

DETAILED LOG

Hole Number: ES2005-29

Units: METRIC

Project Name: Norway - Espedalen	Primary Coordinates Grid: UTM84-32N	Destination Coordinates Grid: UTM:	Collar Dip: -64.43
Project Number: 201	North: 6800881.78	North: 61.34	Collar Az: 232.60
Location: Surface	East: 535878.97	East: 9.67	Length: 88.20 (m)
	Elev: 959.56	Elev: 959.56	Start Depth: 0.00 (m)
Date Started: Apr 13, 2005	Collar Survey: Y	Plugged: N	Contractor: Arctic Drilling A/S
Date Completed: Apr 15, 2005	Multishot Survey: Y	Hole Size: TT46	Core Storage: Strand Fjellstue
Logged By: Lars Weiershaeuser	Pulse EM Survey: Y	Casing: Left in Hole, capped	Final Depth: 88.20 (m)

Comments: Purpose: Test UTEM conductor on L12200E, within centre of interpreted plate (conductance = 570 Siemens).

Result: Intersected a moderate shear zone within host anorthosite from 57.66-58.70m. The upper contact was weakly to moderately mineralized (20% stringer sulphides (py-po)) from 57.66-57.90m (0.34m).

Assays: 0.94%Ni, 0.44%Cu, 0.07%Co / 0.30m (57.60-57.90m)

Borehole UTEM: In-hole edge response (in-hole 56m, edge 62m), main part of conductor down-dip? Intersected mineralization between 57.60-57.90m.

Sample Averages

Survey Data

Depth (m)	Azimuth Decimal	Dip Decimal	Test Type	Flag	Comments	Depth (m)	Azimuth Decimal	Dip Decimal	Test Type	Flag	Comments
0.00	232.60	-64.43	MShot	OK		5.00	232.60	-64.14	MShot	OK	
10.00	232.60	-64.48	MShot	OK		15.00	232.60	-64.72	MShot	OK	
20.00	232.62	-64.92	MShot	OK		25.00	232.23	-65.09	MShot	OK	
30.00	231.95	-65.05	MShot	OK		35.00	232.07	-64.97	MShot	OK	
40.00	231.92	-65.23	MShot	OK		45.00	231.43	-65.62	MShot	OK	
50.00	231.37	-65.71	MShot	OK		55.00	231.25	-65.29	MShot	OK	
60.00	231.27	-65.25	MShot	OK		65.00	230.92	-65.17	MShot	OK	
70.00	230.80	-65.18	MShot	OK		75.00	230.76	-65.10	MShot	OK	
80.00	230.41	-65.10	MShot	OK		85.00	229.95	-65.01	MShot	OK	

Detailed Lithology		Assay Data							
From (m)	To (m)	Lithology	Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
0	20.75	C, Casing RQD 0.00 - 20.75 : 100.00 % RQD 100.00 % Core CASING							

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From (m)	To (m)	Lithology	Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
20.75	39.20	<p>4s, Sausseritized/Tectonized Anorthosite</p> <p>This unit consists of fine-grained, white to light gray, non-magnetic, fairly homogeneous anorthosite. Major minerals are plagioclase and alteration minerals (quartz, chlorite, epidote, fuchsite, ?sericite). Depending on the abundance of alteration minerals and degree of foliation, the rock appears mottled white to light gray; changes in appearance occur on a meter-scale. Where the unit is quartz (+fuchsite) altered, no foliation is apparent; elsewhere, the unit is well-foliated. An ultramafic dyke/sill has intruded this unit. The lower contact is sharp at ~50 degrees tca.</p> <p>This unit is not mineralized</p> <p>For a description of the intrusive rock, see comments of subunit.</p> <p>Alteration 22.00 - 39.20 :Q Quartz, P Pervasive, W Weak weak to moderate, locally with epidote and/or fuchsite</p> <p>Structure 21.80 - 21.81 : S1 First Foliation, 70 Deg to CA 31.12 - 31.13 : S1 First Foliation, 70 Deg to CA</p> <p>RQD 20.75 - 24.00 : 16.00 % RQD 100.00 % Core 24.00 - 27.00 : 58.00 % RQD 100.00 % Core 27.00 - 30.00 : 58.00 % RQD 100.00 % Core 30.00 - 33.00 : 23.00 % RQD 100.00 % Core 33.00 - 36.00 : 23.00 % RQD 100.00 % Core 36.00 - 39.00 : 37.00 % RQD 100.00 % Core 39.00 - 42.00 : 24.00 % RQD 100.00 % Core</p> <p>MINOR INTERVALS: Minor Interval: 37.35 - 37.79 6e, Ultramafic Schist This unit is a black, non-magnetic, homogeneous, well-foliated ultramafic schist. The core is very broken up so that contact relationships with the anorthosite wallrock can not be determined.</p> <p>This unit is not mineralized.</p>							

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Detailed Lithology		Lithology	Assay Data						
From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
39.20	47.54	<p>MD, Mafic Dike</p> <p>Fine-grained dark gray to greenish-black, non-magnetic, homogeneous, well foliated mafic rock, composed of amphibole/pyroxene, chlorite, and alteration minerals. This unit is mafic close to the hanging wall and footwall contacts as well as along the contacts with the intercalated anorthosite rafts; the unit becomes coarser-grained towards the center. Anorthositic intercalations are located at: 43.00 - 43.29m, 44.19 - 44.45m, 44.83 - 45.34m, and 47.10 - 47.24m. Contacts are sharp to recrystallized/ assimilated. The upper contact is sharp at ~50 degrees tca, the lower contact is sharp at ~80 degrees tca.</p> <p>This unit contains trace po, locally parallel to the foliation.</p> <p>Structure</p> <p>39.95 - 39.96 : S1 First Foliation, 50 Deg to CA</p> <p>44.47 - 44.48 : S1 First Foliation, 70 Deg to CA</p> <p>RQD</p> <p>42.00 - 45.00 : 67.00 % RQD 100.00 % Core</p> <p>45.00 - 48.00 : 53.00 % RQD 100.00 % Core</p>							

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From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
47.54	88.20	4s, Sausseritized/Tectonized Anorthosite	PG03867	56.50	57.60	1.10	0.0250	0.0250	0.0100
		This unit consists of fine-grained, white to light gray, non-magnetic, fairly homogeneous anorthosite. Major minerals are plagioclase and alteration minerals (quartz, chlorite, epidote, fuchsite, ?sericite). Depending on the abundance of alteration minerals and degree of foliation, the rock appears mottled white to light gray; changes in appearance occur on a meter-scale. Where the unit is quartz (+fuchsite) altered, no foliation is apparent; elsewhere, the unit is well-foliated. A mafic dyke/sill has intruded this unit. The thickness of this unit is not known as the hole was shut down. This unit is not mineralized For a description of the intrusive rock, see comments of subunit. Alteration 69.00 - 88.17 :Q Quartz, P Pervasive, W Weak weak to moderate, locally with epidote and/or fuchsite Structure 50.20 - 50.21 : S1 First Foliation, 80 Deg to CA 59.66 - 59.67 : S1 First Foliation, 70 Deg to CA 64.38 - 64.39 : S1 First Foliation, 70 Deg to CA 72.15 - 72.16 : S1 First Foliation, 75 Deg to CA 77.86 - 77.87 : S1 First Foliation, 70 Deg to CA 86.30 - 86.31 : S1 First Foliation, 75 Deg to CA RQD 48.00 - 51.00 : 56.00 % RQD 100.00 % Core 51.00 - 54.00 : 47.00 % RQD 100.00 % Core 54.00 - 57.00 : 59.00 % RQD 100.00 % Core 57.00 - 60.00 : 47.00 % RQD 100.00 % Core 60.00 - 63.00 : 49.00 % RQD 100.00 % Core 63.00 - 66.00 : 74.00 % RQD 100.00 % Core 66.00 - 69.00 : 64.00 % RQD 100.00 % Core 69.00 - 72.00 : 83.00 % RQD 100.00 % Core 72.00 - 75.00 : 59.00 % RQD 100.00 % Core 75.00 - 78.00 : 69.00 % RQD 100.00 % Core 78.00 - 81.00 : 54.00 % RQD 100.00 % Core 81.00 - 84.00 : 76.00 % RQD 100.00 % Core 84.00 - 88.17 : 59.00 % RQD 100.00 % Core	PG03868	57.60	57.90	0.30	0.9400	0.4400	0.0700
			PG03869	57.90	58.70	0.80	0.0500	0.0250	0.0100
			PG03870	58.70	60.00	1.30	0.0250	0.0250	0.0100

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Detailed Lithology		Assay Data							
From (m)	To (m)	Lithology	Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
		<p>MINOR INTERVALS:</p> <p>Minor Interval: 50.55 - 52.38 MD, Mafic Dike Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper and lower contacts are sharp at ~75 degrees tca.</p> <p>This unit is not mineralized.</p> <p>Minor Interval: 57.66 - 58.7 4s, Sausseritized/Tectonized Anorthosite Possible fault zone. This section of the anorthosite is characterized by brecciation, slightly stronger foliation, mylonitic material, and iron oxides along the foliation (ground water infiltration?). The top ~25cm of this unit contains abundant fine-grained pyrite (locally exhibiting cubic habit) and pyrrhotite.</p> <p>Mineralization 57.66 - 57.90 : Cpy Chalcopyrite, TR Trace, 0.5% 57.66 - 57.90 : Po Pyrrhotite, TR Trace, 10% 57.66 - 57.90 : Py Pyrite, VN Veins, 10%</p> <p>Structure 57.66 - 58.70 : S Schistose, 65 Deg to CA</p>							

Samples

Sample Number	From (m)	To (m)	Ni%	Cu%	Co%
Sample Type	ASSAY				
PG03867	56.50	57.60	0.0250	0.0250	0.0100
PG03868	57.60	57.90	0.9400	0.4400	0.0700
PG03869	57.90	58.70	0.0500	0.0250	0.0100
PG03870	58.70	60.00	0.0250	0.0250	0.0100