



42H08NE0009 22 BLAKELOCK

010

DIAMOND DRILLING

TOWNSHIP: BLAKELOCK TWP.

REPORT NO: 22

WORK PERFORMED FOR: Esso Resources Canada Ltd.

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

<u>Claim No.</u>	<u>Hole No.</u>	<u>Footage</u>	<u>Date</u>	<u>Note</u>
L 871912	HN-88-29	143m	Sept/88	(1)(2)
	HN-88-30	237.70m	Sept/88	(1)(2)
L 871909	HN-88-31	233m	Sept/88	(1)(2)

(1) W8808.592, date filed April 89

(2) Similar drill log added July 190 from  
DM88-6-C-236



H-N PROJECT (Ont. 77)

ESSO MINERALS CANADA  
DIAMOND DRILL RECORD

ONTARIO GEOLOGICAL SURVEY  
ASSESSMENT FILES  
OFFICE

JAN 4 1989

RECEIVED

Hole: HN88-29  
Page: 1

Drilled by: Bradley Bros. Limited  
Hole Size: BQ  
Core Size: BQ  
Casing: Casing Left in Hole

Azimuth: 180  
Dip: -43

Claim No: L-871912  
Grid: West  
Easting: 40+50W  
Northing: 9+00S  
Elevation: Level

Started: Sept. 13, 1988  
Finished: Sept. 14, 1988

Acid Tests:

Depth	Az.	Dip
11.00		-43.0
111.00		-41.0
143.00		-41.0

Purpose: Test West Ext. of HN88-22

Logged by: M.H.Lenters  
Date logged: September 1988  
Logging Method: Log II  
Measurement System: Metric

Length: 143.00 Metres  
Vert. Proj: 95.0 Metres  
Hor. Proj: 106.0 Metres  
Ovb. Depth: 7.8 Metres

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION			
									SIL	CARB	SER	
.00	11.00											
11.00	44.35											
	Unit is mostly light greyish white and weak to moderately silicified and sericitized, with 25% large (50 to 100 cm), pinkish, relatively unaltered zones, and a few thin, white, moderately to intensely silicified bands.	NS	11.00	44.35	33.35							
	The unaltered zones are typically light to medium pink, massive, coarse grained, plagioclase porphyritic, biotite quartz diorite intrusives containing 0.5 to 1% pyrite, and minor quartz veinlets. The core is hard and competent, with 10 to 50 cm breakage.	1318	11.00	12.00	1.00		MINOR	1-3%	WK-INT		WK	WK-MOD
	The weak to moderately altered zones are generally massive, though locally weakly foliated. Most sections are weakly altered with biotite preserved or weakly chloritized. Only locally, in thin zones adjacent to fractures and quartz veining, is the unit moderately and occasionally intensely altered. The altered zones contain 5 to 10% irregular quartz veining/flooding as thin (1 to 10 mm), branching to anastomosing veins oriented at various angles to the core axis. The veining is often vuggy,	1319	12.00	13.50	1.50			1-2%				
		1320	13.50	14.00	.50		TRACE	1-2%				
		1321	14.00	15.00	1.00			1-2%				
		1322	15.00	16.00	1.00			1-2%				
		1323	16.00	17.00	1.00			1-2%				
		1324	17.00	18.00	1.00		MINOR	2-3%				
		1325	18.00	19.00	1.00		MINOR	2-3%				
		1326	19.00	20.10	1.10		0.25%	2-3%				
		1327	20.10	21.00	.90			1-2%				
		1328	21.00	22.00	1.00		TRACE	1%				
		1329	22.00	22.50	.50			1%				
		1330	22.50	23.00	.50		0.5%	2-4%				
		1331	23.00	23.50	.50		0.25%	2-3%				



Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
49.50 - 49.65	Feldspar Porphyritic Quartz Diorite Dyke. Contacts are parallel to foliation at 60 degrees to the core axis. Foliation where developed is oriented at about 60 degrees to the core axis. Minor to 1% pyrite, generally concentrated along small fractures. Hard competent core with 10 to 100 cm breakage, generally at 60 to 70 degrees to the core axis along fractures and foliation. Lower contact is a sharp intrusive contact oriented at 80 degrees to the core axis.										
51.00 - 56.25	FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED Pink, massive, very coarse grained, relatively unaltered, with weak plagioclase porphyritic appearance. Biotite is relatively fresh. Unit is cut by a few, thin (0.5 to 1 cm), blue-white quartz veins oriented at various angles to the core axis. 0.5 to 1% finely disseminated pyrite. Competent core, but relatively broken into 3 to 10 cm pieces often along chloritic fractures.	NS	51.00	56.25	5.25			- 0.5-1%			
		1356	51.00	52.00	1.00			- 0.5-1%			
		1357	52.00	53.00	1.00			- 0.5-1%			
		1358	53.00	54.20	1.20			- 0.5-1%			
		1359	54.20	55.50	1.30			- 0.5-1%			
		1360	55.50	56.25	.75			- 0.5-1%			
56.25 - 62.10	FP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED Mottled light grey to medium grey, weak to locally moderately silicified and weakly sericitized, and cut by 5 to 10%, irregular, quartz veining/silica flooding. Generally massive to weakly foliated at 60 degrees to the core axis. Quartz veining is generally oriented at 45 to 60 degrees to the core axis. It is sometimes vuggy and often centres the more altered bands/sections. Occasionally the veins contain chlorite fringed quartz or calcite fragments, and coarse calcite mineralization. Relatively competent core with 5 to 15 cm breakage, generally along fractures oriented at 45 to 70 degrees to the core axis. Moderately altered zones adjacent to some fractures and quartz veins contain minor amounts of disseminated grey metallic mineral.	NS	56.25	62.10	5.85			MINOR	1-3%	WK-MOD	V. WK WK
		1361	56.25	58.00	1.75			TRACE	1-2%		
		1362	58.00	59.70	1.70			-	2%		
		1363	59.70	61.00	1.30			0.25%	2-3%		
		1364	61.00	62.10	1.10			0.25%	2-3%		

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION SIL CARB SER	
62.10	63.75 WELL FOLIATED QUARTZ FELDSPAR PORPHYRY DYKE Dark slightly purplish black, well foliated, biotitic groundmass with 30 to 40%, small (1 to 3mm), subhedral, plagioclase and quartz phenocrysts that are uniformly distributed throughout the dyke. Dyke has a well foliated augen gneissic texture. No significant quartz veining. Minor finely disseminated pyrite. Gneissic foliation generally oriented at 30 degrees to the core axis, but varies from 10 to 30 degrees. Competent core, but relatively well broken into 5 to 15 cm pieces. Upper and lower contacts occur in poorly recovered rubble sections, but recovered fragments indicate sharp intrusive contacts oriented at 40 to 50 degrees to the core axis.	NS 1365	62.10 62.10	63.75 63.75	1.65 1.65		- -	MINOR MINOR		
63.75	64.60 PP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED Medium grey, coarse grained, very weak to weakly silicified intrusive belonging to unit between 51.00 to 62.10 on the other side of the overlying, later intrusive dyke. This section contains no significant quartz veining, has mostly unaltered biotite, and contains 1% finely disseminated pyrite. Lower contact is sharp intrusive contact oriented at 80 degrees to the core axis.	NS 1366	63.75 63.75	64.10 64.60	.35 .85		- -	1% V.WK-WK 1%	- -	WK WK
64.60	76.30 MAFIC METAVOLCANIC FLOWS (PE THOLEIITE) Similar to unit between 44.35 to 51.00. Dark green, weakly foliated to massive with a weak, or subdued, feldspar porphyritic texture as described in unit between 44.35 to 51.00. Weakly to moderately magnetic. Foliation is oriented at 50 to 70 degrees to the core axis and best developed in upper part of unit. Upper part of unit also contains a thin band of weak to moderate epidote-carboante alteration between 65.50 and 66.00. Upper section also exhibits a weak to moderately developed, thin (hairline), calcite tension microfracturing, with discontinuous	NS 1367 8563 8564 8565 8566 8567 8568 1368	64.60 64.60 68.00 69.10 69.70 71.00 72.45 74.00 75.00 75.00	76.30 66.00 69.10 69.70 71.00 72.45 74.00 75.00 76.30	11.70 1.40 1.10 .60 1.30 1.45 1.55 1.00 1.30		- - - - - - - - -	MNR-1% 0.5% MINOR 2-3% 2-3% 0.5% 0.5% 0.5% 0.5%		

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
	fractures often parallel to foliation. Unit contains several thin (0.5 to 2.5 cm), subplanar, blue-white quartz veins variably oriented between 40 to 70 degrees to the core axis. Unit contains one large quartz diorite intrusive dyke, and several fragments? of smaller ones.										
69.00 69.60	Feldspar Porphyritic Quartz Diorite Dyke. Upper contact oriented at 70 degrees to the core axis, and lower contact oriented at 30 degrees to the core axis.										
69.90 69.95	Feldspar Porphyritic Quartz Diorite Dyke. Irregular faulted dyke section or fragment. Unit generally contains minor pyrite, but a few zones adjacent to veining locally contain concentrations of 1 to 2%. Competent core with 10 to 100 cm breakage generally along fractures oriented between 45 and 70 degrees to the core axis. Lower contact is a sharp, but undulating, intrusive contact oriented at 50 to 60 degrees to the core axis.										
76.30 109.35	PP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED Generally weakly altered, with upper half containing some relatively unaltered sections, and lower half containing several, thin, moderately altered zones.	MS	76.30	109.35	33.05				TR-MNR	0.5-3%	UN-MOD UN-WK UN-MOD
		1369	76.30	77.25	.95				-	3-4%	
		1370	77.25	78.00	.75				-	1-2%	
		1371	78.00	79.00	1.00				-	1-2%	
		1372	79.00	80.00	1.00				-	2%	
		1373	80.00	81.00	1.00				-	2%	
		1374	81.00	82.40	1.40				-	2%	
		1375	82.40	83.00	.60				0.5%	2%	
		1376	83.00	83.50	.50				0.5%	2%	
		1377	83.50	84.00	.50				-	1-2%	
		1378	84.00	85.00	1.00				-	1%	
		1379	85.00	86.00	1.00				TRACE	1%	
		1380	86.00	87.00	1.00				MINOR	1-2%	
		1381	87.00	88.00	1.00				MINOR	2-3%	
		1382	88.00	89.00	1.00				-	1%	
		1383	89.00	90.00	1.00				-	2%	
		1384	90.00	91.00	1.00				-	2-3%	

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION			
									SIL	CARB	SER	
	metallic mineral. The latter is also disseminated within the strongly altered intrusive, particularly adjacent to quartz veining. Altered zones contain 2 to 4% disseminated pyrite, often concentrated along fractures. Unit is extremely well broken, generally into 1 to 5 cm pieces, with some rubble sections, and possibly 3 to 5% lost/ground core.	1385	91.00	92.00	1.00			-	2-3%			
		1386	92.00	93.00	1.00			TRACE	2-3%			
		1387	93.00	94.00	1.00			TRACE	2-3%			
		1388	94.00	94.50	.50			-	2-4%			
		1389	94.50	95.00	.50			0.5%	2-4%			
		1390	95.00	96.00	1.00			0.5%	2-3%			
89.00	109.35	1391	96.00	97.00	1.00			MINOR	2-3%			
	Generally light grey to light apple greenish grey weak to moderately altered (silicified and sericitized) intrusive, with a few relatively unaltered sections, and several quartz veined, intensely altered zones. Biotite is generally chloritized, and in the intensely altered sections is sericitized. Generally 5 to 15% quartz veining, occurring as thin (0.5 to 1 cm), irregular, branching and anastomosing veins oriented between 0 to 45 degrees to the core axis. Several veins centre thin (1 to 5 cm), intensely altered wallrock zones containing minor to 1% finely disseminated metallic grey mineralization. The latter are concentrated near vein edges or along the edges of wallrock inclusions, often nucleating on pyrite grains. Quartz veins are white, coarse grained, clean and somewhat vuggy. Section contains 1 to 4% disseminated pyrite. Well fractured and broken core with 1 to 10 cm breakage and a few rubble zones. Lower contact sharp and oriented at 60 degrees to the core axis.	1392	97.00	98.00	1.00			0.5%	2-3%			
		1393	98.00	99.00	1.00			TRACE	2-3%			
		1394	99.00	100.00	1.00			0.5%	2-3%			
		1395	100.00	101.00	1.00			0.5%	2-4%			
		1396	101.00	102.00	1.00			TRACE	2-3%			
		1397	102.00	103.00	1.00			-	2-3%			
		1398	103.00	104.35	1.35			-	1-2%			
		1399	104.35	105.00	.65			1%	2-3%			
		1400	105.00	106.00	1.00			0.5%	2-3%			
		1401	106.00	107.00	1.00			TRACE	2-3%			
		1402	107.00	108.00	1.00			0.5-1%	2-3%			
		1403	108.00	109.35	1.35			MINOR	2-4%			
109.35	118.00	SCHISTOSE MAFIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS										
	Generally mottled to irregularly banded, vari-coloured light emerald and apple greens, to buff, to salmon pink, and locally brecciated.	NS	109.35	118.00	8.65			-	0.5-3%			
	Irregular alteration banding/mottling generally oriented at 50 to 70 degrees to the core axis.	1404	109.35	110.15	.80			-	0.5%			
	Most intense alteration is the upper contact zone with the overlying intrusive. The intensity of alteration gradually decreases with distance away from the intrusive, although a separate brown coloured, strongly carbonate altered zone occurs between 116.30 to 117.50.	1405	110.15	111.00	.85			-	2-4%			
	Less altered patches, are dark green, fine grained, moderately magnetic	1406	111.00	112.00	1.00			-	2-4%			
		1407	112.00	113.00	1.00			-	2-3%			
		8569	113.00	114.50	1.50			-	0.5%			
		8570	114.50	116.00	1.50			-	0.5%			
		8571	116.00	116.80	.80			-	0.5%			
		1408	116.80	117.50	.70			-	2-3%PO			



Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION SIL CARB SER
	and similar to the underlying unit, suggesting an original mafic volcanic composition. Unit contains several, thin (1 to 5 mm), planar, quartz diorite intrusive veinlets, and one small dyke between 113.50 and 113.60. Minor, thin (hairline), calcite microfracturing, and almost no significant quartz veining. Altered zones contain 1 to 4% extremely finely disseminated pyrite.	8572	117.50	119.00	1.50			-	MINOR
118.00	129.00	MAFIC METAVOLCANIC FLOWS (FE THOLEIITE)							
	Dark green, relatively unaltered to weakly altered, massive, fine grained, weak to moderately magnetic, mafic volcanic. Unit exhibits 5 to 15% lighter grey to green-grey, wispy to irregularly patchy alteration, also occurring locally as thin (hairline), network fracturing. Unit contains only 5%, thin, irregular patches of light green epidote-carbonate alteration, locally containing pink garnet porphyroblasts. Well developed calcitic, network tension microfracturing. A few, thin (0.5 to 1 cm), planar quartz veins, generally offset along fractures. Minor to 0.5%, finely disseminated pyrite, as well as trace amounts of chalcopyrite occurring along some fractures. Relatively competent core with 20 to 50 cm breakage, generally along fractures oriented at 45 to 70 degrees to the core axis. Lower contact is a sharp, but irregular intrusive contact oriented at 45 degrees to the core axis.	NS	118.00	129.00	11.00			-	0.5%
		8573	119.00	120.50	1.50			-	0.5%
		8574	120.50	122.00	1.50			-	MINOR
129.00	132.20	FELDSPAR PORPHYRITIC QUARTZ DIORITE DYKE							
	Medium to dark, slightly pinkish grey, with a finer grained, darker, and slightly more schistose groundmass, and a more pronounced feldspar porphyritic appearance than large intrusive bodies. Plagioclase phenocrysts are 2 to 5 cm, subhedral, with a corroded appearance and slightly pinkish white colour. Biotite forms small phenocrysts in the groundmass matrix. Weak foliation developed at 45 degrees to the core axis, subparallel to	NS	129.00	132.20	3.20			-	0.5-1%

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

the foliation in the adjacent volcanics.

Minor quartz veining.

0.5 to 1% finely disseminated pyrite.

Relatively competent core with moderate (5 to 15 cm) breakage, generally along fractures oriented at 60 to 80 degrees to the core axis.

Upper and lower contacts are sharp, undulating to planar contacts parallel to the foliation at 45 degrees to the core axis.

132.20 143.00 SCHISTOSE MAFIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Similar to section between 118.00 to 129.00, with slightly more (5 to 10%) epidote-carbonate alteration banding that is generally oriented at 30 to 40 degrees to the core axis, and a more intense network of thin (hairline), calcitic tension microfracturing.

Foliation, as well as compositional and alteration banding are well developed and oriented at 30 to 40 degrees to the core axis.

Lower contact not encountered.

143.00 End of hole.

NS 132.20 143.00 10.80

- 0.5%

*Martin Lenz*  
*December, 1988*

H-N PROJECT (Ont. 77)

ESSO MINERALS CANADA  
DIAMOND DRILL RECORD

Hole: HN88-30  
Page: 1

Drilled by: Bradley Bros. Limited  
Hole Size: BQ  
Core Size: BQ  
Casing: Casing Removed

Azimuth: 180  
Dip: -44

Claim No: L-871912  
Grid: West  
Easting: 41+00W  
Northing: 8+50S  
Elevation: Level

Started: Sept. 15, 1988  
Finished: Sept. 17, 1988

Acid Tests:  
Depth Az. Dip  
10.00 -44.0  
123.00 -39.5  
223.00 -38.0

Purpose: Test Mag Low & IP West of HN88-22

Logged by: M.H.Lenters  
Date logged: September 1988  
Logging Method: Log II  
Measurement System: Metric

Length: 237.70 Metres  
Vert. Proj: 154.0 Metres  
Hor. Proj: 181.0 Metres  
Ovb. Depth: 7.1 Metres

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

.00 10.00 OVERBURDEN

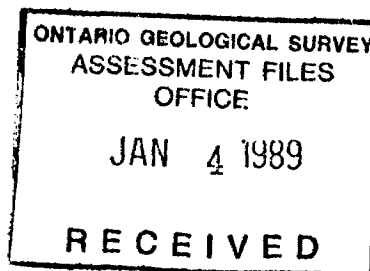
10.00 44.35 MAFIC METAVOLCANIC FLOWS (FE THOLEIITE)

Unit is generally unaltered, with a thin zone of weak epidote-carbonate alteration, and another separate band of intense epidote-carbonate alteration. The unit is intruded by a few, thin, intrusive dykes.

Unit is mostly dark greenish black to black, weak to moderately magnetic, fine grained, weak to moderately foliated at 60 to 65 degrees to the core axis above 22 metres, and more massive with small (1 to 3mm), vague, plagioclase phenocrysts below 25 metres. Locally these small phenocrysts sharply contrast with the black groundmass. Phenocrysts constitute 5 to 10% of the rock where they are small (1mm), white, and well formed, and locally constitute up to 25% of the rock where they are larger, grey and more diffuse in appearance. These sections are similar to the upper volcanics in HN88-29.

Unit contains a minor to moderate development of thin (hairline), microfracturing, locally forming intense concentrations of network tension veinlets, but more normally forming a more regular, mostly

NS	10.00	44.35	34.35	-	0.5%
1409	16.40	17.90	1.50	-	2-3%
1410	43.25	44.35	1.10	-	2-3%





Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
40.03 40.10	Feldspar Porphyritic Quartz Diorite Dyke. Irregular pink intrusive bleb.										
40.45 40.65	Feldspar Porphyritic Quartz Diorite Dyke. Subdued, pinkish intrusive with contacts at 70 degrees to the core axis.										
43.25 43.65	Feldspar Porphyritic Quartz Diorite Dyke. Subdued, pinkish intrusive with contacts at 70 degrees to the core axis.										
<p>Unit generally contains minor to 0.5% pyrite, but locally, over thin (1 to 5 cm) intervals, contains 1 to 2% pyrite. The pyrite often occurs as 0.5 to 1 mm, euhedral, cubic crystals, as fine disseminations in patches, and as thin, discontinuous, foliation parallel laminae.</p> <p>Moderately competent core with 5 to 25% breakage, generally along foliation oriented at 70 degrees to the core axis in the upper half of the unit, and along fractures oriented at 50 to 70 degrees to the core axis in the lower half. The unit contains one incompetent clay-like altered zone between 27.50 and 27.75 metres.</p> <p>Lower contact is a sharp intrusive contact oriented at 60 degrees to the core axis.</p>											
44.35 117.80	FP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED	NS	44.35	117.80	73.45				NO-MNR	0.5-3%	UN-MOD UN-WK UN-MOD
	Variably altered intrusive, consisting of 25% pink, relatively unaltered, 50% light grey, weak to moderately altered/silicified and sericitized, and 25% white, moderately and locally intensely altered (silicified and sericitized) zones and patches. Assay sample description sheets present a finer breakdown of the variable degree of alteration through the unit, but in general it is:	1411	44.35	46.00	1.65				MINOR	3-4%	
		1412	46.00	47.00	1.00				MINOR	2-3%	
		1413	47.00	48.00	1.00				TRACE	3-4%	
		1414	48.00	49.00	1.00				TRACE	3-4%	
		1415	49.00	50.00	1.00				-	2-3%	
		1416	50.00	51.00	1.00				-	1-2%	
	44.35 50.00 Light grey, weak to moderately altered.	1417	51.00	52.00	1.00				-	1-2%	
	50.00 67.75 50% pink, unaltered, and 50% light grey, weakly altered in alternating bands 10 to 100 cm wide, that exhibit somewhat irregular and gradational changes in alteration intensity.	1418	52.00	53.00	1.00				TRACE	1-2%	
	Locally this interval contains a few, thin (1 to 10cm), moderately to intensely altered bands, that generally occur adjacent to quartz veins.	1419	53.00	54.00	1.00				-	1%	
		1420	54.00	55.00	1.00				TRACE	1-2%	
		1421	55.00	55.80	.80				MINOR	2-3%	
		1422	55.80	57.00	1.20				-	1-2%	
	67.75 73.50 Medium grey, weakly altered with some thin, white, moderately altered zones.	1423	57.00	58.00	1.00				-	0.5-1%	
		1424	58.00	59.00	1.00				TRACE	1%	
	73.50 76.00 Pink, relatively unaltered intrusive.	1425	59.00	60.00	1.00				TRACE	1%	

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
76.00 93.30	Medium to light slightly greenish grey, weak to moderately altered intrusive with local bands of intense alteration.	1426	60.00	61.00	1.00		TRACE	1%			
		1427	61.00	62.00	1.00		-	1-2%			
93.30 103.75	Mostly pink, relatively unaltered intrusive with a few medium grey, weakly altered sections.	1428	62.00	63.00	1.00		-	1-2%			
		1429	63.00	64.00	1.00		-	1-2%			
103.75 117.80	White to light slightly greenish grey, moderately altered intrusive with some intensely altered, quartz veined zones.	1430	64.00	65.00	1.00		-	2-3%			
		1431	65.00	66.00	1.00		0.25%	2-4%			
	Changes in alteration in the above intervals are gradational, with pink unaltered zones often containing thin (0.5 to 1cm) more altered bands adjacent to fractures and quartz veins, and light grey, weak to moderately altered zones often containing thin intensely altered bands adjacent to some fractures and quartz veins. However, the altered zones do not contain significantly more fracturing or quartz veining when compared to the unaltered sections.	1432	66.00	67.00	1.00		0.5-1%	2-4%			
		1433	67.00	67.75	.75		-	0.5-1%			
		1434	67.75	68.25	.50		TRACE	2-3%			
		1435	68.25	68.75	.50		MINOR	3-4%			
		1436	68.75	69.40	.65		1%	3-4%			
		1437	69.40	70.00	.60		MINOR	2-4%			
		1438	70.00	71.00	1.00		0.25%	2-3%			
	Unit is generally massive, coarse grained, feldspar porphyritic with 5 to 7% biotite as the mafic, and relatively minor quartz phenocrysts, although grey altered zones are silica flooded with biotite partially or completely destroyed (chloritized/sericitized).	1439	71.00	72.10	1.10		0.5-1%	2-3%			
		1440	72.10	73.50	1.40		0.5-1%	2-3%			
		1441	73.50	74.50	1.00		-	0.5-1%			
		1442	74.50	75.50	1.00		-	0.5-1%			
80.00 80.35	Thin (10 cm) fault zone, or brecciated intrusive zone containing 70%, 1 to 3mm, subrounded intrusive fragments in a fine matrix. Zone is well banded at 35 degrees to the core axis.	1443	75.50	76.00	.50		MINOR	1-2%			
		1444	76.00	77.00	1.00		0.5%	2-3%			
		1445	77.00	78.00	1.00		MINOR	2-3%			
		1446	78.00	79.00	1.00		0.5%	2-3%			
	Unit contains 5%, thin (0.5 to 2cm), very irregular, branching quartz veins often offset along fractures. The veins cut both unaltered and altered intrusive zones, although the larger and more irregular veins are more common in the more altered intrusive zones. The larger veins appear to be oriented at various angles, between 45 and 90 degrees, to the core axis. The quartz veins are often irregularly branching, but locally cross-cut one another. Quartz veining is blue-white, coarse grained, often vuggy, occasionally contains coarse calcite, but is generally clean, apart from minor pyrite, and locally contains minor amounts of a purplish grey metallic mineral. The latter also forms fine disseminations in intensely altered and silica flood zones adjacent to quartz veins, and occasionally forms smears on fractures.	1447	79.00	80.00	1.00		TRACE	3%			
		1448	80.00	81.00	1.00		TRACE	2-3%			
		1449	81.00	82.00	1.00		0.5%	2-3%			
		1450	82.00	83.00	1.00		MINOR	2-3%			
		1451	83.00	84.00	1.00		MINOR	2-3%			
		1452	84.00	85.00	1.00		MINOR	2-3%			
		1453	85.00	86.00	1.00		0.5%	2-3%			
		1454	86.00	87.00	1.00		MINOR	2-3%			
		1455	87.00	88.00	1.00		-	2-3%			
		1456	88.00	89.00	1.00		TRACE	2-3%			
		1457	89.00	90.00	1.00		-	1%			
		1458	90.00	91.00	1.00		TRACE	1%			
	Unit contains several, thin (1 to 2cm), quartz veins containing minor amounts of very coarse (1 to 5mm), grey metallic mineralization in wavy needle-like crystals at:	1459	91.00	92.00	1.00		TRACE	2-3%			
		1460	92.00	93.30	1.30		-	1-2%			
		1461	93.30	94.00	.70		TRACE	1%			

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
109.00 109.20	In irregular quartz vein.	1462	94.00	95.00	1.00		-	1%			
113.60 113.80	In planar quartz vein oriented at 20 degrees to the core axis.	1463	95.00	96.00	1.00		MINOR	1-2%			
		1464	96.00	97.00	1.00		-	1-2%			
	Unit is generally well fractured at various angles to core axis, with most oriented between 30 and 80 degrees to the core axis. Fractures often exhibit greasy chloritic-sericitic surfaces, and generally contain increased amounts of disseminated pyrite.	1465	97.00	98.00	1.00		-	1-2%			
		1466	98.00	99.00	1.00		-	1-2%			
		1467	99.00	100.00	1.00		TRACE	1-2%			
		1468	100.00	101.00	1.00		TRACE	1-2%			
	Unaltered zones contain 0.5 to 1% pyrite, while altered zones contain 2 to 4% finely disseminated pyrite.	1469	101.00	102.00	1.00		MINOR	1-2%			
		1470	102.00	103.00	1.00		-	1-2%			
	Moderately competent core with 5 to 20 cm breakage, generally along fractures. Unit contains a few, thin (10 cm), rubble zones where irregular fractures intersect, and a few moderately incompetent and crumbly zones of moderately to intensely altered intrusive.	1471	103.00	103.75	.75		0.25%	2-3%			
		1472	103.75	104.50	.75		0.5-1%	2-3%			
		1473	104.50	105.00	.50		MINOR	2-4%			
		1474	105.00	106.00	1.00		0.5-1%	3-5%			
80.50 90.80	Section containing several black, planar, chloritic fractures, and a few, thin to moderately thick (1 to 10mm), green serpentine fracture slips. The chloritic fractures are somewhat irregular and at shallow angles to the core axis, but the serpentine slips are very planar at 25 degrees to the core axis, with evidence of slippage.	1475	106.00	107.00	1.00		0.5-1%	2-3%			
		1476	107.00	108.00	1.00		0.5-1%	2-3%			
		1477	108.00	109.00	1.00		0.25%	2-3%			
		1478	109.00	109.70	.70		0.5-1%	3-4%			
		1479	109.70	110.50	.80		TR-MNR	1-2%			
		1480	110.50	111.00	.50		1%	3-5%			
	Lower contact is sharp and planar at 45 degrees to the core axis, with moderate to intense silicification over 50cm of the underlying mafic volcanic unit.	1481	111.00	111.50	.50		0.5-1%	2-4%			
		1482	111.50	112.00	.50		0.5-1%	2-4%			
		1483	112.00	113.00	1.00		0.25%	2-3%			
		1484	113.00	114.00	1.00		0.5%	2-3%			
		1485	114.00	115.00	1.00		0.25%	2-3%			
		1486	115.00	116.00	1.00		TRACE	2-3%			
		1487	116.00	117.00	1.00		0.5%	2-3%			
		1488	117.00	117.80	.80		0.25%	2-3%			
117.80 142.25	MAFIC METAVOLCANIC FLOWS (FE THOLBIITE) Generally dark greenish black, fine grained, moderately magnetic, and massive with some zones having slightly browner biotitic composition. The upper contact zone is silicified and the lower contact zone is weak to moderately epidote-carboante altered. Locally the unit exhibits thin zones containing feldspar phenocrysts, as well as some sections exhibiting very weak epidote alteration.	NS	117.80	142.25	24.45		-	0.5-2%			
		1489	117.80	119.00	1.20		-	0.5%			
		1490	129.00	130.00	1.00		-	3-4%			

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION SIL CARB SER
	Unit has weak to moderate development of hairline calcite tension microfracturing, and contains minor to 5%, thin (1 to 10cm), generally planar, blue-white quartz veins, occasionally containing small feldspar phenocrysts. Thin intrusive dykes occur between: 123.20 123.25 Feldspar Porphyritic Quartz Diorite Dyke. Salmon pink and oriented at 70 degrees to the core axis. 139.30 139.65 Feldspar Porphyritic Quartz Diorite Dyke. Very subdued/resorbed dyke, with irregular diffuse contacts. 140.15 140.40 Feldspar Porphyritic Quartz Diorite Dyke. Grey with contacts oriented at 60 to 70 degrees to the core axis. Some green-black massive sections exhibit small (1 to 3mm), ovoid amygdules and occasional feldspar crystals suggesting a flow origin. Relatively abundant (0.5 to 3%) pyrite as fine disseminations, irregular elongate blebs, and fracture fillings. The brown biotitic zone between 129 and 130 is particularly pyritic containing 3 to 4% pyrite, as well as a trace amount of chalcopyrite. Foliation and alteration orientation, where developed is at 60 to 70 degrees to the core axis. The planar fabric is best developed in the lower contact zone where foliation shearing is oriented parallel to the contact at 60 to 70 degrees to the core axis. Competent core with 20 to 50 cm breakage, generally along fractures at various orientations to to the core axis.								
142.25 173.00	FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED Mostly typical pink, massive, unfoliated, medium to coarse grained, plagioclase porphyritic, biotite granodiorite to quartz diorite, although unaltered zones exhibit a light bleaching in thin (1 to 5mm) zones adjacent to fractures and some quartz veins. The unit contains a few thin to thick, grey, weak to locally moderately altered zones, between: 156.85 157.10 Grey, moderately silicified zone adjacent to quartz vein oriented at 45 degrees to the core axis. 160.00 163.05 Medium grey, pervasively weakly silicified. 168.00 173.00 Progressively more altered towards the adjacent volcanic contact, changing from grey, weakly silicified to grey,	NS 142.25	173.00	30.75			NO-TR	0.5-3%	
		1491	153.00	154.00	1.00		-	0.5%	
		1492	154.00	155.00	1.00		MINOR	0.5%	
		1493	155.00	156.00	1.00		-	0.5%	
		1494	156.00	157.15	1.15		TRACE	0.5%	
		1495	160.00	161.00	1.00		-	0.5-1%	
		1496	161.00	162.00	1.00		TRACE	0.5-1%	
		1497	162.00	163.00	1.00		-	0.5-1%	
		1498	168.00	169.00	1.00		-	0.5-1%	
		1499	169.00	170.00	1.00		-	1-3%	



Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION SIL CARB SBR
	moderately silica flooded.	1500	170.00	171.00	1.00		-	1-3%	
	Unit contains several, thin (0.5 to 2cm), planar, blue-white quartz veins generally oriented at 30 to 45 degrees to the core axis. Veins containing mineralization other than pyrite are listed below:	1501	171.00	172.00	1.00		TRACE	2-3%	
	143.60 143.65 1 cm quartz vein oriented at 30 degrees to the core axis, containing salmon pink calcite and minor purple fluorite.	1502	172.00	173.00	1.00		TRACE	3-4%	
	147.90 148.00 10 cm grey silica flood vein with very finely disseminated molybdenum.								
	149.70 149.85 0.5 cm quartz vein oriented at 25 degrees to the core axis containing minor disseminated grey metallic mineralization.								
	153.20 153.25 2 cm blue-white quartz vein containing minor chalcopyrite.								
	155.70 155.80 1 cm quartz vein oriented at 25 degrees to the core axis, with abundant grey metallic minerals including minor moly coating slip surfaces on both vein contacts.								
	156.95 157.00 3 cm quartz vein oriented at 45 degrees to the core axis, with minor grey metallic mineralization.								
	Unit generally contains 0.5% pyrite, with up to 1 to 3% in the weakly to moderately altered zones.								
	Relatively competent core, generally with 10 to 50 cm breakage along fractures oriented at various angles to the core axis.								
	Lower contact is a sharp, planar, slip surface oriented at 80 degrees to the core axis.								
173.00 219.50	SCHISTOSE MAFIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS								
	Mostly a light to medium mottled green colour, indicative of weak to moderate, pervasive epidote-carbonate alteration, generally in very irregular patches and bands. Colours vary from pastel greens and browns, to light to medium greys, and in intensely carbonate altered zones to reddish-brown and pink. A few zones are hard, greyer, and appear somewhat silicified, while a darker green less altered, massive zone occurs between 200.00 and 209.50 metres. Locally garnet occurs in some intense epidote-carbonate altered bands.	WS	173.00	219.50	46.50			-	MNR-1%
	Unit is considered to be a mafic volcanic flow, with the very fine grained, massive texture that is well preserved between 200.00 to 222.50 metres.	1503	173.00	174.00	1.00			-	MINOR
		1504	188.00	189.00	1.00			-	1-2%
		1505	189.00	190.00	1.00			-	2-3%

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
	<p>Above 200 metres, the unit is generally weakly to moderately sheared and fractured/brecciated with a few thin, irregular breccia fault zones containing 1 to 15mm, angular fragments in a white calcite matrix. This section has a well fractured, pseudobreccia appearance with some late calcite tension microfracturing.</p> <p>Quartz veining is generally very thin (1 to 2mm), irregular, branching, non-planar and often discontinuous, locally infilling brecciated wallrock zones. Veining is oriented at various angles to the core axis, but is mostly between 10 to 45 degrees.</p> <p>Unit generally contains minor amounts of disseminated pyrite, but locally contains up to 3 or 4% in silicified patches.</p> <p>Two small intrusive dykes, exhibiting a foggy, assimilated, or resorbed appearance occur between:</p> <p>176.80 176.85 Contacts oriented at 65 degrees to the core axis.</p> <p>198.30 198.35 With offset fractured contacts oriented at 65 to 70 degrees to the core axis.</p> <p>Foliation and alteration banding where developed are generally oriented at about 60 degrees to the core axis, although colour banding is often highly irregular, anastomosing and offset by fracturing/local brecciation. Relatively competent core, generally with 5 to 50 cm breakage along fractures at various angles to the core axis.</p>										
219.50 219.85	<p><b>FAULT ZONE</b></p> <p>35 to 50cm of recovered rubble from late fault zone. Recovered material is mostly small (less than 0.5 cm), angular, green volcanic fragments within a clay matrix. Zone contains numerous mud red coloured, hematitic slip/shear surfaces.</p> <p>Incompetent, broken, poorly recovered, rubble zone.</p>	NS	219.50 219.85	.35					-	MINOR	
219.85 223.50	<p><b>QUARTZ VEIN BRECCIA ZONE</b></p> <p>Mostly a well mottled, white, brecciated, but rehealed quartz vein containing abundant light green, small to large, angular, fractured volcanic wallrock fragments that exhibit various degrees of assimilation by the quartz vein.</p>	NS	219.85 223.50	3.65					-	MINOR	
		1506	219.85 220.40	.55					-	MINOR	
		1507	220.40 220.75	.35					-	MINOR	
		1508	220.75 221.50	.75					-	MINOR	

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION SIL CARB SER
	Unit varies from mostly vein with assimilated wallrock fragments, to intensely fractured/brecciated altered mafic metavolcanic that is intruded by a stockwork of irregular, thin, quartz veinlets.	1509	221.50	222.00	.50				- MINOR
	Quartz veining is generally white, coarse grained, and cut by 10 to 15%, later, thin, clear quartz filling thin fractures that are somewhat irregular, but generally oriented at 10 to 15 degrees to the core axis.	1510	222.00	222.50	.50				- MINOR
	Quartz vein sections occur between:	1511	222.50	223.00	.50				- MINOR
	219.85 220.40	1512	223.00	223.50	.50				- MINOR
	220.75 221.50								
	222.00 222.50								
	223.00 233.50								
	Contacts between these sections of veining and the altered volcanics vary from relatively sharp at 0 to 20 degrees to the core axis, to somewhat gradational through stockwork breccia zones.								
	The intervening and included light green mafic volcanic wallrock sections and fragments are intensely fractured and intruded by clear quartz veinlets that are similar to the second generation quartz veinlets within the main quartz vein.								
	Unit is well broken into 3 to 20 cm pieces, generally along irregular fractures, often at 20 to 40 degrees to the core axis. Fractures locally exhibit a hematitic brown-red staining.								
	No significant sulphides occur within either the quartz vein or altered mafic volcanics.								
	Upper contact with fault gouge zone is sharp at 10 degrees to the core axis.								
	Lower contact is not discernable, due to poor recovery, but appears to be a gradational change through a stockwork quartz veined zone.								
223.50 237.70	SCHISTOSE MAFIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS								
	Unit varies from mottled light to medium green, moderately epidote-carbonate altered and brecciated adjacent to the overlying quartz vein (223.50 to 227.50m), through medium green with irregular, thin (1 to 5mm), anastomosing epidote alteration veinlets in weak to moderately altered zone (227.50 to 332.00m), to dark green, fine grained, moderately magnetic relatively unaltered to weakly epidotized	NS	223.50	237.70	14.20				- MINOR
		1513	223.50	224.00	.50				- MINOR
		1514	224.00	225.00	1.00				- MINOR

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

mafic volcanic.

Unit contains a 1 cm wide irregular clay fault gouge zone at 220.20.

Minor finely disseminated pyrite.

No significant quartz veining, apart from microfractured veining in the upper zone occurring adjacent to the overlying quartz vein breccia zone.

Minor, hairline calcitic fractures.

Lower contact not encountered.

237.70 End of hole.

*Martin Lenters*  
*December, 1988*

H-N PROJECT (Ont. 77)

ESSO MINERALS CANADA  
DIAMOND DRILL RECORD

Hole: HN88-31  
Page: 1

Drilled by: Bradley Bros. Limited  
Hole Size: BQ  
Core Size: BQ  
Casing: Casing Removed

Azimuth: 178  
Dip: -45

Claim No: L-871909  
Grid: West  
Basting: 39+00W  
Northing: 9+00S  
Elevation: Level

Started: Sept. 18, 1988  
Finished: Sept. 20, 1988

Acid Tests:  
Depth Az. Dip  
12.50 -44.5  
113.00 -43.5  
213.00 -41.0

Purpose: Test Mag Low & IP East of HN88-22

Logged by: M.H.Lenters  
Date logged: September 1988  
Logging Method: Log II  
Measurement System: Metric

Length: 233.00Metres  
Vert. Proj: 159.0 Metres  
Hor. Proj: 170.0 Metres  
Ovb. Depth: 9.3 Metres

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

.00 12.50 OVERBURDEN

12.50 13.40 FELDSPAR PORPHYRITIC QUARTZ DIORITE DYKE

Medium grey, very weakly silicified to relatively unaltered, medium to coarse grained, porphyritic intrusive dyke.

25 to 40%, small (1 to 3mm), subhedral, white plagioclase phenocrysts occur in a medium grey, relatively fine grained matrix. Matrix contains about 10%, small, biotite phenocrysts.

Minor, thin (1 to 3cm), irregular, coarse grained, white quartz vein blebs Occasional feldspar phenocrysts up to 1 cm, but these are generally poorly formed with corroded edges.

Well broken core, generally into 2 to 15 cm pieces. Breakage partly due to near surface weathering along fractures.

Lower contact not discernable as it occurs in a broken rubble zone.

NS 12.50 13.40 .90

- MINOR V.WK

13.40 42.55 SCHISTOSE MAFIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS

Generally a mottled, to thinly banded, light to dark brownish green, with

NS 13.40 42.55 29.15

ONTARIO GEOLOGICAL SURVEY  
ASSESSMENT FILES  
OFFICE  
JAN 4 1989  
RECEIVED

- 0.5-1%

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION SIL CARB SER
	sections of medium grey to medium green-grey colour. Most of the rock is generally the darker colours, ranging from medium green-grey to almost dark brownish green, with 10 to 25% thin (hairline to 5mm), irregularly banded to anastomosing light green to light yellowish-green epidote carbonate alteration. Locally this alteration forms larger (1 to 10cm), irregular patches, though generally retaining a banded appearance. Unit is mostly fine grained, weakly magnetic, and weakly foliated. Foliation and epidote-carbonate alteration banding are generally oriented at 60 to 80 degrees to the core axis. Rock is weak to moderately phyllitic and contains sections with abundant extremely fine grained biotite, which imparts the brownish colour to sections of the unit. The biotite content, brown colour, phyllitic foliation, compositional banding, and weak epidote alteration locally give the unit a metasedimentary appearance. In addition to the irregular, thin (hairline), epidote alteration banding, there is also a well developed (5%) network of calcitic microfracturing filling thin (hairline), tension fractures. Alteration banding is locally offset a few mm along these fractures. Small, irregular, poorly developed, pinkish garnet porphyroblasts locally occur in the thin moderately epidote-carbonate altered patches/bands. Minor, thin (2 to 10mm), white, coarse grained, clean, quartz veins with wavy contact edges oriented at about 70 to 80 degrees to the core axis. Generally minor to 0.5%, finely disseminated pyrite, with local zones of coarser and more abundant (0.5 to 2%) pyrite, often in foliation parallel bands that are associated with quartz veining. Relatively competent core with 10 to 50 cm breakage, generally along fractures oriented at 50 to 80 degrees to the core axis, except for the lower metre, which is relatively incompetent and vuggy. Unit includes 3 small intrusive dykes:	1515	25.00	26.00	1.00			0.5-1%	
		1516	39.95	41.70	1.75			MINOR	
37.35	37.85	Feldspar	Porphyritic Quartz Diorite Dyke. Upper contact oriented at 60 degrees to the core axis, and lower contact oriented at 45 degrees to the core axis.						
38.70	39.05	Feldspar	Porphyritic Quartz Diorite Dyke. Very dark grey, subdued intrusive dyke with irregular, wavy, but sharp						

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
	contacts oriented at about 45 degrees to the core axis.										
39.95 41.70	Feldspar Porphyritic Quartz Diorite Dyke. Medium slightly pinkish grey to grey, generally subdued coarse grained porphyritic texture that appears somewhat weakly silicified though not sericitized. Dyke is broken into small 2 to 5 cm pieces, generally along fractures oriented at 45 degrees to the core axis.										
	The mafic volcanic section between the lower dyke and the contact with the underlying intrusive plug is somewhat more broken, schistose, and vuggy. It is dark greyish black, with minor limonitic staining on phyllitic cleavage surfaces. 5% large (1 to 5mm wide to 2 to 10mm long), irregular vugs. Moderately well developed schistose foliation oriented at 60 degrees to the core axis. Core in this section is relatively incompetent and broken, generally into small (1 to 2cm) pieces along foliation surfaces oriented at 60 to 70 degrees to the core axis. Lower contact is poorly recovered, but appears to be sharp and oriented at 45 to 60 degrees to the core axis.										
42.55 176.65	FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED										
42.55 45.00	Pink, relatively unaltered, with minor very light pink, massive, albite dyke/quartz vein zones.	NS	42.55	176.65	134.10				TR-MNR	0.5-4%	UN-WK UN-WK UN-WK
45.00 47.00	Medium to light grey, weak to locally moderately altered.	1517	44.00	45.00	1.00				-	0.5-1%	
47.00 49.50	Dark pink, relatively unaltered.	1518	45.00	46.00	1.00				-	1-2%	
49.50 50.60	Medium grey, weakly altered.	1519	46.00	47.00	1.00				TR-MNR	2-3%	
50.60 56.20	Medium pink, relatively unaltered, to very weakly altered.	1520	49.50	50.60	1.10				TRACE	2-3%	
56.20 58.80	Pinkish grey to medium grey, very weakly altered to weakly altered.	1521	50.60	51.10	.50				TRACE	0.5-1%	
58.80 72.50	Light to medium grey to pinkish grey, weak to moderately and locally intensely altered intrusive with 10 to 15% quartz veining.	1522	51.10	52.00	.90				-	0.5%	
72.50 78.00	Pink to pinkish grey, relatively unaltered to very weakly altered.	1523	52.00	53.00	1.00				-	1-2%	
78.00 79.00	Pink to medium grey, relatively unaltered to weakly altered.	1524	56.50	57.50	1.00				TR-MNR	2-3%	
79.00 79.55	70% quartz veining, and 30% intensely altered intrusive.	1525	57.50	58.80	1.30				TRACE	1-2%	
79.55 93.00	Pinkish grey to medium grey, relatively unaltered to very	1526	58.80	60.25	1.45				TR-MNR	2-3%	
		1527	60.25	61.00	.75				MINOR	1-2%	
		1528	61.00	62.00	1.00				MINOR	3-4%	
		1529	62.00	63.00	1.00				TR-MNR	3-4%	
		1530	63.00	64.00	1.00				TRACE	2-4%	
		1531	64.00	65.00	1.00				TRACE	2-3%	

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
	weakly altered intrusive with 10 to 20%, subplanar, intersecting quartz veining, generally oriented at 50 to 80 degrees to the core axis.	1532	65.00	66.00	1.00		-	1-3%			
		1533	66.00	67.00	1.00		MINOR	3-4%			
		1534	67.00	68.00	1.00		MINOR	3-5%			
93.00	97.80	1535	68.00	69.00	1.00		0.25%	3-5%			
	Medium grey to pinkish grey, and locally light grey, generally weakly altered with a central zone (95 to 96m) of weakly sheared and moderately silicified and sericitized intrusive. Generally 5 to 10% silica veining and flooding.	1536	69.00	70.00	1.00		TRACE	2-3%			
		1537	70.00	71.00	1.00		MINOR	3-5%			
		1538	71.00	72.50	1.50		TRACE	2-4%			
97.80	99.10	1539	72.50	74.00	1.50		-	1-3%			
	Dark greenish black, weakly schistose, mafic metavolcanic xenolithic inclusion with contacts and foliation oriented at 55 degrees to the core axis.	1540	74.00	75.50	1.50		TRACE	1-3%			
		1541	75.50	77.00	1.50		TRACE	2-3%			
99.10	118.40	1542	77.00	78.00	1.00		-	0.5-1%			
	Variably altered with minor pink unaltered zones, although mostly patchy zones of pinkish grey to medium grey, very weak to weakly silicified intrusive, and local zones of moderate silica flooding. Includes irregular mafic volcanic xenolith fragments within the intrusive between 113 to 114m, and 117.30 to 117.75 metres.	1543	78.00	79.00	1.00		TRACE	2-3%			
		1544	79.00	79.55	.55		MNR-0.5	1-2%			
		1545	79.55	81.00	1.45		-	1-2%			
		1546	81.00	82.00	1.00		TRACE	1-2%			
		1547	82.00	83.00	1.00		-	2-3%			
118.40	130.75	1548	83.00	84.50	1.50		-	2-3%			
	Pink-red, unaltered, medium grained, feldspar porphyritic intrusive with one, thin (126.90 to 127.25m), mottled, weakly silica flooded zone. Upper contact zone is a 3cm wide shear contact oriented at 50 degrees to the core axis.	1549	84.50	86.00	1.50		-	0.5-1%			
		1550	93.00	94.00	1.00		TRACE	2-3%			
		1551	94.00	95.00	1.00		-	1-2%			
130.75	140.00	1552	95.00	96.00	1.00		MINOR	2-3%			
	Light pinkish grey to medium grey, very weakly to weakly altered intrusive.	1553	96.00	97.80	1.80		-	2-3%			
140.00	146.25	1554	99.50	101.00	1.50		TRACE	1%			
	Medium pinkish-red, fine to medium grained, weakly porphyritic, relatively unaltered intrusive.	1555	102.50	104.00	1.50		TRACE	1-3%			
146.25	164.00	1556	104.00	105.50	1.50		-	1-3%			
	Light pinkish grey to medium grey, massive, relatively fine grained, with pinkish plagioclase phenocrysts. Section contains a few, thin zones with weak to moderate alteration, generally along quartz veining. Minor quartz veining throughout the section.	1557	105.50	107.00	1.50		-	1%			
		1558	110.00	111.50	1.50		-	1%			
		1559	111.50	113.00	1.50		-	1%			
		1560	113.00	114.50	1.50		-	2-3%			
164.00	176.65	1561	114.50	116.00	1.50		-	2-3%			
	Medium grey and locally light grey, weak to locally moderately altered intrusive, with minor to 5% quartz veining. More typical, medium to coarse grained, biotitic, plagioclase porphyritic intrusive.	1562	116.00	117.00	1.00		TRACE	2-3%			
		1563	117.00	118.40	1.40		-	2-3%			
		1564	126.00	126.90	.90		-	1%			
	Generally the above sections exhibit gradational changes between the zones of varying alteration intensity.	1565	126.90	127.25	.35		TRACE	5%			
		1566	127.25	128.00	.75		-	1%			
	Unit generally contains about 60 to 65%, pink to pinkish grey, relatively	8575	128.00	129.50	1.50		-	0.5%			





Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION SIL CARB SER
	are generally subperpendicular (60 to 80 degrees) to the core axis, often with thin chloritic/sericitic coating surfaces. Lower contact is sharp, but undulating, and oriented at about 65 to 70 degrees to the core axis.								
176.65 233.00	MAFIC METAVOLCANIC FLOWS (PE THOLEIITE) Generally medium to dark green-grey to brownish grey to green black, fine grained, massive to weakly banded. Most of the unit is greenish and chloritic, but contains some slightly brownish grey bands with minor biotite, especially between 176.65 and 180m, adjacent to the upper contact zone with the intrusive. The unit appears to be a pillowed mafic volcanic flow sequence. Locally the unit contains abundant, 0.5 to 1mm, ovoid amygdules as at 182.5 metres. Unit is moderately to strongly magnetic. Abundant, hairline, white, calcitic microfracturing, mostly as tension fractures forming network patterns, or parallel, anastomosing, fracture sets oriented at 65 to 80 degrees to the core axis. Locally the unit exhibits a weak epidote-carbonate alteration as small (1 to 25cm), irregular, lighter coloured patches and fine banding, or exhibits a weakly silicified and pseudobrecciated appearance. Minor, thin (2 to 10mm), irregular to subplanar, quartz veining. Unit has a moderately well developed phyllitic/schistose foliation oriented at 65 to 80 degrees to the core axis, locally appearing somewhat banded. Unit is intruded by several, thin, quartz diorite dykes as follows: 179.60 179.85 Medium grey, coarse grained dyke with irregular contacts. 188.60 189.00 Several, small, irregular intrusive fragments. 189.85 190.15 Medium grey, coarse grained dyke with sharp contacts oriented at 80 degrees to the core axis. 195.50 196.20 Medium grey, coarse grained dyke with sharp, planar, upper and lower contacts oriented at 65 and 80 degrees to the core axis. 196.95 200.60 Medium grey, coarse grained dyke with irregular, sharp contacts oriented at 45 to 50 degrees to the core axis.	NS 176.65 233.00 56.35					- 0.5-1%		
		8594	176.65	177.50	.85			- 1-2%	
		8595	177.50	179.00	1.50			- 1%	
		8596	179.00	180.50	1.50			- 1%	
		8597	180.50	182.00	1.50			- 0.5%	
		8598	182.00	183.50	1.50			- 0.5%	
		8599	183.50	185.00	1.50			- 0.5%	

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Pyrite Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
200.90 201.15	Medium grey, medium grained dyke with irregular contacts. Four partially assimilated and subdued, coarse grained, medium grey dykes with irregular contacts occur between:										
202.85 203.05											
204.05 204.45											
204.85 204.95											
208.30 208.95											
210.20 210.85	Medium grey, coarse grained dyke with sharp, irregular contacts oriented at 65 to 80 degrees to the core axis, and containing a 5 cm quartz vein oriented at 80 degrees to the core axis. Minor to 1% pyrite, generally as fine disseminations. Locally, the pyrite forms thin (1cm) bands containing greater (1 to 10%) concentrations of pyrite. Competent unit, generally with 10 to 75 cm breakage either along fractures oriented at 30 to 70 degrees to the core axis, or parallel to the foliation at 65 to 80 degrees to the core axis.										
233.00	End of hole.										

Martin Leathers  
December 1988

ESSO MINERALS CANADA  
SUMMARY DRILL LOG

OM88-6-C-236

Project Name: HN

Hole Number: HN88-29

Project Number: 1677

Logged By: M. H. Lenters

NTS: 42H/8

Date: September 1988

Location: L40+50W, 9+00S

Claim Number: L-871912

Azimuth: 180° Dip: -43°

Length (m): 143

PURPOSE: Test western strike extension of mineralization encountered in DDH HN88-22

From (m)	To (m)	Description	Gold Assays (g/tonne)
		CASING REMAINS IN HOLE	
0.0	11.00	Overburden	
11.00	44.35	Weak to Moderately Altered Quartz Diorite Intrusive 25% pink, relatively unaltered, massive, coarse-grained, biotitic, plagioclase porphyritic intrusive and 75%, medium grey, to light greyish-white, weak to moderately silicified/sericitized, sections. Generally 5 to 10%, irregular, branching quartz veining. 0.5 to 3% disseminated pyrite.	0.01 - 0.31 (36)
44.35	51.00	Mafic Metavolcanic Flow (Relatively unaltered) Dark green-black, fine to medium-grained, massive to weakly foliated, weak to moderately magnetic, mafic volcanic flow. Locally exhibits 5 to 20%, small (1 to 3 mm), subhedral, white, plagioclase phenocrysts. Minor quartz veining, calcite tension fracturing, and intrusive dykelets. Minor to 1% fracture pyrite.	0.04 - 0.07 (2)
51.00	64.60	Unaltered to Weakly Altered Quartz Diorite Intrusive Cut by Quartz-Feldspar Porphyritic Dyke 51.00-56.25 Pink, massive, very coarse-grained, with weak plagioclase porphyritic appearance. Minor blue-white quartz veining. 0.5 to 1% disseminated pyrite. 56.15-64.60 Mottled light grey to medium grey, massive to weakly foliated, weak to locally moderately silicified and very weakly sericitized intrusive. Cut by 5 to 10%, irregular quartz veining/silica flooding. 2 to 3% disseminated pyrite. 62.10-63.75 Dark purplish black, well foliated, homogeneous "augen gneissic" textured dyke with 30 to 40%, small (1-2 mm), subhedral, plagioclase and rounded quartz phenocrysts. Minor pyrite.	0.01 - 0.17 (11)
64.60	76.30	Mafic Metavolcanic Flow (Relatively Unaltered) Similar to unit between 44.35 to 51.00, but with a more subdued feldspar phyrlic texture. One intrusive dyke, and a few pyritic-silica shear/flood bands. Minor to 1% disseminated pyrite.	0.01 - 0.62 (8)
76.30	109.35	Weakly Altered Quartz Diorite Intrusive 76.30-89.00 Generally light pinkish gray, relatively unaltered, to light grey, weakly silicified and sericitized, coarse-grained, massive intrusive. Minor to 10% quartz veining. 2 to 4% disseminated pyrite. 89.00-109.35 Generally light grey to light apple greenish grey, weak to moderately silicified and sericitized intrusive with a few thin relatively unaltered zones, and several thin, quartz veined intensely altered zones. 5 to 15% irregular quartz veining. 1 to 4% disseminated pyrite.	0.01 - 3.52 (35)

From (m)	To (m)	HN88-29 Description	Gold Assays (g/tonne)
109.35	129.00	<p>Mafic Metavolcanic Flow</p> <p>109.35-118.00 Mottled and irregularly banded, varicoloured light emerald green, apple green, buff to salmon pink, moderately to intensely epidote-carbonate and carbonate altered mafic volcanic with zones containing 1 to 4% very finely disseminated pyrite.</p> <p>118.00-129.00 Dark green, massive, magnetic, relatively unaltered to weakly epidote-carbonate alteration banded. Minor to 0.5% finely disseminated pyrite.</p>	0.01 - 3.14 (11)
129.00	132.20	<p>Relatively Unaltered Quartz Diorite Intrusive Dyke</p> <p>Medium to dark, slightly pinkish grey, fine-grained, weakly schistose, plagioclase porphyritic, intrusive. Minor quartz veining. 0.5 to 1% disseminated pyrite.</p>	0.01 - 0.02 (2)
132.20	143.00	<p>Mafic Metavolcanic Flow</p> <p>Similar to section between 118.00-129.00 with slightly more (5 to 10%) epidote-carbonate alteration banding. 0.5% pyrite.</p>	Not Assayed
	143.00	END OF HOLE	

H-W PROJECT (Ont. 77)

ESSO MINERALS CANADA  
DIAMOND DRILL RECORD

Hole: HN88-29  
Page: 1

Drilled by: Bradley Bros. Limited  
Hole Size: BQ  
Core Size: BQ  
Casing: Casing Left in Hole

Azimuth: 180  
Dip: -43

Claim No: L-871912  
Grid: West  
Easting: 40+50W  
Northing: 9+00S  
Elevation: Level

Started: Sept. 13, 1988  
Finished: Sept. 14, 1988

Acid Tests:  
Depth Az. Dip  
11.00 -43.0  
111.00 -41.0  
143.00 -41.0

Purpose: Test West Ext. of HN88-22

Logged by: M.H.Lenters  
Date logged: September 1988  
Logging Method: Log II  
Measurement System: Metric

Length: 143.00 Metres  
Vert. Proj: 95.0 Metres  
Hor. Proj: 106.0 Metres  
Ovb. Depth: 7.8 Metres

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
.00 11.00	OVERBURDEN										
11.00 44.35	PP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED										
	Unit is mostly light greyish white and weak to moderately silicified and sericitized, with 25% large (50 to 100 cm), pinkish, relatively unaltered zones, and a few thin, white, moderately to intensely silicified bands.	NS	11.00	44.35	33.35	n/a	n/a	MINOR	1-3%	WK-INT	WK WK-MOD
	The unaltered zones are typically light to medium pink, massive, coarse grained, plagioclase porphyritic, biotite quartz diorite intrusives containing 0.5 to 1% pyrite, and minor quartz veinlets. The core is hard and competent, with 10 to 50 cm breakage.	1318	11.00	12.00	1.00	.03	1.40	-	1-2%		
	The weak to moderately altered zones are generally massive, though locally weakly foliated. Most sections are weakly altered with biotite preserved or weakly chloritized. Only locally, in thin zones adjacent to fractures and quartz veining, is the unit moderately and occasionally intensely altered. The altered zones contain 5 to 10% irregular quartz veining/flooding as thin (1 to 10 mm), branching to anastomosing veins oriented at various angles to the core axis. The veining is often vuggy,	1319	12.00	13.50	1.50	.12	2.00	-	2-3%		
		1320	13.50	14.00	.50	.08	1.20	TRACE	1-2%		
		1321	14.00	15.00	1.00	.08	1.90	-	1-2%		
		1322	15.00	16.00	1.00	.03	1.30	-	1-2%		
		1323	16.00	17.00	1.00	.04	1.70	-	1-2%		
		1324	17.00	18.00	1.00	.02	2.80	MINOR	2-3%		
		1325	18.00	19.00	1.00	.09	2.40	MINOR	2-3%		
		1326	19.00	20.10	1.10	.11	3.20	0.25%	2-3%		
		1327	20.10	21.00	.90	.19	1.90	-	1-2%		
		1328	21.00	22.00	1.00	.31	1.60	TRACE	1%		
		1329	22.00	22.50	.50	.11	.80	-	1%		
		1330	22.50	23.00	.50	.12	2.20	0.5%	2-4%		
		1331	23.00	23.50	.50	.12	2.00	0.25%	2-3%		

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION SIL CARB SER
	and locally contains calcite, pyrite and/or minor amounts of grey metallic minerals. Locally the latter occur as thin striated needles. The grey mineralization also occurs as fine disseminations in thin (0.5 to 2 cm), intensely altered zones adjacent to some fractures and veins. Less altered zones contain 0.5 to 1% pyrite, while altered zones contain 1 to 3% pyrite, generally as fine disseminations, or small blebs along some fractures and quartz veins/lenses. Alteration intensities change gradationally over short (1 to 3 cm) intervals. Core is well fractured and broken, generally into 2 to 10 cm pieces with several thin (10 cm), broken rubble zones. 15 cm wide quartz vein with minor shearing is oriented at 50 degrees to the core axis between 43.85 to 44.10 near the lower contact. Lower contact not recovered (ground core), but appears to be sharp intrusive contact.	1332	23.50	24.50	1.00	.07	2.30	MINOR	2-3%
		1333	24.50	25.70	1.20	.04	3.10	MINOR	2-3%
		1334	25.70	26.30	.60	.04	3.90	-	2%
		1335	26.30	27.00	.70	.08	1.90	-	0.5-1%
		1336	27.00	28.00	1.00	.01	1.30	TRACE	1-2%
		1337	28.00	28.60	.60	.02	1.70	0.25%	2-4%
		1338	28.60	30.30	1.70	.03	1.20	MINOR	1%
		1339	30.30	31.00	.70	.05	1.40	TRACE	2-3%
		1340	31.00	32.00	1.00	.01	1.20	0.5%	2-3%
		1341	32.00	33.00	1.00	.01	1.60	0.5%	2-3%
		1342	33.00	33.50	.50	.01	1.30	MINOR	1%
		1343	33.50	34.00	.50	.03	3.00	TRACE	1%
		1344	34.00	35.00	1.00	.01	2.20	0.25%	2-3%
		1345	35.00	36.00	1.00	.01	1.90	0.5%	2-3%
		1346	36.00	36.60	.60	.01	1.20	TRACE	2-3%
		1347	36.60	38.00	1.40	.03	1.30	TRACE	1-3%
		1348	38.00	39.00	1.00	.05	2.40	-	1-2%
		1349	39.00	40.00	1.00	.19	19.70	-	1-2%
		1350	40.00	41.00	1.00	.06	2.30	-	1%
		1351	41.00	42.00	1.00	.04	2.00	MINOR	1-2%
		1352	42.00	43.00	1.00	.12	3.30	TRACE	1-2%
		1353	43.00	44.35	1.35	.03	1.60	-	1%
44.35	51.00 MAFIC METAVOLCANIC FLOWS (FE THOLEIITE)	NS	44.35	51.00	6.65	n/a	n/a	-	0.5-1%
	Dark black, fine to medium grained, massive to very weakly foliated, weak to moderately magnetic with about 25% of the unit exhibiting 5 to 20%, small (1 to 3mm), subhedral, white, plagioclase phenocrysts. Most of the rest of the unit exhibits a weaker subdued porphyritic appearance. Unit contains minor, thin (0.5 to 2 cm), subplanar, blue-white quartz veins oriented at 50 to 60 degrees to the core axis, minor irregular, thin (hairline), discontinuous, calcite tension fracturing and two small, white, quartz diorite intrusive dykes that are weak to moderately silicified/sericitized.	1354	49.00	50.00	1.00	.07	1.70	-	0.5%
	49.00 49.30 Feldspar Porphyritic Quartz Diorite Dyke. Contacts are parallel to foliation at 60 degrees to the core axis.	1355	50.00	51.00	1.00	.04	2.00	-	MINOR

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION			
									SIL	CARB	SER	
49.50 49.65	Feldspar Porphyritic Quartz Diorite Dyke. Contacts are parallel to foliation at 60 degrees to the core axis. Foliation where developed is oriented at about 60 degrees to the core axis. Minor to 1% pyrite, generally concentrated along small fractures. Hard competent core with 10 to 100 cm breakage, generally at 60 to 70 degrees to the core axis along fractures and foliation. Lower contact is a sharp intrusive contact oriented at 80 degrees to the core axis.											
51.00 56.25	FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED Pink, massive, very coarse grained, relatively unaltered, with weak plagioclase porphyritic appearance. Biotite is relatively fresh. Unit is cut by a few, thin (0.5 to 1 cm), blue-white quartz veins oriented at various angles to the core axis. 0.5 to 1% finely disseminated pyrite. Competent core, but relatively broken into 3 to 10 cm pieces often along chloritic fractures.	NS	51.00	56.25	5.25	n/a	n/a	-	0.5-1%			
		1356	51.00	52.00	1.00	.02	1.50	-	0.5-1%			
		1357	52.00	53.00	1.00	.01	1.50	-	0.5-1%			
		1358	53.00	54.20	1.20	.03	1.50	-	0.5-1%			
		1359	54.20	55.50	1.30	.02	1.40	-	0.5-1%			
		1360	55.50	56.25	.75	.03	1.30	-	0.5-1%			
56.25 62.10	FP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED Mottled light grey to medium grey, weak to locally moderately silicified and weakly sericitized, and cut by 5 to 10%, irregular, quartz veining/silica flooding. Generally massive to weakly foliated at 60 degrees to the core axis. Quartz veining is generally oriented at 45 to 60 degrees to the core axis. It is sometimes vuggy and often centres the more altered bands/sections. Occasionally the veins contain chlorite fringed quartz or calcite fragments, and coarse calcite mineralization. Relatively competent core with 5 to 15 cm breakage, generally along fractures oriented at 45 to 70 degrees to the core axis. Moderately altered zones adjacent to some fractures and quartz veins contain minor amounts of disseminated grey metallic mineral.	NS	56.25	62.10	5.85	n/a	n/a	MINOR	1-3%	WK-MOD	V.WK	WK
		1361	56.25	58.00	1.75	.17	1.40	TRACE	1-2%			
		1362	58.00	59.70	1.70	.01	1.30	-	2%			
		1363	59.70	61.00	1.30	.02	1.30	0.25%	2-3%			
		1364	61.00	62.10	1.10	.03	1.60	0.25%	2-3%			



Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
62.10 63.75	<b>WELL FOLIATED QUARTZ FELDSPAR PORPHYRY DYKE</b> Dark slightly purplish black, well foliated, biotitic groundmass with 30 to 40% small (1 to 3mm), subhedral, plagioclase and quartz phenocrysts that are uniformly distributed throughout the dyke. Dyke has a well foliated augen gneissic texture. No significant quartz veining. Minor finely disseminated pyrite. Gneissic foliation generally oriented at 30 degrees to the core axis, but varies from 10 to 30 degrees. Competent core, but relatively well broken into 5 to 15 cm pieces. Upper and lower contacts occur in poorly recovered rubble sections, but recovered fragments indicate sharp intrusive contacts oriented at 40 to 50 degrees to the core axis.	NS 1365	62.10 62.10	63.75 63.75	1.65 1.65	n/a .01	n/a 1.60	- -	MINOR MINOR		
63.75 64.60	<b>PP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED</b> Medium grey, coarse grained, very weak to weakly silicified intrusive belonging to unit between 51.00 to 62.10 on the other side of the overlying, later intrusive dyke. This section contains no significant quartz veining, has mostly unaltered biotite, and contains 1% finely disseminated pyrite. Lower contact is sharp intrusive contact oriented at 80 degrees to the core axis.	NS 1366	63.75 63.75	64.10 64.60	.35 .85	n/a .02	n/a 1.40	- -	1% V.WK-WK 1%		WK
64.60 76.30	<b>MAFIC METAVOLCANIC FLOWS (PB THOLEIITE)</b> Similar to unit between 44.35 to 51.00. Dark green, weakly foliated to massive with a weak, or subdued, feldspar porphyritic texture as described in unit between 44.35 to 51.00. Weakly to moderately magnetic. Foliation is oriented at 50 to 70 degrees to the core axis and best developed in upper part of unit. Upper part of unit also contains a thin band of weak to moderate epidote-carboante alteration between 65.50 and 66.00. Upper section also exhibits a weak to moderately developed, thin (hairline), calcite tension microfracturing, with discontinuous	NS 1367 8563 8564 8565 8566 8567 8568 1368	64.60 64.60 68.00 69.10 69.70 69.70 71.00 72.45 74.00 74.00 75.00 75.00	76.30 66.00 69.10 69.70 71.00 72.45 74.00 75.00 76.30	11.70 1.40 1.10 .60 1.30 1.45 1.55 1.00 1.30	n/a .01 .14 .04 .15 .01 .03 .02 .62	n/a .70 .40 .70 .90 1.30 1.40 1.30 2.60	- - - - - - - - -	MNR-1% 0.5% MINOR 2-3% 2-3% 0.5% 0.5% 0.5% 0.5%		

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION			
									SIL	CARB	SBR	
	fractures often parallel to foliation. Unit contains several thin (0.5 to 2.5 cm), subplanar, blue-white quartz veins variably oriented between 40 to 70 degrees to the core axis. Unit contains one large quartz diorite intrusive dyke, and several fragments? of smaller ones.											
69.00 69.60	Feldspar Porphyritic Quartz Diorite Dyke. Upper contact oriented at 70 degrees to the core axis, and lower contact oriented at 30 degrees to the core axis.											
69.90 69.95	Feldspar Porphyritic Quartz Diorite Dyke. Irregular faulted dyke section or fragment. Unit generally contains minor pyrite, but a few zones adjacent to veining locally contain concentrations of 1 to 2%. Competent core with 10 to 100 cm breakage generally along fractures oriented between 45 and 70 degrees to the core axis. Lower contact is a sharp, but undulating, intrusive contact oriented at 50 to 60 degrees to the core axis.											
76.30 109.35	PP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED Generally weakly altered, with upper half containing some relatively unaltered sections, and lower half containing several, thin, moderately altered zones.	NS	76.30	109.35	33.05	n/a	n/a	TR-MNR	0.5-3%	UN-MOD	UN-WK	UN-MOD
		1369	76.30	77.25	.95	.03	1.60	-	3-4%			
		1370	77.25	78.00	.75	.01	2.20	-	1-2%			
		1371	78.00	79.00	1.00	.01	1.80	-	1-2%			
		1372	79.00	80.00	1.00	.01	1.50	-	2%			
		1373	80.00	81.00	1.00	.09	4.40	-	2%			
		1374	81.00	82.40	1.40	.14	2.80	-	2%			
		1375	82.40	83.00	.60	.02	4.00	0.5%	2%			
		1376	83.00	83.50	.50	3.52	52.90	0.5%	2%			
		1377	83.50	84.00	.50	.10	3.90	-	1-2%			
		1378	84.00	85.00	1.00	.17	2.20	-	1%			
		1379	85.00	86.00	1.00	.23	3.00	TRACE	1%			
		1380	86.00	87.00	1.00	.39	2.20	MINOR	1-2%			
		1381	87.00	88.00	1.00	.16	1.90	MINOR	2-3%			
		1382	88.00	89.00	1.00	.05	1.70	-	1%			
		1383	89.00	90.00	1.00	.02	1.40	-	2%			
		1384	90.00	91.00	1.00	.01	1.70	-	2-3%			

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION			
									SIL	CARB	SBR	
	metallic mineral. The latter is also disseminated within the strongly altered intrusive, particularly adjacent to quartz veining. Altered zones contain 2 to 4% disseminated pyrite, often concentrated along fractures. Unit is extremely well broken, generally into 1 to 5 cm pieces, with some rubble sections, and possibly 3 to 5% lost/ground core.	1385	91.00	92.00	1.00	.01	2.00	-	2-3%			
		1386	92.00	93.00	1.00	.04	3.30	TRACE	2-3%			
		1387	93.00	94.00	1.00	.15	4.00	TRACE	2-3%			
		1388	94.00	94.50	.50	.05	3.70	-	2-4%			
		1389	94.50	95.00	.50	.01	2.20	0.5%	2-4%			
		1390	95.00	96.00	1.00	.02	2.50	0.5%	2-3%			
89.00	109.35	1391	96.00	97.00	1.00	.01	2.20	MINOR	2-3%			
	Generally light grey to light apple greenish grey weak to moderately altered (silicified and sericitized) intrusive, with a few relatively unaltered sections, and several quartz veined, intensely altered zones. Biotite is generally chloritized, and in the intensely altered sections is sericitized. Generally 5 to 15% quartz veining, occurring as thin (0.5 to 1 cm), irregular, branching and anastomosing veins oriented between 0 to 45 degrees to the core axis. Several veins centre thin (1 to 5 cm), intensely altered wallrock zones containing minor to 1% finely disseminated metallic grey mineralization. The latter are concentrated near vein edges or along the edges of wallrock inclusions, often nucleating on pyrite grains. Quartz veins are white, coarse grained, clean and somewhat vuggy. Section contains 1 to 4% disseminated pyrite. Well fractured and broken core with 1 to 10 cm breakage and a few rubble zones. Lower contact sharp and oriented at 60 degrees to the core axis.	1392	97.00	98.00	1.00	.41	8.90	0.5%	2-3%			
		1393	98.00	99.00	1.00	.20	5.60	TRACE	2-3%			
		1394	99.00	100.00	1.00	.10	6.40	0.5%	2-3%			
		1395	100.00	101.00	1.00	.21	3.40	0.5%	2-4%			
		1396	101.00	102.00	1.00	.02	1.40	TRACE	2-3%			
		1397	102.00	103.00	1.00	.01	2.10	-	2-3%			
		1398	103.00	104.35	1.35	.01	3.30	-	1-2%			
		1399	104.35	105.00	.65	.52	29.20	1%	2-3%			
		1400	105.00	106.00	1.00	.02	12.80	0.5%	2-3%			
		1401	106.00	107.00	1.00	.01	3.70	TRACE	2-3%			
		1402	107.00	108.00	1.00	1.91	7.70	0.5-1%	2-3%			
		1403	108.00	109.35	1.35	.02	2.80	MINOR	2-4%			
109.35	118.00	WEAKLY BRECCIATED MAFIC METAVOLCANIC WITH EPIDOTE-CARB. BANDS										
	Generally mottled to irregularly banded, vari-coloured light emerald and apple greens, to buff, to salmon pink, and locally brecciated. Irregular alteration banding/mottling generally oriented at 50 to 70 degrees to the core axis. Most intense alteration is the upper contact zone with the overlying intrusive. The intensity of alteration gradually decreases with distance away from the intrusive, although a separate brown coloured, strongly carbonate altered zone occurs between 116.30 to 117.50. Less altered patches, are dark green, fine grained, moderately magnetic	NS	109.35	118.00	8.65	n/a	n/a	-	0.5-3%			
		1404	109.35	110.15	.80	.02	1.30	-	0.5%			
		1405	110.15	111.00	.85	.01	2.00	-	2-4%			
		1406	111.00	112.00	1.00	.01	1.90	-	2-4%			
		1407	112.00	113.00	1.00	.02	1.30	-	2-3%			
		8569	113.00	114.50	1.50	.01	1.30	-	0.5%			
		8570	114.50	116.00	1.50	.01	1.10	-	0.5%			
		8571	116.00	116.80	.80	.02	1.30	-	0.5%			
		1408	116.80	117.50	.70	3.14	7.40	-	2-3%PO			

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION			
									SIL	CARB	SER	
	and similar to the underlying unit, suggesting an original mafic volcanic composition. Unit contains several, thin (1 to 5 mm), planar, quartz diorite intrusive veinlets, and one small dyke between 113.50 and 113.60. Minor, thin (hairline), calcite microfracturing, and almost no significant quartz veining. Altered zones contain 1 to 4% extremely finely disseminated pyrite.	8572	117.50	119.00	1.50	.08	1.00	-	MINOR			
118.00	129.00	MAFIC METAVOLCANIC FLOWS (PE THOLEIITE)										
	Dark green, relatively unaltered to weakly altered, massive, fine grained, weak to moderately magnetic, mafic volcanic. Unit exhibits 5 to 15% lighter grey to green-grey, wispy to irregularly patchy alteration, also occurring locally as thin (hairline), network fracturing. Unit contains only 5%, thin, irregular patches of light green epidote-carbonate alteration, locally containing pink garnet porphyroblasts. Well developed calcitic, network tension microfracturing. A few, thin (0.5 to 1 cm), planar quartz veins, generally offset along fractures. Minor to 0.5%, finely disseminated pyrite, as well as trace amounts of chalcopyrite occurring along some fractures. Relatively competent core with 20 to 50 cm breakage, generally along fractures oriented at 45 to 70 degrees to the core axis. Lower contact is a sharp, but irregular intrusive contact oriented at 45 degrees to the core axis.	NS 118.00	129.00	11.00	n/a	n/a	-	0.5%				
		8573	119.00	120.50	1.50	.01	.70	-	0.5%			
		8574	120.50	122.00	1.50	.02	.60	-	MINOR			
129.00	132.20	FELDSPAR PORPHYRITIC QUARTZ DIORITE DYKE										
	Medium to dark, slightly pinkish grey, with a finer grained, darker, and slightly more schistose groundmass, and a more pronounced feldspar porphyritic appearance than large intrusive bodies. Plagioclase phenocrysts are 2 to 5 cm, subhedral, with a corroded appearance and slightly pinkish white colour. Biotite forms small phenocrysts in the groundmass matrix. Weak foliation developed at 45 degrees to the core axis, subparallel to	NS 129.00	132.20	3.20	n/a	n/a	-	0.5-1%				

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SBR
	<p>the foliation in the adjacent volcanics.            Minor quartz veining.            0.5 to 1% finely disseminated pyrite.            Relatively competent core with moderate (5 to 15 cm) breakage, generally along fractures oriented at 60 to 80 degrees to the core axis.            Upper and lower contacts are sharp, undulating to planar contacts parallel to the foliation at 45 degrees to the core axis.</p>										
132.20 143.00	<p>SCHISTOSE MAFIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS            Similar to section between 118.00 to 129.00, with slightly more (5 to 10%) epidote-carbonate alteration banding that is generally oriented at 30 to 40 degrees to the core axis, and a more intense network of thin (hairline), calcitic tension microfracturing.            Foliation, as well as compositional and alteration banding are well developed and oriented at 30 to 40 degrees to the core axis.            Lower contact not encountered.            143.00 End of hole.</p>	MS 132.20	143.00	10.80	n/a	n/a	-	0.5%			

ESSO MINERALS CANADA 0m88-6-c-236  
SUMMARY DRILL LOG

Project Name: HN Hole Number: HN88-30  
 Project Number: 1677 Logged By: M.H. Lenters  
 NTS: 42H/8 Date: September 1988  
 Location: L41+00W, 8+50S Claim Number: L-871912  
 Azimuth: 180° Dip: -44° Length (m): 237.7

PURPOSE: Test Mag low and anomalous IP chargeability response west of DDH HN88-22

From (m)	To (m)	Description	Gold Assays (g/tonne)
		CASING REMOVED	
0.0	10.00	Overburden	
10.00	44.35	Mafic Metavolcanic Flow (Relatively Unaltered) Dark green-black, fine-grained, weak to moderately magnetic, locally schistose at 60° to 65° to CA, but generally massive with minor, 1 to 3 mm, diffuse, plagioclase phenocrysts. Unit cut by a few epidote-carbonate altered zones, and several, very thin intrusive dykelets. Minor quartz veining. 0.5% Pyrite	0.02 - 0.10 (2)
44.35	117.80	Variably Altered Quartz Diorite Intrusive 25%, pink, relatively unaltered, massive, coarse-grained, biotitic, plagioclase porphyritic intrusive, 50% light to medium grey, moderately altered (silicified +/- sericitized), and 25% light grey to white, moderately and locally intensely silicified and sericitized intrusive. Altered sections contain 5%, thin, irregular quartz veining, 0.5 to 3% disseminated pyrite, locally minor grey metallic minerals and one site V.G. in a quartz vein.	0.01 - 2.55 (78)
117.80	142.25	Mafic Metavolcanic Flow (Relatively Unaltered) Dark green-black to brownish-green, fine-grained, massive to weakly foliated, moderately magnetic with chloritic to biotitic compositions. Minor calcite microfracturing. A few thin intrusive dykes. 0.5 to 2% finely disseminated pyrite and trace chalcopyrite.	0.03 - 0.17 (2)
142.25	173.00	Relatively Unaltered Quartz Diorite Intrusive Pink, massive, medium to coarse grained, plagioclase porphyritic, biotite granodiorite to quartz diorite, with local zones of bleaching/silicification adjacent to fractures, quartz veining and the lower contact. Several, thin, blue-white quartz veins. 0.5 to 3% disseminated pyrite and trace metallic grey minerals.	0.01 - 0.70 (12)
173.00	219.50	Weak to Moderately Altered and weakly Sheared/Brecciated Mafic Metavolcanic Flow Mottled and variably coloured, massive to foliated, generally weak to moderately epidote-carbonate +/- silica altered, with abundant irregular quartz veining, several small fault/breccia zones and weak to moderate shearing throughout the unit. 0.5% Pyrite 200.00-209.50 Dark green, massive, less altered mafic meta-volcanic section.	0.02 - 0.25 (3)
219.50	219.85	Fault Zone Small, angular, mafic metavolcanic rubble in fault gouge matrix. Zone contains numerous hematitic slip/shear surfaces.	Not Assayed

From (m)	To (m)	Description	Gold Assays (g/tonne)
		HN88-30	
219.85	223.50	Quartz Vein Breccia Zone Mottled white, brecciated quartz vein containing abundant light green, small to large, angular, fractured metavolcanic wallrock fragments exhibiting various degrees of assimilation by the quartz vein. Quartz veins separated by brecciated mafic metavolcanic that is intruded by abundant, irregular, stockwork quartz veining. Main white quartz veining rehealed by 10 to 15% later clear quartz. Minor sulphides.	0.01 - 0.04 (7)
223.50	237.70	Mafic Metavolcanic 223.50-227.50 Similar to 173.00 to 219.50. Moderately epidote-carbonate altered and brecciated adjacent to the overlying fault/breccia zone 227.50-232.00 Medium green, fine-grained, weak to moderately epidote-carbonate altered. Minor pyrite. 232.00-237.70 Dark green, fine-grained, moderately magnetic, relatively unaltered to weakly epidotized. No quartz veining. Minor pyrite.	0.02 - 0.03 (2)
	237.70	END OF HOLE	







Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
40.03 40.10	Feldspar Porphyritic Quartz Diorite Dyke. Irregular pink intrusive bleb.										
40.45 40.65	Feldspar Porphyritic Quartz Diorite Dyke. Subdued, pinkish intrusive with contacts at 70 degrees to the core axis.										
43.25 43.65	Feldspar Porphyritic Quartz Diorite Dyke. Subdued, pinkish intrusive with contacts at 70 degrees to the core axis.										
	Unit generally contains minor to 0.5% pyrite, but locally, over thin (1 to 5 cm) intervals, contains 1 to 2% pyrite. The pyrite often occurs as 0.5 to 1 mm, euhedral, cubic crystals, as fine disseminations in patches, and as thin, discontinuous, foliation parallel laminae.										
	Moderately competent core with 5 to 25% breakage, generally along foliation oriented at 70 degrees to the core axis in the upper half of the unit, and along fractures oriented at 50 to 70 degrees to the core axis in the lower half. The unit contains one incompetent clay-like altered zone between 27.50 and 27.75 metres.										
	Lower contact is a sharp intrusive contact oriented at 60 degrees to the core axis.										
44.35 117.00	PP QUARTZ DIORITE INTRUSIVE - WK TO MOD ALTERED	NS	44.35	117.00	73.45	n/a	n/a	NO-MNR	0.5-3%	UN-MOD	UN-WK UN-MOD
	Variably altered intrusive, consisting of 25% pink, relatively unaltered, 50% light grey, weak to moderately altered/silicified and sericitized, and 25% white, moderately and locally intensely altered (silicified and sericitized) zones and patches. Assay sample description sheets present a finer breakdown of the variable degree of alteration through the unit, but in general it is:	1411	44.35	46.00	1.65	.01	1.00	MINOR	3-4%		
	44.35 50.00 Light grey, weak to moderately altered.	1412	46.00	47.00	1.00	.02	.90	MINOR	2-3%		
	50.00 67.75 50% pink, unaltered, and 50% light grey, weakly altered in alternating bands 10 to 100 cm wide, that exhibit somewhat irregular and gradational changes in alteration intensity. Locally this interval contains a few, thin (1 to 10cm), moderately to intensely altered bands, that generally occur adjacent to quartz veins.	1413	47.00	48.00	1.00	.01	1.50	TRACE	3-4%		
	67.75 73.50 Medium grey, weakly altered with some thin, white, moderately altered zones.	1414	48.00	49.00	1.00	.03	1.60	TRACE	3-4%		
	73.50 76.00 Pink, relatively unaltered intrusive.	1415	49.00	50.00	1.00	.01	.80	-	2-3%		
		1416	50.00	51.00	1.00	.01	1.10	-	1-2%		
		1417	51.00	52.00	1.00	.01	.60	-	1-2%		
		1418	52.00	53.00	1.00	.01	1.30	TRACE	1-2%		
		1419	53.00	54.00	1.00	.01	.90	-	1%		
		1420	54.00	55.00	1.00	.23	1.40	TRACE	1-2%		
		1421	55.00	55.80	.80	.01	1.00	MINOR	2-3%		
		1422	55.80	57.00	1.20	.01	1.00	-	1-2%		
		1423	57.00	58.00	1.00	.01	1.30	-	0.5-1%		
		1424	58.00	59.00	1.00	.01	1.00	TRACE	1%		
		1425	59.00	60.00	1.00	.01	.90	TRACE	1%		

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION SIL CARB SER
76.00 93.30	Medium to light slightly greenish grey, weak to moderately altered intrusive with local bands of intense alteration.	1426	60.00	61.00	1.00	.01	.90	TRACE	1%
		1427	61.00	62.00	1.00	.02	.80	-	1-2%
93.30 103.75	Mostly pink, relatively unaltered intrusive with a few medium grey, weakly altered sections.	1428	62.00	63.00	1.00	.02	.90	-	1-2%
		1429	63.00	64.00	1.00	.01	.90	-	1-2%
103.75 117.80	White to light slightly greenish grey, moderately altered intrusive with some intensely altered, quartz veined zones. Changes in alteration in the above intervals are gradational, with pink unaltered zones often containing thin (0.5 to 1cm) more altered bands adjacent to fractures and quartz veins, and light grey, weak to moderately altered zones often containing thin intensely altered bands adjacent to some fractures and quartz veins. However, the altered zones do not contain significantly more fracturing or quartz veining when compared to the unaltered sections. Unit is generally massive, coarse grained, feldspar porphyritic with 5 to 7% biotite as the mafic, and relatively minor quartz phenocrysts, although grey altered zones are silica flooded with biotite partially or completely destroyed (chloritized/sericitized).	1430	64.00	65.00	1.00	.01	1.10	-	2-3%
		1431	65.00	66.00	1.00	.03	1.30	0.25%	2-4%
		1432	66.00	67.00	1.00	.01	1.10	0.5-1%	2-4%
		1433	67.00	67.75	.75	.01	.90	-	0.5-1%
		1434	67.75	68.25	.50	.01	.90	TRACE	2-3%
		1435	68.25	68.75	.50	.01	1.00	MINOR	3-4%
		1436	68.75	69.40	.65	.05	1.10	1%	3-4%
		1437	69.40	70.00	.60	.01	1.00	MINOR	2-4%
		1438	70.00	71.00	1.00	.04	1.10	0.25%	2-3%
		1439	71.00	72.10	1.10	.01	2.40	0.5-1%	2-3%
80.00 80.35	Thin (10 cm) fault zone, or brecciated intrusive zone containing 70%, 1 to 3mm, subrounded intrusive fragments in a fine matrix. Zone is well banded at 35 degrees to the core axis. Unit contains 5%, thin (0.5 to 2cm), very irregular, branching quartz veins often offset along fractures. The veins cut both unaltered and altered intrusive zones, although the larger and more irregular veins are more common in the more altered intrusive zones. The larger veins appear to be oriented at various angles, between 45 and 90 degrees, to the core axis. The quartz veins are often irregularly branching, but locally cross-cut one another. Quartz veining is blue-white, coarse grained, often vuggy, occasionally contains coarse calcite, but is generally clean, apart from minor pyrite, and locally contains minor amounts of a purplish grey metallic mineral. The latter also forms fine disseminations in intensely altered and silica flood zones adjacent to quartz veins, and occasionally forms smears on fractures. Unit contains several, thin (1 to 2cm), quartz veins containing minor amounts of very coarse (1 to 5mm), grey metallic mineralization in waxy needle-like crystals at:	1440	72.10	73.50	1.40	.01	1.00	0.5-1%	2-3%
		1441	73.50	74.50	1.00	.01	1.00	-	0.5-1%
		1442	74.50	75.50	1.00	.01	.90	-	0.5-1%
		1443	75.50	76.00	.50	.01	1.30	MINOR	1-2%
		1444	76.00	77.00	1.00	.04	1.40	0.5%	2-3%
		1445	77.00	78.00	1.00	.60	3.00	MINOR	2-3%
		1446	78.00	79.00	1.00	.25	2.30	0.5%	2-3%
		1447	79.00	80.00	1.00	.30	1.70	TRACE	3%
		1448	80.00	81.00	1.00	.49	2.10	TRACE	2-3%
		1449	81.00	82.00	1.00	.91	11.40	0.5%	2-3%
		1450	82.00	83.00	1.00	2.55	12.90	MINOR	2-3%
		1451	83.00	84.00	1.00	.78	3.80	MINOR	2-3%
		1452	84.00	85.00	1.00	.31	2.30	MINOR	2-3%
		1453	85.00	86.00	1.00	1.38	5.80	0.5%	2-3%
		1454	86.00	87.00	1.00	.29	3.00	MINOR	2-3%
		1455	87.00	88.00	1.00	.16	2.20	-	2-3%
1456	88.00	89.00	1.00	.02	3.30	TRACE	2-3%		
1457	89.00	90.00	1.00	.02	1.00	-	1%		
1458	90.00	91.00	1.00	.01	.80	TRACE	1%		
1459	91.00	92.00	1.00	.35	3.20	TRACE	2-3%		
1460	92.00	93.30	1.30	.94	3.40	-	1-2%		
1461	93.30	94.00	.70	.02	.90	TRACE	1%		

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
109.00 109.20	In irregular quartz vein.	1462	94.00 95.00	1.00	.01	.80	-	1%			
113.60 113.80	In planar quartz vein oriented at 20 degrees to the core axis.	1463	95.00 96.00	1.00	.03	1.00	MINOR	1-2%			
		1464	96.00 97.00	1.00	.01	.90	-	1-2%			
	Unit is generally well fractured at various angles to core axis, with most oriented between 30 and 80 degrees to the core axis. Fractures often exhibit greasy chloritic-sericitic surfaces, and generally contain increased amounts of disseminated pyrite.	1465	97.00 98.00	1.00	.01	1.00	-	1-2%			
		1466	98.00 99.00	1.00	.01	.90	-	1-2%			
		1467	99.00 100.00	1.00	.42	2.10	TRACE	1-2%			
		1468	100.00 101.00	1.00	.03	.90	TRACE	1-2%			
	Unaltered zones contain 0.5 to 1% pyrite, while altered zones contain 2 to 4% finely disseminated pyrite.	1469	101.00 102.00	1.00	.05	1.10	MINOR	1-2%			
		1470	102.00 103.00	1.00	.06	1.20	-	1-2%			
	Moderately competent core with 5 to 20 cm breakage, generally along fractures. Unit contains a few, thin (10 cm), rubble zones where irregular fractures intersect, and a few moderately incompetent and crumbly zones of moderately to intensely altered intrusive.	1471	103.00 103.75	.75	.12	1.20	0.25%	2-3%			
		1472	103.75 104.50	.75	.24	6.10	0.5-1%	2-3%			
		1473	104.50 105.00	.50	.02	1.10	MINOR	2-4%			
		1474	105.00 106.00	1.00	.01	1.90	0.5-1%	3-5%			
80.50 90.80	Section containing several black, planar, chloritic fractures, and a few, thin to moderately thick (1 to 10mm), green serpentine fracture slips. The chloritic fractures are somewhat irregular and at shallow angles to the core axis, but the serpentine slips are very planar at 25 degrees to the core axis, with evidence of slippage.	1475	106.00 107.00	1.00	.01	1.10	0.5-1%	2-3%			
		1476	107.00 108.00	1.00	.24	2.40	0.5-1%	2-3%			
		1477	108.00 109.00	1.00	.04	1.20	0.25%	2-3%			
		1478	109.00 109.70	.70	.02	1.40	0.5-1%	3-4%			
		1479	109.70 110.50	.80	.01	1.00	TR-MNR	1-2%			
		1480	110.50 111.00	.50	.01	1.10	1%	3-5%			
	Lower contact is sharp and planar at 45 degrees to the core axis, with moderate to intense silicification over 50cm of the underlying mafic volcanic unit.	1481	111.00 111.50	.50	.18	1.50	0.5-1%	2-4%			
		1482	111.50 112.00	.50	.01	.90	0.5-1%	2-4%			
		1483	112.00 113.00	1.00	.05	1.00	0.25%	2-3%			
		1484	113.00 114.00	1.00	.03	6.20	0.5%	2-3%			
		1485	114.00 115.00	1.00	.01	1.40	0.25%	2-3%			
		1486	115.00 116.00	1.00	.01	1.10	TRACE	2-3%			
		1487	116.00 117.00	1.00	.04	5.60	0.5%	2-3%			
		1488	117.00 117.80	.80	.01	2.00	0.25%	2-3%			
117.80 142.25	MAFIC METAVOLCANIC FLOWS (FE THOLEIITE) Generally dark greenish black, fine grained, moderately magnetic, and massive with some zones having slightly brownier biotitic composition. The upper contact zone is silicified and the lower contact zone is weak to moderately epidote-carboante altered. Locally the unit exhibits thin zones containing feldspar phenocrysts, as well as some sections exhibiting very weak epidote alteration.	NS	117.80 142.25	24.45	n/a	n/a	-	0.5-2%			
		1489	117.80 119.00	1.20	.03	1.00	-	0.5%			
		1490	129.00 130.00	1.00	.17	.40	-	3-4%			

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SBR
	Unit has weak to moderate development of hairline calcite tension microfracturing, and contains minor to 5% thin (1 to 10cm), generally planar, blue-white quartz veins, occasionally containing small feldspar phenocrysts.										
	Thin intrusive dykes occur between:										
	123.20 123.25 Feldspar Porphyritic Quartz Diorite Dyke. Salmon pink and oriented at 70 degrees to the core axis.										
	139.30 139.65 Feldspar Porphyritic Quartz Diorite Dyke. Very subdued/resorbed dyke, with irregular diffuse contacts.										
	140.15 140.40 Feldspar Porphyritic Quartz Diorite Dyke. Grey with contacts oriented at 60 to 70 degrees to the core axis.										
	Some green-black massive sections exhibit small (1 to 3mm), ovoid amygdules and occasional feldspar crystals suggesting a flow origin. Relatively abundant (0.5 to 3%) pyrite as fine disseminations, irregular elongate blebs, and fracture fillings. The brown biotitic zone between 129 and 130 is particularly pyritic containing 3 to 4% pyrite, as well as a trace amount of chalcopyrite.										
	Foliation and alteration orientation, where developed is at 60 to 70 degrees to the core axis. The planar fabric is best developed in the lower contact zone where foliation shearing is oriented parallel to the contact at 60 to 70 degrees to the core axis.										
	Competent core with 20 to 50 cm breakage, generally along fractures at various orientations to to the core axis.										
142.25 173.00	FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED										
	Mostly typical pink, massive, unfoliated, medium to coarse grained, plagioclase porphyritic, biotite granodiorite to quartz diorite, although unaltered zones exhibit a light bleaching in thin (1 to 5mm) zones adjacent to fractures and some quartz veins. The unit contains a few thin to thick, grey, weak to locally moderately altered zones, between:	NS	142.25	173.00	30.75	n/a	n/a	NO-TR	0.5-3%		
	156.85 157.10 Grey, moderately silicified zone adjacent to quartz vein oriented at 45 degrees to the core axis.	1491	153.00	154.00	1.00	.01	.60	-	0.5%		
	160.00 163.05 Medium grey, pervasively weakly silicified.	1492	154.00	155.00	1.00	.70	2.10	MINOR	0.5%		
	168.00 173.00 Progressively more altered towards the adjacent volcanic contact, changing from grey, weakly silicified to grey,	1493	155.00	156.00	1.00	.02	1.00	-	0.5%		
		1494	156.00	157.15	1.15	.03	.70	TRACE	0.5%		
		1495	160.00	161.00	1.00	.40	1.50	-	0.5-1%		
		1496	161.00	162.00	1.00	.02	.20	TRACE	0.5-1%		
		1497	162.00	163.00	1.00	.01	.50	-	0.5-1%		
		1498	168.00	169.00	1.00	.02	.30	-	0.5-1%		
		1499	169.00	170.00	1.00	.02	1.30	-	1-3%		

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION SIL CARB SER
	moderately silica flooded.	1500	170.00	171.00	1.00	.04	.90	-	1-3%
	Unit contains several, thin (0.5 to 2cm), planar, blue-white quartz veins generally oriented at 30 to 45 degrees to the core axis. Veins containing mineralization other than pyrite are listed below:	1501	171.00	172.00	1.00	.01	.60	TRACE	2-3%
	143.60 143.65 1 cm quartz vein oriented at 30 degrees to the core axis, containing salmon pink calcite and minor purple fluorite.	1502	172.00	173.00	1.00	.10	1.10	TRACE	3-4%
	147.90 148.00 10 cm grey silica flood vein with very finely disseminated molybdenum.								
	149.70 149.85 0.5 cm quartz vein oriented at 25 degrees to the core axis containing minor disseminated grey metallic mineralization.								
	153.20 153.25 2 cm blue-white quartz vein containing minor chalcopyrite.								
	155.70 155.80 1 cm quartz vein oriented at 25 degrees to the core axis, with abundant grey metallic minerals including minor moly coating slip surfaces on both vein contacts.								
	156.95 157.00 3 cm quartz vein oriented at 45 degrees to the core axis, with minor grey metallic mineralization.								
	Unit generally contains 0.5% pyrite, with up to 1 to 3% in the weakly to moderately altered zones.								
	Relatively competent core, generally with 10 to 50 cm breakage along fractures oriented at various angles to the core axis.								
	Lower contact is a sharp, planar, slip surface oriented at 80 degrees to the core axis.								
173.00 219.50	WEAKLY BRECCIATED MAFIC METAVOLCANIC WITH EPIDOTE-CARB. BANDS	WS	173.00	219.50	46.50	n/a	n/a	-	MNR-1%
	Mostly a light to medium mottled green colour, indicative of weak to moderate, pervasive epidote-carbonate alteration, generally in very irregular patches and bands. Colours vary from pastel greens and browns, to light to medium greys, and in intensely carbonate altered zones to reddish-brown and pink. A few zones are hard, greyer, and appear somewhat silicified, while a darker green less altered, massive zone occurs between 200.00 and 209.50 metres. Locally garnet occurs in some intense epidote-carbonate altered bands.	1503	173.00	174.00	1.00	.02	2.30	-	MINOR
	Unit is considered to be a mafic volcanic flow.	1504	188.00	189.00	1.00	.25	3.00	-	1-2%
	Above 200 metres, the unit is generally weakly to moderately sheared and fractured/brecciated with a few thin, irregular breccia fault zones	1505	189.00	190.00	1.00	.10	3.70	-	2-3%

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION SIL CARB SER
	containing 1 to 15mm, angular fragments in a white calcite matrix. This section has a well fractured, pseudobreccia appearance with some late calcite tension microfracturing. Quartz veining is generally very thin (1 to 2mm), irregular, branching, non-planar and often discontinuous, locally infilling brecciated wallrock zones. Veining is oriented at various angles to the core axis, but is mostly between 10 to 45 degrees. Unit generally contains minor amounts of disseminated pyrite, but locally contains up to 3 or 4% in silicified patches. Two small intrusive dykes, exhibiting a foggy, assimilated, or resorbed appearance occur between: 176.00 176.05 Contacts oriented at 65 degrees to the core axis. 198.30 198.35 With offset fractured contacts oriented at 65 to 70 degrees to the core axis. Foliation and alteration banding where developed are generally oriented at about 60 degrees to the core axis, although colour banding is often highly irregular, anastomosing and offset by fracturing/local brecciation. Relatively competent core, generally with 5 to 50 cm breakage along fractures at various angles to the core axis.								
219.50 219.85	FAULT ZONE 35 to 50cm of recovered rubble from late fault zone. Recovered material is mostly small (less than 0.5 cm), angular, green volcanic fragments within a clay matrix. Zone contains numerous mud red coloured, hematitic slip/shear surfaces. Incompetent, broken, poorly recovered, rubble zone.	NS 219.50	219.85	.35	n/a	n/a	-	MINOR	
219.85 223.50	QUARTZ VEIN BRECCIA ZONE Mostly a well mottled, white, brecciated, but rehealed quartz vein containing abundant light green, small to large, angular, fractured volcanic wallrock fragments that exhibit various degrees of assimilation by the quartz vein. Unit varies from mostly vein with assimilated wallrock fragments, to intensely fractured/brecciated altered mafic metavolcanic that is	NS 219.85 1506 219.85 1507 220.40 1508 220.75 1509 221.50 1510 222.00	223.50 220.40 220.75 221.50 222.00 222.50	3.65 .55 .35 .75 .50 .50	n/a .02 .03 .02 .04 .03	n/a 1.00 .90 .60 1.80 1.50	- - - - - -	MINOR MINOR MINOR MINOR MINOR MINOR	

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION SIL CARB SER
	Intruded by a stockwork of irregular, thin, quartz veinlets.	1511	222.50	223.00	.50	.02	2.60	-	MINOR
	Quartz veining is generally white, coarse grained, and cut by 10 to 15%, later, thin, clear quartz filling thin fractures that are somewhat irregular, but generally oriented at 10 to 15 degrees to the core axis.	1512	223.00	223.50	.50	.01	.40	-	MINOR
	Quartz vein sections occur between: 219.85 220.40 220.75 221.50 222.00 222.50 223.00 223.50								
	Contacts between these sections of veining and the altered volcanics vary from relatively sharp at 0 to 20 degrees to the core axis, to somewhat gradational through stockwork breccia zones.								
	The intervening and included light green mafic volcanic wallrock sections and fragments are intensely fractured and intruded by clear quartz veinlets that are similar to the second generation quartz veinlets within the main quartz vein.								
	Unit is well broken into 3 to 20 cm pieces, generally along irregular fractures, often at 20 to 40 degrees to the core axis. Fractures locally exhibit a hematitic brown-red staining.								
	No significant sulphides occur within either the quartz vein or altered mafic volcanics.								
	Upper contact with fault gouge zone is sharp at 10 degrees to the core axis.								
	Lower contact is not discernable, due to poor recovery, but appears to be a gradational change through a stockwork quartz veined zone.								
223.50 237.70	SCHISTOSE MAFIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS	NS	223.50	237.70	14.20	n/a	n/a	-	MINOR
	Unit varies from mottled light to medium green, moderately epidote-carbonate altered and brecciated adjacent to the overlying quartz vein (223.50 to 227.50m), through medium green with irregular, thin (1 to 5mm), anastomosing epidote alteration veinlets in weak to moderately altered zone (227.50 to 332.00m), to dark green, fine grained, moderately magnetic relatively unaltered to weakly epidotized mafic volcanic.	1513	223.50	224.00	.50	.02	2.20	-	MINOR
	Unit contains a 1 cm wide irregular clay fault gouge zone at 220.20.	1514	224.00	225.00	1.00	.03	3.30	-	MINOR



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

Minor finely disseminated pyrite.

No significant quartz veining, apart from microfractured veining in the upper zone occurring adjacent to the overlying quartz vein breccia zone.

Minor, hairline calcitic fractures.

Lower contact not encountered.

237.70 End of hole.

ESSO MINERALS CANADA Om88-6-C-236  
SUMMARY DRILL LOG

Project Name: HN Hole Number: HN88-31  
 Project Number: 1677 Logged By: M.H. Lenters  
 NTS: 42H/8 Date: September 1988  
 Location: 39+00W, 9+00S Claim Number: L-871909  
 Azimuth: 178° Dip: -45° Length (m): 233

PURPOSE: Test Mag. low and anomalous IP chargeability response east of HN88-22

From (m)	To (m)	Description	Gold Assays (g/tonne)
		CASING REMOVED	
0.0	12.50	Overburden	
12.50	13.40	Unaltered Quartz Diorite Intrusive Dyke Medium-grey, medium to coarse grained, with 25 to 40%, 1 to 3 mm, subhedral, white plagioclase phenocrysts, and 10% biotite in finer-grained matrix. Minor pyrite.	Not Assayed
13.40	42.55	Weak to locally Moderately Epidote-Carbonate Altered Mafic Metavolcanic Flow Medium grey-green to dark brownish-green, fine-grained, weakly schistose, weakly magnetic, with 10 to 25% irregularly banded to anastomosing light yellowish-green epidote-carbonate alteration generally oriented at 60 to 80° to C.A. Minor quartz veinlets. 0.5 to 1% pyrite. Includes three, small intrusive dykes.	0.04 - 0.21 (2)
42.55	176.65	Relatively unaltered to Weakly Altered Quartz Diorite Intrusive 60 to 65% pink to pinkish-grey, medium to coarse grained plagioclase porphyritic intrusive, 30% medium grey, weakly silicified intrusive, and 5% moderately silicified and sericitized intrusive that generally occurs in thin (1-10 cm) shear bands, or adjacent to quartz veining. Generally 5 to 10% quartz veining, but locally up to 20%. Generally 1 to 3% disseminated pyrite but locally up to 7%. Minor to 1% grey metallic minerals, and one quartz vein with several sites visible gold at 157 metres. Section between 140 and 164 m is finer grained and may be a separate intrusive phase.	0.01 - 3.94 (85)
176.65	233.00	Relatively unaltered to Very Weakly Altered Mafic Metavolcanic Flow Medium to dark grey-green to green-black, fine-grained, massive to weakly foliated at 60 to 80° to C.A., moderately to strongly magnetic mafic metavolcanic pillow flow unit. Abundant, hair-line width, calcite microfracturing. Unit intruded by numerous thin (10 to 100 cm), quartz diorite dykes. Minor to 1% disseminated pyrite.	0.01 - 0.24 (6)
	233.00	END OF HOLE.	

H-W PROJECT (Ont. 77)

BSSO MINERALS CANADA  
DIAMOND DRILL RECORD

Hole: HN88-31  
Page: 1

Drilled by: Bradley Bros. Limited  
Hole Size: BQ  
Core Size: BQ  
Casing: Casing Removed

Azimuth: 178  
Dip: -45

Claim No: L-871909  
Grid: West  
Easting: 39+00W  
Northing: 9+00S  
Elevation: Level

Started: Sept. 18, 1988  
Finished: Sept. 20, 1988

Acid Tests:  
Depth Az. Dip  
12.50 -44.5  
113.00 -43.5  
213.00 -41.0

Purpose: Test Mag Low & IP East of HN88-22

Logged by: M.H.Lenters  
Date logged: September 1988  
Logging Method: Log II  
Measurement System: Metric

Length: 233.00 Metres  
Vert. Proj: 159.0 Metres  
Hor. Proj: 170.0 Metres  
Ovb. Depth: 9.3 Metres

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
.00 12.50	OVERBURDEN										
12.50 13.40	FELDSPAR PORPHYRITIC QUARTZ DIORITE DYKE Medium grey, very weakly silicified to relatively unaltered, medium to coarse grained, porphyritic intrusive dyke. 25 to 40%, small (1 to 3mm), subhedral, white plagioclase phenocrysts occur in a medium grey, relatively fine grained matrix. Matrix contains about 10%, small, biotite phenocrysts. Minor, thin (1 to 3cm), irregular, coarse grained, white quartz vein blebs Occasional feldspar phenocrysts up to 1 cm, but these are generally poorly formed with corroded edges. Well broken core, generally into 2 to 15 cm pieces. Breakage partly due to near surface weathering along fractures. Lower contact not discernable as it occurs in a broken rubble zone.	NS	12.50	13.40	.90	n/a	n/a	-	MINOR		V.WK
13.40 42.55	SCHISTOSE MAFIC METAVOLCANIC WITH EPIDOTE-CARBONATE BANDS Generally a mottled, to thinly banded, light to dark brownish green, with	NS	13.40	42.55	29.15	n/a	n/a	-	0.5-1%		



Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic (%)	Pyrite (%)	ALTERATION		
									SIL	CARB	SBR
	contacts oriented at about 45 degrees to the core axis.										
39.95 41.70	Feldspar Porphyritic Quartz Diorite Dyke. Medium slightly pinkish grey to grey, generally subdued coarse grained porphyritic texture that appears somewhat weakly silicified though not sericitized. Dyke is broken into small 2 to 5 cm pieces, generally along fractures oriented at 45 degrees to the core axis.										
	The mafic volcanic section between the lower dyke and the contact with the underlying intrusive plug is somewhat more broken, schistose, and vuggy. It is dark greyish black, with minor limonitic staining on phyllitic cleavage surfaces. 5% large (1 to 5mm wide to 2 to 10mm long), irregular vugs. Moderately well developed schistose foliation oriented at 60 degrees to the core axis. Core in this section is relatively incompetent and broken, generally into small (1 to 2cm) pieces along foliation surfaces oriented at 60 to 70 degrees to the core axis. Lower contact is poorly recovered, but appears to be sharp and oriented at 45 to 60 degrees to the core axis.										
42.55 176.65	FELDSPAR PORPHYRITIC QUARTZ DIORITE INTRUSIVE - UNALTERED										
42.55 45.00	Pink, relatively unaltered, with minor very light pink, massive, albite dyke/quartz vein zones.	MS 1517	42.55 44.00	176.65 45.00	134.10 1.00	n/a .03	n/a 1.00	TR-MNR -	0.5-4% 0.5-1%	UN-WK	UN-WK UN-WK
45.00 47.00	Medium to light grey, weak to locally moderately altered.	1518	45.00 45.00	46.00 1.00	.02	1.00	-	1-2%			
47.00 49.50	Dark pink, relatively unaltered.	1519	46.00 47.00	47.00 1.00	.04	1.00	TR-MNR	2-3%			
49.50 50.60	Medium grey, weakly altered.	1520	49.50 49.50	50.60 1.10	.03	.90	TRACE	2-3%			
50.60 56.20	Medium pink, relatively unaltered, to very weakly altered.	1521	50.60 51.10	.50	.02	.60	TRACE	0.5-1%			
56.20 58.80	Pinkish grey to medium grey, very weakly altered to weakly altered.	1522	51.10 52.00	.90	.01	.80	-	0.5%			
		1523	52.00 53.00	1.00	.02	1.00	-	1-2%			
58.80 72.50	Light to medium grey to pinkish grey, weak to moderately and locally intensely altered intrusive with 10 to 15% quartz veining.	1524	56.50 57.50	1.00	.06	.80	TR-MNR	2-3%			
		1525	57.50 58.80	1.30	.23	1.60	TRACE	1-2%			
		1526	58.80 60.25	1.45	.45	2.80	TR-MNR	2-3%			
72.50 78.00	Pink to pinkish grey, relatively unaltered to very weakly altered.	1527	60.25 61.00	.75	.22	2.30	MINOR	1-2%			
		1528	61.00 62.00	1.00	.20	1.30	MINOR	3-4%			
78.00 79.00	Pink to medium grey, relatively unaltered to weakly altered.	1529	62.00 63.00	1.00	.18	1.50	TR-MNR	3-4%			
79.00 79.55	70% quartz veining, and 30% intensely altered intrusive.	1530	63.00 64.00	1.00	.19	1.20	TRACE	2-4%			
79.55 93.00	Pinkish grey to medium grey, relatively unaltered to very	1531	64.00 65.00	1.00	.21	1.10	TRACE	2-3%			

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION		
									SIL	CARB	SER
	weakly altered intrusive with 10 to 20%, subplanar, intersecting quartz veining, generally oriented at 50 to 80 degrees to the core axis.	1532	65.00	66.00	1.00	.40	1.30	-			1-3%
		1533	66.00	67.00	1.00	.12	2.90	MINOR			3-4%
		1534	67.00	68.00	1.00	.10	2.30	MINOR			3-5%
93.00	97.80	1535	68.00	69.00	1.00	.04	2.20	0.25%			3-5%
	Medium grey to pinkish grey, and locally light grey, generally weakly altered with a central zone (95 to 96m) of weakly sheared and moderately silicified and sericitized intrusive. Generally 5 to 10% silica veining and flooding.	1536	69.00	70.00	1.00	.01	1.70	TRACE			2-3%
		1537	70.00	71.00	1.00	.02	1.30	MINOR			3-5%
		1538	71.00	72.50	1.50	.17	2.90	TRACE			2-4%
97.80	99.10	1539	72.50	74.00	1.50	.03	1.20	-			1-3%
	Dark greenish black, weakly schistose, mafic metavolcanic xenolithic inclusion with contacts and foliation oriented at 55 degrees to the core axis.	1540	74.00	75.50	1.50	.01	.90	TRACE			1-3%
		1541	75.50	77.00	1.50	.06	1.20	TRACE			2-3%
99.10	118.40	1542	77.00	78.00	1.00	.01	1.10	-		0.5-1%	
	Variably altered with minor pink unaltered zones, although mostly patchy zones of pinkish grey to medium grey, very weak to weakly silicified intrusive, and local zones of moderate silica flooding. Includes irregular mafic volcanic xenolith fragments within the intrusive between 113 to 114m, and 117.30 to 117.75 metres.	1543	78.00	79.00	1.00	.02	1.30	TRACE			2-3%
		1544	79.00	79.55	.55	.03	6.10	MNR-0.5			1-2%
		1545	79.55	81.00	1.45	.01	1.40	-			1-2%
		1546	81.00	82.00	1.00	.07	1.50	TRACE			1-2%
		1547	82.00	83.00	1.00	.12	.04	-			2-3%
118.40	130.75	1548	83.00	84.50	1.50	.21	1.60	-			2-3%
	Pink-red, unaltered, medium grained, feldspar porphyritic intrusive with one, thin (126.90 to 127.25m), mottled, weakly silica flooded zone. Upper contact zone is a 3cm wide shear contact oriented at 50 degrees to the core axis.	1549	84.50	86.00	1.50	.03	1.00	-		0.5-1%	
		1550	93.00	94.00	1.00	.19	1.20	TRACE			2-3%
		1551	94.00	95.00	1.00	.15	1.20	-			1-2%
130.75	140.00	1552	95.00	96.00	1.00	.29	1.30	MINOR			2-3%
	Light pinkish grey to medium grey, very weakly to weakly altered intrusive.	1553	96.00	97.00	1.00	.16	.80	-			2-3%
140.00	146.25	1554	99.50	101.00	1.50	.02	.90	TRACE			1%
	Medium pinkish-red, fine to medium grained, weakly porphyritic, relatively unaltered intrusive.	1555	102.50	104.00	1.50	.01	.40	TRACE			1-3%
146.25	164.00	1556	104.00	105.50	1.50	.01	.90	-			1-3%
	Light pinkish grey to medium grey, massive, relatively fine grained, with pinkish plagioclase phenocrysts. Section contains a few, thin zones with weak to moderate alteration, generally along quartz veining. Minor quartz veining throughout the section.	1557	105.50	107.00	1.50	.04	.80	-			1%
		1558	110.00	111.50	1.50	.03	1.90	-			1%
		1559	111.50	113.00	1.50	.02	1.30	-			1%
		1560	113.00	114.50	1.50	.21	2.60	-			2-3%
164.00	176.65	1561	114.50	116.00	1.50	.01	.80	-			2-3%
	Medium grey and locally light grey, weak to locally moderately altered intrusive, with minor to 5% quartz veining. More typical, medium to coarse grained, biotitic, plagioclase porphyritic intrusive.	1562	116.00	117.00	1.00	.01	1.10	TRACE			2-3%
		1563	117.00	118.40	1.40	.05	1.40	-			2-3%
		1564	126.00	126.90	.90	.01	.80	-			1%
	Generally the above sections exhibit gradational changes between the zones of varying alteration intensity.	1565	126.90	127.25	.35	.21	1.00	TRACE			5%
		1566	127.25	128.00	.75	.03	.60	-			1%
	Unit generally contains about 60 to 65%, pink to pinkish grey, relatively	8575	128.00	129.50	1.50	.17	1.00	-			0.5%

Interval (Metres)	Description	Sample No.	Interval (Metres)	Length (Metres)	Au (g/t)	Ag (ppm)	Grey Metallic	Pyrite (%)	ALTERATION			
									SIL	CARB	SER	
	unaltered to very weakly altered sections, 30% medium grey, weakly silicified/chloritized sections, and 5% moderately altered sections of massive, medium to coarse grained, feldspar porphyritic intrusive. Moderately altered sections generally have all of the biotite destroyed, often contain small calcitic fragments, and locally exhibit a thin (1 to 2mm) chloritic fringing along fractures and calcitic fragments. Unit contains a few, thin (1 to 3cm), foliated/shear bands oriented at 70 degrees to the core axis. Generally 5 to 10% quartz veining, and locally up to 20% in the section above 35 metres. Veining occurs in unaltered and altered zones. Within the unaltered zones the quartz veins tend to be more planar although somewhat undulating, while in altered zones they tend to be more irregular and branching. Below 135 metres the unit is more massive, less altered, and only contains minor quartz veining. Quartz veins are oriented at all angles to core axis. The most intensely (15 to 20%) veined zone, between 83 and 93 metres, in relatively unaltered rock, has intersecting and crosscutting veining, generally oriented at 45 to 75 degrees to the core axis. Locally, the veining appears to form conjugate sets. Locally the weak to moderately altered intrusive sections contain minor amounts of very finely disseminated purplish grey metallic minerals, often in thin (1cm) zones adjacent to quartz veining. The mineral is thought to include a silver telluride, as well as molybdenum and galena. Trace amounts of visible gold occur within a quartz vein at 157m. Unaltered intrusive sections generally contain 1% disseminated pyrite, while altered zones can contain up to 5%, and locally 7 to 10% over a few cm's. Pyrite also occurs as coarser fracture filling veinlets that are usually irregular to subplanar, and discontinuous. Locally pyrite veinlets cut planar quartz veining. 140.00 164.00 This section is more massive, finer (fine to medium) grained, and less altered and quartz veined. Locally this section contains chloritic fractures. This section may be a later intrusive phase. Relatively competent core, generally with 5 to 25 cm breakage in altered zones, and 10 to 50 cm breakage in relatively unaltered zones. Fractures	8576	129.50	131.00	1.50	.10	1.10	-	0.5%			
		1567	131.00	132.50	1.50	.81	2.10	-	1-2%			
		1568	132.50	134.00	1.50	.05	.90	TRACE	1-2%			
		1569	134.00	135.00	1.00	.12	1.00	-	1-2%			
		1570	135.00	136.00	1.00	.21	1.20	-	1-2%			
		8577	136.00	137.00	1.00	.02	1.00	-	0.5-1%			
		8578	137.00	138.50	1.50	.04	.90	-	0.5-1%			
		1571	138.50	140.00	1.50	.03	1.10	-	1-2%			
		8579	140.00	141.50	1.50	.02	.80	-	0.5%			
		8580	141.50	143.00	1.50	.16	.70	-	0.5-1%			
		8581	143.00	144.50	1.50	.16	.80	-	0.5%			
		8582	144.50	146.25	1.75	.13	1.20	-	0.5-1%			
		8583	146.25	147.50	1.25	.26	1.70	-	0.5-1%			
		8584	147.50	149.00	1.50	.69	1.90	-	0.5-1%			
		8585	149.00	150.50	1.50	.35	1.10	-	0.5-1%			
		8586	150.50	152.00	1.50	.30	1.70	-	0.5-1%			
		8587	152.00	153.50	1.50	.08	1.00	-	0.5-1%			
		8588	153.50	155.00	1.50	.21	2.20	-	0.5-1%			
		8589	155.00	156.50	1.50	.22	1.60	-	0.5-1%			
		1572	156.50	157.50	1.00	3.94	17.80	MINOR	0.5-1%			
		8590	157.50	158.00	.50	.22	1.40	-	1-2%			
		8591	158.00	159.50	1.50	.39	1.90	-	1%			
		1573	159.50	161.00	1.50	.52	1.80	-	1%			
		8592	161.00	162.50	1.50	.38	1.50	MINOR	2-3%			
		8593	162.50	164.00	1.50	1.80	2.50	-	2-3%			
		1574	164.00	165.50	1.50	.39	2.20	TRACE	1-3%			
		1575	165.50	167.00	1.50	.06	1.10	-	2-3%			
		1576	167.00	168.50	1.50	.03	.50	-	2-3%			
		1577	168.50	170.00	1.50	.07	.50	-	2-3%			
		1578	170.00	171.50	1.50	.01	.90	-	2%			
		1579	171.50	173.00	1.50	.02	.50	-	2%			
		1580	173.00	174.50	1.50	.11	1.20	-	2%			
		1581	174.50	175.50	1.00	.04	.80	-	2-4%			
		1582	175.50	176.65	1.15	.02	.40	-	2-3%			









Ministry of  
Natural Resources

Report  
of Work

DOCUMENT No.  
W8808-592



42H08NE0009 22 BLAKELOCK

900

Name and Postal Address of Recorded Holder

ESSO RESOURCES CANADA LIMITED

T-872

Box 4029, Terminal A, Toronto, Ontario M5H 1T2

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.
	Prefix	Number	Work Days Cr.		Prefix	Number	Work Days Cr.		Prefix	Number	Work Days Cr.	
1740												
for Performance of the following work. (Check one only)	see attached sheet											
<input type="checkbox"/> Manual Work												
<input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work.												
<input type="checkbox"/> Compressed Air, other Power driven or mechanical equip.												
<input type="checkbox"/> Power Stripping												
<input checked="" type="checkbox"/> Diamond or other Core drilling												
<input type="checkbox"/> Land Survey												

ONTARIO GEOLOGICAL SURVEY  
ASSESSMENT FILE  
OFFICE

JAN 4 1989

RECEIVED

All the work was performed on Mining Claim(s): L 871909 & 871912

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

Holes HN88-29, 30 and 31 cored between September 13 and September 20, 1988, using a BBS-25A diamond drill, owned and operated by Bradley Bros. Ltd., P.O. Box 2367, Rouyn-Noranda, Quebec, J9X 5A9, to recover 613.7 metres (2,013 feet) BQ core.

HN 88-29 (L 871912) - 469.2'  
HN 88-30 (L 871912) - 779.9'  
HN 88-31 (L 871909) - 764.5'

2013.6'

1740.

Applied Bal. Banked 273.6'

RECORDED  
DEC 9 1988  
Receipt # \_\_\_\_\_

RECEIVED  
DEC 9 1988  
11:45 am  
L.P.

Date of Report: Dec. 2, 1988  
Recorded Holder or Agent (Signature): *Martin Henters*

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

Martin H. Lenters,

Date Certified: Dec. 4, 1988  
Certified by (Signature): *Martin Henters*

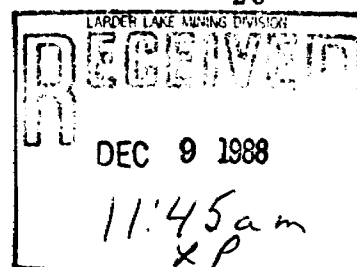
P.O. Box 290, Timmins, Ontario P4N 7K4

Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work			
Compressed air, other power driven or mechanical equip.	Type of equipment	Names and addresses of owner or operator together with dates when drilling/stripping done.	Work Sketch (as above) in duplicate
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.		
Diamond or other core drilling	Signed core log showing: footage, diameter of core, number and angles of holes.	Nil	Nil
Land Survey	Name and address of Ontario land surveyor.		

BLAKELOCK TOWNSHIP

<u>Mining Claim</u>	<u>Work Days</u>	<u>Credit</u>	<u>Mining Claim</u>	<u>Work Days</u>	<u>Credit</u>
L-756779	20		L-877131	20	
L-756780	20		L-877132	20	
L-756781	20		L-877133	20	
L-756782	20		L-877134	20	
L-876363	20		L-877135	20	
L-876364	20		L-877151	20	
L-876365	20		L-877152	20	
L-876366	20		L-877153	20	
L-876367	20		L-877154	20	
L-876368	20		L-877155	20	
L-876369	20		L-877156	20	
L-876370	20		L-877157	20	
L-876371	20		L-877158	20	
L-876372	20		L-877159	20	
L-876373	20		L-877160	20	
L-876374	20		L-877161	20	
L-877101	20		L-877162	20	
L-877102	20		L-877163	20	
L-877103	20		L-877164	20	
L-877104	20		L-877165	20	
L-877105	20		L-877166	20	
L-877106	20		L-877167	20	
L-877107	20		L-877168	20	
L-877108	20		L-877169	20	
L-877109	20		L-877170	20	
L-877110	20		L-877171	20	
L-877111	20		L-877172	20	
L-877112	20		L-877173	20	
L-877113	20		L-877174	20	
L-877114	20		L-877175	20	
L-877115	20		L-877176	20	
L-877116	20		L-877177	20	
L-877117	20		L-877178	20	
L-877118	20		L-877179	20	
L-877119	20		L-877180	20	
L-877120	20		L-877181	20	
L-877121	20		L-877182	20	
L-877122	20		L-878461	20	
L-877123	20		L-878462	20	
L-877124	20		L-878463	20	
L-877125	20		L-878464	20	
L-877126	20				
L-877127	20				
L-877128	20				
L-877129	20				
L-877130	20				





## E S S O M I N E R A L S C A N A D A

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

DANE A. BRIDGE  
District Geologist, Timmins

File: HN, 1677 A01  
and Blakelock 1, 1696 A01

December 6, 1988.

Mining Recorder,  
Larder Lake Mining Division,  
4 Government Rd. E.,  
Kirkland Lake, Ont.  
P2N 1A2

Dear Sir:

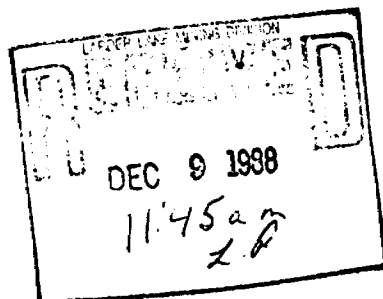
I have enclosed a Report of Work for three diamond drill holes drilled on Esso Resources Canada Limited claims L-871909 and L-871912 in Blakelock Township.

I have also enclosed duplicate logs and location maps for these drill holes.

The drilling consists of 613.7 metres (2,013 feet) of BQ core, yielding 2,013 Work Day Credits.

I wish to apply 20 work day credits to each of the following 87 claims in Blakelock Township, as listed on the accompanying sheet.

<u>CLAIM NUMBERS</u>	<u>NO. OF CLAIMS</u>	<u>DATE RECORDED</u>
L-756779 to L-756782	4	June 17, 1985
L-876363 to L-876374	12	January 16, 1986
L-877101 to L-877135	35	December 18, 1985
L-877151 to L-877182	32	December 18, 1985
L-878461 to L-878464	4	January 16, 1986
TOTAL	87	

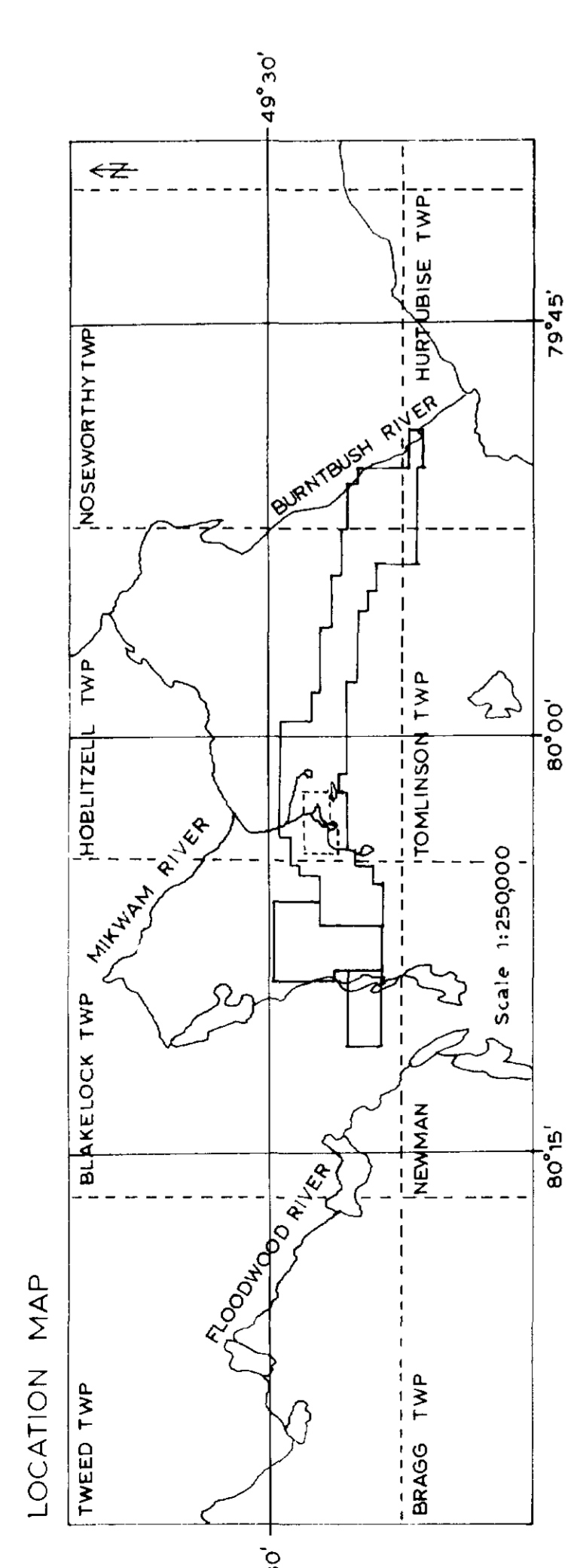
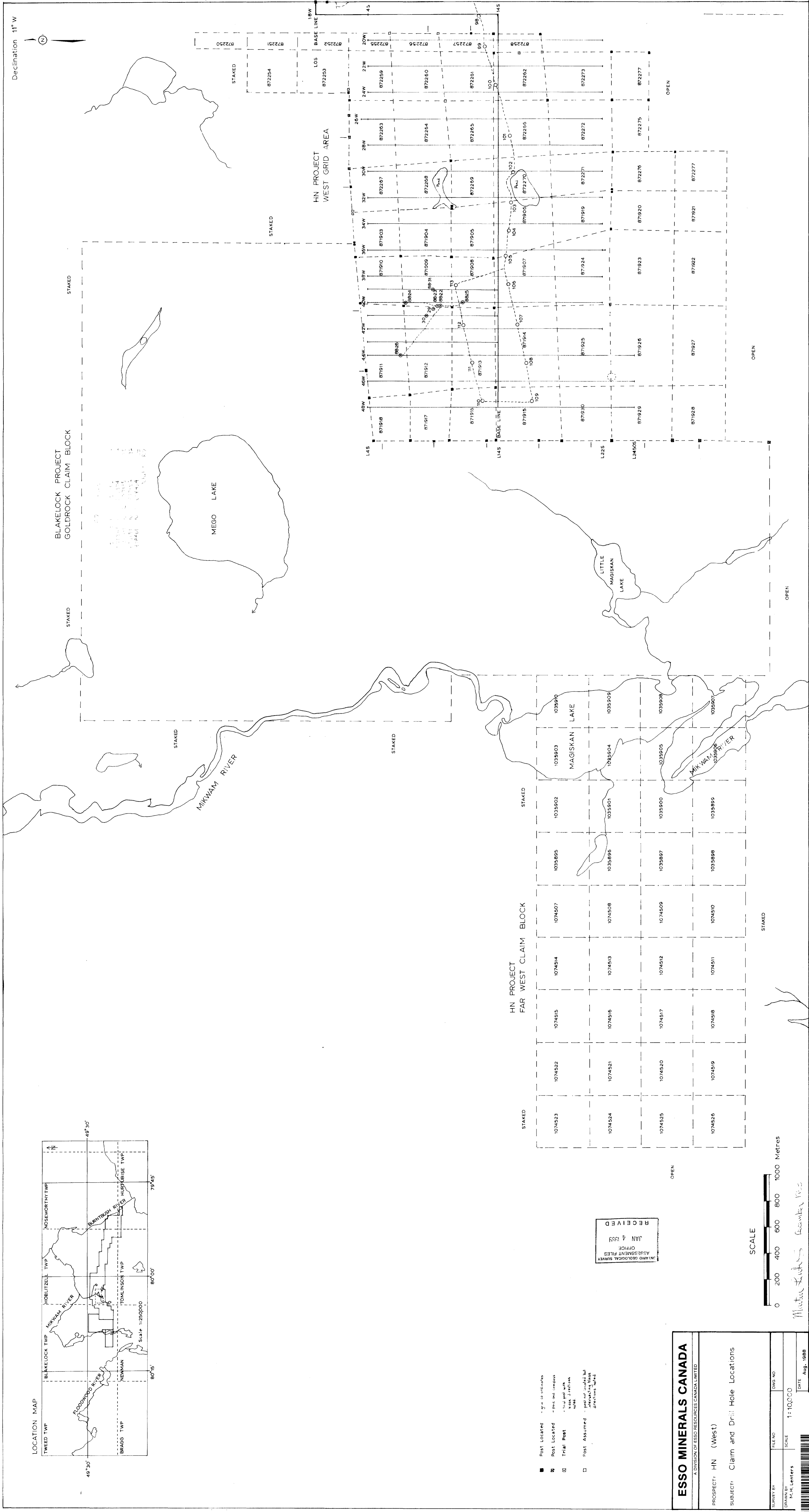


Yours truly,



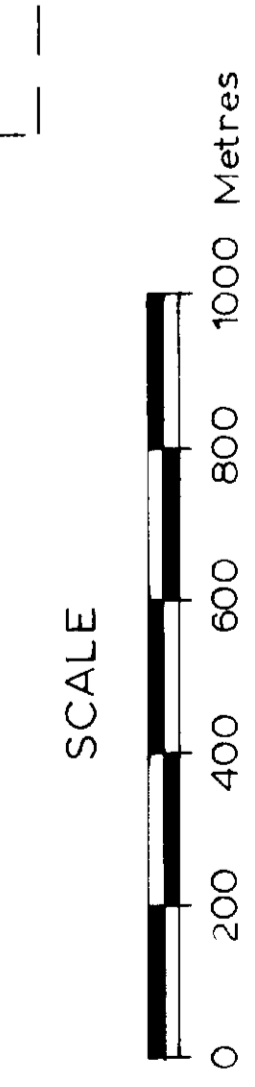
Martin Lenters.

ML:lal  
Encl.  
cc R. Hall



RECEIVED  
 JAN 4 1989  
 JAMES ROSSIGNOL SIMYET  
 ASSESSMENT FEE  
 OFFICE

- Post Located - grid co endpoints
- Post Located - Post and compass
- Trial Post - Trial post with direction
- Post Assumed - post not located but inferred from surrounding block directions noted



**ESSO MINERALS CANADA**  
 A DIVISION OF ESSO RESOURCES CANADA LIMITED

PROSPECT: HN (West)  
 SUBJECT: Claim and Drill Hole Locations

SURVEY BY: FILE NO: DWS NO:  
 DRAWN BY: M.H. Leners SCALE: 1:10,000  
 DATE: Aug. 1988