



42H09SE0007 17 HOBLITZELL

010

DIAMOND DRILLING

TOWNSHIP: HOBLITZELL

REPORT NO.17

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 871978	HN87-1	124m	Mar/87	(1)
L 871979	HN87-2	114.94m	Mar/87	(1)
L 836606	HN87-3	127.13m	Mar/87	(1)
L 872016	HN87-4	130.15m	Mar/87	(1)
L 836603	HN87-5	123.48m	Mar/87	(1)
L 836602	HN87-6	105.79m	Mar/87	(1)
L 871979	HN87-7	232.26m	Mar/87	(1)
L 872019	HN87-12	221.59m	Mar/87	(1)
L 872018	HN87-13	106.67m	Mar/87	(1)
L 872023	HN87-14	169.81m	Mar/87	(1)
	HN87-15	130.19m	Mar/87	(1)
L 871996	HN87-16	103.63m	Mar/87	(1)

NOTES: (1) #240-87, filed Jan 26/88.

ESSO MINERALS CANADA
SUMMARY DRILL LOG

Project Name: HN

Hole Number: 87-1

Project Number: 1677

Logged By: J. MacPherson

NTS: 32E/5

Date: March 6, 1987

Location: Grid L16E, 600N

Claim Number: 871978

Azimuth: 180°

Dip: -45°

Length (m): 124.0

PURPOSE: To test IP anomaly located at L16E, 550N

From (m)	To (m)	Description	Assays Au g/t
0	20.0	Overburden	.01 to .22
20.0	47.8	Feldspar to quartz-feldspar crystal tuff - Locally interbedded with thin argillite beds. Average 1-2% diss. py. local weak pervasive calcite.	
47.8	56.55	Argillite - Fine-grained, thinly bedded, black. Up to 5% py over 10 cm, nil alteration.	.01 to .18
56.55	65.45	Felsic ash tuff - Weakly sericitic, locally silicified, 2% diss. py	.01 to .16
65.45	85.8	I/B intermediate tuff and argillite - Average 1% diagenetic py weak pervasive calcite alterations	.01 to .03
85.8	124.0	Feldspar crystal tuff, minor intermediate tuff - 1-3% py, trace po & mag, nil alteration	.01 to .01
124.0		END OF HOLE	.11

J. A. MacPherson

DRILL LOG

PROJECT H-N	GROUND ELEV.
HOLE NO. HN 87-1	BEARING 180°
LOCATION L16E, 600N	DIP -45°
	TOTAL LENGTH 124.0m.
LOGGED BY J. MACPHERSON <i>J.A. MacPherson</i>	HORIZONTAL PROJECT
DATE MAR. 6/87	VERTICAL PROJECT
CONTRACTOR PHIL'S DIAMOND DRILLING	ALTERATION SCALE <ul style="list-style-type: none"> 0 absent 1 slight 2 moderate 3 intense
CORE SIZE BQ	TOTAL SULPHIDE SCALE <ul style="list-style-type: none"> 0 traces only 1 < 1% 2 1% - 3% 3 3% - 10% 4 > 10%
DATE STARTED MAR 5/87	
DATE COMPLETED MAR 7/87	
DIP TESTS EOH(407' = 124m) Ethed = 50° True = 40°	
COMMENTS	LEGEND

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ	
					A SIL	D ANIC	S CAL	D SER	M CHL			
0-20.0				OVERBURDEN - CLAY, SAND, GRAVEL								
20.0-29.9				Feldspar X100. Medium grained, 5% sub-rounded blue quartz "eyes", 40-60% feldspar (sodic), tr. 20% feldspar. Clast supported - sub-rounded. Matrix is black, aphanitic & chloritic. Last 2.6 m. is med - strongly sheared - numerous chloritic wisps surr. clasts - which have indistinct edges. Unit becomes more fg & chloritic d-hole - only blue qtz (smaller) are discernable. Fol'n at 80-90° to CA. Weak ssw cleav. at 50-60° to CA. Tr. Q.V. Locally weakly magnetic (ie at 23.75m)								
30.95				Mod. sharp contact								
30.95				Felsic clastic rock. Med grey, weakly foliated @ 80° to CA. Locally v. pyritic over 1-2 cm. Locally vuggy. (May be felsic - 100 ft)								
47.8				1% blue qtz eyes. latter is common inside of the area, i.e. unit may be a red. There are other clasts; white qtz, tr. na-spar, occ. chloritic (wispy) - frag. 1/8 with a few 3cm - 10cm black fg finely bedded argillite (?). Dist feature of unit is py content & varying mottled grey look about the rock as a whole. 1% Q.V. w/ly calcitic. Rock contains ~ 5% chl. & is moderately hard. Q.V. with py at contact at 35.65m. Q.V. " tr. py at 39.75m.								1 1
35.9-36.35				Wk crackle fracture, dec. impy, a little harder.								
47.8-50.9				Argillite, fg - finely bedded. Mod - well sheared. Py occ. as bands up to 1cm wide - numerous white streaks & disc. ctr's. Occ blue qtz eyes								

Tot. clast content < 5%

1 1

1-2 1

1 1

1 1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
20.0-29.9 py content inc. down section - at bottom it is 2-3%, locally 5% over 1-2 cm. Appears diagenetic. (?)									
29.9- Avg py content = 2-3% py occ. as 1cm semi-mass bands + as disc blebs. Bands // to fol'n/bedding		30.95	32.62	1.67	2666	.01	.001		
30.3- 2 cm of semi-mass py		32.62	34.12	1.5	2667	.06	.002		
34.1 1 cm " " "									
37.7-40.21 Avg 5% disc py Cp blebs at 35.97 m, 39.05 m. Avg cp ~ 4.5% - occurs as blebs + .5 cm masses		34.12	35.67	1.55	2668	.02	.001		
		35.67	37.17	1.50	2669	.03	.001		
		37.17	38.71	1.54	2670	.01	.001		
		38.71	40.21	1.50	2671	.04	.001		
		40.21	41.8	1.69	2672	.02	.001		
		41.8	43.3	1.5	2673	.01	.001		
		43.3	44.8	1.5	2674	.03	.001		
		44.8	46.3	1.5	2675	.20	.006		
		46.3	47.8	1.5	2676	.22	.006		
47.8-50.9 Avg 2-3%, a few 1cm bands of py, occ. speck py. Mod-strongly magnetic - magnetite, minor po.		47.8	49.4	1.6	2677	.18	.005		
		49.4	50.9	1.5	2678	.05	.001		

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					A SIL	B ANK	C CAL	D OPT	E CHC		
45				50.9-56.55 Argillite with tuffaceous component. More siliceous, up to 5% epidote replacement masses - poss volc originally. - 1 cm wide, 1% Q.V. as irreg veins, pods.							
				56.55-65.45 Silicified felsic tuff. Locally veined up to 10% (esp. centered around 62.1m) Sericitic - 5-10%. Mod hard. Mod fol' - @ 80° to CA.							
50				65.45-85.8 Intermediate tuff with strong arg. component. Dark grey to black, chloritic, biotite on slip planes. Locally weak to moderately magnetic in v. dark fg "beds". Tuffaceous component is rep. by 1-2% frags, usually siliceous - occ blue qtz eye.							
55				85.8-93.6 1/B XI tuff (20% fsp, 2% blue qtz eyes) & int tuff (chloritic, almost salt-pepper texture, 5% blue qtz eyes) latter dominates. Weakly fold @ 80° to CA, locally w/ly bleached.							
60				93.6-99.7 Purer tuffs, sl. bleached & silicified, sl. increase in py content. 95.5-96.1 10% Q.V., tr py in Q.V.							
				99.7-124.0 1/B XI tuff, int tuff with minor arg component, latter inc downhole. Contacts all v. gradational, diff to pick out indiv. units. Below 105.4, Qtz with tr spar up to 1%. 109.7 5 cm fault zone. Good clay gouge, bleached 25 cm either side of fault. Common to all units are 1-2% blue sub-rounded qtz eyes.							
				124.0 E.O.H.							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
50.9-56.55 Wispy py, up to 5% over 10cm, avg 2-3%		50.9	52.9	1.6	2679	.01	.001		
		52.9	53.9	1.0	2680	.08	.002		
		53.9	55.9	1.5	2681	.02	.001		
		55.5	56.55	1.05	2682	.01	.001		
56.55-65.45 Fg py, avg 2%, locally 5% over 10cm. A few masses > 1cm. Tr cpy.		56.55	58.05	1.50	2683	.01	.001		
		58.05	59.55	1.50	2684	.02	.001		
		59.55	61.05	1.50	2685	.16	.005		
65.45-85.8 Avg 1-2% diag, wispy py, tr cp, tr mag. Also unidentified blue-gray sub-metallic, greasy luster - graphite or moly?		61.05	62.6	1.55	2686	.01	.001		
		62.6	64.1	1.5	2687	.01	.001		
		64.1	65.45	1.35	2688	.02	.001		
		78.9	78.4	1.5	2689	.03	.001		
78.4-79.9 Avg 2% wispy py, usually conc. to 5% over 10 cm.		78.4	79.9	1.5	2690	.03	.001		
		85.8	87.1	1.3	2691	.01	.001		
77.6 - splint of cpy									
85.8-93.6 Avg 1% py, tr cp		87.1	88.6	1.5	2692	.01	.001		
93.6-124.0 Py content variable 1-3% locally 5% over 3-5cm. Tr cp, rock locally magnetic (Fg black units, usually 1-4cm thick) Tr po?		88.6	90.1	1.5	2693	.01	.001		
		90.1	91.6	1.5	2694	.01	.001		
		91.6	93.6	2.0	2695	.01	.001		
		93.6	95.1	1.5	2696	.01	.001		
		95.1	96.6	1.5	2697	.02	.001		
		96.6	98.15	1.55	2698	.04	.001		
		98.15	99.7	1.55	2699	.07	.002		
		99.7	101.2	1.5	2700	.11	.003		
	101.2	102.7	1.5	2701	.07	.002			
	102.7	104.25	1.55	2702	.01	.001			
	104.25	105.8	1.55	2703	.02	.001			
	105.8	107.3	1.5	2704	.03	.001			
	107.3	108.8	1.5	2705	.01	.001			
	108.8	110.3	1.5	2706	.01	.001			
	110.3	111.9	1.6	2707	.01	.001			
	111.9	113.4	1.5	2708	.03	.001			
	113.4	114.9	1.5	2709	.01	.001			
	114.9	116.45	1.55	2710	.01	.001			
	116.45	118.0	1.55	2711	.01	.001			
	118.0	119.5	1.5	2712	.02	.001			
	119.5	121.0	1.5	2713	.01	.001			

ESSO MINERALS CANADA
SUMMARY DRILL LOG

Project Name: H-N

Hole Number: 87-2

Project Number: 1677

Logged By: M. Lenters

NTS: 32E/5

Date: March 1987

Location: Grid: 16+00E, 8+75N

Claim Number: 871979

Azimuth: 180°

Dip: -45°

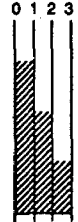

Length (m): 114.94

PURPOSE: To test IP anomaly at 1600E and 825N

From (m)	To (m)	Description	Assays Au g/t
0	13.28	Overburden	
13.28	19.77	Silty argillite and siltstone - green-grey, well laminated, trace finely disseminated wispy pyrite.	
19.77	22.40	Felsic to intermediate volcanic tuffs - grey-green, wavy laminated, waterlain lapilli tuff and volcanic sediment; weakly schistose and sericitic, no sulphides.	
22.40	31.16	Siltstone and cherty siltstone - dark green to purplish grey, well laminated and moderately foliated; cross bedding indicates tops are up hole; minor pyrite and pyrrhotite associated with quartz-calcite veinlets.	.01
31.16	58.70	Felsic volcanic pyroclastic and interbedded fine volcanic sediment - several interbedded, probably waterlain, fine (lapilli tuff) to coarse, felsic pyroclastic units, as well as reworked finer grained volcanic sediment; locally weakly to moderately siliceous, with same pervasive carbonate alteration; numerous thin highly magnetic bands; average 1 to 3 percent finely disseminated sulphides with minor sulphide rich (10 to 50%) bands.	.01 to .05
58.70	59.00	Fault Zone - clay gouge and rock rubble.	
59.00	66.50	Felsic to mafic volcanic pyroclastic/sediment - grey, fine grained, well laminated waterlain volcanic material, weakly carbonated; minor sulphides.	
66.50	114.94	Mafic volcanic flows and mafic volcanic tuff/sediments - purple to green, fine grained, schistose to gneissic often with larger amphibole and garnet porphyroblasts; slightly siliceous and weakly carbonatized with minor to moderate amount of quartz-calcite veining; minor amounts (1%) of iron sulphides.	.01
114.94		END OF HOLE	

Martin Lenters

DRILL LOG

PROJECT H-N	GROUND ELEV.
HOLE NO. HN87-2	BEARING 180°/45°
LOCATION L16+00E, 8+75N	DIP
	TOTAL LENGTH 114.94 metres. (377 feet)
LOGGED BY M. Lenters <i>Martin Lenters</i>	HORIZONTAL PROJECT
DATE March 10-11, 1987	VERTICAL PROJECT
CONTRACTOR Phil's Drilling	ALTERATION SCALE
CORE SIZE BQ	 <p>absent slight moderate intense</p>
DATE STARTED March 7 Dayshift.	TOTAL SULPHIDE SCALE
DATE COMPLETED March 9 Dayshift	 <p>traces only < 1% 1% - 3% 3% - 10% > 10%</p>
DIP TESTS 377' Etched Angle 52° (114.94 m) True Angle 42	
COMMENTS Box 1 03.8 13.28-17.38 Box 2 17.38 - 25.10 Box 3 25.10 - 30.50 Box 4 30.50 - 36.04 Box 5 36.04 - 41.60 Box 6 41.60 - 46.95 Box 7 46.95 - 52.42 Box 8 52.42 - 57.82 Box 9 57.82 - 63.57 Box 10 63.57 69.34 Box 11 69.34 75.28 Box 12 75.28 80.77 Box 13 80.77 86.43 Box 14 86.43 91.74 Box 15 91.74 97.85 Box 16 97.85 103.70 Box 17 103.70 109.38 Box 18 109.38 114.94 (EOH)	LEGEND

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ	
					A Silic	B FeOx	C Cal.	D Ser	E Chlor.			
0 - 13.28				Overburden; sand, gravel and boulders including, biotite granite, mafic uck., diabase and argillite boulders recovered from 10.00 to 13.28 metres.								
13.28 - 19.77				<p><u>Silty argillite & siltstone</u></p> <ul style="list-style-type: none"> - dark green-grey to purple grey, finely parallel laminated at ~80° to core axis; - minor amount of thin (hairline) quartz-carb veinlets parallel to foliation - a few beds have angular fragments at base - mod. hard, and mod. fractured along foliation - gradational lower contact, with progressively more amphibole (recrystallized metamorphic) to bottom 								
19.77 - 21.46				<p><u>Volcanic tuff (felsic to intermediate)</u></p> <ul style="list-style-type: none"> - mod. grey-green, irregular wavy laminated (70 to 90° to CA) lapilli tuff or sediment. Fine grained quartz-feldspar-amphibole matrix material, now partly recrystallized, as well as some larger (1-5mm) lapilli or fragments that are slightly flattened; minor sericite/chlorite in places - moderately soft core that is broken and rubble in places and 1.4 metres of lost core is presumed to have come from this section at about 20.00 metres. - zone contains a couple small (5-10mm) irregular quartz pecks/lenses but is relatively unaltered. - no visible sulphides - sharp lower contact into a separate but similar waterlain tuff or volcanic sediment layer 								

Lost 40% of core

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
		FROM	TO	WIDTH		Au g/t	Au oz/t			
21.46-22.40 trace amount of finely disseminated pyrite										
22.46-31.16 - trace to minor amounts of pyrite and pyrrhotite disseminated throughout section										
29.80 - 29.85 1% py & po associated with quartz veinlets.		29.57	30.50	0.93	2735	.01	.001			
29.80 - 29.90 1/2% py & po in rusty weathering, fine grained sandstone as well as minor pyrite on small late fractures										

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					A silic	B Ank.	C Cal.	D Ser.	E Chlbr.		
				<p>cross-bedded sequence, as well as a thin volcanic debris flow (27.37-27.48), and a some rusty weathering po-hooring fine grained sandstones as at 29.80-29.90.</p> <p>- this zone also contains some small (1/2 to 3 mm), somewhat irregular potkilitic porphyroblasts that are a very light pinkish colour; these may be garnets or garnet-feldspar intergrowths.</p> <p>- gradational lower contact with a greater tuffaceous (and amphibole content in lower 0.5m. of unit.</p> <p>- mod. broken (2-5cm) core.</p>							
				<p>31.6-34.17 <u>Redeposited fine volcanic sediment and/or volcanic tuff</u></p> <p>- dark purplish to greenish grey, v. fine grained, well bedded/foliated at 80-90% to CA</p> <p>- relatively hard - partially silicified</p> <p>- quartz, feld, amphibole & minor sericite & chlorite composition</p> <p>- minor calcite and quartz-carb. irregular foliation subparallel patches and veinlets, becoming increasing more abundant lower in section where anastomosing hairline calcite veinlets have thin light green-grey alteration zones over 1/2 to 2cm. widths.</p> <p>- 10-20 cm. core breakage.</p> <p>- sharp lower contact @ 80% CA</p>							10%
				<p>34.17-35.83 <u>Felsic volcanic pyroclastic flow/breccia</u></p> <p>- light slightly greenish creamy grey, intensely carbonatized and mod. silic. upper section (34.17-34.55) and mod. to dark purplish grey intensely silic. and mod. carbonatized lower section; latter contains abundant thin (hairline)</p>							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
31.6 - 34.17 Trace finely disseminated pyrite									
34.17 - 35.83 Minor to 1% finely dis. py in silicified zone, generally adjacent to quartz veins		34.17	34.55	0.38	2736	.01	.001		
		34.55	35.83	1.28	2737	.01	.001		

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					>Silic.	□ Ank.	□ Cal	□ Sericite	mChlor.		
				<p>carbonate (calcite) veinlets, both subparallel to foliation and as crosscutting network veinlets, in places giving rock a pseudo-breccia appearance.</p> <p>- some recrystallization of the rock to a fine ($\frac{1}{2}$ mm) grain size particularly in lighter coloured carbonate altered zones</p> <p>- central part may include redeposited tuff or volcanic sand but upper and particularly lower parts exhibit abundant (50-70%), small (1mm to 3cm) monolithic subangular fragments in finer tuff matrix; however intense silicification & carbonatization subdue or destroy original textures.</p> <p>- relatively competent core with 5-20cm. breccage parallel to foliation</p> <p>- lower contact sharp @ 85° to CA.</p>							
				<p>35.83 - 38.09 <u>Rodeposited fine volcanic sediment and/or volcanic tuff</u></p> <p>- slightly greenish to purplish banded, v.f. grained, pervasively silicified, quartz, feld. & amph. chlorite, magnetite</p> <p>- banding at 75 to 85° to CA</p> <p>- minor $\frac{1}{2}$ to 2mm irregular pink poikilitic garnet or garnet-feldspar porphyroblasts.</p> <p>- minor to med. carbonate alteration along thin (hairline), foliation/bedding subparallel calcite veinlets</p>							
				<p>36.36 - 36.43 - weakly magnetic band.</p>							
				<p>36.09 - 36.12 intensely silicified (veined and pervasive) containing 5 to 7% finely disseminated pyrite blebs (1-2mm)</p> <p>- minor, thin (1-3mm) foliation subparallel quartz & carb veinlets cutting core.</p>							

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ	
					A Silic.	B Ank.	C Cal.	D Ser.	E Chlor.			
38.09-40.40 40.40-41.87				<p>Felsic volcanic Crystal (Feld.) Tuff or Flows (Upper & Lower)</p> <ul style="list-style-type: none"> - slightly purplish dark grey with superimposed, slightly greenish creamy green coloured cracks to pseudo-brecciated carbonate altered zones. - carb. alteration moderate (10-20%) throughout with half of the core intensely (>50%) altered - mod. to intensely silicified with some small (cm) qtz pods. - hard core with mod. (5-20cm) breakage parallel to foliation - little of the original volcanic textures preserved although flow banding is vaguely visible throughout section and a 5 cm. flow top breccia separates the lower & upper units. - upper flow contains 3 thin (2-3cm) magnetitic bands containing minor magnetite. - upper flow contains sections exhibiting vague outlines (partly resorbed) of small (2mm) subhedral feldspar phenocrysts/crystals. - several other sharp contacts within the units suggest the unit may be comprised of more than 2 separate flows. - sharp lower contact 	/	/	/					
41.87-42.59 42.59-44.70				<p>Redeposited fine volcanic sediment and/or volcanic tuff. (Upper and Lower units)</p> <ul style="list-style-type: none"> - slightly purplish to greenish dark grey, v.f. grained, well laminated/bedded unit that is very hard and mod. to intensely silic. (fol. 80-90° to CA) - mod. amount of irreg. network to somewhat foliation subparallel 	/	/	/					

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
38.09-40.40 N									
40.40-41.87 minor, finely disseminated pyrite in places comprising 1/2 to 1%									
41.87-42.59 } 42.59-44.70 }		41.87	42.59	0.72	2739	.02	.001		
1-3% finely dis and fracture controlled pyrite both with and without quartz-carb. veining association.		42.59	43.78	1.19	2740	.01	.001		
		43.78	44.70	0.92	2741	.05	.001		

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
49.21 - 51.79 minor finely disseminated pyrite.		49.21	50.91	1.70	2746	.01	.001		
		50.91	51.79	0.88	2747	.01	.001		
51.79 - 53.85 Trace dis. py with minor coarsely crystalline py & po along two fractures									

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ		
					A Silic	B Ank	C Cal.	D Ser.	E Chlor				
53.85-54.30				<p>Redeposited felsic volcanic tuff/pyroclastic flow - similar to above unit, and showing numerous zones with fine (1-5mm) subang fragments - sharp lower contact.</p>	///		///						
54.30-54.90				<p>Upper and Lower Sulphide-rich felsic volcanic separated by felsic volcanic flow. - med. purplish grey, silicified flow exhibiting 5% subhedral feldspar phenocrysts. - flow contains minor P. dis. py between 54.55-54.75 with an upper pyrite rich (40-50%) and a lower PO rich (10-15%) zone. ± Py - sulphides are wispy laminated fine disseminations that paralleled the 30°-75° to CA orientation of the foliation. - relatively broken cone particularly in sulphide bearing sections - sharp lower contact.</p>									
54.90-56.95				<p>Felsic volcanic pyroclastic (lapilli tuff) fragmental - medium grey-green colour - med. to intensely carbonized along fine fractures now coalescing into tight networks of alteration - intense pervasive silicification with numerous irreg. (1-3 cm) silica blebs in most intensely silic. zones - several zones exhibit small (mm-size) felsic volcanic (monolithic) fragments (subangular) - cone is hard and mod. well fragmented into irreg. 1/2 to 5cm</p>	///		///						

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
53.85 - 54.30 - Trace dis. py.									
54.30 - 54.55 - 30-50% finely dis. py forming wispy laminations and bands		54.30	54.55	0.25	2748	.02	.001		
54.55 - 54.75 - trace f. dis. py.									
54.75 - 54.90 - 10-15% finely disseminated Po ± Py		54.75	54.90	0.15	2748	.02	.001		
54.90 - 58.70 - 1/2 to 1% finely dis. and small fracture controlled py.		54.90	55.93	1.03	2749	.01	.001		
		55.93	56.95	1.02	2750	.05	.001		

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
		FROM	TO	WIDTH		Au g/t	Au oz/t			
56.95-58.70 Trace dis. py.		56.95	57.82	0.87	2751	.02	.001			
		57.87	58.70	0.83	2752	.01	.001			
59.00-66.50 - 1% finely dis. py, with occasional bands containing f. dis. po. - general fractures and quartz veins have associated coarse pyrite.		Could sample parts of this section.								
66.50-69.29 - 1/2 to 1% f. dis py with some coarse py minor po and a silver coloured metallic associated with quartz veinlets										

DEPTH (m)	% CORE REC.	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					A	B	C	D	E		
				<p>Some of the veins exhibit pluck and swelling.</p> <ul style="list-style-type: none"> - foliation at 65 to 80° to CA Lower contact sharp 							
				<p>69.29-75.72 <u>Mafic volc. flow</u></p> <ul style="list-style-type: none"> - med green to dark green, weakly silicified and carbonatized, mostly as thin (hairline to 3 mm) veinlets with little pervasive alteration - fine to medium grained plagioclase ± quartz rock with finer grained sections exhibiting a foliation (70-75° to CA) while coarser grained sections have recrystallized amphibole shivers/rosettes up to 1 cm in size in a finer grained (1 mm) groundmass; these sections are only weakly foliated. - magnetite visible as small grains in a few places with coarser amphibole crystals and rock is mostly weakly to moderately magnetic. - relatively competent core with 2-100 cm breakage. - sharp lower contact. 							2%
				<p>75.72-87.9 <u>V. Fine grained mafic flow (or redeposited fine mafic tuff/sediment?)</u></p> <ul style="list-style-type: none"> - dark purplish grey, purplish brown and green-grey fine grained bands consisting mainly of feld., amphi, chlorite, quartz, biotite, calcite. - weakly silicified (pervasive) as well as veined with 1 to 20 mm foliation subparallel quartz ± carb. veinlets. 							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
69.29-75.72 - 1% finely dis. po ± py. with coarser sulphides adjacent to some quartz veins.		74.32	75.30	0.98	2753	.02	.001		
75.72-87.19 minor dis pyrite with minor coarsely crystalline py ± po assoc. with some quartz ± carb. veins.									

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN C
					A Silic	B Ank	C Cal.	D Ser.	m Chlor.		
				<ul style="list-style-type: none"> - carb. alt. occurs as wispy calcite blobs and thin foliation subparallel veinlets (10% of rock) - foliation 60-80° to CA - some zones have small (1-2mm) subhedral, light pink poikilitic garnet porphyroblasts - mod. competent core with 5 to 60cm breakage. 							
				<ul style="list-style-type: none"> - gradational lower contact 							
87.19-89.35				<p>(Moderately silicified & sericitized gneissic meta-arenite or meta volcanic) sericite-biotite-plagioclase-quartz schist/gneiss.</p> <ul style="list-style-type: none"> - light to medium brownish gray coloured, fine grained schistose (65 to 85° to CA) with gneissic compositional banding and quartz lensing/podding. - quartz veining (1-2cm) forms discontinuous pods and lenses - section is slightly vuggy and has abundant weathering and microscopic pits (these could be pitted out calcite) - relatively broken, soft core with irregular 1-3cm breakage - gradational lower contact. 	?						
89.35-90.75				<p>Chlorite-amphibole-quartz-plag. schist (weak to mod. silicified and carbonatized f. gv. mafic volc.)</p> <ul style="list-style-type: none"> - dk. green-grey fine grained schistose (75 to 90° to CA) - contains 2-5% light pink 1-3mm poikilitic garnet porphyroblasts - mod. amount of foliation subparallel, thin (hairline to 3mm) quartz, quartz-carb and carb. (calcite) veining as well as patchy calcite alteration - relatively competent core; 5-20cm breakage. 							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
87.19 - 89.35 - variable amounts but generally 1% finely dis. pyrite sand forming small crystals in vugs.		87.19	825 89.35	1.06	2754	.01	.001		
		89.25	89.35	1.10	2755	.01	.001		
89.35 - 90.75 - trace amounts of disseminated pyrite.		89.35	90.75	1.40	2756	.01	.001		

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH					
90.75-91.88 - trace finely dis. pyrite									
91.88-92.05 - 1/2 to 1% pyrite associated with silica veining/banding.									
92.05-94.60 - minor dis. pyrite and smeared pyritic leaves on chloritic shear partings.									

ESSO MINERALS CANADA
SUMMARY DRILL LOG

Project Name: H-N

Hole Number: 87-3

Project Number: 1677

Logged By: M. Lenters

NTS: 32E/5

Date: March 1987

Location: Grid: 20+85E, 0+25N

Claim Number: 836606

Azimuth: 180°

Dip: -45°

Length (m): 127.13


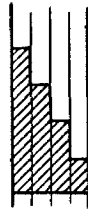
PURPOSE: To test anomalous gold value (183 ppb) obtained from bedrock chip sample in Reverse Circulation Drill Hole #5

From (m)	To (m)	Description	Assays
0	20.43	Overburden	
20.43	101.20	Pebble and cobble conglomerate, and pebbly arenite - Conglomerates are medium grey, and bimodal consisting of well rounded, flattened (5 to 20:1), polyolithic pebbles in a finer quartzose- feldspathic arenite matrix. - Arenite is slightly psammitic, with foliation defined by biotite and minor muscovite/sericite, and contains ½ to 1% finely disseminated euhedral pyrite.	
101.20	127.13	Arenite and siltstone - medium grey, thickbedded, homogeneous, fine grained arenite and lesser coarse grained, weakly laminated siltstone; unaltered; trace finely disseminated pyrite.	
	127.13	END OF HOLE	

Martin Lenters

MINERALS SECTION

DRILL LOG

PROJECT HN	GROUND ELEV.
HOLE NO. HN 87-3	BEARING 180°
LOCATION 20+85E, 0+25N	DIP -45°
	TOTAL LENGTH 127.13' m
LOGGED BY M. Lenters <i>Martin Lenters</i>	HORIZONTAL PROJECT
DATE March 13, 1987	VERTICAL PROJECT
CONTRACTOR Phil's Drilling	ALTERATION SCALE  <ul style="list-style-type: none"> absent slight moderate intense
CORE SIZE BQ	
DATE STARTED Dayshift March 10, 1987	TOTAL SULPHIDE SCALE  <ul style="list-style-type: none"> traces only < 1% 1% - 3% 3% - 10% > 10%
DATE COMPLETED Nightshift March 12, 1987	
DIP TESTS EOH (127.13m) = 40°	
COMMENTS 20 core boxes	LEGEND

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
0 - 20.43				Overburden: sand, gravel and boulders including a 1/2 metre wide coarse grained hbde-bio granite boulder at 17.00 metres and a clean well-sorted beach sand between 17.38 and 20.43						
20.43 - 101.20				<p>Pebble and cobble conglomerate and pebbly arenite</p> <p>- light to medium grey colour, bimodal sediment consisting of poly lithic, well rounded pebbles and cobbles generally 1/2 to 3 cm in size but up to 10 cm in size, generally in grain contact, and a fine to medium grained, clean quartzose-feldspathic arenite forming a matrix to the pebbles and occasional thin interbeds. Thicker arenites from 50.6-60.4 & 76.4-78.0</p> <p>- the clasts are flattened in the plane of foliation, generally from about 5 to 20:1. Quartz vein, silicified felsic volc. and felsic porphyry intrusive clasts remain relatively unflattened while volcanic flows, tuffs and redeposited volcanic sediments as well as epiclastic arenites, siltstones and argillites exhibit the more intense flattening.</p> <p>- foliation ranges from 40 to 60° to core axis; mostly ~45° to CA</p> <p>- the arenite is slightly psammitic with the foliation defined by biotite and occasionally muscovite/sericite. In places the pyrite contains 1/2 to 1% fine grained euhedral pyrite crystals (<1mm). several, 1-5mm, planar quartz-muscovite-carbonate veinlets cut the rock at various</p>						

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					A	B	C	D	E		
				angles to the foliation, Carbonate is weathered yellowish and is an iron-carbonate and muscovite forms large crystalline books/plates							
				- core is relatively well broken along pebble surfaces at 45° to core axis ($\frac{1}{2}$ to 10cm) and along carbonate-muscovite veinlets; where these intersect the core is rubbly							
				- very broken core from 20.43-26.50 29.50-30.00 31.20-35.15							
				- gradational lower contact							
				101.20-127.3 Fine-grained arenite and siltstone - medium grey colour, thick bedded, homogeneous fine grained sandstone beds and lesser coarse siltstone, in places weakly laminated. - mostly quartzose-feldspathic with biotite							
				- well foliated with foliation parallel to bedding @ 10° to 60° to core axis - several thin (1-2mm) foliation subparallel sheared							
				fractures containing calcite, quartz, chlorite, and muscovite and often smeared pyrite, as well as several large ^{mm} quartz veins and pods that more or less parallel foliation, including a large							
				from 115.06-115.35 including minor calcite as well as coarse biotite, muscovite and lesser pyrite. The quartz-carb veins alter sections of the adjacent sands for distances equal to $\frac{1}{2}$ the width of the veins. The alteration is a weak carbonate, chlorite alteration. The alteration							

ESSO MINERALS CANADA
SUMMARY DRILL LOG

Project Name: H-N Hole Number: 87-4

Project Number: 1677 Logged By: M. Lenters/D. Bridg

NTS: 32E/5 Date: March 1987

Location: Grid: 8+00W, 5+00N Claim Number: 872016


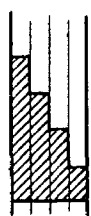
Azimuth: 180° Dip: -45° Length (m): 130.15

PURPOSE: To Test IP anomaly at 800W and 460N

From (m)	To (m)	Description	Assays Au g/t
0	25.54	Overburden	
25.54	85.25	Quartz-Feldspar crystal tuff (possibly flows/intrusives) - light to medium grey, moderately to strongly foliated, ash to feldspar and quartz-feldspar lapilli tuff; moderate (3 to 5%) silica lensing/podding; moderately siliceous with weak to moderate development of sericite; generally abundant (2 to 12%) finely disseminated pyrite.	.01 to .26
85.25	97.60	Mafic volcanic tuff/sediment - fine grained, waterlain mafic tuff or volcanic sediment with minor felsic volcanic crystal tuff and siltstone interbeds; 2 to 10% finely disseminated pyrite.	.13
97.60	105.30	Felsic volcanic crystal tuff and ash tuff - feldspar phenocrysts and blue quartz eyes; average 2% disseminated pyrite.	
105.30	125.25	Epiclastic felsic tuff and sediment with minor mafic tuff - well foliated, waterlain ash and quartz-feldspar crystal tuffs; minor thin magnetite rich bands; average 2 to 3% finely disseminated pyrite.	
125.25	130.15	Feldspar-quartz crystal tuff - fine medium grained, massive to weakly foliated felsic volcanic, unaltered; trace pyrite.	
130.15		END OF HOLE	

Don Smith
Martin Lenters

IMPERIAL OIL LIMITED
MINERALS SECTION
DRILL LOG

PROJECT HN	GROUND ELEV.
HOLE NO. HN87-4	BEARING 180°
LOCATION L8100E ; 5100N	DIP -45°
	TOTAL LENGTH 427 ft 130.15 m
LOGGED BY M. Lenters, D. Bridge <i>Martin Lenters</i> <i>D. Bridge</i>	HORIZONTAL PROJECT
DATE March 15 & 16, 1987	VERTICAL PROJECT
CONTRACTOR Phil's Drilling	ALTERATION SCALE  <ul style="list-style-type: none"> absent slight moderate intense
CORE SIZE BQ	
DATE STARTED Nightshift, March 13, 1987	TOTAL SULPHIDE SCALE  <ul style="list-style-type: none"> traces only < 1% 1% - 3% 3% - 10% > 10%
DATE COMPLETED March 16, 1987	
DIP TESTS None	
COMMENTS	LEGEND

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A Silic	B Ank.	C Cal.	D Ser.	E Chlor.	
				0 - 25.54 Overburden; sand & gravel & boulders including a 1 metre white beach sand at about 20 metres and varved clays (10cm) at about 20.5 metres.						
				25.54 - 85.25: Quartz-feldspar crystal tuffa (with possible feldspar porphyry intrusives)						
				- light to medium grey coloured, variably altered (silicified & sericitized) felsic volcanic/intrusive rock						
				- most of the unit has a wavy band tuffaceous texture that contains abundant feldspar (10 to 50%) and numerous (2 to 5%) very blue quartz eyes. The feldspars are subhedral and 1/2 to 2 mm in size and the quartz is ovoid and 1 to 2 mm in size. The groundmass between the crystals tends to be a darker grey giving the rock a mottled white and dark grey appearance						
				- several sections of this unit lack the strong wavy banding and consist of abundant (60-80%) feldspar crystals/phenocrysts in a finer grained matrix. These more massive sections may still be crystal tuffa or possibly feldspar porphyry intrusives						
				- foliation/bedding is at 65° to 80° to CA						
				- quartz padding/lensing is relatively abundant (3-5%) and the core is relatively vuggy due to the removal of calcite.						
				- variable pervasive silicification, sericitization and pyrite						

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
25.54 - 27.50 5 to 8% fine (<1mm) euhedral pyrite crystals forming discontinuous laminations and disseminations		25.54	26.52	0.98	2796	.02	.001		
		26.52	27.50	0.98	2797	.04	.001		
27.50 - 28.90 3-4% finely disseminated pyrite and discontinuously laminated pyrite as crystals (± to 1mm) as well as some coarse pyrite patches adjacent to quartz veining		27.50	28.90	1.40	2798	.01	.001		
28.90 - 30.75 2-3% fine pyrite (1mm) crystals as banded disseminations		28.90	30.75	1.85	2799	.01	.001		
30.75 - 31.45 10-12% fine pyrite crystals in disseminated bands		30.75	31.45	0.70	2800	.03	.001		
31.45 - 32.62 5-6% fine pyrite (1mm) crystals as disseminations and disseminated laminations		31.45	32.62	1.17	2801	.01	.001		
32.62 - 33.50 4-5% pyrite as fine (1mm) crystals in disseminated bands		32.62	33.50	0.88	2802	.01	.001		
33.50 - 38.05 4-5% pyrite crystals as fine disseminations and discontinuous laminar		33.50	35.06	1.56	2803	.02	.001		
		35.06	35.80	0.74	2804	.01	.001		
		35.80	36.30	0.50	2805	.01	.001		
38.05 - 38.90 2-4% pyrite (1mm) crystals		36.30	38.05	1.75	2806	.01	.001		
		38.05	38.90	0.85	2807	.01	.001		

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					A Silic.	B Ank.	C Cal.	D Ser.	E Chlbr.		
				38.90-40.40 intensely sericitized and moderately silicified crystal tuff							
				40.40-41.77 mod. ^{to intensely} sericitized and silicified crystal tuff							
				41.77-46.25 weakly to moderately sericitized and silicified crystal tuff							
				46.25-47.97 weakly silicified and moderately to intensely sericitized crystal tuff							
				47.97-48.97 intensely sericitized crystal tuff							
				48.97-52.85: moderately sericitic, locally weakly silicified							
				52.85-53.20: Fault gorge and breccia core							
				53.20-54.90: mod. sericitic							
				54.90-54.60: argillaceous tuff, very dark gray, fine-grained quartz-feldspathic w. argillaceous matrix							
				54.60-58.70: moderately sericitic, fine-grained crystal tuff							
				58.70-60.10: dk gray, crowded field crystal tuff massive band appearing weakly silicified but may be just massive and hard.							
				60.10-61.90: weakly sericitic crystal tuff w. minor phenocrysts and interbeds of crowded tuff like 58.70-60.10							
				61.90-62.55: white, ash to crystal tuff w. minor ssp. phenos, mod sericitic and filiated							
				62.55-63.60: weakly sericitic crystal tuff and minor interbedded hard crowded crystal tuff							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
38.90 - 40.40 - 10% very finely laminated and disseminated pyrite.		38.90	40.40	1.50	2808	.04	.001		
40.40 - 41.77 10% very finely laminated and disseminated py.		40.40	41.77	1.37	2809	.03	.001		
41.77 - 46.25 4-7% finely disseminated and laminated pyrite crystals		41.77	42.75	0.98	2810	.01	.001		
		42.75	44.07	1.32	2811	.01	.001		
		44.07	44.82	0.75	2812	.02	.001		
46.25 - 47.97 5-8% finely dis. pyrite crystals		46.25	47.97	1.72	2814	.03	.001		
47.97 - 48.97 6-8% finely dis. pyrite crystals		47.97	48.97	1.00	2815	.01	.001		
48.97 - 52.90 : 6-8% finely dissem py,		48.97	52.90	1.93	2816	.01	.001		
one g ± vein in crevice of at 53.60		52.90	52.85	1.95	2817	.05	.001		
		52.85	53.20	0.35	not sampled				
53.20 - 54.60 : <1% dissem py		53.20	54.60	1.20	2818	.26	.008		
		54.60	54.60	0.20	not sampled				
54.60 - 58.70 : avg 5% dissem py		54.60	57.00	2.40	2819	.15	.004		
		57.00	58.70	1.70	2820	.08	.002		
58.70 - 61.90 : avg 5% py		58.70	60.10	1.40	2821	.01	.001		
		60.10	62.55	2.45	2822	.18	.005		
61.90 - 62.55 : avg 5% py w. 2-5 mm heavy dissem py bands		62.55	63.60	1.05	2824	.10	.003		
62.55 - 64.30 : 3-9% py		63.60	64.30	0.70	2825	.04	.001		

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
69.30 - 69.95: avg 3-4% dissem py		69.30	67.05	2.75	2826	.01	.001		
		67.05	69.95	2.90	2827	.08	.002		
69.95 - 73.30 avg 5% py									
73.30 - 78.22: avg 2% py									
78.22 - 82.70: avg 3% py, concentrated in lags and possibly slightly mafic sections									
82.70 - 85.25: < 1% py									
85.25 - 87.05: avg 5% dissem py									
87.05 - 89.95: avg 10% dissem py		87.05	89.05	2.90	2823	.13	.004		
89.95 - 97.60: avg 2% dissem py									
97.60 - 105.30: avg 2% py									

ESSO MINERALS CANADA
SUMMARY DRILL LOG

Project Name: H-N

Hole Number: 87-5

Project Number: 1677

Logged By: A. Verville

NTS: 32E/5

Date: March 18, 1987

Location: Grid L 32E, 745N

Claim Number: 836603

Azimuth: 180°

Dip: -60°



Length (m): 123.48

PURPOSE: To test IP anomaly located at L32E, 650 - 675N

From (m)	To (m)	Description	Assays Au g/t
0	17.42	Overburden	
17.42	123.48	Quartz-feldspar crystal tuff - 10-40% feldspar crystal, 1-3% blue quartz eyes. Locally interbedded with thin intermediate ash tuff or black fine-grained argillite. Local patchy weak sericite/ silica alteration, moderately foliated. Average 2% py. locally 5-8% py. over 1-3 meters.	.01 to .24
123.48		END OF HOLE	

Andre Verville

IMPERIAL OIL LIMITED
MINERALS SECTION
DRILL LOG

PROJECT <i>H-N</i>	GROUND ELEV.
HOLE NO. <i>HN-87-5</i>	BEARING <i>180°</i>
LOCATION <i>L 32E 745N</i>	DIP <i>-60°</i>
	TOTAL LENGTH <i>123.48 m</i>
LOGGED BY <i>Andre Verville</i> <i>Candice Verville</i>	HORIZONTAL PROJECT
DATE <i>March 18th, 19th</i>	VERTICAL PROJECT
CONTRACTOR <i>Phil's drilling</i>	ALTERATION SCALE  absent slight moderate intense
CORE SIZE <i>BQ</i>	TOTAL SULPHIDE SCALE  traces only < 1% 1% - 3% 3% - 10% > 10%
DATE STARTED <i>March 16th night shift</i>	
DATE COMPLETED <i>March 19th morning 8:00AM</i>	
DIP TESTS <i>123.48m Etched 59° True 51°</i>	
COMMENTS <i>Lost at least 40ft of casing in hole. while trying to pull it out.</i>	LEGEND

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	% vein @ 1m
					A SIL	B ANK	C CAL	D SER	E CHL		
0-17.42				Overburden; sand, gravel, clay, granite + mafic boulders,							
17.42-25.6				Qtz - feldspar ^{crystal} tuff. 10-40% feldspar grains (1-4 mm diam) 2-5% blue Qtz eyes (1-4 mm diam also) matrix is light green to grey colour and most of section has wavy banding. matrix mostly feldspar and 2-3% biotite foliation 70-80% CR. the feldspar are subhedral and the Qtz eyes are subrounded local thin ^{to} str. foliations up to 3cm thick from 17.42 to 22.0m the core is vuggy locally because of calcite removal by fluids or sulfides removal							
25.6-29.23				Gradational Contact throughout feldspar crystal tuff 10-50% feldspar grain up to 1cm diameter no Qtz eyes. matrix is light to medium grey. locally Qtz-calcite vein with biotite along + Py in blebs around and in vein. 10. 28.4-28.5							
29.23-31.9				Qtz-feldspar crystal tuff with Kspar rich matrix giving it an orange colour. 10-30% feldspar grains 1-3mm diam. subhedral 2-5% blue Qtz eyes subrounded.							
31.9-47.48				same as 17.42-25.6 but slightly sericitized and locally K-feldspar fine grained matrix 10. 38.48-38.6							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH					
17.42 - tr-1% Py finely dissems									
36.9-47.48 1% Py dissem.									

PAGE 4 OF 1		PROJECT: 11-N				HOLE NO. 11N-575			
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
47.48-50.5 5-8% Py disse and wispy veins locally up to 10% Py 1% Mag. finely disse		47.48	49.0	1.52	2828	.15	.004		
		49.0	50.5	1.50	2829	.06	.002		
50.5-53.68 3-4% Py disse		50.5	52.1	1.60	2830	.03	.001		
		52.1	53.68	1.58	2831	.04	.001		
		53.68	55.2	1.52	2832	.01	.001		
53.68-65.05 9-8% Py in wispy veins, along foliation disse. and in cubic form fr. Mag. finely disse.		55.2	57.01	1.81	2833	.01	.001		
		57.01	58.58	1.55	2834	.03	.001		
		58.58	60.06	1.50	2835	.01	.001		
		60.06	61.61	1.55	2836	.24	.007		
65.05-71.2 2-3% Py along foliation, disse.		61.61	63.11	1.50	2837	.06	.002		
		63.11	65.05	1.94	2838	.14	.004		
		71.2	72.7	1.50	2839	.01	.001		
		72.7	74.1	1.40	2840	.01	.001		
71.2-75.58 2-3% Py along foliation & disse		74.1	75.58	1.48	2841	.01	.001		
		75.58	76.85	1.27	2842	.02	.001		
		76.85	78.35	1.50	2843	.04	.001		
		78.35	79.5	1.15	2844	.01	.001		
75.58-80.6 3-5% Py along foliation & disse		79.5	80.6	1.10	2845	.03	.001		
		81.37	82.9	1.53	2846	.14	.004		
		82.9	84.45	1.55	2847	.02	.001		
		84.45	85.95	1.50	2848	.03	.001		

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					A	B	C	D	E		
95				more chloritic from 77.65 to 79.05 still greenish grey colour 80.6-81.37 Re-deposited intermediate to mafic tuff as 5268 to 65.05 hematitic							
100				81.37-85.95 weakly to mod. seric. Qtz-feldspar tuff with more broken core (shear zone?)							
105				85.95-106.58 Qtz-feldspar tuff with local Kspar rich zones and in matrix i.e. 86.6-86.7 areas up to 60% of matrix Foliation up to 60° to 70° to CR. 1-3% blue Qtz eyes, up to 3mm diameter. 5-25% feldspar grains up to 5mm diam. Gradational contact slightly to mod. magnetic.							
110				106.58-111.75 Feldspar tuff with 5-10% feldspar grains 1-3mm diameter in a darker matrix (chlorite + biotite) moderately magnetic locally 5cm Kspar rich zones with feldspar grains up to 7mm diam.							
115				111.75-115.55 Qtz-feldspar tuff with local Kspar rich zone (alteration halos along Qtz-calcite veins) and in matrix. 1% Qtz eyes, some muscovite noted in Qtz-calcite veins. (few cm thick) mod. magnetic. Foliation around 65° to CR.							
120				115.55-123.48 Feldspar tuff as above (106.58-111.75) with local Qtz-calcite veins up to 15cm thick some chlorite + biotite along veins + in matrix.							
125											
130											
135											

123.48 F.O.!!

6

6

HN

HN-87.5

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH					
80.6 - 81.37 tr-1% Py disse									
81.37 - 85.95 3.5% Py along foliation + disse.									
85.95 - 106.58 tr-1% disse tr-1% Mag. diss.									
106.58 - 111.75 tr-1% diss 1% Mag									
111.75 - 115.55 tr-1% diss 1% Mag diss									
115.55 - 123.48 tr-1% Py dissem 1% Mag. Dissem.									

ESSO MINERALS CANADA
SUMMARY DRILL LOG

Project Name: H-N

Hole Number: 87-6

Project Number: 1677

Logged By: A. Verville

NTS: 32E/5

Date: March 26, 1987

Location: Grid L36E, 810N

Claim Number: 836602

Azimuth: 180°

Dip: -65°

Length (m): 105.79

PURPOSE: To test IP anomaly on L36E at 740-765N

From (m)	To (m)	Description	Assays
0	18.95	Overburden	
18.95	39.7	Quartz-Feldspar crystal tuff - Moderately to strongly sheared. Moderate sericite due to shearing. Locally 10% py. over 10-50cm to foliation; average py about 2%.	
39.7	72.45	Interbedded quartz-feldspar crystal tuff and fine-grained intermediate tuff - Feldspar between 5% and 30%, quartz 1-3%. Average py content = 2-3%, locally 8-10% over 10-30cm. Local patchy sericite along strong foliation planes.	
72.45	81.55	Felsic tuff - Fine-grained, moderately sheared, locally broken, 3-4% py.	
81.55	105.79	Quartz-Feldspar crystal tuff - 10-40% feldspar, 1-3% blue quartz eyes. Average 1-2% py. Weakly foliated, nil alteration.	
105.79		END OF HOLE	

A. Verville

DRILL LOG

PROJECT <i>H-N</i>	GROUND ELEV.
HOLE NO. <i>HN-87-6</i>	BEARING <i>180°</i>
LOCATION <i>L 36E, 810N</i>	DIP <i>-65°</i>
	TOTAL LENGTH <i>105.79m</i>
LOGGED BY <i>André Verville André Verville</i>	HORIZONTAL PROJECT
DATE <i>March 20th</i>	VERTICAL PROJECT
CONTRACTOR <i>Phil's drilling</i>	ALTERATION SCALE <ul style="list-style-type: none"> 0 absent 1 slight 2 moderate 3 intense
CORE SIZE <i>Bφ</i>	
DATE STARTED <i>March 19th</i>	
DATE COMPLETED <i>March 21th 1:00 PM</i>	TOTAL SULPHIDE SCALE <ul style="list-style-type: none"> 0 traces only 1 < 1% 2 1% - 3% 3 3% - 10% 4 > 10%
DIP TESTS <i>105.79m Etched 62° True 54°</i>	
COMMENTS	LEGEND

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
18.95-31.7 1% Py dissem. but locally up to 10% Py dissem. and along foliation. slightly magnetic as you go deeper but grad. to highly magnetic from 29.35-38.4 (tr. 1% finely dissem. magnetite?)		31.0	32.62	1.62	2888	.17	.005		
		32.62	33.9	1.28	2889	.23	.007		
		33.9	35.67	1.77	2890	.21	.006		
		35.67	37.4	1.73	2891	.05	.001		
		37.4	39.7	2.30	2892	.04	.001		
39.7-45.5 1-2% Py dissem. and along foliation. avg. locally up to 3-5% Py tr. 1% magnetite. finely dissem.									

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
45.5-52.5 2-3% Py along foliation + dissem.									
52.5-53.3 3-5% Py along foliation, dissem and in Qtz-calcite veinlets (2% magnetite) finely dissem.		52.5	53.3	0.80	2893	.05	.001		
53.3-56.82 1-2% Py dissem									
56.82-60.65 2-3% Py dissem and along foliation		67.18	69.21	2.03	2894	.23	.007		
		69.21	70.8	1.59	2895	.15	.004		
60.65-61.65 1-2% Py dissem and in blebs		70.8	72.45	1.65	2896	.10	.002		
		72.45	73.90	1.45	2897	.15	.004		
61.65-67.18 2-3% Py dissem along foliation, and along Qtz-calcite veins		73.9	75.3	1.4	2898	.03	.001		
		75.3	76.05	0.75	2899	.06	.002		
		76.05	76.7	0.65	2900	.21	.006		
		76.7	77.45	0.75	2901	.04	.001		
		77.45	78.55	1.10	2902	.15	.004		
		78.55	79.75	1.20	2903	.08	.002		
		79.75	80.3	0.55	2904	.02	.001		
		80.3	81.55	1.25	2905	.04	.001		
		83.54	84.45	0.91	2906	Not assayed.			
67.18-72.45 overall 3-5% Py dissem along foliation but locally up to 10% Py dissem + along foliation, tr-1% magnetite? finely dissem.									

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					A SIL	B ANK	C CAL	D SER	E CHL		
95				72.45-81.55 Med. slivered felsic tuff core locally broken up slightly sericitized. Foliation is about 60° to Ch. 4-5% Py avg. dissem + along foliation							
100				76.65 to 76.7, 77.45 to 78.55, 78.82 to 81.55 felsic to intermediate tuff with up to 10% Py, med. to highly magnetic as of 67.15-72.45							
105				81.55-105.79 Qtz-feldspar crystal tuff. 10-40% feldspar grains 1-4mm diam. subhedral							
110				1-3% blue qtz eye subrounded 1-2mm diam. locally Kspar grains 1-2% subhedral 1-2mm diam. Matrix is composed of f.g. feldspar, f.g. feldspar rich locally almost throughout section, f.g. magnetite grains locally up to 2% Kspar all ⁱⁿ common along Qtz-calcite vein, also biotite is common in and along these veins. i.e. 84.0, 84.9, 85.25							
				1-2% Py avg dissem, + along foliation. locally up to 10% Py in Qtz-calcite veinlets in Kspar rich matrix, i.e. 84.1 to 84.3m foliation is about 55-65° to Ch. All section is red to highly magnetic							
				105.79 E. cth.							

ESSO MINERALS CANADA
SUMMARY DRILL LOG

Project Name: HN

Hole Number: 87-7

Project Number: 1677

Logged By: A. Verville

NTS: 32E/5

Date: March 22, 1987

Location: Grid L16E, 1100N

Claim Number: 871979

Azimuth: 180°

Dip: -45°

Length (m): 232.26m

PURPOSE: To test IP anomaly at L16E, 1025- 1050N

From (m)	To (m)	Description	Assays Au g/t
0	9.6	Overburden	
9.6	22.2	Mafic volcanic-derived sediments - A few thin feldspar crystal tuff beds, weakly foliated, tr. py.	
22.2	147.88	Mafic volcanic flows and related derived sediments - Tr-1% py, weak calcite alteration locally massive to very weakly foliated.	.01 to .34
147.88	154.77	Felsic to intermediate crystal tuff -Pervasively weak silicification through section. Fine calcite-filled crackle fracture, 1-2% disseminated pyrite.	
154.77	173.56	Mafic volcanic derived sediments - Thinly bedded, chloritic, 3% py & tr po in biotite-rich beds.	
173.56	180.14	Felsic to intermediate tuff and crystal tuff - Trace to 2% py, weak foliation, no alteration.	.01
180.14	198.61	Mafic volcanic derived sediments, as per 96-22.2	
198.61	210.55	Mafic volcanic derived sediments and felsic tuffs, crystal tuffs - Weakly silicified, trace to 3% diagenetic py, weakly foliated.	.01
210.55	232.26	Felsic tuffs, feldspar crystal tuff - locally weakly silicified, weakly sericitized, tr py, locally 10% py and tr po.	.01 to .02
232.26		END OF HOLE	

A. Verville

**ESSO MINERALS CANADA
DRILL LOG**

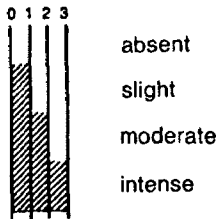
HOLE NO. HW-87-7
 PAGE Cover OF 14
 PROJECT 11-N
 LOGGED BY: André Verville
André Verville

COLLAR COORDINATES L 16 E,
1100 N
 AZIMUTH 180 DIP -45°
 HORIZONTAL PROJECTION _____

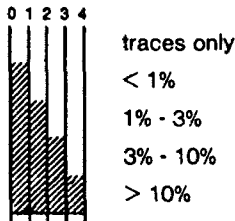
COLLAR ELEVATION _____
 TOTAL LENGTH 232.26 m.
 VERTICAL PROJECTION _____

CONTRACTOR Phil's drilling CORE SIZE 1 BQ
 DATE STARTED March 22/87 DATE COMPLETED March 24/87
 AVERAGE CORE RECOVERY _____
 PURPOSE Test IP. anomaly
 COMMENTS:

ALTERATION SCALE



TOTAL SULPHIDE SCALE



SUMMARY LOG

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH
400'	Etched 44°	36°	717'	Etched 42°	34.5°
	True 36°			True 34.5°	

LEGEND

PAGE		OF 14		PROJECT: 11-N	
DEPTH (m)	R.O.D	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION	
				FROM	TO
					0-9.6 overburden; sand, gravel, boulders, clay
5					9.6-22.2. Sediments (to tuff) derived from mafic volcanic. thin to thickly bedded, fine grained, light green to darker green colour, Matrix is composed of chlorite, biotite and fine grained feldspar, Locally up to 15% garnet (upto 1cm diam) subrounded i.e. 15.8, 16.6, 16.9, etc. Foliation is 75-80° to GH locally moderate to highly magnetic
10					
15					10.75-10.78, 10.86-10.91, 13.78-13.93 thin Qtz-feldspar crystal tuff sections. 20-30% feldspar grains up to 2mm diam. subhedral, 1% Qtz grains up to 1mm diam. Subrounded in a feldspar + biotite matrix. Contact is sharp with biotite rich matrix along the margin
20					
25					22.2-28.82. Mafic Volcanic Flow medium to fine grained, greenish to black colour hornblende grains (5-50%) elongated along foliation upto 1cm. Matrix is chlorite and biotite. Foliation is same as above. Local thin Qtz veins massive. locally fine grained to aphanitic.
30					23.7-23.85, 26.25-26.30 Qtz-feldspar crystal tuff as of 13.78-13.93 Tr. Py.
35					28.82-29.62 Sediments (to tuff) derived from mafic volc. as above (9.6-22.2) med. to highly magnetic. Foliation is about 60° to GH no garnet Tr. Py
40					39.62-52.73 Mafic volc. Flows interlayered with sediments (or tuff) derived from these flows. i.e. 39.5-39.75, 44.95-45.18, 46.08-46.68, 48.03-48.65. locally med. to highly magnetic. Foliation is about 75-80° to GH.
45					35.67-35.82 Qtz-feldspar crystal tuff as of 26.25-26.30 Tr. Py sharp contact

PAGE		OF 14		PROJECT: 11-N	
DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION	
				FROM	TO
					0-9.6 overburden; sand, gravel, boulders, clay
5					9.6-22.2. Sediments (to tuff) derived from mafic volcanic. thin to thickly bedded, fine grained, light green to darker green colour, Matrix is composed of chlorite, biotite and fine grained feldspar. Locally up to 15% garnet (upto 1cm diam) subrounded i.e. 15.8, 16.6, 16.9, etc. Foliation is 75-80° to CH locally moderate to highly magnetic.
10					10.75-10.78, 10.86-10.91, 13.78-13.93 thin Qtz - feldspar crystal tuff sections. 20-30% feldspar grains up to 2mm diam. subhedral, 1% Qtz grains up to 1mm diam. Subrounded in a feldspar + biotite matrix. Contact is sharp with biotite rich matrix along the margin
15					22.2-28.82. Mafic Volcanic Flow medium to fine grained, greenish to black colour hornblende grains (5-50%) elongated along foliation upto 1cm. Matrix is chlorite and biotite. Foliation is same as above. Local thin Qtz veins massive. locally fine grained to aphanitic.
20					23.7-23.85, 26.25-26.30 Qtz - feldspar crystal tuff as of 13.78-13.93 Tr. Py.
25					28.82-29.62 Sediments (to tuff) derived from mafic volc. as above (9.6-22.2) mod. to highly magnetic. Foliation is about 60° to CH. no garnet tr. Py
30					29.62-52.73 Mafic volc. flows interbedded with sediments (or tuff) derived from these flows. i.e. 39.5-39.75, 44.95-45.18, 46.52-46.68, 48.03-48.65. locally mod. to highly magnetic. Foliation is about 75-80° to CH.
40					35.67-35.82 Qtz - feldspar crystal tuff as of 26.25-26.30 Tr. Py sharp contact
45					

PAGE 5		OF 14		PROJECT: A-N	
DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION	
				FROM	TO
					overall tr-1% Py dissem + along foliation, broken core from 82.6-83.0 no garnet, foliation is 05-70° to CA. Locally lenticular facies ie 103.0-108.0. Local thin gtz veins
75					68.63-69.03 Feldspar crystal tuft as of 65.87-66.47 except only few percent Kspar and 2-3% biotite in matrix. Sharp contacts
100					84.1-84.2 Feldspar v. tuft with 10% feldspar grains 1-2 mm diam. as of 65.87-66.47 (Kspar + feldspar matrix)
105					82.23-82.28, 82.92-83.0, 83.15-83.21, 83.5-83.52, 91.25-91.28, 92.2-92.45, 102.8-102.9, 108.75-109.23
110					qtz - feldspar crystal tuft med to fine grained, 5-10% feldspar grains 1-2 mm diam, subhedral, 1-3% qtz grains less than 1 mm diam. Subrounded, all in a brownish to grey matrix composed of feldspar + biotite, tr-1% Py. Slightly to moderately magnetic locally.
115					111.1-112.25, 112.6-112.87, 114.94-115.67, 115.7-117.99 Massive mafic volc flows. med. grained hornblende in chlorite rich matrix (up to 30% hornblende grains 1 mm diam., subhedral) 1-2% Py locally but overall tr-1% Py dissem.
120					115.90-118.52 Massive mafic volc flow. med to f.g. 20-30% hornblende, tr Py. No Mn. local thin qtz-calcite veins.
125					118.52-119.15 Sed. derived from mafic volc. as above. foliation is about 70° to CA. Tr. Py.
130					119.5-122.07 Massive volc. flow as above
					122.07-122.35 Sed. derived from mafic flow as above
					122.35-125.38 Massive volc flow as above
135					125.38-126.32 Sed. derived from mafic volc. as above

PAGE 5		OF 14		PROJECT: H-N	
DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION	
				FROM	TO
					overall tr-1% Py dissem + along foliation, broken core from 82.6-83.0 no garnet, foliation is 65-70° to CA. Locally looks tuffaceous ie 103.0-108.0. locally gtz veins
75					68.63-69.03 feldspar crystal tuff as of 65.87-66.47 except only few percent Kspar and 2-3% biotite in matrix. Sharp contacts
100					84.1-84.2. Feldspar + gtz tuff with 10% feldspar grains 1-2mm diam. as of 65.77-66.47 (Kspar + feldspar matrix)
105					82.23-82.28, 82.92-83.0, 83.15-83.21, 83.5-83.52, 91.25-91.28, 92.2-92.45, 102.8-102.9, 108.75-109.23 gtz - feldspar crystal tuff med to fine grained, 5-10% feldspar grains 1-2mm diam, subhedral, 1-3% gtz grains less than 1mm diam. subrounded, all in a brownish to grey matrix composed of feldspar + biotite, tr-1% Py. Slightly to moderately magnetic locally.
110					
115					111.1-112.25, 112.6-112.57, 114.94-115.67, 115.4-117.99 Massive mafic volc flows. med. grained hornblende in chlorite rich matrix (up to 30% hornblende grains 1mm diam., subhedral) 1-2% Py locally but overall tr-1% Py dissem.
120					
					115.90-118.52 Massive mafic volc flow. med to f.g. 20-30% hornblende, tr Py. No Plaz. local thin gtz-calcite veins.
					118.52-119.15 Sed. derived from mafic volc. as above. foliation is about 70° to CA. Tr. Py.
					119.15-122.07 Massive volc. flow as above
130					122.07-122.38 Sed. derived from mafic flow as above
					122.38-125.38 Massive volc flow as above
135					125.38-126.32 Sed. derived from mafic volc. as above

PAGE 9 OF 14		PROJECT: H-N			
DEPTH (M)	RQD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION	
				FROM	TO
					154.77-173.56 Sediments derived from mafic volc (tuff) med. to fig. greyish green colour matrix composed of chlorite, feldspar + biotite. locally thickly bedded network of calcite veinlets almost throughout section locally biotite rich area with up to 3% Py + tr Po. ie. 169.15-169.30 foliation is about 80° to CA overall tr-1% Py locally brecciated area ie. 164.68-164.70 thin Qtz-calcite veins // to foliation
					167.25-167.29. Feldspar crystal tuff 5% feldspar grains 1mm diam in a feldspar matrix light greenish to light brown colour No Py. sharp contact on top + bottom of section
					172.12-172.17 feldspar crystal tuff as above dark greyish matrix sharp contacts
					173.56-178.58 felsic to intermediate tuff. with 1-2% garnet greenish grey to brownish purple colour garnet are 1-4mm diam. No calcite veinlet network. locally thin Qtz-calcite veins // to foliation, locally biotite rich sections. Foliation is about 75-80° to CA tr. Py.
					178.58-180.14 felsic crystal tuff with a local brecciated zone on top of unit and local brecciated at bottom. light grey to light green. highly silicified locally. ie. 178.9 & 179.6 contacts are sharp. 2-3% Po in silicified zone, 1 large blob of cpy 5mm x 10mm at 179.16. thinly bedded med fig.
					180.14-198.61 Sediments derived from mafic volc. (or flow) med to fig. locally coarse basaltic crystal (1-2cm) in fig. matrix is 189.1-189.4 greenish colour to greyish brown. matrix composed of chlorite, biotite and feldspar locally feldspar up to 1mm diam sub-hedral network of calcite veinlets locally ie. 181.6-185.0 but overall thin Qtz-calcite veinlet // to foliation (3%)

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION	
				FROM	TO
					154.77-173.56 Sediments derived from mafic volc (tuff) med. to fig. greyish green colour matrix composed of chlorite, feldspar + biotite. locally thickly bedded. network of calcite veinlets almost throughout section locally biotite rich area with up to 3% Py + tr Po. ie. 169.15-169.30 foliation is about 80° to CA overall tr-1% Py locally brecciated area ie. 164.68-164.70 thin Qtz-calcite veins // to foliation
					167.25-167.29. Feldspar crystal tuff 5% feldspar grains 1mm diam in a feldspar matrix light greenish to light brown colour No Py. sharp contact on top + bottom of section
					172.12-172.17 feldspar crystal tuff as above dark greyish matrix sharp contacts
					173.56-178.58 felsic to intermediate tuff. with 1-2% garnet greenish grey to brownish purple colour garnet at 1-4mm diam. No calcite veinlet network. locally thin Qtz-calcite veins // to foliation, locally biotite rich sections. Foliation is about 75-80° to CA tr. Py.
					178.58-180.14 felsic crystal tuff with a loc. brecciated zone on top of unit and loc. brecciated at bottom. light grey to light green. highly silicified locally. ie. 178.9-179.6 contacts are sharp. 2-3% Po in silicified zone, 1 large blob of cpy 5mm x 10mm at 179.16. thinly bedded and fig.
					180.14-198.61 Sediments derived from mafic volc. (or flow) med. to fig. locally coarse kaoblastic crystal (1-2cm) in fig. matrix ie. 189.1-189.4 greenish colour to greyish brown. Matrix composed of chlorite, biotite and feldspar. locally feldspar up to 1mm diam subhedral network of calcite veinlets locally ie. 181.6-185.0 but overall thin Qtz-calcite veinlet // to foliation (3%)

PAGE 13 OF 14

PROJECT: H-N

DEPTH (m)	ROD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION	
				FROM	TO
					210.55 - 211.6 Mod silicified felsic tuff to lapilli tuff greenish grey colour, look brecciated locally i.e. 211.56 thin calcite veinlets throughout foliation is about 75-80° to CA. 1-2% Py in calcite veinlets and dissemin. Fragment up to 1.5cm diam.
					211.6 - 224.62 Mod silicified felsic tuff fine grained but locally fragments up to 3cm long light grey to light green colour local thin Q & V. up to 2cm thick locally some garnet crystal up to 1mm diam. foliation is around 75° to CA. Tr. Py dissemin.
					224.62 - 227.73 Slightly silicified feldspar crystal tuff. with 20% Kspar grain up to 5mm diam. From 224.7 to 225.1 greyish-green colour Medium to fine grained locally garnet grains up to 2mm diam. tr. Py dissemin.
					227.73 - 230.5 Same as above except Kspar and hornblende in matrix. garnet grains up to 5mm diam. locally up to 10% Py along foliation i.e. 230.1-230.2 but overall 1% Py dissemin.
					230.5 - 232.26 Mod silicified felsic tuff. Fine grained with local garnet grains as above 211.6-224.62.
					232.26 E.O.H

ESSO MINERALS CANADA
SUMMARY DRILL LOG

Project Name: HN

Hole Number: 87-12

Project Number: 1677

Logged By: D. Bridge

NTS: 32E/5

Date: March 1987

Location: Grid 0+00, 6+10N

Claim Number: 872018

Azimuth: 180°

Dip: -43°

Length (m): 221.59

PURPOSE: To test IP anomaly on line 0 between 525 and 550N



From (m)	To (m)	Description	Assays Au g/t
0	2.82	Overburden	
2.82	122.30	Mafic volcanic - weak to moderately foliated, weak silicified and occasionally slightly sericitic; minor quartz veining; average 1 to 5% finely disseminated pyrite and pyrrhotite.	.01 to .05
122.30	136.12	Felsic volcanic tuff - fine grained, moderate to well foliated ash and crystal tuff; weak silica, sericite and carbonate development; minor to 5% fine grained and black sooty pyrite.	.01 to .07
136.12	140.25	Mafic volcanic - fine grained amphibolite with garnet porphyroblasts; pyrite and pyrrhotite.	
140.25	145.30	Siltstone - siltstone to fine grained arenite; minor to 2% finely disseminated pyrite and pyrrhotite.	
145.30	162.25	Mafic volcanic - fine grained, granular textured, amphibolite containing garnet porphyroblast; trace pyrite and pyrrhotite.	
162.25	221.59	Feldspar-quartz crystal tuff - moderately foliated; unaltered; contains some thin magnetite rich bands; 1% disseminated pyrite.	
221.59		END OF HOLE	

D. Bridge

ESSO RESOURCES CANADA LIMITED

ESSO MINERALS CANADA

DRILL LOG

PROJECT HN	GROUND ELEV.
HOLE NO. HN - 87 - 12	BEARING 180°
LOCATION Line 0, 610 m N	DIP - 13°
	TOTAL LENGTH 727 FT 221.59 m
LOGGED BY Dane Bridge <i>Don Bridge</i>	HORIZONTAL PROJECT
DATE March 19 -	VERTICAL PROJECT
CONTRACTOR Phil's Drilling	ALTERATION SCALE  <ul style="list-style-type: none"> absent slight moderate intense
CORE SIZE BQ	
DATE STARTED March 13, 1987	TOTAL SULPHIDE SCALE  <ul style="list-style-type: none"> traces only < 1% 1% - 3% 3% - 10% > 10%
DATE COMPLETED March 16, 1987	
DIP TESTS 106.7 m 42.5° True 221.6 m 40° True	LEGEND
COMMENTS	

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
2.82 - 18.05: tr. dissemin po, rare medium-grained po w. qz veins and patches									
		14.33	15.20	0.87	2771	.01	.001		
		15.20	16.70	1.50	2772	.02	.001		
		16.70	17.22	0.52	2773	.01	.001		
		17.22	18.05	0.83	2774	.02	.001		
18.05 - 19.15: avg 1% py, minor po, veinlets assoc. w. fine qz veins		18.05	19.15	1.10	2775	.01	.001		
19.15 - 19.80: avg 3%, fine-grained po, minor py		19.15	19.80	0.65	2776	.01	.001		
19.80 - 20.25: 1% dissemin po- py		19.80	20.25	0.45	2777	.01	.001		
20.25 - 21.75: avg 1.5% dissemin po and py, po most abundant, minor coarse po w. qz veins		20.25	21.75	1.50	2778	.02	.001		
		21.75	23.25	1.50	2779	.01	.001		
28.72 - 39.72: avg 5% py, minor po, wispy veinlets and fine dissemin		28.72	39.72	1.00	2780	.05	.001		

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QZ
					A silic	Blank	Calcite	D ser	Fe ch		
				39.72 - 41.15 : weakly to moderately silicified, weakly sericitic mafic section; moderately foliated, locally wavy foliation, color medium gray, 3% qz veins and patches							
				41.15 - 43.30 : probably mafic unit, medium-grained quartz-feldspathic w. abundant bio, no obvious amphibole, distinct granular texture, weak foliation, 3% qz veining in patches							
				43.30 - 43.85 : moderately silicified mafic well foliated and contorted, light-medium gray, 2% qz veining, locally fine blue qz phenocrysts? may be felsic crystal buff							
				43.85 - 49.50 : fine- to locally med-grained mafic unit, amphibole-rich, weakly foliated, local minor garnet, 4% qz veining							
				49.50 - 58.80 : ephanitic to fine-grained mottled dark gray-green, weakly to locally med-well foliated, may be mafic buff or mafic sediments, 4% qz veining							
				58.80 - 60.65 : medium-grained mafic w. distinct amphibole-bio patches, 5% qz veining, minor cc veining							
			28	60.65 - 64.10 : very fine-grained to locally med-grained mafics, 3% qz veining and minor bands of silicification at 70°, no cc							
				64.10 - 69.70 : intensely silicified mafics w. 15% qz veining, minor chl in qz veins, no cc							15%

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
39.72 - 41.15 : avg 1% po, fine disseminated and wisps									
41.15 - 43.30 : avg 5% py, fine, irregular wisps in foliation, 1% po, disseminated.		41.15	43.30	2.15	2781	.01	.001		
43.30 - 43.85 : avg 21% po-py		43.30	43.85	0.55	2782	.03	.001		
43.85 - 45.85 : avg 3% py, fine wisps in foliation, minor po		43.85	45.85	2.00	2783	.01	.001		
45.85 - 58.80 : trace disseminated po, minor coarse po in and around qtz veins, minor po.									
58.80 - 60.06 : 1% avg disseminated po									
60.06 - 60.65 : 10% disseminated py - po.		60.06	60.65	0.59	2784	.02	.001		
60.65 - 62.20 : 2% po, disseminated and in qtz veins, 1% py, mainly in qtz veins		60.65	62.20	1.55	2785	.03	.001		
62.20 - 64.70 : avg 1% po.		62.20	64.70	1.90	2786	.01	.001		
		64.70	64.70	0.60	2787	.01	.001		

MINERALOGY DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
		FROM	TO	WIDTH		Au g/t	Au oz/t			
69.70 - 72.30 : trace disseminated po										
72.30 - 77.20 : trace po, 1% po w. one g2 vein.										
77.20 - 122.30 : trace po at margins of g2 veins, mainly fine elongated patches and veinlets in foliation										
122.30 - 130.37 : avg 8% py, mainly finely disseminated in wispy patches in foliation, minor py, coarse w. sandy and colloform py in g2 veins, trace po w. g2-epidote veins		122.30	123.20	0.90	2788	.01	.001			
		123.20	125.20	2.00	2789	.01	.001			
		125.20	127.20	2.00	2790	.01	.001			
		127.20	129.15	1.95	2791	.02	.001			

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
		129.15	130.37	1.22	2792	.01	.001		
130.37 - 131.25 : avg 1% po-py in Fine wisps in weak foliation		130.37	131.25	0.98	2793	.01	.001		
131.25 - 134.25 avg 5% py, fine-grained py and black sooty py, mainly in wispy bands in foliation		131.25	134.25	2.90	2794	.01	.001		
134.25 - 139.70 fault zone, no sulphides		134.25	139.70	not sampled					
139.70 - 136.12 : avg 4% py, minor sooty py. w. qz veining in lower 15 cm.		139.70	136.12	1.92	2795	.07	.002		
136.12 - 140.25 : trace po									
190.25 - 195.30 : < 1% po-py, locally 2% po, thin disseminated wisps in foliation									

PAGE 9 OF 10		PROJECT: HN		HOLE NO. 12									
DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ	magnetite	
					A silic	B alk	C calcite	D ser	M chl				
				148.10 - 151.55: Fine-grained, dk gray and light green, granular - fractured and locally finely foliated laminated mafics w. minor fine amphibole, short sections w. 10% pink garnet.									
			80	151.55 - 162.25: Fine-grained, very dark gray mafic tuff? w. 5% amphibole and sections of medium-grained amphibole-rich mafics, possibly mafic sediments and flows. Fine-grained sections locally well foliated laminated									
				1-2% qz									
				162.25 - 221.59: Feldspar-quartz crystal tuff									
				162.25 - 188.10: dark gray, medium-grained crystal tuff, 50% cl + 4mm subhedral Feld phenos, trace to 3% cl-3mm blk qz phenos in very fine-grained matrix w. biotite and minor amphibole? rare patches w. brown hematitic color, <1% qz-cc veins									
				188.10 - 221.59: light gray, slightly fine-grained and moderately foliated crystal tuff, locally 10% 1-3mm qz phenos, avg 5-23% Feld phenos and abundant, v.f.g. quartz-feldspathic matrix w. 5% biotite wisps. 212.75-221.59 1% dissem magnetite								212.75	
	b?	avg	85	+ 1% magnetite bands + 1-3mm heavy dissem bands of fine magnetite in foliation at 80-90° to core axis. + 1% qz-cc-chl veins.								1%	
				221.59 EOH								221.59	

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH					
145.30 - 162.25' trace py, py									
162.25 - 209.50' no sulphides									
209.50 - 221.59' avg 1% dissem py, 0.5% py dissem. bands 11 2 Filia iron									

ESSO MINERALS CANADA
SUMMARY DRILL LOG

Project Name: HN

Hole Number: 87-13

Project Number: 1677

Logged By: J. MacPherson

NTS: 32E/5

Date: March 17, 1987

Location: Grid L0, 7+25N

Claim Number: 872018

Azimuth: 180°

Dip: -45°

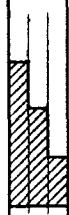

Length (m): 160.67

PURPOSE: To test IP target at L0, 650 to 675N

From (m)	To (m)	Description	Assays Au g/t
0	6.23	Overburden	
6.23	22.54	Mafic volcanic-derived sediment and crystal tuff - Thinly bedded, felsic unit weakly sericitic, mod. hard. A few cherty layers, .5% to 1% tr py. Crystal tuff less dominant down the hole	.01
22.54	28.24	Mafic volcanic flow - Fine grained, massive to weakly foliated, minor quartz-calcite veining, 1-2% hornblende porphyroblasts, 1-2% pyrite, unaltered.	.01
28.24	91.5	Waterlain ash tuff, mafic volcanic flow, minor crystal tuff - Generally unaltered, massive to weakly foliated, 1-3% po/py. 1% quartz-calcite veining, weak pervasive calcite.	to .02
91.5	141.37	Mafic volcanic flows - Massive to weakly foliated. 10% tuff component which increases down the hole. 2-10% hornblende porphyroblast, 1% poorly formed garnets.	.01 to .03
141.37	160.67	Felsic crystal tuff, ash tuff and mafic volcanic flows - Numerous thin units of each. Massive to weakly foliated, 1-3% po & py, locally more pervasive carb'd (calcite), generally unaltered.	.01 to .03
160.67		END OF HOLE	

J. A. MacPherson

IMPERIAL OIL LIMITED
MINERALS SECTION
DRILL LOG

PROJECT HN	GROUND ELEV.
HOLE NO. 87-13	BEARING 180°
LOCATION L O, 7+25 N	DIP -46° (collar)
	TOTAL LENGTH 160.67 m
LOGGED BY J. MACPHERSON J.A. MacPherson	HORIZONTAL PROJECT
DATE MAR. 17/87	VERTICAL PROJECT
CONTRACTOR PHIL'S DRILLING	ALTERATION SCALE  <ul style="list-style-type: none"> absent slight moderate intense
CORE SIZE BQ	
DATE STARTED MAR. 16 NITESHIFT	
DATE COMPLETED MAR. 18 NITESHIFT	TOTAL SULPHIDE SCALE  <ul style="list-style-type: none"> traces only < 1% 1% - 3% 3% - 10% > 10%
DIP TESTS 527' (160.67m) App: 47° True: 38°	
COMMENTS	LEGEND

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					SIL A	ANK B	CHL C	SER D	CHL E	
				0-6.23 Overburden - Boulder, sand, clay						
				6.23-7.07 Finely laminated (faint) water laid ash-tuff very thin laminae - alt cherty + mafic rich. Numerous Qtz - feldspathic clasts - 1-2mm, elong subll to fol'n. 2-3% biotite, mod chloritic. Dark grey-green to black. Last 3cm is cherty, felsic frags are visible, well patched.						
				7.07-8.43 Volcanic-derived sediment vfg. med. to dark green, locally 1/8 with 3-5mm cherty layers, latter with weak calcite replacement. Better bedded than above unit. Local patchy biotite up to 3%. Unaltered						
				8.43-8.55 Int XL Tuff. Brownish matrix (due to biotite) 30-40% Xls stretched // to fol'n (85% CA.) faintly bedded. Frags are 1-3mm in long axis. Appears quartz-feldspathic. Moderately hard						
				8.55-10.1 As per 7.07-8.43 Top 30cm has 10% biotite. Unit highly variable btw massive looking vfg. chloritic material + thinly bedded sections with 1-3cm wide beds of chert - latter may have up to 5% Pt						
				10.1-11.03 Biotite-rich int' xl tuff. Higher mafic frag component than previous section imparting a darker colour. Also more chloritic (as dots), chlorite biotite ~5-10%, 30-40% felsic frags indeterminate XL brownish - ragged						
				11.03-12.4 Mod. thinly bedded volcanic derived sediment. Vfg, chloritic beds from 1cm-2cm thick on avg. Upper 3cm a little harder, more subll. Some of higher coloured bands are well chloritic. Otherwise, unaltered						

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
6.23-7.07 Tr py, Tr po									
7.07-8.43 .5% - 1% po, tr py									
8.55-10.1 Avg. 1% py as thin wisps // to fol'n, locally 2% po over 1-3cm, up to 5% py assoc. with thin cherty beds		8.55	10.1	1.55	2849	.02	.001		
11.03-11.20 2-3% sulphides, approx = py, po.									

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					SIL A	ANK B	CPX C	SER D	CHL E	
				0-6.23 Overburden - Boulders, sand, clay						
				6.23-7.07 Finely laminated (faint) water lam ash-tuff. Very thin laminae - alt cherty + mafic rich. Numerous Qtz - feldspathic clasts - 1-2mm, elong subll to fol'n. 2-3% biotite, mod chloritic. Dark grey-green to black. Last 3cm is cherty, felsic frags are visible, well patched.						
				7.07-8.43 Volcanic-derived sediment vfg. med. to dark green, locally 1/B with 3-5mm cherty layers, latter with weak calcite replacement. Better bedded than above unit. Local patchy biotite up to 3%. Unaltered.						
				8.43-8.55 Int XL Tuff. Brownish matrix (due to biotite), 30-40% XLs stretched // to fol'n (85% CA.) faintly banded. Frags are 1-3mm in long axis. Appear quartz-feldspathic. Moderately hard.						
				8.55-10.1 As per 7.07-8.43. Top 30cm has 10% biotite. Unit highly variable btw massive looking vfg chloritic material + thinly bedded sections with 1-3cm wide beds of chert - latter may have up to 5% Py.						
				10.1-11.03 Biotite-rich int' XL tuff. Higher mafic frag component than previous section imparting a darker colour. Also more chloritic (as dots), chl 10% biotite ~ 5-10%, 30-40% felsic frags indeterminate XL boundaries - ragged.						
				11.03-12.4 Med. thinly bedded volcanic derived sediments. Vfg, chloritic beds. From 1cm-2cm thick on avg. Upper 3cm a little harder, more sulfidic. Some of lighter coloured bands are weakly calcitic. Otherwise, unaltered.						

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
12.4-13.54 Tr po, Tr py, as wisps parallel to foliation.									
13.54-19.13 Locally tr py + po. No significant sulphides. Local magnetism assoc. with wispy pa									
21.93 Py plates smeared on slip plane.		21.6	22.54	0.94	2850	.01	.001		

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
23.25-23.35: 1-2% wipg po. with 5% biotite.		23.04	23.42	0.44	2851	.01	.001		
25.1: 2cm Q.C.V. with 3% py tr po in vein.		24.9	25.3	0.40	2852	.01	.001		
		28.82	28.24	1.42	2853	.02	.001		
29.42-30.02 Tr po. Locally v. weakly magnetic.									
30.3-32.2 2% py & po in top 20cm Locally Tr po & py (wipg) + out unit.		30.3	30.0		2854	.02	.001		

THICKNESS DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
32.0-33.57 Avg 1% combined py + po.		32.0	33.0	1.0	2855	.01	.001		
33.5 ^{po} 1cm Q.C.V., 12% py + po		33.0	34.3	1.3	2856	.01	.001		
34.47 1.5cm Q.C.V., 2% py + po		34.3	34.7	0.4	2857	.02	.001		
35.5-35.57 2-3% py + po as sem-mass /ma' s + also massive up. 30% of a 0.5cm Q.C.V. at 35.5m		35.0	35.57	0.57	2858	.01	.001		
35.57-37.04 2-3% disc py + po, a few wisps of py. Unalt'd.		35.57	37.04	1.47	2859	.01	.001		
37.04-37.71 Matrix flow 37.56-37.71 30% po in Q.C.V's.		37.04	37.71	0.67	2860	.01	.001		
37.71-39.51 3-5% py, # py. (py dominant)		37.71	38.51	0.80	2861	.01	.001		
		38.51	39.46	0.95	2862	.02	.001		
39.46-39.82 2cm seam mass vegy py. & other v. narrow seams (1mm) of py		39.46	39.82	0.36	2863	.02	.001		

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN Q
					A S/L	B ANK	C CAL	D SER	E CHL		
				37.71-38.51 replacement of beds by Qtz (or original chert) with 3% py stringers in the siliceous material.							
				39.46-39.76 Sulfide-rich, 2 cm seam semi-mass. v. ugly py. at top of more felsic-appearing tuff - a few qtz-feldspar frags are visible. Weakly silicified. Also .5% v. poorly formed garnet 1-2 mm in diameter. These appear to be X1 aggregates rather than 1 single growth restricted to the more siliceous grey brown felsic tuff.							
				44.12-44.62 Int tuff. Purple-brown colour due to 2% biotite. Hard. weakly foliated. 2% chloritic streaks & wisps. Upper contact marked by 1 cm Q.V. with trpy + po.							
				44.62-52.16 90% mafic volc. flow, lg med green, weakly foliated at 80° to CA. v. weakly pervasively calcified							
				50.25-52.16 5% Q.C. veinlets with po + py. Q.C.V. at: 50.2 m (2 cm), 50.55-50.6 m							
				51.30 (2 cm), 51.9-52.1 m (20 cm, with 3% sulfides)							
				52.16-60.45 Sequence of reworked water-lain tuffs of volcanic-derived sediments characterized by 3-5% biotite & med-brown colour. Mod fol'd at 80° to CA. 3% thin qtz-calcite stringers // to fol'n. Banded - mainly bio-rich & bio-poor sections. Few frags visible. Tr py + po.							
				60.45-71.55 Series of mass-weakly foliated mafic flows. Lg, med-dark green, 1% (or less) biotite, 3-10% sec. hbl'd growth. Med. hard. Unrestricted 2% Qtz-calcite stringers.							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Av g/t	Av oz/t		
69.21-70.26 Tr. py, sp. etc. in near thin zone str.		69.21	70.26	1.50	2869	.01	.001		
		70.71	70.26	1.55	2870	.01	.001		
89.1-89.65 1% pe, tr. py		89.1	89.65	0.55	2871	.01	.001		
91.1-91.5 1.2% py (tr. py dominant)		91.1	91.5	0.4	2872	.02	.001		
		92.6	93.4	0.8	2873	.01	.001		
		93.4	95.1	1.7	2874	.02	.001		
93.4-98.15 1% sulf. etc.									
mainly pe. as wisps rarely as v. thin folia // seams. Tr. py		95.1	96.65	1.55	2875	.01	.001		
		96.65	98.15	1.50	2876	.01	.001		

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN Qtz
					A SIL	B ANK	C CAL	D SER	M CHL		
				103.54 - Homogeneous (generally) mafic flows. Ufg, med-dark green, quite chloritic. 1% Q.v. ranging from 1-3cm wide, same with tr. po. & py. Locally biotite rich (ie 5%), but this is local & patchy. 5% coarse chl (1-3mm) grains oriented // to fl (at 80° to CA)							
				Q.v. with po. & py at 110.04 (2cm, tr. po.), 114.8m (10cm, tr. po.), 116.14 (10% po, .5cm wide), 117.8 (11reg 2cm, 5% po), 117.6 (1cm brecciated, 5% po, 1. py), 120.9 (5cm silic zone, brecc. chl, epid, 3% po)							
				110.39m: Zone of silicification & brecciation 2cm wide, at 50° to CA. Composed of Qtz & silica breccia. No py, no alt'n.							
				116.15-116.45: 30cm section of Qtz dr's at shallow angles to CA with alt'n haloes of .3 to 1cm each side. Occ. speck of py in these veinlets. Rock is fg mafic volc, 10-15% biotite aligned // to fol'n at 80° to CA. 5% veining over 30cm. Could be same zone as that in upper part of HN87-12							
				Below 121m, almost equal amts of thin ufg chloritic med green flows & dark grey "tuffs" - few xls of fangs vibrate, med fol at 80° to CA. 3% calcite as fol'n // wisps.							
				141.37-145.17 Intermediate tuff - XI in ff. Dark greenish-brown, well foliated at 80° to CA - fol'n imparted by parallel alignment of biotite (20% & chlorite (10%). Weakly magnetic. 10% Qtz calcite stringers & blebs.							
				144.3-144.45 Q.v., tr. po assoc. with bio/chl fol'n // str's in the Q.v.							
				140.8-140.95 Milky white Q.v.							

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN Qtz
					A SIL	B ANK	C CAL	D SER	M CHL		
				103.54 - Homogeneous (generally) mafic flows. Ufg, med-dark green, quite chloritic. 10% Q.v. ranging from 1-3cm wide, some with tr. po. py. Locally biotite rich (ie 5%) but this is local & patchy. 5% coarse chl (1-3mm) grains, oriented // to f ₁ (at 80° to CA)							
				Q.v. with po. py at 110.04 (2cm tr. po), 114.8m (10cm, tr. po), 116.14 (10% po, .5cm wide), 117.8 (11reg 2cm, 5% po), 117.6 (1cm brecciated, 5% po tr. py), 120.9 (5cm siliceous zone, orcu, chl, epid, 3% po)							
				110.39m: Zone of silicification & brecciation 2cm wide, at 50° to CA. Composed of Qtz & silica breccia. No py, no alt'n.							
				116.15-116.45: 30cm section of Qtz str's at shallow angles to CA with alt'n halos of .3 to 1cm each side. Occ. speck of py in these veinlets. Rock is fg mafic, 10-15% biotite aligned // to fol'n at 80° to CA. 5% veining over 30cm. Could be same zone as that in upper part of HN87-12							
				Below 121m, almost equal amt of thin ufg chloritic med green flows & dark grey "tuffs" - few xls of single urtite, mod fol at 80° to CA. 3% calcite as fol'n // wisps.							
				141.37-145.17 Intermediate tuff - XI suff. Dark greenish-brown, well foliated at 80° to CA - fol'n imprinted by parallel alignment of biotite (20% & chlorite (10%). Weakly magnetic. 10% Qtz calcite stringers & blebs.							
				144.3-144.45 Q.v., tr. po assoc. with biotite. Cal // str's in the Q.v.							
				149.8-140.95 Milky white Q.v.							

ESSO MINERALS CANADA
SUMMARY DRILL LOG

Project Name: HN

Hole Number: 87-14

Project Number: 1677

Logged By: J. MacPherson

NTS: 32E/5

Date: March 20, 1987

Location: Grid L0, 9+15N

Claim Number: 872023

Azimuth: 180°

Dip: _____



Length (m): 169.81

PURPOSE: To test IP anomaly at L0, 825 to 850 N

From (m)	To (m)	Description	Assays Au g/t
0	10.75	Overburden	
10.75	53.65	Mafic volcanic flows - Fine to medium grained, massive to locally strongly foliated. Locally 15% secondary hornblende, also some minor local silicification. Moderately hard, medium dark green, 0-tr py.	
53.65	83.45	Intermediate to felsic tuffs, crystal tuffs - Distinguished by abundant garnets, especially in fine-grained thinly bedded portions of the section. Local v. weak silicification to 1% py, tr po .5cm seam semi-massive py.	.01 .16
83.45	99.5	Mainly intermediate to felsic tuffs, crystal tuff, ash tuff - 5-50% feldspar-crystals, 1-2% blue quartz eyes. Ash tuffs v. thinly bedded well foliated with 5% poorly formed garnets. Local v. weak silica crackle. tr-1% py. tr po, tr pervasive calcite.	.01 to .04
99.5	104.25	Mafic volcanic flow - weakly silicified. Massive, fine grained. 1-2% very fine py, 2% quartz-calcite stringers.	.02
104.25	169.81	I/B mafic volcanic derived sediments, mafic flows, felsic crystal tuffs, section v. weakly calcite altered, local weak silica crackle fracture, weakly foliated, local 10cm biotite-rich layers (±garnet). Minor ash tuff thinly bedded and well foliated. 1% quartz-calcite stringers. Py content averages .5-1%, locally to 2% as finely disseminated wisps.	
169.81		END OF HOLE	

J. A. MacPherson

IMPERIAL OIL LIMITED
MINERALS SECTION
DRILL LOG

PROJECT HN	GROUND ELEV.
HOLE NO. 87-14	BEARING 180°
LOCATION L O, 9115 N	DIP -45°
	TOTAL LENGTH 169.81 m
LOGGED BY J. MACPHERSON <i>J. A. MacPherson</i>	HORIZONTAL PROJECT
DATE MAR. 20/87	VERTICAL PROJECT
CONTRACTOR PHIL'S DRILLING	ALTERATION SCALE  <ul style="list-style-type: none"> absent slight moderate intense
CORE SIZE BQ	
DATE STARTED Dayshift Mar. 19/87	TOTAL SULPHIDE SCALE  <ul style="list-style-type: none"> traces only < 1% 1% - 3% 3% - 10% > 10%
DATE COMPLETED Niteshift Mar 20/87	
DIP TESTS 169.81m Etched 50° True 40°	
COMMENTS	LEGEND

PAGE 1 OF 14		PROJECT: HN		HOLE NO. 6-14						
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					
					A SIL	B ANK	C CHL	D PHS	E CHL	FRACT INTENSITY
0-10.75				OVERBURNED, - sand, gravel, granitic boulders at base						
10.75-53.65				MAFIC VOLCANIC Flow. Variably unground to med. or ground, massive to strongly foliated. Locally 15% secondary hornblende, also some local minor silicification. Unit moderately hard, medium green colour.						
10.75-14.25				Moderately foliated, 5% v. weak silica crackle fracture. Dark grey green colour. 4% qtz veinlets. Unaltered. Top 1.5m may be tuffaceous.						
14.25-18.75				Mafic volcanic, fg, dark green, becomes more foliated downhole. Last 80cm contains 5% talc clasts & 2% replacement (possibly lensoidal) of pure mafic fragments - is tuff?						
18.75-24.0				Moderately foliated med. to coarse grained. Also into into locally tuff with fragments to 1cm in diam. now replaced by calc. nodules - is it a replacement? This feature most evident at 30.6m. Further downhole diam. size becomes smaller (2-5mm) & becomes more nodular. (at 25' to 30') Last 70cm has 5% qtz foliation. Frag. scattered to 10' diam. Down to 20' nodules to include (ie. some with size largest) at 30.7m.						
19.5-22.0				Fg. med. to coarse grained. Disturbed. Dark						
23.0-25.0				Horizontally prop. ... Disturbed ...						

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					A (SIL)	B (ANK)	C (AL)	D (SER)	E (CNL)		
				28.42-53.65 - As per general descr. 1% qtz-calc stringers // to f. fol'n. Local primary brecciation of flow - frags heavily converted to bio-chl aggregates locally. varies from massive to weakly foliated. Towards end of section, a few bio-garnet rich layers, 1cm - 5cm wide - may be interflow tuffs. Occ clots of epidote/chlorite locally individual flows may exhibit up to 15% sec hornblende growths.							
				53.65-83.45 Sequence of interbedded volcanic tuff - intermediate to felsic, locally crystal tuff, also volcanic derived sediments. Distinguishing characteristic of this unit is the abundant garnet - locally forming clusters 1-2cm wide, usually accompanied by an increase in biotite &/or chlorite. Unit is only 1) locally weakly silicified. Section also contains ~10% thin vfg green mafic volcanic flows.							
				53.65-54.4 - 15-20% poorly formed garnet. Well banded, locally strongly pervasively carb'd (calcite) Alt'ing garnet-rich & garnet-poor layers.							
				54.4-61.0 80-90% fg. mafic volcanic flow & 10-20% interflow tuff or volcanic derived sediment, latter distinguished by >10% garnet (<25%). Volcanic lies btw 1-5% poorly formed garnets. Locally well banded - interflow sediments? - at 80-90 to CA.							
				61.0-62.1 Garnet-rich tuff or volcanic sediment. Alternating garnet-rich & chloritic layers - sep original bedding?							

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					A SIL	B ANK	C CAL	D SER	E CHL		
				86.9-87.3 Feldspar XI tuft, as per 86.0-86.6							
				87.3-87.63 Volcanic sands f.g., well banded at 80° to CA.							
				87.63-87.78 Feldspar XI tuft. Xls 1-2mm in size							
				87.78-89.4 Mafic volc. flows, minor tufts, as per 86.6-86.9							
				89.4-90.65 Feldspar XI tuft, as per 87.63-87.78							
				90.65-93.29 Series of thinly bedded ash-tuffs (rewetted &/or waterlain) or volcanic derived sediments. Dark grey to black, mod hard. Beds vary from 5cm to 3cm thick.							
				v. weak local silica crackle-fry. Locally up to 1% v poorly formed garnets, 1-2% calcite-filled v. thin stringers, at random orientations. Tr epidote, usually assoc. with narrow late Q.V.							
				93.29-96.0 Dark grey to black mafic flow with 10% tuffaceous component represented by the odd fsp XI or chloritized mafic clast. Weakly silicified, 5% v. narrow randomly oriented qtz stringers, locally v. slight buff colour, ie at 95.1m. Top 30 cm is brecciated → flow top breccia?							
				96.0-96.42 Grey, massive aphanitic int flow or veg. XI tuft. 5% siliceous stringers, upper contact broken for 15cm							
				96.42-98.3 Silicified intermediate volcanic or XI tuft. 5% vague-outline feldspar Xls visible - subhedral, 1-2mm diam. Otherwise unit is aphanitic & massive. Locally brecciated - ie at 96.95m							
				98.3-99.5 Int XI tuft. Grey, massive, with 20-40% subhedral feldspar Xls in an aphanitic siliceous matrix. 1-2% weak crackle, maj filled with silica. Appears weakly pervasively altered.							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
90.65-93.29 - Tr py as blebs v. narrow discontinuous stringers.									
93.29-96.0 1% sulphides (py) as small masses 1-3mm in size, sometimes spatially assoc'd with narrow qtz flooding or veins.		93.29 94.8	94.80 96.0	1.51 1.2	2911 2912	.02 .01	.001 .001		
96.0-96.42 Tr py as blebs v poorly formed cubes		96.0	96.42	0.42	2913	.02	.001		
96.42-98.3 2% v. finely disp. py.		96.42 97.42	97.42 98.3	1.00 0.88	2914 2915	.02 .01	.001 .001		
98.3-99.5 1-2% very finely disseminated py in matrix of Esp Xl tuff		98.3	99.5	1.2	2916	.04	.001		

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
99.5-104.5 1-2% very fine disc. py - barely visible with 10x lens.		99.5	101.0	1.5	2917	.03	.001		
		101.0	102.5	1.5	2918	.04	.001		
		102.5	104.5	2.0	2919	.02	.001		
108.84-110.8 Mud sil cracks, with 4-1% v. fine py		108.84	109.84	1.0	2920	.03	.001		
		109.84	110.8	0.96	2921	.02	.001		
116.8-129.0 Tr. = .5% v. finely disc. py - explains weak magnetism of unit.									

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					A/S/L	B/A/K	O/CAL	P/SER	M/CHL		
				129.0-132.65 - 1/8 ash tuff + fsp XI tuff (int) bed thickness 1-2 cm. XI tuff med-dark grey, 5-25% + 3mm antedial fsp in an aphanitic med siliceous matrix. Ash tuff greenish-black, v.lg. mod foliated (at 80° to CA) 2-4% thin carb stringers // to folia.							
				132.65-134.6 Medium grey, hard, weakly foliated Feldspar XI tuff. Banding 1-2cm thick + sub // to foliation (80° to CA).							
				134.6-134.85 Thinly bedded ash tuff or reworked volcanic derived sediment. Met-well fol'd at 85° to CA.							
				134.85-135.25 - Intermediate tuff, mod foliated, very few fsp Xls visible, medium to light grey, local weak crackle fracture.							
				135.25-145.77 Variable section of volcanic derived sediment (thinly bedded dark grey to black, med. fol'd) - 50% int XI tuff - grey - 30% antedial fsp in aphanitic siliceous matrix.							
				138.93-139.25 Volcanic seds, with mod heavy sulphide in 2cm bands - gangue is silica + epid (?) Appears diagenetic.							
				145.77-146.4 - Tuff matrix volcanic flow. Massive, fine-grained, 20% chl clots, 5% biotite clots aligned // to each other at 80° to CA.							
				146.4-146.92 Thinly bedded ash tuff, XI (fsp) tuff. 15-20% biotite in clots at contact with XI tuff + fg black sed.							
				146.92 - Weakly magnetic dark grey tuff - 5% felsic frags up to 3mm in size. 5-8% wispy calcite, 3-5% biotite.							
				147.55 - Variable section as per 154.70 135.25-145.77 2% Q.V. + perv. calcite, mod fol at 85° to CA.							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
132.65-134.6 2% diss sulphides, mostly in matrix of talc, occasionally assoc with lim foliation parallel Q.V. at 134.3m (5% py in Q.V.) Sulphides appear to be 60% po & 40% py.		132.65	133.65	1.0	2922	.01	.001		
		133.65	134.6	0.95	2923	.01	.001		
134.85-135.25 2-3% finely diss po sp in equal amounts.		134.85	135.25	0.40	2924	.01	.001		
138.97-139.25 - 30% py in 2cm bands with Qtz & epid(?) & P anomaly (?)		138.97	139.25	0.33	2925	.01	.001		
146.4-146.92 - 10% po with bio-rich sections of act talc		146.4	146.92	0.52	2926	.01	.001		
146.92-147.55 1% sulphides submic py (3mm) & fine diss po		146.92	147.55	0.63	2927	.01	.001		
148.75-149.95 - in sulph to 2% - usually assoc with Q.V. as stringers or clots,		148.75	149.95	1.2	2928	.01	.001		
151.52-153.57 - slightly more siliceous section with 2-3% stringer & clot po + py at 151.75, 153.45		151.52	152.52	1.0	2929	.01	.001		
		152.52	153.57	1.05	2930	.01	.001		

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					ASIL	BANK	CAL	SER	CHL		
				154.70-159.10 - Mass to wky foliated mafic volcanic flow, with 10% interflow tuff - latter are usually biotite-rich (10-20%) 2-3% Qtz-calcite veining - barren of sulphides							
				159.10-160.67 Dominantly int XI (fsp) tuff (beds 3-10cm thick) & fg. chloritic vol-derived sediments - latter are bio-rich (10-20%)							
				160.67-163.85 Mainly mass chloritic fg mafic volcanic, 10% interflow int tuff, over thin XI tuff layer. 2% secondary hblde growth, 2-3% calcite-qtz veinlets.							
				163.85-164.2 Fg. XI (fsp) tuff. 5-10% anhedral feldspar in an aphanitic siliceous matrix with 5-10% biotite. Trace Q.v.							
				164.2 - Variable mafic volcanic 169.81 (70%), int tuff (30%) cherty sediments (10%) & XI tuff (20%) Unaltered, weakly foliated at 80° to CA Fg. blocky sediments have up to 25% biotite over widths of 1-2 cm							
				168.5-168.85 Int XI tuff, 1-2% v. fine py, thin qtz mass with fr py.							
				169.81 E.O.H.							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
154.70-163.85 - fr po + py - usually just isolated blebs, wisps									
163.85-164.2 2% py - v. finely disseminated in matrix of tuff.		163.85	164.2	0.35	2931	.01	.001		
165.25-165.30 - 5cm Q.V. with nbld xls growing at rim, 2% mass py running vein, chl + ser growth in veinlet		165.0	165.30	0.30	2932	.01	.001		
168.5-168.85 1% diss py in matrix of XI tuff		168.5	168.85	0.35	2933	.01	.001		

ESSO MINERALS CANADA
SUMMARY DRILL LOG



Project Name: HN Hole Number: 87-15
 Project Number: 1677 Logged By: J. MacPherson
 NTS: 32E/5 Date: March 1987
 Location: Grid: 0+00, 11+00N Claim Number: 872023
 Azimuth: 180° Dip: -45° Length (m): 130.19

PURPOSE: To test IP anomaly on line 0 between 1000 and 1025N

From (m)	To (m)	Description	Assays Au g/t
0	13.00	Overburden	
13.00	49.75	Sediments derived from felsic volcanic pyroclastics - thin bedded, foliated, waterlain felsic volcanic pyroclastic tuffaceous material with minor sediments and crystal tuff horizons; average minor to 1% pyrite with 1 metre wide zone at end of section with 10% pyrite and pyrrhotite.	
49.75	52.13	Mafic volcanic - massive, chloritic; no visible iron sulphides.	
52.13	63.05	Sediments derived from volcanic pyroclastics - fine grained, moderately foliated, waterlain, felsic to intermediate volcanic material; weakly silicified and quartz-calcite veined; trace to 1% pyrite.	
63.05	65.22	Mafic volcanic - weakly foliated; chlorite, minor carbonate and epidote.	
65.22	69.45	Felsic to intermediate volcanic tuff - moderately foliated, feldspar crystal tuff; moderately siliceous with some sericite development; minor magnetite and minor to 2% finely disseminated pyrite and pyrrhotite.	.01 to .06
69.45	80.00	Felsic volcanic tuffs and sediments - fine grained waterlain tuffs, and sediments derived from felsic volcanic material; moderate to strongly foliated and banded; local magnetic bands; locally siliceous and weak to moderate carbonate altered; average minor to 1% finely disseminated pyrite and pyrrhotite with local horizons containing 7 to 20% iron sulphides.	.01 to .15
80.00	130.19	Mafic volcanics and minor sediments derived from mafic volcanic - locally carbonated altered chloritic; trace amounts of iron sulphides; small (1cm) fault zone at 113.13.	.01 to .07
130.19		END OF HOLE	

J. A. MacPherson

DRILL LOG

PROJECT HN	GROUND ELEV.
HOLE NO. 87-15	BEARING 180°
LOCATION L O, 1100N	DIP -45°
	TOTAL LENGTH 130.19m
LOGGED BY J. MACHERSON <i>J. A. MacPherson</i>	HORIZONTAL PROJECT
DATE MAR. 22/87	VERTICAL PROJECT
CONTRACTOR PHIL'S DRILLING	ALTERATION SCALE
CORE SIZE BQ	 <p>absent slight moderate intense</p>
DATE STARTED MAR 21 Dayshift	TOTAL SULPHIDE SCALE
DATE COMPLETED Mar 23 Dayshift	
DIP TESTS 130.19 Etched: 52° True: 42°	 <p>traces only < 1% 1% - 3% 3% - 10% > 10%</p>
COMMENTS	LEGEND

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		Au g/t	Au oz/t		
48.37-49.0. Mafic tuff as sediment with up to 10% disseminated sulphides usually occurring in discrete beds 3-10 mm thick. sulf content of these beds is 60%-70%. Sulphide breakdown is 50% py, 50% pb tr. cpz		48.37	49.0	0.63	2934	.01	.001		

PAGE 2 OF 10		PROJECT: HW			HOLE NO. 27-5			
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS
91.15-91.65 Tr sulfides, 15 cm section of mud silicification		91.15- 91.65	0.50	2192	.12	.004		
107.0-108.65 Tr py in wkt. cracked ss & tuffs		107.0 -108.65	1.65	2198	.07	.002		

PAGE 9 OF 10		PROJECT: HN		HOLE NO. 87-15							
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				108.65-113.13 Series of intermediate tuffs + volcanic-derived sediments, locally garnet-rich especially from 109.6 - 111.0 (95% 3-5mm rounded garnet-feldspar aggregate)							
				113.13-116.24 113.13 Non fault zone, clay fault gouge. Section is weakly silicified volcanic flow. 5% qtz crackle-stringers randomly oriented.							
				116.24-130.19 Also weakly calcitic-peruvian. Series of moderately thin bedded intermediate tuffs and volcanic derived sediments; minor flows. Most sections have clusters of garnet + feldspar up to 5mm in diameter over core lengths of 5-10 cm. Thin biotite-rich beds. Some v. fine grained chlorite units pale green, massive (Flows?).							
				Sequence is cut by 1% qtz + calcite stringers at random orientations to core axis. Thin top XI tuff bed up to 5cm thick is at 125.4m. (A 1.5cm bed of sediment breccia?) is at lower contact of this unit - dark angular siliceous fragments in a medium green chlorite(?) matrix.							
				Some weakly silicified section with no sulphide mineralization associated with 1% of sequence. 127.08 poss flow top breccia							
				130.19 F.O.H.							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
113.13-116.24 Tr py. locally 10% py. clumps.	113.13 114.63	113.13 114.63	1.5		.07	.002			
	114.63 116.24	114.63 116.24	1.61		.01	.001			

ESSO MINERALS CANADA
SUMMARY DRILL LOG

Project Name: HN

Hole Number: 87-16

Project Number: 1677

Logged By: J. MacPherson

NTS: 32E/5

Date: March 22, 1987

Location: Grid L20E, 700N

Claim Number: 871996

Azimuth: 180°

Dip: -45°

Length (m): 103.63

PURPOSE: To test IP anomaly at L20E, 600 to 625N

From (m)	To (m)	Description	Assays Au g/t
0	14.5	Overburden	
14.5	64.75	Felsic to intermediate tuffs, crystal tuffs, ash tuffs - Thinly bedded, weakly to moderately foliated. Weak silica and sericite associated with the more strongly foliated portions of the unit. Py = 1%, locally 5% disseminated over 2-10cm. especially in foliated sections. Fine grained sericite-silica matrix to tuffs, 10-40% feldspar and 1-2% blue quartz eyes present.	.01 to .22
64.75	98.10	Mafic volcanic-derived sediments - minor felsic feldspar crystal tuff at top of section. Locally finely banded. A few blue quartz eyes scattered throughout the section. Black to dark green, chloritic, matrix is fine-grained. Py averages 1-2%, 2-3% over 2-5cm, all finely disseminated. Tr pervasive calcite.	.01 to .24
98.10	103.63	Felsic to intermediate crystal tuff - 20% vague -outline feldspar phenocrysts, 2-5% blue quartz eyes 1% wispy disseminated pyrite. V. weakly foliated and sericitic	
103.63		END OF HOLE	.01 to .04

J. A. MacPherson

**ESSO MINERALS CANADA
DRILL LOG**

HOLE NO. HN-16
 PAGE 1 OF 7
 PROJECT H-N
 LOGGED BY: J. MACPHERSON
J.A. MacPherson

COLLAR COORDINATES _____

COLLAR ELEVATION _____

AZIMUTH 180° DIP -45°

TOTAL LENGTH 103.63 m

HORIZONTAL PROJECTION _____

VERTICAL PROJECTION _____

CONTRACTOR PHIL'S DIAMOND DRILLING CORE SIZE BQ

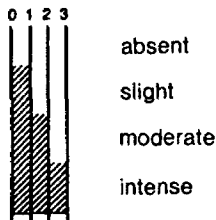
DATE STARTED DAY-MAR 23 1977 DATE COMPLETED DAY-MAR 24 1977

AVERAGE CORE RECOVERY 98%

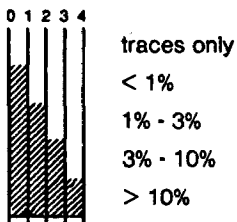
PURPOSE: To TEST IP ANOMALY

COMMENTS:

ALTERATION SCALE



TOTAL SULPHIDE SCALE



SUMMARY LOG

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH
EOH (103m)		41.5			

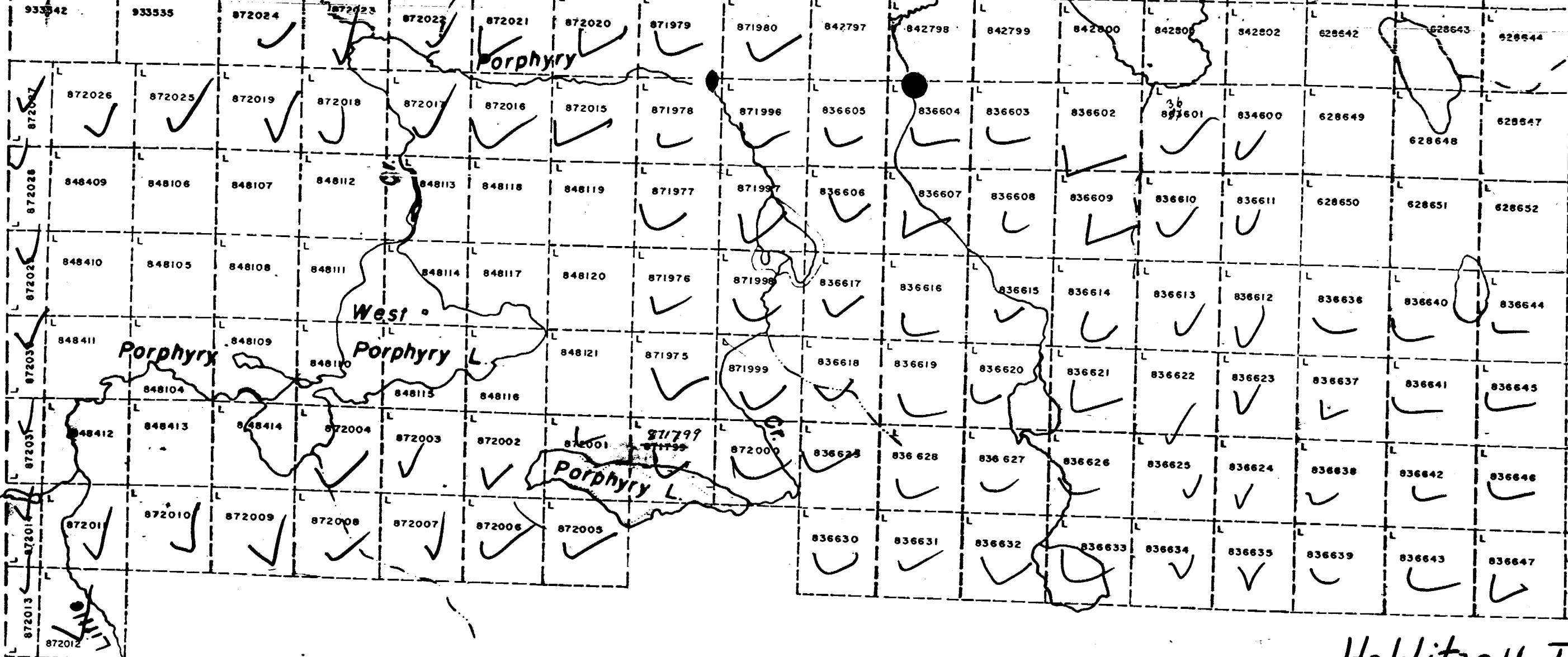
LEGEND

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	(m)		GEOLOGICAL DESCRIPTION
				FROM	TO	
				0	14.5	OVERBURDEN - GREY CLAY, SAND, GRAVEL, BOULDERS AT BASE
				14.5	64.75	ASSEMBLAGE OF FELSIC TO INTERMEDIATE TUFFS, including fg tuff, qtz-feldspar XI tuff, thin ash tuff layers. Average sulphide content = 1%, locally to 5% over 2-10 cm. 14.5-15.55 - Moderately foliated qtz-feldspar XI tuff. Medium grey, clast supported. 75% clasts: 15% blue qtz - rounded, 2-3mm diam, remainder is feldspar - same size, subrounded, stretch to fol. Matrix is chl + ser, wispy, wraps around clasts. F, fol. at 75° to CA. Tr - 5% py in unit. 15.55-17.1 - Mixed section of dark grey with green tinge ash tuff, poss reworked, fg XI tuff and dark green int tuff. Diff w above section is that there is up to 1% py in tuffs, locally 5-10% over 2cm (see 16.9-16.95m) Uuggy for last 40cm. Py is fg, wispy in places, in others it occurs as anhedral masses. Mod sharp upper & lower contacts. 17.1-33.25 - Mainly qtz-feldspar XI tuff, similar to 14.5-16.55m. Varying grain size from < 1mm to > 3mm-4mm. 1-5% Blue qtz eyes. Most grains well rounded to sub-rounded & generally units are clast-supported. Finer-grained sections are weakly foliated at 70-80° to CA. 18.9-19.52 Fine-grained well banded felsic tuff, sericitic, wavy foliation, 1-2% py. 33.25-32.3 - Series of fine-grained felsic tuffs, well foliated at 75° to CA (locally wavy). Very finely laminated 1% 1-2mm blue quartz eyes. Matrix is weakly to moderately sericitic. Avg py content is 1-2% - usually as masses. 26.2-26.3 10cm late QV. 24.75-26.25 - 3% py as wisps & fine disseminations. 32.3-33.95 Quartz-feldspar XI tuff. Fine to medium-grained. 1-5% blue rounded qtz eyes. Weakly foliated at 80° to CA, especially in finer-grained sections. Generally clast supported. 33.1-33.2 - Pinkish tinge - appears to be more of an intrusive here - local charge only. Tr py, wk card, 0 sericite. Contacts with over- & underlying fg tuffs are sharp.

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION	
				FROM	TO
					33.95-35.1 Fine-grained sericitic felsic tuff, 2% blue qtz eyes, very well foliated matrix (at 80° to CA). 1-2% py as wisps & masses
					35.1-36.45 - Fine to medium-grained qtz-feldspar Xl tuff. Description as per 32.3-33.95
					36.45-38.0 - Fine-grained sericitic felsic tuff, as per 33.95-35.1
					38.0-45.85 - Feldspar Xl tuff. Tr blue qtz eyes. 60-70% subhedral feldspar Xls varying from 1-4mm in size in a chl/ser matrix. Massive, matrix is dark grey to black. <1% late Q.V. - at 40.1m, Q.V. is acc by py cubes 1cm in size - 4 or 5 of them. Clast size is variable, but there is a 2m section in middle where the avg Xl size approached 4mm
					45.85-47.83 - Qtz ^{smaller} Xl tuff. Much fewer fsp Xls - (<20%) + about 2% large rounded blue qtz Xls (2-3mm). Matrix is weakly sericitic & is moderately foliated at 80°. Becoming more finer-grained towards the end of the section.
					47.83-49.35 - Intermediate tuff. Matrix-supported - it is very chloritic, fg, black to dark green. Feldspar Xls make up 20% of unit - these are <2mm in diam & appear indistinct. 1% wispy pyrite.
					49.35-64.75 - Quartz-feldspar Xl tuff. Minor variations within the unit in terms of changing grain size, but overall it is quite homogeneous. Composed of 40-60% qtz + feldspar Xls + 40% matrix, which is vfg, dark grey to black and chloritic. Qtz + feldspar are generally sub-rounded to rounded and the feldspar are rimmed with wispy sericitic. Weakly foliated at 80° to CA. 1-2% wispy py scattered evenly throughout. Clasts vary in size from 2-3mm - average is 3mm
				64.75	66.7 Dark grey to black fine-grained volcanic-derived sediments or reworked fine-grained intermediate tuff. Thin beds with a higher % of py (wispy, avg 3-5%) 1-2 cm thick make up about 5-10% of rock.
				66.7	69.17 Felsic to intermediate Xl tuff. Similar to those in 14.45-66.75. Weakly foliated, tr - (1% py, fsp = 40% (1-2mm), qtz (blue, 2-3mm) - 10%, fg chloritic matrix = 50-40%.

PAGE 5 OF 7					PROJECT: HN			HOLE NO. HN-16						
ALTERATION					TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
						FROM	TO	WIDTH		Au g/t	Au oz/t			
						33.95	35.1	1.15	2968	.01	.001			
						36.45	38.0	1.55	2969	.22	.006			
						39.9	40.4	0.50	2970	.03	.001			
						45.85	47.83	1.98	2971	.01	.001			
						47.83	49.35	1.52	2972	.01	.001			
						50.9	52.5	1.6	2973	.01	.001			
						57.0	58.5	1.5	2974	.02	.001			
						58.5	60.05	1.55	2975	.02	.001			
						60.05	61.55	1.50	2976	.05	.001			
						61.55	63.09	1.54	2977	.01	.001			
						63.09	64.75	1.66	2978	.01	.001			
						64.75	66.7	1.95	2979	.02	.001			

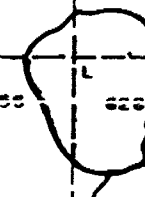
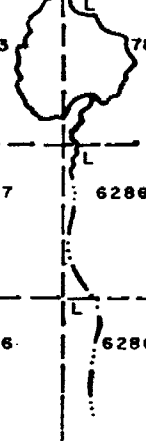
DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION		
				FROM	TO	
				69.17	98.10	<p>Intermediate volcanic derived sediments or reworked intermediate tuffs. Locally finely bedded at 85° to CA. A few blue quartz eyes visible throughout the section. Locally the beds are deformed to varying angles to the CA. Colour is black to dark green. All quartz are very fine-grained. Occasionally there is a bed 10-20 cm thick where individual feldspar grains are visible → these are probably int XI tuffs. Average sulphide content is 1-2%, locally 3-5% over 2-3 cm. Rare specks of spy. 73.4-74.79 - avg py = 3%, locally 5% wispy py scattered over a 5-10 cm width. 1 speck sp at 73.42</p> <p>82.28-83.5 - 2% wispy py, 1% qtz blebs & stringers. Qtz occurs throughout section as blebs and locally as bed replacements - total content 1-2% - no sulphides associated with these qtz occurrences. Pyrite content increases slightly but still occurs as wisps & very rarely near an contact with some of the qtz described above.</p> <p>Near the end of the section, a few 10-15 cm sections of int XI tuff are present - these have a lower py content & may contain small amounts of wispy sericite. Overall, rock is unaltered & contains only trace amounts of calcite.</p>
				98.10	103.63	<p>Felsic to intermediate XI tuff. 20% indistinct feldspars, 2-5% blue quartz eyes - up to 4mm in diameter, 1% pyrite, wispy, whit is weakly foliated & sericitic at 80° to CA. Locally the tuffs are finer grained and well foliated, with smaller quartz eyes - the cut 101.11 - 101.25m.</p>
					103.63	E.O.H.



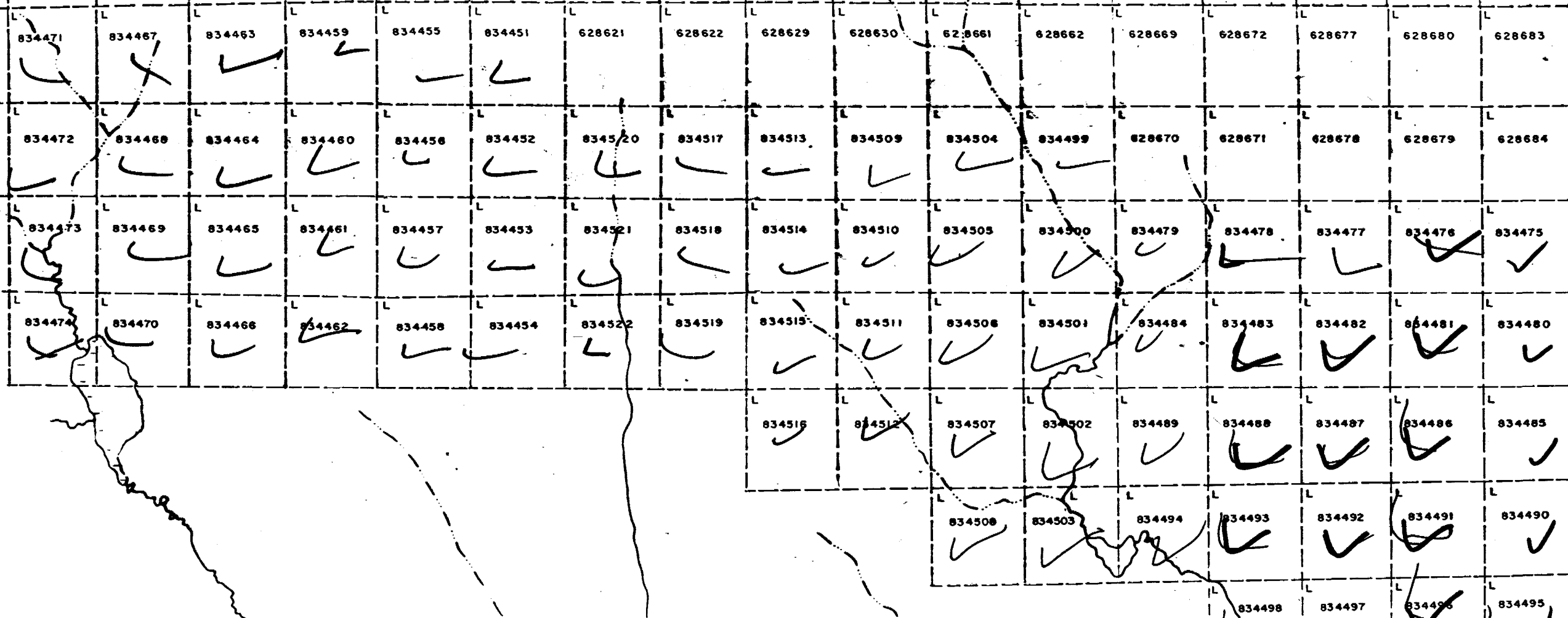
Hoblitzell T
G. 3513

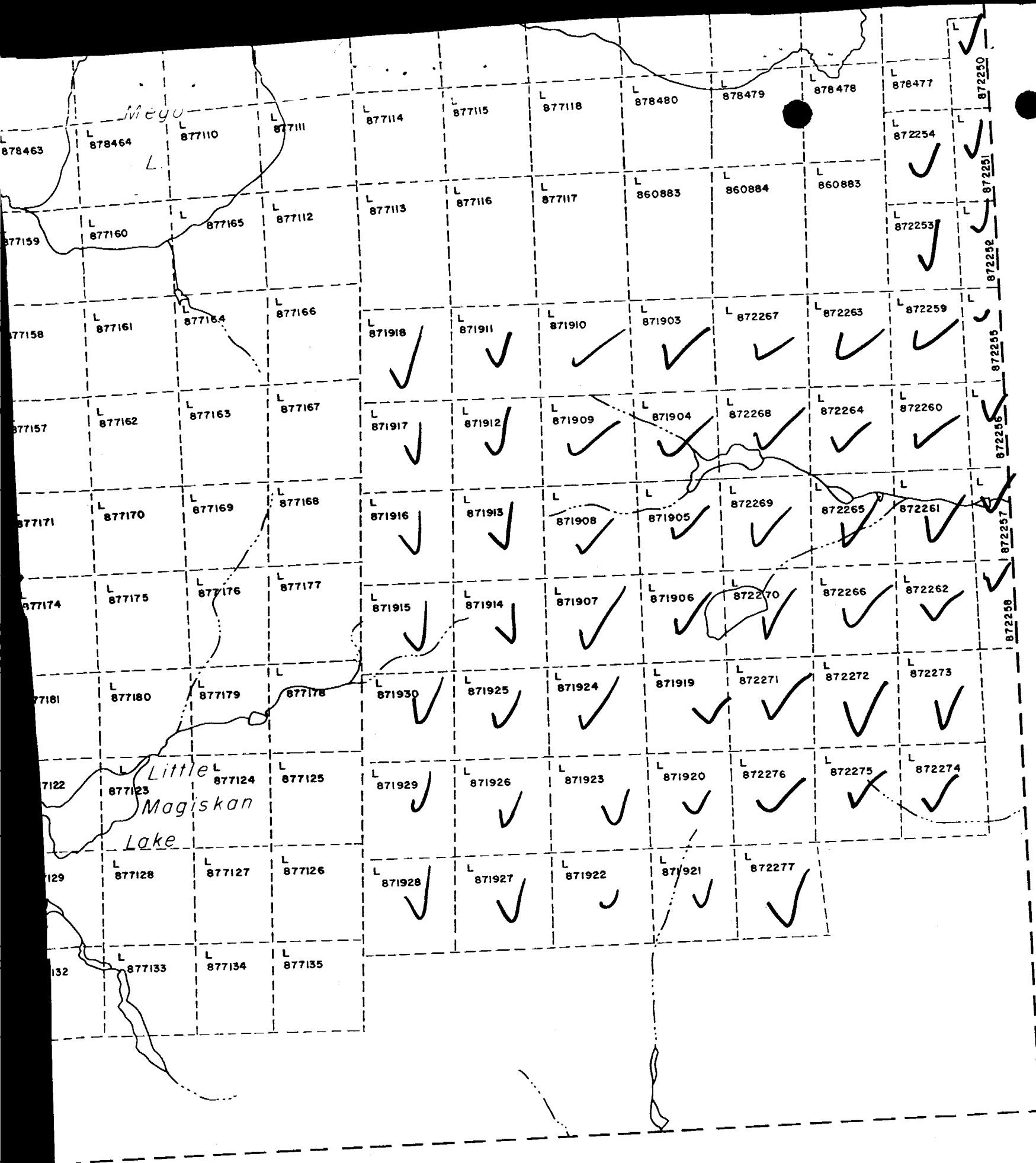
Little
Porphyry

628645	628595	628602	628603	628610	628611	789253	789254	789269	789270	789283	789284	789312	789313	789318	789321	789328	789329
628646	628596	628601	628604	628609	628612	628617	628618	628625	628626	628657	628658	628665	628666	789319	789320	789330	789335
628653	628597	628600	628605	628608	628613	628616	628619	628624	628627	628655	628656	628665	628667	628674	628675	789331	789332
628654	628598	628599	628606	628607	628614	628615	628620	628623	628628	628655	628660	628663	628668	628673	628676	628681	628682
36648	834471	834467	834463	834459	834455	834451	628621	628622	628629	628630	628661	628662	628669	628672	628677	628680	628683
36649	834472	834468	834464	834460	834456	834452	834520	834517	834513	834509	834504	834499	628670	628671	628678	628679	628684
805900	834473	834469	834465	834461	834457	834453	834521	834518	834514	834510	834505	834500	834479	834478	834477	834476	834475
834474	834470	834466	834462	834458	834454	834522	834519	834515	834511	834506	834501	834484	834483	834482	834481	834480	
								834516	834512	834507	834502	834489	834488	834487	834486	834485	
										834508	834503	834494	834493	834492	834491	834490	
													834498	834497	834496	834495	



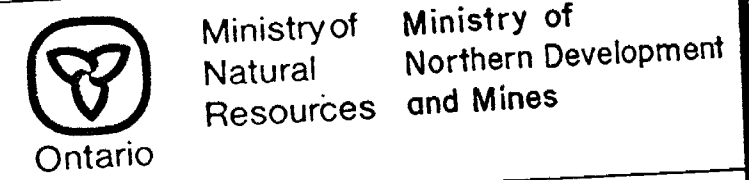
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834495





Rec'd Nov. 13, 1986

TOWNSHIP
BLAKELOCK *B.3474*
 M.N.R. ADMINISTRATIVE DISTRICT
COCHRANE
 MINING DIVISION
LARDER LAKE
 LAND TITLES / REGISTRY DIVISION
COCHRANE



Date OCTOBER/1986 Number *3474*

4

L 789336	L 789351	L 789358	L 789373	L 789380	L 789395	L 789402	L 633132	L 633131
L 789334	L 789352	L 789357	L 789374	L 789379	L 789398	L 789401	L 633269	L 633130
L 789353	L 789353	L 789356	L 789375	L 789378	L 789397	L 789400	L 633270	L 633107
L 628688	L 789354	L 789355	L 789376	L 789377	L 789398	L 789399	L 633271	L 633106
L 628687	L 628689	L 628694	L 624988	L 624987	L 624983	L 624982	L 633272	L 633371
L 628686	L 628690	L 628693	L 624989	L 624986	L 624984	L 624981	L 633273	L 633370
L 628685	L 628691	L 628692	L 624990	L 624985	L 810257	L 810256	L 810255	L 810254
L 834425	L 834426	L 834427	L 834428	L 834429	L 810273	L 810272	L 810271	L 810270
L 834430	L 834431	L 834432	L 834433	L 834434	L 834445	L 834448	L 881097	L 881098
L 834435	L 834436	L 834437	L 834438	L 834439	L 834446	L 834449	L 878414	L 878415
L 834440	L 834441	L 834442	L 834443	L 834444	L 834447	L 834450	L 881005	L 881006

Burnt bush

Noteworthy tree G 3549

River



TOWN OF ASSESSMENT CREDITS, HOBLITZELL TOWNSHIP

CLAIM NO	DAYS	CLAIM NO	DAYS	CLAIM NO	DAYS	CLAIM NO	DAYS
L-805900	23	L-834499	23	L-836625	23	L-872013	23
L-834451	23	L-834500	23	L-836626	23	L-872014	23
L-834452	23	L-834501	23	L-836627	23	L-872015	23
L-834453	23	L-834502	23	L-836628	23	L-872016	23
L-834454	23	L-834503	23	L-936629	23	L-872017	23
L-834455	23	L-834504	23	L-836630	23	L-872018	23
L-834456	23	L-834505	23	L-836631	23	L-872019	23
L-834457	23	L-834506	23	L-838632	23	L-872020	23
L-834458	23	L-834507	23	L-836633	23	L-872021	23
L-834459	23	L-834508	23	L-836634	23	L-872022	23
L-834460	23	L-834509	23	L-836635	23	L-872023	23
L-834461	23	L-834510	23	L-836636	23	L-872024	23
L-834462	23	L-834511	23	L-836637	23	L-872025	23
L-834463	23	L-834512	23	L-836638	23	L-872026	23
L-834464	23	L-834513	23	L-836639	23	L-872027	23
L-834465	23	L-834514	23	L-836640	23	L-872028	23
L-834466	23	L-834515	23	L-836641	23	L-872029	23
L-834467	23	L-834516	23	L-836642	23	L-872030	23
L-834468	23	L-834517	23	L-836643	23	L-872031	23
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L-834470	23	L-834519	23	L-836645	23		
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L-834472	23	L-834521	23	L-836647	23		
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L-823474	23	L-834600	23	L-836649	23		
L-834475	23	L-836601	23	L-871799	23		
L-834476	23	L-836602	23	L-871975	23		
L-834477	23	L-836603	23	L-871976	23		
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L-834481	23	L-836607	23	L-871980	23		
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L-834496	23	L-836622	23	L-872010	23		
L-834497	23	L-836623	23	L-872011	23		
L-834498	23	L-836624	23	L-872012	23		

list continues on next page

TOTAL: 49 49 49 19

TOTAL CLAIMS: 166

TOWN OF ASSESSMENT CREDITS, NOSEWORTHY TOWNSHIP

Pg. 2

CLAIM NO	DAYS
L-834425	23
L-834426	23
L-834427	23
L-834428	23
L-834429	23
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L-834431	23
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L-834441	23
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L-834444	23
L-834445	23
L-834446	23
L-834447	23
L-834448	23
L-834449	23
L-834450	23

TOTAL: 26

list continued on next pg.

OF ASSESSMENT CREDITS, BLAKELOCK TOWNSHIP

CLAIM	DAYS	CLAIM	DAYS
L-872250	23	L-871903	23
L-872251	23	L-871904	23
L-872252	23	L-871905	23
L-872253	23	L-871906	23
L-872254	23	L-871907	23
L-872255	23	L-871908	23
L-872256	23	L-871909	23
L-872257	23	L-871910	23
L-872258	23	L-871911	23
L-872259	23	L-871912	23
L-872260	23	L-871913	23
L-872261	23	L-871914	23
L-872262	23	L-871915	23
L-872263	23	L-871916	23
L-872264	23	L-871917	23
L-872265	23	L-871918	23
L-872266	23	L-871919	23
L-872267	23	L-871920	23
L-872268	23	L-871921	23
L-872269	23	L-871922	23
L-872270	23	L-871923	23
L-872271	23	L-871924	23
L-872272	23	L-871925	23
L-872273	23	L-871926	23
L-872274	23	L-871927	23
L-872275	23	L-871928	23
L-872276	23	L-871929	23
L-872277	23	L-871930	23
TOTAL	28	TOTAL	28



Report of Work
 Blake Lock, Noseworthy, a
 Assess. L.N.

240/87



42H095E0007 17 HOBLITZELL

900

Name and Address of Recorded Holder
 Esso Resources of Canada Limited
 c/o Esso Minerals Canada, 120 Adelaide St. West, Suite 1812 Toronto, Ontario

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		Prefix	Number		Prefix	Number	
5735									
for Performance of the following work. (Check one only)									
<input type="checkbox"/> Manual Work	See Attached list								
<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									

All the work was performed on Mining Claim(s): L 836602, 836603, 836606, 871978, 871979, 871996, 872016 872018 L 872023

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

Drill Rigs: Long year 38, Long year 34, Skid mounted
 Operator: Phil's Diamond Drilling, B.C.

Work done between March 6, 1987 and March 24, 1987 inclusive.
 1987-1 to 7 inclusive
 87-12 to 16 inclusive

ONTARIO GEOLOGICAL SURVEY
 ASSESSMENT FILES
 RESEARCH OFFICE
 JUL 14 1987

RECORDED
 JUN 8 1987
 Receipt # _____

LARDER LAKE
 MINING DIV.
 RECEIVED
 JUN 08 1987
 7 18 9 10 11 12 1 12 3 4 5 6
 10:30 A.M.

Date of Report: May 28, 1987
 Recorded Holder or Agent (Signature): J. A. MacPherson

Certification Verifying Report of Work

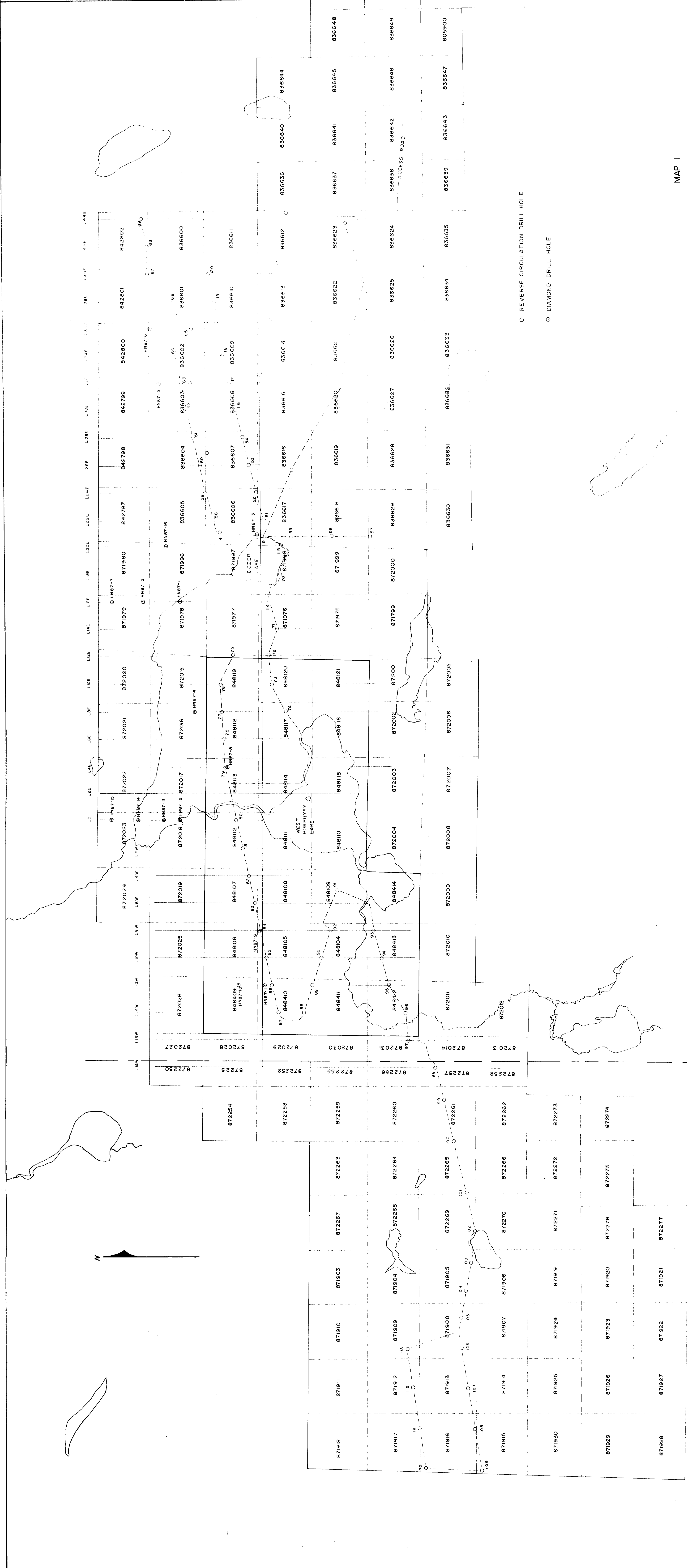
I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
 Joseph A. MacPherson, Esso Minerals Canada P.O. Box 290 Timmins, Ontario P4N 7N6

Date Certified: May 28, 1987
 Certified by (Signature): J. A. MacPherson

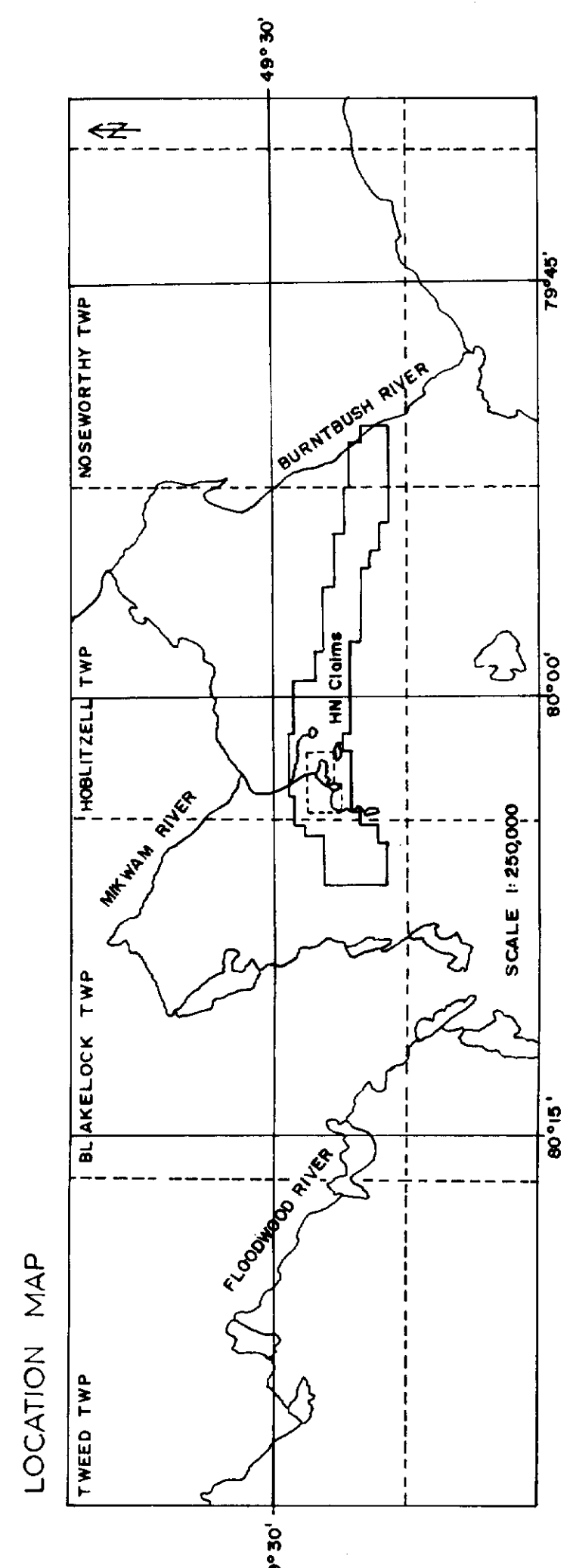
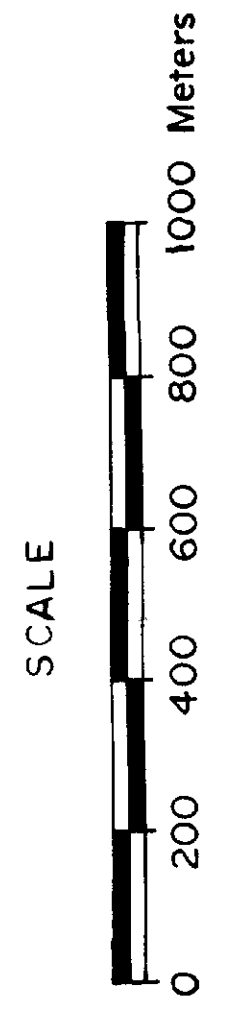
Table of Information/Attachments Required by the Mining Recorder

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.	
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	Work Sketch (as above) in duplicate
Land Survey	Name and address of Ontario land surveyor.		Nil



MAP 1

ESSO MINERALS CANADA
 HN WEST
 CLAIMS AND DRILL HOLE LOCATIONS
 1986-87 DIAMOND DRILLING AND
 REVERSE CIRCULATION DRILLING
 MFL, JWP 1:10,000 42H/8 32E/5 APRIL '87



- REVERSE CIRCULATION DRILL HOLE
- ⊙ DIAMOND DRILL HOLE

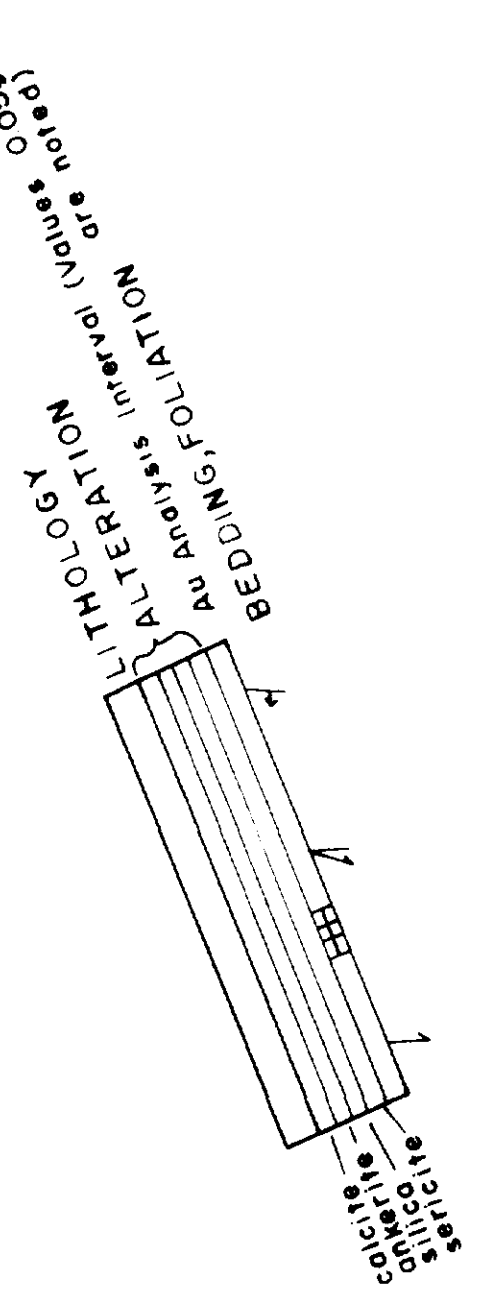
LEGEND

- 4 Sediments
 - a Iron Formation (cherty, pyritic)
 - b Argillite
 - c Siltstone
 - d Arenite
 - e Greywacke
 - f Conglomerate
- 3 Volcanic-Derived Sediments
 - a Mafic
 - b Felsic
- 2 Felsic Volcanics- Rhyolite to Dacite
 - a Massive, Aphanitic (ash tuff)
 - b Feldspar-crystal tuff
 - c Feldspar-quartz crystal tuff
 - d Lapilli tuff/ Pyroclastic breccia
 - e Flow (extrusive/intrusive)
- 1 Mafic Volcanics
 - a Tuff
 - b Massive, fine grained
 - c Coarse grained amphibole

SYMBOLS

- Bedding, tops indicated
- Foliation
- QV Quartz vein
- QCV Quartz calcite vein
- Py Pyrite
- PO Pyrrhotite
- cpy Chalcopyrite
- mag Magnetite

KEY

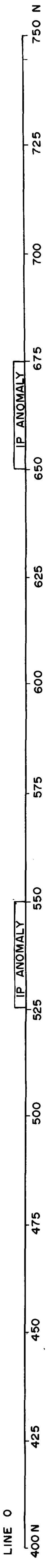


ALTERATION

- Trace to absent
- Weak
- Moderate
- Strong
- Intense

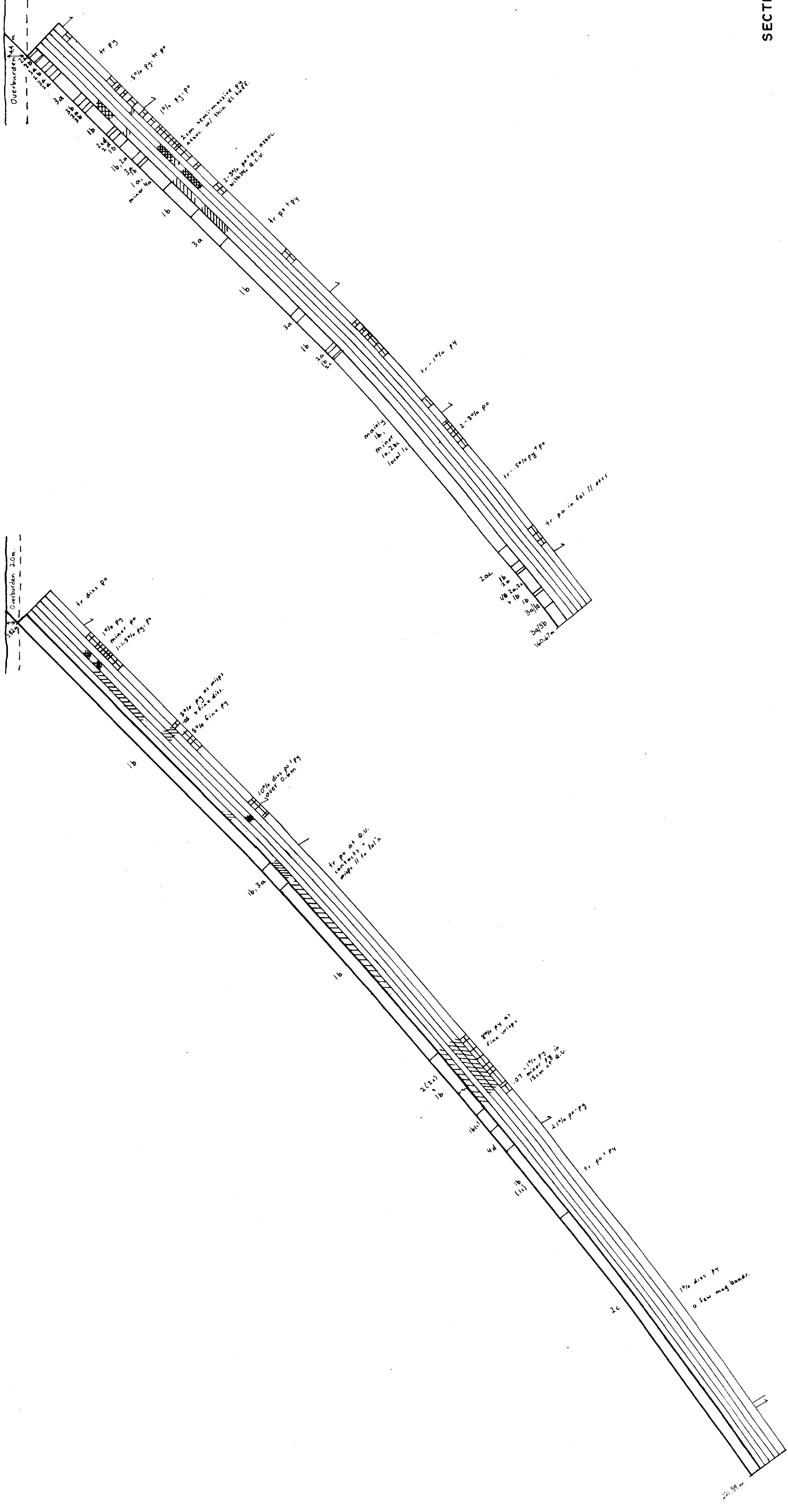


210



DDH HN87-13

DDH HN87-12



SECTION 3.

ESKO MINERALS CANADA
DIV. OF ESKO RESOURCES CANADA LIMITED

PROSPECT: HN
SECTION 0
Looking West
Drill Holes 87-12, 13

ACCOUNT NO: JMP
DATE: APR '87
FILE NO: 132E/5
TORONTO

DWG NO: JMP
MAP NO: JMP
SCALE: 1:500

SCALE: 1:500

SCALE: 1:500



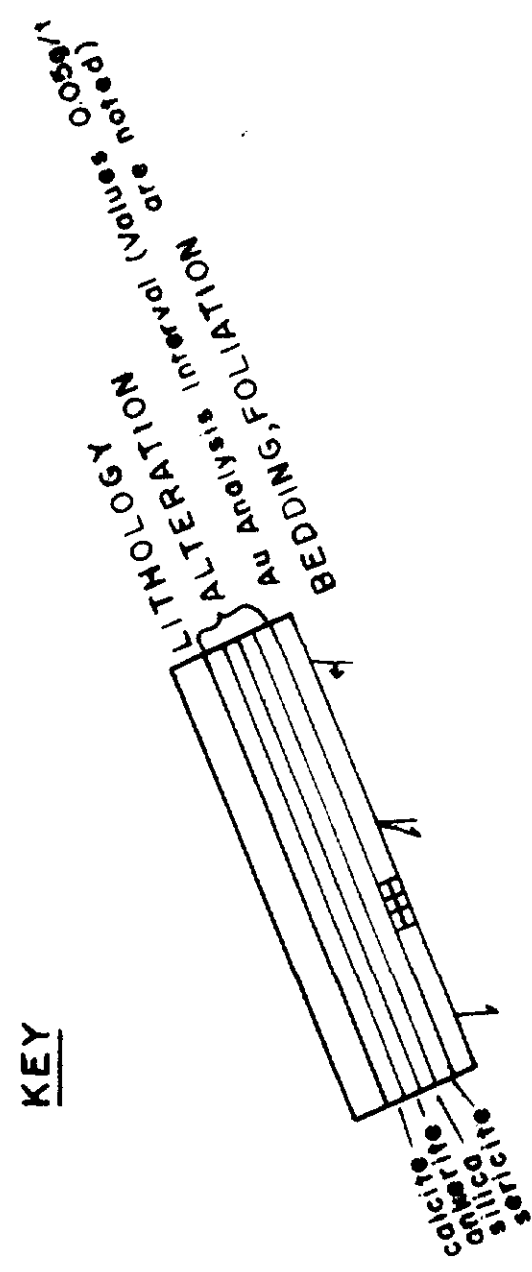
LEGEND

- 4 Sediments
 - a Iron Formation (cherty, pyritic)
 - b Argillite
 - c Siltstone
 - d Arenite
 - e Greywacke
 - f Conglomerate
- 3 Volcanic-Derived Sediments
 - a Mafic
 - b Felsic
- 2 Feisic Volcanics-Rhyolite to Dacite
 - a Massive, Aphanitic (ash tuff)
 - b Feldspar crystal tuff
 - c Feldspar-Quartz crystal tuff
 - d Lapilli tuff / Pyroclastic breccia
 - e Flow (extrusive/intrusive)
- 1 Mafic Volcanics
 - a Tuff
 - b Massive, fine grained
 - c Coarse grained amphibole

SYMBOLS

- Bedding, tops indicated
- Foliation
- QV Quartz vein
- QCV Quartz calcite vein
- Py Pyrite
- po Pyrrhotite
- cpy Chalcopyrite
- mag Magnetite

KEY



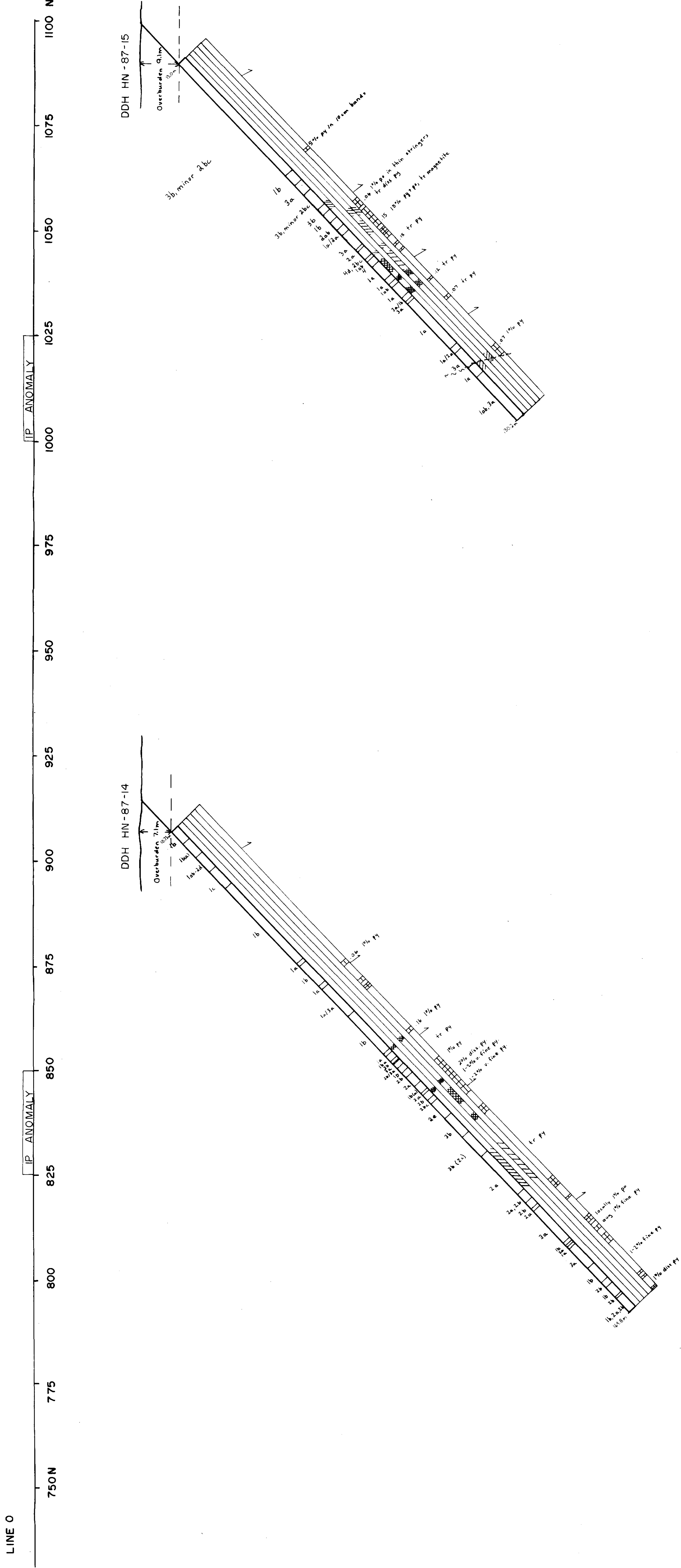
ALTERATION

- Trace to absent
- Weak
- Moderate
- Strong
- Intense



COMPASSION 71-10011-12222

220



SECTION 4

ESSO MINERALS CANADA
DIV. OF ESSO RESOURCES CANADA LIMITED

PROSPECT: HN

SECTION 0
Looking West
Drill Holes 87-14, 15

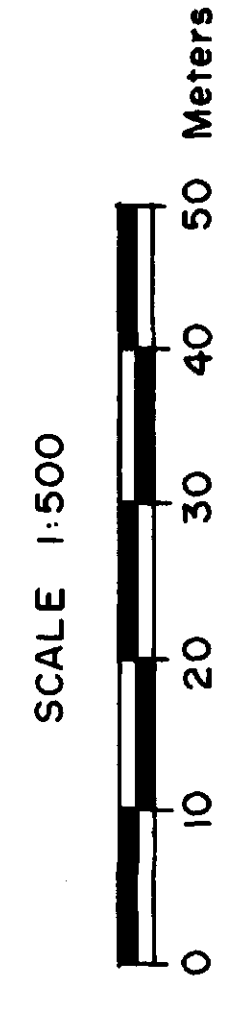
ACCOUNT NO. FILE NO. TORONTO

DRAWN BY: JMP DATE: Apr 1987

DWG NO. MAP NO. 32E/5

SCALE: 1:500

1:1 COMPANY REPORT BY: [Signature]



LEGEND

- 4 Sediments
 - a Iron Formation (cherty, pyritic)
 - b Argillite
 - c Siltstone
 - d Arenite
 - e Greywacke
 - f Conglomerate

- 3 Volcanic-Derived Sediments
 - a Mafic
 - b felsic

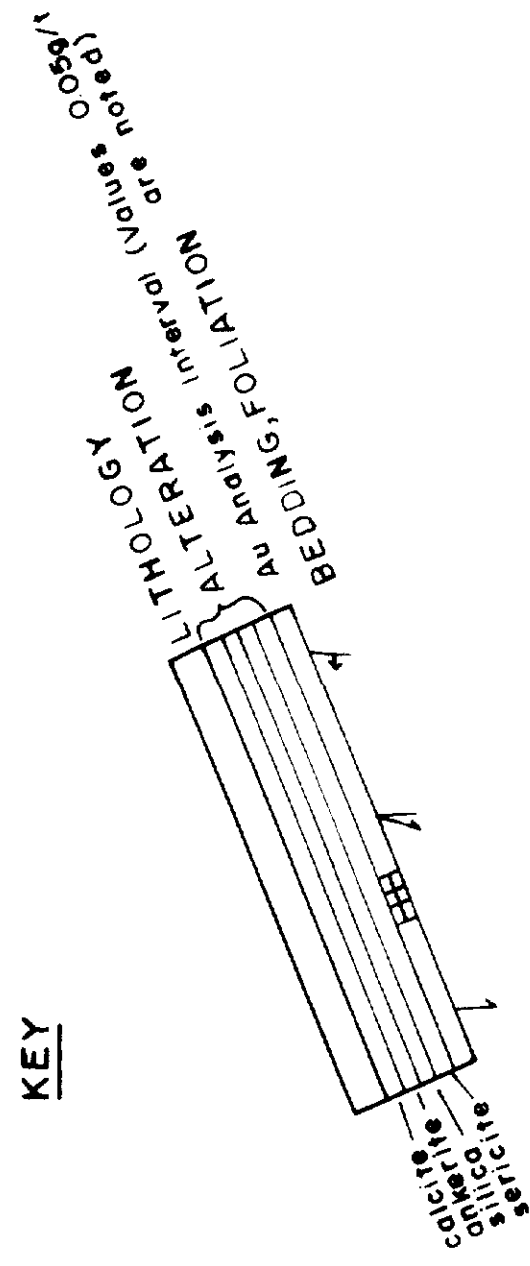
- 2 Felsic Volcanics-Rhyolite to Dacite
 - a Massive, Aphanitic (ash tuff)
 - b Feldspar-crystal tuff
 - c Feldspar-Quartz crystal tuff
 - d Lapilli tuff / Pyroclastic breccia
 - e Flow (extrusive/intrusive)

- 1 Mafic Volcanics
 - a Tuff
 - b Massive, fine grained
 - c Coarse grained amphibole

SYMBOLS

- Bedding, tops indicated
- Foliation
- QV Quartz vein
- QCV Quartz calcite vein
- py Pyrite
- po Pyrrhorite
- cpy Chalcopyrite
- mag Magnetite

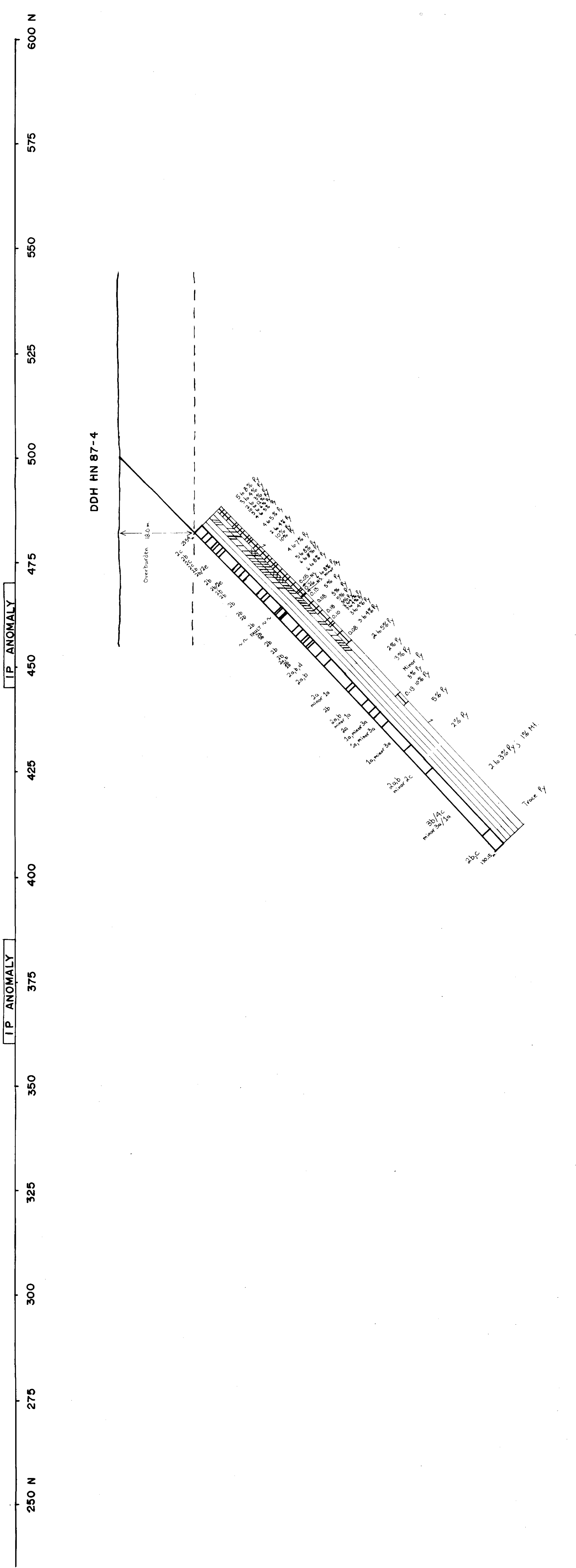
KEY



ALTERATION

- Trace to absent
- Weak
- Moderate
- Strong
- Intense

LINE 8+00 East



SECTION 6

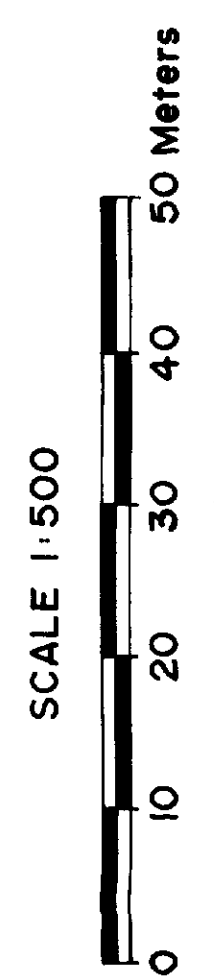
ESKO MINERALS CANADA
 A DIV. OF 1550 RESOURCES CANADA LIMITED

PROSPECT: HN
 SECTION 800 E
 Looking West
 Drill Hole 87-4

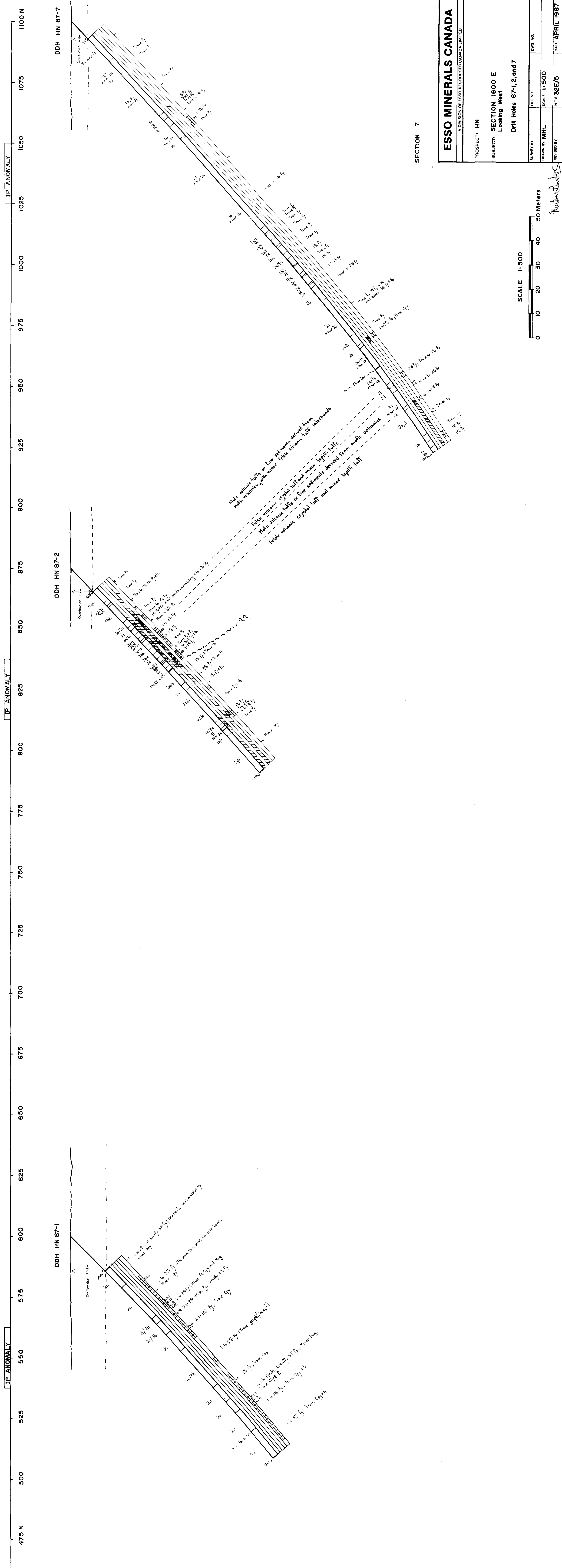
ACCOUNT NO. FILE NO. TORONTO
 DATE N.T.S.
 DRAWN BY: MHL APR. 1987 32E/5
 DWG NO. MAP NO.

SCALE
 1:500

TE. ACCOUNTS & ORDER BY: Martin Sadowski
 Date



LINE 16*00 East



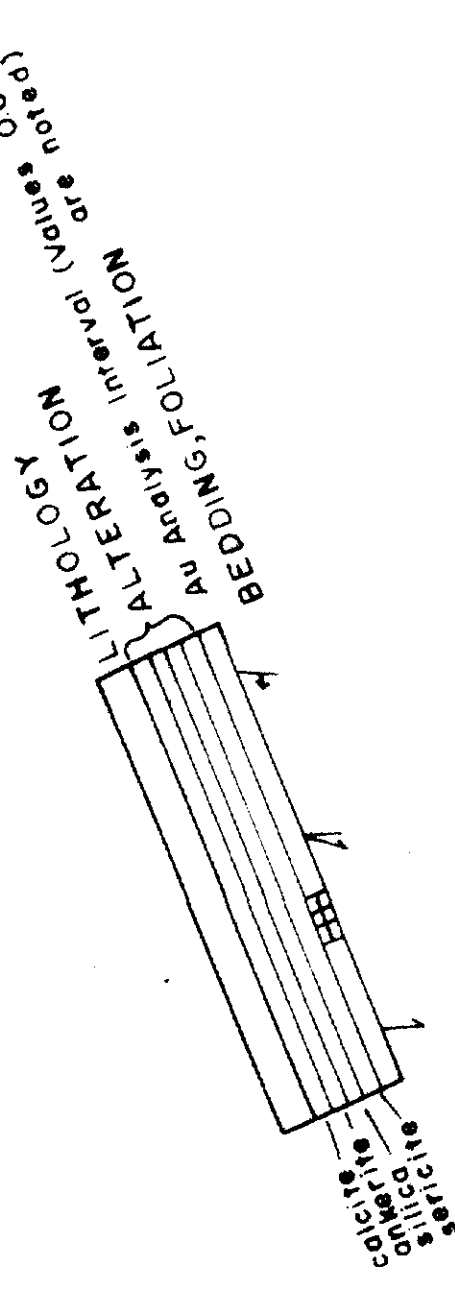
LEGEND

- 4 Sediments
 - Iron Formation (cherty, pyritic)
 - a Argillite
 - c Siltstone
 - d Arenite
 - e Greywacke
 - f Conglomerate
- 3 Volcanic-Derived Sediments
 - a Mafic tuff
 - b Felitic
- 2 Felsic Volcanics-Rhyolite to Dacite
 - a Massive, Aphanitic (ash tuff)
 - b Feldspar crystal tuff
 - c Feldspar-Quartz crystal tuff
 - d Capilli tuff / Pyroclastic breccia
 - e Flow (extrusive/intrusive)
- 1 Mafic Volcanics
 - a Tuff, fine grained
 - b Massive, fine grained
 - c Coarse grained amphibole

SYMBOLS

- Bedding, tops indicated
- Foliation
- QV Quartz vein
- QCV Quartz calcite vein
- py Pyrite
- po Pyrrhotite
- cpy Chalcopyrite
- mag Magnetite

KEY



ALTERATION

- Trace to absent
- Weak
- Moderate
- Strong
- Intense

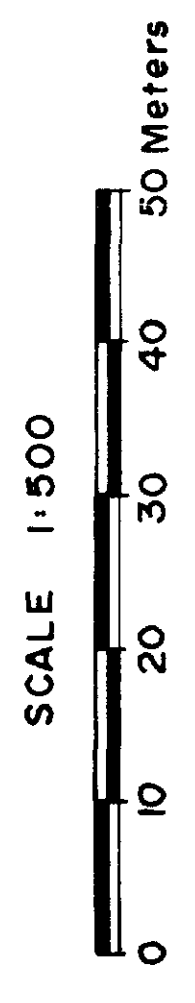


ESSO MINERALS CANADA
A DIVISION OF ESSO RESOURCES CANADA LIMITED

PROSPECT: HN
SUBJECT: SECTION 1600 E
Looking West
Drill Holes 87-1, 2, and 7

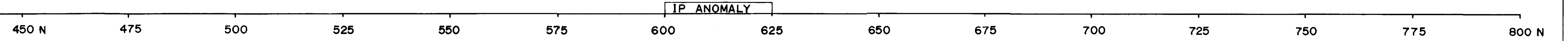
FILE NO: _____ DWG NO: _____
SCALE: 1:500
DRAWN BY: MHL
N.T.S. 32E/5
DATE: APRIL 1987

SECTION 7.



M. J. ...

LINE 20+00 East



IP ANOMALY

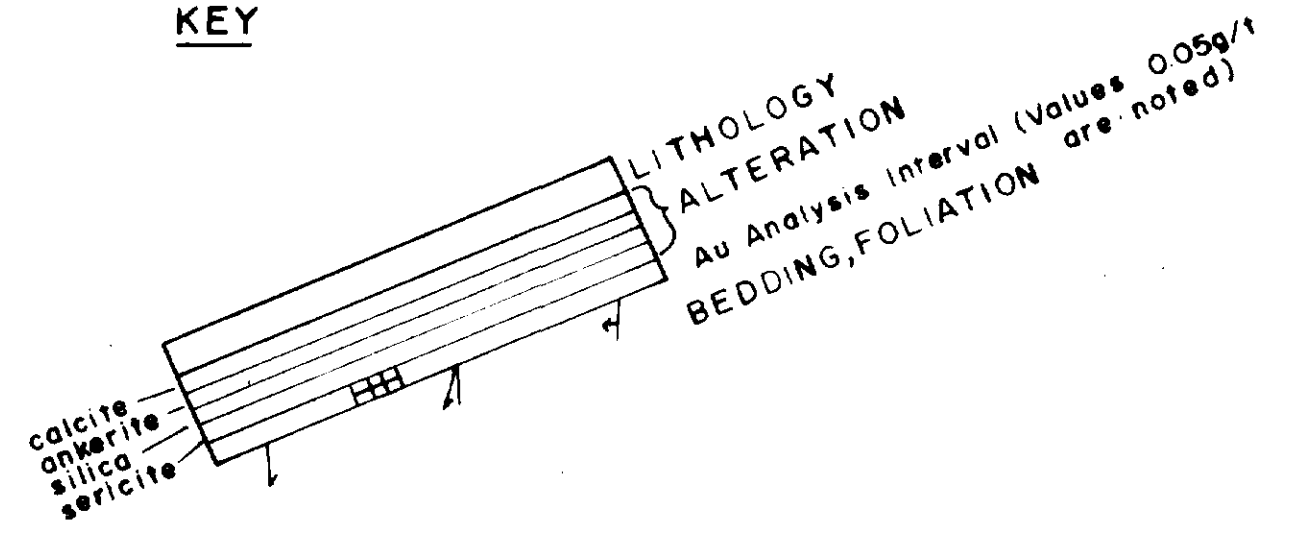
LEGEND

- 4 Sediments
 - a Iron Formation (cherty, pyritic)
 - b Argillite
 - c Siltstone
 - d Arenite
 - e Greywacke
 - f Conglomerate
- 3 Volcanic-Derived Sediments
 - a Mafic
 - b Felsic
- 2 Felsic Volcanics- Rhyolite to Dacite
 - a Massive, Aphanitic (ash tuff)
 - b Feldspar crystal tuff
 - c Feldspar-Quartz crystal tuff
 - d Lapilli tuff/ Pyroclastic breccia
 - e Flow (extrusive/intrusive)
- 1 Mafic Volcanics
 - a Tuff
 - b Massive, fine grained
 - c Coarse grained amphibole

SYMBOLS

- ⊥ Bedding, tops indicated
- Foliation
- QV Quartz vein
- QCV Quartz calcite vein
- py Pyrite
- po Pyrrhotite
- cpy Chalcopyrite
- mag Magnetite

KEY



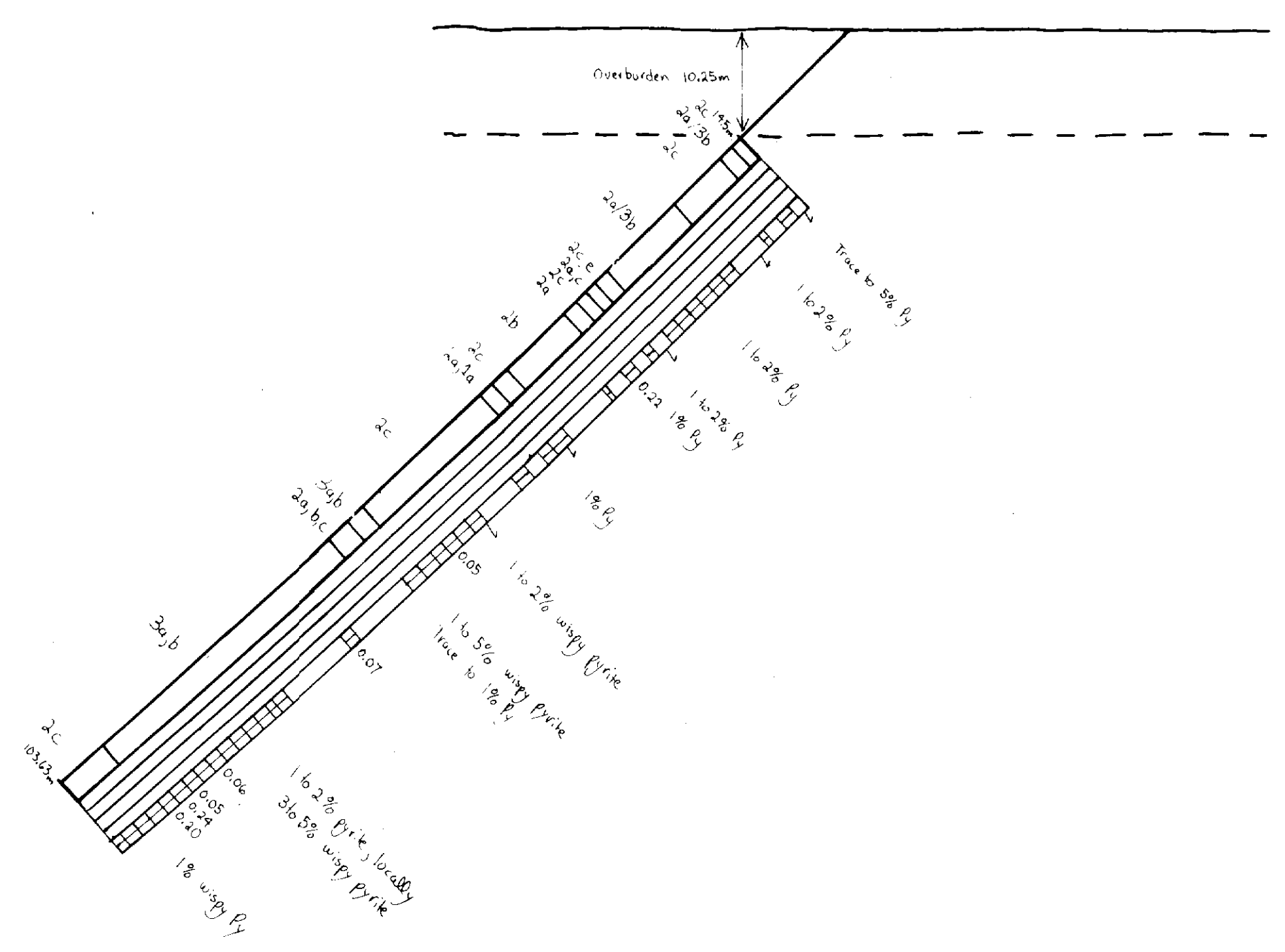
ALTERATION

- Trace to absent
- Weak
- Moderate
- Strong
- Intense



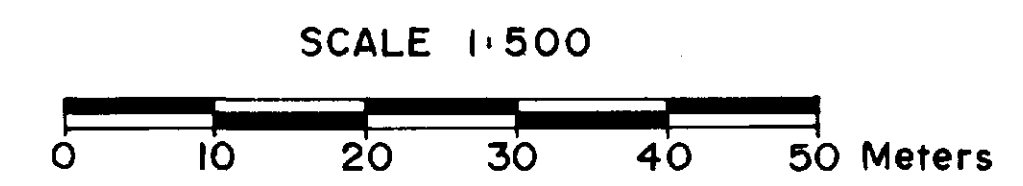
250

DDH HN 87-16



SECTION 8.

ESSO MINERALS CANADA		
A DIVISION OF ESSO RESOURCES CANADA LIMITED		
PROSPECT	HN	
SUBJECT	SECTION 2000 E Looking West	
	Drill Hole 87-16	
SURVEY BY	FILE NO.	DWG. NO.
DRAWN BY	SCALE 1:500	
REVISED BY	N.T.S. 32E/5	DATE Apr. 1987



Martin Benters

LINE 20+85 East

250 S 225 200 175 150 125 100 75 50 25 S 0 25 N 50 75 100 N

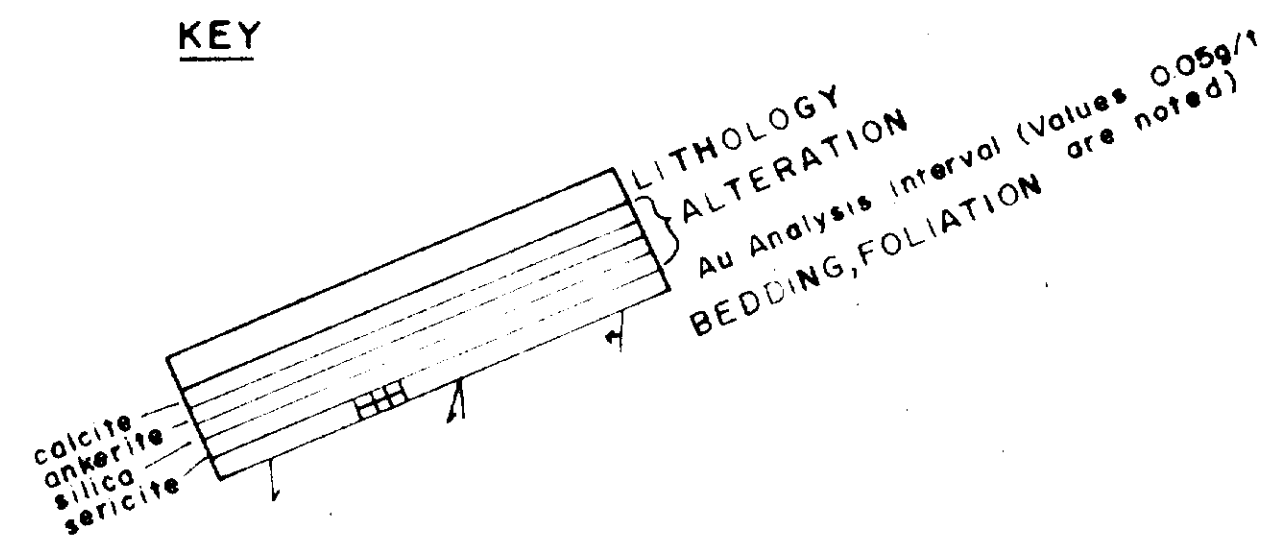
LEGEND

- 4 Sediments
 - a Iron Formation (cherty, pyritic)
 - b Argillite
 - c Siltstone
 - d Arenite
 - e Greywacke
 - f Conglomerate
- 3 Volcanic-Derived Sediments
 - a Mafic
 - b Felsic
- 2 Felsic Volcanics- Rhyolite to Dacite
 - a Massive, Aphanitic (ash tuff)
 - b Feldspar crystal tuff
 - c Feldspar-Quartz crystal tuff
 - d Lapilli tuff / Pyroclastic breccia
 - e Flow (extrusive/intrusive)
- 1 Mafic Volcanics
 - a Tuff
 - b Massive, fine grained
 - c Coarse grained amphibole

SYMBOLS

- ⊥ Bedding, tops indicated
- Foliation
- QV Quartz vein
- QCV Quartz calcite vein
- py Pyrite
- po Pyrrhotite
- cpy Chalcopyrite
- mag Magnetite

KEY



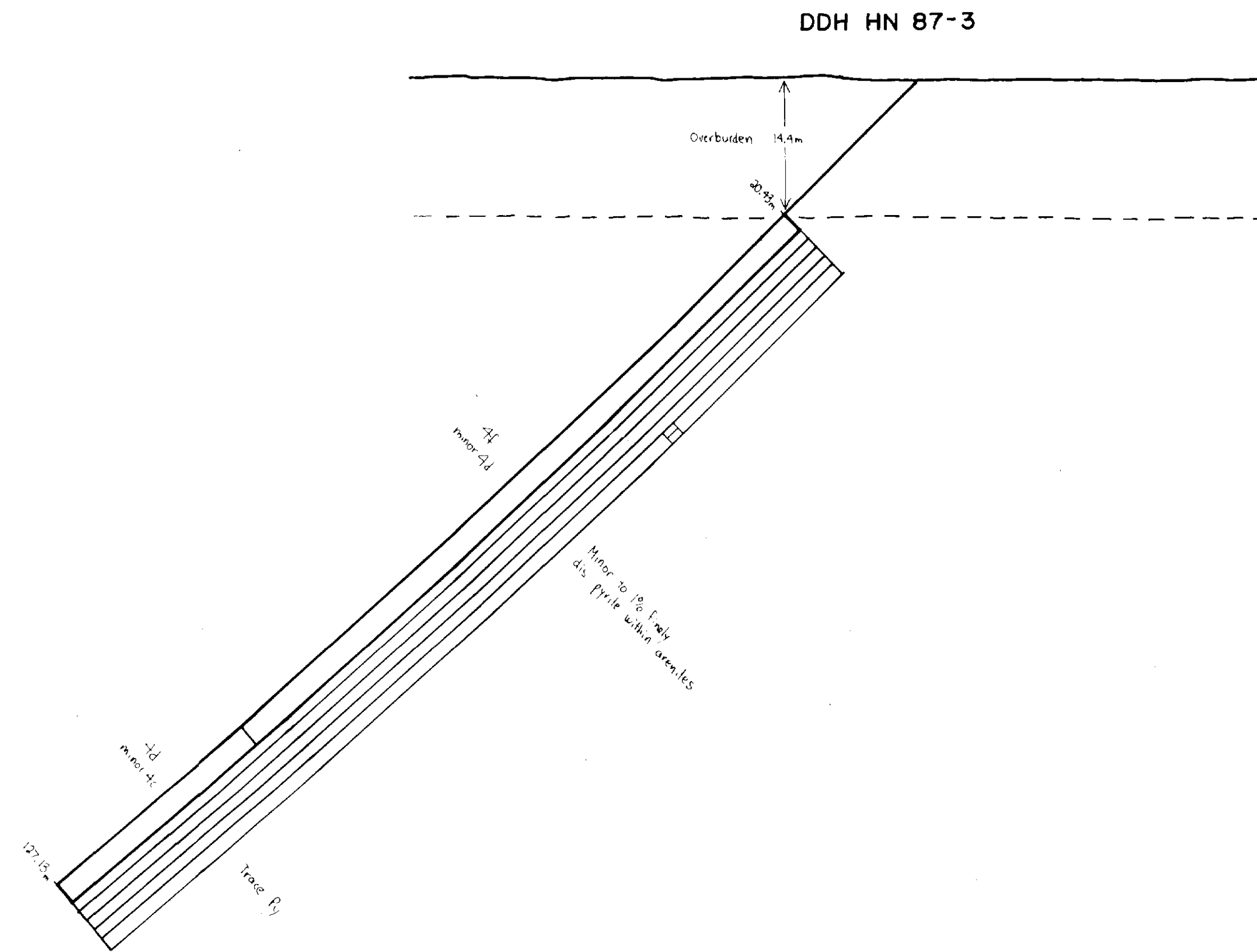
ALTERATION

- Trace to absent
- Weak
- Moderate
- Strong
- Intense

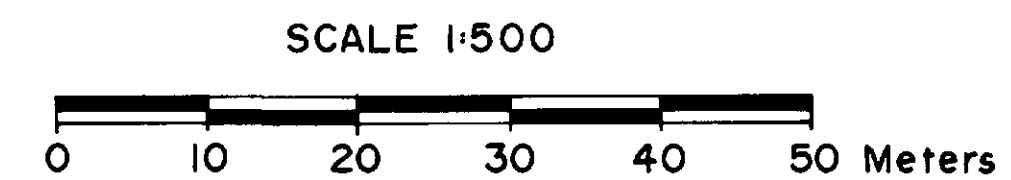


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SECTION 9



Martin Bentler

ESSO MINERALS CANADA		
A DIVISION OF ESSO RESOURCES CANADA LIMITED		
PROSPECT HN		
SUBJECT SECTION 2085 E Looking West		
Drill Hole 87-3		
SURVEY BY	FILE NO	DWG. NO.
DRAWN BY MHL	SCALE 1:500	
REVISED BY	N.T.S. 32 E/5	DATE APRIL 1987

LINE 32+00 East

500 N 525 550 575 600 625 650 675 700 725 750 775 N

IP ANOMALY

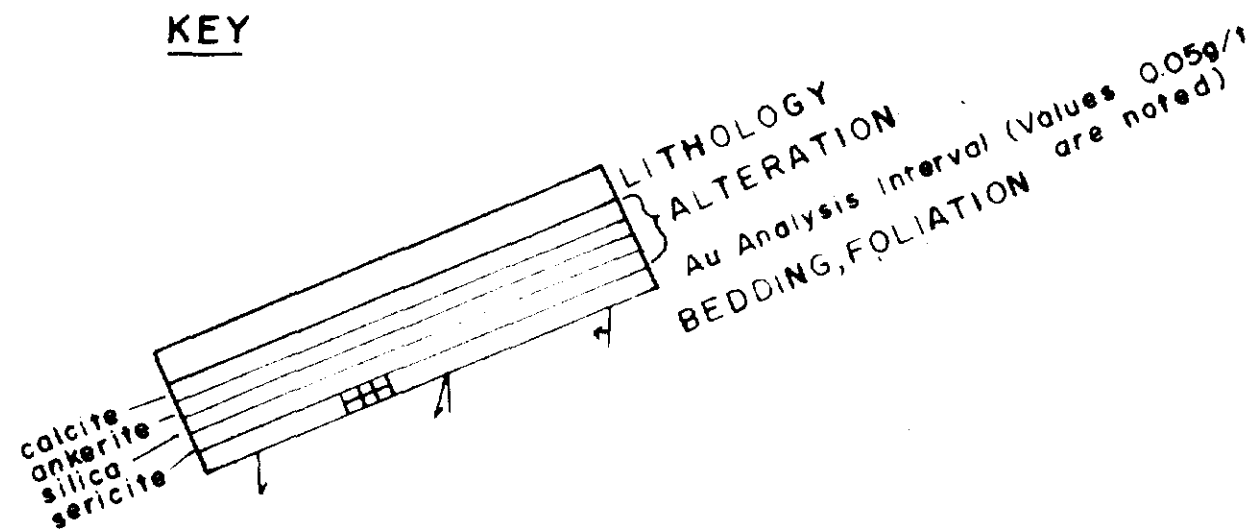
LEGEND

- 4 Sediments
 - a Iron Formation (cherty, pyritic)
 - b Argillite
 - c Siltstone
 - d Arenite
 - e Greywacke
 - f Conglomerate
- 3 Volcanic-Derived Sediments
 - a Mafic
 - b Felsic
- 2 Felsic Volcanics- Rhyolite to Dacite
 - a Massive, Aphanitic (ash tuff)
 - b Feldspar crystal tuff
 - c Feldspar-Quartz crystal tuff
 - d Lapilli tuff / Pyroclastic breccia
 - e Flow (extrusive/intrusive)
- 1 Mafic Volcanics
 - a Tuff
 - b Massive, fine grained
 - c Coarse grained amphibole

SYMBOLS

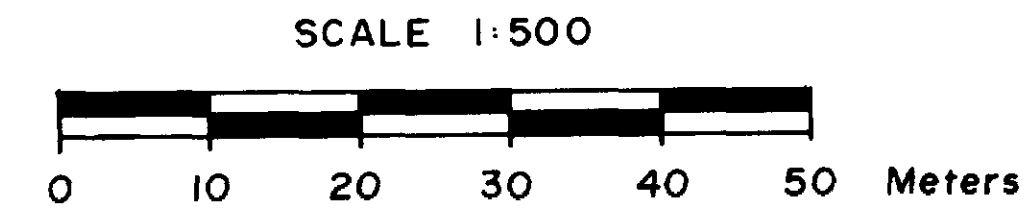
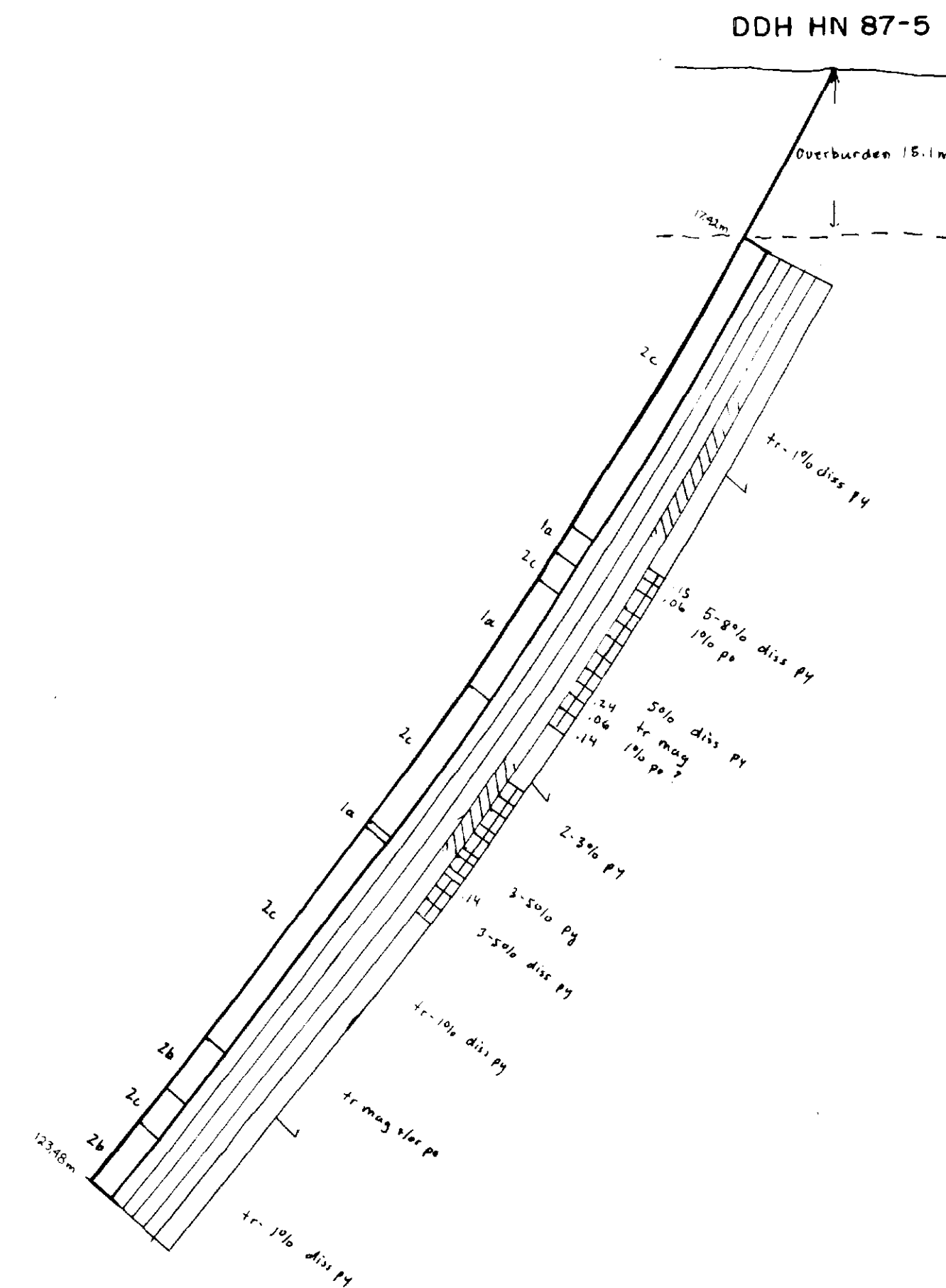
- + Bedding, tops indicated
- Foliation
- QV Quartz vein
- QCV Quartz calcite vein
- py Pyrite
- po Pyrrhotite
- cpy Chalcopyrite
- mag Magnetite

KEY



ALTERATION

- Trace to absent
- Weak
- Moderate
- Strong
- Intense



SECTION 10

ESSO MINERALS CANADA DIV'N OF ESSO RESOURCES CANADA LIMITED		
PROSPECT: H - N		
SECTION 3200 E		
Looking West		
Drill Hole HN87-5		
ACCOUNT N ^o	FILE N ^o	TORONTO
DRAWN BY: A.V.	DATE: APR '87	NTS: 32E/5
DWG. N ^o	MAP N ^o	
SCALE 1:500		
To Accompany A Report By:		
Dated:		



LINE 36+00 East

IP ANOMALY

675 N 700 725 750 775 800 825 850 875 N

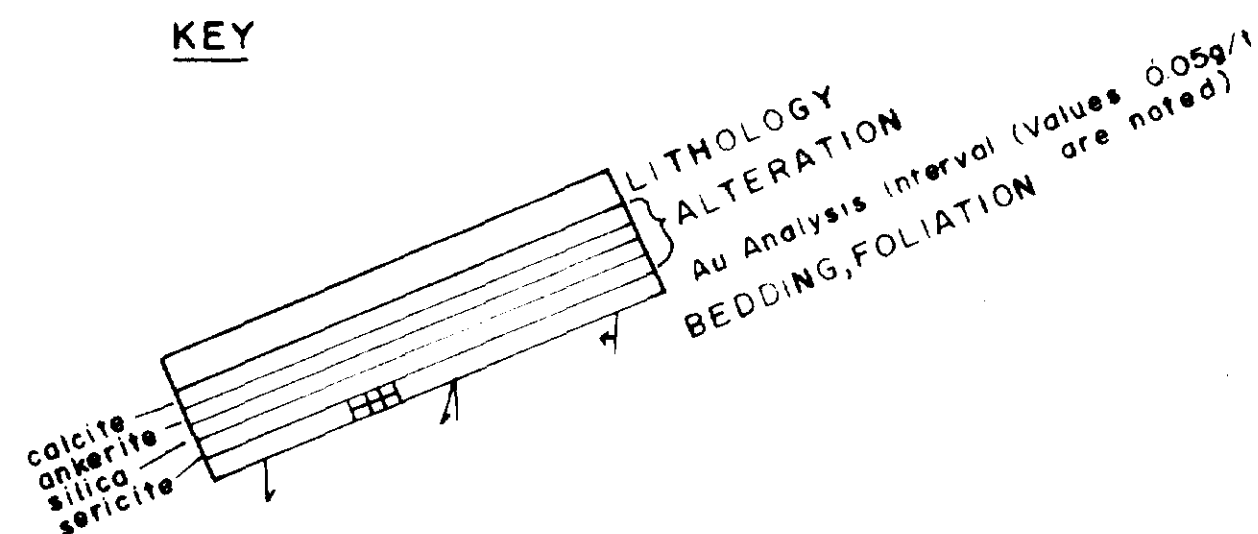
LEGEND

- 4 Sediments
 - a Iron Formation (cherty, pyritic)
 - b Argillite
 - c Siltstone
 - d Arenite
 - e Greywacke
 - f Conglomerate
- 3 Volcanic-Derived Sediments
 - a Mafic
 - b Felsic
- 2 Felsic Volcanics-Rhyolite to Dacite
 - a Massive, Aphanitic (ash tuff)
 - b Feldspar crystal tuff
 - c Feldspar-Quartz crystal tuff
 - d Lapilli tuff/ Pyroclastic breccia
 - e Flow (extrusive/intrusive)
- 1 Mafic Volcanics
 - a Tuff
 - b Massive, fine grained
 - c Coarse grained amphibole

SYMBOLS

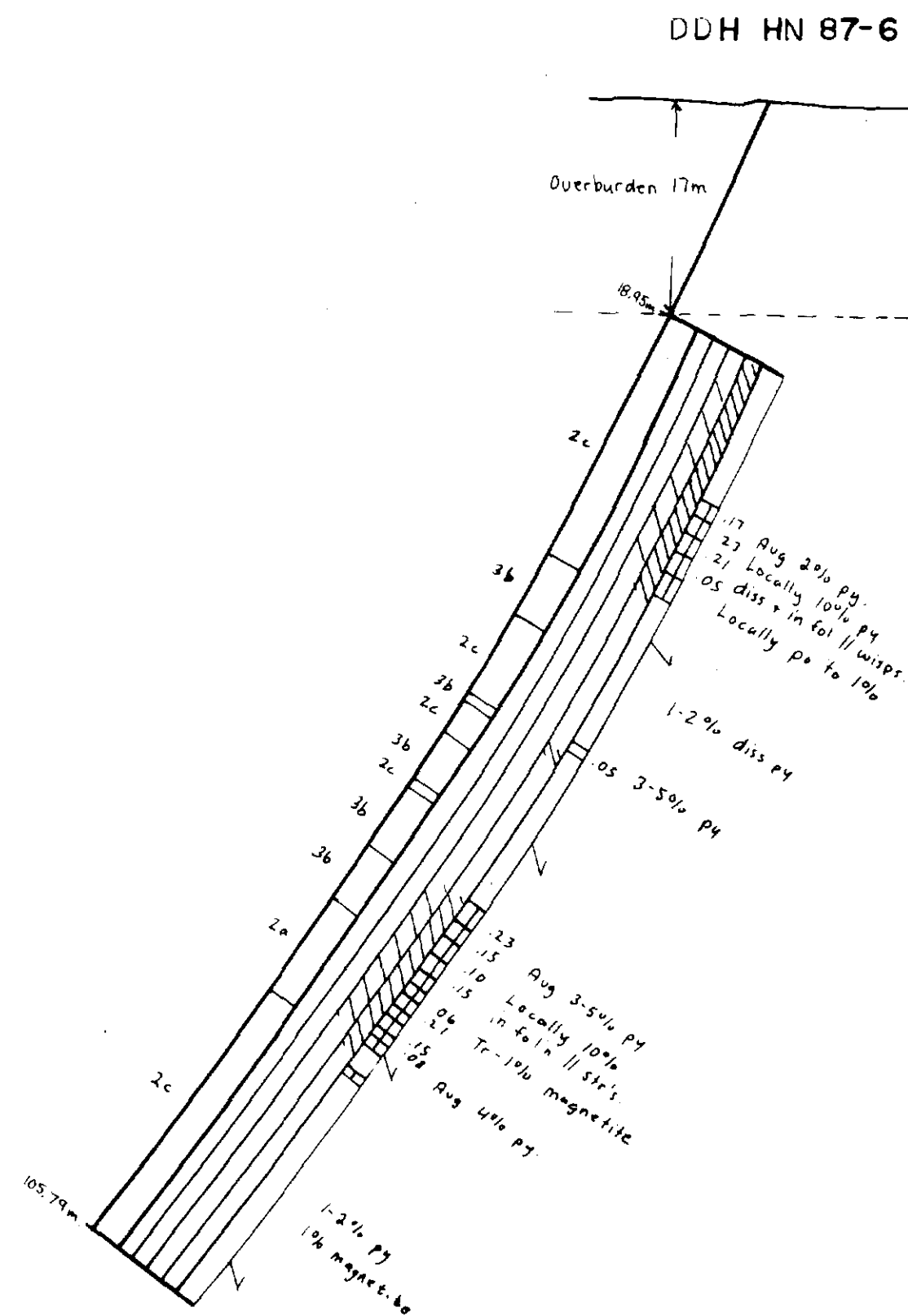
- Bedding, tops indicated
- Foliation
- Quartz vein
- Quartz calcite vein
- Pyrite
- Pyrrhotite
- Chalcopyrite
- Magnetite

KEY

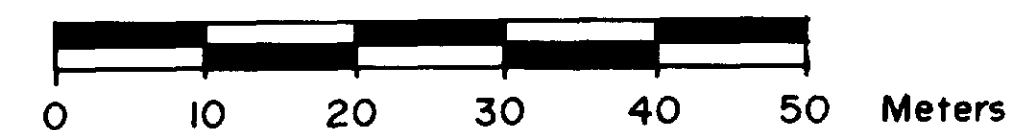


ALTERATION

- Trace to absent
- Weak
- Moderate
- Strong
- Intense



SCALE 1:500



SECTION 11

ESSO MINERALS CANADA DIV'N OF ESSO RESOURCES CANADA LIMITED		
PROSPECT: H-N		
SECTION 3600 E Looking West		
Drill Hole HN87-6		
ACCOUNT NO	FILE NO	TORONTO
DRAWN BY: <i>A V</i>	DATE: APR '86	NTS: 32E/5
DWG. NO	MAP NO	
SCALE 1:500		
To Accompany A Report By:		
Dated:		



42HESSE0007 17 HOBE 17ZELL