E1

ESSO RESOURCES CANADA LIMITED

ESSO MINERALS CANADA

803752

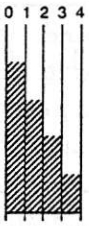
DRILL LOG

PROJECT: 2153	GROUND ELEV.: 1411 m
HOLE NO.: 38	BEARING: 230°
LOCATION: Sulphurets Gold Zone re drilling of DDH 12	DIP: -70°
	TOTAL LENGTH: 667' 203.30 m
LOGGED BY: Dane Bridge	HORIZONTAL PROJECT @ 230°: 79.40 m
DATE: Sept 14 - 17, 1981	VERTICAL PROJECT: 187.05 m
CONTRACTOR: Arctic Diamond Drilling.	
CORE SIZE: BQ	
DATE STARTED: Sept 11, moving; Sept 13, drilling	
DATE COMPLETED: Sept 16, 1981	

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE



traces only
< 1%
1% – 3%
3% – 10%
> 10%

DIP TESTS

60 Ft.	dip 68.6	corr brg 230.0
160	67.8	228.5
260	67.0	227.0
360	66.1	227.5
460	66.1	225.0
560	66.0	232.0
661	66.2	221.5

COMMENTS

LEGEND

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 PROJECT: HOLE NO. 38

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION: pyrite veins <1 cm A	1-10 cm B	>10 cm C	qz v D	cal v E	FRACTURE INTENSITY	% VEIN QTZ.
				0.0 - 3.66 : overburden							
				3.66 - 18.60 : altered andesite : original rock probably massive andesite w. fine mafic and feldspar grains, contains 10-20% fine <1-2mm, grains of altered feld and very minor chlorite grains probably after hornblende. color - light gray to medium slightly greenish gray, fine-grained w. distinct granular texture from feld grains, consists of fracture bounded patches with pyritic rims producing a blotchy or onion-skin texture, very fine-grained pyrite around fractures breaks the rock into fragment-like patches	26	4	0	2	3		
5											
10			25 Fr								
			35-40 Fr								
		50	7cm py v	11.95-12.35 : tectonically brecciated section w. calcite void filling, the calcite is post fracturing and brecciation and post pyrite veining							
		65	25 Fr								
			40 Fr								
15				3.66 - 18.60 : continued rock is overall moderately silicic and feldspathic?, probably altered to a quartz - K feldspar aggregate.							
		10	10cm bx zone								
		C ~70		18.60 - 34.35 : chloritic andesite and weakly altered andesite : mainly med - dk green chloritic andesite 10-20% chloritized hornblende? grains in a med gray weakly silicified? groundmass, about 15% of the							
20											

 PROJECT: HOLE NO. 38

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS oz/ton Au			
3.66 - 18.60: average 10-15% py by weight, mainly poorly developed and discontinuous veins and patches of medium-grained py, about 1/3 of the py is very fine-grained and produces an onion-skin texture outlining fracture bounded areas. the py vein count is not very meaningful since veins and disseminations are difficult to distinguish.		3.66		2.34	5037	.103			
		6.00		3.00	5038	lost est ≥.079, may be as high as .116			
		9.00		3.00	5039	.046			
		12.00		3.00	5040	.129			
15.10 - 16.00: minor cp assoc. w. py.		15.00		3.00	5041	.020			
18.60 - 30.80: avg 10% py, irreg veins and disseminations, med-grained equally in chlorite and weakly silicified andesite		18.00							
		18.60		0.60	5042	.007			
				2.40	5043	.009			
		21.00		3.00	5044	.007			

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DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE		GEOLOGICAL DESCRIPTION	ALTERATION <1 A	py v. 1-10 cm B	>10 C	qz v D	cal v E	FRACTURE INTENSITY	% VEIN QTZ.
					section consists of moderately silicified and K-Feldspathized andesite w. minor or remnants of chloritized hb, the contacts between the altered sections and the andesite are very transitional, both sections contain minor calcite veining and fracture filling	55	2	0	0	53		
25												
30												
			40	Fr								
					34.35 - 40.80 : mainly weakly silicified - Feldspathized andesite, minor chloritic andesite:, minor remnants of andesite w. 10% chloritized hb grains like main part of unit 18.60 - 34.35. main unit is fine-grained siliceous groundmass w. minor chlorite grains remaining, rock commonly has speckled appearance from local abundant remnant Feld grains, minor calcite veins and fracture fillings, rare qz-py veins	42	6	1	3	44		
35			30	12cm tectonic? breccia								
			70	Fr								
			70	Fr								
40												
					40.80 - 71.34 : moderately altered hb-Feld andesite: light gray w. slight greenish tone, fine-grained and slightly granular, generally uniform mod silic-Feldspathized groundmass w. minor remnants							
			55	Fr								
45												

 PROJECT: HOLE NO. 38

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS oz/ton Au			
		24.00							
				3.00	5045	.004			
		27.00							
				3.00	5046	.005			
		30.00							
30.80 - 32.70 : avg 3% py, dissem in chl. and.				3.00	5047	.005			
32.70 - 33.38 : avg 20-25% py, med-grained veins in altered and		33.00							
33.38 - 34.35 : avg 10% py.				1.35	5048	.011			
34.35 - 38.30 : avg 15-20% med-grained py, mainly as distinct veins		34.35							
				1.65	5049	.018			
		36.00							
38.30 - 40.80 : avg 5% py				3.00	5050	.029			
		39.00							
				1.80	5051	.060			
40.80 - 71.34 : avg 15-20%, med-grained, mainly as veinlets.		40.80							
				1.20	5052	.011			
		42.00							
				3.00	5053	.011			
		45.00							

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DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION <1 cm A	py/v 1-10 cm B	>10 cm C	qz D	cl E	FRACTURE INTENSITY	% VEIN QTZ.
				of chloritized bb and Feldspar, locally characterized by slightly wavy, closely spaced chlorite-pyrite filled fvs indicated on log by ≡, relatively minor calcite veining and fv-filling, rare qz-py veins	203	7	0	3	39		
			75-90	py-chl vs.							
50		58		2cm tuff							
		b?		breccia ?							
			70								
			65								
55											
			45								
60			70								
65											

 PROJECT: HOLE NO. 38

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS oz/ton Au			
40.80 - 71.34 : avg 15-20% py									
				3.00	5054	.024			
		48.00							
				3.00	5055	.025			
		51.00							
				3.00	5056	.015			
		54.00							
				3.00	5057	.014			
		57.00							
				3.00	5058	.012			
		60.00							
				3.00	5059	.013			
		63.00							
				3.00	5060	.015			
		66.00							
				3.00	5061	.038			

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DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
70				71.34 - 195.40 : breccia unit							
				71.34 - 74.57 : breccia, fine to coarse clasts, mixed clast types, mainly granular mod qz-Feld altered andesite, some aph white silic, one blk argillite?	5	1	1	1	1		
			40 / 40	Fol'n							
75				74.57 - 127.45: intensely silicified - K-Feldspathized breccia, clasts are mainly large and difficult to detect locally small clasts with a med green chlorite color are distinguishable, the clasts are mainly lt-med gray w a mottled appearance due to minor chl grains after hb and probable altered Feld grains, are fr white subhedral							
80			b / 50	possible bedding							
				approximately 5% of the clasts have a pale green color and are probably chloritic, very minor black or very dk green clasts occur, mainly fine to 5mm.							
				5cm qz v.							
85				py veining is irregular, difficult to distinguish veins from dissem zones.							
90											

 PROJECT: HOLE NO. 38

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS oz/ton Au			
		69.00							
				2.34	5062	.043			
71.34 - 76.33 : avg 15 - 20% py		71.34							
				3.66	5063	.032			
		75.00							
76.33 - 77.10 : avg 40% py, med-grained dissem veins.				3.00	5064	.019			
		78.00							
77.10 - 120.00 : avg 15 - 20% py, mainly dissem and some diffuse veins.				3.00	5065	.075			
		81.00							
				3.00	5066	.016			
		84.00							
				3.00	5067	.012			
		87.00							
				3.00	5068	.014			

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PROJECT:

HOLE NO. 38

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
			15								
95											
				98.00 - 98.90: local fine qz veining and intense silicification							
				99.60 - 100.10: shattered zone w coarse calcite veins between fragments							
100											
				c 103.75: 1cm qz v w v.f.g. sooty pyrite							
105											
			65	5cm qz-py v							
110											
				Fracturing ~ // to c.a.							

 PROJECT: HOLE NO. 38

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS oz/ton Au			
		90.00							
91.00 - 101.00: trace dissem cp w. py.				3.00	5069	.028			
		93.00							
				3.00	5070	.036			
		96.00							
				3.00	5071	.027			
		99.00							
				3.00	5072	.023			
		102.00							
				3.00	5073	lost est. .025			
		105.00							
105.80 - 108.30: minor dissem cp.				3.00	5074	lost est. .025			
		108.00							
				3.00	5075	.025			
		111.00							

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DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
115											
120			35 wk Fol'n								
			>70 5cm py v	120.00 - 122.60: very minor, thin, 1-2mm qz veins, one vein has a cp grain:							
			1cm py v ~80								
				@ 124.60: minor qz vein zone w some v.f.g. sooty py.							
125			25-30 wk Fol'n	124.60 - 126.00: trace 1mm tourmaline grains?							
			~70 13cm qz-py v								
130				127.45 - 169.50 volcanic breccia, mainly intensely silici Fied - K - Feldspathized, avg 10-15% patches - apparently both clasts and matrix of soft, light green, waxy, chloritic or possibly sericitic altered rock, the chloritic material more commonly forms the matrix and locally constitutes 35% of the rock.							
			25 3cm py v.								
			~70 6cm py v								
135											

 PROJECT: HOLE NO. 38

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS oz/ton Au			
				3.00	5076	lost			
@ 113.40: minor dissem cp.		114.00				est			
						.025			
				3.00	5077	.026			
		117.00							
				3.00	5078	.039			
120.00 - 122.60: avg 20-25% py, veins and disseminations		120.00							
				3.00	5079	.036			
122.60 - 126.30: avg 15% py, mainly med. grained dissem, lesser as thin veins.		123.00							
				3.00	5080	.012			
126.30 - 144.00: avg 20% py, mainly med-grained dissem, avg 5% py as thick, 1-10 cm veins of med-grained py., the dissem py is mainly (~ 2/3 - 3/4) in the chloritic zones		126.00							
				3.00	5081	.008			
		129.00							
				3.00	5082	.013			
		132.00							
				3.00	5083	.011			
		135.00							

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PAGE 13 OF 18	PROJECT:	HOLE NO. 38

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
			45	Foln ?							
		-80		6 cm py v							
140											
		60		4 cm py v							
		10		3 cm py v							
145											
		-70		2-4 cm py v							
150											
		70		2 cm py v							
			60	3 mm shear							
			25	2 mm shear							
155											

 PROJECT: HOLE NO. 38

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS oz/ton Au			
				3.00	5084	.011			
		138.00							
				3.00	5085	.039			
		141.00							
				3.00	5086	.062			
~144.00 - 164.75 : avg 20% py w. 5% thick py veins as in section 126.30 - 144.00 but ~50% of the pyrite is in siliceous clasts rather than in chloritic patches		144.00							
				3.00	5087	.044			
		147.00							
				3.00	5088	.037			
		150.00							
				3.00	5089	.037			
		153.00							
				3.00	5090	.011			
		156.00							
				3.00	5091	.048			

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 PROJECT: HOLE NO. 38

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
		60	7cm py v								
			40-45 Foln	159.45-160.10: very weakly foliated section w chloritic 'bands' and one coarse calcite v							
160											
		35 ~90	6-11 cm py v 3-8cm py v.								
			shear 45								
165											
			45 Foln								
			40-45	169.20-169.50: brecciated shear zone cemented by calcite							
170				169.50-194.25: volcanic breccia, light gray very uniform, intensely silicified - K-feldspathized matrix or agglomeration of clasts w indistinct boundaries, avg ≤10% distinct soft pale waxy green chloritized clasts, mainly small, 1-10 mm, locally ↳ 5 cm., 2% 1-2mm dk green, soft chlorite grains.							
175											
				177.10-197.28: very minor patches and veinlets of coarse calcite							
180											

 PROJECT: HOLE NO. 38

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS oz/ton Au			
		159.00							
				3.00	5092	.280			
		162.00							
159.20 - 169.50 : ≤1% dissem sphalerite, ≤1% galena ? w. calcite + quartz veining. 164.75 - 169.50 : avg 20% py, mainly dissem				3.00	5093	.069			
		165.00							
no significant py veins, relative to higher section				3.00	5094	.053			
		168.00							
169.50 - 194.25 : avg ≤15% py, med. grained, mainly dissem in chloritic grains and patches, no significant py veining				3.00	5095	.020			
		171.00							
				3.00	5096	.023			
		174.00							
				3.00	5097	.018			
		177.00							
				3.00	5098	.018			
		180.00							

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DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
-185				additional to bottom of page for 197.28 - 203.30: 197.28 - 201.05: intensely silicified 201.05 - 203.30: soft, chloritic? or unsilicified							
-190		~80		~6cm py v							
			20 / 40	Fol'n							
			40 / 35	Fol'n 197.28: relatively f-g. vole bx with silic clasts commonly <1cm in a foliated pyrite-chlorite matrix 194.25 - 195.40 and 196.46 -							
-195		55 c diabase									
		c 60 c 50	50	10cm gouge Fol'n 195.40 - 196.46: diabase dike w. chilled margins, like in DDH 12, 166.24 - 166.73 (E.O.H)							
-200				197.28 - 203.30: aphanitic andesite: aph, locally f-g, pale green to green-gray, mottled, mod. int. fractured w. chlorite smears on fr, minor calcite on some zones of int fr. 202.35 - 202.85: tectonically brecciated zone w. 25% calcite filling.							

203.30 E.O.H.

 PROJECT: HOLE NO. 38

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS oz/ton Au			
				3.00	5099	.005			
		183.00							
				3.00	5100	.005			
		186.00							
				3.00	5101	.014			
		189.00							
				3.00	5102	.047			
		192.00							
194.25 - 195.40: avg 20-25% py, F-g, dissem 195.40 - 196.46: no pyrite				3.40	5103	.027			
		195.40							
196.46 - 197.28: 10-15% py, tr. cp.				1.06	5104	.001			
		196.46							
197.28 - 203.30: avg 10-15% F-m grained dissem py. 197.28 - 198.20: minor dissem cp 128.20 - 203.30: tr. cp.				0.82	5105	.014			
		197.28							
				2.97	5106	.023			
		200.25							
				3.05	5107	.012			

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