minor (1 to 2%), poorly formed, concentric filled, irregular			50 133.						0.5%			
	fractures often with central white-grey silica that is bounded by bluish			50 134.					-				
	grey calcite, and locally by minor, red (jasper) silica bands containing			50 135.				.40					
	pyrite. These also form irregular (1 to 10cm) patches.	8332	135.	00 136.	00 1.	.00	.03	2.20	•	3-51			
	Poliation and calcitic patches generally oriented at 55 to 65 degrees to			00 137.				.30		0.5%			
	the core axis.			00 138.						0.51			
	Ninor, 1 to 5 cm guartz veins.	8335	138.	50 139.	80 1.	.30	.01	.80	-	15			
	Ninor to 0.5%, finely disseminated and wispy laminated pyrite, as well as some thin (5 to 25 cm) zones containing 2 to 4% pyrite.												
	One zone of pyritic, brownish carbonate altered material between 135.5												
	and 136.00m has appearance similar to felsic metavolcanics of the												
	underlying unit.												
	Competent unit with 10 to 50 cm breakage, generally along planar												
	fractures (often with calcite coatings) variably oriented at 45 to 90												
	degrees to the core axis.												
	Lover contact sharp and planar at 70 degrees to the core axis, but												
	contact zones to either side exhibit alteration effects and are somewhat												
	different than the main parts of unit.												
139.80 147.40	FELDSPAR CRYSTAL/LAPILLI TUFF												
	Light to medium greenish grey, generally weak to moderately sericitic and	NS	139.	80 147.	40 7.	.60	n/a	n/a	-	0.5-1%			
	weakly carbonate altered, with mottled coarse grained, and weak to			80 141.			.01	1,10	-	11			
	moderately laminated/banded texture. Unit contains 2 to 4%, 1 to 3mm,			00 142.			.01	.70		0.5%			
	ovoid, blue quartz eyes.			00 143.			.02	1.00	-	0.5%			
	Well developed sericitic cleavage, parallel to foliation at 65 degrees to			20 144.			.01	1.00	-	0.5%			
	the core axis. Non-magnetitic, and weakly reactive to HCl.			50 145. 00 146.			.03 .01	.80 .70	TRACE	TRACE 1%			
	VAN-maincritit and meakly tearlise in UP1.	0341	1434	.vv 110.	VV 1,		101	. 10	11111	14			

-N PROJECT ()	Ont. 77) ESSO MINERALS CANA DIAMOND DRILL RECO				Hole: Page:	HK \$	8-41 17		
Interval {Netres}	Description	Sample Interval No. (Netres)	Length (Netres)		Ag (ppm)		Pyrite (%)	ALTERATION SIL CARB	SEI
	Cut by several, large (1 to 50cm), coarse grained, white, clean quartz veins, generally at shallow (20 to 40 degree) angles to the core axis, but veins are also somewhat irregular and branching. 0.5 to 1%, finely disseminated and wispy laminated pyrite. Moderately broken unit, with 2 to 15cm breakage along sericitic cleawage surfaces. Transitional lower contact, into more mafic, chloritic tuffs.	8342 145.00 147.	40 1.40	.01	1.60	-	1-28		
47.40 180.7	 0 PLAIGIOCLASE-CHLORITE-AMPHIBOLE SCHIST Intercalated mafic and felsic tuffs. Alternating, thick (several metre) bands of dark green, chloritic, fine grained, weakly phyllitic and laminated, magnetic, pyritic (2 to 44), mafic metavolcanic tuffs, and medium grey to green, sericitic and carboante altered, well foliated/laminated, fine grained, pyritic, non-magnetic, felsic metavolcanic tuffs. Pelsic tuffs exhibit tuffaceous banding, but only locally have quartz eyes (not the typical blue ovoid grains), and appear more pyritic and carbonate altered than the overlying felsic metavolcanics. More felsic sections contains some thinner (10 to 50cm), more mafic bands, and more mafic sections contain a few, thin (10 to 50cm), more felsic bands. Contacts between sections are somewhat gradational. 147.40 149.90 Hafic metavolcanic tuff. 153.85 760 Mafic metavolcanic tuff. 153.85 Yelsic carbonate altered metavolcanic tuff. 153.85 Yelsic metavolcanic tuff. 153.61 Section Mafic metavolcanic tuff. 154.25 Mafic metavolcanic tuff. 170.40 Felsic metavolcanic tuff. 172.60 Nafic metavolcanic tuff. 172.60 Nafic metavolcanic tuff. 173.50 Feldspar Porphyritic Quartz Diorite Dyke. Hedium grey, feldspar porphyritic lutursive dyke. 173.50 180.70 Mafic metavolcanic tuff, including vell laminated/banded zones, and minor, greenish yellow, (limonitic?) weathered pyrite. Well developed lamination/foliation oriented at 55 to 65 degrees to the 	NS 147.40 180. 8343 147.40 149. 8344 149.00 149. 8345 149.90 152. 8346 152.00 153. 8347 153.00 153. 8348 153.85 155. 8349 164.00 165. 8350 165.50 167. 8351 176.00 177. 8352 177.50 179. 8353 179.00 180.	00 1.60 90 .90 00 2.10 00 1.00 85 .85 00 1.15 50 1.50 00 1.50 50 1.50 00 1.50 50 1.50 00 1.50	n/a .01 .01 .01 .01 .01 .01 .01 .06	n/a .70 .50 .60 .20 .60 1.90 2.30 2.50		2-43 3-45 18 28 5-85 28 3-45 3-45 2-35		

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H-N PROJECT (C	ont. 77) BSSO MINERALS CANAD DIAMOND DRILL RECOR					Nole: Page:	HN	18-41 18		
Interval (Metres)	Description	Sample No.	Interval (Ketres)		λu (g/t)			Pyrite : (%)	TERATION CARB	SER
180.70 185.1	 core axis. Bntire unit contains 2 to 4%, finely disseminated pyrite, locally concentrated as vispy grains along planar horizons parallel to foliation. Minor, thin (1 to 5cm), irregular quartz lenses/veins, locally with minor orange-red jasper veinlets. 165.70 165.85 Large quartz vein with irregular contacts oriented at 50 degrees to the core axis. Generally 5%, irregular, patchy networking of calcite mottling throughout unit. Generally moderately competent unit, with 5 to 25cm breakage parallel to foliation at 60 degrees to the core axis. Lower contact is sharp but poorly recovered. 5 FELDSPAR CRYSTAL/LAPILLI TUFF Light to medium grey to pinkish grey, mottled, coarse grained, sericitic crystal tuff, locally with tuffaceous, augen-gneissic foliated texture, but generally fairly massive. Yeak foliation oriented at 45 to 55 degrees to the core axis. Kinor to 0.5% finely disseminated pyrite. No significant veining. Relatively competent unit, with 10 to 50cm breakage along irregular fractures. Lower contact is sharp and oriented at 80 degrees to the core axis. 		80.70 185.1 80.70 182.0		n/a .05	n/a 1.00	:	0.5% Hinor		
185.15 221.00	D ASH TUFF / FINE LAPILLI TUFF Interbanded ash and fine quartz-feldspar crystal tuffs, locally exhibiting graded bedding. Light to medium grey to green, well laminated, non-magnetic, weak to moderately calcitic. Poliation and banding oriented at 70 to 85 degrees to the core axis. Locally contains zones with brownish mustard or emerald green coloured laminae. Minor quartz-calcite veining. Generally 1 to 2%, finely disseminated pyrite, but locally up to 3 or 4%	8355 1 8356 1 8357 2	85.15 220.5 86.50 188.0 88.00 189.5 18.00 219.5 19.50 220.5	0 1.50 0 1.50 0 1.50	n/a .13 .15 .08 .10	n/a 1.70 2.10 1.30 1.40	TRACE	1-3% 1-2% 2-3% 2-3% 1-2%		

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H-N PROJECT (O	nt. 77) ESSO MINERALS CANA DIAMOND DRILL RECO				Hole: Page:	HN 8	8-4 <u>1</u> 19		_	•
Interval (Netres)	Description	Sample No.	Length (Netres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	AL SIL	TERATION	SER
	concentrated along bedding laminations. Unit has weak to moderte sericitic, and slightly lesser carbonate altered appearance. Unit locally exhibits minor folding of laminations adjacent to veining. Relatively clean, homogeneous unit. Moderately competent unit, generally with 5 to 50cm breakage along foliation/bedding planes, but locally more broken into thin discs, and/or 1 cm pieces. Lover contact not encountered. End of Hole.									

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ESSO	MINER	ALS (CANADA
SU	MMARY	DRILL	LOG

CM88-6-(-236

Project Name: <u>HN</u>

Project Number<u>1677</u>

NTS: 42H/8

Logged	By :	Dane Bridge
	U)	

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Date: October 1988

Hole Number :_________

Location	L32+00W,	5+258
	the second s	

Cloim Number: L-872267 Length (m) : <u>155</u>

PURPOSE: Test elevated IP chargeability anomaly in broad magnetic low.

From	То	Description	Gold Assays
(m)	(m)	CASING REMOVED	(g/tonne)
0.00	7.00	Overburden	
7.00	8.45	Mafic Metavolcanics	Not Assayed
8.45	19.90	Feldspar Porphyry Dykes (Two Phases) 20% white plagioclase phenocrysts in fine-grained groundmass with biotite, cut by a finer-grained phase. Minor pyrite.	0.01 (3)
19.90	32.85	Mafic Metavolcanics Dark green, very weakly magnetic basalt. Trace pyrite, pyrrhotite.	Not Assayed
32.85	34.50	Feldspar Porphyry Dyke As above	Not Assayed
34.50	155.00	Mafic Metavolcanics Mainly aphanitic, non-magnetic basalt. Minor siltstone interbeds and biotitic basaltic tuff or mafic sediments. Minor calcite veining. Trace pyrite	0.01 (1)
	155.00	END OF HOLE	
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H-W PROJECT (Ont. 7	7}	ESSO MINERALS CANAD. Diamond drill recor						Hole: Page:	HN	88-42 1				
Drilled by: Hole Size:	Bradley Bros. Limited. BQ	Azimuth: 18 Dip: -4	-					Claim N Grid:	o: L-I Ves	872267 st				
ore Size: asing:	BQ Casing Removed							Basting Northin	g: 51	100¥ 1258				
Started: Pinished:	Oct. 21, 1988 Oct. 22, 1988	Acid Tests: Depth Az. Di	D					Blevati Purpose		Level Test weak IP response in Wag lo				
ogged by:	Dane Bridge	7.00 -45. 107.00 -41.	0 5					Length:	15	5.00Netre	:5			
ate logged: .ogging Method: leasurement System:	October 1988 Log II Metric	155.00 -38.)					Hor. Pr	roj: 10 oj: 11 pth: 4	5.0 Netre	5			
[nterva] {Netres}	Description		Sample No.	Inter (Netr	val L (M	length (etres)	Au (g/t)	Åg (ppm)	Grey Metalli	Pyrite c (%)	ALT SIL	BRATION CARB	SE	
.00 7.00 OVER	BURDEN													
Wafi	C MBTAVOLCANIC FLOWS (PB THOLBIITB) c volcanic. Very dark green, fine g morphic hornblende. 1% calcite veinlets. Wo		NS	7.00	8.45	1.45	n/a	n/a	-	TRACE				
	SPAR PORPHYRITIC QUARTE DIORITE INTRUSIVE -		80	8.45	18 80 1	13 46	n/a	•/>	_	NINOR				
	• • • • • • • • • • • • • • • • • • • •								-					
	16.55 Main, earlier phase. Pine grained, f disseminated biotite. 20%, 1 to plagioclase phenocrysts. Local, min	Sam, anhedral to subhedral	8359	11.00 13.00			.01 .01	.90 1.10	-	NINOR 11				

19.20 19.90 Same as earlier phase between 4.45 to 16.55. Lower contact oriented at 80 degrees to the core axis.

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H-N PROJBCT (O	Dat. 77) ESSO MINERALS CANAD DIAMOND DRILL RECOR						Nole: Page:	HW	18-42 2		
Interval {Hetres}	Description	No.	(Net	res)	Length (Netres)			Grey Netalli	Pyrite : (\)	ALTERATION SIL CARB	SER
19.90 32.85	5 MAFIC XETAVOLCANIC PLOWS (PB THOLBIITE) Nafic volcanic. Fine grained, very dark green basalt. Very weakly foliated. 10%, fine acicular hornblende. 1%, irregular calcite-quartz veining. Very weakly magnetic. Trace pyrrhotite and pyrite.	¥S	19.90	32.85	12.95	n/a	n/a	-	TRACE		
32.85 34.50	D PBLDSPAR PORPHYRITIC QUARTS DIORITE DYKE Intrusive dyke. Fine grained groundmass with 10%, 1 to 6mm, anhedral to subhedral, plagioclase phenocrysts. Similar to earlier dike phase above. Non-magnetic. Trace pyrite. Sharp upper and lower contacts oriented 75 and 70 degrees to the core axis.	U S	32.85	34.50	1.65	D/a	n/a	-	MINOR		
34.50 155.00	 NAPIC METAVOLCAWIC PLOWS (PE THOLEHITE) Mafic volcanic. Aphanitic to fine-grained, dark green to greenish grey. Ninor, fine, metamorphic hornblende and biotite throughout. Absent to trace disseminated pyrrhotite and pyrite. Trace to minor calcite and quartz-calcite veinlets and patches. 51.85 52.85 And 53.90 54.65 Very fine grained, medium grey quartz siltstone, interbedded with mafic volcanics. Icm quartz vein containing 10% pyrite, and 1% chalcopyrite at 52.35 metres. Veakly foliated at 80 to 85 degrees to the core axis. 67.25 69.65 Moderately foliated, extremely biotite rich section with 10%, imm augen-shaped calcite-quartz? grains. Possibly a basaltic tuff, or epiclastic interflow material derived from mafic volcanics. Foliation approximately 40 degrees to the core axis 80.10 80.35 Siltstone, interbanded in medium green basalt. Dark purplish gray biotitic siltstone with 50% hornblende metacrysts and 1% pyrhotite. 86.00 90.30 Interbedded siltstone and mafic volcanic debris. Contains sections of siliceous siltstone interbeds. 5% calcite-quartz veinlets parallel to veak foliation oriented at 80 degrees to the core axis. 	1362	31.75	40.40	120.50 1.65 2.60	n/a .01 .01	n/a .40 1.00	-	NNR-14 MINOR 24/PO		

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PROJECT (O	ont. 77) BSSO MIMBRALS CANAD DIAMOND DRILL RECOR		Hole: HW88-42 Page: 3								
Interval (Hetres)	Description	Sample No.	Interval (Netres)	Length (Netres)		Ag (ppm)		Pyrite (%)		BRATION CARB	SBI
	90.30 94.00 Pine grained, dark green basalt, with 25%, coarse (up to						1				
	icm), hornblende metacrysts. Non-magnetic. 94.00 120.15 Basalt. Mainly aphanitic, dark gray, hard, uniform, with 5 to 10%, fine hornblende metacrysts, and minor chloritic										
	bands. About 2% calcite veinlets as occur in units above.										
	Won-magnetic. 120.15 136.60 Basalt. Aphanitic to very fine grained, very hard and moderately hard interbanded sections. Pine hornblende metacrysts more common in slightly more chloritic sections.										
	Trace calcite veining. Mon-magnetic. 136.60 139.35 Slightly biotitic and veakly foliated basalt with 5% calcite-guarty veins.										
	139.35 155.00 Aphanitic to fine grained, hard, uniform, dark gray-green basalt. 2% calcite veining. Won-magnetic.										
	144.10 146.70 3% guartz veining. Average 1% pyrite and up to 1% pyrrhotite. Sulphides mainly disseminated in basalt. Lover contact not encountered.										
	155.00 Rnd of hole.										

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		ESSO MINERALS CANADA OM&/6-(SUMMARY DRILL LOG	-236
	-	Name: <u>HN</u> Hole Number: <u>HN8</u>	
		lumber <u>1 1677</u> Logged By: <u>Dan</u>	e bridge,
N 1	°S:	42H/8 Date:October 19	88
		<u>L39+00W. 7+255</u> <u>180°</u> , Dip: <u>-45°</u> , Claim Number: <u>L</u> Length (m): <u>27</u>	,
PL	IRPOSE	: <u>Test IP anomaly and extend drill section on L39W to the north of</u> DDH HN88-31	•
From	To	Description	Gold Assays
(m)	(m)	CASING REMOVED	(g/tonne)
0.00	18.60	Overburden	
18.60	70.80	Mafic Metavolcanic with minor Intrusive Dykes Dark, chloritic basalt with minor to abundant metamorphic hornblende, locally biotitic. 2% calcite veinlets. Minor pyrite.	0.01 (4)
70.80	80.40	Feldspar Porphyry Dyke 25% subhedral, white, plagioclase phenocrysts in fine-grained biotitic matrix.	0.01 - 0.02 (4)
80.40	124.35	Mafic Metavolcanic with minor Feldspar Porphyry Dykes Dark green, aphanitic and fine-grained, porphyritic basalt. Very minor garnet-epidote patches and calcite veinlets. Trace to 1% pyrite.	0.01 - 0.06 (6)
124.35	128.60	Felsic Crystal Tuff Fine-grained, massive, with minor 1 mm quartz phenocrysts.	Not Assayed
128.60	130.85	Feldspar Porphyry Dyke Same as above	0.01 (1)
130.85	149.20	Mafic Metavolanic with minor Feldspar Porphyry Dyke Mainly dark, aphanitic basalt with bleached patches and epidote- garnet patches. Slightly calcitic. Minor pyrite. Locally fractured with minor silica-pyrite alteration.	•0.01 (6)
149.20	178.85	Biotite Quartz Diorite with minor Mafic Metavolcanic Inclusions and Feldspar Porphyry Dyke Light pinkish-grey, feldspar porphyritic diorite with minor quartz veining and 1% pyrite. Fractured and weakly silicified at contact for 4.65 m.	0.01 - 1.46 (9)
178.85	276.00	Biotite Quartz Diorite Pink to grey, and locally reddish-grey, feldspar porphyritic biotite quartz diorite. Commonly 1 to 2% quartz veining, and 1% disseminated pyrite. Minor sections of 5-10% quartz veining.	0.01 - 32.50 (23)
	276.00	END OF HOLE	
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8-N PROJECT (Ont. 71)		BSSO MINBA Dianond di				Hol Pag		HW88-43 1	
Drilleð by:	Bradley Bros. Limited		Azimuth:		80		<i>c</i> 1,	ai n No:	L-871909	
Hole Size:	-		Dig:		45		Gri		Vest	
Core Size:	BQ BQ		vių.		17			sting:	39400W	
									7+258	
Casing:	Casing Removed		told Banks					rthiag: evation:		
AL	A-4 33 1444		Acid Tests);			bic	CVGLIUA;	Level	
Started:	Oct. 23, 1988		Dankh	1-	1		Des		Back ID secondly t award as	
Pinished:	Oct. 27, 1988		Depth 17.00	λz.] -4			PUI	rpose:	Test IP anomaly & extend set	CTAN W AT UNOD
Logged by:	Dane Bridge		117.00	-4	.0		Ler	ngth:	276.00Netres	
Date logged:	October 1988		217.00	-31					179.0 Netres	
Logging Hethod:	Log II		276.00	-3				r. Proj:	210.0 Netres	
Neasurement System:								b. Depth:	13.3 Metres	
Interval (Netres)		Description			Sample No.	Interval (Hetres)			ey Pyrite ALTERATION 11ic (%) SIL CARB	SER

.00 18.60 OVBRBURDEN

18.60 70.80 NAPIC NETAVOLCABIC PLOVE (PE THOLEIITE)

- 18.60 25.55 Aphanitic, massive, black basalt, with 24 calcite veinlets in very weak foliation. Trace pyrite. Sharp contact oriented at 85 degrees to the core axis. Very slightly magnetic.
- 25.55 32.40 Nedium grained, dark grey-green basalt, with minor to 20%, metamorphic hornblende. Trace pyrite. Very slightly magnetic. Sharp contact oriented at 60 degrees to the core axis.
- 32.40 36.65 Massive, aphanitic to fine grained, basalt with fine plagioclase phenocrysts. Patchy epidote-garnet surrounding one guartz vein. Very weakly magnetic.
- 36.65 50.85 Aphanitic, dark greenish black basalt. Veakly foliated sections. Minor bleaching along fractures in massive sections. Averages trace pyrite. Won-magnetic to weakly magnetic.
- 37.70 37.90 Intrusive dike. Aphanitic, dark groundmass, with 20%, 1 to

I S	18.60	70.80	52.20	e/a	n/a	-	TRACE
\$364	32.40	34.10		.01	.60	-	23
8365	34.10	35.10	1.00	.01	.80	-	TRACE
1366	37.90	39.90	2.00	.01	1.00	-	23
1367	47.00	47.65	.65	.01	.70	-	23

-8 PROJECT (C	ont. 77) BSSO MINBRALS CANAD DIAMOND DRILL RECOR						Nole: Page:	HX 8	8-43 2			
Interva) (Netres)	Description	No.	(Kel	res)	(Netres)	(q/t)	(ppm)	Grey Hetallic	(x)	SIL	IBRATION CARB	SER
	3mm, white plagioclase phenocrysts. 50.85 70.80 Aphanitic to fine grained, basalt. Mainly dark greenish gray, with minor bands and patches of biotitic basalt. Up to 1% guartz-calcite veinlets. Average trace pyrite. Weakly magnetic 61.80 61.90 Fault gouge oriented at 45 degrees to the core axis.											
70.80 80.40	D FBLDSPAR PORPHYRITIC QUARTI DIORITE DYKE Mainly intrusive dike. Pine grained, dark brown-gray, feldspathic groundmass, with biotite. 25%, 1 to 5mm, white, subhedral, plagioclase phenocrysts. Non-magnetic. Average 0.5% pyrite. Upper contact sharp at 50 degrees to the core axis. Lower contact irregular. 72.85 74.95 Basalt inclusion.	3868 3869 \$370	70.80 72.50 72.85	72.50 72.85 74.95	9.60 1.70 35 2.10 2.05	.01 .01 .02	n/a 1.20 .80 .40 1.30	-	0.5% 1% TRACB 1% 0.5%	1		
80.40 124.3	 5 MAPIC XETAVOLCANIC PLOWS (PE THOLENITE) Nafic volcanic unit, with minor intrusive dikes. 80.40 93.55 Aphanitic, dark green basalt, with foliated bands of fine grained dark brown-gray, biotitic basalt. Core angles vary from 60 to 80 degrees to the core axis. Biotitic bands are locally calcitic and are probably metamorphic rather than primary. Non magnetic. 87.90 91.60 Peldspar Porphyritic Quartz Diorite Dyke. Pine grained, feldspathic groundmass with biotite. 30%, 1 to 4mm, plagioclase phenocrysts. 1% pyrite. Non-magnetic. 93.55 98.85 Aphanitic, very dark green basalt. 1% disseminated pyrite. 1% garnet-epidote patches. Strongly magnetic. 98.55 i18.80 Porphyritic basalt. Aphanitic, very dark green with 15%, commonly 1 to 3mm, subhedral, plagioclase phenocrysts. Ninor, local (10cm section) of fragmental basalt. Strongly magnetic. Pyrite absent, except as noted locally in sample description sheets. One intrusive dike at 103.25 103.40 metres. Dike is non-magnetic, and has chilled contacts. 118.40 122.10 Feldspar Porphyritic Quartz Diorite Dyke. Fine grained, dark gray, feldspathic groundmass with minor biotite. 40%, 	\$372 8373 8374 8375 \$376	104.00 108.50 117.30 118.80 120.50	105.60 108.90 118.80 120.50 122.10	<pre>43.95 1.60 40 1.50 1.70 1.60 2.25</pre>	.01 .01 .06 .02	n/a 1.10 1.10 1.60 1.20	- - - -	HHR-1% TRACE 2% TRACE 0.5% 0.5% 3%			

H-N PROJECT (nt. 77) BSSO MINERALS CANADA DIANOND DRILL RECORD						Hole: Page:	HN 8	8-43 3			
Interval (Metres)	Description	No.	(Netres		Length (Hetres)		λg (ppm)	Grey Metallic		AL SIL	TBRATION CARB	SBR
	Plagioclase locally has hematitic rims at contacts, and near veinlets of epidote. Average up to 1% pyrite. Mon magnetic. 122.10 124.35 Porphyritic basalt. Very fine grained, very dark grey-green. Minor to 10% plagioclase phenocrysts. 3% Disseminated pyrite. 1% guartz-calcite veinlets.											
124.35 128.6	O QUARTI-FBLDSPAR CRYSTAL TUPP Pelsic crystal tuff. Pine grained, massive, felsic rock with minor, 1mm, quartz phenocrysts. Winor banding at approximately 90 degrees to the core axis, due to sections with biotite.	WS 1	24.35 128	8.60	4.25	n/a	n/a	-				
128.60 130.8	5 FELDSPAR PORPHYRITIC QUARTS DIORITE DYKE Intrusive dike. Medium grained, dark gray, feldspathic groundmass with biotite. Average 30%, 1 to 4mm, subhedral, plagioclase phenocrysts. Up to 1% quarts veins with trace pyrite, and up to 1%, hairline, calcite and quarts-calcite veinlets cutting quarts veins. Mon-magnetic.				2.25 2.25	n/a .01		-	TRACE 0.5%			
130.85 149.2	 SCHISTOSE MAPIC HETAVOLCANIC WITH EPIDOTE-CARBONATE BANDS Mafic volcanic unit. Locally weakly altered. 130.45 135.50 Aphanitic, dark gray basalt. Mainly intensely fractured and variably altered and bleached. Varies from bleached halos on fractures to pervasive silica-pyrite alteration. Average weak silicification. Weak calcite veinlets. Average 14 pyrite. Moderately magnetic. 135.50 142.90 Aphanitic basalt. Average 1 to 24 fine quartz-calcite veinlets. Local epidote and garnet-epidote patches. Average up to 14 pyrite. Moderately magnetic. 142.90 145.40 Peldspar Porphyritic Quartz Diorite Dyke. Intrusive dike in mafic section. Medium grained, hydidiomorphic granular, biotite diorite. Locally very veakly silicified. Crackle fractured. Average 14 disseminated pyrite. 145.40 149.20 Mafic volcanic. Pine grained to aphanitic, near black to 145.40 149.20 145.40 Peldspar Porphyrite Patches 145.40 149.20 145.40 Patches 145.40 Patches<	\$379 1 \$380 1 \$381 1 \$382 1 \$383 1	30.85 145 30.85 133 33.25 134 34.70 135 35.50 137 37.00 137 42.90 145	3.25 1.70 5.50 7.00 7.70	2.40 1.45 .80 1.50 .70	n/a .01 .01 .01 .01 .01	.60 .50	- - - -	1% 0.5% TRACB 2% 0.5% 1%			

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H-W PROJECT (Ont. 77)		ESSO MINERALS CANADA DIAMOND DRILL RECORD			Nole: Page:	HW08-43 4		
[nterval (Hetres)	Description	Sample No.	Length (Netres)	Au (g/t)		Grey Pyrit Xetallic (%)	RATION CARB	SER

creamy in bleached patches. Minor epidote-garnet patches. Strongly magnetic. Trace pyrite near contacts.

149.20 178.85 PP QUARTE DIORITE INTRUSIVE - WK TO NOD ALTERED

Intrusive rock with minor mafic volcanic sections.

- 149.50 153.75 Quartz diorite intrusive. Weakly altered, medium grained, medium gray, slightly porphyritic diorite. Locally intensely fractured and silicified. Overall weakly silicified, with 3% guartz and minor guartz-calcite veining. Average 1 to 1.5% pyrite. Won-magnetic.
- 153.75 154.50 Mafic volcanic. Very fine grained, weakly foliated, biotitic basalt. 1% quartz-calcite veinlets. Foliation priented at 45 to 50 degrees to the core axis. Non-magnetic.
- 154.50 162.90 Quartz diorite. Hedium grained, slightly feldspar porphyritic. Mainly reddish brown due to minor K-spar or hematite. Locally gray. Average 10% primary biotite. Minor guartz. 10%, white, porphyritic plagioclase. Trace to 1% pyrite. Minor quartz veining. Mon-magnetic.

156.50 158.10 Mainly dark gray, later?, plagioclase porphyritic dike.

- 162.90 166.20 Mafic volcanic. Black, very fine grained, slightly biotitic, moderately foliated basalt. 2%, fine calcite veinlets. 3%, coarse, quartx-calcite veinlets. Minor epidote-garnet patches. 1% pyrite. Strongly magnetic.
- 166.20 173.60 Quartz diorite. Light pinkish gray, blotite quartz diorite. Average 1% disseminated and fracture-controlled pyrite. 1 to 2% quartz veining.
- 173.60 178.85 Porphyritic diorite. Dark gray with 25%, 1 to 5mm, white to slightly pinkish, plagioclase phenocrysts. Average 2% pyrite. Non-magnetic.
- 175.30 177.90 Average 15% quartz veins with trace pyrite internally, and minor pyrite along edges.

NS	149.20	178.85	29.65	n/a	n/a	-	1-21
8385	149.20	151.50	2.30	.41	1.50	-	11
8386	151.50	153.75	2.25	.02	.90	-	11
\$387	153.75	154.50	.15	.02	1.00	-	TRACE
8388	154.50	156.50	2.00	.01	.90	-	11
8389	156.50	158.50	2.00	.04	1.00		0.5%
8390	158.50	160.50	2.00	.01	.90	-	0.5%
#391	160.50	162.90	2.40	.01	.90	-	18
8392	175.30	177.90	2.60	1.46	4.10	-	23
1393	177.90	178.85	.95	.14	.90	•	11

178.85 276.00 PP QUARTE DIORITE INTRUSIVE - WE TO HOD ALTERED

Pink to light gray, biotite guartz diorite. Hypidiomorphic granular with

WS 178.85 276.00 97.15 n/a n/a TRACE 1-2%

PROJECT ((Dat. 77) BSSO MINERALS CANAD DIAMOND DRILL RECOR					Hole: Page:	XN 8	8-13 5		
Interval	Description	Sample	e Interval	Length	Au (a/t)	Ag (nnm)	Grey	Pyrite	ALTERATION	C P
	minor, 5 to 8mm, plagioclase phenocrysts. Commonly 1 to 2% quarte		178.85 181.0			1.20		0.5%		
	veining, 1% pyrite, and trace calcite.		181.00 183.0				-	13		
	190.00 192.30 3% quartz veining in white diorite. Trace gray mineral		183.00 185.1					0.51		
	associated with calcite veinlets with chloritic margins.		185.15 185.9				-	23		
	196.60 197.20 2% quartz veining in light gray patch surrounded by pink		145.90 100.1		.21	1.90	-	14		
	diorite. Winor calcite veinlets with chlorite rims. Trace		188.25 190.0		.18 .02	1.10	-	18 18		
	gray mineral. 200.30 200.40 Basalt inclusion.		191.40 192.		.01	1.10	-	13		
	202.60 202.85 Basalt inclusion.		196.80 197.3		.05	2.90	TRACE	11		
	203.00 204.40 15% quartz veining, and 1 to 1.5% pyrite in pink-gray		203.00 204.		.15	1.00	-			
	diorite.		205.05 205.		.24	1.10	-	11		
	205.05 205.55 Trace sericite in pinkish gray diorite. 208.30 217.15 Increase in guartz veining to about 5%.	8405	214.85 215.	10 .85	.52	2.30	-	13		
	208.30 217.15 Increase in guartz veining to about 5%.		215.70 217.1		.04		-	18		
	214.85 215.70 Gray section in predominately red-pink section with 10%		227.30 229.		.01	.80	-	0.5%		
	quarts veining.		229.30 231.3		.61		-			
	215.70 217.15 Reddish diorite with 10% guartz veining. 217.15 227.30 Very uniform pinkish biotite (10%), quartz (1%) diorite.		231.30 233.4		.02 .20	.90 1.00	-	0.5%		
	Hoderately plagioclase porphyritic, with minor plagioclase		256.10 256.		.39	.90	-	23		
	up to San . Very minor guartz velning. Trace pyrite.		256.70 258.3		.10	.80	-	23		
	Non-magnetic.		267.75 269.5		.10			11		
	227.30 233.45 Average 4% quartz veins in diorite as at 217.15 to 227.30		269.55 271.0		.05	1.00	-	0.5%		
	netres.		271.00 273.			1.20	-	13		
	233.45 234.05 Very slightly silicified, gray diorite with 1% pyrite and 10% guartz veining.	\$416	273.00 275.0	0 2.00	.12	1.20	-	18		
	234.05 256.10 Mainly pinkish gray diorite, locally with 1% coarse									
	oscillatory zoned plagioclase phenocrysts, and locally									
	with 5%, 3 to 5mm, guartz phenocrysts. Overall average 1%									
	guartz veining. Trace to locally 1% pyrite. Hon-magnetic. 256.10 256.70 Partly brecciated gray diorite with chlorite on clast									
	boundaries. 24 disseminated pyrite. 34 guartz veining.									
	256.70 258.25 24 pyrite. 34 guartz veining.									
	267.75 271.00 Minor sections with weak foliation and weak silica-sericite									
	alteration containing disseminated pyrite. Maximum pyrite									
	content is 10% over 3 cm. Average pyrite is 1%. Weak									
	foliation oriented at 75 to 80 degrees to the core axis.									
	Trace calcite on fractures.									

				-
BSSO NINBRALS CAWADA DIAMOND DRILL RECORD		Kole: Page:	HK88-43 6	-
Sample	Interval Length	Au Ag	Grey Pyrite	ALTERATION
No.	(Netres) (Netres)	(g/t) (ppm)	Metallic (%)	SIL CARB
	DIANOND DRILL RECORD	DIANOND DRILL RECORD	DIANOND DRILL RBCORD Page:	DIANOND DRILL RECORD Page: 6

		ESSO MINERALS CANADA OMS-6-0 SUMMARY DRILL LOG	-236
Pr	oject N	Name: <u>HN</u> Hole Number: <u>HN</u>	88-44
Pr	oject N	Number <u>1677</u> , Logged By: <u>Dar</u>	e Bridge
N1	`S:	42H/8 Date: October 198	
		L42+00W. 6+50S Claim Number: 180° Dip:45° Length (m):266	•
PL	IRPOSE	Search for a mineralized shear north of the north contact of a	······································
From	То	Description	Gold Assays
(m)	(m)	CASING REMOVED	(g/tonne)
0.00	8.00	Overburden	
8.00	99.30	Mafic Volcanic Unit, with Minor Feldspar Porphyry Dykes Mainly fine-grained, chloritic basalt with minor calcite veinlets.	0.01 (6)
99.30	129.00	Mafic Volcanic Unit with Weak Calcite Alteration, and Weak to Strong Bleaching Associated with Late Faults	0.01 (4)
129.00	140.55	Siliceous Siltstone and Felsic Crystal Tuff Mainly dark grey, chloritic, siliceous siltstone. Locally with mafic debris and minor biotite and amphibole. Includes minor gritty and fragmental sections that may be crystal tuff or arenite-wacke.	0.01 - 0.47 (4)
140.55	221.15	Mafic Volcanic Unit and minor Interbedded Siltstone and Mafic Derived Epiclastic Rocks Minor silicified zones in basalt. Unit becomes contact metamorphosed towards base and locally feldspar metacrystic. Minor late fault zones.	0.01 - 0.53 (16)
221,15	266.00	Biotite, Quartz Diorite Intrusive Medium-grained, pinkish-gray, hypidiomorphic granular to feldspar porphyritic diorite. About 40% of unit is bleached to a light grey colour and weakly sericitic and/or silicified. Minor pyrite and trace grey mineral.	0.01 - 0.15 (12)
	266.00	END OF HOLE	
			94. -
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H-N PROJECT (Ont. 77	W PROJECT (Ont. 77)			(Ont. 77) BSSO MINBRALS CANADA DIAXOND DRILL RECORD						Hole: Page:	HN88-44 1		•
Drilled by:	Bradley Bros. Limited		Azimuth:	180			Claim No:	L-871911					
Hole Size: Core Size:	BQ BQ		Dip:	-45			Grid: Basting:	Vest 42+00V					
Casing:	casing Removed						Northing:	6+505					
castuy.	Casting Removed		Acid Tests:				Blevation:	Level					
Started:	Oct. 27, 1988												
Pinished:	Oct. 31, 1988		Depth .	Az. Dip -45.€			Purpose:	Test for min	eralized shear	r structure			
Logged by:	Dane Bridge		108.00	-39.0			Length:	266.00Metres					
Date logged:	November 1988		208.00	-40.0			Vert. Proj:	174.0 Metres					
Logging Nethod:	Log II		265.00	-41.0			Hor. Proj:	201.0 Netres					
Neasurement System:	Hetric						Ovb. Depth:	5.7 Wetres					
Interval (Netres)		Description			ple Interval Io. (Hetres)			rey Pyrite allic (%)	ALTERATION SIL CARB	N Ser			

.00 8.00 OVERBURDEN

8.00 SO.10 NAPIC NETAVOLCANIC PLOVS (PE THOLBIITE)

- 8.80 29.75 Aphanitic to fine grained, very hard, dark gray-green basalt. Non-magnetic to locally slightly magnetic. No sulphides. Average 1% calcite and calcite-guartz-epidote? patches, which are bleached and weakly foliated at 35 to 70 degrees to the core axis.
- 15.25 15.85 Pragmental section with fine, shard-like clasts and patches of serpentine. May be a flow-top breccia with glass altered to paragonite and then to serpentine.
- 24.80 29.75 5% calcite alteration as white veinlets, coarse, pink patches and foliated epidote-carbonate patches.
- 27.80 27.95 Fault gouge oriented at 80 degrees to the core axis.
- 29.75 31.70 Peldspar Porphyritic Quartz Diorite Dyte. Fine grained, very dark brownish gray, biotitic groundmass with 25%, mainly 1 to 3mm and locally to 5mm, mainly anhedral, white plagioclase phenocrysts. Both contacts are sharp. Upper at 60

H S	8.00	50.10	42.10	n/a	n/a	-	11
\$417	36.90	38.00	1.10	.01	, 30	-	
8418	38.00	39.30	1.30	.01	1.10	-	15
#419	39.30	41.10	1.80	.01	. 10	-	31
8420	41.10	43.55	2.45	.01	.50	-	0.5%
1421	43.55	45.85	2.30	.01	.30	-	MINOR
8422	45.85	46.65	.80	.01	.40	-	MINOR

H-N PROJBCT ((oat. 77) BIANOND DRILL RECORD					Nole; Page:	HW 8	8-44 2			•
Interval (Netres)	Description	Sample No.		val Length (Netres)		Ag (ppm)	-	Pyrite (\)	AL SIL	TERATION CARB	SER
	 degrees, and lower at 45 degrees to the core axis. 31.70 50.10 Mafic volcanic unit with section of strong calcite alteration. Fine grained, dark green, normal hardness basalt. Non-magnetic to locally moderately magnetic. 31.70 38.00 Locally mottled with bleached patches and minor calcite veinlets. Nay be a series of thin flows with flow rubble. Average 1% pyrite. 38.00 43.55 Weakly calcite altered. Calcite veins, calcite patches and bands up to 2 cm thick. Massive to locally slightly biotitic and well foliated at 45 degrees to the core axis. Average 1% pyrite. 43.55 45.85 Almost total replacement of basalt by medium-grained, off-white calcite. 25%, irregular patches of basalt remaining. One 15 cm quartz vein and minor quartz patches. 45.85 50.10 Aphanitic, very dark green, hard basalt with weak calcite alteration. Average 3% calcite-guartz veinlets. Non-magnetic. No sulphides. 										
50.10 53.2	O FELDSPAR PORPHYRITIC QUARTI DIORITE DYKE Hottled light gray to dark gray dike. Feldspathic groundmass with minor to absent biotite. 30%, 1 to 5mm, subhedral plagioclase phenocrysts. Won-magnetic. Sharp contacts. Upper at 70 degrees, lower at 85 degrees to the core axis.	¥S	50.10 !	53.20 3.10	n/a	n/a	-	0.5%			
53.20 71.6	O SCHISTOSE MAPIC MBTAVOLCANIC WITH BPIDOTE-CARBONATE BANDS Mafic volcanic with feldspar porphyry dytes. 53.20 54.35 Mainly massive basalt. Locally weakly foliated. Weakly carbonate altered with 5% calcite patches and veinlets. Non-magnetic. No sulphides. 54.35 71.60 Very fine grained, hard, dark green, massive basalt. 1 to 2% calcite and calcite-quartz veinlets. Non-magnetic. No sulphides. 55.75 56.30 Amygdaloidal with 3%, 1mm and locally 2 to 3mm, calcite-filled amygdules.	KS	53.20	71.60 18.40	n/a	n/a	-	TRACB			

-N PROJBCT (O	nt. 77) ESSO MINERALS CANAD. DIAMOND DRILL RECOR						Nole: Page:	HNS	8-44 3		
Interval (Netres)	Description	No.	(Neti	res)		(g/t)		Metallic		SIL	 SBR
	 71.60 74.30 Feldspar Porphyritic Quartz Diorite Dyke. Nedium pinkish gray porphyry dike. Fine grained, feldspathic groundmass with 10% biotite. 30%, 1 to 3mm, white plagioclase phenocrysts, and minor, anhedral plagioclase up to 1cm. 74.30 81.85 Basalt as at 54.35 to 71.60m. Up to 1% calcite. 81.85 82.90 Feldspar Porphyritic Quartz Diorite Dyke. Porphyry dike as at 71.60 74.30. 15 cm, gray-green bleached and brecciated zone in adjacent basalt at lover contact. 										
71.60 99.30	NAPIC MBTAVOLCANIC PLOWS (PB THOLBIITB) Very fine-grained, dark green to black, massive basalt. Minor, 1cm, foliated and quartz-epidote sections. Minor, 1 to 2cm zones of brecciation. No sulphides. 1% calcite veinlets. Non-magnetic.	¥S	71.60	99.30	27.70	n/a	n/a	-	TRACB		
9.30 129.00	 VEAKLY BRECCIATED MAFIC METAVOLCANIC WITH EPIDOTE-CARB. BANDS Nafic volcanic unit with weak carbonate alteration, and weak to strong bleaching associated with late faults. 39.30 113.45 Fine grained, mottled, medium gray to medium green basalt. Ninor veak calcite alteration, and very veak bleaching. Minor scattered sections with 0.5 to 12cm quartz-epidote and calcite-quartz veins. Average trace pyrite. Non-magnetic. 100.90 105.20 Four quartz-pyrite veins, and up to 14 disseminated pyrite in basalt. 113.45 124.90 Variably weakly to strongly bleached, and weakly calcite altered basalt. Colour varies from gray-green to pale greenish white, with soft talc?-chlorite patches. Alteration is centered around late faults. No sulphides except in minor quartz veins. Non-magnetic. 114.00 114.50 Fault Breccia. Dark green, talc-serpentine fault breccia with vuggy calcite. 118.20 118.58 Bleached fragments in calcite matrix. Fractures and possibly the fault oriented at 15 degrees to the core axis. 122.15 122.55 3 quartz-epidote-pyrite veins in weakly bleached basalt. 	8423 1 8424 1 8425 1	00.90 03.00 22.15	103.00 105.20 122.55	29.70 2.10 2.20 .40 1.95	.01	n/a 1.00 1.70 1.50 1.60		0.5-1% TRACE 0.5% 2% 1%		

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H-B PROJECT ((nt. ??) DIAMOND DRILL RECOR	••				Hole: Page:	KN \$	8-44 4	•
Interval (Netres)	Description	₩0.	e Interval (Metres)	(Metres)	(q/t)				SER
	guartz-pyrite veins.								
129.00 140.5	 SILTSTONE Nixed siltstone and felsic crystal tuff unit. 129.00 129.85 Dark gray, very fine grained, chloritic, siliceous siltstone. Sharp upper contact oriented at 90 degrees to the core axis, with epidotized basalt. Trace pyrite. Non-magnetic. 129.85 132.70 Light gray, fine grained, felsic crystal tuff with 1 to 24, lmm quartz phenocrysts. (May be siliceous siltstone with minor areaite grains). 24 pyrite. Non-magnetic. 129.85 131.00 Hinor, crudely laminated silicate iron formation. Light red to cream coloured. 131.50 132.70 Crystal tuff? with 54 disseminated pyrite, and 254, white, irregular quartz veins. Veins contain minor chlorite and calcite, trace pyrite and gray mineral along vein-wallrock contacts. 132.70 140.55 Dark greenish gray, impure siliceous siltstone. Commonly with 5 to 104 biotite, minor chlorite and locally, 5 to 104, fine grained, amphibole. Local sections contain 254 amphibole. Probably impure mafic debris in a mainly siliceous siltstone unit. Average 14 pyrite. Non-magnetic. 	\$427 8428 \$429	129.00 140.5 129.45 131.5 131.50 132.7 132.70 134.0 138.00 140.5	0 1.65 0 1.20 0 1.30	.12		TRACB	28 18 58 18 28	
140.55 221.1	 SCHISTOSE MAPIC NETAVOLCANIC WITH EPIDOTE-CARBONATE BANDS Variable mafic volcanic unit including flows and tuffs, as well as minor siltstone and mafic epiclastic borizons. 140.55 147.85 Very dark gray-green, medium grained, speckled basalt, with 25% amphibole in a hard, siliceous-looking matrix. Strongly magnetic. 147.85 151.30 Mafic to siliceous siltstone. Dark gray to light gray siltstone with variable mafic component. Noderately follated at 80 degrees to the core axis. Veakly to strongly magnetic. 151.30 155.70 Mafic tuff?. Medium gray-green, fine grained, moderately 	8431 8432 8433 8434 8435 8436 8437 8438	140.55 221.1 147.45 149.2 149.20 150.6 150.60 151.3 151.30 152.5 152.50 152.5 158.65 159.4 163.30 164.0 179.00 180.5 180.55 182.0	0 1.35 0 1.40 0 .70 0 1.20 0 .40 0 .75 0 .70 5 1.55	n/a .01 .01 .01 .05 .01 .21 .01	n/a .40 .50 .80 1.10 2.80 .80 1.20 2.30 1.40		23 13 13 33 TRACE 53 43 33 0.53 0.53	

PROJECT (Ont. 77)	BSSO MINBRALS CANAN Diamond drill recon					Hole: Page:	HN 8	10-44 5		
laterval (Hetres)	Description		Interval	Length (Netres)	Åq	λg		Pyrite : (%)	ALTERATION SIL CARB	SBR
158.65 159.4 163.30 179.0 163.30 164.0 179.00 213.0 202.80 207.4	 vell laminted and deformed mafic, epidote-chlorite rich section, locally with shards. Bpidote-hematite-pyrite patches around quartz veins. Hon-magnetic. 10 Aphanitic to fine grained, dark green-black basalt. Mottled from dark to locally cream coloured, with 1 to 2% scattered patches of epidote-quartz-garnet and locally pyrite. Section is more hornfelsed and metamorphosed than mafic sections higher in the hole. Mon-magnetic. 15 4% disseminated pyrite with minor quartz veins and bleaching 10 As at 155.70 to 163.70 ercept weakly to variably strongly magnetic. Hinor bleached and brecciated sections. 10 Intensely silicified basalt with 3% disseminated pyrite. Wottled medium to light gray. Non-magnetic. 10 Metamorphosed and epidote altered basalt. Highly variable section with metamorphic contact effects from intrusive body to the south (down the hole). Sections with 5 to 15%, 1 to 3mm, euhedral to subhedral, plagioclase metacrysts in basalt. Sections of brecciation and bleaching with overall weak and locally strong epidote development. 10 Fault Sone. Variably to locally totally epidotized basalt, with local reddish hematite coloration. Intensely brecciated to sheared. Core recovery approximately 70%. Practuring and shearing commonly at 0 degrees to the core axis. Non-magnetic. 15 Aphanitic to fine grained, hornfelsed basalt. Slightly biotitic, siliceous looking. Very minor epidote. Crackle fractures with thin bleached halos. Weakly magnetic. Trace pyrite but increasing to 2% at contact. 	\$441 1 8442 1 8443 1 8444 2 8444 2 8445 2	82.00 183. 83.80 185. 97.20 198. 98.75 200. 00.00 201. 01.40 202. 18.50 221.	50 1.70 75 1.55 00 1.25 40 1.40 80 1.40	.02 .01 .01 .02	1.10 1.50 1.70 1.40	• -	TRACE TRACE TRACE 0.53 0.53 23		

221.15 222.50 Very weakly silicified, with trace white bleaching (sericite?) on fractures. 34 disseminated pyrite.

8447	221.15	222.50	1.35	.14	3.00	-	34	
1448	222.50	224.50	2.00	.03	1.70	-	11	
8449	224.50	226.20	1.70	.05	2.20	-	11	
8450	226.20	228.00	1.80	.02	1.50	-	11	

PROJECT (O	E. 77) BSSO MINERALS CANA DIANOND DRILL RECO					Hole: Page:	HWS	8-44 6			
Interval {Metres}	Description	Sample No.	e Interval (Netres)	•	Au (g/t)	Ag (ppm)		Pyrite (\)	AL SIL	TBRATION CARB	SER
	222.50 226.20 Pinkish-gray and unaltered.	8451	228.00 230.00) 2.00	.04	2.00	-	18			
	226.20 231.90 Light gray, weakly silicified, with 4% quartz, and 1%		230.00 231.90		.10	1.80	-	11			
	calcite-chlorite veining. Trace pyrite. Trace gray mineral		237.70 238.85		.03	1.80	-	0.5%			
	in 2 veins.	8454	238.85 240.90	2.05	.15	1.50	-	0.5%			
	231.90 253.10 Slightly pinkish gray diorite, with overall weak sericitic	\$155	244.40 245.00	.60	.08	2.80	-	0.5%			
	alteration. 1 to 2 cm wide bleached, white, sericitic	8456	249.80 252.40	2.60	.01	2.70	-	0.5%			
	halos on fractures or sections of up to 1m of white,	8457	252.40 253.10	.70	.03	2.80	-	0.5%			
	chalky sericitic alteration with minor quartz-calcite-chlorite veinlets. Average up to 1% disseminated pyrite. Non-magnetic.	8458	253.10 254.00	.90	.01	2.30	-	0.5%			
	237.70 238.85 0.										
	244.40 245.00 0.										
	249.80 252.40 Three sections with almost total bleaching of feldspars. Overall moderately intense sericite alteration, but no foliation or deformation.										
	252.40 266.00 Slightly pinkish gray, biotite guartz diorite. Winor patches of weak silicification. Average 1% guartz veining. Up to 1% pyrite. Won-magnetic.										
	Lower contact not encountered.										
	266.00 End of hole.										

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		ESSO MINERALS CANADA OM 52-6-1 SUMMARY DRILL LOG	-236
Pr	oject N	Name:HN Hole Number:H Jumber:H 2H/8, Date:November,	Bridge
Az	imuths_	<u>L36+00W, 9+005</u> <u>180°</u> Dip: <u>-45°</u> Claim Number: <u>L-</u> <u>Length (m)</u> : <u>150</u>	0
	IRPUSE	Test coincident magnetic low and anomalous IP north of anomalous overburden tills in RC-102, 103, 104	
From (m)	To (m)	Description CASING REMOVED	Gold Assays (g/tonne)
0.00		Overburden	Not Assayed
48.25	150.00	Biotite Quartz Diorite 75% pinkish-grey diorite, with minor disseminated pyrite and minor quartz and calcite veins. 25% bleached zones with weak sericitic? alteration of feldspar, local silicification, and local quartz-pyrite veins and traces of grey mineral. Minor silicified shear zones in diorite from 81.00 to 100.65 m.	0.01 - 14.22 (39)
	150.00	END OF HOLE	

laterval		Description			Sample	Interval	Length	Au Ag Gi	ey Pyrite ALTI	BRATION
easurement System:	Netric							Ovb. Depth:	5.3 Netres	
ogging Nethod:	Log II							Hor. Proj:	103.0 Hetres	
ate logged:	November 1988		150.00	-49.0					109.0 Wetres	
ogged by:	Dane Bridge		107.00	-45.0				Length:	150.00Netres	
	# VII 31 1900		7.00	-47.5				tathose:	TOPE HEY IVE & GHUM	arong se reghong
tarted: inished:	Nov. 1, 1988 Nov. 3, 1988		Depth	Az. Dip				Purpose:	Test Hag low & anoma	alone ID response
kk.3.	Nov. 3 1888		Acid Tests	5:				Blevation:	Level	
asing:	Casing Removed							Northing:	9+005	
ore Size:	BQ							Basting:	36+DD¥	
ole Size:	BQ		Dip:	-45				Grid:	Vest	
rilled by:	Bradley Bros. Limited		Azimuth:	180				Claim No:	L-871904	
								Page:	1	
N PROJECT (Ont. 77	}	BSSO MINBRALS CANADA Dianond drill record						Hole:	HN88-45	

.00 7.35 OVERBURDEN

7.35 48.25 NAPIC NETAVOLCANIC PLOVS (PE THOLEIITE)

Aphanitic to fine grained, mainly dark green to brown basalt. Contact metamorphosed. Mainly chloritic, but 204, thin bands and irregular patches of biotite-rich basalt. Rare patches with 54, 1mm secondary amphibole. 54, hard, light green to cream, bleached and locally epidotized patches. Trace garnet-epidote patches. Up to 14 quartz veining. About 14 calcite veins and hairline veinlets in fractures. Very minor pyrite.

Few recognizable textures. Trace lmm, slightly elongate, possibly vesicules.

Biotitic bands commonly oriented at 60 degrees to the core axis.

7.35 13.00 Average moderately magnetic.

13.00 33.50 Non-magnetic.

33.50 41.00 Average weakly magnetic.

41.00 48.25 Won-magnetic, except locally weakly magnetic at lower contact.

NS 7.35 48.25 40.90 n/a n/a - MINOR

N PROJECT (Onl	E. 77} BSSO MINBRALS CANAD DIAMOND DRILL RECOR						Hole: Page:	HV	2 2			
Interval (Hetres)	Description	Sample Ko.	Interv (Netre	val es) (Length (Metres)	Au (g/t)	Ag (ppm)	Grey Netalli	Pyrite : (N)	ALTE SIL	RATION CARB	SE
18 25 156 66 1	FELDSPAR PORPHYRITIC QUARTE DIORITE INTRUSIVE - UNALTERED											
	48.25 50.25 Medium gray, medium grained, moderately porphyritic. 40%, 1	24	48.25 1	50.001	101.75	n/a	n/a	TRACE	0.5-31			
	to 3mm, white to gray plagioclase, and 1 to 2% quartz, in a		50.25 5				1.70	-	11			
	fine grained, feldspathic groundmass with 10% biotite.		51.50 5			.08	1.90	•	11			
	Contains inclusions of basalt. Transition to a crowded		52.75 5			.02	1.60	-	11			
	porphyry at contacts. Hay be a late dyke intruded into		53.60 1			.79	11.30	-	78			
	diorite-basalt contact. Won-magnetic. Trace pyrite.		54.95 5			.14	1.70	-	1-21			
!	50.25 54.95 Pinkish gray, biotite guartz diorite. Mainly bleached to a	8464	67.30 (\$7.55	.25	.11	2.20	-	5%			
	dirty white colour, and overall weakly sericitized. Average		68.15 6			.01	1.80	-	1-21			
	4% quartz veining. Average 1 to 2% pyrite, but 20% pyrite		71.25			.13	2.00	-	14			
	over 15cm on downhole side of one, 3cm quartz vein oriented		72.25 1			.11	3.20	•	1\$			
	at 30 degrees to the core axis. Minor calcite with guartz		73.25			.03	2.40	15				
	veins.		14.25 1			.10	2.20	•	11			
	54.95 71.25 Pinkish gray, slightly potassic? diorite. Commonly aphanitic,		75.25			.01	2.20	-	18			
	feldspathic groundmass with 10% biotite, and minor to 20%, 1 to 3mm, gray plagioclase phenocrysts. Minor to 5%, quartz		76.25 1			.04 .01	4.00 6.80	•	2% 3%			
	phenocrysts, but commonly up to 1% visible. Mon-magnetic.		78.25 1			.20	3.00	-	21			
	Average trace pyrite, but locally to 1% pyrite. Rare guartz		79.30			.07	2.20	-	MINOR			
	veloing. Ninor weakly silicified and pyritic patches around		0.45 8			. 12	19.30	-	21			
	two quartz veins.		81.10			.01	2.10	-	11			
	71.25 \$1.10 Veakly sericitized and very weakly silicified diorite with		83.00			.01	2.30	-	11			
	average 5% quartz veins with minor chlorite, and 5% calcite		15.00 1			.03	3.60	-	11			
	patches in velos. Average 1 to 2% disseminated pyrite, mainly		47.00 8			.01	1.80	-	11			
	in diorite. Trace gray mineral in some guartz veins.	8480	88.10 0	18.80	.70	. 33	4.10	-	11			
	74.40 74.55 Veakly ribboned quartz vein. Pinely sucrose. 2% pyrite.		11.11 5			.13	1.50	-	1-21			
	Oriented at 40 degrees to the core axis.		91.15			.01	1.60	-	11			
I	80.45 81.10 25%, irregular guartz veins with 5% calcite, 2% pyrite, and		93.00 9			.03	1.10	•	- 18			
	minor gray mineral.		95.00 9			14.22	84.50	14	13			
-	81.10 100.65 Mainly unaltered, pinkish gray diorite, with section of weak		95.35 9			.18	2.20	-	23			
	sericitic alteration and minor shear zones cutting diorite.		95.85 5			.04	1.60	-	11			
	Average 1% pyrite. Average 1% quartz veins and up to 1%		97.50 9			.01	1.40	-	18 18			
	quartz-calcite-chlorite veinlets. Shear zones are as follows: \$5.35 \$5.40 6 cm zone of fine grained, granular diorite with minor		99.10 10 100.25 10			.20 .39	1.20	-	11			
	sericite, 2% pyrite. Oriented at 70 degrees to the core axis.		LUU.25 IU L17.00 11			. 33	1.30	TRACE	18			
	86.65 86.70 5 cm, pinkish feldspathic zone with minor quartz veins and		118.50 17			.01	.90	18475	14			

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PROJECT ((nt. 77) BSSO MINBRALS CANA DIAMOND DRILL RECO						Hole: Page:	HN B	8-45 3		
Interval (Netres)	Description	No.	•	Interval (Netres)	(Metres)	(g/t)	(ppm)	Metallic		SIL	SI
	sericite. Oriented at 60 degrees to the core axis.	8492	2 120	.10 121.7	0 1.60	.02	1.20	TRACE	23		
	\$8.10 \$8.50 Scattered sections of fine grained, moderately sericitic	8493	121	.70 123.40) 1.70	.25	1.70	-	31		
	diorite oriented at 70 degrees to the core axis. 95.00 95.35 Moderately sheared, veakly to moderately sericitic diorite,			3.40 124.1 1.10 125.0		.64 .01	11.00 1.20		15¥ 3¥		
	with minor quartz veins. 1% gray mineral. Oriented at 50						1.40		21		
	degrees to the core axis.			.60 128.7			1.50		11		
	100.25 100.65 Strongly sheared diorite. Moderately silicified, weakly sericitized. 24 pyrite. Oriented at 75 degrees to the core axis.										
	100.65 117.00 Pink, medium grained, biotite (10%), guartz (5%) diorite. Mainly subhedral, white to pinkish gray, plagioclase with interstitial biotite and guartz.										
	110.65 108.40 2 small basalt xenoliths, and three, 15 to 70cm xenoliths of mafic diorite, containing 25%, fine grained, biotite in reddish feldspathic groundmass.										
	116.80 116.95 Ienolith of amphibolite-grade metamorphosed basalt. Dark gray, fine grained, with 20% elongate amphibole, and 5% red garnet.										
	117.00 128.70 Light gray, weakly sericitized and locally weakly to strongly silicified diorite. Mimor quartz and quartz-calcite veins. Locally fine gray mimeral in silicified patches and quartz veins. Average 2% pyrite.										
	120.10 126.60 Scattered zones of silicification, and trace to minor gray mineral.										
	123.40 124.10 Strongly silicified section, with guartz-calcite-pyrite veins and locally 14 gray mineral. Average 154 pyrite in section.										
	128.70 150.00 Pinkish gray, botite guartz diorite. Average up to 1% disseminated pyrite. Up to 1% guartz veins. Up to 1% thin guartz-calcite-chlorite veinlets. Trace gray mineral in 1cm silicified patch at 146.6 metres.										
	139.50 141.70 Weakly sericite or clay alteration of feldspar. Section is still pinkish gray, but feldspars are clouded and opaque.										
	Lover contact not encountered. 150.00 Rnd of hole.										



42H08NE0016 23 BLAKELOCK

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DANE A. BRIDGE District Geologist, Timmins THIRD FLOOR, HOLLINGER BUILDING 637 ALGONQUIN AVENUE EAST, P.O. BOX 290 TIMMINS, ONTARIO P4N 7N6 TELEPHONE: (705) 267-6680 File: HN, 1677 AO1 and

Blakelock 1, 1696 A01

February 28, 1989.

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

Re: Reports of work for Diamond Drilling

Dear Sir:

Enclosed are three Reports of Work for diamond drilling on a block of 447 contiguous claims held by Esso Resources Canada Limited in Hoblitzell, Noseworthy, Blakelock, Hurtubise and Tomlinson Townships. Each Report of Work is for a specific group of claims as indicated on the mining claim list on or attached to the Report of Work.

A total of 15 drill holes are included with the three Reports of Work. The 15 holes total 3109.3 metres or 10,201 feet. A total of 9473.6 days credit is claimed in the three Reports of Work.

The following is included with the Reports of Work in duplicate:

DIVISION OF ESSO RESOURCES

Summary logs and detailed drill logs for 15 holes, HN88-28 and 32 to 45. HN(West Grid) Claim and Drill Hole Location Map, 1:5,000 HN(East Grid) Claim and Drill Hole Location Map, 1:10,000 List of drill holes with co-ordinates, attitude, length and claim number.

Yours truly,

Dane Bridge.

DB:lal Encl. cc: J. Pirie

DOCUMENT No. W8908 · 093

Claim List for February 18, 1989 Filing on HN Project

Noseworthy Twp.~

8 claims 🗸

CLAIM NO.

DAYS CREDIT

L-1031202	100
L-1031203	100
L-1031208	100
L-1031629	100
L-1031980	100
L-1031985	100
L-1031986	100
L-1031997	100
1 A/I	

Hoblitzell Twp.

12 claims and 4 claims

CLAIM NO.	DAYS CREDIT
L-968383√	200
L-968384	200
L-968385	200
L-968386	200
L-968387	200
L-968388	200
L-968389	200
L-968390'	200
L-968391/	200
L-968392 [,]	200
L-968393	200
L-968394'	200
L-1031968~	200
L-1031973~	200
L-1031974-	200
L-1031979 -	200

Blakelock Twp.

60

2. Ca 2. Horas

<u>36 claims</u>

L-1035899 1

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CLAIM NO. DAYS_CREDIT L-1035895 60 L-1035896 60 L-1035897 60 L-1035898 60

Blakelock Twp. (cont)

CLAIM NO.	DAYS CREDIT
L-1035900	60
L-1035901	60 60
L-1035902	60
L-1035903	60 60
L-1035904	60
L-1035905	60
L-1035906	60
L-1035907	60
L-1035908	60
L-1035909	60
L-1035910	60
L-1074507	60
L-1074508	60
L-1074509	60
L-1074510	60
L-1074511	60
L-1074512	60
L-1074513	60
L-1074514	60
L-1074515	60
L-1074516	60 60
L-1074517	60
L-1074518	60 60
L-1074519	60
L-1074520	
L-1074521	60
L-1074522	60
L-1074523	60 60
L-1074524	-
L-1074525	60
L-1074526	60 60
	60

Hurtubise Twp.

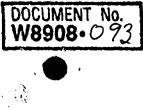
20 claims

DOCUMENT No. W8908.093

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CLAIM NO.	DAYS CREDIT
L-1031198 L-1031199	60
L-1031200 L-1031201	60 60
L-1031204 L-1031205	60 60
L-1031206	60 60
L-1031207	60

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Hurtubise Twp. (Cont)

CLAIM NO.

DAYS CREDIT

L-1031209	60
L-1031210	60
L-1031211	60
L-1031212	60
L-1031213	60
L-1031214	60
L-1031981	60
L-1031982	60
L-1031983	60
L-1031984	60
L-1031987	60
L-1032002	60

Tomlinson Twp.

8 claims

CLAIM NO.

DAYS CREDIT

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L-1031969	60
L-1031970	60
L-1031971	60
L-1031972	60
L-1031975	60
L-1031976	60
L-1031977	60
L-1031978	60

Ontario Ministry of Northern Developme and Mines	OT WORK .	DOCUMENT N N8908-09	o. 3	type of a - For Geo-t	quired data or work to be re achnical work Geological, Geo arec)",	corded (see use form no. 1	table below 1362 "Repo
Name and Postal Address of Ro	corded Holder		· · · · · · · · · · · · · · · · · · ·	,	Prospector's L	lcence Nó.	
Esso Resources C	anada Limited.	·			T-87	2	
P.O. Box 4029. T Summary of Work Perform	erminal A. Toront	o. Ontario	M5H_1T2				
Total Work Days Cr. claimed	Mining Cisim	Work	Mining Claim	Work	Minin	g Cialm	Work
9473.6	Prefix Number	Deys Cr. Pro	rfix Number	Deys Cr.	Prefix	Number	Days Cr
for Performance of the followi work. (Check one only)	^{ng} L 848104	61.4 1	848112	61.4	L 8	48120	61.4
Manual Work	848105	61.4	848113	61.4	8	48121	61.4
Shaft Sinking Drifting or	848106	61.4	848114	61.4	_8	48409	61.4
other Lateral Work.	848107	61.4	848115	61.4	8	48410	61.4
Power driven or mechanical equip.	848108	61.4	848116	61.4		48411	61.4
Power Stripping	848109	61.4	848117	61.4		48412	61.4
Diamond or other Core	848110	61.4	848118	61.4		48413	61.4
Land Survey							
All the work was performed or	Mining Claim(s), L-8344	77,834505; 8	848119 71904,908,90	61.4 9.911.912	8,915,916	48414	61.4
	L-8722	67. 269: 834	467 45.			,	
Required Information eg:	type of equipment, Name	s, Addresses, etc.	(See Table Below)				· · · · · · · · · · · · · · · · · · ·
Re: Beaverhead 24 claims	Option, Hoblitzel	1 Twp.	•	•			
	MAR - 1 196 18 19 101 11121 1121	SQ 3141516					
			Date of Report		Reconded Hol	der or Agent	(Signature)
			Feb. 28,	1989	1 chan	15 m	ill
	Ort of Work a personal and intimate know d/or after its completion and			of Work annex	ed hereto, havi	ng performed	the work
Name and Postal Address of Pe	erson Certifying						
Dane Bridge, Box	290, Timmins, On	<u>tario P4N 7</u>	N6 Date Certified		Certified by (Signatural	-
				1989			M
Table of Information/Atta	chments Required by the	Mining Recorder	FED • _ 40 •	1 70 9			2
Type of Work	Specific information	on per type	Other information	(Common to 2	or more types) Attac	hments
Manual Work							
staft Sinking, Drifting or sther Lateral Work	Nil		Names and addres manual work/ope with dates and ho	rated equipme	nt, together		atch: these red to show ion and
Compressed air, other power driven or mechanical equip.	Type of equipment					extent of relation t	work in
Power Stripping	Type of equipment and am Note: Proof of actual cost i within 30 days of recording	nust be submitted	Names and addres together with date		•		- -
Diamond or other core drilling	Signed core log showing; fo core, number and angles of		done.			Work Ski above) in	etch (as duplicate
Land Survey	Name and address of Onter	io land surveyer.		NII			NII

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Ontario	L	W8908 . C			xpenditu			sicei, G
Name and Postal Address of R	ecorded Holder					Prospecto	or's Licen	ce No.
Esso Resources C	anada Limited					<u> </u>	-872	, Y
P.O. Box 4029. 1 Summary of Work Perform	Cerminal A. Toront ance and Distribution of (<u>. Ontario</u> Credits	M5H 1T2					
Total Work Days Cr. claimed	Mining Claim	Work	Mining Cla	im	Work		Aining Cl	
9473.6	Prefix Number	Days Cr.	refix Nu	mber	Deys Cr.	Profix	Nu	imber
for Performance of the followi work. (Check one only)	^{ng} See attached 1	list						
Menual Work								
Shaft Sinking Drifting o	,							_
other Lateral Work.								
Compressed Air, other Power driven or								
mechanical equip.							÷	
								······
Diamond or other Core drilling			$\phi = \phi \phi$					
Land Survey	λ							
All the work was performed o	Atining Claim(s). L-8344	77.834505:	871904.90	8,909,91	1.912	.915.9	916:	
	L-8722	267.269: 89/	467 MS.		,	,,.		
Required Information eg:	type of equipment, Name	es, Addresses, etc	. (See Table E	selow)				
Re: Noseworthy	Twp., 8 claims, I	1031202,20)3,208,629	,980,985	5,986,	997		
-	Twp., 12 claims,							
Hoblitzell	Twp., 4 claims, 1	1031968,10)31973-979					
Blakelock T	Wp., 36 claims, I	-1035895-91						
X		100000000000000000000000000000000000000	10, 107450	7-526				
Hurtubise 1	Wp., 20 claims, I		•		4, L−1	031981	l-984,	987,
Hurtubise 1			•		, L−1	031981	L - 984,	987,
Tomlinson I	Iwp., 8 claims, L-	2-1031198-20 2-1032002 -1031969-972)1,204-207 2,975-978	,209-214	-			-
Tomlinson I Holes HN-88-28 a BBS-25A diamond	I wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2459	2-1031198-20 2-1032002 -1031969-972 Detween Sept operated by	01,204-207 2,975-978 cember 21, 7 Bradley	,209-214 1988 ar Bros. Lt t) were	nd Nov	ember 2.0. Bo	3, 19 5x 236	988, 57, N
Tomlinson I Holes HN-88-28 a BBS-25A diamond	I wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2459	2-1031198-20 2-1032002 -1031969-972 Detween Sept operated by ➡ metres (8	01,204-207 2,975-978 cember 21, 7 Bradley 0068-5 fee 10201 d/	,209-214 1988 ar Bros. Lt t) were	nd Nov	ember .O. Bo ed in	3, 19 ox 236 these	988, 57, N 2 13
Tomlinson I Holes HN-88-28 a BBS-25A diamond	I wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2459	2-1031198-20 2-1032002 -1031969-972 Detween Sept operated by ➡ metres (8	01,204-207 2,975-978 cember 21, 7 Bradley 068:5 fee 10201 d/	,209-214 1988 ar Bros. Lt t) were	nd Nov d., P drill	ember .O. Bo ed in	3, 19 5x 236	988, 57, N 2 13
Tomlinson I Holes HN-88-28 a BBS-25A diamond Quebec, J9X 5A9.	I wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2439. 3109.	2-1031198-20 2-1032002 -1031969-972 Detween Sept operated by ➡ metres (8	01,204-207 2,975-978 cember 21, 7 Bradley 068:5 fee 10201 d/	,209-214 1988 ar Bros. Lt t) were	nd Nov d., P drill	ember .O. Bo ed in	3, 19 ox 236 these	988, 57, N 2 13
Tomlinson T Holes HN-88-28 a BBS-25A diamond Quebec, J9X 5A9. Certification Verifying Rep	I wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2439. 3109.	2-1031198-20 2-1032002 -1031969-972 Detween Sept operated by B metres (8 3 DA	01,204-207 2,975-978 cember 21, 7 Bradley 10261 d/	,209-214 1988 ar Bros. Lt t) were	nd Nov :d., P drill 39	ember .O. Bo ed in	3, 19 ox 236 these	988, 57, N 2 13
Tomlinson T Holes HN-88-28 a BBS-25A diamond Quebec, J9X 5A9. Certification Verifying Rep I hereby certify that I have or witnessed same during an	I wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2459. 3109. bort of Work e personal and intimate know d/or after its completion and	-1031198-20 -1032002 -1031969-972 Detween Sept operated by ⇒ metres (8 .3 ØA	01,204-207 2,975-978 cember 21, 7 Bradley 10201 d/ Date of Feb.	,209-214 1988 ar Bros. Lt t) were	nd Nov :d., P drill 39	ember .O. Bo ed in	3, 19 ox 236 these	988, 57, N 2 13
Tomlinson T Holes HN-88-28 a BBS-25A diamond Quebec, J9X 5A9. Certification Verifying Rep I hereby certify that I have or witnessed same during an Name and Postal Address of Postal	I Wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2459 3109. Dort of Work e personal and intimate know hd/or after its completion and erson Certifying	L-1031198-20 L-1032002 -1031969-972 Detween Sept operated by D metres (8 .3 DA Viedge of the facts of the annexed report	01,204-207 2,975-978 cember 21, 7 Bradley 5058-5 fee 10201 d/ Date of Feb.	,209-214 1988 ar Bros. Lt t) were	nd Nov :d., P drill 39	ember .O. Bo ed in	3, 19 ox 236 these	988, 57, N 2 13
Tomlinson T Holes HN-88-28 a BBS-25A diamond Quebec, J9X 5A9. Certification Verifying Rep I hereby certify that I have or witnessed same during an Name and Postal Address of Postal	I wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2459. 3109. bort of Work e personal and intimate know d/or after its completion and	L-1031198-20 L-1032002 -1031969-972 Detween Sept operated by D metres (8 .3 DA Viedge of the facts of the annexed report	01,204-207 2,975-978 cember 21, 7 Bradley 5058-5 fee 10201 d/ Date of Feb.	,209-214 1988 ar Bros. Lt t) were 7. Report 28, 198	nd Nov :d., P drill 39	Regreted	3, 19 ox 236 these	or Agen
Tomlinson T Holes HN-88-28 a BBS-25A diamond Quebec, J9X 5A9. Certification Verifying Rep I hereby certify that I have or witnessed same during an Name and Postal Address of Postal	I Wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2459 3109. Dort of Work e personal and intimate know hd/or after its completion and erson Certifying	L-1031198-20 L-1032002 -1031969-972 Detween Sept operated by D metres (8 .3 DA Viedge of the facts of the annexed report	01,204-207 2,975-978 cember 21, 7 Bradley 10201 d/ Date of Feb. 10201 d/ Feb. 10201 d/ N6 Date Cel	,209-214 1988 ar Bros. Lt t) were	nd Nov d., P drill 39	Regreted	3, 19 bx 236 these	or Agen
Tomlinson T Holes HN-88-28 a BBS-25A diamond Quebec, J9X 5A9. Certification Verifying Rep I hereby certify that I have or witnessed same during an Name and Postal Address of Postal	I Wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2459. 3109. Sort of Work a personal and intimate know dd/or after its completion and erson Certifying : 290, Timmins, Or	-1031198-20 -1032002 -1031969-972 Detween Sept operated by B metres (8 3 DA viedge of the facts of the annexed report	01,204-207 2,975-978 cember 21, 7 Bradley 5055-5 fee 10201 d/ Date of Feb. 505 forth in the F t is true. 7N6 Date Cei Feb.	,209-214 1988 ar Bros. Lt t) were 7. Report 28, 198	nd Nov d., P drill 39	Regreted	3, 19 bx 236 these	or Agen
Tomlinson T Holes HN-88-28 a BBS-25A diamond Quebec, J9X 5A9. Certification Verifying Rep I hereby certify that I have or witnessed same during an Name and Postal Address of Pe Dane Bridge, Box	I Wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2459. 3109. Sort of Work a personal and intimate know dd/or after its completion and erson Certifying : 290, Timmins, Or	L-1031198-20 L-1032002 -1031969-972 Detween Sept operated by B metres (8 .3 DA viedge of the facts of the annexed report intario P4N 7 Mining Recorder	01,204-207 2,975-978 cember 21, 7 Bradley 10201 d/ Date of Feb. N6 Date Cei Feb.	,209-214 1988 ar Bros. Lt t) were	nd Nov cd., P drill 39 rk annexe 39	Regarded	3, 19 bx 236 these i Holder d having pe	or Agen erforme
Tomlinson T Holes HN-88-28 a BBS-25A diamond Quebec, J9X 5A9. Certification Verifying Rep I hereby certify that I have or witnessed same during an Name and Postal Address of Po Dane Bridge, Box Table of Information/Atta	I wp., 8 claims, L- and 32-45, cored b drill, owned and A total of 2439. 3109. bort of Work a personal and intimate know d/or after its completion and erson Certifying 290, Timmins, Or chments Required by the	L-1031198-20 L-1032002 -1031969-972 Detween Sept operated by B metres (8 .3 DA viedge of the facts of the annexed report intario P4N 7 Mining Recorder	01,204-207 2,975-978 cember 21, 7 Bradley 10201 d/ Date of Feb. N6 Date Cei Feb.	,209-214 1988 ar Bros. Lt t) were 7. Report 28, 198 Report of Work rtified 28, 198	nd Nov cd., P drill 39 rk annexe 39	Regarded	3, 19 bx 236 these i Holder d having pe	or Agen
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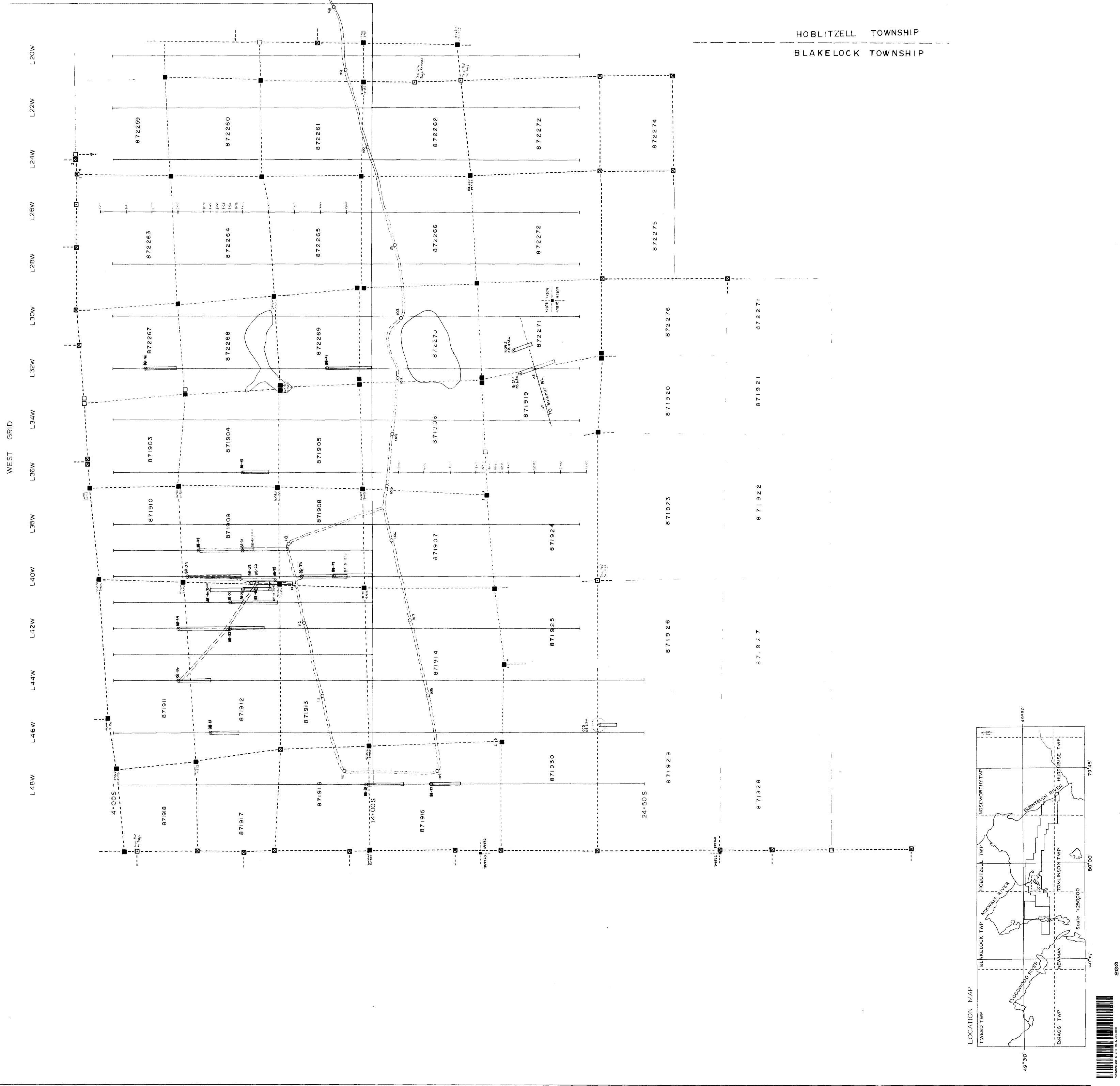
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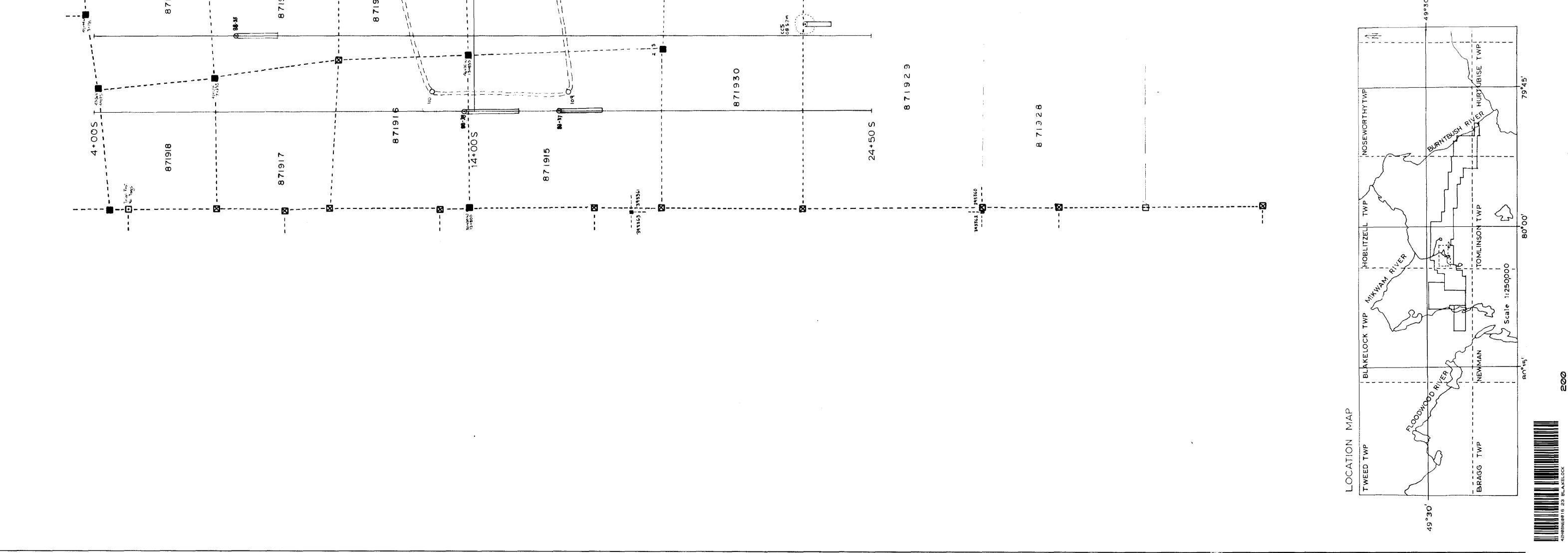
	Ministry of Northern Development And Mines	ent Of Work	DOCUMENT W8908+C	No. 93		type of a For Geo-t	quired data on work to be reco achnical work us Geological, Geop ares)",	erded (see t form no. 1)	able below). 362 "Report
	Nemi and Postal Address of A						Prospector's Lic	ence No.	
	Esso Resource	s canada Lim	itea				<u>T-872</u>		27 M
	P.O. Box 4029 Summary of Work Perform								
	Total Work Days Cr. claimed	Mining C Prefix N	laim Work umber Days Cr.		Vining Claim Number	Work Deys Cr.	Mining Prefix	Cialm Number	Work Days Cr.
•	9473.6 for Performance of the followi								
€.	Work. (Check one only)	75678							
î.	Shaft Sinking Drifting of	75/7/	_						
	other Lateral Work.	75678	82 40			1			
	Power driven or mechanical equip.				·····				
	Power Stripping								
	Diamond or other Core	1			•			· · · · · · · · · · · · · · · · · · ·	
	Land Survey								
	All the work was performed o	n Mining Claim(s): L-	-834477,83450	5; 871	904,908,909,	911,91	2,915,916;		
	Required Information eg:	-با type of equipment,	-872267, 269; Names, Addresses,	87446 etc. (Se	e Table Below)				
	Re: Blakelock 1 4 Claims	Group, Blake	elock Twp.					· · · · · · · · · · · · · · · · · · ·	
•	Holes HN-88-28 a a BBS-25A diamon Noranda, Quebec, 13 holes.	d drill, owne	ed and operate	ed by : B met:	Bradley Bros res (8068,5	. Ltd., feet)	P.O. Box	2367,	-
		ONTARIA ASS MA REC	C GEOLOGICAL SU ESSMENT FILES OFFICE R 15 1989 EIVED	RVEY	Date of Report		Recented Hold		S(anatura)
				/	Feb 28, 19	00		15-0	13
	Certification Verifying Rep	ort of Work			<u>1 TEU 40, 19</u>			-0	
	i hereby certify that I have or witnessed same during an					Vork annex	ed hereto, having	performed	the work
	Name and Postal Address of Po	erson Certifying							
	Dane Bridge, Box	290, Timmins	s, Ontario P4	N 7N6	Date Certified		Cerviled by (Si		ing
	Table of Information/Atta	chments Required t	by the Mining Reco	rder	Feb. 28, 1	303	Come a	Ĩ	1
	Type of Work	Specific inf	formation per type	0	ther information (Co	ommon to 2	or more types)	Actach	hments
	Manual Work								
	haft Sinking, Drifting or ther Lateral Work		Nil	r		d addresses of men who perform ork/operated equipment, togeth			ed to show
	Compressed air, other power driven or mechanical equip.	Type of equipment						the location extent of the relation to the rel	work in the
	Power Stripping		and amount expanded al cost must be submit cording.	ted P	lames and addresses ogether with dates v			nearest cla	
	Diamond or other core drilling	Signed core log shov core, number and an	wing; footage, diamete ngles of holes.	r of C	lone.		_	Work Sket above) in	
	Land Survey	Name and address o	f Ontario land surveye	r.		Nil		N	111
	768 (85/12)								

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