

MAR 20060023: HIGH HILL RIVER

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Project Name: High Hill River

Permit Number(s): 9304070988

Permit Holder: Paradigm Canadian Diamonds Pty Ltd

Author: Bernard Rowe BSc(Hons), MAIG

Date: 04/10/2006

Part B & C – Assessment Report

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1 Introduction

Paradigm Canadian Diamonds Pty Ltd is the holder of the High Hill River project (exploration permit 9304070988) in central eastern Alberta. Paradigm regards the area as prospective for diamond bearing kimberlite and exploration efforts have been focussed accordingly.

This report was prepared by Mr Bernard Rowe. Mr Rowe is an employee of Paradigm Geoscience and an exploration geologist with 17 years experience including seven years in diamond exploration with Ashton Mining Ltd. Ashton Mining was part-owner of the Argyle diamond mine in Western Australia until it was taken over by Rio Tinto. Mr Rowe holds a Bachelor of Applied Science (Honours) degree in Geology from the University of Ballarat, Australia and is a member of the Australian Institute of Geoscientists.

2 Summary

Paradigm Geoscience Pty Ltd conducted a regional structural study over Alberta to identify areas most prospective for diamondiferous kimberlite. Subsequent to the regional study, Paradigm Canadian Diamonds Pty Limited (PCDPL) applied for mineral tenure over seven target areas. Regional data sets covering the targets were acquired, processed and reviewed in order to further evaluate the targets and to plan appropriate field programs. A program of surface till/gravel sampling was undertaken on the High Hill target. Further work is proposed to more effectively test the project area and to identify discrete targets for drill testing.

3 Location

The High Hill River project is located 55km east of Fort McMurray at the confluence of the Clearwater and High Hill rivers in central eastern Alberta. The area is heavily forested and access to the area is only possible by boat or helicopter. A tenement location/index map is included in Appendix 1.

4 Geological Setting

Proterozoic rocks of the Taltson Magmatic Arc (2.0-1.8Ga) are overlain by thick sequences of Phanerozoic sediments of the Western Canada Sedimentary Basin. In this area, the youngest of platform cover rocks belong to the Early Cretaceous Grand Rapids Formation.

5 Work Completed

Initial work involved the acquisition, reprocessing and review of the following datasets to assist in planning field programs:

- Aeromagnetic data
- Bedrock geology (published maps)
- Quaternary geology (published maps)
- Quaternary isopachs
- Ice directions
- Topography
- Bore holes
- Kimberlite occurrences
- Indicator mineral data (mineralogy and mineral chemistry)

Aeromagnetic data from the Alberta #28 survey was acquired from the Geological Survey of Canada. The survey was flown in 1952 at a flying height of 305m and a line spacing of 1609m. Appendix 2 shows an image of the first vertical derivative of the total magnetic field. Several circular anomalies (positive and negative) of interest are present and could be caused by pipe-like bodies. The wide line spacing and age of the survey render the data not particularly useful for kimberlite exploration.

An examination of the bedrock geology showed that the area is underlain by Early Cretaceous Grand Rapids Formation at an average elevation of 350m asl. Underlying rocks of the Clearwater, McMurray and Waterways Formations are exposed in the valley of the Clearwater River. Kimberlites younger than the Early Cretaceous are the target for exploration.

Glacial deposits are not well described from the area but are generally thin (0-20m). Till is likely to be present in the more elevated area whereas the deep and narrow valley of the Clearwater River is dominated by thin glacial deposits overlying Mesozoic sediments.

The Geological Survey of Canada (GSC) and the Alberta Geological Survey have recovered moderate numbers of eclogitic garnet and chrome diopside grains from the general area but sampling is sparse. Dufresne et al (1996) referred to this area as the Fort Mackay Trend. No kimberlites are known from the area.

Paradigm attempted a program of heavy mineral sampling in the area. The area was accessed by boat from Fort McMurray along the Clearwater River. Low water levels prevented access up the High Hill River. Two gravel samples were collected from small tributaries of the Clearwater River. Both sites were positioned with GPS (+/- 10m). Attempts to locate till for sampling were unsuccessful. A sample location map is included as Appendix 3.

The samples were processed by SRC Geoanalytical Laboratories in Saskatoon to produce a heavy mineral concentrate from the 0.25mm-1.0mm fraction. The

concentrates were then dispatched to Global Diamond Exploration Services in Perth Western Australia for mineral observation. Sample locations and results are tabulated in Appendix 4 and a sample processing flowsheet is included in Appendix 5.

6 Results

No indicator minerals were recovered in the two gravel samples collected. The target has not been conclusively tested and further work is required.

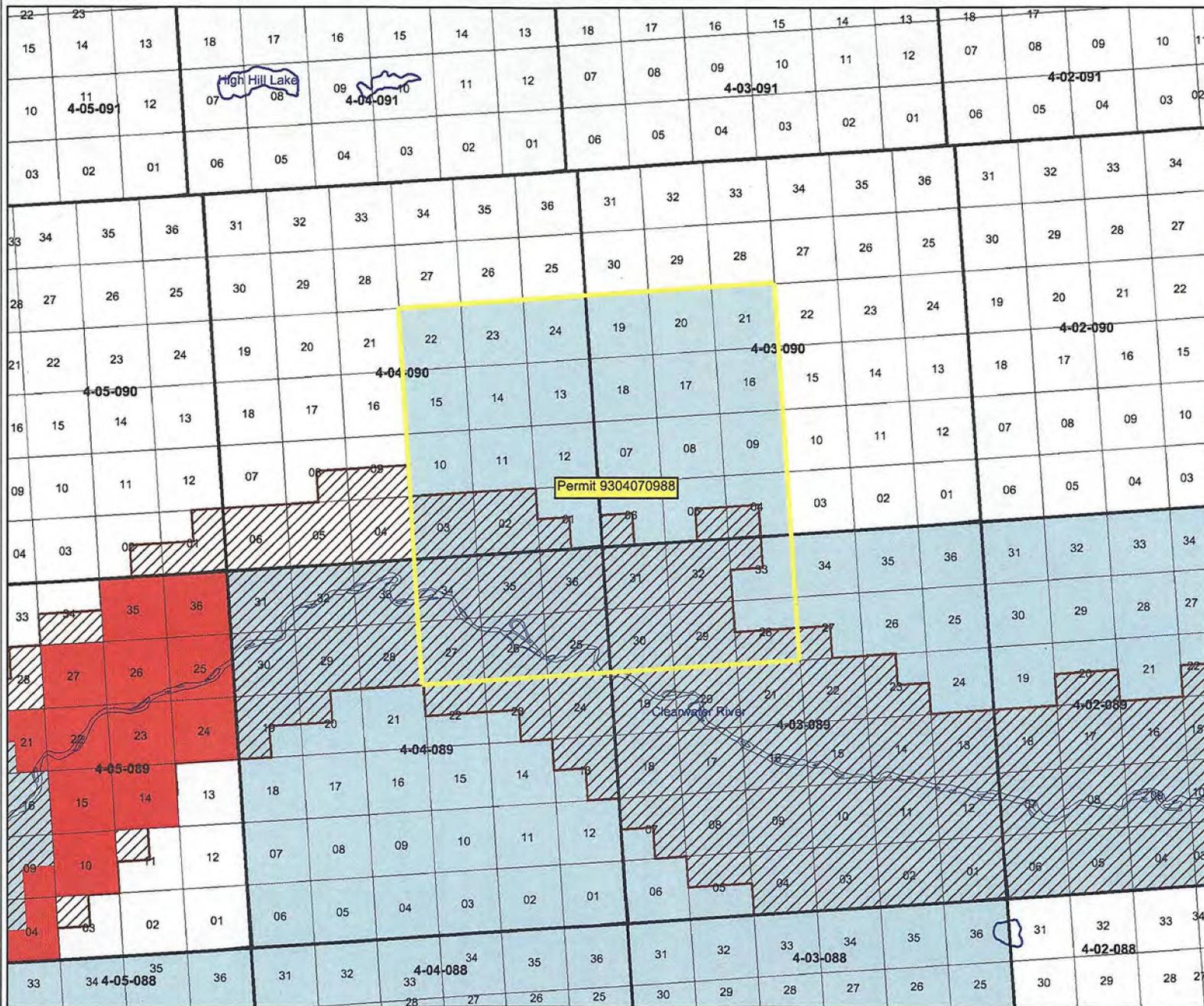
7 Conclusions

Surface sampling at the High Hill River project is difficult due to access problems which include rugged terrain, dense vegetation and no road access. Further work is required to better evaluate the project and a helicopter supported sampling program is recommended.

8 References

Dufresne MB, Eccles DR, Mckinstry B, Schmitt DR, Fenton MM, Pawlowicz JG and Edwards WAD, 1996. The Diamond Potential of Alberta. Alberta Geological Survey Bulletin No. 63, 1996.

9 Appendices (Part C)



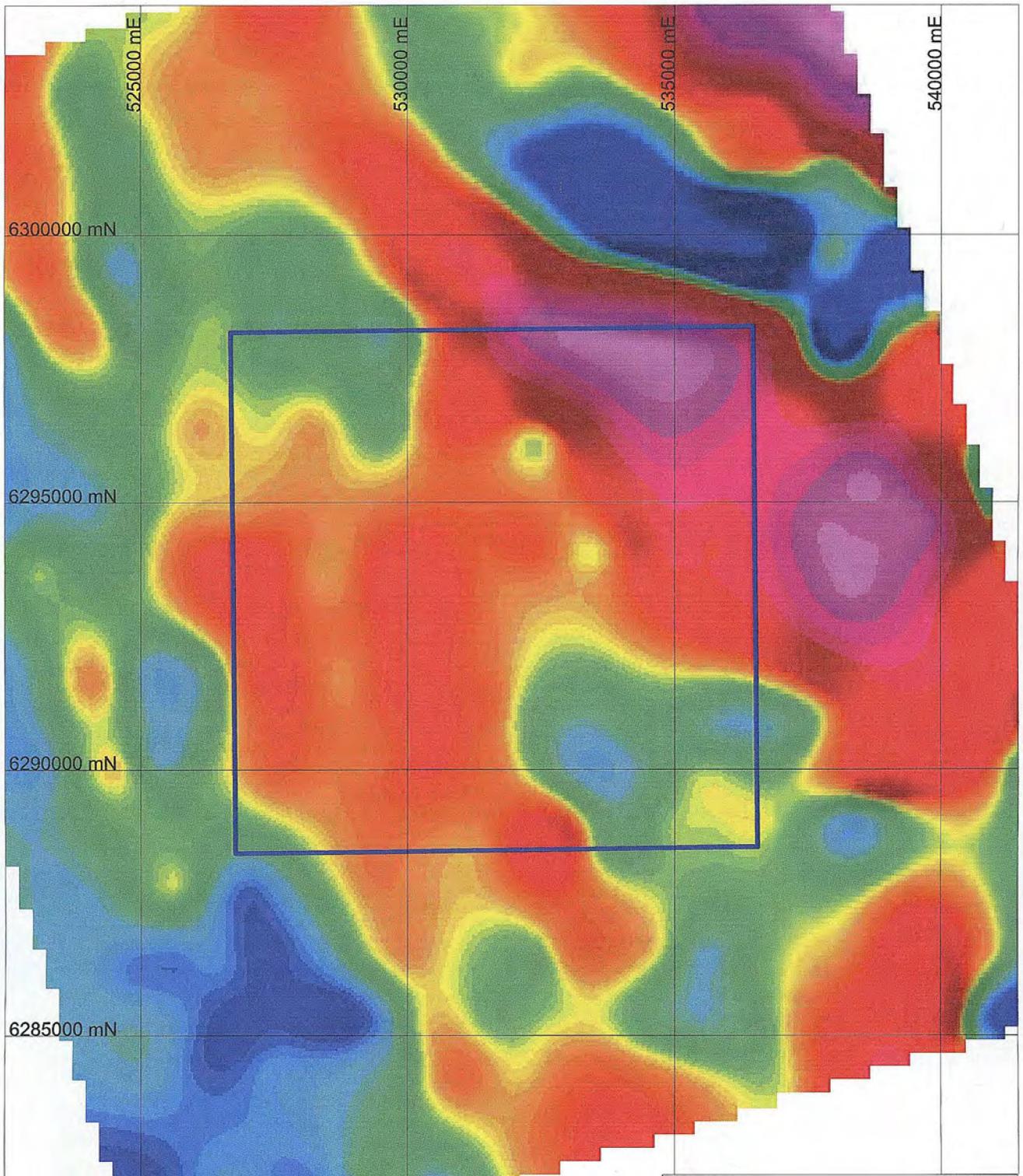
- Legend**
- Alberta Boundary
 - ↗ Meridian
 - ▭ Township
 - Section
 - ▭ Major River
 - ▭ Major Lake
 - ↗ Major Road
 - 30 Day Pending
 - ▨ Reserved/Withdrawn - Restrictions
 - ▨ No Surface Access - Restrictions
 - ▨ Subject To - Restrictions
 - ▨ Other - Restrictions
 - ▭ Municipality
 - ▭ Special Lease - 037
 - ▭ Phosphate Exploration - 069
 - ▭ Permit - 093
 - ▭ Other - 042
 - ▭ Natural Gas Storage - 036
 - ▭ Lease - 094
 - ▭ Application Special Lease - A37
 - ▭ Application Phosphate Exploration - A69
 - ▭ Application Permit - A93
 - ▭ Application Other - A42
 - ▭ Application Natural Gas Storage - A36
 - ▭ Application Lease - A94
 - ▭ Mineral Ownership Undetermined
 - ▭ Minerals Not Owned by the Alberta Crown
 - ▭ Parks and Protected Areas
 - ▭ National Park

October 4, 2006

Map center: 56°46' N, 110°28' W

DISCLAIMER: Information presented on this map originates from various sources and is for general use only. Please be advised that some information may have been added, amended and deleted since this map was created.

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6300000 mN

6295000 mN

6290000 mN

6285000 mN

6280000 mN

525000 mE

530000 mE

535000 mE

540000 mE

LEGEND

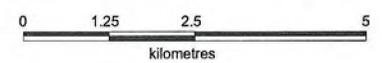
- Gravel Sample Location
- Permit

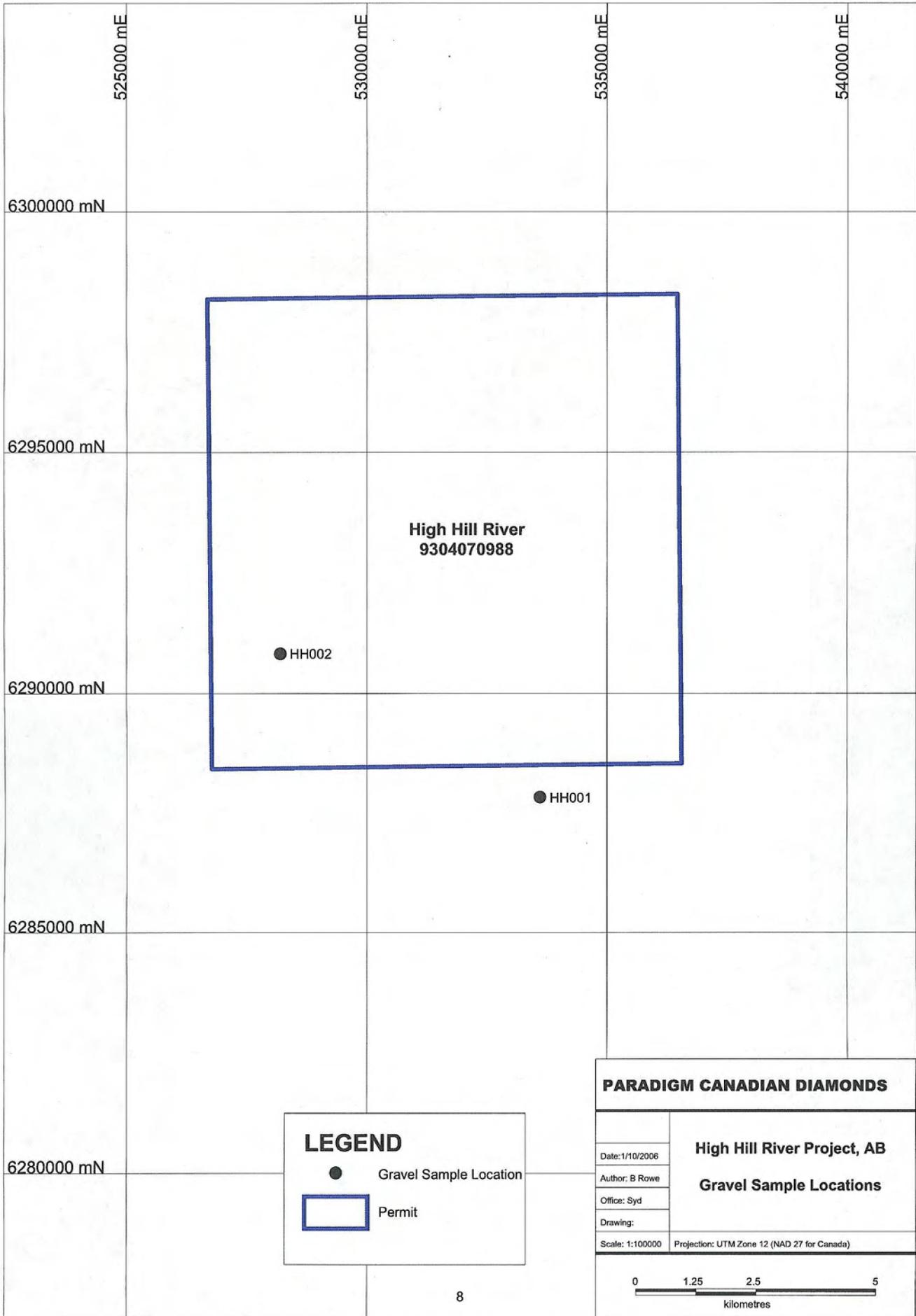
PARADIGM CANADIAN DIAMONDS

High Hill River Project, AB

Aeromagnetic Image (1st VD)

Date: 1/10/2006	
Author: B Rowe	
Office: Syd	
Drawing:	
Scale: 1:100000	Projection: UTM Zone 12 (NAD 27 for Canada)



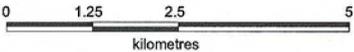


LEGEND

- Gravel Sample Location
- ▭ Permit

PARADIGM CANADIAN DIAMONDS

Date: 1/10/2006	High Hill River Project, AB Gravel Sample Locations
Author: B Rowe	
Office: Syd	
Drawing:	
Scale: 1:100000	Projection: UTM Zone 12 (NAD 27 for Canada)



Appendix 4 – Sample Data

SampleID	UTM Zone	Easting	Northing	Prospect	Type	Sample Weight kg	Observed Weight g	Positive/Negative	Pyrope	Picro	Chromite	Chrome Diopside
HH001	12	533608	6287844	High Hill	gravel	12.9	48.0	N				
HH002	12	528194	6290829	High Hill	gravel	12.2	88.0	N				

Appendix – Sample Processing Flow Sheet

