

Location/Identification

MINFILE Number:	104I 126		
Name(s):	<u>DJ</u> TURNAGAIN		
Status:	Prospect	Mining Division:	Liard
Regions:	British Columbia	Electoral District:	Stikine
BCGS Map:	104I046	Resource District:	Skeena Stikine Natural Resource District
NTS Map:	104I07W	UTM Zone:	09 (NAD 83)
Latitude:	58 29 20 N	Northing:	6483146
Longitude:	128 53 49 W	Easting:	506008
Elevation:	1448 metres		
Location Accuracy:	Within 500M		
Comments:	Location of DJ zone, 3 kilometres northwest of the main Turnagain deposit (104I 119), about 65 kilometres east of the community of Dease Lake (Property Geology map, http://www.hardcreeknickel.com).		

Mineral Occurrence

Commodities:	Platinum, Palladium, Copper		
Minerals	Significant:	Chalcopyrite, Magnetite	
	Significant Comments:	The platinum-palladium minerals are thought to be associated with concentrations of both chalcopyrite and magnetite.	
Deposit	Character:	Disseminated, Massive	
	Classification:	Magmatic, Syngenetic	
	Type:	M05: Alaskan-type Pt+/-Os+/-Rh+/-Ir	

Host Rock

Dominant Host Rock:	Plutonic		
Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Lower Jurassic	-----	-----	Ultramafic Intrusions
Isotopic Age	Dating Method	Material Dated	
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Lithology:	Serpentinized Clinopyroxenite, Hornblende		
Comments:	The DJ zone, part of the Turnagain property, is three kilometres northwest of the main Turnagain deposit, Horsetrail (104I 119). The DJ zone is characterized by platinum and palladium mineralization hosted by serpentinized clinopyroxenite within an extensive area underlain by hornblende.		

Geological Setting

Tectonic Belt:	Intermontane	Physiographic Area:	Cassiar Mountains
Terrane:	Cache Creek, Cassiar, Quesnel		
Metamorphic Type:	Regional		
Grade:	Greenschist		

Inventory

Ore Zone: DRILLHOLE
Category: Assay/analysis

Year: 2006
Report On: Y
NI 43-101: N

Sample Type: Drill Core

Commodity	Grade
Platinum	0.61 grams per tonne

Comments: Hole 06-149 intersected 8.9 metres grading 0.61 gram per tonne combined for platinum and palladium.

Reference: Press Release, Hard Creek Nickel Corp., December 21, 2006.

Capsule Geology

The DJ zone is three kilometres northwest of the main Turnagain deposit (104I 119), about 65 kilometres east of the community of Dease Lake.

The area is underlain by the Early Jurassic (and earlier (?)) Turnagain ultramafic suite which measures 8 by 3.5 kilometres and is elongate in a northwest direction and is conformable with the regional structural grain. The ultramafic body is in fault contact with early Paleozoic graphitic phyllites and lesser calcisilicate and quartz-rich tuff layers along its northern and eastern margins. Diamond drilling suggests that the poorly exposed southwestern margin of the intrusion is in intrusive contact with metasedimentary, volcanoclastic and carbonate rocks of possible Triassic age.

The Turnagain ultramafic suite broadly consists of a central dunite core with peripheral units of wehrlite (olivine + clinopyroxene-rich peridotite), olivine clinopyroxenite, clinopyroxenite, and hornblende, all of which represent crystal cumulate sequences.

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In 2004, eighteen vertical and inclined holes drilled to test platinum group elements mineralization within the DJ zone, in the northwestern part of the ultramafic body, intersected 2 to 34 metre intervals with platinum plus palladium values ranging from 0.267 to 2.407 grams per tonne and averaging 0.64 gram per tonne (Carter, 2005). The platinum:palladium ratio is approximately 1:1 and associated copper values average 0.04 per cent.

In 2006, exploration holes on the DJ were step-outs from 2004 and 2005 drill intersections reporting up to 2.41 grams per tonne platinum and palladium across two metres. The holes drilled in the DJ area were testing for bedrock sources along the northern limit of a platinum and palladium-copper soil anomaly. Hole 06-149 intersected two pegmatitic clinopyroxenite zones with anomalous platinum and palladium, while holes 06-147, 148 and 150 encountered unmineralized mafic units and diorite dikes. Hole 06-149 intersected 8.9 metres grading 0.61 gram per tonne platinum and palladium (Press Release, Hard Creek Nickel Corp., December 21, 2006). Prospective platinum and palladium horizons located at the DJ area were interpreted by Hard Creek Nickel to extend further northwest and to underlie an untested, 800 by 400-metre copper-in-soil anomaly, with values up to a maximum of 7,164 parts per million copper. In addition, copper values exceeding 1,000 parts per million locally coincide with platinum and palladium up to 585 parts per billion.

In 2011, Hard Creek Nickel completed a 75.5 line-kilometre ground magnetic survey over the DJ-DB area, centred 2.5 kilometres northwest of the Horsetrail deposit. With magnetic readings every 25 metres on 50 metre spaced lines, the survey provided detailed information on distribution of buried lithology and intrusive contacts.

See Turnagain Nickel (Horsetrail) (104I 119) for further details of the Turnagain property, including geology, work history and bibliography.

Bibliography

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