MAR 20090002: BUFFALO HEAD HILLS

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NTS 84B

ASSESSMENT REPORT FOR GRIZZLY DIAMOND LTD.'S BUFFALO HEAD HILLS PERMITS: 9303031149, 9303031153-54, 9304020492, 9304020495, 9304020497-98, 9304020500, 9304070991, 9304070993-95, 9304070997, 9304080907-11, 9305010837-38, 9305031116, 9305031118-21, 9306020524, 9306020527-528, 9306020534, 9306020545, 9306031168, 9306031170-71, 9306050839, 9306050842, 9306061007-1011, 9306061026-36, 9306061067, 9306061069, 9306100651-53, 9306110736-42, 9306110744, and 9307010942-45

Approximate Property Location
Latitude: 56°, 85.6' N
Longitude: 114°, 92.5' W
Near The Town of Red Earth Creek,
120 km North of Slave Lake, North-Central Alberta (NTS 84B)

Completed By :
APEX Geoscience Ltd.
Suite 200, 9797 – 45 Avenue
Edmonton, Alberta, Canada
T6E 5V8

Completed For:
Grizzly Diamonds Ltd.
Suite 220, 9797 – 45 Avenue
Edmonton, Alberta, Canada
T6E 5V8

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David Arsenault, B.Sc., Geol.I.T.

January 15, 2009
Edmonton, Alberta Canada

ASSESSMENT REPORT FOR GRIZZLY DIAMOND LTD.'S BUFFALO HEAD HILLS PERMITS: 9303031149, 9303031153-54, 9304020492, 9304020495, 9304020497-98, 9304020500, 9304070991, 9304070993-95, 9304070997, 9304080907-11, 9305010837-38, 9305031116, 9305031118-21, 9306020524, 9306020527-528, 9306020534, 9306020545, 9306031168, 9306031170-71, 9306050839, 9306050842, 9306061007-1011, 9306061026-36, 9306061067, 9306061069, 9306100651-53, 9306110736-42, 9306110744, and 9307010942-45

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APPENDICES

LIST OF ABBREVIATIONS

APEX - APEX Geoscience Ltd.
Grizzly – Grizzly Diamonds Ltd.
Ashton – Ashton Mining of Canada Inc.
AEC – Alberta Energy Company
PUG – Pure Gold Minerals Inc.
BHHJV – Buffalo Head Hills joint venture between Ashton Mining of Canada Inc., Alberta Energy Company (now EnCana Corporation and Pure Gold Minerals Inc.
DIM – Diamond Indicator Minerals
DIF – Diamond Inclusion Field
EM – Electromagnetic (Surveys)
GEOTEM – Fixed-wing airborne geophysical electromagnetic survey
UTEM – Ground Geophysical electromagnetic survey:
HRAM – High Resolution Airborne Magnetic (Surveys)
PRA – Peace River Arch
BHT – Buffalo Head Terrane (A basement terrane)
GSC – Geological Survey of Canada
AGS – Alberta Geological Survey
ATV – All Terrain Vehicle
NTS – National Topographic System

km – Kilometers
m – meters
ft – feet
kg – kilograms
lbs - pounds
ha - hectares
cpht – carats per hundred tonnes
asl – above sea level
°C – degrees celsius
Ga – Billion years
nT – NanoTesla (a unit of magnetic susceptibility)

ASSESSMENT REPORT FOR GRIZZLY DIAMOND LTD.'S BUFFALO HEAD HILLS PERMITS: 9303031149, 9303031153-54, 9304020492, 9304020495, 9304020497-98, 9304020500, 9304070991, 9304070993-95, 9304070997, 9304080907-11, 9305010837-38, 9305031116, 9305031118-21, 9306020524, 9306020527-528, 9306020534, 9306020545, 9306031168, 9306031170-71, 9306050839, 9306050842, 9306061007-1011, 9306061026-36, 9306061067, 9306061069, 9306100651-53, 9306110736-42, 9306110744, and 9307010942-45

Summary

APEX Geoscience Ltd. (APEX) was contracted in the summer of 2008 as consultants by Grizzly Diamonds Ltd. (Grizzly) to complete a ground geophysical and drilling program on their Smoky The Bear Property. Grizzly owns an undivided 100% interest in the Buffalo Head Hills properties, which comprise 68 mineral permits and 144,761 hectares (approximately 350,000 acres). The Grizzly Buffalo Head Hills claims are situated adjacent to the Buffalo Head Hills joint venture property (BHHJV), currently operated by Diamondex Resources Ltd. (Diamondex).

The regional setting in the Buffalo Head Hills area is considered favourable for the presence of diamondiferous kimberlites. The Grizzly Buffalo Head Hills property is underlain by Early Proterozoic to Archean basement of the Buffalo Head Craton. The local bedrock geology and the underlying Archean to Proterozoic crystalline basement, in association with deep seated, penetrative structures, such as the Peace River Arch, likely provided a favourable environment for the ascent of kimberlitic magmas in the Buffalo Head Hills. The regional cratonic setting is also considered favourable for the formation and preservation of diamonds in the upper mantle and their transport to surface in kimberlitic magma during periodic tectonic activity associated with movement along the Peace River Arch. This has been confirmed through the discovery of 38 kimberlite pipes, 26 of which are diamondiferous, in the Buffalo Head Hills area by the BHHJV. More recently, in 2008, three new diamondiferous kimberlites were discovered on the Smoky The Bear Claim Block by Grizzly.

Previous exploration on the Buffalo Head Hills properties by Grizzly includes indicator mineral sampling, numerous ground geophysical surveys, HRAM airborne surveys and drilling. During the winter of 2007-2008, 31 ground magnetics surveys were completed on the Smoky the Bear property over anomalies chosen from a previously flown airborne magnetics survey. In spring 2008 follow-up of anomalous results from the ground geophysical program through drilling led to the discovery of 2 new kimberlites on the property. The first new kimberlites discovered in approximately five years and the first kimberlites discovered by a company outside of the BHHJV in the Buffalo Head Hills area. Kimberlite BE-01 yielded 2 microdiamonds from a total of 265.35 kg of core and kimberlite BE-02 yielded 54 microdiamonds from a total of 56.6 kg of core. A sample collected from the till at the bottom of drillhole SMB08-01 yielded 1 pyrope garnet, 2 chrome diopsides, 107 olivines and 2 picroilmenites perhaps suggesting that the drill hole was about to enter a kimberlite upon exiting the overburden. Kimberlite BE-01 (drillhole SMB08-02) yielded 105 pyrope garnets, 113 chrome diopsides, 102

olivines and 182 chromites. Kimberlite BE-02 (drillhole SMB08-03) yielded 1 pyrope garnet, 100 olivines and 28 chromites.

This report details exploration completed during the summer and autumn of 2008 on the Smoky The Bear property. Exploration during the summer and autumn of 2008 conducted by APEX Geoscience Ltd. ("APEX") included a ground geophysical program, consisting of line cutting, ground magnetometer surveys, and supervision of a ground gravity survey, and a drilling program. A total of 7 ground magnetometer survey grids and one gravity survey grid were completed. The follow-up drill program consisted of 5 holes totalling 965.5m: 2 holes targeted the BE-02 kimberlite and 3 holes targeted additional high priority anomalies in the vicinity of BE-02 identified from the ground geophysical surveys. Kimberlite BE-02 was intersected by 2 drill holes resulting in the recovery of 518.55kg of kimberlite for caustic fusion. Caustic fusion analysis returned 316 diamonds including 5 macrodiamonds. Additionally, one of the 3 drill holes targeting the other anomalies intersected a new kimberlite: BE-03. A total of 365.35kg of kimberlite was collected for caustic fusion which returned 218 diamonds including 5 macrodiamonds. The two remaining holes did not intersect kimberlite however the presence of kimberlite cannot be conclusively excluded.

Although diamond exploration on Grizzly's Buffalo Head Hills properties is still in the early stages, the potential for discovery of further diamondiferous kimberlites is considered high based on the regional geological setting in conjunction with the positive results of exploration conducted to date. This was reinforced by the summer and autumn 2008 program, which culminated in the discovery of an additional new diamondiferous kimberlite on Grizzly's Smoky The Bear Claim Block. During the summer and autumn 2008 exploration season Grizzly spent a total of CDN$585,220.64 (not including GST) on exploration on the Smoky the Bear property.

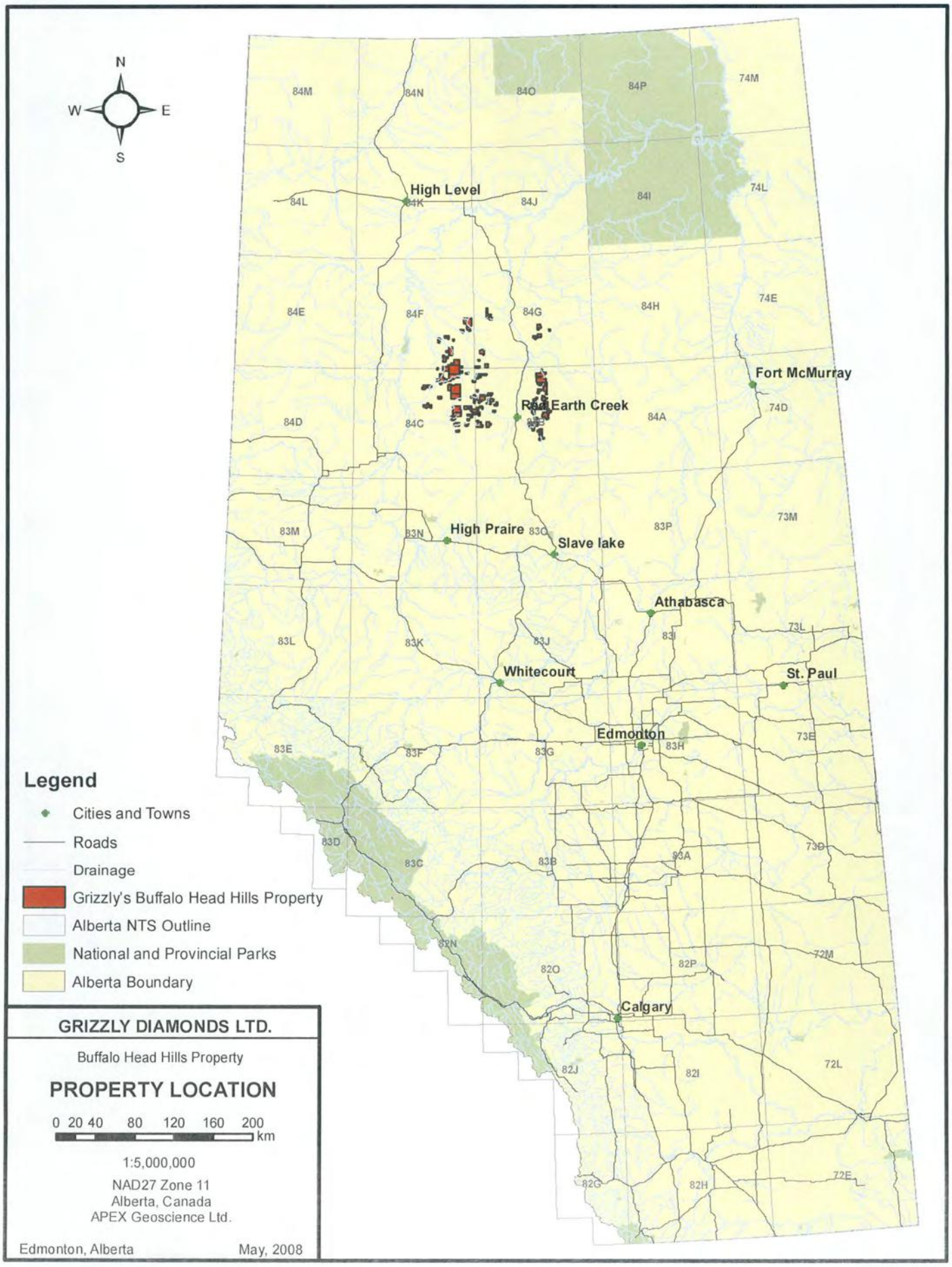
INTRODUCTION AND TERMS OF REFERENCE

APEX Geoscience Ltd. (APEX) was retained during 2008 as consultants by Grizzly Diamonds Ltd. (Grizzly) to continue exploration and supervise drilling on its Smoky The Bear Property, located in the Buffalo Head Hills region of northern Alberta (Figure 1). The summer and autumn 2008 drilling and ground geophysics that was conducted was based on recommendations from the in the 2005, 2006, 2007 and 2008 assessment reports filed for the Smoky The Bear, Grand Cub Aidan and Preston Upon wolverine Claim Blocks (Dufresne, 2006; Dufresne *et al.*, 2006; Dufresne, 2007; and Dufresne and Carey, 2007a and b; Dufresne, 2008). Based on favourable diamond recovery from samples of the BE-02 kimberlite, a follow up geophysical and drill program was planned for the summer and autumn of 2008. During the summer of 2008, APEX personnel, on behalf of Grizzly, completed 7 ground magnetometer geophysical surveys on the Smoky The Bear Claim Blocks. In addition a gravity survey was completed over the location of BE-02, with the aim of better defining the target and to search for additional targets in the immediate vicinity of BE-02. In September and October of 2008, APEX conducted a 5 hole drill program in which two holes targeted BE-02 and three holes targeted new magnetic and/or gravity anomalies. The autumn 2008 drilling campaign resulted in the discovery of the diamondiferous BE-03 kimberlite.

This report summarizes the summer and autumn 2008 exploration performed by APEX on behalf of Grizzly on the Smoky the Bear Property. Mr. M.B. Dufresne, M.Sc., P.Geol., a Qualified Person, has visited all the Buffalo Head Hills Claim Blocks on a number of occasions while performing exploration and research related work on behalf of Grizzly and also the Alberta Geological Survey. Grizzly spent a total of CDN $585,220.64 (not including GST) on exploration on their Smoky The Bear Property during the summer and autumn 2008 exploration programs which are the subject of this report (Appendix 1).

DISCLAIMER

The author, in writing this report, used sources of information as listed in the references. The report written by Mr. M. Dufresne, M.Sc., P.Geol., a Qualified Person, is a compilation of proprietary and publicly available information as well as information obtained during a number of property visits. The government reports listed in the references were prepared by a person or persons holding post secondary geology, or related university degree(s). For those reports, which were prepared prior to the implementation of the standards relating to National Instrument 43-101, the information is assumed to be accurate based on the property visits and data review and exploration conducted by the author, however they are not the basis for this report. The most recent exploration has resulted in the discovery of a new diamondiferous kimberlite, BE-03, in addition to the two diamondiferous kimberlites that were discovered during the winter 2008 drill program. As a result, Grizzly's Buffalo Head Hills property area is considered an intermediate stage exploration project.


N
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84L
84K
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84I
74L
High Level
84E
84F
84G
84H
74E
Fort McMurray
Red Earth Creek
84D
84C
84A
74D
83M
83N
High Praire
83O
Slave lake
83P
73M
Athabasca
83L
83K
83J
83I
73L
Whitecourt
St. Paul
Edmonton
83E
83F
83G
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83D
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82N
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82P
72M
Calgary
82J
82I
72L
82G
82H
72E
Legend
Cities and Towns
Roads
Drainage
Grizzly's Buffalo Head Hills Property
Alberta NTS Outline
National and Provincial Parks
Alberta Boundary
GRIZZLY DIAMONDS LTD.
Buffalo Head Hills Property
PROPERTY LOCATION
0 20 40 80 120 160 200
km
1:5,000,000
NAD27 Zone 11
Alberta, Canada
APEX Geoscience Ltd.
Edmonton, Alberta
May, 2008

FIGURE 1

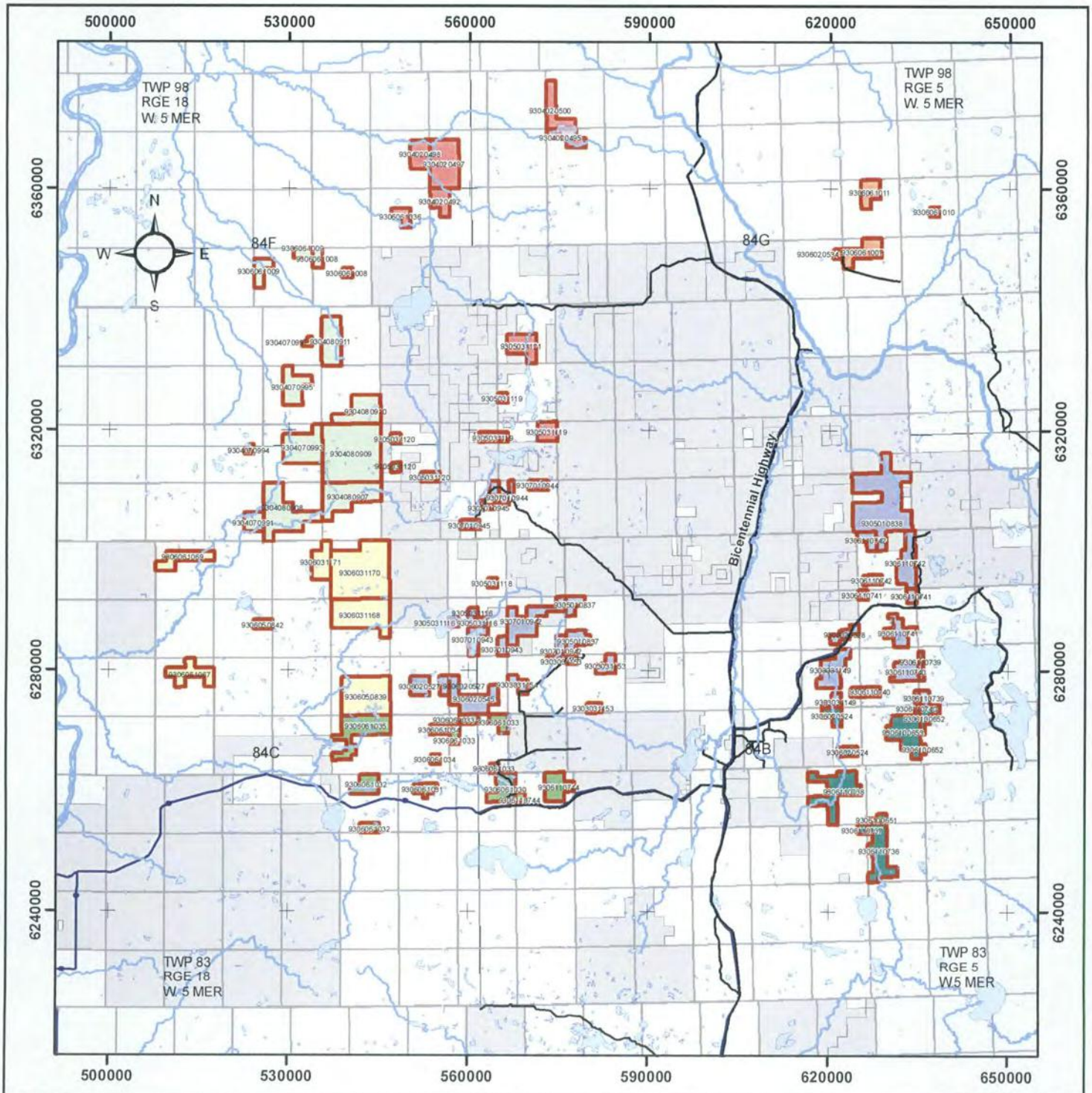
PROPERTY DESCRIPTION AND LOCATION

Grizzly Diamonds Ltd.'s Buffalo Head Hills diamond Property is comprised of the Grand Cub Aidan, White Bear, Smoky The Bear, Preston upon Wolverine, Bearpaw, Kodiak and Grand Cub Parker Claim Blocks. The claims are all located in the Buffalo Head Hills west and north of the town of Red Earth Creek, approximately 120 km (75 miles) north of the town of Slave Lake and 330 km northwest of Edmonton, in north-central Alberta (Figure 1). The metallic mineral permits roughly cover all, or portions of Townships 83 and 84, Ranges 14 and 15; Township 85, Ranges 6-7; Township 86, Ranges 6-7, 12-15; Township 87, Ranges 5-7 and 13-15; Township 88, Ranges 5-7, 11-15 and18; Township 89, Ranges 6-8, 11-13, 14-15; Township 90, Ranges 6, 13, 15-16, and 18; Township 91, Ranges 6, 12-13 and 15-17; Township 92, Ranges 12-17; Township 93, Ranges 12 and 15-17; Township 94, Ranges 12 and 15-17, Township 95, Ranges 6-7, 12 and 15-16; Township 96, Ranges 5-6 and 13-14; Townships 97 and, Ranges 11 and 13-14 and Townships 98, Range 11 west of the 5th meridian (Figure 2).

Grizzly's Buffalo Head Hills diamond property encompasses 68 metallic mineral permits totaling approximately 144,761 hectares (approximately 350,000 acres). The properties are situated adjacent to the Buffalo Head Hills joint venture property (BHHJV), a joint venture comprised of Diamondex Resources Ltd. (Diamondex), Shore Gold Inc. (Shore Gold), Encana Corporation (Encana) and Pure Diamonds Exploration Inc. (Pure Diamonds), in which Diamondex is the current operator of the project. The properties are located within 1:250,000 scale National Topographic System (NTS) map sheets 84B, 84C, 84F and 84G (Jackpine Lake, Peerless Lake, Peace River, Bison Lake and Wadlin Lake Map Sheets) and, more specifically, 1:50,000 scale NTS map sheets 84B/10,11,12, 13, 15; 84C/9,10,15, 16; 84F/1,2,7,8,9,12; and 84G/4, 5, 6. A list of legal descriptions for the Claim Blocks is provided in Table 1. Copies of the mineral permit agreements and the land titles search are included in Appendix 2.

The mineral permits are currently held in the name of either Grizzly Diamonds Ltd. of Suite 220, 9797 – 45th Avenue, Edmonton, Alberta, Grizzly Gold Inc. of Comp 2 Site 17, Peers, Alberta or APEX Geoscience Ltd. of Suite 200, 9797 – 45th Avenue, Edmonton, Alberta (Table 1). The mineral permits held by APEX Geoscience Ltd. were staked in trust on behalf of Grizzly Diamonds Ltd. APEX retains no interest in these mineral permits. Based upon a property title search, the mineral permits appear to be free of any encumbrances and are 100% owned by Grizzly Gold Inc., Grizzly Diamonds Ltd. and APEX Geoscience Ltd. with no option and/or royalty agreements that the author is aware of in effect. This report is filed on 5 of the Smoky the Bear Metallic Mineral Permits 9305010838 and 9306110739-42 totaling 17,280 hectares.

Alberta Mining regulations grant metallic mineral permits to the permittee for 10-year terms during which at any time after the initial two-year term the mineral permit may be converted into a lease. Leases are granted for 15-year terms and may be renewed. A



Legend
Grizzly Diamonds Ltd.
Claim Blocks

- Bearpaw
- Grand Cub Aidan
- Grand Cub Parker
- Kodiak
- Preston Upon Wolverine
- Smokey the Bear
- White Bear
- AB Permits - Other Owners
- Township & Range Outline
- Waterbodies
- Drainage
- Roads

Grizzly Diamonds Ltd.

Buffalo Head Hills Property

Mineral Permits

0 5 10 20 30 40 Kilometers

1:900,000

NAD 27 Zone 11

APEX Geoscience Ltd.

Edmonton, Alberta October, 2009

FIGURE 2

TABLE 1: LEGAL PERMIT DESCRIPTIONS*

Permit Number*	Record Date*	Term Period*	Legal Description	Permit Holder*	Area (Ha)*
White Bear Claim Block					
9306031168	30-Mar-06	10 Years	**5-15-089:** 13; 19-36	Grizzly Diamonds Ltd.	**4864**
9306031170	30-Mar-06	10 Years	**5-15-090:** 1-30; 34-36	Grizzly Diamonds Ltd.	**8448**
9306031171	30-Mar-06	10 Years	**5-16-090:** 13; 14; 23-26;36	Grizzly Diamonds Ltd.	**1792**
9306050839	12-Jan-04	10 Years	**5-15-088:** 1-5; 08-17; 20-24	Grizzly Diamonds Ltd.	**5120**
9306050842	16-May-06	10 Years	**5-17-089:** 23-24	Grizzly Diamonds Ltd.	**512**
9306061067	29-Jun-06	10 Years	**5-18-088:** 21;24-29;34	Grizzly Diamonds Ltd.	**2048**
9306061069	29-Jun-06	10 Years	**5-18-090:** 19;20;25-29	Grizzly Diamonds Ltd.	**1792**
				Claim Block Area 24,576 ha	
Smoky The Bear Claim Block					
9303031149	4-Mar-03	10 Years	**5-07-088:** 3;4S;10S;12;15;16;17E;21;22;26W;27;28;34E;35	Grizzly Gold Inc.	**2944**
9303031153	4-Mar-03	10 Years	**5-11-088:** 3W;4;26;27;31;35	Grizzly Gold Inc.	**1408**
9303031154	4-Mar-03	10 Years	**5-12-088:** 17;19;20S;35N;36N	Grizzly Gold Inc.	**896**
9305010837	19-Jan-05	10 Years	**5-11-089:** 6-8;9W;17S;18S;30-32	Grizzly Gold Inc.	**1920**
9305010838	19-Jan-05	10 Years	**5-06-090:** 28,33 **5-06-091:** 1-12,14-18,22,23,26-36 **5-06-92:** 3,10	Grizzly Gold Inc.	**8704**
9305031116	17-Mar-05	10 Years	**5-13-089:** 19;22; 28	Grizzly Gold Inc.	**768**
9305031118	17-Mar-05	10 Years	**5-13-090:** 11	Grizzly Gold Inc.	**256**
9306020527	7-Feb-06	10 Years	**5-14-088:** 13;15;16;21;22;24	Grizzly Diamonds Ltd.	**1536**
9306020528	7-Feb-06	10 Years	**5-07-089:** 3N;10S;11;12N;13S	Grizzly Diamonds Ltd.	**768**
9306020545	21-Feb-06	10 Years	**5-13-088:** 3-5;7-11;14;18;19	Grizzly Diamonds Ltd.	**2816**
9306110739	7-Nov-06	10 Years	**5-05-088:** 6;7S;18NW;19W;30W;31SW	Grizzly Diamonds Ltd.	**768**
9306110740	7-Nov-06	10 Years	**5-06-088:** 1E;7;8;12SE;13N;14N;15N;22E;23;24;25S;26S;27SE	Grizzly Diamonds Ltd.	**2048**
9306110741	7-Nov-06	10 Years	**5-06-089:** 2;3E;9E;10;11;12N;14W;15E;22S;25N;31;36	Grizzly Diamonds Ltd.	**2176**
9306110742	7-Nov-06	10 Years	**5-06-090:** 1;2N;4NW;5N;6NE;7SE;8S;9SW;11-14;23E;24;25;29;31;32;36	Grizzly Diamonds Ltd.	**3584**
9307010942	25-Jan-07	10 Years	**5-12-089:** 1;7;12;16-20;21;25N;26N;27;28;30;36	Grizzly Diamonds Ltd.	**3584**

9307010943	25-Jan-07	10 Years	**5-13-089**: 1;4;9;12;15;16	Grizzly Diamonds Ltd.	**1536**
9307010944	25-Jan-07	10 Years	**5-12-091:** 19N;29W;30S;32W;34;35	Grizzly Diamonds Ltd.	**1024**
9307010945	25-Jan-07	10 Years	**5-13-091:** 9 ;10;23S,NW;24S,NE;25N,SE;36	Grizzly Diamonds Ltd.	**1344**
				Claim Block Area 38,080 Ha	
Grand Cub Aidan Claim Block					
9304020492	26-Feb-04	10 Years	**5-13-096:** 20;29-32	APEX Geoscience Ltd	**1280**
9304020495	26-Feb-04	10 Years	**5-11-097:** 27; 28; 31-33	APEX Geoscience Ltd	**1280**
9304020497	26-Feb-04	10 Years	**5-13-097:** 4-9; 16-21; 28-30	APEX Geoscience Ltd	**3840**
9304020498	26-Feb-04	10 Years	**5-14-097:** 13; 14; 23-26	APEX Geoscience Ltd	**1536**
9304020500	26-Feb-04	10 Years	**5-11-098:** 4-7; 18; 19; 30	APEX Geoscience Ltd	**1792**
9305031119	17-Mar-05	10 Years	**5-12-092:** 25-30; 33-36 **5-12-093:** 18 **5-13-092:** 25-26	Grizzly Gold Inc.	**2048**
9305031121	17-Mar-05	10 Years	**5-12-094:** 3; 8-10; 15-17	Grizzly Gold Inc.	**1792**
9306061036	27-Jun-06	10 Years	**5-14-096:** 15;21;22	Grizzly Diamonds Ltd.	**768**
				Claim Block Area 14,336 Ha	
Preston Upon Wolverine Claim Block					
9304070991	8-Jul-04	10 Years	**5-17-091:** 11-14	APEX Geoscience Ltd	**1024**
9304070993	8-Jul-04	10 Years	**5-16-092:** 13-16;21-28;36	APEX Geoscience Ltd	**3328**
9304070994	8-Jul-04	10 Years	**5-17-092:** 23S,E	APEX Geoscience Ltd	**192**
9304070995	8-Jul-04	10 Years	**5-16-093:** 15;16;21;22-28;33	APEX Geoscience Ltd	**2048**
9304070997	8-Jul-04	10 Years	**5-16-094:** 14S,NE	APEX Geoscience Ltd	**192**
9304080907	24-Aug-04	10 Years	**5-15-091:** 18-21;25-36	Grizzly Gold Inc.	**4096**
9304080908	24-Aug-04	10 Years	**5-16-091:** 6-10;13-21;29-32	Grizzly Gold Inc.	**4608**
9304080909	24-Aug-04	10 Years	**5-15-092:** 1-36	Grizzly Gold Inc.	**9216**
9304080910	24-Aug-04	10 Years	**5-15-093:** 1-5;10-15	Grizzly Gold Inc.	**2816**
9304080911	24-Aug-04	10 Years	**5-15-094:** 5-8;17-20;29;30	Grizzly Gold Inc.	**2560**
9305031120	17-Mar-06	10 Years	**5-14-092:** 1;2; 8; 29	Grizzly Gold Inc.	**1024**
9306061008	8-Jun-06	10 Years	**5-15-095:** 22;30;31	Grizzly Diamonds Ltd.	**768**
9306061009	8-Jun-06	10 Years	**5-16-095:** 18;19;29;30;35;36	Grizzly Diamonds Ltd.	**1536**
				Claim Block Area 33,408 Ha	
Bearpaw Claim Block					
9306020524	7-Feb-06	10 Years	5-07-087: **10E;11;12W;27;33;34**	Grizzly Diamonds Ltd.	**1280**
9306100651	17-Oct-06	10 Years	5-06-086: **5;06S**	Grizzly Diamonds Ltd.	**384**

9306100652	17-Oct-06	10 Years	5-05-087: **7W;19W;30-32**	Grizzly Diamonds Ltd.	**1024**
9306100653	17-Oct-06	10 Years	5-06-087: **01N;11N;12-14;15N;16NE;21E;22-27;36E**	Grizzly Diamonds Ltd.	**3008**
9306110736	7-Nov-06	10 Years	5-06-085: **04N;5N;6;7E;8;9S;17;18E;19;20;29;30E;31;32**	Grizzly Diamonds Ltd.	**2816**
9306110737	7-Nov-06	10 Years	5-07-085: **36**	Grizzly Diamonds Ltd.	**256**
9306110738	7-Nov-06	10 Years	5-07-086: **4;9;16-18;21-23;24W;26-28;29N;30N;31S;34S;35S**	Grizzly Diamonds Ltd.	**3584**
					Bearpaw Claim Block Area 12,352 Ha
Kodiak Claim Block					
9306061026	27-Jun-06	10 Years	5-14-083: 3-10;15-18	Grizzly Diamonds Ltd.	**3072**
9306061027	27-Jun-06	10 Years	5-15-083: **01;2;12E;13E**	Grizzly Diamonds Ltd.	**768**
9306061028	27-Jun-06	10 Years	5-14-084: **03W;4-6;9E;10W**	Grizzly Diamonds Ltd.	**1152**
9306061029	27-Jun-06	10 Years	5-15-084: **01;11;12W;14S;15S**	Grizzly Diamonds Ltd.	**896**
9306061030	27-Jun-06	10 Years	**5-13-086:** 22-28; 35;36	Grizzly Diamonds Ltd.	**1792**
9306061031	27-Jun-06	10 Years	5-14-086: 2**1NE;27N,SW;28;29E**	Grizzly Diamonds Ltd.	**640**
9306061032	27-Jun-06	10 Years	5-15-086: 3;4;27-29;33;34	Grizzly Diamonds Ltd.	**1792**
9306061033	27-Jun-06	10 Years	5-13-087: **012;19;25;30;32;33;35;36**	Grizzly Diamonds Ltd.	**2048**
9306061034	27-Jun-06	10 Years	5-14-087: 11;25;26	Grizzly Diamonds Ltd.	**768**
9306061035	27-Jun-06	10 Years	**5-15-087:** 07N;8N;16W;17E,SWP; **5-15-087:** 18L1P **5-15-087:** 19N;20N,SE;25-29;32-36 (Portion(s) lying outside Woodland Cree Indian Reserve no. 227);	Grizzly Diamonds Ltd.	**3449**
9306110744	7-Nov-06	10 Years	5-12-086: 19;22;23;25-27;34;35	Grizzly Diamonds Ltd.	**2048**
					Kodiak Claim Block Area 18,425 Ha
Grand Cub Parker Claim Block					
9306020534	8-Feb-06	10 Years	5-07-095: **25**	Grizzly Diamonds Ltd.	**256**
9306061007	8-Jun-06	10 Years	5-06-095: **19;27-30;33;34**	Grizzly Diamonds Ltd.	**1792**
9306061010	8-Jun-06	10 Years	**5-05-096: 15**	Grizzly Diamonds Ltd.	**256**
9306061011	8-Jun-06	10 Years	**5-06-096: 21;27;28;33;34**	Grizzly Diamonds Ltd.	**1280**
					Grand Cub Parker Claim Block Area 3,584 Ha
Total Permits 68					**Total Claim Blocks Area 144,761 ha**

*Based upon a land titles search October 16, 2009**; Grizzly Gold Inc., is a private company controlled by Mr. B. Testo, president of Grizzly Diamonds Ltd.

metallic mineral permit gives Grizzly the exclusive right to explore for and develop economic deposits of minerals, including diamonds, within the boundaries of the permit. The exclusive right to explore is subject to ALBERTA REGULATION 66/93 of the Alberta Mines and Minerals Act and the contained Metallic and Industrial Minerals Regulations within the act. The Standard Terms and Conditions for the permits are described in detail on Alberta Energy's website:

http://www.qp.gov.ab.ca/documents/Regs/2005_145.cfm

A permit holder shall spend or cause to be spent with respect to the location of his mineral permit on assessment work an amount equal to $5 for each hectare in the location during the first two year period; an amount equal to $10 per hectare for each of the second and third two year periods; and an amount equal to $15 per hectare for each of the fourth and fifth two year periods. Mineral permits may be grouped and excess expenditures may be carried into the next two year period.

In addition to the financial commitment, a metallic mineral permit holder is required to file an assessment report that documents all of the work conducted as well as the results of the work to Alberta Energy. The assessment report must be filed within 90 days after the record date after each two year period.

Accessibility, Climate and Local Resources

The Smoky The Bear Property may be accessed via Provincial Highways 88 and 686, all weather and dry weather gravel roads, cart trails and seismic lines. Most portions of the mineral permit areas may be accessed by four-wheel drive vehicles or all terrain vehicles (ATV's) during the summer and winter months. Accommodation, food, fuel, and supplies are best obtained in the towns of Red Earth Creek, Peace River and Slave Lake.

The Smoky The Bear Property is situated within the Eastern Alberta Plains along the southern edge of the Buffalo Head Hills Upland. Relief generally comprises rolling hills and undulating plains. Elevation in the region varies from 450 m to 825 m (1,475 ft to 2,700 ft) above sea level (ASL). Major topographic features in the region include Cadotte, Lubicon, Loon and Peerless lakes, as well as Red Earth Creek and the Loon and Lubicon rivers. In addition to the numerous small lakes and ponds, much of the properties are covered by swamps, marshes and fens. A boreal forest containing mainly spruce and jack pine covers the property. Annual temperatures range from -40°C in January to 25°C in July.

HISTORY: PREVIOUS EXPLORATION

Previous Exploration Buffalo Head Hills Region

Historical exploration in the Buffalo Head Hills region focused primarily on the search for hydrocarbon and aggregate deposits and the determination of hydro geological and geothermal regimes (Hackbarth and Nastasa, 1979; Mandryk and Richardson, 1988; Bachu *et al.*, 1993; Edwards *et al.*, 1994). Only recently has the focus of exploration been redirected towards diamonds (Dufresne *et al.*, 1996).

The Buffalo Head Hills region is well known for its wealth of energy resources. The primary established reserves are 47,196.4 x 10^3 m^3 of oil in 12 conventional fields and 808 x 10^6 m^3 of gas in 3 fields (Eccles *et al.*, 2001). The geology of the Utikuma Lake Keg River Sandstone A and Red Earth Granite Wash A oil pools, the largest pools in the area, was outlined by Angus *et al.* (1989), who suggested that the pools are hosted by Granite Wash sandstone reservoirs. The Granite Wash Formation is composed of interbedded sandstone, siltstone, and shale, with minor amounts of dolostone and anhydrite (Greenwalt, 1956), and is thought to resemble a diachronous basal nonmarine to shallow marine clastic unit deposited farther from the Peace River Arch (Grayston *et al.*, 1964). The oil is trapped in Granite Wash sandstone reservoirs that pinch out against or drape over numerous paleotopographic features on the Precambrian surface and are sealed by the overlying Muskeg Formation anhydrite.

During 1950 to 1952, the GSC conducted aeromagnetic surveys of the Peerless Lake (NTS 84B) and Peace River (NTS 84C) map areas as part of a regional survey (Geological Survey of Canada, 1989a and b). The surveys were flown at an altitude of 305 m (1,000 ft) with flight lines spaced every 1 mile (1.6 km) and cross-lines every 15 miles (24 km). Closer examination of the 1:250,000 scale aeromagnetic map for the Peerless Lake area indicates a predominance of north to northwest trending basement magnetic highs. These highs parallel the trend of the boundaries of the Buffalo Head Terrane. Unfortunately, the flight lines from the 1950 to 1952 surveys are too widely spaced to be useful for locating possible kimberlites. In addition, the digital data derived from these surveys is the result of manual digitization of the old maps and is not the true raw data, which would be required as part of any search for kimberlites.

The first strong indication that the region could host diamondiferous kimberlites came during September 1995 from sampling conducted by the Alberta Geological Survey (AGS). A single sample from a road cut yielded 152 possible pyrope garnets from 25 kg (60 lbs) of dark greyish brown, silty clay till. The sample was collected from a site about 45 km (28 miles) northwest of Red Earth Creek and about 18 km (11 miles) north of Grizzly's Smoky the Bear property (Fenton and Pawlowicz, 1997). A total of 35 garnet grains were analyzed by electron microprobe; 27 were classified as Group 9 (G9) garnets according to Gurney's (1984) CaO versus Cr_2O_3 discrimination scatter plot. The same site was resampled in August 1996 and yielded 176 possible pyrope garnets, thus duplicating the high number of pyrope garnets initially recovered by the AGS (Pawlowicz *et al.*, 1998a). Based on later work conducted by the BHHJV (between

1996 to 2006 the joint venture was between Ashton Mining of Canada Inc. (Ashton), Alberta Energy Company (AEC, now Encana) and Pure Gold Minerals Inc. (Pure Gold), it was determined that this till site is less than one kilometre (0.6 miles) southwest of the K4 Kimberlite. A number of other government surface and auger drillhole samples have also yielded high counts of Diamond Indicator Minerals (DIMs) in the Buffalo Head Hills (Pawlowicz *et al.*, 1998a, b; Eccles *et al.*, 2001).

During 1995, EnCana (as Alberta Energy Company Ltd.) conducted a wide spaced (600 m or 2,000 ft line-spaced) high resolution, fixed-wing aeromagnetic (HRAM) survey in the search for oil and gas deposits over the Buffalo Head Hills region. The survey identified several shallow based, short-wavelength, high frequency magnetic anomalies that also corresponded to areas of very strong diffractions in seismic profiles (Rob Pryde, *personal communication*, 1998; Carlson *et al.*, 1999; Skelton and Bursey, 1999). As a result, during October 1996 the Buffalo Head Hills Joint Venture option agreement, the), was signed by Ashton, EnCana, and Pure Gold to investigate these anomalies, with Ashton as the operator.

In January 1997, Ashton performed a drill program to test 10 isolated geophysical anomalies in the Buffalo Head Hills area, approximately 35 to 45 km (21 to 27 miles) northwest of the town of Red Earth Creek. The initial 2 drill holes, located on anomalies identified as 7B and 7C, penetrated olivine-dominated fragmental and tuffaceous volcanic materials underlying glacial overburden at depths of 34.0 m (111.5 ft) and 36.6 m (120 ft), respectively. The rock types were interpreted by Ashton to represent kimberlite pipes (diatremes) that intruded from the basement through a thick column of overlying younger sedimentary rocks to the preglacial surface (Ashton Mining of Canada Inc., 1997a). Petrographic studies of core from K7B and K7C confirmed that the drill holes intersected kimberlites and yielded indicator minerals such as chromite, eclogitic garnet and peridotitic garnet (Ashton Mining of Canada Inc., 1997b). By March 1997, a total of 11 kimberlites within a 100 km^2 area (36 square miles) had been discovered, 10 by drilling and 1 by bulldozer, including kimberlites K2, K4A, K4B, K4C, K5A, K5B, K6, K7A, K7B, K7C, and K14 (Ashton Mining of Canada Inc., 1997c). The first microdiamond analyses of samples collected from kimberlites K2, K4, and K14 were released in April 1997 and confirmed that the pipes are diamondiferous; more significantly, 3 samples totaling 152.5 kg (387 lbs) from kimberlite K14 yielded significant numbers of diamonds, including 139 microdiamonds and 11 macrodiamonds (Ashton Mining of Canada Inc., 1997d).

Mineralogical analysis of indicator minerals from the Buffalo Head Hills kimberlites indicates that although they are not abundant, a significant number of favourable G10 pyrope garnets, some with exceptionally high chromium contents (up to 17.8 wt% Cr_2O_3), along with abundant diamond inclusion quality chromites, have been obtained from several of the kimberlites in the central and northern portion of the cluster (Carlson *et al.*, 1999; Hood and McCandless, 2003). In addition, a large number of the kimberlites yield euhedral to subhedral xenocrystic (mantle derived) garnet and clinopyroxene suggesting that resorption has been limited, therefore, the potential to

preserve any carried diamonds may be considered high (Carlson *et al.*, 1999). These results ushered in a new era in the history of resource development in Alberta.

More recent results indicate that the Buffalo Head Hills kimberlite field does contain kimberlites that have excellent potential to host a population of commercial-sized diamonds and are approaching the threshold of being economic. As an example, Ashton reported that a 22.8 tonne mini-bulk sample collected from the K252 Kimberlite, located approximately 21 km or 13 miles north of Grizzly's Smoky The Bear property, yielded a grade of 55 carats per hundred tonnes (cpht) (Ashton Mining of Canada Inc., 2001a). The mini-bulk sample also yielded a grade of 85.4 cpht from the deeper breccia phase of the pipe. If these grades and the quality of the stones persist through larger bulk sampling programs the K252 Kimberlite could be the first in a series of economic kimberlite pipes in the Buffalo Head Hills. As a result, Ashton and its joint venture partners approved further drilling of other kimberlite targets and the collection of a 200 to 400 tonne bulk sample from the K252 Kimberlite during 2002 (Ashton Mining of Canada Inc., 2001b).

Ashton's more recent work was expanded to focus on defining new EM and gravity targets and drilling of previously discovered targets including K252. During February 2002, a six to eight hole delineation drilling program was completed to test the geophysical interpretation and better define the size and shape of K252. Seven 12 cm diameter holes were drilled by reverse circulation along the outer edge of the geophysical anomaly to depths of approximately 200 metres. The drilling confirmed that K252 is irregular in shape and likely less than two hectares in size (Skelton et al., 2003).

During January and February 2003, the southern vent of target K6, discovered in 1997, was drilled to a depth of 251 meters. In addition, drill-testing of three electromagnetic anomalies resulted in the discovery of two new kimberlites, K296 and K300 (Ashton Mining of Canada Inc., 2003c; Skelton et al., 2003). Targets K300 and K296 were discovered at the intersections of several vertical holes, and exhibit electromagnetic anomalies with approximate surface dimensions of 300 m x 300 m, and 400m x 400m, respectively. Lab results of the samples indicated that K300 contained a total of 54 diamonds, while K296 had 125 diamonds within sample weights of 170.8 kilograms (kg) and 275.0 kg (Ashton Mining of Canada Inc., 2003a and 2003b).

In late 2003, Ashton managed a 10,500 line-km of airborne electromagnetic and magnetic survey over the Buffalo Head Hills region, which had not previously been investigated by this method, resulting in the discovery of several new electromagnetic anomalies (Ashton Mining of Canada Inc., 2004).

Then in 2004, airborne and ground geophysical gravity surveys were conducted by Ashton as follow up exploration over targets located by the 2003 magnetic and electromagnetic airborne surveys (Ashton Mining of Canada Inc., 2005).

Activities of 2005 focused on target drilling, based on results from airborne and ground geophysical targets found in 2003, 2004, and 2005 (Ashton Mining of Canada

Inc., 2005). The Ashton 2005 drill program did not result in kimberlite discovery, and geophysical signatures were attributed to compositional variations in the deep overburden.

To date, 38 kimberlites have been found by the BHHJV, 26 of which have been found to be diamondiferous.

Previous Exploration on Grizzly's Buffalo Head Hills Properties

Exploration by the BHHJV commenced on its main Buffalo Head Hills property in earnest during 1997 with the drilling of a number of kimberlites and a fixed wing HRAM survey (Skelton and Bursey, 1998). The survey was flown by Sanders Geophysics Ltd. (Sanders), using a Cessna 402B aircraft and a flight line spacing of 250 m (820 ft). Grizzly's entire Smoky The Bear property, which at the time represented the southernmost portion of the BHHJV's Buffalo Head Hills main property, was flown as part of the HRAM survey (Skelton and Bursey, 1998). Subsequently, high priority magnetic targets, believed to be kimberlite, were chosen by Ashton and were follow up surveyed with either 100 m (325 ft) line-spaced helicopter magnetic surveys or helicopter magnetic-electromagnetic (EM) surveys during the summer of 1998 (Skelton and Bursey, 1998 and 1999). The helicopter magnetic and magnetic-EM surveys were completed by High-Sense Geophysics Ltd. (High-Sense) and Geoterrex-Dighem (Dighem) at 52 blocks encompassing numerous magnetic anomalies across the Buffalo Head Hills main property. A total of 8 of the 52 High Sense or Dighem Helicopter Survey blocks encompassing about 31 magnetic targets, which generally range from 1 to 2 km (0.6 to 1.2 miles) in diameter, were found to exist on Grizzly's Smoky The Bear Claim Block. A few of the magnetic anomalies on these blocks within the Smoky The Bear Claim Block warranted further exploration. The remaining survey blocks are presently over lands retained by the BHHJV or lands that have been dropped by the joint venture and have been recently staked by competitors.

Exploration by the BHHJV commenced on its Loon Lake property during the spring of 1998. Between April 29 and June 12, 1998, a fixed-wing HRAM survey was flown by Sanders, using a Cessna 402B aircraft and a flight line spacing of 250 m (820 ft). In total, 24,650 line-kms (14,790 miles) of fixed-wing magnetic data were captured by Sanders for the joint venture's Loon Lake block. Part of this survey was conducted over Grizzly's current White Bear Claim Block as part of the Loon Lake block survey (Skelton and Bursey, 1999; Skelton and Willis, 2001). Subsequently, high priority magnetic targets, believed to be kimberlite, were chosen by Ashton and were follow up surveyed with 100 m (325 ft) line-spaced helicopter magnetic surveys by High-Sense during the summer of 1998 and 1999 (Skelton and Bursey, 1999; Skelton and Willis, 2001). A total of 13 blocks, encompassing 21 magnetic targets and 802.7 line-km (482 line-miles) of data were flown during the fall program. At least one of these survey blocks yielding one magnetic target presently exists within Grizzly's White Bear Claim Block. The remaining survey blocks are presently over lands retained by the BHHJV or

lands that have been dropped by the joint venture and have been recently staked by competitors.

Exploration on the BHHJV's Muddy River block commenced during the spring of 1998 with a fixed wing HRAM survey flown by Sanders (Skelton and Bursey, 1999; Skelton and Willis, 2001). A large portion of this survey was conducted over Grizzly's Grand Cub Aidan Claim Block. In addition, at least seven helicopter magnetic surveys and eight ground geophysical surveys were conducted on ground now part of Grizzly's Grand Cub Aidan Claim Block (Skelton and Bursey, 1999; Skelton and Willis, 2001). A number of these surveys have yielded geophysical anomalies that warranted follow-up exploration. Exploration was also conducted by Monopros Limited (Monopros) on behalf of Troymin Resources Ltd. (Troymin) over the southern portion (T96, R10-14) of Grizzly's Grand Cub Aidan Claim Block during 1997 to 1999 (Wood, 1999). A number of priority geophysical anomalies and diamond indicator mineral anomalies of interest were identified on and in the vicinity of the Grand Cub Aidan claims. Many of the anomalies were not followed up. Wood (1999) reports the presence of a large number of anomalous stream sediment samples with up to 137 and 66 kimberlite indicator minerals in two separate drainages along the southern boundary of the Grand Cub Aidan Claim Block. Although the bulk of the kimberlite indicator minerals recovered by Monopros were chromite and ilmenite with a few pyrope garnets, Wood (1999) suggests that the grains are likely locally derived due to thin overburden and the limited drainage basin that most of the indicator was recovered from. Wood (1999) also suggests that a number of geophysical anomalies detected on the property could be kimberlites and be responsible for the indicator minerals in the drainages. The vast majority of these targets were not ground surveyed or drill tested. See figures 5 and 6 in Dufresne and Kupsch (2004) for locations of geophysical surveys.

Exploration and drilling during 1997 to 1999 by the BHHJV resulted in the discovery of no less than 10 kimberlites, less than 15 km north of the northern boundary of Grizzly's Smoky The Bear Claim Block, and no less than 3 of those are within 5 km of the northern boundary (Skelton and Bursey, 1998 and 1999; Skelton and Willis, 2001). Confirmed kimberlites K1 and K160, discovered by the joint venture on their main Buffalo Head Hills block during 1997 and 1998, exist approximately 2.2 km (about 1.3 miles) and 1.6 km (1 mile) north of the central portion of the Smoky The Bear Claim Block. One suspected kimberlite, magnetic anomaly TQ108, exists on Grizzly's Smoky The Bear Claim Block in the southeast corner of the block (Skelton and Bursey, 1998 and 1999). The BHHJV attempted to drill magnetic anomaly TQ108, which has a signature almost identical to a number of the Buffalo Head Hills kimberlites and were unsuccessful in penetrating the overburden due to wet flowing sand. The drill hole reached a maximum depth of 91m before it was abandoned (Skelton and Bursey, 1999; Skelton and Willis, 2001).

The BHHJV has performed a number of diamond indicator mineral surveys for which data is available from assessment records (Skelton and Bursey, 1998 and 1999; Skelton and Willis 2001). In general, diamond indicator mineral data (picked minerals

only) are present in assessment records for areas covered formerly by the BHHJV's Loon Lake, Muddy River, Birch Mountain, Caribou Mountain, Athabasca, Rabbit Lake and Whitemud blocks. A number of the samples, some of which yielded indicator minerals, were collected on ground now part of Grizzly's Grand Cub Aidan and White Bear Claim Blocks. No indicator minerals results are reported for the BHHJV's main Buffalo Head Hills block in the assessment records, therefore no BHHJV data is available for Grizzly's Smoky The Bear Claim Block. The BHHJV collected approximately 11 samples from the White Bear Claim Block, 4 samples from the Grand Cub Aidan Claim Block and an unknown amount of samples from the Smoky The Bear Claim Block. At least five diamond indicator samples were collected from the BHHJV's Loon Lake block and are less than 10 km south of and down-ice of the Smoky The Bear Claim Block (Skelton and Bursey, 1998 and 1999; Skelton and Willis, 2001). In the available assessment reports, no mineral chemistry is available for the Ashton samples. However, recent papers by Carlson *et al.* (1999), Aulbach *et al.* (2003), Creighton and Eccles (2003), Davies *et al.* (2003) and Hood and McCandless (2003), indicate that the indicator mineral assemblage for the Buffalo Head Hills kimberlites is dominated by xenocrystic olivine with lesser amounts of pyrope garnet, chromite, eclogitic garnet, chromium diopside, titanian pyrope, picroilmenite and phlogopite. Carlson *et al.* (1999) and Hood and McCandless (2003) indicate that although Gurney G10 pyrope garnets and high chromium chromites, which are often associated with diamonds, are present in a number of kimberlites and regionally in the Buffalo Head Hills, to date, there is no direct association of these minerals in kimberlites with better diamond counts. In addition, Hood and McCandless (2003) indicate that some of the highly diamondiferous kimberlites such as K252 and K6 contain relatively few xenocrystic indicator minerals, while some kimberlite with abundant mantle xenocrysts such as K2 and K95 are only weakly diamondiferous. Carlson *et al.* (1999) and Hood and McCandless (2003) indicate that the northern cluster of kimberlites tend to be more diamondiferous and yield a number of pyrope garnets and chromites that yield very high concentrations of chromium, in the case of pyrope garnets from 16 to 18 weight percent (wt.%) Cr_2O_3. In addition, the northern cluster of kimberlites yields few titanian pyrope garnets and low concentrations of picroilmenite, and when picroilmenite is present, it usually contains low concentrations of niobium. In contrast, the southern cluster of kimberlites yield lower chromium pyrope garnets often with high concentrations of calcium, in some cases likely derived from wehrlite, high titanian pyrope garnets, chromites with lower overall chromium concentrations, picroilmenites with high concentrations of niobium and few if any eclogitic garnets (Carlson *et al.*, 1999; Hood and McCandless, 2003). Davies *et al.* (2003), indicate that inclusions in diamonds studied from the K10 and K14 kimberlites consist of roughly equal amounts of peridotitic and eclogitic suite of inclusions, with the peridotitic inclusions indicative of both harzburgite and lherzolite derivation. Davies *et al.* (2003) point out the presence of rare ferropericlase and majorite in some of the diamonds, which are generally indicative of ultradeep mineral assemblages and diamonds formed at depths greater than 400 km. Majoritic garnet was also recognised as an inclusion from a diamond from the K11 kimberlite (Banas *et al.*, 2007). Additionally, in the study of diamonds from K11, K91, and K252 Banas *et al.* (2007) found a high abundance of nitrogen free diamonds (i.e. Type II) and diamonds with highly aggregated nitrogen at low concentrations (Type IaB) corroborating that the

BHH kimberlites sampled an ultradeep diamond source. Eccles *et al.* (2003), suggest that the most highly diamondiferous Buffalo Hills kimberlites tend to be the more primitive kimberlites with the highest amount of olivine (indicated by overall bulk magnesium number) and the highest concentrations of chromium and nickel, in conjunction with the lowest concentrations of titanium, niobium, silicon and aluminum. See figures 7 and 8 in Dufresne and Kupsch (2004) for DIM sample locations and grain counts.

Based upon assessment records (Skelton and Bursey, 1998 and 1999; Skelton and Willis, 2001), and the author's knowledge of exploration costs in Alberta, approximately $1,655,000 was spent by the BHHJV on exploration for kimberlites on Grizzly's Grand Cub Aidan, White Bear and Smoky The Bear Claim Blocks. A large portion of this expenditure was incurred on the Smoky The Bear Claim Block ($1,297,500) with smaller expenditures on the White Bear ($133,500) and Grand Cub Aidan blocks ($224,000). These costs are based upon assuming an overall cost of $10 per line-km for fixed wing magnetic surveys, $10,000 per 1 km^2 helicopter or ground geophysics grid and about $1,000 per indicator mineral sample. Ground truthing of a number of prospective magnetic anomalies identified from Ashton's historic assessment reports (Skelton and Bursey, 1999; Skelton and Willis, 2001) indicates that further work was warranted and recommended by the joint venture, however, assessment requirements and a lack of adequate expenditures forced the BHHJV to drop large portions of the lands surrounding their main Buffalo Head Hills block.

Previous Exploration on behalf of Grizzly Diamonds Ltd.

APEX Geoscience Ltd. was contracted during early 2004 by Grizzly to compile all the available geological, geophysical and mineralogical data for three of the Buffalo Head Hills Claim Blocks (Grand Cub Aidan, White Bear and Smoky The Bear), in order to evaluate the potential of the Buffalo Head Hills property to host kimberlites and, therefore possibly diamonds. Based on the recommendations that resulted from the compilation and review, a program of fixed-wing airborne geophysics was initiated and completed over the White Bear Claim Block during April of that year (Dufresne and Kupsch, 2004)

From March to May 2004, APEX personnel reviewed and compiled the following data: (1) the detailed fixed-wing, helicopter and ground geophysical data from a number of BHHJV's assessment reports (Skelton and Bursey, 1998, 1999; Skelton and Willis, 2001; Willis and Skelton, 2002), (2) the 600m (2,000 ft) line spaced proprietary Utikuma magnetic data covering much of the Buffalo Head hills region, (3) all available public and proprietary diamond indicator mineral data for samples collected on and down ice of Grizzly's Buffalo Head Hills property and (4) all available public and proprietary petroleum, hydrogeological and other types of well data in order to construct a drift thickness picture for the Buffalo Head Hills region.

The review of publicly available geophysical data included detailed helicopter, fixed wing and ground based geophysical grids completed by Ashton on behalf of the BHHJV, as assessment work on what is now part of Grizzly's Buffalo Head Hills property (Figures 5 and 6 in Dufresne and Kupsch, 2004). The BHHJV's various surveys revealed at least 31 magnetic anomalies ranging from high to very low priority (Skelton and Bursey, 1998 and 1999). A single magnetic anomaly was identified with a helicopter magnetic survey on the White Bear Claim Block (Figure 6 in Dufresne and Kupsch, 2004). No follow up ground geophysical grids were completed on the block at that time, however a number of additional prospective magnetic anomalies were identified with subsequent White Bear magnetic surveys. The BHHJV completed at least seven helicopter magnetic surveys and eight ground geophysical surveys over ground now part of Grizzly's Grand Cub Aidan Claim Block (Skelton and Bursey, 1999; Skelton and Willis, 2001). Additionally Troymin and Monopros identified at least 22 priority 1 and 2 magnetic anomalies on the Bison Lake block townships that now represent the southernmost five townships of Grizzly's Grand Cub Aidan Claim Block (Wood, 1999). These anomalies are listed and shown on Figure 5 in Dufresne and Kupsch (2004). Anomaly TQ-108 in the southeast corner of Grizzly's Smoky The Bear property is almost an identical magnetic anomaly to two tier 1 strongly magnetic circular anomalies, LL-07 and LL-08. These are located on Ashton's Loon Lake Block, and both were drill tested and yielded kimberlite pipes. Drilling at TQ-108 during 1998 failed due to wet flowing sand at 91 metres, and did not penetrate the overburden. Further testing may require a water well drilling rig and employing significant lengths of casing in order to have success.

During March 2004, a high-resolution airborne magnetic (HRAM) survey was commissioned for Grizzly's White Bear Claim Block in order to satisfy assessment requirements and to identify potential targets for future fieldwork at the Property. The HRAM survey was conducted between April 5 and April 27, 2004 (Dufresne and Kupsch, 2004). The survey was conducted over all but one of the White Bear permits and included 8,364 line kilometres of survey data (Figures 9 and 10 in Dufresne and Kupsch, 2004). APEX reviewed the airborne magnetic data in May 2004 to identify high frequency, short wavelength magnetic anomalies that reflect small, shallow source magnetic anomalies potentially related to geological features such as kimberlites. A total of 23 priority 1 and 32 priority 2 magnetic anomalies were identified in the dataset and are prospective for kimberlites (Figures 9 and 10 in Dufresne and Kupsch, 2004). This large number of unexplained high priority magnetic anomalies required ground checking for man-made culture, and subsequent ground geophysical surveys in the absence of cultural interference.

From January 15 to March 8, 2005 APEX completed a field program on behalf of Grizzly on the Smoky The Bear Claim Block and a few adjoining mineral permits from the White Bear Claim Block. The program consisted of line-cutting, checking airborne geophysical anomalies and conducting ground geophysical surveys. The airborne anomalies were identified from the airborne fixed wing magnetic survey flown during the spring of 2004 by Grizzly and historic airborne magnetic and electromagnetic surveys flown by Ashton. A total of two ground magnetic surveys were completed over two

prospective anomalies on the White Bear Claim Block (WB-130 and WB-068). Exploration on the Smoky The Bear Claim Block consisted of five ground geophysical survey grids. Three magnetic survey grids were constructed over anomalies SMB-01c, SMB-01d, and TQ-108; and two electromagnetic survey grids over SMB-01a and SMB-01b.

The 2005 exploration on the Grand Cub Aidan property consisted of a HRAM survey, which identified 95 magnetic anomalies, from which 16 remained unexplained high priority targets for potential kimberlite. In the fall of 2005, prospecting on the Preston Upon Wolverine property was completed by APEX personnel, with a subsequent airborne GEOTEM 30 Hz TDEM electromagnetic and magnetic geophysical survey flown over the property from December 2005 to January 2006. The data gathered from the winter 2005-2006 GEOTEM survey was interpreted and 17 priority targets were identified from 100 responses. Recommendations were made in early 2006 to complete four ground survey grids over the high priority targets within the Preston Upon Wolverine Claim Block.

From January to March 2006 APEX completed a field program, on behalf of Grizzly, on the Smoky The Bear, Grand Cub Aidan, and Preston Upon Wolverine Claim Blocks. Two diamond drill holes on the Smoky The Bear property, totalling 160.8m, attempted to test the double lobed EM target SMB-01 (Figure 5 in Dufresne, 2007). Unfortunately, both holes were terminated in overburden due to difficult drilling conditions. Grand Cub Aidan exploration consisted of ground truthing and ground geophysical surveys over priority targets identified from the winter 2005 HRAM survey data (Figure 11 in Dufresne *et al.*, 2006). Exploration on the Preston Upon Wolverine Claim Block entailed ground TDEM survey grids over five targets generated from a GEOTEM survey in 2005 (Appendix 3, Dufresne, 2006).

In 2007, APEX managed the completion of a 25,000 line-km HRAM survey conducted by Firefly Aviation Inc. on the Smoky The Bear Claim Block. The survey commenced February 16 and should have been completed during early March, however, extreme weather and wind conditions hampered the survey resulting in more than 30 non production days during the survey as well as a number of production days that had to be repeated due to poor quality data. The survey was completed on April 17th, 2007. A preliminary inspection of the maps resulted in the identification of at least 104 potential kimberlite targets (Figures 7 to 14 in Dufresne and Carey, 2007b). Initial results from the ground truthing, ground geophysical surveys and subsequent drilling of the anomalies identified by the HRAM survey were reported in Dufresne, 2008. The continuation of the follow-up of the anomalies identified by the HRAM survey through ground truthing, ground geophysical surveys and subsequent drilling on the Smoky The Bear Property are the subject of this report and can be found in the Exploration section.

During the summer and fall of 2007 a total of 9 heavy mineral concentrate stream sediment samples were collected on both on the Grand Cub Aidan and Preston Upon Wolverine Properties. A total of 8 diamond indicator minerals were recovered from the 4 samples that were collected on the Grand Cub Aidan Property. This included 5 olivines,

2 chromites, and 1 chrome diopside. A total of 427 diamond indicator minerals were returned from the 5 samples that were collected on the Preston Upon Wolverine Property. This included 57 pyropes, 1 eclogitic garnet, 3 chrome diopsides, 275 olivines, 22 picroilmenites, and 69 chromites.

During the summer of 2007, APEX proceeded with ground checking and subsequent ground geophysics of anomalies that were identified from the airborne geophysical surveys flown in 2005 and 2006 by Grizzly as well as from historic airborne magnetic and EM surveys flown by the BHHJV. This resulted in 3 ground magnetic grids on the Grand Cub Aidan property.

From November 2007 to March 2008, APEX completed a ground geophysical program on behalf of Grizzly Diamonds on their Smoky The Bear, Grand Cub Aidan, and Preston Upon Wolverine Properties. Targets were picked from prospective anomalies from the 2004-2007 Grizzly airborne surveys and also from historic BHHJV airborne surveys. A total of 43 ground geophysical grids were completed including 31 grids on the Smoky The Bear, 2 grids on the Grand Cub Aidan and 10 grids on the Preston Upon Wolverine Properties.

In February 2008, a 42,000 line kilometre high resolution airborne magnetic (HRAM) survey over the Bearpaw, Kodiak, Preston Upon Wolverine, and Grand Cub Parker Claim Blocks. The Preston Upon Wolverine survey consisted of 12,096 line km and yielded 47 anomalies. The Kodiak survey consisted of 13,796 line km and yielded 78 anomalies. The Bearpaw survey consisted of 10,057 line km and yielded 50 anomalies. The Grand Pub Parker survey consisted of 6,117 km and yielded 26 anomalies.

During the months of January to March 2008, APEX conducted a 7 hole, 1177.18 metre drill program on behalf of Grizzly on both the Smoky The Bear and Grand Cub Aidan Properties. All holes were drilled at a 90 degree dip, using NQ2 drill rods and NW casing. This program resulted in the discovery of the BE-01 and BE-02 kimberlites on the Smoky The Bear property. Drillhole 08SMB02 intersected the BE-01 kimberlite at the overburden-bedrock contact at 124.21 metres depth and remained in kimberlite at the termination of the hole at 200.25 metres. The BE-01 kimberlite was described as crustal lithic breccia, sparsely macrocrystic kimberlite. A total of 2 microdiamonds were recovered from the caustic fusion analysis from 265.35 kilograms (Table 2). Drill hole SMB08-03 intersected the BE-02 kimberlite at the overburden-bedrock contact at 122.40 metres depth and remained in kimberlite until intersecting Cretaceous Colorado Group bedrock at 140.57 metres. The BE-02 kimberlite was described as macrocrystic-pyroclastic kimberlite which contains some extremely carbonated sections. A total of 54 microdiamonds were recovered through caustic fusion from 56.60 kilograms of core (Table 2).

Table 2: Caustic Fusion Diamond Results for Kimberlites BE-01 and BE-02 from Winter 2008 Drilling

ID	No. of Samples	Total Sample Weight (kg)	Total No. of Diamonds	No. of Diamonds per Sieve Size (mm square Mesh sieve)						
				0.075 mm	0.106 mm	0.150 mm	0.212 mm	0.300 mm	0.425 mm	0.600 mm
BE-01	37	265.35	2	1	1	0	0	0	0	0
BE-02	8	56.6	54	28	16	5	5	0	0	0

* From Grizzly Diamonds Ltd. Press Release May 6, 2008

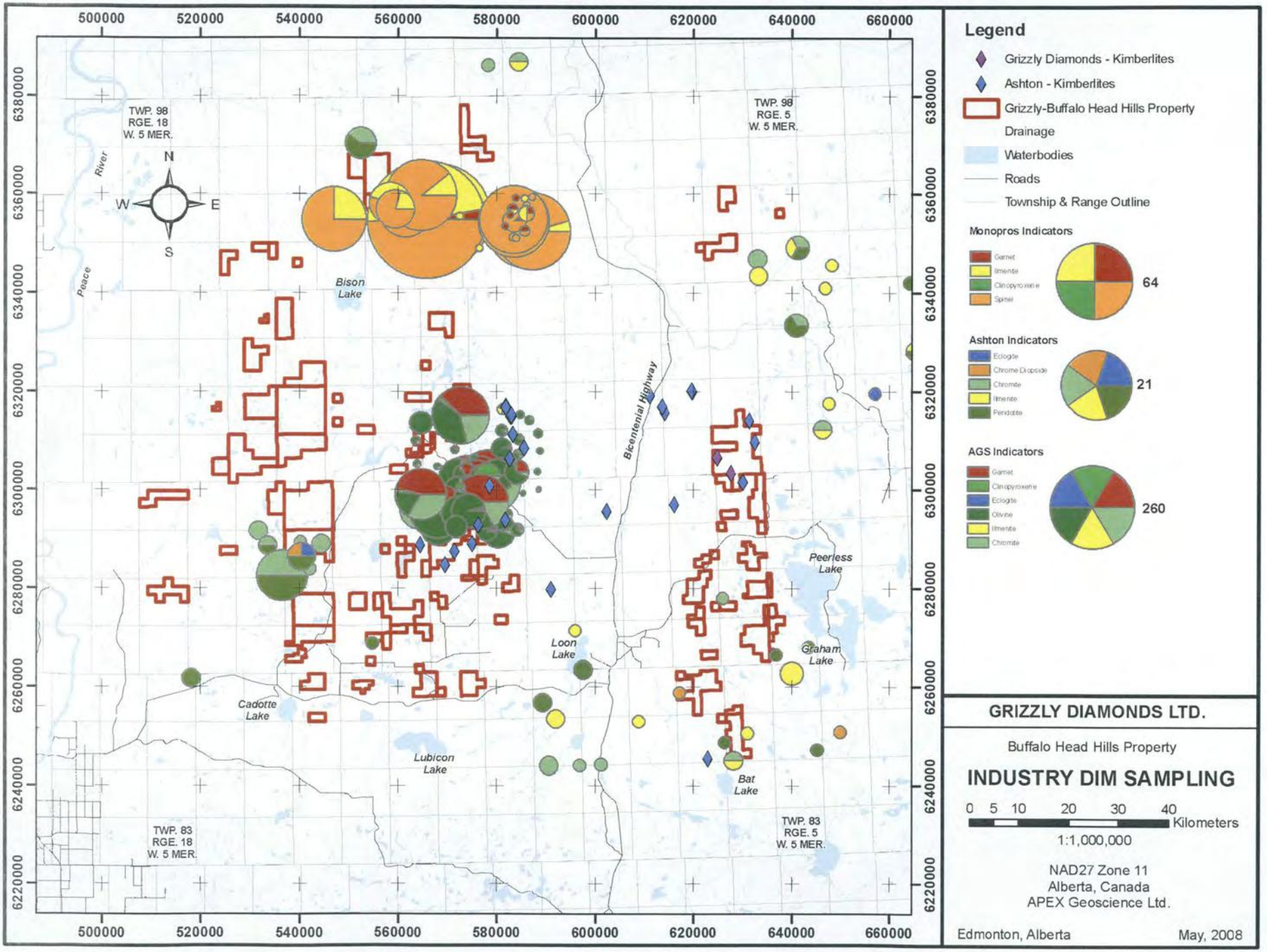
Prior Government and Industry Diamond Indicator Mineral and Other Scientific Surveys

Diamond indicator mineral studies in the search for kimberlites were first conducted in the region by the AGS in 1993 (Fenton *et al*, 1994; Dufresne *et al*., 1996). This initial survey and all of the early reconnaissance work prior to the discovery of the Buffalo Head Hills kimberlites are reviewed in Dufresne *et al.* (1996). The Buffalo Head Hills area yielded a few diamond indicator minerals within the "Wabasca River Trend", which was defined as a northerly belt of sites yielding anomalous diamond indicator minerals centred around the Wabasca and Loon rivers in the vicinity of Red Earth Creek (Dufresne *et al*., 1996). The first indication that the region may host diamondiferous kimberlites came from sampling conducted by the AGS during September 1995, when a single till sample from a road cut in close proximity to the BHHJV's K4 Kimberlite yielded 152 possible pyrope garnets (Fenton and Pawlowicz, 1997). A number of surveys have been conducted in the region since the initial 1993 survey (Fenton and Pawlowicz, 1998a, b; Pawlowicz *et al*., 1998a, b; Pawlowicz and Fenton, 2001), with varying degrees of success. Surface sampling was conducted by the AGS on the Peerless Lake and Wadline Lake Map Sheets during 1998. This resulted in the collection of 37 samples from the Grand Cub Aidan and Smoky the Bear Claim Blocks which were sent for diamond indicator mineral analysis (Eccles et al., 2001 and Friske et al., 2003). In addition, more than 60 samples were collected by Eccles et al. (2001) and Friske et al. (2003) within 20 km (12 miles) and down ice (south to southwest) of these two Claim Blocks. A multidisciplinary study conducted by Eccles et al. (2001) and Friske et al. (2003) on the Peerless Lake, Peace River, Bison Lake and Wadlin Lake Map areas (NTS84B, 84C, 84F and 84G) included the collection of 338 samples. This resulted in the discovery of a number of diamond indicator mineral anomalies that potentially indicate the presence of a number of undiscovered kimberlites in the region. More recent AGS sampling in 2004 in the Buffalo Head Hills has resulted in 23 samples taken from Grizzly's properties: 9 samples on Grand Cub Aidan, 5 on Preston Upon Wolverine, 5 on White Bear and 4 on Smoky The Bear (Figure 3; McCurdy *et al*, 2006). Additional sampling in 2005 in the Jackpine Lake region (NTS 84C-15/16 and 84F-1/2) resulted in 11 samples on the Grizzly Preston Upon Wolverine Claim Block, several of which were highly anomalous for DIMs (Figure 3; Prior *et al*., 2006). Pick diamond indicator mineral information from the samples in the Jackpine lake area show a distinctly different mineralogy from the known kimberlites (Prior *et al.*, 2006).

Assessment records indicate that the BHHJV also conducted limited DIM sampling on the Grand Cub Aidan Claim Block (four samples) and the White Bear Claim Block (eight samples) during 1997 to 1999 (Skelton and Bursey, 1998 and 1999; Skelton and Willis, 2001). Picked DIM data is available for these samples, but no microprobe data is available. It also appears that Ashton collected about 35 DIM samples on the Smoky The Bear Claim Block, but the bulk of this data is not reported. Monopros appears to have collected about 182 DIM samples within or immediately down-ice of the Grand Cub Aidan Claim Block (Figure 3). Picked indicator mineral results are available for these samples, but no microprobe data for individual mineral grains is available.

The DIM sampling that has been conducted to date on the Smoky The Bear, Grand Cub Aidan, and White Bear Claim Blocks works out to about one sample per square kilometre or about 6 samples per township. The vast majority of the samples were collected by Monopros in the southernmost five townships of the Grand Cub Aidan Claim Block (Figure 3). Several kimberlites on the BHHJV's Buffalo Head Hills block yielded strong DIM anomalies down-ice or down drainage from kimberlites (within about 5 to 10 km), however, the drift thickness in the area of the indicator mineral anomalies ranges from less than 10m up to about 70m (Figure 3). Most of the joint venture's kimberlites in areas of deeper drift appear to yield sporadic amount s of DIMs in the tills down-ice of the kimberlites. The drift thickness on Grizzly's Buffalo Head Hills properties likely ranges from a minimum of 10m to more than 150m in some areas underlain by preglacial channels. In addition, the drift likely consists of multiple till sheets. The behaviour and dispersion patterns of indicator minerals derived from deeply buried kimberlites is poorly understood in areas of thick drift and multiple till sheets. However, it should be noted that a number of the creeks within 5 to 10 km (6 miles), and on rare occasion up to 20 km (12 miles), of nearby kimberlites yield stream sediment sample sites with multiple DIMs (Figure 3).

Based upon the results of indicator minerals sampling conducted to date a few important observations can be made. On the Grand Cub Aidan Claim Block, the sampling conducted by the AGS and GSC in combination with Monopros has yielded a significant number of samples with anomalous amounts of indicator minerals, in some cases more than a hundred grains (Figure 3). These highly anomalous sample results are indicative of undiscovered kimberlites as they have all been collected north of the northernmost known Buffalo Head Hills kimberlite. In addition, the mineralogy seen in these samples with abundant picroilmenite is significantly different than the results of DIM sampling down-ice of the Buffalo Head Hills kimberlites, which are reported to be picroilmenite poor (Carlson *et al.*, 1999; Aulbach *et al.*, 2003; Creighton and Eccles, 2003; Davies *et al.,* 2003; hood and McCandless, 2003). This further supports the conclusion that undiscovered kimberlites remain to be located in the north portion of the Buffalo Head Hills beyond the kimberlites that have been discovered to date and that these kimberlites are likely mineralogically different to the kimberlites found to date.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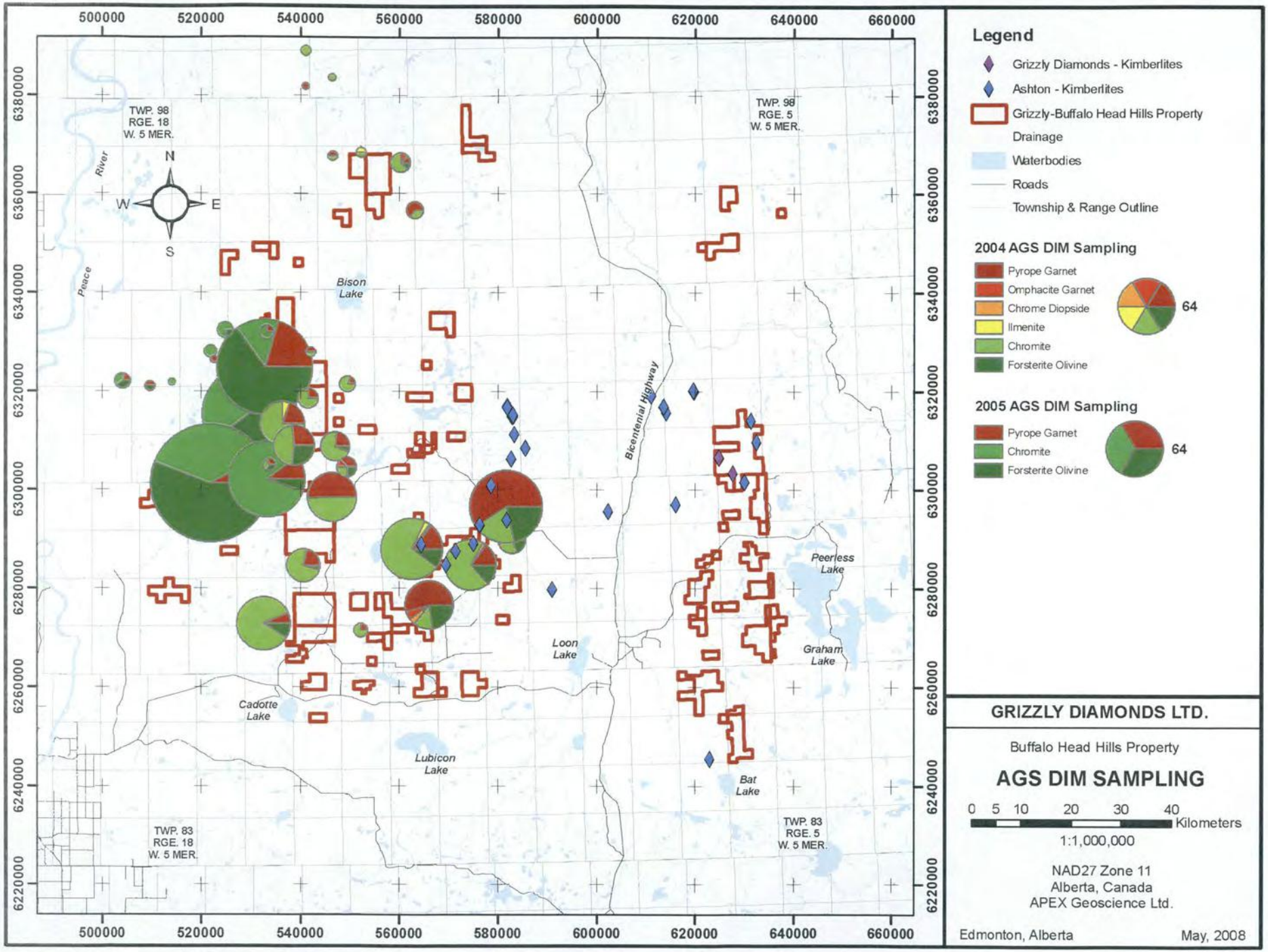
Bison Lake
Bicentennial Highway
Peerless Lake
Loon Lake
Graham Lake
Cadotte Lake
Lubicon Lake
Bat Lake
Legend
Grizzly Diamonds - Kimberlites
Ashton - Kimberlites
Grizzly-Buffalo Head Hills Property
Drainage
Waterbodies
Roads
Township & Range Outline
Monopros Indicators
Garnet
Ilmenite
Clinopyroxene
Spinel
64
Ashton Indicators
Eclogite
Chrome Diopside
Chromite
Ilmenite
Peridotite
21
AGS Indicators
Garnet
Clinopyroxene
Eclogite
Olivine
Ilmenite
Chromite
260
GRIZZLY DIAMONDS LTD.
Buffalo Head Hills Property
INDUSTRY DIM SAMPLING
0 5 10 20 30 40
Kilometers
1:1,000,000
NAD27 Zone 11
Alberta, Canada
APEX Geoscience Ltd.
Edmonton, Alberta
May, 2008

FIGURE 3

The AGS sampling in 2005 on the southern portion of the Preston Upon Wolverine Claim Block, which borders the White Bear Claim Block produced anomalous high grain-count DIM results with 11 of the 15 samples located on the property. Preliminary results showed that four of the samples had over 100 DIMs, the highest having 287 grains. The dominant DIMs from these samples were forsterite olivine and chromite (Prior et al., 2006). This is coincident with samples taken from the White Bear Claim Block by Ashton, which were also composed primarily of olivine and chromite with minor pyrope content (Skelton and Bursey, 1999; Skelton and Willis, 2001). This compares to the main Buffalo Head Hills kimberlites, which are predominantly pyrope and chromite rich. The White Bear and Preston Upon Wolverine Claim Blocks show a different mineralogy, supporting the conclusion that undiscovered kimberlites may exist on these two Claim Blocks. However, Skelton and Bursey (1999) and Skelton and Willis (2001) concluded that the indicator minerals were likely derived from the Buffalo Head Hills kimberlites on the BHHJV's main properties. This interpretation is not supported by the ice direction in the White Bear Claim Block which was from North to South and from Northwest to Southeast with a lobe of ice from the Peace River valley flowing southeast to almost easterly around the southwest portion of the Buffalo Head Hills (Pawlowicz and Fenton, 1995 a, b, 2005 a, b; Fenton *et al.*, 2003 a, b, c; Paulen *et al.*, 2003).

In summary, a large number of samples collected from within the boundaries of or down-ice of Grizzly's Buffalo Head Hills property have yielded a large number of anomalous samples with indicator minerals (Figures 3 and 4). Predominant ice-direction was from North to South, in particular for the Grand Cub Aidan and the Smoky The Bear Claim Blocks (Pawlowicz and Fenton, 1995a,b, 2005a,b; Fenton *et al.*, 2003a,b,c; Paulen *et al.*, 2003). Ice direction for the White Bear and Preston Upon Wolverine Claim Blocks was from north to south, and from northwest to southeast with a lobe of ice coming out of the Peace River valley and flowing southeast to almost easterly around the southwest portion of the Buffalo Head Hills (Pawlowicz and Fenton, 1995a, b, 2005a, b; Fenton *et al.,* 2003a, b, c; Paulen *et al.*, 2003). Indicator results for samples taken from the Grand Cub Aidan, Smoky The Bear, White Bear and Preston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Graham Lake
Cadotte Lake
Lubicon Lake
Bat Lake
Legend
Grizzly Diamonds - Kimberlites
Ashton - Kimberlites
Grizzly-Buffalo Head Hills Property
Drainage
Waterbodies
Roads
Township & Range Outline
2004 AGS DIM Sampling
Pyrope Garnet
Omphacite Garnet
Chrome Diopside
Ilmenite
Chromite
Forsterite Olivine
64
2005 AGS DIM Sampling
Pyrope Garnet
Chromite
Forsterite Olivine
64
GRIZZLY DIAMONDS LTD.
Buffalo Head Hills Property
AGS DIM SAMPLING
0 5 10 20 30 40
Kilometers
1:1,000,000
NAD27 Zone 11
Alberta, Canada
APEX Geoscience Ltd.
Edmonton, Alberta
May, 2008

FIGURE 4

Upon Wolverine Claim Blocks have been found to be highly anomalous in terms of the number of samples with indicator minerals and the number of indicator minerals in some samples. The sample results to date are suggestive of the presence of possible kimberlites on all four of the Claim Blocks.

DEPOSIT MODEL: DIAMONDIFEROUS KIMBERLITES

To understand the significance of diamond indicator minerals (DIMs, also sometimes referred to as Kimberlite Indicator Minerals or KIMs), it is important to understand the type of igneous rocks from which primary diamond deposits are mined. The most common rock type from which diamonds are mined are kimberlites and, to a lesser extent, lamproites and orangeites. DIMs describe minerals that are common constituents of these three rock types, some of which are phenocrysts and others that are xenocrysts. For the purposes of this discussion, DIMs will refer to minerals that are both characteristic and diagnostic of kimberlites.

Kimberlites

Kimberlite is best described as a hybrid igneous rock (Mitchell, 1986, 1989, 1991; Skinner, 1989; Scott Smith, 1995). Kimberlites are igneous in nature since they have crystallised from a molten liquid (kimberlitic magma) originating from the earth's upper mantle. Kimberlite magma contains volatile gases and is relatively buoyant with respect to the upper mantle. As a result, pockets of kimberlitic magma will begin to ascend upward through the upper mantle and along a path of least resistance to the earth's surface. As the kimberlitic magma ascends, the volatile gases within the magma expand, fracturing the overlying rock, continually creating and expanding its own conduit to the earth's surface. As a kimberlitic magma begins to ascend to the earth's surface it rips up and incorporates fragments or xenoliths of the various rock types the magma passes through on its way to surface. As the magma breaks down and incorporates these xenoliths, the chemistry and mineralogy of the original magma becomes altered or hybridised. The amount and type of foreign rock types a kimberlite may assimilate during its ascent will determine what types of minerals are present in the kimberlite when it erupts at surface.

When kimberlitic magma reaches or erupts at the earth's surface, the resulting volcanic event is typically violent, creating a broad shallow crater surrounded by a ring of kimberlitic volcanic ash and debris ("tuffaceous kimberlite"). The geological feature created by the eruption of a kimberlite is referred to as a diatreme or kimberlite pipe (Mitchell, 1986, 1989, 1991). In a simplified cross section a kimberlite diatreme appears as a near vertical, roughly "carrot shaped" body of solidified kimberlite magma capped by a broad shallow crater on surface that is both ringed and filled with tuffaceous kimberlite and country rock fragments (Mitchell, 1986, 1989, 1991).

Diamond Indicator Minerals

Diamonds do not crystallise from a kimberlitic magma: they crystallise within a variety of diamond bearing igneous rocks in the upper mantle called peridotite and eclogites. Peridotite and eclogites are each made up of a diagnostic assemblage of minerals that crystallise under specific pressure and temperature conditions similar to those conditions necessary to form and preserve diamonds ("diamond stability field"). Diamond bearing peridotite can be further broken down into three varieties which are, in order of greatest diamond bearing significance, garnet harzburgite, chromite harzburgite, and, to a lesser extent, garnet lherzolite. For a kimberlite to be diamond bearing, the primary kimberlitic magma must disaggregate and incorporate some amount of diamond bearing peridotite or eclogite during its ascent to the earth's surface. The type and amount of diamond bearing peridotite or eclogite the kimberlitic magma incorporates during its ascent will determine the diamond content or grade of that specific kimberlite as well as the size and quality of diamonds. Diamond bearing peridotite and eclogite occur as discontinuous pods and horizons in the upper mantle, typically underlying the thickest, most stable regions of Archean continental crust or cratons (Helmstaedt, 1993). As a result, almost all of the economic diamond bearing kimberlites worldwide occur in the middle of stable Precambrian (typically Archean) cratons. The Grizzly held Legend and Little Legend properties are staked on the Proterozoic Taltson magmatic arc.

Diamond indicator minerals (DIMs) include minerals that have crystallised directly from a kimberlitic magma (phenocrysts), or mantle derived minerals (xenocrysts) that have been incorporated into the kimberlitic magma as it ascends to the earth's surface. Examples of DIMs are picroilmenite, titanium and magnesium rich chromite, chrome diopside, magnesium rich olivine, pyropic and eclogitic garnets. Varieties of garnet include G1, G2, G9, G10, G11, G12 pyropes as defined by Dawson and Stephens (1975), G9 and G10 pyropes as defined by Gurney (1984) and Gurney and Moore (1993) and G3, G4, G5, and G6 eclogitic garnets as defined by Dawson and Stephens (1975). From this paragraph on, reference to G1, G2, G3, G4, G5, G6, G11 and G12 pyrope garnets refers to Dawson and Stephens' (1975) classification and G9 and G10 refers to Gurney's (1984) G9 and G10 pyrope garnets of lherzolitic and harzburgitic origin, respectively.

DIMs are used not only to assess the presence of kimberlites in regional exploration programs, but also to assess whether the kimberlites have the potential to contain diamonds. There are a limited variety of DIMs from which information pertaining to the diamond bearing potential of the host kimberlite can be gained. Typically, these are DIMs which have been derived from diamond bearing peridotite and eclogite in the upper mantle (Mitchell, 1989). The most common examples of these would include sub-calcic, G10 Cr-pyrope garnets (harzburgitic), G9 pyrope garnets (lherzolitic), Cr- and Mg-rich chromite (diamond inclusion quality or "DIF" chromite from chromite or spinel harzburgite), diamond inclusion quality "DIF" eclogitic garnets and chemically distinct jadeite clinopyroxene (diagnostic of diamond bearing eclogites).

Other indicator minerals that have crystallised from a kimberlitic magma can provide information as to how well the diamonds in a given kimberlite have been preserved during their ascent to surface. For instance, the presence of low iron and high magnesium picroilmenites in a kimberlite is a positive indication that the oxidising conditions of a kimberlitic magma were favourable for the preservation of diamonds during their ascent to surface in the kimberlitic magma.

Exploration

Due to the unique geometry of a kimberlite pipe and the manner in which the kimberlite has intruded a pre-existing host rock type, there are often differences in the physical characteristics of a kimberlite and the host rock. Sometimes these contrasting physical characteristics are significant enough to be detected by airborne or ground geophysical surveys. Two of the most commonly used geophysical techniques are airborne or ground magnetic surveys and electromagnetic (EM) surveys. A magnetic survey measures the magnetic susceptibility and EM surveys measure the electrical conductivity (or resistivity) of the material at or near the earth's surface. When magnetic or resistivity measurements are collected at regular spaced intervals along parallel lines, the data can be plotted on a map and individual values can be compared. If a geophysical survey is conducted over an area where the bedrock and overburden geology is constant and there are no prominent structures or faults, there will be little variation in magnetic or resistivity response. However, when a kimberlite intrudes a homogenous geologic unit and erupts on surface, there is often a detectable change in the geophysical signature or anomalous magnetic or resistivity response over the kimberlite diatreme. When the data are contoured the anomalous results often occur as a circular or oval anomaly outlining the surface or near surface expression of the diatreme.

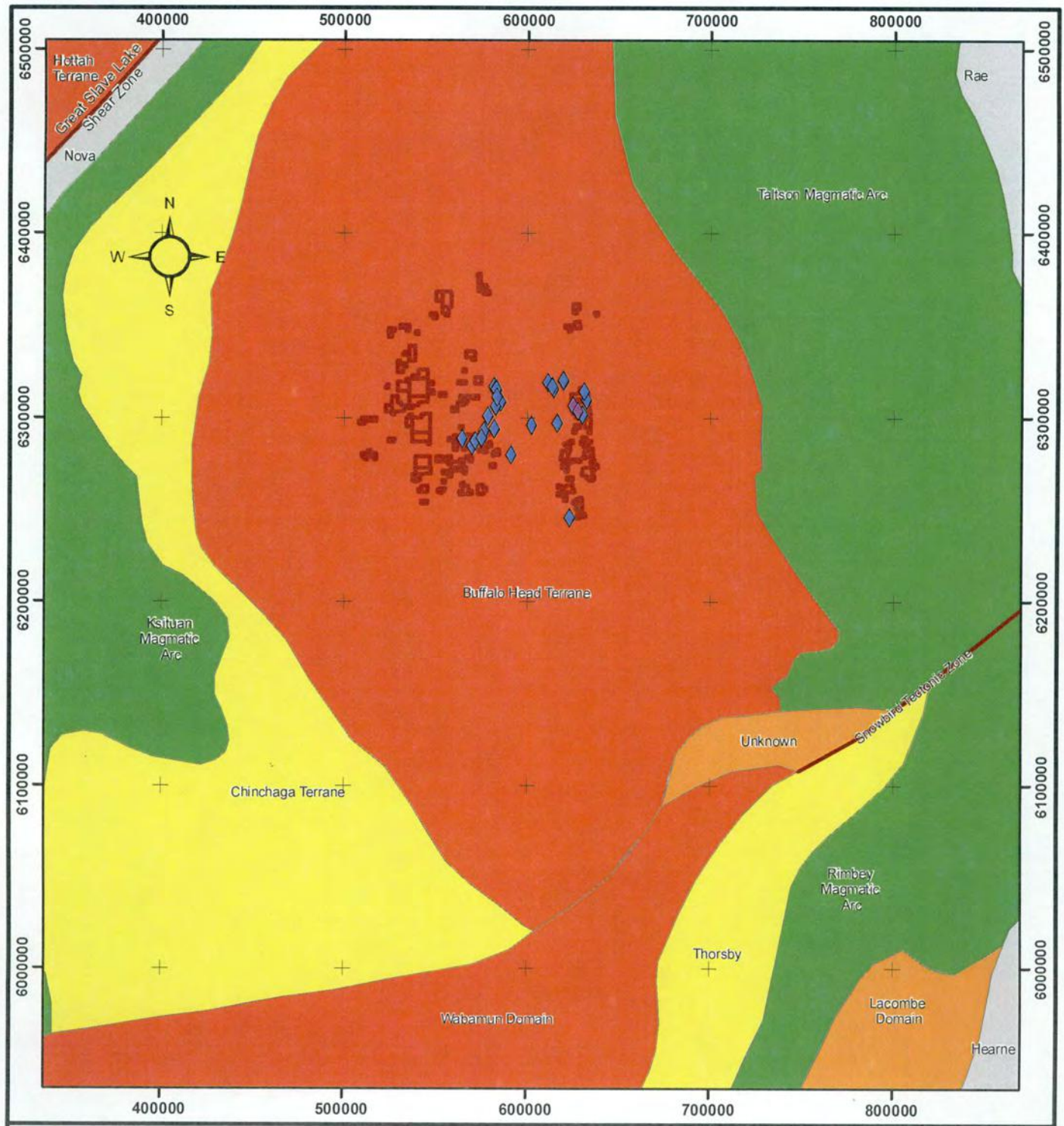
The effectiveness of geophysical methods in kimberlite exploration is dependent on the assumption that the difference between the geophysical signature of the hosting rock unit and a potential kimberlite is significant enough to be recognised by the geophysical techniques available. There are many examples of economic kimberlites that produce very subtle, unrecognisable geophysical responses as well as non kimberlite geologic features and man made structures (referred to as "cultural interference") such as oil wells, fences, bridges, buildings which can produce kimberlite like anomalies. In addition, in areas of thick overburden, such as the Legend region, sand and gravel with water and placer accumulations of heavy oxide minerals, can yield both magnetic and EM anomalies that are easily confused with those due to kimberlite. For these reasons, it is extremely important that other information such as DIM surveys be used in tandem with geophysical evidence to confirm whether there is other information to support the presence of a kimberlite pipe (Fipke *et al.*, 1995).

GEOLOGICAL SETTING

Precambrian Geology

Grizzly Diamonds Ltd.'s Buffalo Head Hills mineral permits lie near the north-eastern to eastern edge of the Western Canadian Sedimentary basin within the central segments of the Peace River Arch (Figure 5). Precambrian rocks are not exposed within the Buffalo Head Hills region. The basement underlying the Peace River Arch (PRA) is comprised of several terranes, including the Buffalo Head and the Chinchaga terranes, both of which were accreted between 1.8 and 2.4 billion years (Ga) ago and collectively form the Buffalo Head Craton (Ross *et al.*, 1991, 1998). Due to their relatively stable history since accretion, the Buffalo Head and Chinchaga Terranes (Figure 5), have been and are currently the focus of extensive diamond exploration in northern Alberta. At present, the BHHJV have discovered at least 38 kimberlite pipes proximal to the center of the proposed Buffalo Head Craton (Figure 5). To date, a total of 26 of the 38 kimberlites discovered by the joint venture in the Buffalo Head Hills region have yielded diamonds. All 38 kimberlite pipes exist from about 1.6 km (1 mile) to a maximum distance of 50 km (30 miles) from the boundary of Grizzly's Buffalo Head Hills Claim Blocks (Figures 5 and 6).

Grizzly's Buffalo Head Hills property is underlain by a basement comprised of the Buffalo Head Terrane (BHT). The BHT is an area of high positive magnetic relief with a north to north-easterly fabric (Villeneuve *et al.*, 1993). The diamondiferous Buffalo Head Hills Kimberlites and Grizzly's property lie near the geographic center of the Buffalo Head Craton (Figure 5). Part of the Churchill Structural Province (Rae Subprovince), the Buffalo Head Craton may represent either Archean crust that has been thermally reworked during the Hudsonian (Proterozoic) Orogeny (Burwash *et al.*, 1962; Burwash and Culbert, 1976; Burwash *et al.*, 1994) or an accreted Early Proterozoic terrane, that may or may not have an Archean component (Ross and Stephenson, 1989; Ross *et al.*, 1991; Villeneuve *et al.*, 1993). Precambrian rocks intersected in drill core from the BHT comprise felsic to intermediate metaplutonic rocks, felsic metavolcanic rocks and high-grade gneisses (Villeneuve *et al.*, 1993). Even though Hood and McCandless (2003) suggest that the paucity of subcalcic pyrope garnets in the Buffalo Head Hills is consistent with Proterozoic crust and mantle, recent work by Aulbach *et al.* (2003), indicates that a number of geochemical aspects of the xenoliths from the kimberlites is indicative of the presence of Archean mantle beneath the Buffalo Head Terrane which was likely reworked during Proterozoic crust formation from 2.3 to 2.0 Ga. Seismic refraction and reflection studies indicate that the crust beneath the Buffalo Head Craton is likely between 35 to 40 km (21 to 24 miles) thick, a trait favourable for the formation and preservation of diamonds in the upper mantle (Dufresne *et al.*, 1996). The favourable nature of the Buffalo Head Craton has been confirmed by the discovery of 26 diamondiferous kimberlite pipes near the center of the craton.



Legend

- Grizzly Diamonds - Kimberlites
- Ashton - Kimberlites
- Grizzly-Buffalo Head Hills Property
- Major Structures

Basement Geology

Terrane

- Origin Uncertain
- 2.0 - 1.8 Ga Magmatic Arcs
- 2.4 - 2.0 Ga Accreted Terranes
- 2.4 - 2.0 Ga Magnetic Lows
- 2.8 - 2.6 Ga Archean Basement

GRIZZLY DIAMONDS LTD.

Buffalo Head Hills Property

BASEMENT GEOLOGY

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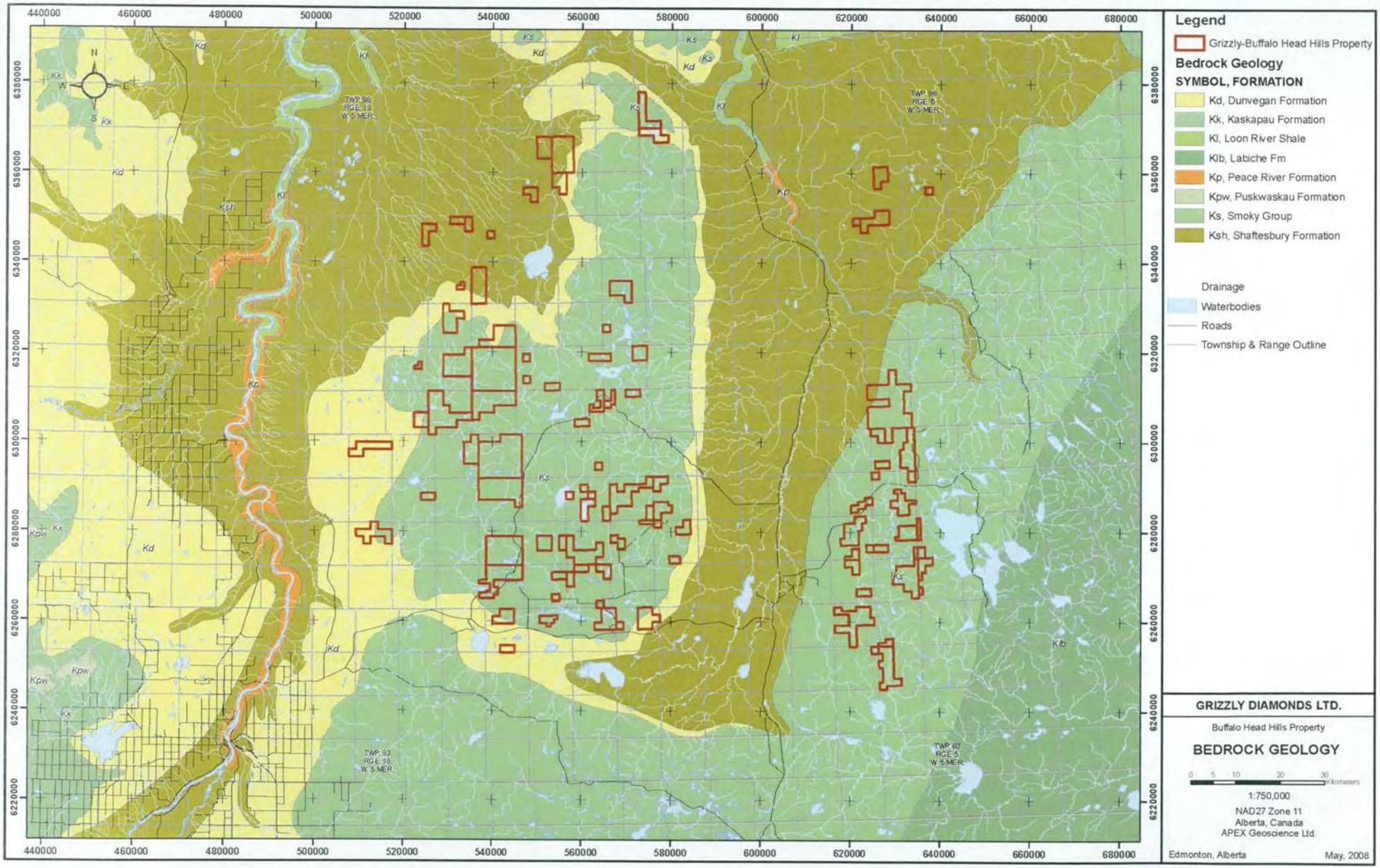
NAD27 Zone 11
Alberta, Canada
APEX Geoscience Ltd.

Edmonton, Alberta May, 2008

FIGURE 5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RGE. 18
W.5 MER.
TWP. 98
RGE. 6
W.5 MER.
TWP. 83
RGE. 18
W.5 MER.
TWP. 83
RGE. 5
W.5 MER.
Legend
Grizzly-Buffalo Head Hills Property
Bedrock Geology
SYMBOL, FORMATION
Kd, Dunvegan Formation
Kk, Kaskapau Formation
Kl, Loon River Shale
Klb, Labiche Fm
Kp, Peace River Formation
Kpw, Puskwaskau Formation
Ks, Smoky Group
Ksh, Shaftesbury Formation
Drainage
Waterbodies
Roads
Township & Range Outline
GRIZZLY DIAMONDS LTD.
Buffalo Head Hills Property
BEDROCK GEOLOGY
0 5 10 20 30 Kilometers
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NAD27 Zone 11
Alberta, Canada
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Edmonton, Alberta
May, 2008

FIGURE 6

Phanerozoic Geology

Overlying the basement in the Buffalo Head Hills region is a thick sequence of Phanerozoic rocks comprised mainly of Cretaceous sandstones and shales near surface and Mississippian to Devonian carbonates and salts at depth (Glass, 1990). Bedrock exposure within the permit block is limited primarily to river and stream cuts and topographic highs. Table 3 shows the upper units found in the region. Further information pertaining to the distribution and character of these and older units can be obtained from well log data in government databases and various geological and hydrogeological reports (Green *et al.*, 1970; Tokarsky, 1972; Vogwill, 1978; Ceroici, 1979; Glass, 1990; Mossop and Shetson, 1994).

TABLE 3: GENERALIZED STRATIGRAPHY, BUFFALO HEAD HILLS REGION

SYSTEM	GROUP	FORMATION	AGE* (MA)	DOMINANT LITHOLOGY
PLEISTOCENE			Recent	Glacial till and associated sediments
TERTIARY			6.5 to Recent	Preglacial sand and gravels
UPPER CRETACEOUS	Smoky	Kaskapau	88 to 92	Shale, silty-shale and ironstone; includes the Second White Specks unit
		Dunvegan	92 to 95	Sandstone and siltstone
	Fort St. John	Shaftesbury	95 to 98	Shale, bentonites, Fish-Scale Member
LOWER CRETACEOUS	Fort St. John	Peace River	>98 to <105	Quartzose and glauconitic sandstones and silty shale.
		Loon River	98 to 105	Shale, siltstone and glauconitic sandstone

*Ages approximated from Green *et al.* (1970), Glass (1990), Dufresne *et al.* (1996) and Leckie *et al.* (1997).

Underlying the near surface Cretaceous units in the Buffalo Head Hills area is a thick succession of Devonian to Mississippian carbonates, calcareous shales and salt horizons (Mossop and Shetson, 1994). Several of the Devonian carbonate units are part of the Grosmont Reef Complex, a large structure that extends in a north-westerly direction from east of Lesser Slave Lake to the N.W.T. (Bloy and Hadley, 1989). The Grosmont Reef Complex is likely the result of tectonic uplift along this trend during the Devonian. This structure, in conjunction with the PRA, may have played a significant role in the localization of faults and other structures that could have provided favourable pathways for kimberlite volcanism.

In general, the Cretaceous strata underlying Grizzly's Buffalo Head Hills properties is composed of alternating units of marine and nonmarine sandstones, shales, siltstones, mudstones and bentonites. The oldest documented units exposed in the permit area belong to the Shaftesbury Formation, a sequence of Upper Cretaceous shales. However, older units from the base of the Fort St. John Group, such as the Peace River and Loon River formations, may be exposed in river and stream cuts.

Part of the Fort St. John Group, the Loon River Formation is Lower Cretaceous in age and is comprised of marine, dark grey, fossiliferous silty-shale and laminated siltstone. Nodules and thin beds of concretionary ironstone may be present within the unit. The Loon River Formation is correlative with the Spirit River Formation. The upper contact is abrupt, but conformable with the Peace River Formation.

The Peace River Formation is Lower Cretaceous in age and comprises three members, Cadotte, Harmon and Paddy. Correlative with the Pelican and Joli Fou formations, the unit averages 60 m in thickness and contains abundant graptolites and starfish. The lowermost member, the Cadotte, comprises massive, clean, fine-grained quartzose sandstone with alternating bands of thin sandstone and shale. Concretions ranging from 3 to 5 m in diameter are common. The middle member, the Harmon, comprises a fissile, non-calcareous, dark grey silty-shale with thin interbeds of bentonite and siltstone. Both the Cadotte and the Harmon members are laterally extensive, relatively thick and marine in origin. The third member, the Paddy, is comprised of fine-grained glauconitic sandstone with silty interbeds in the lower portions. Thin coal beds and marine fossils may be present. The Paddy is laterally discontinuous and varies from marine to continental (deltaic) in origin. If the Paddy unit is intact, the upper contact is conformable, but abrupt with the Shaftesbury Formation. In many regions, the upper contact of the Peace River Formation is an abrupt hiatus.

The Shaftesbury Formation is lower Upper Cretaceous in age and is comprised of marine shales with fish-scale bearing silts, thin bentonitic streaks and ironstones. The upper contact is conformable and transitional with the Dunvegan Formation. The Shaftesbury Formation may be exposed along river and stream cuts. Evidence of extensive volcanism during deposition of the Shaftesbury Formation exists in the form of numerous bentonitic horizons throughout the formation, especially within and near the Fish Scales horizon (Leckie *et al.*, 1992; Bloch *et al.*, 1993). The deposition of the Shaftesbury Formation is also chronologically correlative with the deposition of the Crowsnest Formation volcanics of southwest Alberta (Olson *et al.*, 1994; Dufresne *et al.*, 1995) and with kimberlitic volcanism near Fort á la Corne in Saskatchewan (Lehnert –Thiel *et al.*, 1992; Scott Smith *et al.*, 1994). In many cases, the Ashton kimberlite pipes contain extensive volumes of Cretaceous mudstone, most of which is likely derived from the Shaftesbury Formation.

Deltaic to marine, feldspathic sandstones, silty shales and laminated carbonaceous siltstones, characterise the Dunvegan Formation (Glass, 1990). Thin beds of shelly material, coal, siltstone and bentonite may be present. The formation is rich in shallow-water fauna, including abundant molluscs. The Dunvegan Formation

becomes more arenaceous and thinner eastwards, where it grades into the LaBiche Formation. The upper contact of the unit is conformable and transitional with the shales of the Kaskapau Formation of the Smoky Group. The Ashton pipes exist just above or near the contact between the Kaskapau and the Dunvegan formations (Dufresne *et al.*, 2001).

The youngest bedrock units belong to the Smoky Group (Glass, 1990). The Smoky Group is Upper Cretaceous in age and is comprised of thinly bedded, marine, silty shale with occasional ironstone and claystone nodules and thin bentonite streaks. The group is divided into three formations: (a) a lower shale unit, Kaskapau, which includes the Second White Specks marker unit (SWS); (b) a middle sandstone, named the Bad Heart; and, (c) an upper shale, Puskwaskau, which contains the First White Specks marker unit. Bedrock exposures in the "Bison Lake" Property are likely comprised of the Kaskapau Formation, in particular, the SWS or lower. Most of the upper portions of the Smoky Group have been eroded away during tectonic uplift, possibly associated with uplift of the PRA. The Kaskapau Formation contains abundant ammonite fossils and concretions. In addition, foraminifera are present in the lower arenaceous units (Glass, 1990). Exposures of the Smoky Group are generally limited to topographic highs and stream cuts within the Buffalo Head Hills. There is strong evidence of volcanism associated within the depositional time span of the Smoky Group around the PRA (Auston, 1998; Carlson *et al.*, 1999). The BHHJV's Buffalo Head Hills kimberlites yield emplacement ages of 86 to 88 Ma (Auston, 1998; Carlson *et al.*, 1999).

Structural Geology

In north-central Alberta, the PRA is a region where the younger Phanerozoic rocks, which overlie the Precambrian basement, have undergone periodic vertical and, possibly, compressive deformation from the Proterozoic into Tertiary time (Cant, 1988; O'Connell *et al.*, 1990; Dufresne *et al.*, 1995, 1996). This pattern of long-lived, periodic uplift and subsidence has imposed a structural control on the deposition patterns of the Phanerozoic strata in northern Alberta. In addition, this periodic movement has resulted in a rectilinear pattern of faults that not only is responsible for structurally controlled oil and gas pools, but may have provided potential pathways for later deep-seated intrusive kimberlitic magmas. Eccles *et al.* (2000) show that several of the Buffalo Head Hills kimberlites occur at the intersection of north and east-northeast trending lineaments likely related to underlying faults that have been reactivated during periodic tectonic activity associated with the Peace River Arch. Eccles *at al.* (2000) used a combination of very detailed digital elevation data and RadarSat data to identify the intersecting lineaments.

During the mid-Cretaceous and Early Tertiary, compressive deformation occurred as a result of the orogenic event that eventually led to the formation of the Rocky Mountains. The PRA was emergent during this period resulting in the reactivation of many prominent basement faults. The Phanerozoic rocks beneath the Red Earth Creek region lie along the axis of the PRA, and are underlain by and proximal to basement faults related to the Grosmont Reef Complex, which formed over the Grosmont High (Bloy and Hadley, 1989; Dufresne *et al.*, 1996). There is strong

evidence that basement faults that have manifested themselves in the overlying Phanerozoic sedimentary succession may have controlled the emplacement of the Buffalo Head Hills kimberlites proximal to Grizzly's Buffalo Head Hills properties (Dufresne *et al.*, 1996; Leckie *et al.*, 1997; Eccles *et al.*, 2000). Similar structures observed on Grizzly's Buffalo Head Hills property could have resulted from tectonic activity associated with movement along the PRA or the Grosmont High and therefore could have provided pathways for kimberlitic volcanism.

Quaternary Geology

Data and information about the surficial geology in central to northern Alberta is sparse and regional in nature. Prior to continental glaciation during the Pleistocene, most of Alberta, including the Buffalo Head Hills region, had reached a mature stage of erosion. Large, broad paleochannels and their tributaries drained much of the region, flowing in an east to north-easterly direction (Dufresne *et al.*, 1996). In addition, fluvial sand and gravel was deposited preglacially in these channels.

During the Pleistocene, multiple south-easterly and southerly glacial advances of the Laurentide Ice Sheet across the region resulted in the deposition of ground moraine and associated sediments (Figure 5 in Dufresne *et al.,* 1996). The advance of glacial ice may have resulted in the erosion of the underlying substrate and modification of bedrock topography. Dominant ice flow directions within the Buffalo Head Hills region appear to be topographically controlled, following the south-southwest trend of the Buffalo Head Hills (Fenton and Pawlowicz, *2005 a, b*). In addition, topographic variations may have locally channelled ice flow towards the south to south-southeast east of the Buffalo Head Hills. Glacial sediments infilled low-lying and depressional areas, draped topographic highs and covered much of the area as veneers and/or blankets of till and diamict. Localised pockets of deposits from glacial meltwater and proglacial lakes likely infilled areas of low relief (Fenton and Pawlowicz, *2005 a, b*).

The majority of the Buffalo Head Hills area is covered by drift of variable thickness, ranging from 15 m to over 250 m (Pawlowicz and Fenton, *2005 a, b*, 1995a, b; Balzer and Dufresne, 1999). The vast majority of the property is thought to be covered with drift ranging from about 75 m to 150 m thick. Drift thickness may be thinner locally, in areas of higher topographic relief. Unfortunately, local drift thickness for Grizzly's Buffalo Head Hills property cannot be easily delineated due to the paucity of publicly available data for the region. Limited general information regarding bedrock topography and drift thickness in northern Alberta is available from the logs of holes drilled for petroleum, coal or groundwater exploration and from regional government compilations (Tokarsky, 1972; Mossop and Shetson, 1994; Pawlowicz and Fenton, *2005 a, b* , 1995a,b; Dufresne *et al.*, 1996). It should be noted that the drift thickness over the Buffalo Head Hills Kimberlites is extremely variable ranging from more than 120 m to kimberlites that outcrop or subcrop. Several of the kimberlites intersected in drilling to date exist as positive topographic features relative to the local bedrock surface beneath the glacial overburden. For example, the BHHJV's K6 Kimberlite was initially intersected beneath 13 m of overburden (Ashton Mining of Canada Inc., 1997c). The

K6 Kimberlite yields depths of overburden of more than 70 m at the margins of the pipe and even thicker depths of overburden over the mudstone bedrock surrounding the pipe (Mr. B. Clements, *personal communication*, 2002). The K6 Kimberlite is one of a number of kimberlites in the Buffalo Head Hills that display this relationship. The implications of this are that in areas where the overburden is estimated to be 75 to 150 m, there is still a chance that any kimberlites found could be covered by substantially less overburden.

Glacial ice is believed to have receded from the BHH region between 15,000 and 10,000 years ago. After the final glacial retreat, lacustrine clays and silts were deposited in low-lying regions along with organic sediments. Rivers previously re-routed due to glaciation, re-established easterly to north-easterly drainage regimes similar to that of the pre-Pleistocene. Extensive colluvial and alluvial sediments accompanied post-glacial river and stream incision.

2008 EXPLORATION

Summer 2008 Ground Geophysics Program

In the period between June 9 and July 2 of 2008, APEX Geoscience Ltd. ("APEX") conducted a ground geophysical program that consisted of line cutting, ground magnetometer surveys, and supervision of a ground gravity survey. The summer program followed recommendations put forth in the 2008 assessment report on the Smoky The Bear claims (Dufresne, 2008). A total of 483 man hours of line cutting was completed during this program, resulting in 15.6 line kilometres. From June 11 to July 1 2008, a total of 7 ground magnetometer survey grids were completed during this program.

From June 22 to July 2, 2008 a 15.6 line kilometre ground gravity geophysical survey was performed by Quadra Surveys Ltd. A total of 19 lines were planned over the BE-02 kimberlite discovery area to better define the target and to search for additional kimberlites in the area. The lines were planned at 50 metre spacing and stations were also spaced at 50 metres. The survey took 12 days to complete, this included 9 days of surveying, 2 days allotted to mobilization and demobilization of crew and equipment, and 1 day to resurvey some data. Stations were surveyed using a real time dual frequency GPS (Global Positioning System). Gravity measurements were collected using a Scintrex model CG-5 gravity meter.

Ground magnetics survey grids were first established with a Garmin®12-XL handheld GPS and were then gridded and surveyed by 2 or more people using GPS, compass and mobile magnetometers. The initial person would locate the end of each line using the GPS and then, using the GPS and compass, would either flag or picket the lines at every second station. The person operating the magnetometer would then use the flagging or pickets as a guide to ensure a straight and accurate line was followed. Grid lines were oriented north-south, and were spaced by 50 metres, except

for the BE-02 grid. The BE-02 grid lines were oriented east-west and spaced at 25m. A tie line was performed through the centre of the anomaly, perpendicular to the grid lines, to allow for the internal consistency of the data to be evaluated. Data readings were collected by a GSM-19 magnetometer (GSM-19) at stations located every 12.5m along the grid and tie line. The magnetometer operators are required to be void of any excess magnetically susceptible materials, such as keys, change or steel-toed boots, which would add to the noise of the survey.

Total field magnetic data measured by the GSM-19 at the surface of the Earth is the vector sum of three sources: the Earth's main field generated by the dynamo action in the outer core, the external field generated in space in the magnetosphere, and the crustal field from remnant magnetization above the Curie depth. The Earth's main field accounts for 96-98% of the total field reading, while the external field and crustal field each account for 1-2% of the total field reading. The earth's magnetic field is not constant due to secular variation of the main field and diurnal variation of the external field; therefore correction of total field data is necessary to remove effects of temporal fluctuations in the earth's magnetic field. During collection of ground magnetic data, a stationary base magnetometer was set up at a location off the survey grid to allow diurnal correction of survey data. Both the mobile and base station magnetometers were time synchronized to UTC and set to collect survey readings every 3 seconds. This ensured that the time of each mobile magnetometer reading corresponds with the collection of a reading by the base station magnetometer. At the end of each day, the base station data was examined for high frequency and high amplitude variations which could compromise the survey data. If the diurnal variation of the magnetic field was smooth, it was assumed the diurnal variation of the magnetic field was uniform over the survey grid and base station. The base station data was then used to correct the mobile magnetometer data by removing diurnal fluctuations in the following manner:

$$B_{t1} - D = C_{t1}$$

$$M_t - C_{t1} = M_{t1\ corrected}$$

Where: B_{t1} = base magnetometer reading "B" at time t_1

D = base magnetometer datum = 58,000 nT

C_{t1} = Diurnal Correction "C" at time t_1

M_t = mobile magnetometer reading "M" at time t_1

$M_{t1\ corrected}$ = corrected mobile magnetometer reading

When a single survey was completed over multiple days, or multiple mobile magnetometers were used, a second manipulation of the survey data, termed levelling, was required before merging the data files. Levelling eliminates the different ambient magnetic fields of operators, which may vary daily and from one operator to the next. To facilitate levelling, field measurements are taken on an overlap line of at least 100 metres in length each day by all magnetometer operators. After diurnal corrections were applied, a station's total magnetic field value differs from one data set to the next due to the different ambient magnetic fields of the operators. The differences between overlap station readings yield similar values, and the average of these differences produces a

correction factor that can be applied to one of the data sets. It is important to realize that the absolute value of each magnetic reading is less important than the magnitude of the anomaly. In other words, the correction factor (be it positive or negative) can be subtracted from one data set or added to a second data set and in fact has no effect on the magnitude of the anomaly. In practice, the correction factor is many orders of magnitude less than a given magnetic reading.

An overview of the GSM-19 magnetometers used during the summer 2008 ground geophysical surveys is presented in Appendix 3d.

Ground Geophysical Grid and Anomaly Summaries

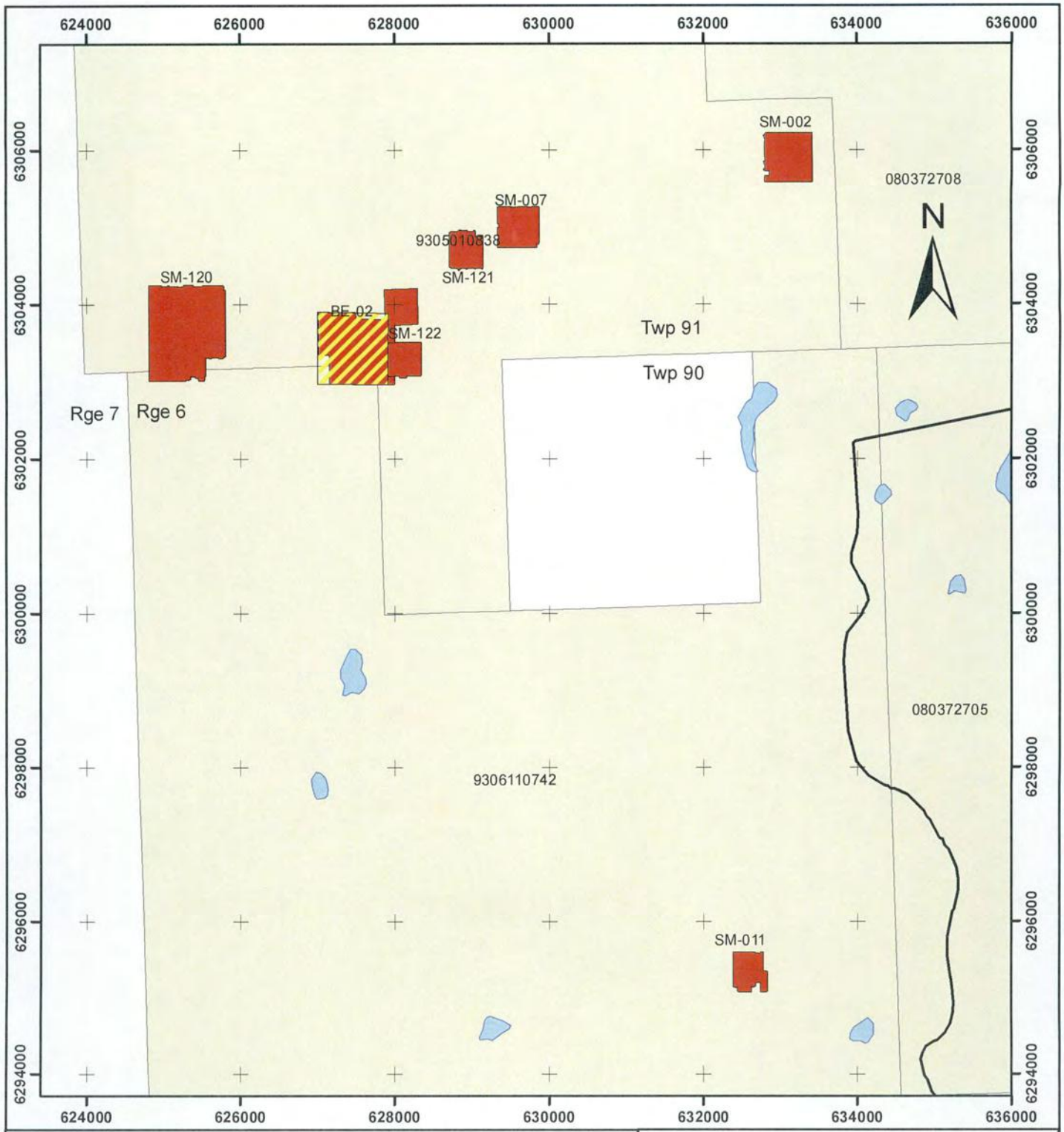
A summary of all the grids completed on the Smoky The Bear Claim Block in the summer 2008 ground geophysical program are listed in Table 4 and shown on Figure 7. Raw and contoured ground magnetics geophysical data is provided in Appendix 3a. Gridded and contoured ground data are provided as maps in Appendix 3b. The Quadra Surveys report on the ground gravity geophysical survey is included in Appendix 3c.

Table 4: Smoky the Bear Ground Geophysical Grids Summary

Target ID	Easting NAD27 zone11	Northing NAD27 Zone 11	Total Line-Km	Grid Dimension
BE-02	627500	6303550	36	irregular
SM-002	633100	6305950	8.11	640 m x 630 m
SM-007	629600	6305000	5.9	540 m x 540 m
SM-011	632600	6295350	4.080	500 m x 400 m
SM-120	625300	6303653	25	1250 m x 1000 m
SM-121	628930	6304730	4.16	450 m x 450 m
SM-122	628125	6303300	3.6	400 m x 400 m

Target area BE-02

The area of and around anomaly SM-008 was resurveyed as grid BE-02 after the BE-02 kimberlite was discovered during the spring 2008 drill program. The BE-02 discovery hole (08SMB03) was drilled at the center of a weak magnetic anomaly but only intersected 18.17m of kimberlite, suggesting it was located at the edge of the kimberlite. A better understanding of the shape, size and extent of the BE-02 kimberlite was required hence a new ground geophysics grid was conducted with increased line spacing (25m) and E-W lines, instead of N-S lines as the previous grid . The irregularly shaped BE-02 grid covered and extended the survey area of the previous SM-008 grid. The survey provided a more detailed overview of the geometry of the BE-02 kimberlite and other anomalies in the area (as identified by Dufresne, 2008).



Legend

- Lakes
- Road
- BE-02 Ground Gravity Grid
- Ground Magnetometer Grids
- Grizzly Diamonds Buffalo Head Hills Property
- Alberta Township System Major Divisions
- Alberta Township System Minor Divisions

Grizzly Diamonds Ltd.

Smokey The Bear Property
Summer Ground Geophysics

0 0.5 1 2 3 4

Kilometers
1:70,000

Nad 27 Zone 11
APEX Geoscience Ltd.
Edmonton, Alberta
January, 2009

FIGURE 7

The ground gravity survey overlapped the majority of the BE-02 ground magnetics grid. Several anomalies were identified on the gravity grid, mainly overlapping with previous anomalies picked from the magnetic survey. The BE-02 kimberlite is identified by a gravity high slightly offset to the picked magnetic high anomaly. The northwest target was identified as a gravity high coincident with the magnetic high anomaly. The southeast target shows only a poor gravity response. A new target was identified ~530m southeast of BE-02, as a gravity high anomaly. However the anomaly is located at the edge of the gravity survey and may be the results "edge-effects", an extension of the gravity survey would help clarify the extent and accurate location of the anomaly. A possible gravity low anomaly that may be associated with kimberlite lies just to the east of the BE-02 kimberlite and southwest anomaly but this anomaly requires further analysis.

Anomaly SM-002

Anomaly SM-002 was identified as a good looking shoulder with a magnitude of 3.5nT, but slightly linear on the analytical signal. The 640X630m ground geophysical surveys identified a slightly elongate, in the N-S direction, curvilinear anomaly. The anomaly is likely related to a paleo-channel and hence is a poor drill target.

Anomaly SM-007

Anomaly SM-007 was identified as an interesting, broad peak over three lines with a magnitude of 5nT on the airborne magnetics. The 540X540m ground geophysical survey revealed the airborne anomaly was unable to hold together under higher resolution. The ground survey shows a group of weak magnetic curvilinear anomalies that are unlikely related to kimberlite.

Anomaly SM-011

Anomaly SM-011 was identified as a good looking shoulder on the airborne, with a magnitude of 5nT. A 500X400m ground geophysical survey of the area identified the anomaly as a slightly elongated north-south magnetic high. The anomaly extends over an area of approximately 150X100m and has peak magnitude of approximately 40 nT. The anomaly looks similar to the original anomaly recognised for BE-02 (SM-008) and is a moderate to low priority drill target.

Anomaly SM-120 (originally Anomaly SM-001)

Anomaly SM-120 was identified as a large very interesting magnetic high feature with a peak magnitude of 15-20nT on the airborne geophysical survey. Ashton had previously completed a ground magnetics survey over this area (Grid BM1) and drilled a

target in the southwest corner. The drill hole intercepted bedrock at 146.3m until end of hole at 158m. Large intersections of bedrock are known to occur in the Alberta kimberlites thus this does not preclude the presence of a kimberlite in this area. The 1250X1000m ground geophysical survey was planned to confirm the results of the Ashton grid and identify new targets in the area. The ground survey revealed two fairly linear features with no discrete circular anomalies. Based on theground magnetics survey this area is low priority for follow-up drilling.

Anomaly SM-121

Anomaly SM-121 was identified as a weak magnetic anomaly on the airborne survey. The 450x450m ground geophysical survey of the target revealed the airborne anomaly was unable to hold together under higher resolution. The weak curvilinear geometry of the magnetic feature suggests that it is unlikely related to kimberlite.

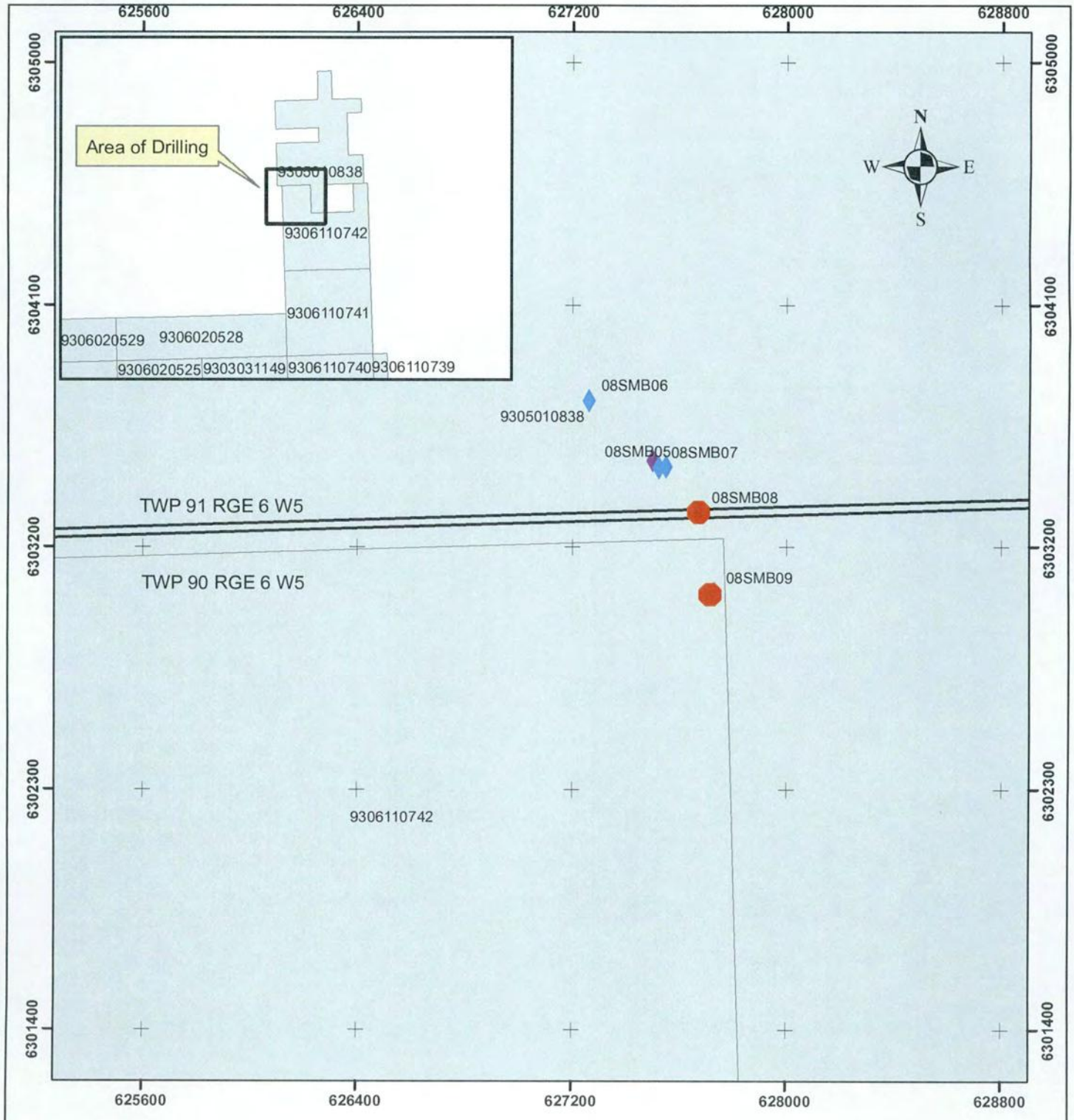
Anomaly SM-122

Anomaly SM-122 was identified as an interesting but weak magnetic anomaly occurring on the airborne survey. A 400X400m ground geophysical survey was completed over the area. The weak airborne anomaly fell apart under the higher resolution ground survey to reveal a cluster of magnetic highs over an area of approximately 150X300m. The anomaly is unlikely related to kimberlite.

Autumn 2008 Drilling

Between September 22 and October 21 of 2008, APEX, on behalf of Grizzly Diamonds Ltd. conducted a drilling program on the Smoky The Bear Property. The objective of this program was to follow up on the promising microdiamond results from the discovery of the BE-02 kimberlite from the previous winter program and to test new geophysical targets in the immediate vicinity of the BE-02 kimberlite. The BE-02 kimberlite was intersected during the spring drilling program. It yielded a total of 54 microdiamonds from 56.6 kg of kimberlite collected from the discovery hole drilled in February of this year (see Grizzly News Release dated May 6, 2008). The autumn 2008 drilling program included the completion of 5 vertical drill holes totalling 965.5m (Table 5, Figure 8). One new kimberlite, BE-03, was intersected during the drilling campaign. A summary of the drillholes and the drill hole logs can be found in Appendix 4. A summary of the caustic fusion samples, SRC processing and results are included in Appendix 5. The DIM samples are described in Appendix 6.

Drill targets were selected after reviewing the data from the summer ground geophysical program. The drilling program was based out of the town of Red Earth Creek. Drilling services were provided by Lone Peak Drilling of Kimberley, B.C.



Legend

- Smoky The Bear Claims
- Fall 2008 Drill Hole - Kimberlite
- Winter 2008 Drill Hole - Kimberlite
- Fall 2008 Drill Hole - No Kimberlite
- twp_range_major

Grizzly Diamonds Ltd.

Smoky The Bear Property Fall 2008 Drilling

0 0.15 0.3 0.6 0.9 1.2

Kilometers

1:20,000

NAD 27 Zone 11

APEX Geoscience Ltd.

Edmonton, Alberta January, 2009

FIGURE 8

Table 5: Autumn 2008 Drill Hole Locations

Hole ID	Easting NAD27 z11	Northing NAD27 z11	Elevation (m)	Depth (m)	Bedrock reached	Kimberlite Intersected
08SMB05	6303501	627549	642	200	Yes	Yes
08SMB06	6303748	627263	615	190	Yes	Yes
08SMB07	6303497	627524	646	186	Yes	Yes
08SMB08	6303329	627675	637	189.5	Yes	No
08SMB09	6303029	627730	631	200	No	No

BE-02 kimberlite

Two drill holes, 08SMB05 and 08SMB07, totalling 386m were drilled in order to further delineate and sample the BE-02 kimberlite. The gravity grid showed the BE-02 kimberlite as slightly offset magnetic and gravity highs. The BE-02 discovery hole (08SMB03) was drilled at the center of the magnetic anomaly but only intersected 18.17m of kimberlite. The 2 follow-up holes were placed closer to the edge of the magnetic anomaly but near the center of the gravity anomaly and resulted in longer kimberlite intersections.

Drill hole 08SMB05, intersected the BE-02 kimberlite at 109m and remained in coarse pyroclastic kimberlite until 193.10m before punching out into the bedrock sedimentary Colorado Shale formation. Drill hole 08SMB07 was located 25 m west of 08SMB05 and intersected the BE-02 kimberlite at 85.5m. It remained in kimberlite until 152.28m before intersecting bedrock. The BE-02 kimberlite is described as sparsely to densely macrocrystic-pyroclastic kimberlite. Intervals of coarse macrocrystic phases present in the drill core contain visible diamond indicator minerals such as olivine and pyrope as xenocrysts and mantle xenoliths found in the cores of peletal lapilli.

The topography of the surface of the kimberlite varies widely over the closely spaced area of the drill holes. Discovery hole 08SMB03 intersected the kimberlite at 122.4m depth. Drill hole 08SMB07 located only 35 m to the southeast intersected kimberlite at 85.5m depth. Drill hole 08SMB05, located 25 east of 08SMB07, intersected kimberlite at 109m depth. This results in overburden thickness differences of 36.9m and 23.5m over very short distances.

A total of approximately 562.6kg of kimberlite from BE-02 (296.0 kg from 08SMB05; 66.6 kg from 08SMB07) was collected and submitted for caustic fusion diamond analysis at the Saskatchewan Research Council (SRC), Saskatoon, Saskatchewan. Caustic fusion analysis returned 218 diamonds including 5 macrodiamonds (defined as greater than 0.5mm in 2 dimensions; Table 6).

Table 6: Caustic Fusion Diamond Results for Kimberlites BE-02 and BE-03 from Autumn 2008 Drilling

Kimberlite	No. of Samples	Total Weight (Kg)	Total No. of Diamonds	No. of Diamonds per Sieve Size (mm square Mesh sieve)							
				0.075 mm	0.106 mm	0.150 mm	0.212 mm	0.300 mm	0.425 mm	0.600 mm	0.850 mm
BE-02	74	518.55	316	150	99	37	21	6	1	1	1
BE-03	56	365.35	218	104	62	37	10	4	1	0	0

* From Grizzly Diamonds Ltd. Press Release Dec 8, 2008

New Targets

The remaining 3 drill holes, totalling 579.5m, targeted magnetic and gravity anomalies from the summer geophysical program.

08SMB-06

Drill hole 08SMB06 targeted the center of a coincident magnetic and gravity high anomaly that lies approximately 350 metres to the northwest of the BE-02 kimberlite. The hole intersected fine to coarse pyroclastic kimberlite at 66m and remained in kimberlite until 186.63m resulting in the discovery of the BE-03 kimberlite. The BE-03 kimberlite is described as ranging from fine to coarse grained pyroclastic kimberlite with portions containing visible coarse fragments of kimberlite and country rock along with olivine macrocrysts, occasional pyrope garnets and chrome diopsides. The BE-03 kimberlite is very similar in appearance to the BE-02 kimberlite.

A total of approximately 383.8kg of kimberlite from BE-03 was collected and submitted for caustic fusion diamond analysis at the Saskatchewan Research Council (SRC), Saskatoon, Saskatchewan. Caustic fusion analysis returned 218 diamonds including 5 macrodiamonds (Table 6).

08SMB-08

Holes 08SMB08 targeted a magnetic high anomaly located approximately 250 metres to the southeast of BE-02. The drill hole intersected mudstone bedrock at 158.5m and terminated in shale bedrock at 189.5m. Although no kimberlite was intersected, the short intersection of bedrock at the bottom of the hole does not preclude the absence of kimberlite at depth.

08SMB-09

Hole 08SMB09 targeted a gravity high anomaly located approximately 530m southeast of BE-02. The hole remained in overburden until 200m and did not intersect any kimberlite. The hole had to be terminated at 200m depth in accordance with the Energy and Utilities Board regulations. This hole was drilled from an anomaly at the edge of the ground gravity grid. An extension of the geophysics grid to the south is required to properly delineate this target.

SAMPLING METHOD AND APPROACH

Caustic Fusion Diamond Analysis

The 2008 drill core selected for caustic fusion was sent whole, (i.e. the core was not split and half retained). The core was well documented through logging, geoteching, detailed photography and representative sampling (for petrography and DIM) before caustic fusion samples were collected. Samples were collected by starting at the top of the kimberlite in the drill hole and systematically collecting samples down the hole until the end of the kimberlite intersection. Divisions were made between samples either when the sample weight approached eight kilograms (approximately two metres of NQ drill core) or when a lithological boundary was reached. Samples of eight kilograms were necessary due to batch size requirements of SRC caustic fusion facilities. When a lithologic boundary was reached, the down-hole sample was terminated and a new sample started. Intervals of bedrock, within the kimberlite intersection, over half a metre in length were broken out during lithological logging and were not included during the sampling. Each sample identified by lithology or weight was given a unique sample number. Individual samples were placed in rock bags with a piece of flagging with the sample identifier written on it and on the outside of the sample bag. Each bag was secured with a zip-tie. Samples were then placed in security sealed plastic pails in preparation for shipping to the SRC and the security seal numbers were recorded. Details of core sampling for caustic fusion including drill hole ID, sample number, sample weight, and depth interval sampled are presented in Appendix 5a.

Diamond Indicator Mineral Sampling

Kimberlite DIM sampling was completed by starting at the top of the kimberlite in the drill hole and removing systematic 10 to 20 cm representative samples every few meters down the hole. The drill core was not split in half, the whole core was sent for DIM processing. Samples were collected in plastic rock bags with the sample identifier written on the bag and also on a piece of flagging inside the bag. Samples were cut off when the weight reached 25 kilograms. Plastic sample bags were secured with a zip-tie and then placed inside double bagged rice bags with the sample identifier

and lab address written on the outside. Rice bags were then also secured with zip-ties. All samples were shipped to the SRC in Saskatoon, Saskatchewan by ground freight. Details of core sampling for DIM including drill hole ID, sample number, sample weight, and depth interval sampled are presented in Appendix 6.

All core boxes with remaining core were palletized after sampling was completed and shipped to the Mineral Core Research Facility (MCRF) in Edmonton, Alberta.

SAMPLE PREPARATION, ANALYSIS AND SECURITY

Samples were all sent to the Saskatchewan Research Council (SRC) laboratory in Saskatoon, Saskatchewan, by Grimshaw Trucking out of Edmonton, Alberta.

Caustic Fusion Diamond Analysis

All diamonds from drill core were recovered by caustic fusion at the SRC. Each sample was collected by APEX personnel and bagged at the staging area where all the core was geoteched, logged and photographed. At the lab, each sample was dried and poured into steel pots with caustic soda. All samples were cooked at approximately 570 degrees Celsius until the rock was completely disintegrated. Subsequently, the material was hot poured over a 0.075 millimetre screen, then washed, dried and cleaned with acid. Material less than 0.075mm is discarded. The 'residue' or resistate mineral concentrate was picked for diamonds. A flowchart of the SRC caustic fusion laboratory procedures can be found in Appendix 5c.

Diamond Indicator Mineral Processing

At the SRC, in order to recover heavy mineral concentrates, weighed samples are wet sieved into 2 fractions: <1 mm to >0.5 mm; <0.5 mm to >0.25 mm, using vibrascreens. The minus 0.25 mm material and >1 mm material is stored. The fractions are put through a permaroll to separate non-magnetic from para-magnetic mineral grains. Heavy liquid separation (tetrabromoethane (TBE), specific gravity 2.96 and methylene iodide (MI), specific gravity 3.3) is used to further concentrate heavy minerals. The heavy mineral concentrate undergoes ferromagnetic separation using a hand magnet to obtain magnetic and non-magnetic fractions. Samples are then passed through a Frantz to obtain the final concentrates for diamond indicator mineral picking. Results are pending.

Diamond Indicator Mineral Microprobe Analysis

Microprobe analyses are performed on all individual picked grains in order to obtain their chemical composition. Individual grains picked by the SRC are analysed by R.L. Barnett Geological Ltd. of Lambeth, Ontario. The electron microprobe is equipped with a wavelength dispersive spectrometer (WDS). The data is collected under a beam accelerating voltage and current of 20 kilovolts and 20 nanoamperes and a beam diameter between 1 and 3 micrometres. The chemical composition of each grain helps determine kimberlite provenance. Microprobe analyses are pending.

DATA VERIFICATION

A quality assurance and quality control (QA/QC) program was used for the caustic fusion and DIM sampling and processing. The mineral processing facility used for this program by APEX and Grizzly at the SRC uses standard quality assurance and control policies in all aspects of laboratory operations. The programs were developed from guidelines published by the International Standards Organization (ISO). The Saskatchewan Research Council Geoanalytical Laboratories are accredited to the ISO/IEC 17025 standard by the Standards Council of Canada as a testing laboratory for specific tests. The SRC is also accredited under the "Mineral Analysis Laboratory of the Standards Council of Canada".

All 2008 core samples from kimberlites were collected as part of a 'chain of custody' and were processed for diamonds at the SRC. The samples were shipped to the SRC by ground freight in security sealed plastic pails. During the program, Mr. David Arsenault of APEX Geoscience Ltd. was in charge of the Quality Assurance/Quality Control (QA/QC). Mr. Dean Besserer P.Geol. of APEX Geoscience Ltd. was the Qualified Person in charge of a Quality Assurance/Quality Control (QA/QC) at the SRC. Mr. Besserer traveled to the laboratory to receive the samples and check security tags.

ADJACENT PROPERTIES

Exploration that has been conducted by other companies adjacent to Grizzly's properties prior to 2007 is discussed in the History section.

The 2007 exploration program performed by the BHHJV (at that time Stornoway Diamond Corporation was the operator) consisted of a kimberlite sampling as well as 2,210 metres of "definition-style" diamond drilling from 23 holes on the K14-BH225-K91 kimberlite corridor and the K6 kimberlite. An aggregate of 480 tonnes of kimberlite was recovered from K14 and K6 (Diamondex Resources Ltd. Press November 29, 2007). The bulk sample was processed at the Shore Gold processing facility through Dense

Media Separation, X-ray Flowsort and grease table recovery. The concentrates were sorted at an independent laboratory for diamond recovery. The samples from K-14 returned an average grade of 8.11 carats per hundred tons (cpht) and the sample from K6 returned a grade of 7.02cpht. The results are presented in Table 7 (Diamondex Resources Ltd. Press October 15, 2008).

Table 7: K14 and K6 Bulk Sample Diamond Results *.

Batch	Dry Metric Tonnes	Total Stones	Total Carats	CPHT	Largest Stone (ct)
BHH-K14-Pit 1	43.56	45	3.20885	7.37	0.9
BHH-K14-Pit 2	45.22	70	3.9746	8.79	0.38
BHH-K14-Pit 3	48.22	24	3.94695	8.18	0.71
BHH-K6-Pit 1	231.89	85	16.2853	7.02	1.07
	368.89	**224**	**27.416**		

*Diamondex Resources Ltd. Press October 15, 2008

The aim of the 2008 exploration program for the BHHJV was to drill test the best kimberlite pipes (discovered to date) with sufficient density to allow for the identification of distinct kimberlite phases and key characteristics, which will permit the construction of more accurate geological models; to will provide vital information to determine which pipes will warrant bulk sampling during follow-up campaigns. The program commenced in the February 2008 and to date, a total of 41 drill holes have been completed on the K14, K252 and K6 kimberlite for a combined total of 6,818 metres. A total of 22 holes were drilled into the K14 kimberlite (20 holes intersected kimberlite) in a grid pattern. Detailed core logging identified 6 distinctive eruptive phases and allowed for the development of a preliminary 3 dimensional model. Further drilling along the southern edge of the kimberlite is required to further delineate the body. Six drill holes were completed at the K252 kimberlite totalling 1,203m. Interpretation and results are pending. A grid of 13, of the planned 22, drill holes has been completed at the K6 kimberlite to delineate the 700m long geophysical anomaly. Drilling is expected to resume after winter freeze-up (Diamondex Resources Ltd. Press October 15, 2008).

EXPLORATION EXPENDITURES

During summer and autumn of 2008 ground geophysics and drilling programs were conducted on the Smoky the Bear mineral permits within Grizzly's Buffalo Head Hills property. A total of CDN$585,220.64 (not including GST) was spent on exploration during the period. A summary of exploration costs and a detailed expense report is provided in Appendix 1.

INTERPRETATION AND CONCLUSIONS

The regional setting for Grizzly's Buffalo Head Hills diamond property has been historically considered highly favourable for the presence of diamondiferous kimberlites. This was reinforced by the 2007 and 2008 exploration and drilling programs conducted by Grizzly Diamonds Ltd., which culminated in the discovery of the first three new kimberlites in the Buffalo Head Hills area in five years.

The permits are predominantly underlain by Early Proterozoic to Archean basement of the Buffalo Head Craton. The local bedrock geology and the underlying Archean and Proterozoic crystalline basement in association with Phanerozoic structures, such as the Peace River Arch, likely provided a favourable environment for the formation and ascent of kimberlitic magmas in the Buffalo Head Hills area. This regional geological and structural setting is also considered favourable for the formation of kimberlitic magma in the upper mantle and its ascent to surface during periodic tectonic activity associated with movement along the Peace River Arch and the Grosmont High. Significant crustal thickness (35 to 40) underlying the area in combination with a number of important Gurney (1984) G10 subcalcic pyrope garnets are a strong indication that the area was underlain by upper mantle suitable for the formation and preservation of diamonds.

This theory was confirmed by the discovery of at least 26 diamondiferous kimberlite pipes to date in the Buffalo Head Hills area by the BHHJV and by the 2008 field programs, in which three new diamondiferous kimberlites were discovered on Grizzly's Smoky The Bear Claim Block. Exploration and drilling during 1997 to 2001 by the BHHJV has resulted in the discovery of no less than 10 kimberlites less than 15 km north of the northern property boundary of Grizzly's Smoky The Bear Claim Block, and no less than 3 of those 10 kimberlites are within 5 km (Skelton and Bursey, 1998 and 1999; Skelton and Willis, 2001). The highly diamondiferous K252 kimberlite is located approximately 21 km north of Grizzly's Smoky The Bear Claim Block and has yielded a grade of 55 carats per hundred tonnes, demonstrating the economic potential of the Buffalo Head Hills kimberlites and the region.

Limited bedrock exposures have been observed and reported within the area due to presence of extensive glacial deposits. Local bedrock exposed in the area or intersected in near surface drilling is age correlative to bedrock in other parts of the Buffalo Head Hills that has been intruded by kimberlites. The glacial history for the Buffalo Head Hills region is very complex with regions of thick glacial drift, extensive glacial gravel and evidence of extensive glacial tectonism. Drift thickness is known to range from less than 25 metres (80 feet) to greater than 250 metres (820 feet) with multiple layers of till and glacial outwash. The complex glacial deposits and glacial history can be a serious impediment to exploration for kimberlites. Future exploration programs for kimberlites and diamonds in the Buffalo Head Hills area should include a full compilation of the glacial deposits and drift thickness. Areas of thin drift and less glacial complexity should be the focus of any future exploration programs. Those areas

underlain by thick drift in preglacial paleo-river channels should be omitted from future exploration.

A review of previous airborne geophysical data for Grizzly's Buffalo Head Hills property resulted in the identification of a number of magnetic anomalies that warranted follow-up exploration for kimberlites, in particular, within the Smoky The Bear, Grand Cub Aidan and Preston Upon Wolverine Claim Blocks. Ground geophysical programs were completed by APEX personnel on behalf of Grizzly on the Smoky The Bear, Grand Cub Aidan and Preston Upon Wolverine Claim Blocks in two programs: Fall 2007 - Winter 2008.and summer 2008 A total of 47 magnetic anomalies were investigated by gridding and ground magnetic surveys. In total, 31 airborne magnetic anomalies were surveyed on the Smoky the Bear Claim Block, 10 anomalies were surveyed on the Preston Upon Wolverine Claim Block and 5 anomalies were surveyed on the Grand Cub Aidan Claim Block.

Subsequent to the ground geophysical program, seven drill holes were completed to test for kimberlite between January 30 to March 25, 2008. A total of four holes were completed on the Smoky The Bear Claim Block and three holes on the Grand Cub Aidan block. The 2008 drilling program resulted in the discovery of two new kimberlites, BE-01 and BE-02, on Grizzly's Smoky The Bear Claim Block. Kimberlite BE-01 yielded a total of two microdiamonds from a total sample weight of 265.35kg. BE-01 also yielded a large number of DIMs including pyrope garnets, chrome diopsides, olivines and chromites. Kimberlite BE-02 yielded 54 microdiamonds from a total weight of 56.60 kg of kimberlite. Kimberlite BE-02 yielded only olivines and 28 chromites from the DIM analysis. A sample collected from the till at the bottom of drillhole SMB08-01 on the Smoky The Bear Claim Block yielded 1 pyrope garnet, 2 chrome diopsides, 107 olivines and 2 picroilmenites perhaps indicating that the drill hole was about to enter a kimberlite upon exiting the overburden.

Follow-up drilling on the BE-02 kimberlite and other targets commenced in September 2008. The BE-02 discovery hole (08SMB03) was drilled at the center of a weak magnetic anomaly but only intersected 18.17m of kimberlite. For the autumn drilling the 2 follow-up holes were placed close to the edge of the magnetic anomaly but near the center of the gravity anomaly and resulted in greater kimberlite intersections. Drill hole 08SMB05, intersected 84.1 m of kimberlite. Drill hole 08SMB07 was collared 25 metres to the west of 08SMB05 and intersected the 66.7m of kimberlite. The kimberlite was described as sparsely to densely macrocrystic-pyroclastic kimberlite. A total of 316 diamonds were recovered from 518.55 kg of kimberlite, yielding an average of 0.61 diamonds per kilogram, using a minimum stone size cutoff of the 0.075 mm sieve. This includes a total of 5 macrodiamonds (defined as having at least 2 dimensions greater than 0.5mm), with the largest diamond recovered having dimensions of 1.26 x 1.02 x 0.84 millimetres. Two of the macrodiamonds recovered from BE-02 have at least one dimension greater than 1 millimetre. The BE-02 ground magnetic survey indicates that the kimberlite is roughly 200 m x 160 m in size, however, the associated gravity anomaly is offset from the magnetic anomaly making it unclear what the true dimensions of the kimberlite are. Additionally, that the hole drilled in the

center of the magnetic anomaly contained the shortest intersection of kimberlite which leads to questions of how the magnetic and gravity anomalies relate to the geometry of the kimberlite itself.

Drill hole 08SMB06 targeted a coincident magnetic and gravity anomaly 350m northwest of BE-02 and resulted in the discovery of the BE-03 kimberlite. A total of 120.6m of kimberlite were intersected. The kimberlite was described as sparsely to densely macrocrystic-pyroclastic kimberlite. A total of 218 diamonds, including 5 macrodiamonds, were recovered from 365.35 kg of kimberlite, yielding 0.60 diamonds per kilograms using a minimum stone size cutoff of the 0.075 mm sieve. The largest macrodiamond recovered from BE-03 had dimensions of 0.8 x 0.56 x 0.46 millimetres. Based upon the ground geophysics, the BE-03 Kimberlite is estimated to be approximately 200m in diameter.

The associated magnetic anomaly for the BE-02 and BE-03 kimberlites is only 20nT, much weaker than the associated anomaly for the BE-01 kimberlite (50nT). The BE-02 and BE-03 kimberlites are significantly diamondiferous while the BE-01 kimberlite is very weakly diamondiferous. A correlation between the diamond content of the kimberlite and the strength of the magnetic anomaly associated with the kimberlite appears to be evident. If this holds true, a re-evaluation of all lower priority targets (i.e. weak magnetic anomalies) may be required with a broader target selection criteria based on magnetic response. This will make recognising priority targets increasingly difficult. An integration of other data, for example gravity data, will be required to prioritize targets.

Drill hole 08SMB09 targeted a gravity high anomaly located approximately 530m southeast of BE-02. The hole was terminated in overburden at 200m (abiding by provincial legislation) and did not intersect any kimberlite. The drill hole was selected from a gravity anomaly at the edge of the current ground geophysical survey. Due to the proximity of the anomaly to the edge of the grid it is difficult to determine the exact location and geometry of the anomaly. The author believes that this resulted in the placement of the drill hole at the extreme edge of the kimberlite, where the bedrock topography was very low. As seen from the BE-02 drill holes, the overburden depth can change dramatically over small distances. A southern extension of the survey will help clarify the extent and true location of the anomaly allowing for more accurate drill target selection. It is expected that targeting the centre of the geophysical anomaly will result in intersecting a kimberlite at much shallower depth, as in the case of BE-02 and BE-03.

The use of ground gravity surveying on the Smoky the Bear property was very successful. Both BE-02 and BE-03 exhibited coincident gravity anomalies with magnetic targets adding additional certainty to the prioritization of targets. The completion of an airborne gravity geophysical survey over this area will determine the effectiveness of the gravity properties, in conjunction with existing magnetic and electromagnetic data, in locating new kimberlites. The survey should overlap the known kimberlites to ascertain whether or not airborne gravity is a viable option for future exploration plans.

RECOMMENDATIONS

Diamond exploration on Grizzly's Buffalo Head Hills properties is still in the early stages, however the potential for discovery of diamondiferous kimberlites is considered high based on the regional geological setting in conjunction with the positive results of exploration conducted to date. This was confirmed by the 2007 and 2008 programs, which culminated in the discovery of three new diamondiferous kimberlites on Grizzly's Smoky The Bear Claim Block. During the summer-autumn 2008 exploration seasons Grizzly spent a total of CDN$585,220.64 (not including GST) on exploration on their Smoky the Bear Property.

Future exploration at Grizzly's Buffalo Head Hills Property should be conducted in 6 stages:

Stage 1 should consist of a bulk sample of both the BE-02 and BE-03 kimberlites. The objective of this bulk sample is to assess the diamond potential of these kimberlites as well as to ascertain a better understanding of the geometry of the pipe. The bulk sample could be completed using either large diameter drilling or utilizing multiple drill holes with an estimated cost of between **$1,500,000** and **$2,700,000** plus GST.

Stage 2 should consist of an extension of the BE-02 ground gravity and magnetic surveys further to the south to aid in the delineation of the anomaly targeted by drill hole 08SMB09. The estimated cost of **Stage 2** is **$60,000**, plus GST.

Stage 3 should consist of an aggressive summer prospecting program for DIM's with the planned collection of approximately 200 samples. The estimated cost of **Stage 3** is **$250,000**, plus GST.

Stage 4 should consist of a reverse circulation or core drilling program of 10 kimberlite targets within Grizzly's properties. The estimated cost to conduct a 10 hole drilling program is **$1,250,000** plus GST.

Stage 5 should consist of a ground geophysical program that checks at least 25 of the remaining highest priority airborne targets. The estimated cost of **Stage 5** is **$250,000**, plus GST.

Stage 6 should consist of an airborne gravity geophysical survey flown over a 100 or 200 square kilometre area surrounding the BE-02 and BE-03 kimberlites. The estimated cost of **Stage 6** is approximately **$270,000** to **$510,000**, plus GST.

The total estimated cost of the recommended first three stages of exploration for Grizzly's Buffalo Head Hills properties is between **$3,580,000** and **$5,020,000** plus GST.

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CERTIFICATE OF AUTHOR

I, Michael B. Dufresne, residing at 267 Burton Rd., Edmonton, Alberta, Canada do hereby certify that:

1. I am a principal and President of APEX Geoscience Ltd. ("APEX"), Suite 200, 9797 – 45th Avenue, Edmonton, Alberta, Canada. I am the author of the report entitled: ***"Assessment Report For Grizzly Diamond Ltd.'s Buffalo Head Hills Permits: 9303031149, 9303031152-55, 930402489-92, 930402495, 930402497-98, 930402500-503, 9304070991, 9304070993-95, 9304070997, 9304080907-11, 9305010837-38, 9305031116-23, 9306020522-30, 9306020533-34, 9306020545, 9306031168-71, 9306050839-843, 9306060995-1011, 9306061026-37, 9306061065-69, 9306100651-53, 9306110736-42, 9306110744 and 9307010942-46"*** dated January 15th, 2009, and am responsible for the preparation of the entire report.

2. I graduated with a B.Sc. in geology from University of North Carolina at Wilmington in 1983 and a M.Sc. in Economic Geology from University of Alberta in 1987.

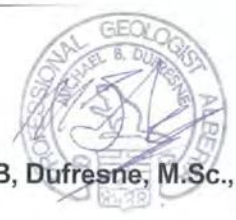
3. I am a Professional Geologist registered with APEGGA (Association of Professional Engineers, Geologists and Geophysicists) and a 'Qualified Person' in relation to the subject matter of this report. I have worked as a consulting geologist for more than 20 years since my graduation from university and I have conducted and directed exploration programs, property examinations and evaluations for a number of commodities and deposit types.

4. I have not received, nor do I expect to receive, any interest, directly or indirectly, in the Buffalo Head Hills Permits or the securities of Grizzly Diamonds Ltd.

5. To the best of my knowledge, I am not aware of any material fact or material change with respect to the subject matter of the technical report that is not reflected in the technical report, the omission to disclose which would make the report misleading.

6. I have read and understand National Instrument 43-101 and the Report has been prepared in compliance with the instrument. I am considered independent of the issuer as defined in Section 1.4.

7. I have visited the Property and directed exploration by APEX Geoscience Ltd. at the Property over the last five years on behalf of Grizzly Diamonds Ltd.



Michael B, Dufresne, M.Sc., P.Geol.

January 15th, 2009
Edmonton, Alberta

CERTIFICATE OF AUTHOR

I, Anetta Banas, residing at #413, 10717-83Ave, Edmonton, Alberta, Canada do hereby certify that:

1. I am a graduate of the University of Alberta with a BSc Degree in Geology (2002) and a MSc degree in Earth and Atmospheric Sciences (2005) and have practiced my profession continuously since January, 2006.

2. I am a Geologist-in-Training registered with APEGGA (Association of Professional Engineers, Geologists and Geophysicists).

3. I have not received, nor do I expect to receive, any interest directly or indirectly, in the Smoky the Bear Property.

4. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report of the omission to disclose which makes the Report misleading.

5. I have visited the properties that are the subject of this Report in October 2008.

Anetta Banas, MSc., Geol.I.T.

January 15, 2009
Edmonton, Alberta

CERTIFICATE OF AUTHOR

I, David Arsenault, residing at #103, 11435-41 Ave, Edmonton, Alberta, Canada do hereby certify that:

1. I am a graduate of the Memorial University with a B.Sc. Degree in Geology (2006) and have practiced my profession continuously since 2006.

2. I am a Geologist-in-Training registered with APEGGA (Association of Professional Engineers, Geologists and Geophysicists).

3. I am Geologist in Training in the employ of APEX Geoscience Ltd. and have been such since 2006.

4. I have not received, nor do I expect to receive, any interest directly or indirectly, in the Smoky the Bear Property.

5. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report of the omission to disclose which makes the Report misleading.

6. I have visited the properties that are the subject of this Report during September and October 2008.

David Arsenault, B.Sc., Geol.I.T.

January 15, 2009
Edmonton, Alberta

APPENDIX 1

Summary Expenditures

APEX Geoscience Ltd.
Profit Loss Detail
May 1 through December 4, 2008

	Fall Drilling	Summer Ground Geophysics	Spring Drilling	Subtotals
APEX Geoscience June 1 to December 1 Expenses				
APEX Trucks, Magnetometers & Miscellaneous Equipment Rentals, Fees	9,404.27	7,679.72	0	17,083.99
APEX Geologists Fieldwork	24,800.00	37,225.00	0	62,025.00
APEX Geologists Office	4,409.50	1,582.00	0	5,991.50
APEX Principals Directly Involved	7,560.50	5,757.75	0	13,318.25
Total APEX Geoscience Costs June 1 to December 1, 2008	46,174.27	52,244.47	0	98,418.74
Third Party June 1 to December 1 Expenses				
Field accommodation - Geologists & Drillers	30,808.40	18,252.80	0	49,061.20
Analytical costs including DIM and caustic analyses	83,672.36	0.00	13,314.53	96,986.89
Miscellaneous field supplies	940.92	1,309.06	0	2,249.98
Food; camp and travel	425.63	672.46	0	1,098.09
Fuel; camp and travel	2,701.87	1,978.00	0	4,679.87
Airfare & travel	231.34	2,786.81	0	3,018.15
Geophysical subcontract; Intrepid and Quadra for gravity survey	1,250.00	26,125.00	0	27,375.00
Other subcontract including linecutting, pad and road building	5,709.00	24,214.00	0	29,923.00
Drilling - Lone Peak Drilling direct drilling costs	265,986.70	0.00	0	265,986.70
Communications	54.10	86.39	0	140.49
Freight; regular and samples	1,446.07	551.49	0	1,997.56
Geophysical equipment rentals	0.00	3,435.00	0	3,435.00
Auto rentals and repairs	849.97	0.00	0	849.97
Total Third Party Costs June 1 to December 1, 2008	394,076.36	79,411.01	13,314.53	486,801.90
TOTAL PROJECT COSTS JUNE 1 TO DECEMBER 1, 2008	**440,250.63**	**131,655.48**	**13,314.53**	**585,220.64**

APPENDIX 2

Metallic Mineral Permit Agreements

Alberta

MINERAL AGREEMENT DETAIL REPORT

Report Date: October 16, 2009 11:54:41 AM

Agreement Number: 093 9305010838

Status: ACTIVE
Agreement Area: 8704
Term Date: 2005-01-19
Continuation Date:

DESIGNATED REPRESENTATIVE

Client Id: 8037596
Client Name: GRIZZLY GOLD INC.
Address: COMP 2 SITE 17
PEERS, AB
CANADA T0E 1W0

LAND / ZONE DESCRIPTION

5-06-090: 28;33
5-06-091: 01-12;14-18;22;23;26-36
5-06-092: 03;10

METALLIC AND INDUSTRIAL MINERALS

Alberta

MINERAL AGREEMENT DETAIL REPORT

Report Date: October 16, 2009 11:56:48 AM

Agreement Number: 093 9306110739

Status: ACTIVE
Agreement Area: 768

Term Date: 2006-11-07
Continuation Date:

DESIGNATED REPRESENTATIVE

Client Id: 8078830
Client Name: GRIZZLY DIAMONDS LTD.
Address: 9797 45 AVE NW SUITE 220
EDMONTON, AB
CANADA T6E 5V8

LAND / ZONE DESCRIPTION

5-05-088: 06;07S;18NW;19W;30W;31SW

METALLIC AND INDUSTRIAL MINERALS

Alberta

MINERAL AGREEMENT DETAIL REPORT

Report Date: October 16, 2009 11:57:09 AM

Agreement Number: 093 9306110740

Status: ACTIVE
Agreement Area: 2048
Term Date: 2006-11-07
Continuation Date:

DESIGNATED REPRESENTATIVE

Client Id: 8078830
Client Name: GRIZZLY DIAMONDS LTD.
Address: 9797 45 AVE NW SUITE 220
EDMONTON, AB
CANADA T6E 5V8

LAND / ZONE DESCRIPTION

5-06-088: 01E;07;08;12SE;13N;14N;15N;22E;23;24;25S;26S;27SE

METALLIC AND INDUSTRIAL MINERALS

Alberta

MINERAL AGREEMENT DETAIL REPORT

Report Date: October 16, 2009 11:57:40 AM

Agreement Number: 093 9306110741

Status: ACTIVE
Agreement Area: 2176
Term Date: 2006-11-07
Continuation Date:

DESIGNATED REPRESENTATIVE

Client Id: 8078830
Client Name: GRIZZLY DIAMONDS LTD.
Address: 9797 45 AVE NW SUITE 220
EDMONTON, AB
CANADA T6E 5V8

LAND / ZONE DESCRIPTION

5-06-089: 02;03E;09E;10;11;12N;14W;15E;22S;25N;31;36

METALLIC AND INDUSTRIAL MINERALS

Alberta

MINERAL AGREEMENT DETAIL REPORT

Report Date: October 16, 2009 11:57:50 AM

Agreement Number: 093 9306110742

Status: ACTIVE
Agreement Area: 3584
Term Date: 2006-11-07
Continuation Date:

DESIGNATED REPRESENTATIVE

Client Id: 8078830
Client Name: GRIZZLY DIAMONDS LTD.
Address: 9797 45 AVE NW SUITE 220
EDMONTON, AB
CANADA T6E 5V8

LAND / ZONE DESCRIPTION

5-06-090: 01;02N;04NW;05N;06NE;07SE;08S;09SW;11-14;23E;24;25;29;31;32;36

METALLIC AND INDUSTRIAL MINERALS

APPENDIX 3

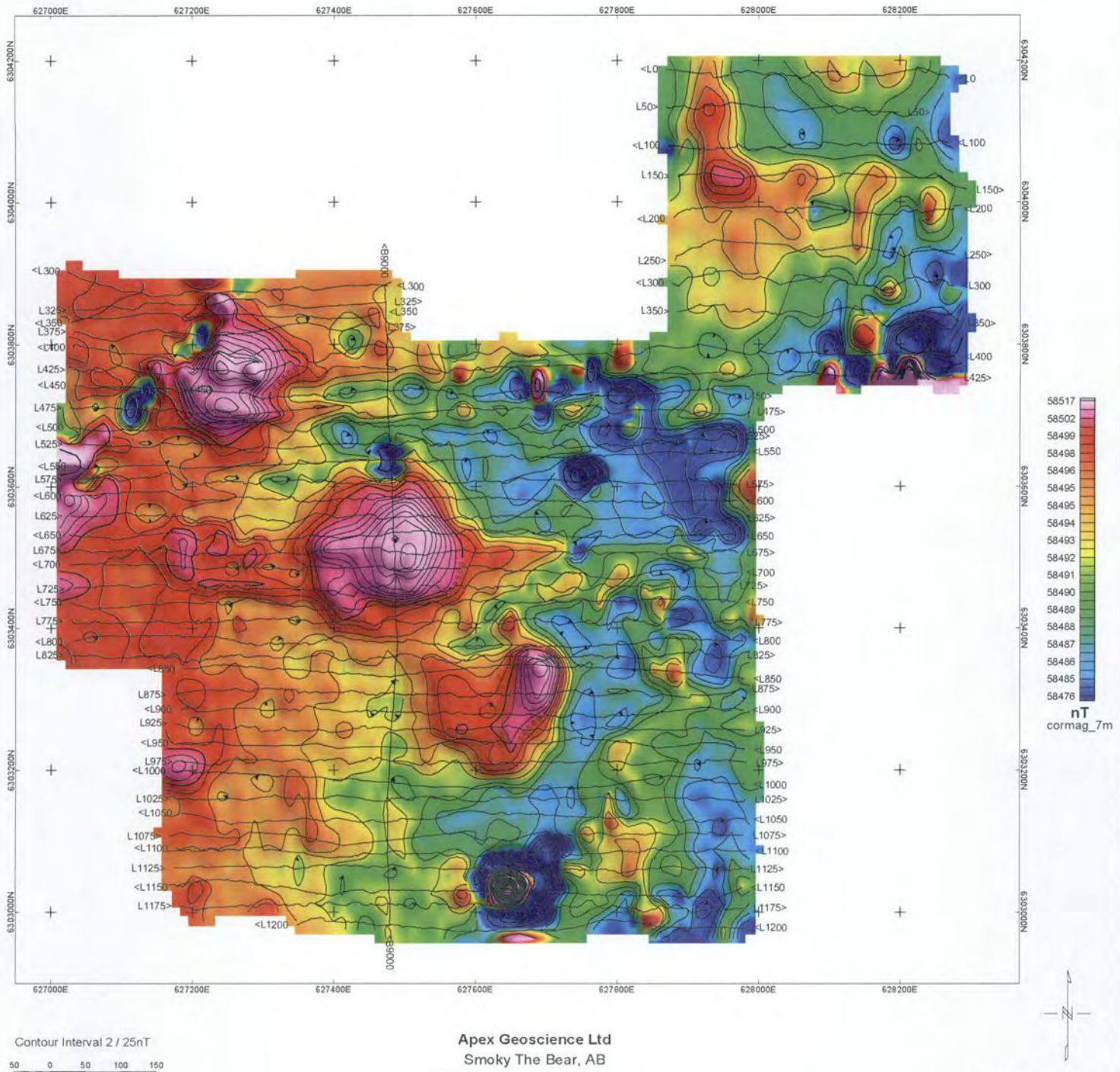
Ground Geophysics

APPENDIX 3a

Ground Geophysics Raw Data

APPENDIX 3b

Contoured Ground Geophysics Maps



Contour Interval 2 / 25nT

50 0 50 100 150

(meters)

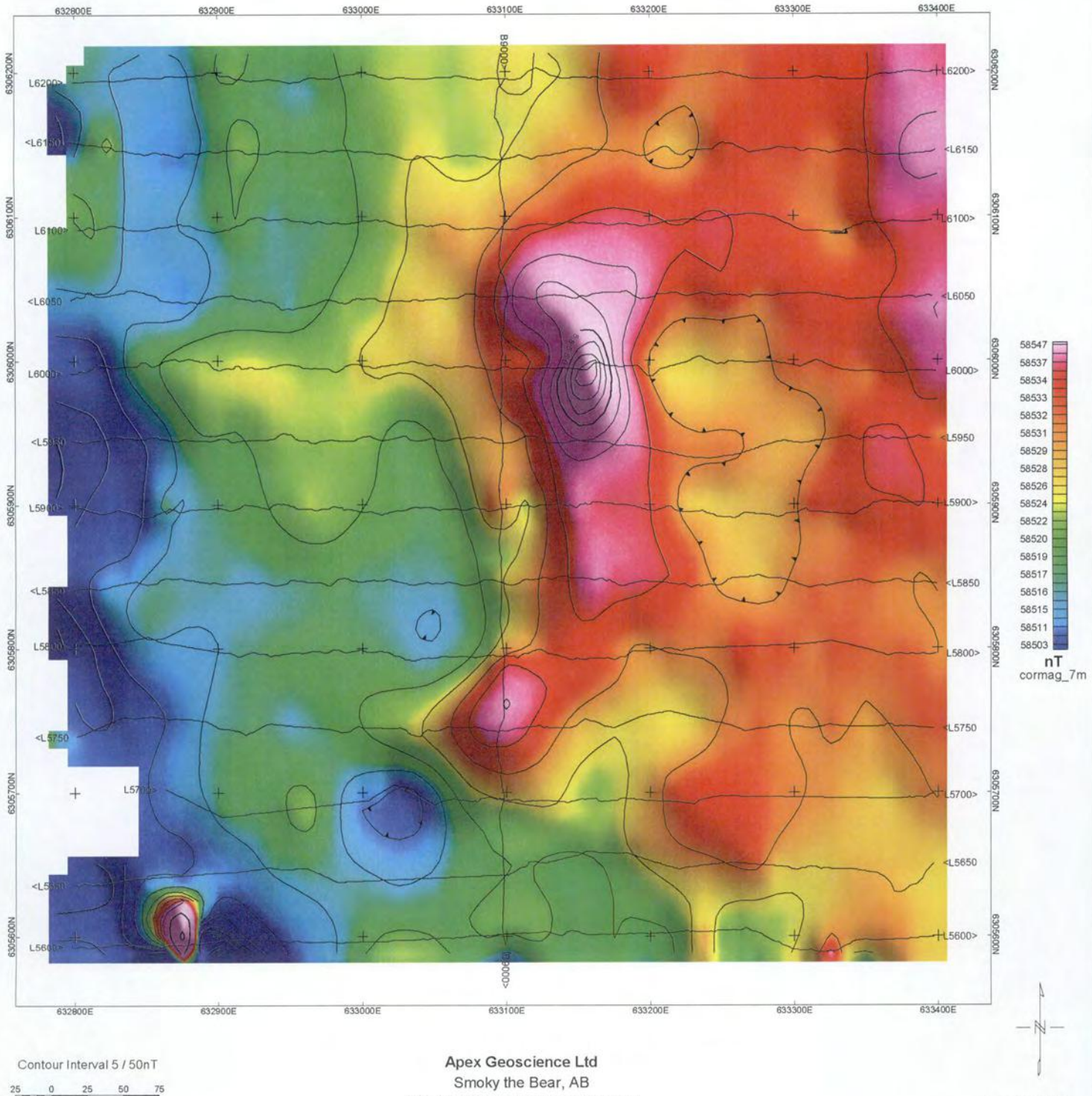
NAD27 / UTM zone 11N

Apex Geoscience Ltd

Smoky The Bear, AB

BE-02 Ground Magnetic Survey

June 16 to 23, 2008

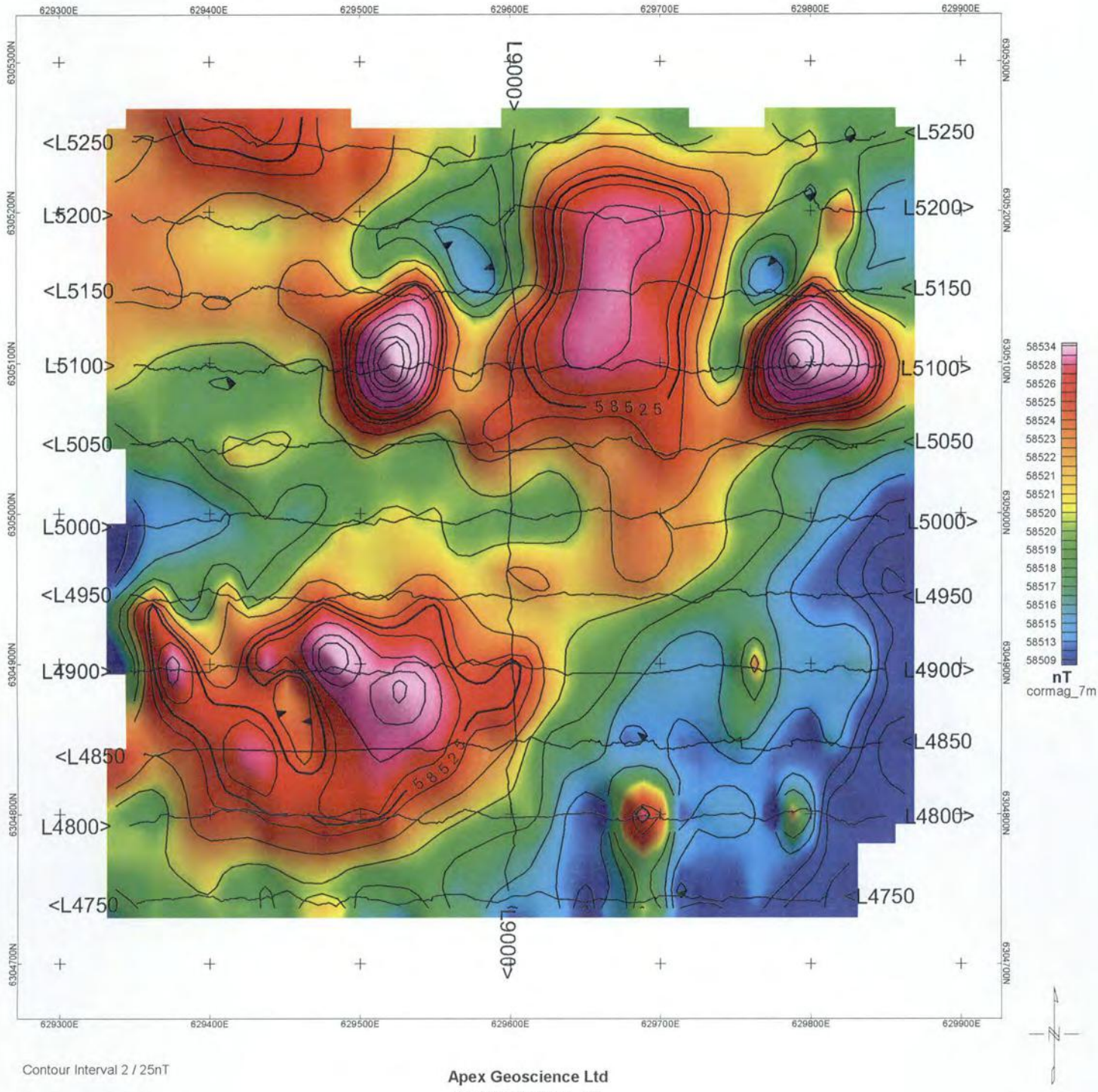


Apex Geoscience Ltd

Smoky the Bear, AB

SM-002, Ground Magnetic Survey

June 25, 2008



Contour Interval 2 / 25nT

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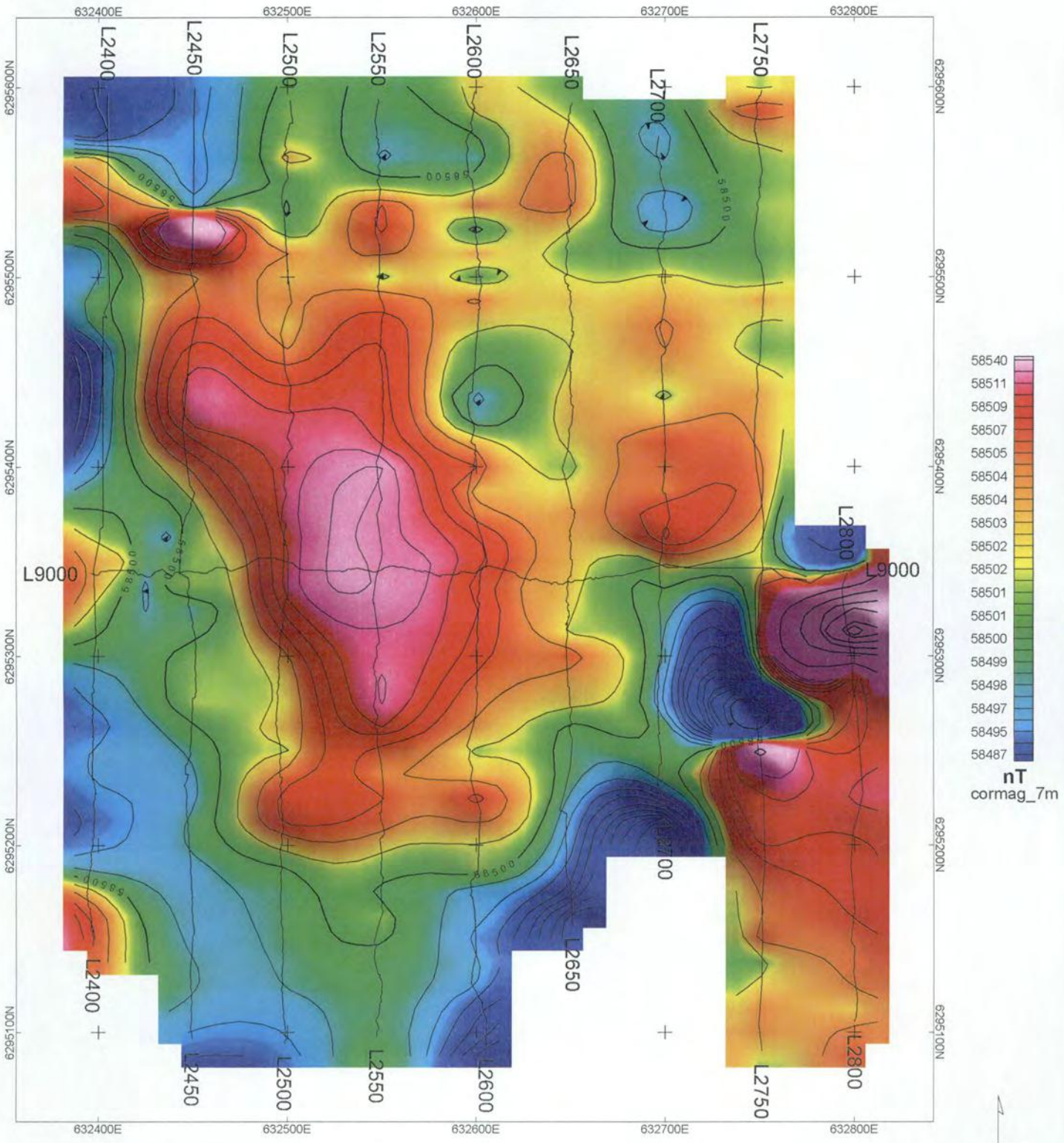
(meters)
NAD27 / UTM zone 11N

Apex Geoscience Ltd
Smoky The Bear, AB
SM-007 Ground Magnetic Survey

June 27, 2008



Contour Interval 2 / 25nT

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(meters)

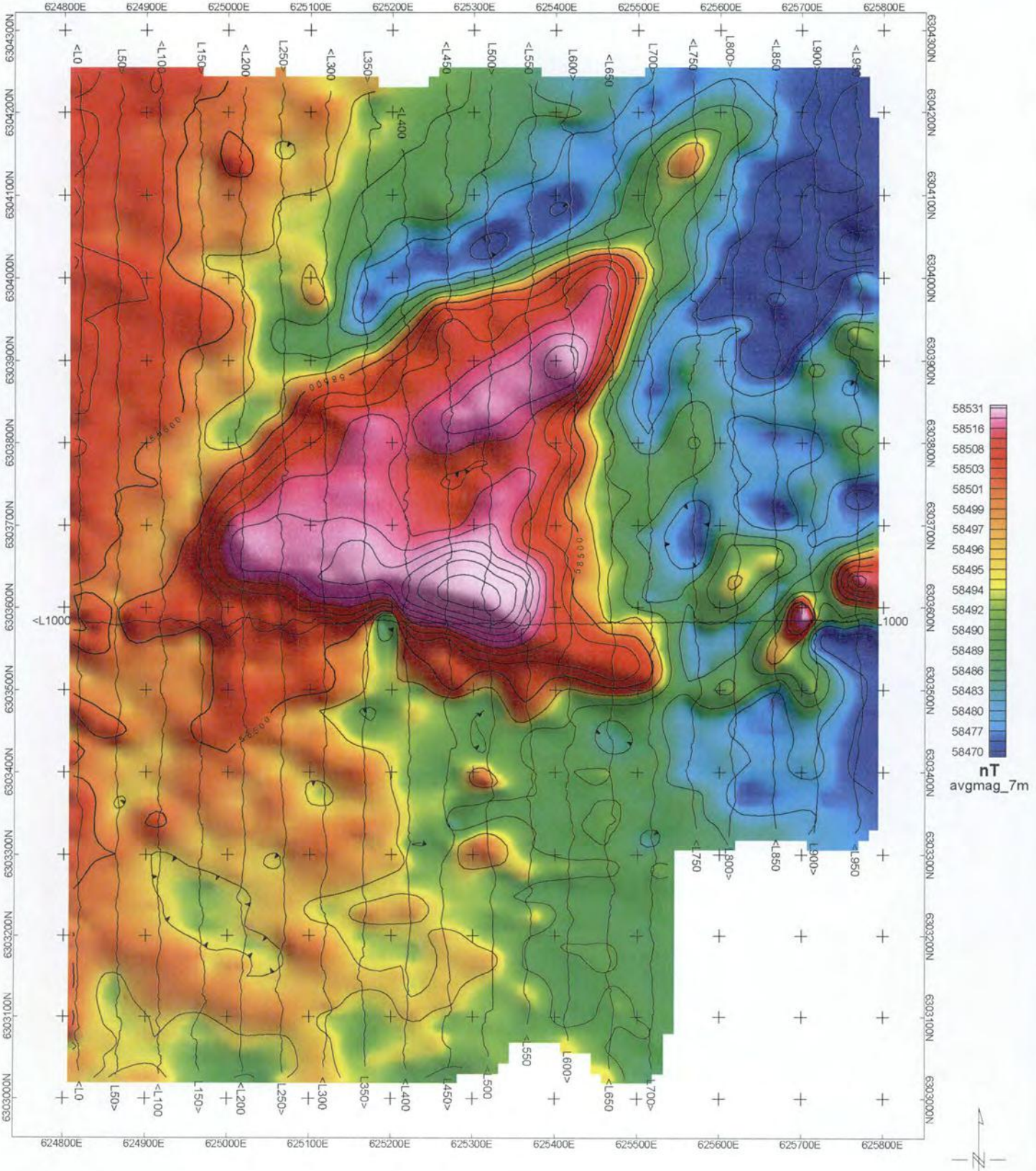
NAD27 / UTM zone 11N

Apex Geoscience Ltd

Smoky The Bear, AB

SM-011 Ground Magnetic Survey

July 1,2008



Contour Interval 5 / 50nT

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(meters)

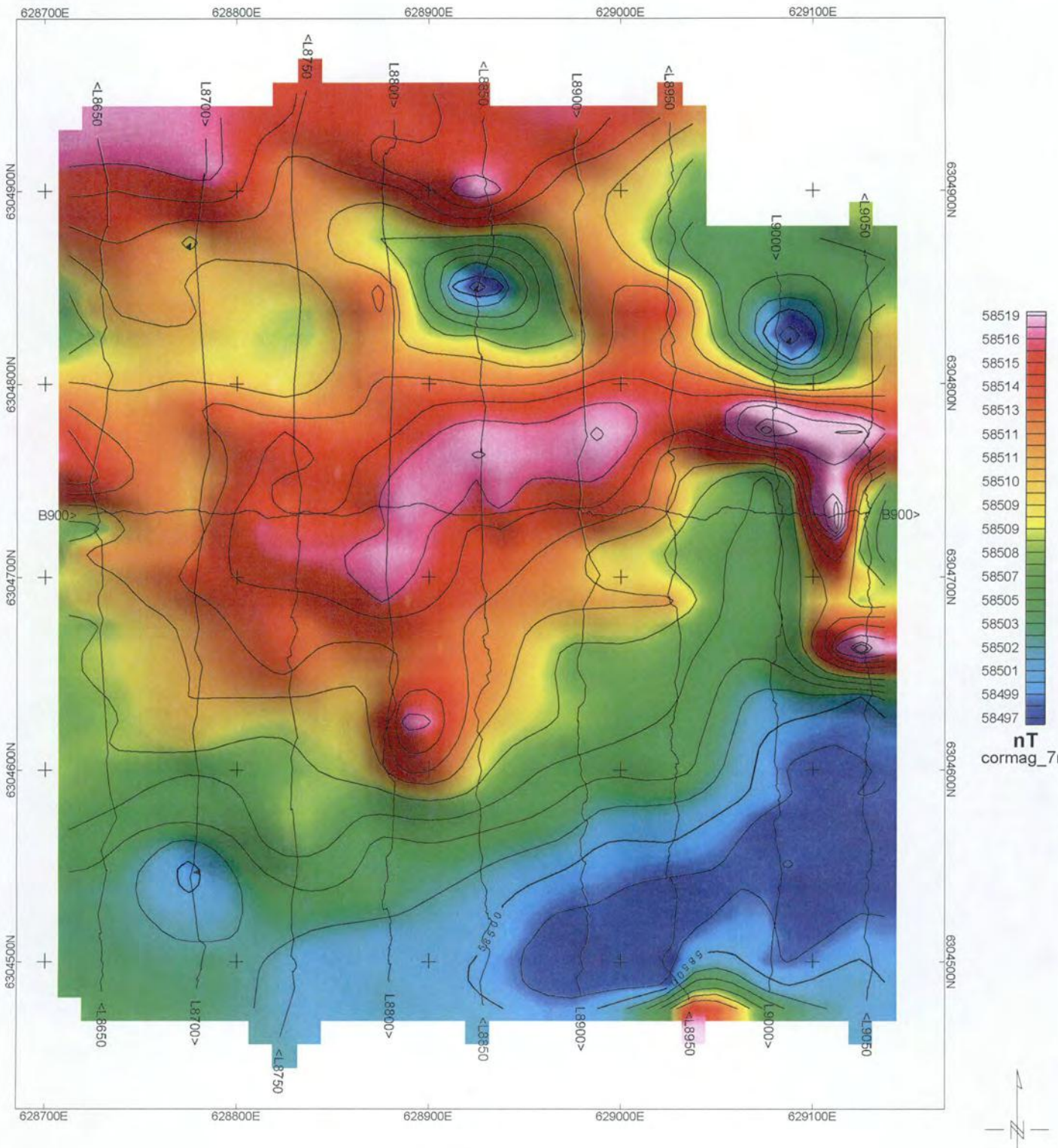
NAD27 / UTM zone 11N

Apex Geoscience Ltd

Smoky The Bear, AB

SM-120, Ground Magnetics Survey

June 11 to 14, 2008



Contour interval 2 / 25nT

25 0 25 50 75

(meters)

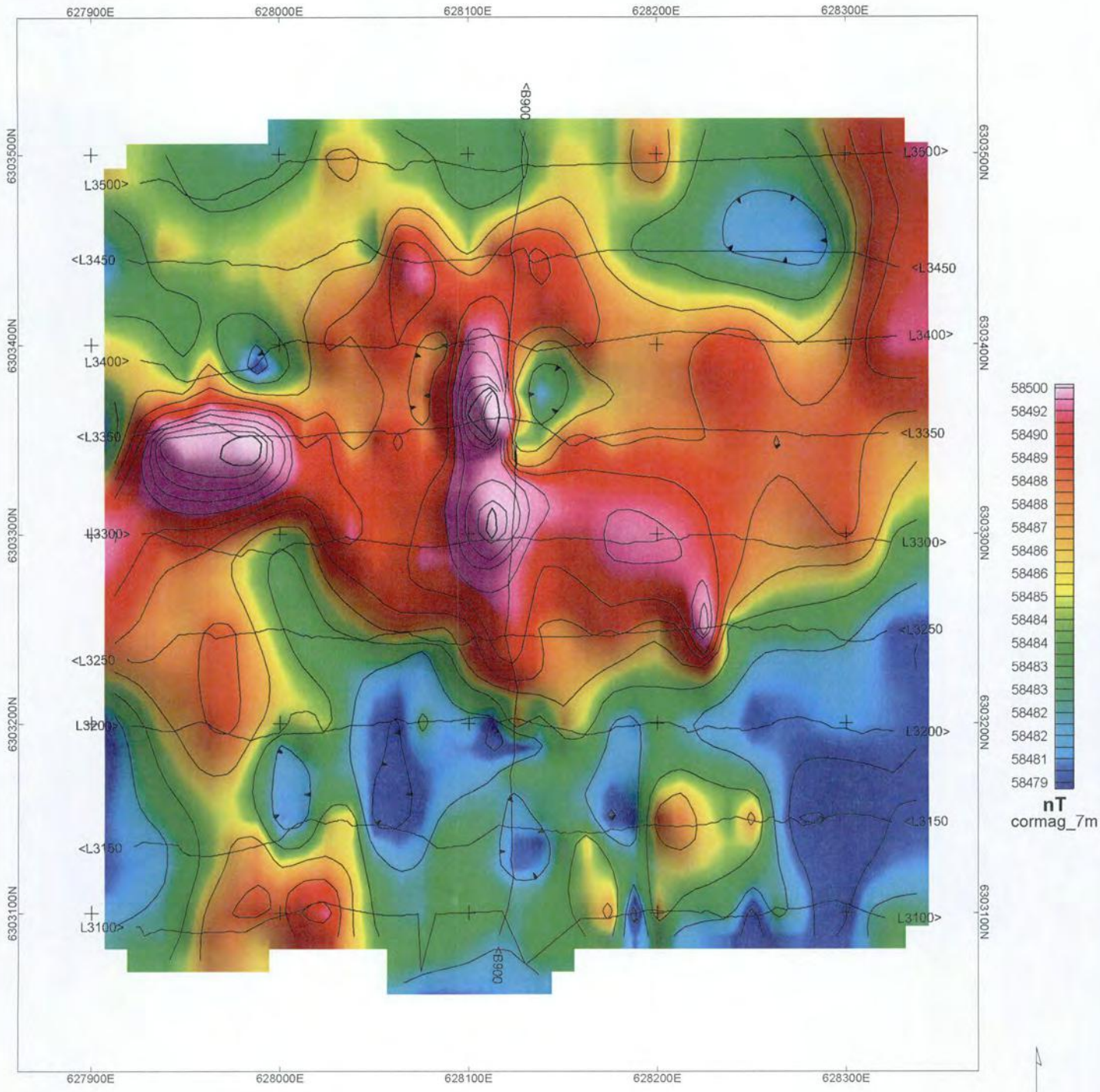
NAD27 / UTM zone 11N

Apex Geoscience Ltd

Smoky The Bear, AB

SM-121 Ground Magnetic Survey

June 28, 2008



Contour Interval 2 / 25nT

25 0 25 50 75

(meters)

NAD27 / UTM zone 11N

Apex Geoscience Ltd

Smoky the Bear, AB

SM-122, Ground Magnetic Survey

June 24, 2008

APPENDIX 3c

Quadra Surveys Ground Gravity Report

QUADRA SURVEYS LTD.

QUALITY YOU CAN DEPEND ON

Gravity and GPS Survey

APEX GEOSCIENCE LTD.

Suite 200, 9797-45 Avenue, Edmonton, AB T6E 5V8

Smokey the Bear Project: Logistical Report

Red Earth Creek, AB
July 03, 2008

Written by:
Tam Mitchell, AScT

Box 846
Barriere, BC V0E 1E0

1. INTRODUCTION

- **Client Name:** Apex Geoscience Ltd.
  Suite 200, 9797- 45 Avenue
  Edmonton, AB T6E 5V8
  Ph: (780) 439-5380
- **Project Name:** Smokey the Bear Summer 2008 Project
- **Survey Period:** June 22nd to July 2nd, 2008
- **Survey Type:** Gravity and GPS
- **Client Rep:** Fred Welke
- **Survey Objective:** To better understand the geologic formations in the area by identifying areas of differing density contrasts by means of gravity and GPS surveys, and to identify potentially mineralized zones.
- **Report Type:** Logistics

2. PROJECT DETAILS

2.1 Location

- General Area: Near Red Earth Creek, AB
- Road Access from: Red Earth Creek, AB
- Province: AB
- Country: Canada
- NTS Map Reference: 84B-15

Figure 1: Map Location of the Smokey the Bear Project

2.2 Access

- The crew stayed at the Noralta Lodge, Red Earth Creek, AB.
- The grid was accessed by truck.
- Stations were accessed on foot.

2.3 Survey Grid(s)

- Coordinate System: NAD83, Zone 11N
- Line Direction: 90°
- Station Spacing: 50m
- Line Spacing: 50m
- Line length: 450m – 950m
- Survey Control: Real Time Kinematic

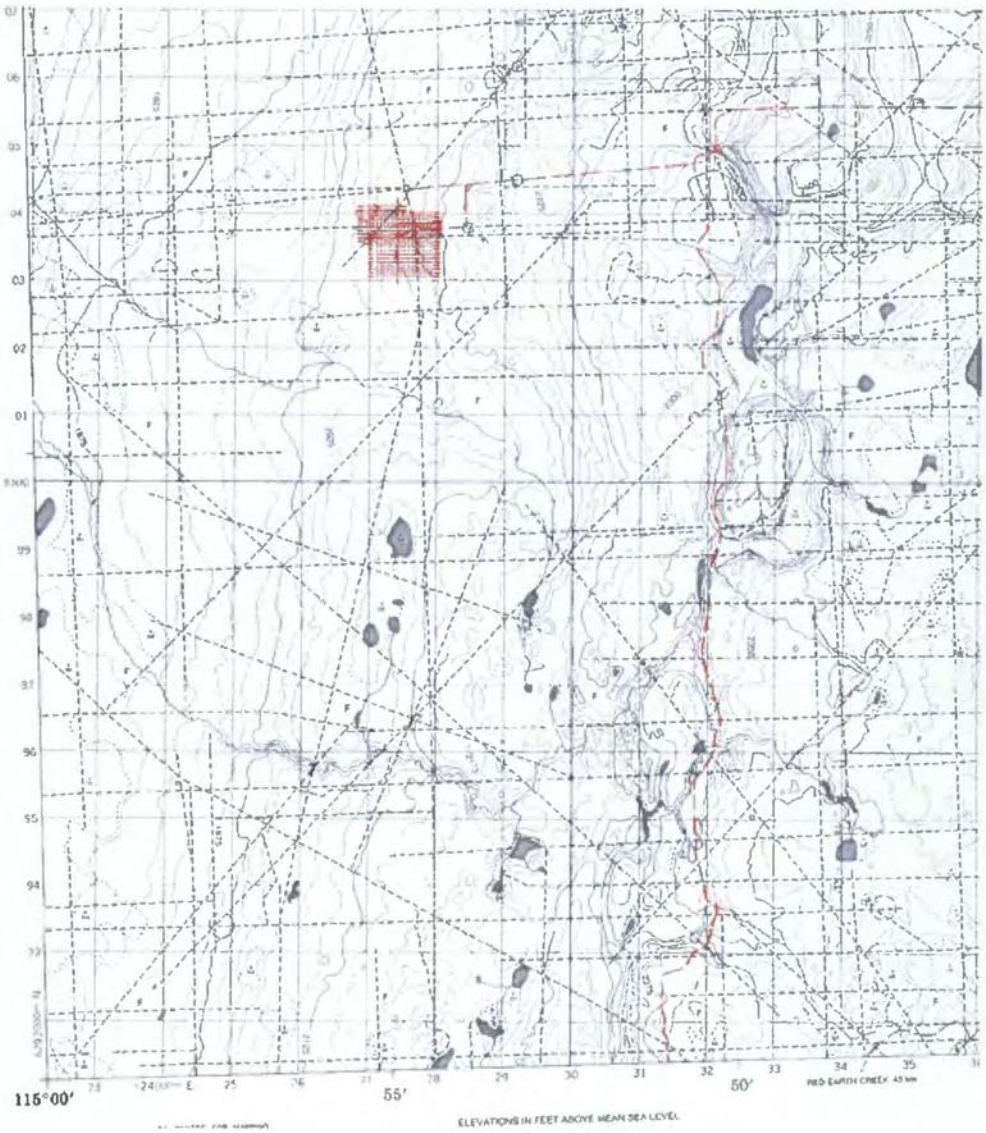


Figure 2: Map Location of the Smokey the Bear Gravity Grid

3. SURVEY DETAILS

3.1 Production Log

- Gravity Survey Duration: June 22nd to July 2nd, 2008
- Survey Days: 9 Crew Days
- Mob - Demob Days: 2 Crew Days
- Rest / Sick Days: 0 Crew Day
- Re-Surveying Data: 1 Crew Days
- Equipment Down Days: 0 Crew Days
- Approximate Production Rate: 37 Stations per Crew Surveying per Day
- Total Production: 329 Stations plus 64 repeat Stations

3.2 Personnel

- Supervisor, Gravity: Scott Smith, Yellowknife, NWT
- GPS: Sean Mitchell, Barriere, BC

3.3 Survey Coverage

Grid: BE-02				
Production Summary: 329 Stations				
Start North	Start East	End North	End East	Distance
3200	7300	3200	7900	600
3250	7100	3250	7900	800
3300	7100	3300	7900	800
3350	7100	3350	7900	800
3400	7100	3400	7900	800
3450	7100	3450	7900	800
3500	7100	3500	7900	800
3550	7100	3550	7900	800
3600	6950	3600	7900	950
3650	6950	3650	7900	950
3700	6950	3700	7900	950
3750	6950	3750	7900	950
3800	6950	3800	7900	950

3850	6950	3850	7900	950
3900	6950	3900	7900	950
3950	6950	3950	7900	950
4000	6950	4000	7850	900
4050	6950	4050	7400	450
4100	6950	4100	7400	450

Table 1: Smokey the Bear Grid Survey Coverage

3.4 Survey Specifications

3.4.1 Gravity Survey:

- Technique: Line profiles on closed loop traverses.
- Station Spacing: 50m
- Line Spacing: 50m
- Line Lengths 450m – 950m
- Repeat Frequency: Minimum 10% randomly collected.
- Maximum Repeat Accuracy: 0.05 mGal Maximum
- Maximum Loop Tie: 0.05 mGal Maximum

3.4.2 GPS Survey:

- Datum: NAD83, Zone 11N
- Method: Real Time Dual Frequency GPS with GPS (American) and Glonass (Russian) Constellation.
- Station Location: Digital file supplied by client. Physical locations established by GPS operator during survey.
- Accuracy: +/- 5cm (X, Y, Z)

3.5 Instrumentation

- Gravity Meters: Scintrex Model CG-5 (SN: 121)
- GPS Receivers: Topcon Hiper Plus (SN: 570, 572)
- Auto Level: Berger

3.6 Survey Parameters

3.6.1 Gravity Survey

- Data Output Units: Milligals
- Gravity Formula: 1967
- GMT Difference: 6 hours
- Gravity Base Station Locations:

Figure 3: BE-02 Field Base -2

Name	Abs G	NAD83 North	NAD83 East	Elevation
-1	980000.00	6267253.000	604305.000	535.000
-2	979992.87	6303861.276	627397.926	626.288
-3	979999.84	6267249.000	604292.000	536.000

Table 2: Gravity Base Stations

3.6.2 GPS Survey

- Projection: UTM NAD83, Zone 11N
- Geoid: Canada HT2-0
- Spheroid: GRS 1980
- Location of Measurement: Ground Level
- GPS Base Station(s):

Station	NAD83 Northing	Easting	Elevation	WGS84 Latitude	Longitude	Ellipsoid
-2	6303861.276	627397.926	626.288	56.86102192	-114.9104376	604.828

Table 3: GPS Base Stations

The coordinates for the GPS Base were derived by conducting a static occupation of the base and then post processing the data with the Canadian Spatial Reference System Precise Point Positioning (CSRS PPP) engine for processing. Auto Level loops were tied to this base.

3.7 Measurement Accuracy and Repeatability

3.7.1 Gravity Survey

9 Gravity Loop Ties:

Grid	Loop Duration	Loop Tie	Meter	Date
BE02	5:50	-0.02	126	23/06/2008
BE02	2:14	-0.05	126	24/06/2008
BE02	4:29	-0.01	126	24/06/2008
BE02	6:25	0	126	25/06/2008
BE02	6:40	-0.19	126	26/06/2008
BE02	6:46	-0.02	126	27/06/2008
BE02	6:10	-0.05	126	28/06/2008
BE02	5:34	-0.09	126	29/06/2008
BE02	5:02	-0.08	126	30/06/2008

Table 4: Gravity Loop Ties

We noted some unusual drift on the Scintrex meter on several loops on this project, likely just from the rough road in. This resulted in several poor loop misclosures; 0.19mGal on one day, and 0.09 on the subsequent day to check the previous loop. Other than one obvious bad reading in a swamp that repeated to 0.14mGal the stations on the two loops repeated to no worse than 0.05mGal on any station. The first loop was discarded and the second loop was used.

Grid	North	East	Rep Abs G		Grid	North	East	Rep Abs G
BE02	3550	7500	-0.04		BE02	3600	7750	0
BE02	3600	7100	-0.03		BE02	3700	7850	0
BE02	3600	6950	-0.03		BE02	3550	7750	0
BE02	3600	7000	-0.03		BE02	3600	7600	0.01
BE02	3600	7300	-0.03		BE02	3600	7900	0.01
BE02	3600	7350	-0.03		BE02	3600	7650	0.01
BE02	3700	7650	-0.03		BE02	3550	7850	0.01
BE02	3600	7050	-0.03		BE02	3550	7750	0.01
BE02	3700	7850	-0.02		BE02	3600	7500	0.01
BE02	3550	7400	-0.02		BE02	3700	7400	0.01
BE02	3700	7600	-0.02		BE02	3550	7800	0.01
BE02	3600	7150	-0.02		BE02	3700	7650	0.01
BE02	3550	7600	-0.02		BE02	3600	7550	0.02
BE02	3650	7800	-0.02		BE02	3600	7450	0.02
BE02	3700	7600	-0.02		BE02	3700	7500	0.02
BE02	3650	7800	-0.02		BE02	3600	7800	0.02
BE02	3600	7200	-0.02		BE02	3650	7650	0.02
BE02	3550	7650	-0.02		BE02	3650	7700	0.03
BE02	3600	7250	-0.01		BE02	3700	7750	0.03
BE02	3550	7700	-0.01		BE02	3700	7450	0.03
BE02	3700	7650	-0.01		BE02	3600	7400	0.03
BE02	3550	7450	-0.01		BE02	3700	7550	0.03
BE02	3550	7550	-0.01		BE02	3700	7700	0.04
BE02	3700	7850	-0.01		BE02	3700	7900	0.05
BE02	3850	7400	-0.01		BE02	3650	7900	0.05
BE02	3600	7900	-0.01		BE02	3650	7750	0.05
BE02	3550	7900	-0.01		BE02	3650	7850	0.05
BE02	3600	7700	0		BE02	3700	7800	0.05
BE02	3700	7600	0					

Table 5: June 30th repeat of June 26th Gravity Loop

64 Repeated Stations, 19.5% of 329 total Gravity Stations:

Grid	North	East	Rep Abs G		Grid	North	East	Rep Abs G
BE02	3600	7550	-0.04		BE02	3400	7400	0
BE02	3600	7600	-0.04		BE02	4000	7400	0
BE02	3300	7250	-0.04		BE02	3550	7750	0
BE02	3600	7650	-0.03		BE02	3750	7400	0
BE02	3850	7400	-0.03		BE02	3800	7400	0.01
BE02	3250	7400	-0.03		BE02	3750	7450	0.01
BE02	3550	7400	-0.02		BE02	3700	7400	0.01
BE02	3300	7400	-0.02		BE02	3400	7400	0.01
BE02	3600	7500	-0.02		BE02	3250	7400	0.01
BE02	3800	7450	-0.02		BE02	3200	7400	0.01
BE02	3700	7650	-0.02		BE02	3800	7400	0.01
BE02	3600	7400	-0.02		BE02	4000	7400	0.01
BE02	3600	7450	-0.02		BE02	3550	7400	0.01
BE02	3900	7400	-0.01		BE02	3300	7600	0.01
BE02	3700	7850	-0.01		BE02	3600	7450	0.02
BE02	3600	7400	-0.01		BE02	3650	7400	0.02
BE02	3600	7900	-0.01		BE02	3800	7350	0.02
BE02	3800	7400	-0.01		BE02	3850	7400	0.02
BE02	3350	7400	-0.01		BE02	3600	7500	0.02
BE02	3700	7600	-0.01		BE02	4050	7400	0.02
BE02	3700	7600	-0.01		BE02	3900	7400	0.02
BE02	3950	7400	-0.01		BE02	3600	7400	0.02
BE02	3800	7500	-0.01		BE02	3350	7400	0.03
BE02	3350	7400	0		BE02	3950	7400	0.03
BE02	4100	7400	0		BE02	3200	7400	0.03
BE02	3700	7650	0		BE02	3850	7450	0.03
BE02	3850	7400	0		BE02	3700	7400	0.03
BE02	3550	7400	0		BE02	3350	7600	0.03
BE02	3650	7800	0		BE02	3250	7400	0.03
BE02	3850	7400	0		BE02	3400	7600	0.04
BE02	3700	7850	0		BE02	3300	7400	0.04
BE02	3550	7400	0		BE02	3500	7400	0.05

Table 6: Gravity Repeat Stations

3.7.2 GPS Survey

GPS Quality Control: Auto Level Loop Closures	
	Std Deviation (m)
Maximum	0.089
Minimum	0.001
Average	0.034

Table 7: GPS error analysis

3.8 Data Reduction

3.8.1 Gravity Survey

Gravity Reduction:	Quadra Surveys Proprietary Software
Gravity Formulae:	1967 Formulae
Terrain Corrections:	By Suunto inclinometer to 52m
Earth Density:	(2.0, 2.2, 2.4, 2.6) gm/cc & 2.67 gm/cc
Final Reduction:	In Milligals to Partial Bouguer Gravity See Appendix B
Mapping Software:	Geosoft

3.8.2 GPS Survey

RTK Reductions:	Topcon Tools RTK Software

3.9 Data Presentation

3.9.1 Plan Maps

a) Bouguer Gravity Map reduced to 2.67 gm/cc

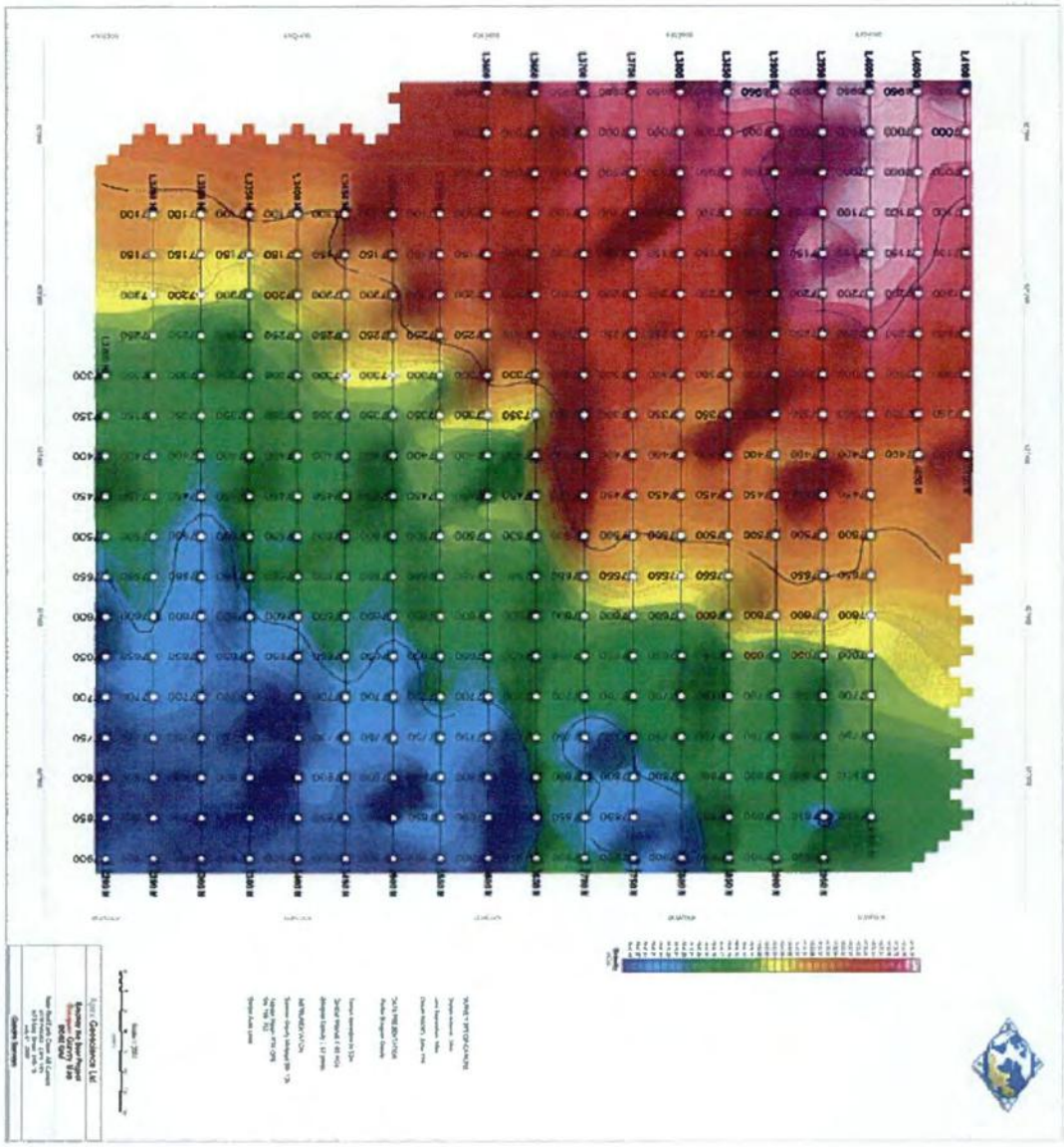


Figure 4: Bouguer Gravity Map

b) Residual of Bouguer Gravity Map reduced to 2.67 gm/cc

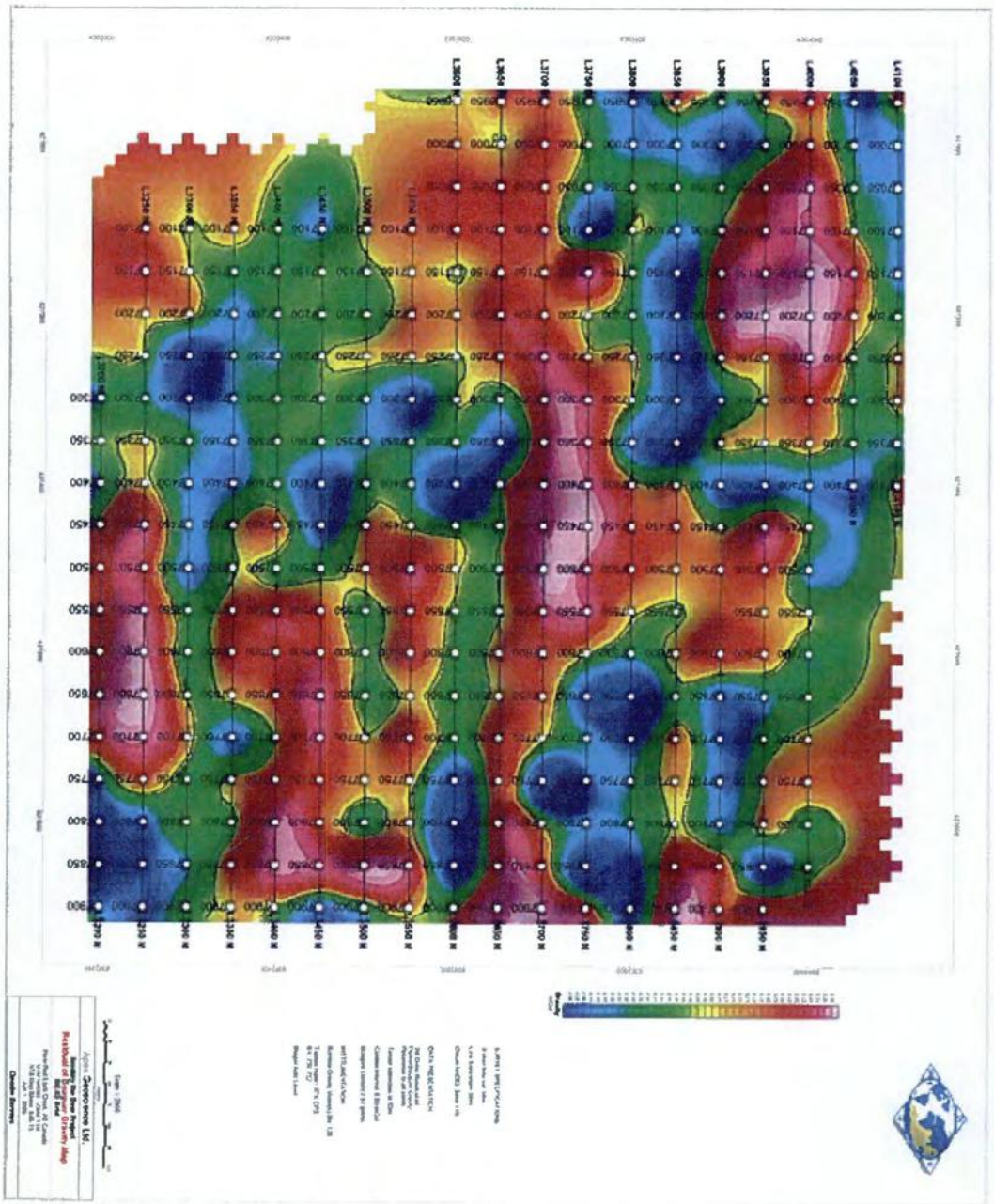


Figure 5: Residual of Bouguer Gravity Map

3.9.1 Digital Data

a) daily text files outlining gravity coverage, loop tie/duration and repeats (mmdd.txt)

b) Geosoft Oasis database containing gravity data; GPS data (local grid, UTM, Lat., Long., and elevation); reading date and time; snow and water depths

c) Comma Delimited Text File with all reduced data.

4. SURVEY DISCUSSION

The lines were surveyed with a Berger Auto Level and tied to a control point surveyed with Topcon's Hiper + RTK GPS. The GPS system was configured to use the GPS (American) and Glonass (Russian) satellites. CSRS - Precise Point Positioning (PPP) – was used to provide precise starting GPS coordinates consistent with the Canadian Spatial Reference System (CSRS) and the International Terrestrial Reference Frame (ITRF). Levels were conducted using the automatic level and two survey rods. Horizontal positioning was from the theoretical positions in the grid layout conducted with handheld GPS.

Prior to the commencement of gravity survey measurements, the following steps were performed to stabilize and check the gravimeters:

1. The offset, sensitivity, and meter drift was recalibrated.
2. The instrument was adjusted to read in the survey area for accurate earth tide corrections.

All readings were taken with the instrument mounted on an aluminum dish placed over the marked areas where the surveyors had prepared the site by removing the top layer of organic material and placed a flagged nail.

The data presented is at 2.67 gm/cc, which is the average earth crustal density, as the topography at this density appears to provide the least effect on the gravity profiles.

Respectfully Submitted,

[redacted]

Tam Mitchell, AScT
Quadra Surveys Ltd.

APPENDIX A: STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I Thomas L. Mitchell, AScT, of the city of Barriere, Province of British Columbia, DO HEREBY CERTIFY THAT:

1. I am the owner of Quadra Surveys Ltd. with office at 4832 Hwy 5, PO Box 846, Barriere, British Columbia, V0E 1E0.

2. I am a graduate of BCIT, with a diploma in Surveying Technology (1977).

3. I am registered with the Association of Applied Science Technologists and Technicians of British Columbia.

4. I have practiced my profession in N. and S. America, Japan and Africa for 30 years.

5. This report is based on a gravity survey which I conducted.

1. I have no direct or indirect interest in the properties or securities of Apex Geoscience Ltd. nor do I expect to receive any.

Applied Science Technologists and Technicians of British Columbia
10166
Thomas L. Mitchell
AScT

Dated at Barriere, BC, this 3rd day of July, 2008.

APPENDIX B: GRAVITY DATA REDUCTION

The data was reduced to partial Bouguer gravity anomaly values. Terrain corrections have been applied to 53.3 meters using inclinometer field shots. A density of 2.67 gm/cc is used to calculate the Bouguer anomaly. This value was assumed to be the appropriate density in calculations for the Bouguer correction.

g_o **Observed Gravity-** field observations corrected for earth tides and long term instrument drift were transcribed from field notebooks and corrections made for instrument height and residual instrument drift. These values were not tied to the National Gravity Net.

g_{fa} **Free Air Effect-** Correction for relative distances of observation points from the centre of mass (earth). This calculation moves all stations to a common elevation datum and corrects for relative distances in distance from the source mass. The elevation datum used was mean sea level. The formula used was:

$$g_{fa} = -0.3086 \text{ mgal/m}$$

g_{ba} **Bouguer Slab Effect** - Correction for the relative differences in amounts of surface rock below gravity stations. This calculation requires that a mean density or rock type between the lowest and highest grid elevations be established. All stations are shifted to a common datum as in the free air effect except that the vertical change is through an assumed slab of the derived density. The elevation datum used was mean sea level.

$$g_{bs} = 2*PI*.00667*\sigma \text{ mgal/m}$$

Where σ = slab density (gm/cc)

g_t **Theoretical Gravity** - Yields correction for change of observed gravity with change in (WGS84) latitude which is due primarily to the rotation of the earth and the difference in earth's radius between the poles and the equator.

$$g_t = g_e(1 + \alpha\sin^2\theta + \beta\sin^2 2\theta)$$

Where g_e = equatorial gravity = 978,031.85 mgal.
α = 0.005278895
β = -0.000023462
θ = Latitude

gt **Terrain Correction-** corrections for variations caused by local terrain. The vertical component of the gravitational effect exerted by nearby hills, or not exerted by nearby valleys or gullies, will affect the net reading obtained on any one station. The overall effect on a given line profile or area will be a function of the station spacing relative to the frequency of terrain undulations. Areas were segmented using circular sectors in zones developed by Hammer (1939). Corrections for the inner zones B and C (covering an area from 2 to 53.3 meters from the station) were calculated from the following expression:

$$g_t = \Sigma\Phi\tau\sigma[r_o - r_i + (r_i^2 + z^2)^{1/2} - (r_o^2 + z^2)^{1/2}]$$

Where Φ = Sector angle (B = 90°, C = 90 °)
τ = gravitational constant = 0.00667
σ = average density (gm/cc)
r_o = outer sector radius (B=16.6, C=53.3)
r_i = inner sector radius (B=2, C=16.6)
z = elevation difference between sector and station.

g_{faa} **Free Air Anomaly:** is derived from the following formulae:

$$g_{faa} = g_o - (g_t - 0.3086*E) = \text{Free Air Anomaly}$$

Where g_o = observed gravity
g_t = theoretical gravity
E = elevation

g_{ba} **Bouguer Anomaly:** was derived from the following formulae:

$$g_{ba} = g_b + g_{faa} + g_t = \text{Bouguer Gravity}$$

Where g_b = Bouguer gravity
g_{faa} = free air anomaly
g_t = terrain corrections

APPENDIX 3d

Magnetometer Description

Overhauser

Magnetometer / Gradiometer / VLF (GSM-19 v6.0)

GEM's unique Overhauser system combines data quality, survey efficiency and options into an instrument that matches costlier optically pumped cesium capabilities.

And the latest v6.0 technology upgrades provide even more value, including:

Integrated GPS option (the only system with fully built-in GPS)

25% increase in sensitivity over GEM's v5.0 system

Enhanced memory (increased by 8 times to 4 Mbytes standard and expandable to 32 Mbytes)

Programmable base station (for scheduling base stations in one of three modes)

Rapid data transfer (using the advanced GEMLinkW software)

Internet-based upgrades (from the office or field)

And all of these technologies come complete with the most attractive prices and warranty in the business!

Overhauser (GSM-19) console with sensor and cable. Can also be configured with additional sensor for gradiometer(simultaneous) readings.

The GSM-19 v6.0 Overhauser instrument is the total field magnetometer / gradiometer of choice in today's earth science environment -- representing a unique blend of physics, data quality, operational efficiency, system design and options that clearly differentiate it from other quantum magnetometers.

With data quality exceeding standard proton precession and comparable to costlier optically pumped cesium units, the GSM-19 is a standard (or emerging standard) in many fields, including:

- o Mineral exploration (ground and airborne base station)
- o Environmental and engineering
- o Pipeline mapping
- o Unexploded Ordnance Detection
- o Archeology
- o Magnetic observatory measurements
- o Volcanology and earthquake prediction

Taking Advantage of the Overhauser Effect

Overhauser effect magnetometers are essentially proton precession devices -- except that they produce an order-of-magnitude greater sensitivity. These "supercharged" quantum magnetometers also deliver high absolute accuracy, rapid cycling (up to 5 readings / second), and exceptionally low power consumption.

The Overhauser effect occurs when a special liquid (with unpaired electrons) is combined with hydrogen atoms and then exposed to secondary polarization from a radio frequency (RF) magnetic field.

The unpaired electrons transfer their stronger polarization to hydrogen atoms, thereby generating a strong precession signal -- that is ideal for very high-sensitivity total field measurements.

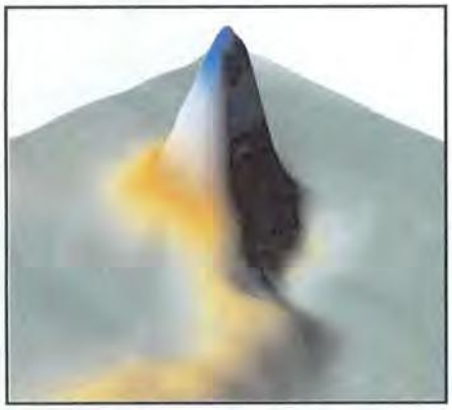
In comparison with proton precession methods, RF signal generation also keeps power consumption to an absolute minimum and eliminates noise (i.e. generating RF frequencies are well out of the bandwidth of the precession signal).

In addition, polarization and signal measurement can occur simultaneously -- which enables faster, sequential measurements. This, in turn, facilitates advanced statistical averaging over the sampling period and/or increased cycling rates (i.e. sampling speeds).

Other advantages are described in the section called, "GEM's Commercial Overhauser System" that appears later in this brochure.

Maximizing Your Data Quality with the GSM-19

Data quality is a function of five key parameters that GEM has taken into consideration carefully in the design of the GSM-19. These include sensitivity, resolution, absolute accuracy, sampling rates and gradient tolerance.



Data from Kalahari Desert kimberlites. Courtesy of MPH Consulting (project managers), IGS c. c. (geophysical contractor) and Aegis Instruments (Pty) Ltd., Botswana.

Sensitivity is a measure of the signal-to-noise ratio of the measuring device and reflects both the underlying physics and electronic design. The physics of the Overhauser effect improves sensitivity by an order of magnitude over conventional proton precession devices. Electronic enhancements, such as high-precision precession frequency counters (see the v6.0 -- New Milestones section) enhance sensitivity by 25% over previous versions.

The result is high quality data with sensitivities of 0.015 nT / √Hz or better. This sensitivity is virtually the same as the sensitivity of costlier optically-pumped cesium systems.

Resolution is the minimum step of the counter used to measure precession frequency and its conversion into magnetic field. It is generally higher (an order of magnitude) than the sensitivity to avoid a contribution of the counter to overall system noise. The GSM-19 has unmatched resolution (0.01 nT).

This level of resolution translates into well-defined, characteristic anomalies; improved visual display; and enhanced numerical data for processing and modeling.

Absolute accuracy defines maximum deviation from the true value of the measured magnetic field. Since nobody really knows the true value of the field, absolute accuracy is determined by considering factors involved in determining the field value and their accuracy, including the gyromagnetic constant, maximum offset of the time base frequency, etc .

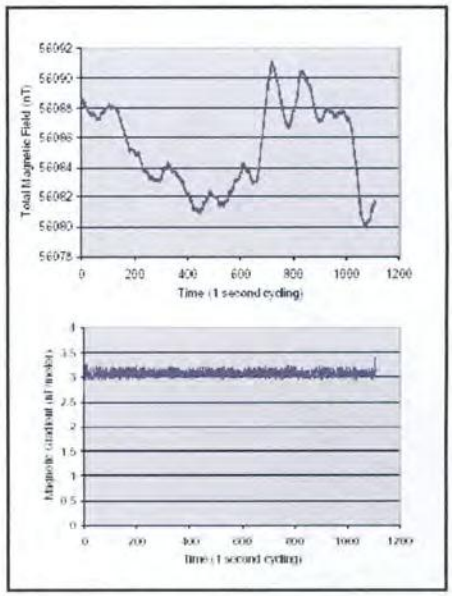
With an absolute accuracy of +/- 0.1 nT, the GSM-19 is ideal for total field work and gradient measurements maintain the same high standard of quality. Both configurations are also specially designed to minimize overall system noise so that you can be sure that your results truly reflect the geologic signal that is of most interest to you.

Sampling rates are defined as the fastest speed at which the system can acquire data. This is a particularly important parameter because high sampling rates ensure accurate spatial resolution of anomalies and increase survey efficiency.

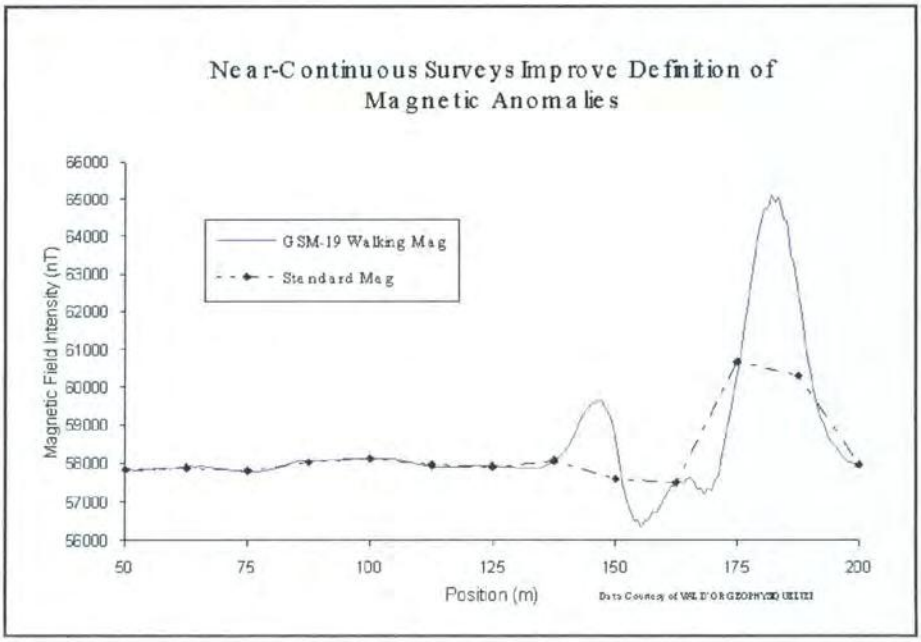
GEM's Overhauser system has three "measurement modes" or maximum sampling rates -- "Standard" (3 seconds / reading), "Walking" (0.5 seconds / reading) and "Fast" (0.2 seconds / reading). These rates make the GSM-19 a versatile system for all ground uses (including vehicle-borne applications).

Gradient tolerance is the ability to obtain reliable measurements in the presence of extreme field variations. GSM-19 tolerance is maintained through internal signal counting algorithms, sensor design and Overhauser physics. For example, the Overhauser effect produces high amplitude, long-duration signals that facilitate measurement in high gradients.

The system's tolerance (10,000 nT / meter) makes it ideal for many challenging environments -- such as highly magnetic rocks in mineral exploration applications, or near cultural objects in environmental, UXO or archeological applications.



Total Field and Stationary Vertical Gradient showing the gradient largely unaffected by diurnal variation. Absolute accuracy is also shown to be very high (0.2 nT/meter).



Much like an airborne acquisition system, the GSM-19 "Walking" magnetometer option delivers very highly-sampled, high sensitivity results that enable very accurate target location and / or earth science decision-making.

Increasing Your Operational Efficiency

Many organizations have standardized their magnetic geophysical acquisition on the GSM-19 based on high performance and operator preference. This reflects enhancements such as memory capacity; light weight; GPS and navigation; no warm-up time; no dead zones or heading errors; and dumping and processing.

Memory capacity controls the efficient daily acquisition of data, acquisition of positioning results from GPS, and the ability to acquire high volumes of data to meet daily survey objectives.

V6.0 upgrades have established the GSM-19 as the commercial standard for memory with over 262,000 readings (based on a basic configuration of 4 Mbytes of memory and a survey with time, coordinate, and field values).

Optional increments up to 32 Mbytes increase memory to over 2 million readings -- making the GSM-19 an ideal system for acquisition of data with integrated GPS readings (when required).

Portability characteristics (ruggedness, light weight and power consumption) are essential for operator productivity in both normal and extreme field conditions.

GEM's Overhauser magnetometer is established globally as a robust scientific instrument capable of withstanding temperature, humidity and terrain extremes. It also has the reputation as the lightest and lowest power system available -- reflecting Overhauser effect and RF polarization advantages.

In comparison with proton precession and optically pumped cesium systems, the GSM-19 system is the choice of operators as an easy-to-use and robust system.

GPS and navigation options are increasingly critical considerations for earth science professionals.

GPS technologies are revolutionizing data acquisition -- enhancing productivity, increasing spatial resolution, and providing a new level of data quality for informed decision-making.

As an innovative technology developer, GEM has made GPS a cornerstone of its magnetic R&D program. Real time GPS and DGPS options are now available in different survey resolutions. For more details, see the GPS and DGPS section.

GEM has also developed a GPS Navigation feature with real-time coordinate transformation to UTM, local X-Y coordinate rotations, automatic end-of-line flag, guidance to the next line, and survey "lane" guidance with cross-track display and audio indicator.

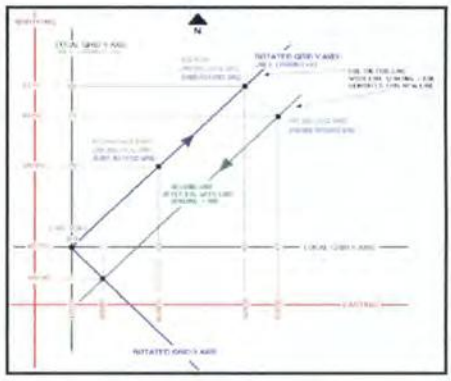
Other enhancements include way point pre-programming of up to 1000 points. Professionals can now define a complete survey on their PC and download points to the magnetometer via RS-232 connection -- before leaving for the field.

The operator then simply performs the survey using the way points as their survey guide. This capability decreases survey errors, improves efficiency, and ensures more rapid survey completion.

Dumping and processing effectiveness is also a critical consideration today. Historically, up to 60% of an operator's "free" time can be spent on low-return tasks, such as data dumping.

Data dumping times are now significantly reduced through GEM's implementation of high-speed, digital data links (up to 115 kBaud).

This functionality is facilitated through a new RISC processor as well as GEM's proprietary GEMLinkW acquisition / display software. This software serves as a bi-directional RS-232 terminal. It also has integrated processing functionality to streamline key processing steps, including diurnal data reduction. GEMLinkW is provided free to all GSM-19 customers and regular updates are available.



Navigation and Lane Guidance

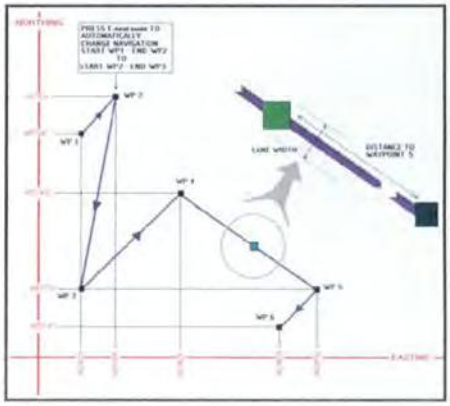
The figure above shows the Automatic Grid (UTM, Local Grid, and Rotated Grid). With the Rotated Grid, you can apply an arbitrary origin of your own definition. Then, the coordinates are always in reference to axes parallel to the grid. In short, your grid determines the map, and not the NS direction.

The Local Grid is a scaled down, local version of the UTM system, and is based on your own defined origin. It allows you to use smaller numbers or ones that are most relevant to your survey.

The figure below shows how programmable-waypoints can be used to plan surveys on a point-by-point basis.

Initially, you define waypoints and enter them via PC or the keyboard. In the field, the unit guides you to each point.

While walking between waypoints, lane guidance keeps you within a lane of pre-defined width using arrows (< - or - >) to indicate left or right. Within the lane, the display uses horizontal bars (- -) to show your relative position in the lane. The display also shows the distance (in



Adding Value through Options

When evaluating the GSM-19 as a solution for your geophysical application, we recommend considering the complete range of options offered by GEM. These options can be added at time of original purchase or later to expand capabilities as your needs change or grow.

GEM's approach with options is to provide you with an expandable set of building blocks:

- Gradiometer
- Walking Magnetometer / Gradiometer
- Fast Magnetometer / Gradiometer
- VLF (3 channel)
- GPS (built-in or external)

GSM-19G Gradiometer Option

The GSM-19 gradiometer is a versatile, entry level system that can be upgraded to a full-featured "Walking" unit (model GSM-19WG) in future.

The GSM-19G configuration comprises two sensors and a "Standard" console that reads data to a maximum of 1 reading every three seconds.

An important GEM design feature is that its gradiometer sensors *measure the two magnetic fields concurrently* to avoid any temporal variations that could distort gradiometer readings. Other features, such as single-button data recording, are included for operator ease-of-use.

GSM-19W / WG "Walking" Magnetometer / Gradiometer Option

GEM Systems pioneered the innovative "Walking" option that enables the acquisition of nearly continuous data on survey lines. Since its introduction, the GSM-19W / GSM-19WG have become one of the most popular magnetic instruments in the world.

Similar to an airborne survey in principle, the system records data at discrete time intervals (up to 2 readings per second) as the instrument is carried along the line.

At each survey picket (fiducial), the operator touches a designated key. The system automatically assigns a picket coordinate to the reading and linearly interpolates the coordinates of all intervening readings (following survey completion during post-processing).

A main benefit is that the high sample density improves definition of geologic structures and other targets (UXO, archeological relics, drums, etc.).

It also increases survey efficiency because the operator can record data almost continuously. Another productivity feature is the instantaneous recording of data at pickets. This is a basic difference between the "Walking" version and the GSM-19 / GSM-19G (the "Standard" mode version which requires 3 seconds to obtain a reading each time the measurement key is pressed).

GSM-19F / FG "Fast" Magnetometer / Gradiometer Option

The "Fast" version reads up to 5 readings per second. (Sensors and console are the same as other models.) This system is ideal for vehicle-borne surveys, such as UXO, archeological or some mineral exploration applications, where very high productivity is required.

GSM-19 "Hands-Free" Backpack Option

The "Walking" Magnetometer and Gradiometer can be configured with an optional backpack-supported sensor. The backpack is uniquely constructed -- permitting measurement of total field or gradient with both hands free.

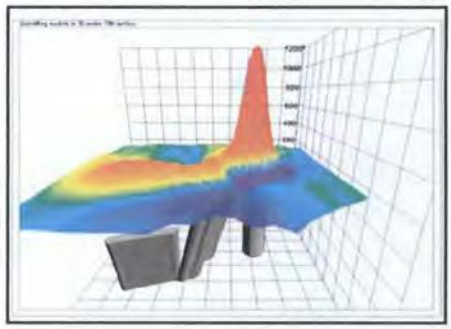
This option provides greater versatility and flexibility, which is particularly valuable for high-productivity surveys or in rough terrain.

GSM-19M / GV "VLF" Option

With GEM's omnidirectional VLF option, up to 3 stations of VLF data can be acquired without orienting. Moreover, the operator is able to record both magnetic and VLF data with a single stroke on the keypad.

3rd Party Software - A One-Stop Solution for Your Potential Field Needs

Now it's even easier to take data from the field and quality control stage through to final map preparation and modeling.



GEM-VIS provides links to fast 3D modeling via Encom's professional QuickPro software.

GEM provides the most comprehensive solution available for working with magnetometer data:

- Free **GEMLinkW** *Transfer and Internet Upgrade* software
- Optional, low-cost **GEM-*VIS*** *Quality Control, Visualization and Analysis*
- Optional *Data Processing*
- Optional **QuickMag Pro** *Automated Modeling and Inversion*

Internal / External GPS Options

To learn more about GEM's leading GPS options, see the GPS and DGPS section.

GSM-19 with internal GPS board. Small antenna attaches above sensor.

Version 6 -- Technology Developments

One of the main differences between GEM and other manufacturers is GEM's 20+ year, consistent focus on developing leading-edge magnetic technologies.

This commitment has led to many innovations in sensor technology; signal counting; firmware and software; and hardware and console design.

The recent release of v6.0 of the GSM-19 system provides many examples of the ways in which GEM continues to advance magnetics technologies for its customers.

Enhanced data quality:

- o 25% improvement in sensitivity (new frequency counting algorithm)
- o new intelligent spike-free algorithms (in comparison with other manufacturers, GEM does not apply smoothing or filtering to achieve high data quality)

Improved operational efficiency:

- o Enhanced positioning (GPS engine with optional integrated / external GPS and real-time navigation)
- o 16 times increase in memory to 32 Mbytes (optional). 4 Mbytes standard
- o 1000 times improvement in processing and display speed (RISC microprocessor with 32-bit data bus)
- 2 times faster digital data link (115 kBaud through RS-232)

Innovative technologies:

- o Battery conservation and survey flexibility (base station scheduling option with 3 modes - daily, flexible and immediate start)
- o Survey pre-planning (up to 1000 programmable waypoints that can be entered directly or downloaded from PC for greater efficiency)
- o Efficient GPS synchronization of field and base units to Universal Time (UTC)
- o Cost saving with firmware upgrades

GEM's Proven Overhauser System

In a *standard Proton magnetometer*, current is passed through a coil wound around a sensor containing a hydrogen-rich fluid. The auxiliary field created by the coil (>100 Gauss) polarizes the protons in the liquid to a higher thermal equilibrium.

When the current, and hence the field, is terminated, polarized protons precess in the Earth's field and decay exponentially until they return to steady state. This process generates precession signals that can be measured as described below.

Overhauser magnetometers use a more efficient method that combines electron-proton coupling and an electron-rich liquid (containing unbound electrons in a solvent containing a free radical). An RF magnetic field -- that corresponds to a specific energy level transition -- stimulates the unbound electrons.

Instead of releasing this energy as emitted radiation, the unbound electrons transfer it to the protons in the solvent. The resulting polarization is much larger, leading to stronger precession signals.

Both Overhauser and proton precession, measure the scalar value of the magnetic field based on the proportionality of precession frequency and magnetic flux density (which is linear and known to a high degree of accuracy). Measurement quality is also calculated using signal amplitude and its decay characteristics. Values are averaged over the sampling period and recorded.

As the world's first and most experienced manufacturer of commercial Overhauser systems, GEM's technical focus on the GSM-19 has resulted in a superior magnetic measuring device with high sensitivity, high cycling speed, low noise, and very low power consumption over a wide temperature range.

With minor software modifications (i.e. addition of a small auxiliary magnetic flux density while polarizing), it can also be easily configured for high sensitivity readings in low magnetic fields (i.e. for equatorial work).

GPS -- Positioning You for Effective Decision Making

The use of Global Positioning Satellite (GPS) technology is increasing in earth science disciplines due to the ability to make better decisions in locating and following up on anomalies, and in improving survey cost effectiveness and time management.

Examples of applications include:

- o Surveying in remote locations with no grid system (for example, in the high Arctic for diamond exploration)
- o High resolution exploration mapping
- o High productivity ferrous ordnance (UXO) detection
- o Ground portable magnetic and gradient surveying for environmental and engineering applications
- o Base station monitoring for observing diurnal magnetic activity and disturbances with integrated GPS time

GEM addresses customer requests for GPS and high-resolution Differential GPS (DGPS) through both the industry's only built-in GPS as well as external GPS.

Built-in GPS offers many advantages such as minimizing weight. The following table marizes GPS options. The 3.0m option is replaced by a 1.5m option.

Description	Range	Services	Output	Nav Option
Standalone	5m	GPS	Time, Lat / Long, UTM	Y
Corrected automatically by GPS without radio modems	3m	WAAS / EGNOS, OmniSTAR	Time, Lat / Long, UTM	Y
Corrected automatically by GPS without radio modems	1m	WAAS / EGNOS, OmniSTAR	Time, Lat / Long, UTM	Y
Corrected automatically by GPS with radio modems	0.1m	RTCM, RTK	Time, Lat / Long, UTM	Y

Key System Components

Key components that differentiate the GSM-19 from other systems on the market include the sensor and data acquisition console. Specifications for components are provided on the right side of this page.

Sensor Technology

GEM's sensors represent a proprietary innovation that combines advances in electronics design and quantum magnetometer chemistry.

Electronically, the detection assembly includes dual pick-up coils connected in series opposition to suppress far-source electrical interference, such as atmospheric noise. Chemically, the sensor head houses a proprietary hydrogen-rich liquid solvent with free electrons (free radicals) added to increase the signal intensity under RF polarization.

From a physical perspective, the sensor is a small size, light-weight assembly that houses the Overhauser detection system and fluid. A rugged plastic housing protects the internal components during operation and transport.

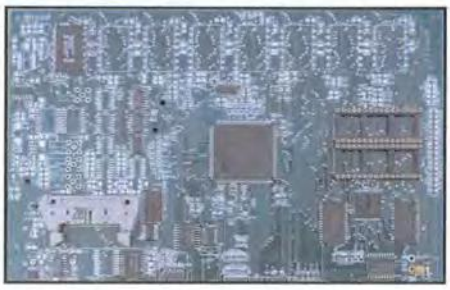
All sensor components are designed from carefully screened non-magnetic materials to assist in maximization of signal-to-noise. Heading errors are also minimized by ensuring that there are no magnetic inclusions or other defects that could result in variable readings for different orientations of the sensor.

Optional omni-directional sensors are available for operating in regions where the magnetic field is near-horizontal (i.e. equatorial regions). These sensors maximize signal strength regardless of field direction.

Data Acquisition Console Technology

Console technology comprises an external keypad / display interface with internal firmware for frequency counting, system control and data storage / retrieval. For operator convenience, the display provides both monochrome text as well as real-time profile data with an easy-to-use interactive menu for performing all survey functions.

The firmware provides the convenience of upgrades over the Internet via the GEMLinkW software. The benefit is that instrumentation can be enhanced with the latest technology without returning the system to GEM -- resulting in both timely implementation of updates and reduced shipping / servicing costs.



About GEM Advanced Magnetometers

GEM Systems, Inc. delivers the world's only magnetometers and gradiometers with built-in GPS for accurately-positioned ground, airborne and stationary data acquisition. The company serves customers in many fields including mineral exploration, hydrocarbon exploration, environmental and engineering, Unexploded Ordnance Detection, archeology, earthquake hazard prediction and observatory research.

Key products include the QuickTracker™ Proton Precession, Overhauser and SuperSenser™ Optically-Pumped Potassium instruments. Each system offers unique benefits in terms of sensitivity, sampling, and acquisition of high-quality data. These core benefits are complemented by GPS technologies that provide metre to sub-metre positioning.

With customers in more than 50 countries globally and more than 20 years of continuous technology R&D, GEM is known as the only geophysical instrument manufacturer that focuses exclusively on magnetic technology advancement.

"Our World is Magnetic"

Specifications

Performance

Sensitivity:	< 0.015 nT / √Hz
Resolution:	0.01 nT
Absolute Accuracy:	+/- 0.1 nT
Range:	10,000 to 120,000 nT
Gradient Tolerance:	> 10,000 nT/m
Samples at:	60+, 5, 3, 2, 1, 0.5, 0.2 sec
Operating Temperature:	-40C to +55C

Operating Modes

Manual: Coordinates, time, date and reading stored automatically at minimum 3 second interval.

Base Station: Time, date and reading stored at 3 to 60 second intervals.

Remote Control: Optional remote control using RS-232 interface.

Input / Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.

Storage - 4Mbytes (# of Readings)

Mobile:	209,715
Base Station:	699,050
Gradiometer:	174,762
Walking Mag:	299,593

Dimensions

Console:	223 x 69 x 240 mm
Sensor:	175 x 75mm diameter cylinder

Weights

Console with Belt:	2.1 kg
Sensor and Staff Assembly:	1.0 kg

Standard Components

GSM-19 console, GEMLinkW software, batteries, harness, charger, sensor with cable, RS-232 cable, staff, instruction manual and shipping case.

Optional VLF

Frequency Range: Up to 3 stations between 15 to 30.0 kHz

Parameters: Vertical in-phase and out-of-phase components as % of total field. 2 components of horizontal field amplitude and total field strength in pT.

Resolution: 0.1% of total field

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Represented By:

APPENDIX 4

Drill Logs

GRIZZLY DIAMONDS

2008 Smoky the Bear
GEOLOGICAL DRILL LOG - SUMMARY PAGE

DRILL HOLE ID: 08SMB05
NAME:

PROJECT GEOLOGIST: D. Arsenault
CORE LOGGER: A. Banas

LOCATION
EASTING: 627549 E
NORTHING: 6303501 N
ELEVATION: 642 m amsl
DATUM / ZONE: WGS84 / ZONE 15V
CLAIM NAME#:
CLAIM NUMBER#:

DATE COLLARED:
DATE COMPLETED:
OBJECTIVE:

CORE DIAMETER: NQ
DEPTH OF CASING:
COLLAR AZIMUTH (corr.):
COLLAR DIP:
TOTAL DEPTH:
SUMP LOCATION:
MATERIALS LOST DH:
DRILL CONTRACTOR:
DRILL FOREMAN:
DRILL:

Water Consumption:
Bags of salt used on hole:

Microdiamond Summary:

SUMMARY LOG

From (m)	To (m)	DESCRIPTION
0.00	109.00	overburden
109.00	136.90	sparsely macrocrystic kimb
136.90	139.18	altered kimb
139.18	158.92	macrocrystic kimb
158.92	159.50	altered kimb
159.50	161.25	competant carbonate replaced kimberlite
161.25	162.45	rubbly carbonated kimberlite
162.45	164.34	competant carbonated kimberlite
164.34	168.10	rubbly carbonated kimberlite
168.10	169.85	competant carbonated kimberlite
169.85	174.20	competant carbonated kimberlite w some fresh olv
174.20	179.97	macrocrystic kimb
179.97	181.50	competant carbonated kimberlite
181.50	184.10	rubbly carbonated kimberlite
184.10	190.80	competant carbonated kimberlite
190.80	191.40	brecciated?? Kimb
191.40	192.40	competant carbonated kimberlite
192.40	193.10	carbonated kimb fragments mixed with mst
193.10	196.77	mst - Colorado shale
196.77		EOH

DOWNHOLE SURVEY - FLEXIT SINGLE SHOT:

Depth (m)	Dip	Azimuth *(corrected)*	Mag. Field	Mag. Dip	Temp	G.R/Angle	M.T/Face

Grizzly Diamonds Ltd.

2008 Smoky the Bear

DETAILED GEOLOGICAL DRILL LOG

DH#: 08SMB05 **Name: A. Banas** **Azimuth / Dip:** **Location:627549E 6303501N**

Depth (m)	Graphic Log	Short description + lithology breaks	Diamond Count Results	Mag. Sus.	% Core Recovery	$CaCO_3$	Alteration	%Crustal Xenos	Major Types	Avg. Size (cm)	Detailed Description
											0-109 m overburden
100											
		OVB									
105											
110		109m							lst	~1.5	sparsely macrocrystic olivine, lots of phenocrystic olv (looks rel fresh), lots of spherical lappilli w/ olv cores or Cx cores
								10-15	mst	max	
										~4.5	mainly ~1cm in diameter, lappilli seem to become more abundant in certain areas (i.e. 109.7-110.1m), sporadic sulfides
											throughout. Some areas have a super fine dark greenish groundmass whilst others have more white groundmass
		Sparsely									all groundmass contains carbonate but white areas have more, few pyr, CX A-SA, no flow aligment
115		macrocrystic									
		lapilli bearing									sparsely macrocrystic kimb w/ lots of fresh looking olv phenos, spherical lappilli abundant (cored and uncored)
		kimb						10	mst		cores mainly olv, carbonated sections in grdmass as above, CX A-SA , no alignment, lappilli seem more abundant in
									lst		more carbonated matrix but maybe bc easier to see, lherz xeno @ 115.74m (~4cm) w/ pink grts, minor carbonate veinlets
											sporadically throughout
120											
											sparsely macrocrystic kimb, lots of olv phenos (same as above), some areas have lots of large CX (i.e. 121.8-122.2 &
								10	mst		124.5-124.8 - area also shows bitumen staining along fractures),
									lst		@ 122.8m have brown staining in grdmass not bitumen, alteration? Of olv, very small phlog found throughout on broken
											rubbly bit at end starts @ ~125 to end of box, @ 125.47 org grt, rubblyness due to carbonate veining?
125											
								10-15	lst		as above, smalll phlog grains throughout, few pyr, 1st 35cm cont of rubbly zone then more competant until 128.3 then
									mst		more broken up again, @ 131.48 large vug outside carb inside qtz?? Doesn't fizz
									chert		
130											
											same overall, less sections with white carbonate matrix, higher frequency of larger CX clasts up to 6 cm (in part whole
											section of core (pic)), larger CX mainly chert, some lst CX has structure and fossils (stromatoporaoids??, shell frags)
											sulf and phlog grains throughout,
135											@ ~136.9 m kimb becomes very rubbly w/ smaller pieces & pieces mixed with drillers mud, kimb contains lots of carbonate
											at beginning (more than before) then becomes totally green and altered, layers of breciation and veins increased carbonization
		136.9									and increased porosity
		Alteration									to 139.18m have alt kimb in contact with reg kimb contact is irregularly shaped but sharp and intermittent
		zone in Kimb									yellow-green, pheno olv is alt, some macrocryst olv alt, some lappilli alt, reg kimb similar to above but more green with finer grained
140		139.18									matrix, olv poss alt?? Looks very black compared to green colour of before w/ carb or could be v. fresh... kimb is very hard in this section
											@ 139.5 becomes rubbly again to 140.8 for 50cm coherent w/ lots of carbonate in matrix, @141.6 brecciated unit, ~50cm
											with increased porosity &carb matrix, pieces of kimb broken into angular blocks of various sizes 1mm-4.5cm, blocks have alt haloes
											but centers have fresh olv @142.7 back into fresh kimb with fresh olv pheno and competant texture
		Kimb									continue with fresh kimb w/ fresh olv phenos, and xenos some alt by carb, matrix is white carba nd fine grained green
145		same as						7- 10			matrerial, sporadic sulf throughout, CX mainly smaller in size ~1cm, carb veining prominent, lappilli become v. rare,
		above									macrocrysts more abundant than before esp at 138.4-149.01
		but with									
		more									
		olv macrocrysts									
150										1	like beginning kimb with dark matrix, but with more olv macrocrysts (like end of above section), lapilli present (cored and uncored)
								10-15	mst	max	large macrocrytal olv up to 1cm, CX mainly mst, lost of carbonate veining throughout, veins have various orientations
										4.5	fresh olv macro and phenocrysts, @154.59 colur change in matrix from dark grey green to lighter green (more carbonate mixed in matrix??)
155											v. competant (hard) kimb, lots of carb veinlets, cont from last section of lighter green colour, more abundant large CX,
								10-20	mst	1	olv macrocrysts up to 1cm, @158.92 contact is sharp (pic), 23 cm of highly carbonated kimb with lots of small carb
									lst	max	veinlets, then back into norm kimb for 16cm, for 24 cm is highly alt green-yellow (olv alt),
									chert	3	
		158.92									@ 159.5 kimb is totally replaced by carbonate, textures are preserved (even lapilli shapes), all olv is replaced, kimb is still competant,
160		159.5									CX remain, end of box has prominent carb veining (veins are brown stained)
		161.25						15-20	mst	1	qtz in carb veins?v. brn doesn't fizz, maybe bitumen already..., @161.25 turns into rubbly blocks avg ~3cm (looks like
		162.45							lst	max	conglomerate), v. fragile, olv are alt not replaced (brn alt), @ 162.45 back to replacement textures, harder more competant
										2	
165		164.34									@164.34 truns into small rubbly tar stained blocks avg ~1-2 cm, (brk of competant carb'd kimb for 15cm @ 167.69)
		rubbly									

GRIZZLY DIAMONDS

Grizzly Diamonds Ltd.

2008 Smoky the Bear

DETAILED GEOLOGICAL DRILL LOG

DH#: 08SMB05 *Name: A. Banas* *Azimuth / Dip:* *Location:627549E 6303501N*

Depth (m)	Graphic Log	Short description + lithology breaks	Diamond Count Results	Mag. Sus	% Core Recovery	$CaCO_3$	Alteration	%Crustal Xenos	Major Types	Avg. Size (cm)	Detailed Description
		carbonate									@168.10 back into competant carb'd kimb w replacement textures, macrocrystal phlog on ends (pics)
		replaced kimb									
		168.1									
170		169.85						15-20	mst	1.5	@ 169.85 colour change to darker grey?? Olv is only partially replaced, @170.75 bitumen vein
		carbonate							lst	max	throughout this section the amount of carbonation varys but mainly have some fresh olv left, cm thick carbonate veins
		replaced kimb								4	sporadically throughout, lapilli are quite well preserved (some even unaltered), kimb is v competant (hard)
		w/ some fresh									
		olv									@174.2 colour change to darker grey - more fresh olv (almost like unaltered kimb), visible cpx
175		174.2									
									mst	2	kimb is very competant large pieces cont of dark grey/grn colour (reg kimb from b/f alt) w/ fresh? Olv pheno and macro
		macrocrystic?						15-20	lst	max	macrocrysts approach 10% in some places, abundant lapilli (cored and uncored), again see very large CX up to 9cm &
		kimb							chert	9	lots in 3-4 cm range, bitumen and carb veins throughout.
180		179.97									@ 179.97 change in phase back into highly carbonated kimb
									lst	1	carb kimb, competant, w/ replacement textures (like before), lapilli textures still remain, cpx KIM,
		181.5						10-15	mst	max	@ 181.5 sharp change in texture to more coarse "conglomerate" like texture, increased posrosity, slightly vuggy
									chert	7	gradational change starts
											carb and bitumen veining
185		184.1									@ 184.1 back into more competant carb kimbw/ replacement textures and preserved lapilli,
											carbonated replacement textures some partially fresh olv, prominent carb and bitumen veining
		carbonate									
		replaced kimb									
190											
		190.8									@ 190.80 looks like zone of brecciation but is may be just is imposed by abundant carbonate and bitumen veining
		191.4									i.e. kimb separated in frags by abundant veins??, for ~60 cm to 191.40, then back into competant carb'd kimb
		192.4									competant to rubbly kimb until end of kimb at 192.40
		193.1									from 192.40 to ~193.10 shale interbedded with kimb frags
195		mst									
											from 193.10 to EOH mst = Colorado Shale
196.77		EOH 196.77									196.77 EOH in Colorado shale

08SMB05 **Geotech**

From (m)	To (m)	Interval (m)	Recovery (	Recovery (%)	Total Length of pieces >10cm	RQD
109	111	2	0.45	22.5	0	0
111	114	3	3	100	1.22	40.6666667
114	117	3	3	100	1.76	58.6666667
117	120	3	3	100	1.65	55
120	123	3	2.9	96.66666667	1.99	68.6206897
123	126	3	3	100	2.54	84.6666667
126	129	3	2.8	93.33333333	0.78	27.8571429
129	132	3	3	100	2.65	88.3333333
132	135	3	2.9	96.66666667	1.3	44.8275862
135	138	3	3	100	1.65	55
138	141	3	2.8	93.33333333	2.54	90.7142857
141	144	3	3	100	2.54	84.6666667
144	147	3	2.6	86.66666667	2.3	88.4615385
147	150	3	3	100	2.2	73.3333333
150	153	3	3	100	1.45	48.3333333
153	156	3	3	100	1.77	59
156	159	3	3	100	1.67	55.6666667
159	162	3	3	100	1.12	37.3333333
162	165	3	3	100	1.45	48.3333333
165	168	3	3	100	1.76	58.6666667
168	171	3	3	100	1.43	47.6666667
171	174	3	3	100	1.22	40.6666667
174	177	3	2.76	92	1.54	55.7971014
177	180	3	3	100	1.2	40
180	183	3	3	100	0.4	13.3333333
183	186	3	3	100	0.44	14.6666667
186	189	3	3	100	0.65	21.6666667
189	192	3	3	100	1.1	36.6666667
192	195	3	3	100	0.34	11.3333333
195	196.77	1.77	1.1	62.14689266	1.2	109.090909

Hole 08-SMB-05

Depth_m	MagSus
109	4.5
110	3.8
111	5.4
112	9.5
113	10.2
114	8.1
115	4.8
116	9.7
117	9.8
118	8.4
119	8.3

Hole 08-SMB-05

Depth_m	MagSus
120	8.3
121	14.6
122	11.3
123	16.2
124	6.0
125	12.6
126	6.3
127	6.5
128	8.1
129	17.2
130	8.5
131	8.3
132	4.8
133	5.3
134	8.4
135	7.3
136	5.4
137	2.7
138	4.2
139	13.4
140	8.1
141	14.4
142	5.0
143	6.4
144	2.4
145	8.2
146	6.1
147	6.2
148	11.8
149	6.5
150	4.0
151	1.3
152	7.7
153	6.3
154	6.6
155	6.3
156	7.5
157	6.1
158	5.4
159	5.4
160	0.2
161	1.2
162	0.2
163	0.3
164	0.7
165	0.6
166	0.2
167	0.4
168	0.1

Hole 08-SMB-05 Depth_m	MagSus
169	0.2
170	1.6
171	0.2
172	0.6
173	6.9
174	1.4
175	7.7
176	6.8
177	4.9
178	7.2
179	4.9
180	2.2
181	0.5
182	0.3
183	0.3
184	0.9
185	0.6
186	1.2
187	0.3
188	0.6
189	11.7
190	1.7
191	0.6
192	0.9
193	1.1
194	0.3
195	0.5
196	0.6
197	0.8
EOH	

GRIZZLY DIAMONDS

2008 Smoky the Bear
GEOLOGICAL DRILL LOG - SUMMARY PAGE

DRILL HOLE ID:	08SMB06	**PROJECT GEOLOGIST:**	D. Arsenault
NAME:		**CORE LOGGER:**	D. Arsenault
LOCATION		**CORE DIAMETER:**	NQ
EASTING:	627263 E	**DEPTH OF CASING:**	
NORTHING:	6303748 N	**COLLAR AZIMUTH (corr.):**	
ELEVATION:	615 m amsl	**COLLAR DIP:**	
DATUM / ZONE:	WGS84 / ZONE 15V	**TOTAL DEPTH:**	
CLAIM NAME#:		**SUMP LOCATION:**	
CLAIM NUMBER#:		**MATERIALS LOST DH:**	
		DRILL CONTRACTOR:	
DATE COLLARED:		**DRILL FOREMAN:**	
DATE COMPLETED:		**DRILL:**	
OBJECTIVE:			

Water Consumption:
Bags of salt used on hole:

Microdiamond Summary:

SUMMARY LOG

From (m)	To (m)	DESCRIPTION
0.00	66.00	overburden
66.00	74.13	coarse grained pyroclastic kimberlite
74.13	85.47	fine grained pyroclastic kimberlite
85.47	90.37	macrocrystic kimb
90.37	92.71	mudstone block
92.71	94.21	greyish carbonate altered kimberlite
94.21	94.48	macrocrystic kimb
94.48	105.39	pyroclastic kimberlite
105.39	120.80	macrocrystic kimb with abundant lapilli
120.80	125.85	pyroclastic kimberlite
125.85	127.55	macrocrystic kimberlite
127.55	128.50	pyroclastic kimberlite with abundant lapilli
128.50	133.11	grey carbonate altered pyroclastic kimberlite
133.11	133.35	grey carbonate altered fine grained pyroclastic kimberlite
133.35	134.88	pyroclastic kimberlite with very abundant lapilli
134.88	138.56	grey carbonate altered pyroclastic kimberlite
138.56	139.55	sparsley macrocrystic pyroclastic kimberlite
139.55	159.38	coarse grained pyroclastic kimberlite
159.38	160.90	densley macrocrystic kimberlite
160.90	162.84	macrocrystic kimberlite with abundant lapilli
162.84	165.21	fine grained pyroclastic kimberlite
165.21	168.36	grey bleeched pyroclastic kimberlite with increasingly muddy matrix
168.36	179.80	interbedded muddy pyroclastic kimberlite and mudstone
179.80	181.86	altered friable sandstone block
181.86	186.63	interbedded muddy pyroclastic kimberlite and mudstone
186.63	190.00	black poker chip shale - fishscale

DOWNHOLE SURVEY - FLEXIT SINGLE SHOT:

Depth (m)	Dip	Azimuth *(corrected)*	Mag. Field	Mag. Dip	Temp	G.R/Angle	M.T/Face

Grizzly Diamonds Ltd.

2008 Smoky the Bear

DETAILED GEOLOGICAL DRILL LOG

DH#:08SMB06 *Azimuth / Dip:* *Location:627263E 6303748N*

Depth (m)	Graphic Log	Short description + lithology breaks	$CaCO_3$	Alteration	%Crustal Xenos	Major Types	Avg. Size (cm)	Detailed Description
								Glacial Till
55								
60								
65								
		66.00-74.13	no	fresh	5	ms	0.8	Fine grained green pyroclastic kimberlite. Less than 2 % rimmed lapilli observed.
		fine grained pyroclastic kimberlite						90 % olivine phenocrysts (less than 0.1 mm in diameter.
								Groundmass is dark and does not contain carbonate.
70								Crustal xenoliths have random orientation.
			yes	olivine ph	20	ms, ls	1.5	Scarse olivine macrocrysts observed (less than 1 %). >3% unrimmed lapilli observed.
75		74.13-85.47						Crustal xenoliths have random orientations and reaction rims can be seen on approx 10 % of them (predominatley mudstone).
		coarse grained pyroclastic kimberlite						85 % green and altered brown olivine phenocrysts with a dark, very fine grained groundmass which does not appear to contain carbonate (no reaction with HCl).
								Very scarse pyropes observed.
80								
85								
		85.47-90.37	yes	fresh	5	ms	1	>20% anhedral olivine macrocrysts (>1 cm diameter). Some olivine macrocrysts have carbonate replacement textures.
		macrocrystic kimb						90% fresh olivine phenocrysts in a whitsh-grey groundmass that is very fine grained and contains carbonate.
								less than 1 % lapilli (unrimmed)
90								Crustal xenoliths are sub to well rounded and show random orientations.
		90.37-92.71						fine grained competant mudstone block
		mudstone block						
		macrocrystic kimbe	yes	fresh	10	ms	0.5	10-20% green to grey colored olivine macrocrysts (1cm diameter). 70% olivine phenocrysts (<0.5mm diameter) both fresh and altered. Crustal xenoliths appear to be well preserved, with random orientation. Groundmass is dark, very fine grained, and contains carbonate.
95								
			yes	n olivine	20	ms	1.5	5% lapilli observed, the majority of which were cored.
		pyroclastic kimberlite						Crustal xenoliths show reaction rims show allignment. The fabric is 45 degrees to the core axis.
								80% anhedral olivine phenocrysts (<0.1 mm diameter), mostly fresh but a few appear to be altered and have a brownish color.
		94.48-105.39						
100								
105								
		macrocrystic kir	no	fresh	10	ms	0.5	10% fresh anhedral olivine macrocrysts (0.5-1.0 cm), light green color.
								5% unrimmed lappilli observed with and without olivine macrocryst cores.
		105.39-120.80						Crustal xenoliths appear well preserved with no reaction rims and show allignment. The fabric is orientated 45 degrees to the core axis.
110								80% anhedral olivine phenocrysts (<0.1mm diameter).
								Groundmass appears dark, is very fine grained, and does not contain carbonate).
115								
120								
			yes	minor	15	ms, ls	0.4	85% anhedral olivine phenocrysts, most are fresh but some appear altered and brown colored.
								Crustal xenoliths appear well preserved and do not display any reaction rims.
		pyroclastic kimberlite						1% rimmed lapilli (uncored) observed. Very sparse pyrope crystals observed.
125		120.80-125.85						Groundmass is dark, very fine grained and contains carbonate. Some bitumin observed in fractures.
		Macrocrystic kimbe	no	fresh	10	ms	1	10% fresh, anhedral, green colored olivine macrocrysts (>1cm diameter). Crustal xenoliths appear well preserved and do not display any reaction rims. 80% anhedral olivine phenocrysts. Groundmass is black in color, very fine grained, and does not contain carbonate. <1% rimmed lapilli observed.
		pyroclastic kimberli	in vei	fresh	10	ms	1	carbonate veinlets. 70% olivine pheocrysts with a grey colored, very fine grained groundmass that does not contain carbonate.
130								80% light grey, anhedral olivine phenocrysts (<0.5mm diameter). Carbonate replacement textures are abundant. Minor carbonate veinlets occur.
		Carbonate replace	yes	nate alte	15	ns, che	2	High porosity, muddy matrix, with some intervals of intense crumbling. Ground mass is light grey and contains carbonate.

Grizzly Diamonds Ltd.

2008 Smoky the Bear

DETAILED GEOLOGICAL DRILL LOG

DH#:08SMB06 | **Azimuth / Dip:** | **Location:627263E 6303748N**

Depth (m)	Graphic Log	Short description + lithology breaks	$CaCO_3$	Alteration	%Crustal Xenos	Major Types	Avg. Size (cm)	Detailed Description
		128.5-133.35						Contains short interval (133.35-133.35 m) zone of intense stockwork-like carbonate veining. Contains 3 cm thick carbonate vein with layered vein laminations.
		pyroclastic kimberlit	yes	fresh	5	ms	0.5	2% anhedral olivine macrocrysts 10-15% abundant cored lapili (unrimmed). Minor carbonate veinlets. 80% anhedral olivine phenocrysts (fresh) (<0.1mm diameter). Crustal xenoliths appear well preserved, angular and have random orientation. Very scarce sulphide observed. Groundmass is light grey, very fine grained, and does not contain carbonate.
135								5% accretionary lapilli with olivine macrocryst cores. Lapilli have been replaced with carbonate but relict texture remains. Crustal xenoliths are unrimmed but have bleeched appearance. Groundmass is light grey, very fine grained, and contains carbonate.
		Carbonate replaced	yes	arbonati	5	ms	0.5	
		134.88-138.56						
								<3% fresh anhedral olivine macrocrysts (appear 1 cm diameter). <3% pointy lapilli with olivine cores (0.5-1.0cm diameter, unrimmed). 70%
140		yroclastic kimberlit	yes	fresh	5	ms	0.2	anhedral olivine phenocrysts (<0.1mm diameter). Crustal xenoliths appear to be well preserved, unaltered, unrimmed. Low proportion of whispy carbonate veinlets. Groundmass is light grey, very fine grained, and contains carbonate
			no	fresh	25	ms, ls	2	5-10 % fresh and altered, anhedral olivine macros (0.5 cm diameter). 10% cored, unrimmed lapilli.
								Scarse pyrope observed in mantle xenolith coreds of lapilli.
		coarse grained pyroclastic kimberlite						Crustal xenoliths are coase grained (up to 4cm diameter) and well rounded. Crustal xenoliths have random orientation.
145		139.55-159.38						Groundmass is very fine grained, green to grey in color, and does not contain carbonate.
150								
155								
								15-20% fresh, green, anhedral, olivine macrocrysts. Sparse pyrope observed in mantle xenoliths. Crustal xenoliths appear to be well
160		Densley macrocrys	no	fresh	15	dolost	0.5	preserved, very few have reaction rims. Crustal xenoliths have random orientation. No lapilli obeserved. 80 % anhedral olivine phenocrysts a dark grey, very fine grained groundmass that does not contain carbonate.
		159.38-160.90						
		macrocrystic kir	no	fresh	15	ls, chei	1	5% anhedral olivine macrocrysts (1-1.5 cm diameter). Up to 10% lapilli (unrimmed, rounded, some are cored). Crustal xenoliths are very angular, some sulphide replacement observed, random orientation. Some phlogopite observed. 80 % greyish olivine phenocrysts in a dark grey, very fine grained groundmass that does not contain carbonate.
		160.90-162.84						
		fine grained pyr	no	fresh	5	ms, ls	0.2	<5% anhedral olivine macrocrysts (0.5 cm diameter). Scarse pyrope observed. Low whispy carbonate veining. Groundmass is light grey and very fine grained. 90 % anhedral olivine phenocrysts (<0.1mm diameter). Crustal xenoliths appear well preserved, most are sub rounded and cigar shapped. Crustal xenoliths have randome orientation.
165		162.84-165.21						
		grey bleeched p	no	leeched	10	ms	1	<5% grey colored, altered olivine macrocrysts (1cm diameter). Groundmass is light grey, very fine grained, does not react with HCl. Matrix appears to be muddy. 70% anhedral olivine phenocrysts (<0.1mm diameter).
		165.21-168.36						
			yes	no	25	ms	2	<5% grey colored, altered olivine macrocrysts (1cm diameter). Groundmass is light grey, very fine grained, does not react with HCl. Matrix appears to be muddy. 70% anhedral olivine phenocrysts (<0.1mm diameter). Abundant crustal xenoliths give kimberlite layers a densley pyroclastic texture which contrasts with the fine grained appearance of large mudstone block country rock xenoliths.
170		Interbedded muddy pyroclastic kimberlite and mudstone						
		168.36-179.80						
175								
180								
		sandstone block						Block of altered, friable sandstone.
		179.80-181.86						
		Interbedded muddy	yes	no	25	ms	2	<5% grey colored, altered olivine macrocrysts (1cm diameter). Groundmass is light grey, very fine grained, does not react with HCl. Matrix appears to be muddy. 70% anhedral olivine phenocrysts (<0.1mm diameter). Abundant crustal xenoliths give kimberlite layers a densley pyroclastic texture which contrasts with the fine grained appearance of large mudstone block country rock xenoliths.
185		181.86-186.63						
		186.63-190.00						Black poker chip shale. Rare fish bone fossils.
190		EOH 190 m						

08SMB06 Geotech

From (m)	To (m)	Interval (m)	Recovery (measured)	Recovery (%)	Total Length of pieces >10cm	RQD
66	68.5	2.5	0.34	13.6	0	0
68.5	71.5	3	3	100	1.04	34.66667
71.5	74.5	3	3	100	1.94	64.66667
74.5	77.5	3	3	100	1.46	48.66667
77.5	80.5	3	2.9	96.66666667	2.14	73.7931
80.5	83.5	3	2.85	95	2.17	76.14035
83.5	86.5	3	3	100	0.98	32.66667
86.5	89.5	3	3	100	1.75	58.33333
89.5	92.5	3	2.49	83	0.59	23.69478
92.5	95.5	3	3	100	1.38	46
95.5	98.5	3	3	100	1.9	63.33333
98.5	101.5	3	3	100	1.99	66.33333
101.5	104.5	3	3	100	2.25	75
104.5	107.5	3	3	100	1.23	41
107.5	110.5	3	3	100	1.69	56.33333
110.5	113.5	3	3	100	1.76	58.66667
113.5	116.5	3	3	100	1.55	51.66667
116.5	119.5	3	3	100	1.04	34.66667
119.5	122.5	3	3	100	1.89	63
122.5	125.5	3	3	100	1.56	52
125.5	128.5	3	2.84	94.66666667	1.38	48.59155
128.5	131.5	3	3	100	1.23	41
131.5	134.5	3	3	100	1.32	44
134.5	137.5	3	3	100	0.38	12.66667
137.5	140.5	3	2.88	96	0.4	13.88889
140.5	143.5	3	3	100	0.36	12
143.5	146.5	3	3	100	0.89	29.66667
146.5	149.5	3	3	100	1.2	40
149.5	152.5	3	3	100	1.2	40
152.5	155.5	3	3	100	1.57	52.33333
155.5	158.5	3	2.94	98	1.35	45.91837
158.5	161.5	3	3	100	0.84	28
161.5	164.5	3	3	100	1.08	36
164.5	167.5	3	2.43	81	0.89	36.62551
167.5	170.5	3	3	100	1.91	63.66667
170.5	173.5	3	3	100	1.4	46.66667
173.5	176.5	3	3	100	0.23	7.666667
176.5	179.5	3	3	100	0.77	25.66667
179.5	182.5	3	3	100	0	0
182.5	185.5	3	3	100	0.84	28
185.5	188.5	3	3	100	0	0
188.5	190.5	2	1.24	62	0	0

Hole 08-SMB-06

Depth	MagSus
66	1.4
67	6.1
68	1.6
69	5.7
70	12.7
71	10.3
72	9.6
73	6.9
74	7.8
75	6.9
76	4.6
77	12.8
78	10.4
79	10.4
80	10.3
81	4.6
82	9.9
83	4.4
84	1.4
85	10.0
86	10.0
87	9.7
88	9.0
89	10.2
90	12.7
91	0.2
92	0.6
93	3.3
94	14.7
95	19.5
96	8.8
97	21.5
98	5.4
99	14.6
100	3.4
101	7.9
102	19.4
103	2.2
104	18.5
105	18.2
106	7.7
107	30.5
108	25.6
109	29.9
110	3.7
111	23.3
112	22.7
113	24.6
114	33.5

115	26.1
116	16.3
117	28.0
118	21.5
119	21.5
120	19.0
121	14.9
122	9.2
123	12.3
124	13.3
125	10.6
126	11.7
127	10.0
128	9.1
129	0.8
130	1.6
131	1.4
132	11.0
133	1.4
134	9.9
135	12.6
136	0.4
137	0.6
138	3.3
139	14.9
140	17.2
141	2.1
142	22.7
143	15.8
144	28.3
145	22.1
146	23.0
147	16.9
148	31.5
149	25.9
150	22.4
151	19.9
152	16.5
153	22.6
154	22.4
155	26.4
156	22.7
157	20.2
158	15.7
159	23.0
160	21.4
161	1.6
162	7.2
163	22.2
164	1.6
165	2.1

166	0.9
167	0.6
168	1.2
169	1.5
170	1.0
171	1.1
172	1.3
173	1.4
174	0.2
175	0.5
176	1.1
177	1.0
178	1.4
179	0.6
180	1.4
181	0.6
182	0.6
183	0.1
184	0.2
185	1.2
186	1.0
187	0.4
188	0.2
189	0.8
190	0.2
EOH	

GRIZZLY DIAMONDS

2008 Smoky the Bear
GEOLOGICAL DRILL LOG - SUMMARY PAGE

DRILL HOLE ID: 08SMB08
NAME:

LOCATION
EASTING: 627524 E
NORTHING: 6303497 N
ELEVATION: 646 m amsl
DATUM / ZONE: NAD27z11
CLAIM NAME#:
CLAIM NUMBER#:

DATE COLLARED:
DATE COMPLETED:
OBJECTIVE:

PROJECT GEOLOGIST: D. Arsenault
CORE LOGGER: D. Arsenault

CORE DIAMETER: NQ
DEPTH OF CASING:
COLLAR AZIMUTH (corr.):
COLLAR DIP:
TOTAL DEPTH:
SUMP LOCATION:
MATERIALS LOST DH:
DRILL CONTRACTOR:
DRILL FOREMAN:
DRILL:

Water Consumption:
Bags of salt used on hole:

Microdiamond Summary:

SUMMARY LOG

From (m)	To (m)	DESCRIPTION
0.00	85.50	overburden (Glacial Till)
85.50	92.87	pyroclastic kimberlite
92.87	94.76	mudstone block
94.76	95.61	pyroclastic kimberlite
95.61	132.63	fine grained pyroclastic kimberlite
132.63	137.06	macrocrystic kimberlite
137.06	138.66	pyroclastic kimberlite
138.66	144.35	fine grained pyroclastic kimberlite
144.35	151.50	sparsely macrocrystic kimberlite
151.50	152.28	macrocrystic kimberlite
152.28	184.50	grey silty bioturbated mudstone
184.50	186.00	black pokerchip shale (fishscale)

DOWNHOLE SURVEY - FLEXIT SINGLE SHOT:

Depth (m)	Dip	Azimuth *(corrected)*	Mag. Field	Mag. Dip	Temp	G.R/Angle	M.T/Face

GRIZZLY DIAMONDS

Grizzly Diamonds Ltd.

2008 Smoky the Bear

DETAILED GEOLOGICAL DRILL LOG

DH#: 08SMB07 **Name: Dave Arsenault** **Azimuth / Dip:** **Location:627524E 6303497N**

Depth (m)	Graphic Log	Short description + lithology breaks	Diamond Count Results	Mag. Sus.	$CaCO_3$	Alteration	%Crustal Xenos	Major Types	Avg. Size (cm)	Detailed Description
		OVB 0.00-85.50								0-85.5m overburden
80										
85										
		pyroclastic kimberlite 85.50-92.87			no	fresh	20	, siltsto	2	5% olivine macrocrysts, anhedral, fresh (0.5 cm diameter). 5-10% unrimmed lapilli (some cored).Crustal xenoliths appear to show flow allignment. 90% well rounded olivine phenocrysts (<0.1mm) Groundmass is patchy white and contains carbonate.
90										
		mudstone block 92.87-94.76								fine grained country rock faulted block
95		pyroclastic kimberlite 94.76-95.61			no	brownish	5	ms	1	No olivine macrocrysts observed. 5% cored lapilli (unrimmed) (1cm diameter). Crustal xenoliths appear fairly well preserved without reaction rims. 80% light grey to green colored, anhedral olivine phenocrysts. Groundmass is light grey with some patchey brown, very fine grained and contains carbonate.
		fine grained pyroclastic kimberlite 95.61-132.63			yes	fresh	5	ms	0.3	Very sparse olivine macrocrysts. 2 % lapilli observed (unrimmed). Crustal xenoliths are finer grained in this interval (0.2-0.5 cm diameter), subangular, well preserved, and have random orientation with one area of exception.Interval from 123.00-124.50 that shows allignment of crustal xenoliths at a 45 degree angle to the core axis. Rare pyrope observed in mantle xenoliths, minor phogopite. Groundmass is light-medium grey, very fine grained, and contains carbonate.
100										
105										
110										
115										
120										
125										
130										
		macrocrystic kimberlite 132.63-137.06			yes	fresh	10	ms	3	10% anhedral olivine macrocrysts (0.5-1.0 cm diameter). Very sparse lapilli observed. 15% coarse grained subrounded crustal xenoliths. Crustal xenoliths are well preserved, no reaction rims observed. Interval from 137.00-138.00 shows an allignment of crustal xenoliths at a 45 degree angle to the core axis - the rest seems to have random orientation. 80% light green colored anhedral olivine phenocrysts (<0.1mm). Groundmass is dark grey, very fine grained, and contains carbonate.
135										
		pyroclastic kimberlite 137.06-138.66			no	freash	15	ms	2	2% anhedral olivine macrocrysts (1cm diameter). Lapilli are very rare. Crustal xenoliths are coarse grained (up to 4 cm diameter). C.X.'s appear to be well preserved with exception of some clasts of black shale that show greyish reaction rims. Minor carbonate veinlets. 90% green rounded olivine phenocrysts. Groundmass is dark grey, very fine grained, with 5% carbonate.
140		fine grained pyroclastic kimberlite 138.66-144.35			yes	serpentin	10	ms	1	Olivine macros are very sparse. 3% Accretionary lapilli observed, some with country rock cores. Crustal xenoliths appear to be well preserved. An interval from 140.00-142.5 appears to have allignment of crustal xenoliths . Here C.X.'s are flat, cutting the axis of the core. Minor carbonate veinlets occur. 70% greyish to green olivine phenocrysts approx 1mm diameter. Grey to brown murky groundmass, very fine grained, contains carbonate.

GRIZZLY DIAMONDS

Grizzly Diamonds Ltd.

2008 Smoky the Bear

DETAILED GEOLOGICAL DRILL LOG

DH#: 08SMB07 *Name: Dave Arsenault* *Azimuth / Dip:* *Location:627524E 6303497N*

Depth (m)	Graphic Log	Short description + lithology breaks	Diamond Count Results	Mag. Sus.	$CaCO_3$	Alteration	%Crustal Xenos	Major Types	Avg. Size (cm)	Detailed Description
~~145~~										
		sparsley macrocrystic kimberlite			no	fresh	10	ms, ls	1	
		144.35-151.5								
										Intense carbonate veinlets 1mm thick are cut the core at 45 degree angle. Very sparse olivine macrocrysts (<2%). Crustal xenoliths appear to be well preserved and display random orientations. 70% slightly serpentinized olivine phenocrysts. Groundmass is dark grey and very fine grained.
150										
		~~Carbonate altered muddy pyroclastic~~			~~yes~~	~~carb~~	~~5~~	~~ms~~	~~0.2~~	
155		Grey silty mudstone								Grey silty mudstone. Fine grained clay matrix with mm scale laminae of silt and some sand. Bioturbation observed.
		152.28-184.50								
160										
165										
170										
175										
180										
~~185~~										
		Fishscale Black Shale 184.50-186.00								Black pokerchip shale. Rare fish bone fossils.

08SMB07 Geotech

From (m)	To (m)	Interval	Recovery (me	Recovery (%)	Total length of pie	RQD
86.5	88.5	2	2.86	143.0	2.22	77.6224
88.5	91.5	3	2.94	98.0	1.47	50
91.5	94.5	3	2.96	98.7	0.89	30.0676
94.5	97.5	3	2.99	99.7	2	66.8896
97.5	100.5	3	3	100.0	1.33	44.3333
100.5	103.5	3	2.95	98.3	1.38	46.7797
103.5	106.5	3	3	100.0	1.87	62.3333
106.5	109.5	3	3	100.0	2.14	71.3333
109.5	112.5	3	3	100.0	2.07	69
112.5	115.5	3	2.99	99.7	2.47	82.6087
115.5	118.5	3	3	100.0	1.3	43.3333
118.5	121.5	3	3	100.0	2.29	76.3333
121.5	124.5	3	2.93	97.7	2.32	79.1809
124.5	127.5	3	2.97	99.0	1.97	66.33
127.5	130.5	3	2.99	99.7	2.18	72.9097
130.5	133.5	3	2.99	99.7	2.35	78.5953
133.5	136.5	3	2.8	93.3	0.87	31.0714
136.5	139.5	3	2.95	98.3	2.19	74.2373
139.5	142.5	3	3	100.0	2.19	73
142.5	145.5	3	3	100.0	1.98	66
145.5	148.5	3	3	100.0	2.04	68
148.5	151.5	3	2.75	91.7	1.94	70.5455
151.5	154.5	3	3	100.0	0	0
154.5	157.5	3	3	100.0	0	0
157.5	160.5	3	3	100.0	0	0
160.5	163.5	3	2.96	98.7	0	0
163.5	166.5	3	3	100.0	0	0
166.5	169.5	3	2.98	99.3	0	0
169.5	172.5	3	2.7	90.0	0	0
172.5	175.5	3	3	100.0	0	0
175.5	178.5	3	2.74	91.3	0	0
178.5	181.5	3	2.65	88.3	0	0
181.5	184.5	3	3	100.0	0	0
184.5	186	1.5	1.37	91.3	0	0

Hole 08-SMB-07

Depth_m	MagSus
86	8.4
87	11.0
88	4.9
89	9.5
90	14.4
91	3.1
92	9.6
93	9.7

Hole 08-SMB-07

Depth_m	MagSus
94	3.3
95	2.7
96	2.1
97	13.3
98	19.0
99	15.7
100	13.7
101	14.7
102	14.2
103	11.9
104	7.6
105	10.0
106	10.5
107	10.3
108	10.1
109	2.5
110	12.7
111	9.6
112	13.8
113	10.5
114	13.1
115	16.0
116	10.5
117	11.1
118	8.9
119	11.2
120	7.6
121	10.1
122	5.5
123	8.2
124	6.9
125	23.7
126	8.1
127	10.8
128	7.6
129	10.4
130	7.5
131	9.5
132	8.5
133	11.2
134	12.0
135	10.0
136	4.5
137	12.6
138	12.7
139	23.4
140	12.4

Hole 08-SMB-07

Depth_m	MagSus
141	9.1
142	18.0
143	16.2
144	15.7
145	16.0
146	16.9
147	14.9
148	20.9
149	15.1
150	13.7
151	12.8
152	1.9
153	1.4
154	3.3
155	1.8
156	2.1
157	2.3
158	1.2
159	3.4
160	0.6
161	0.2
162	0.6
163	0.2
164	0.2
165	0.7
166	0.7
167	1.0
168	0.8
169	0.4
170	0.2
171	0.3
172	0.2
173	0.9
174	1.3
175	0.4
176	1.4
177	0.5
178	2.5
179	1.1
180	1.1
181	0.6
182	0.8
183	0.2
184	1.3
185	1.0
186	0.6
EOH	

GRIZZLY DIAMONDS

2008 Smoky the Bear
GEOLOGICAL DRILL LOG - SUMMARY PAGE

DRILL HOLE ID: 08SMB08
NAME:

LOCATION
EASTING: 627675 E
NORTHING: 6303329 N
ELEVATION: 637 m amsl
DATUM / ZONE: WGS84 / ZONE 15V
CLAIM NAME#:
CLAIM NUMBER#:

DATE COLLARED:
DATE COMPLETED:
OBJECTIVE:

PROJECT GEOLOGIST: D. Arsenault
CORE LOGGER: D. Arsenault

CORE DIAMETER: NQ
DEPTH OF CASING:
COLLAR AZIMUTH (corr.):
COLLAR DIP:
TOTAL DEPTH:
SUMP LOCATION:
MATERIALS LOST DH:
DRILL CONTRACTOR:
DRILL FOREMAN:
DRILL:

Water Consumption:
Bags of salt used on hole:

Microdiamond Summary:

SUMMARY LOG

From (m)	To (m)	DESCRIPTION
0.00	158.50	overburden
158.50	181.40	Grey silty mudstone
181.40	189.50	Black "poker chip" shale
		EOH

DOWNHOLE SURVEY - FLEXIT SINGLE SHOT:

Depth (m)	Dip	Azimuth *(corrected)*	Mag. Field	Mag. Dip	Temp	G.R/Angle	M.T/Face

Grizzly Diamonds Ltd.

2008 Smoky the Bear

DETAILED GEOLOGICAL DRILL LOG

DH#: 08SMB08 ***Name: D. Arsenau*** ***Azimuth / Dip:*** ***Location: 627675E 6303329N***

Depth (m)	Graphic Log	Short description + lithology breaks	Diamond Count Results	Mag. Sus.	Avg. Size (cm)	Detailed Description
						Glacial Till
150						
		OVB				
		0- 158.5 m				
155						
160						
						Grey silty mudstone. Some bioturbation observed.
165		158.5 - 181.40 m				
		Grey silty Mudstone				
170						
180						
185		181.40 - 189.5 m				Black "poker Chip Shale.
		Black "poker Chip Shale"				
190						

Hole 08-SMB-08

Depth_m	MagSus
159	1.0
160	0.2
161	4.5
162	4.6
163	7.0
164	3.5
165	1.8
166	4.0
167	4.7
168	2.3
169	2.4
170	2.6
171	2.8
172	3.1
173	3.3
174	0.8
175	1.8
176	0.6
177	1.4
178	2.5
179	1.8
180	0.6
181	1.5
182	1.1
183	1.8
184	7.5
185	2.7
186	1.4
187	7.2
188	5.2
189	3.2

EOH

GRIZZLY DIAMONDS

2008 Smoky the Bear
GEOLOGICAL DRILL LOG - SUMMARY PAGE

DRILL HOLE ID:	08SMB09	**PROJECT GEOLOGIST:**	D. Arsenault
NAME:		**CORE LOGGER:**	D. Arsenault
LOCATION		**CORE DIAMETER:**	NQ
EASTING:	627730 E	**DEPTH OF CASING:**	
NORTHING:	6303029 N	**COLLAR AZIMUTH (corr.):**	
ELEVATION:	631 m amsl	**COLLAR DIP:**	
DATUM / ZONE:	WGS84 / ZONE 15V	**TOTAL DEPTH:**	
CLAIM NAME#:		**SUMP LOCATION:**	
CLAIM NUMBER#:		**MATERIALS LOST DH:**	
		DRILL CONTRACTOR:	
DATE COLLARED:		**DRILL FOREMAN:**	
DATE COMPLETED:		**DRILL:**	
OBJECTIVE:			

Water Consumption:
Bags of salt used on hole:

Microdiamond Summary:

SUMMARY LOG

From (m)	To (m)	DESCRIPTION
0.00	200.00	overburden

DOWNHOLE SURVEY - FLEXIT SINGLE SHOT:

Depth (m)	Dip	Azimuth *(corrected)*	Mag. Field	Mag. Dip	Temp	G.R/Angle	M.T/Face

GRIZZLY DIAMONDS

Grizzly Diamonds Ltd.

2008 Smoky the Bear

DETAILED GEOLOGICAL DRILL LOG

DH#: 08SMB08 ***Name: D. Arsenault*** ***Azimuth / Dip: Dip = 90deg*** ***Location: 627730E 6303029N***

Depth (m)	Graphic Log	Short description + lithology breaks	Diamond Count Results	Mag. Sus.	% Core Recovery	$CaCO_3$	Alteration	%Crustal Xenos	Major Types	Avg. Size (cm)	Detailed Description
											Glacial Till
190											Hole terminated in OVB due to depth restrictions.
		OVB									
		0- 200.00 m									
195											
200											

APPENDIX 5

Caustic Fusion Samples and Results

APPENDIX 5a

Caustic Fusion Sample Descriptions

GRIZZLY DIAMONDS

2008 Smoky the Bear

GEOLOGICAL DRILL LOG - SAMPLE SUMMARY
DDH - 08SMB05

Sample ID	From (m)	To (m)	Mass (Kg)
08DAP501	109.00	110.15	8
08DAP501	110.23	110.54	
08DAP501	111.32	111.42	
08DAP502	111.42	112.52	8
08DAP502	112.81	112.83	
08DAP503	112.83	114.41	8
08DAP503	114.55	115.50	
08DAP504	115.50	115.78	8
08DAP504	115.86	116.73	
08DAP504	116.88	118.45	
08DAP505	118.45	118.82	8
08DAP505	119.32	119.86	
08DAP506	119.86	121.82	8
08DAP507	121.82	123.24	8
08DAP508	123.24	123.65	8
08DAP508	124.06	125.55	
08DAP509	125.59	127.36	8
08DAP510	127.36	127.62	8
	127.76	129.20	
	129.55	129.59	
08DAP511	129.55	130.62	8
08DAP511	130.81	131.68	
08DAP512	131.68	133.73	8
08DAP513	133.73	134.45	8
08DAP513	134.60	135.84	
08DAP514	135.84	136.13	8
08DAP514	136.50	137.13	
08DAP514	137.13	138.09	
08DAP515	138.09	140.10	8
08DAP516	140.10	140.70	8
08DAP516	141.26	141.24	
08DAP516	141.31	142.72	
08DAP517	142.78	146.67	8
08DAP518	144.67	146.61	8
08DAP519	146.61	146.71	8
08DAP519	146.82	147.71	
08DAP519	148.50	149.31	
08DAP519	149.42	149.49	
08DAP520	149.49	149.89	8
08DAP520	150.44	151.64	
08DAP521	151.64	153.30	
08DAP521	152.35	153.23	
08DAP521	153.75	153.86	
08DAP522	153.86	155.80	8
08DAP523	156.81	157.95	8
08DAP523	158.16	158.40	
08DAP524	158.40	158.92	8
08DAP524	159.00	160.36	
08DAP525	160.50	161.12	8
08DAP525	161.61	162.99	
08DAP525	164.00	165.20	
08DAP526	165.20	167.39	8
08DAP526	167.49	168.96	
08DAP527	168.96	169.07	8
08DAP527	169.50	170.25	
08DAP527	170.40	171.40	
08DAP528	171.40	171.92	8
08DAP528	172.50	173.66	
08DAP528	173.82	174.28	
08DAP529	174.28	175.72	8
08DAP529	175.88	176.06	
08DAP529	176.61	176.76	
08DAP530	176.76	178.18	8
08DAP531	178.18	178.50	8
08DAP531	178.64	179.43	
08DAP531	179.79	180.54	
08DAP532	180.54	181.50	8
08DAP532	182.09	183.65	
08DAP533	183.65	184.97	8
08DAP533	185.11	185.69	
08DAP534	185.69	185.95	8
08DAP534	186.03	187.45	
08DAP535	187.45	188.90	8
08DAP536	190.15	192.04	8
08DAP537	192.04	192.88	3.5

GRIZZLY DIAMONDS

2008 Smoky the Bear

GEOLOGICAL DRILL LOG - SAMPLE SUMMARY
Drill Hole - 08SMB06

Sample ID	From (m)	To (m)	Mass (kg)
08DAP601	66.40	66.72	8
08DAP601	68.76	69.55	
08DAP601	69.60	69.99	
08DAP601	70.37	70.43	
08DAP602	70.43	71.05	8
08DAP602	71.18	72.75	
08DAP603	72.75	74.13	6.3
08DAP604	74.13	75.03	7.9
08DAP604	75.28	75.45	
08DAP604	75.60	76.50	
08DAP605	76.50	76.77	8
08DAP605	76.92	77.29	
08DAP605	77.50	78.89	
08DAP606	78.89	80.91	8
08DAP607	80.91	82.33	6
08DAP607	82.63	83.20	
08DAP608	83.20	84.44	8
08DAP608	84.60	84.82	8
08DAP609	84.82	85.42	2.3
08DAP610	85.42	87.28	8
08DAP611	87.28	88.64	8
08DAP611	88.79	89.50	
08DAP611	89.70	89.87	
08DAP612	89.87	90.17	7.8
08DAP612	92.67	94.26	
08DAP613	94.26	95.02	8
08DAP613	95.23	95.57	
08DAP613	95.63	96.57	
08DAP614	96.57	96.64	7.9
08DAP614	96.84	98.73	
08DAP615	98.89	99.49	8
08DAP615	99.71	100.80	
08DAP616	100.80	101.06	8
08DAP616	101.11	102.58	
08DAP617	102.58	103.07	8
08DAP617	103.25	104.50	
08DAP617	104.55	104.82	
08DAP618	104.82	105.37	2
08DAP619	105.37	106.81	8
08DAP619	107.00	107.60	
08DAP620	107.60	108.30	8
08DAP620	108.44	108.84	
08DAP620	109.04	109.59	
08DAP621	109.59	110.92	8
08DAP621	111.06	111.83	
08DAP622	111.83	113.50	8
08DAP623	113.50	113.65	8
08DAP623	113.84	115.64	
08DAP624	115.64	116.07	8
08DAP624	116.29	117.99	
08DAP625	117.99	120.06	
08DAP626	120.06	120.41	2.1
08DAP626	120.60	120.78	
08DAP627	120.76	121.06	8
08DAP627	121.22	122.15	
08DAP627	122.36	122.58	
08DAP627	122.67	122.96	
08DAP628	122.96	124.90	8
08DAP629	124.90	125.80	4.6
08DAP630	125.80	125.83	4.8
08DAP630	126.04	127.52	
08DAP631	127.52	128.50	3.9
08DAP632	128.50	129.95	7.7
08DAP632	130.11	130.48	
08DAP633	130.48	132.35	8
08DAP634	132.35	133.07	3.2
08DAP634	133.22	133.32	
08DAP635	133.32	134.96	5.9
08DAP636	134.96	136.59	7.8
08DAP636	136.76	137.08	
08DAP637	137.50	138.58	3
08DAP638	138.89	139.52	3.5
08DAP639	139.52	141.41	8
08DAP640	141.41	143.50	8
08DAP641	143.50	143.69	8
08DAP641	143.83	144.10	
08DAP641	144.25	145.66	
08DAP642	145.66	146.29	8
08DAP642	146.50	148.00	
08DAP643	148.00	150.00	8
08DAP644	150.00	150.40	8
	150.54	151.78	
08DAP645	151.78	153.73	8
08DAP646	154.19	155.82	8
08DAP647	155.82	159.02	8
08DAP648	159.02	159.42	1.5
08DAP649	159.42	159.52	5.8
08DAP649	159.60	160.99	
08DAP650	160.99	161.70	6.3
08DAP650	161.94	162.88	
08DAP651	162.88	163.07	2.9
08DAP652	163.07	163.19	6.6
08DAP652	163.39	164.08	
08DAP652	164.24	165.05	
08DAP653	165.05	167.83	8
08DAP654	168.06	168.37	8
08DAP654	169.57	169.97	
08DAP654	170.00	170.09	
08DAP654	170.11	170.25	
08DAP654	170.41	170.71	
08DAP654	171.10	171.55	
08DAP655	171.55	171.96	8
08DAP655	172.22	172.25	
08DAP655	172.48	173.35	
08DAP655	176.07	176.85	
08DAP656	177.44	178.12	8
08DAP656	179.10	179.23	
08DAP656	181.82	181.93	
08DAP656	183.04	183.17	
08DAP656	183.53	183.68	
08DAP656	185.37	185.56	
08DAP656	186.20	186.25	

GRIZZLY DIAMONDS

2008 Smoky the Bear

Geological Drill Log - Sample Summary
Drill Hole 08SMB07

Caustic fusion samples

Sample ID	From (m)	To (m)	Mass (Kg)
08DAP701	85.50	86.65	8
08DAP701	85.79	87.40	
08DAP702	87.60	89.60	8
08DAP703	89.60	90.66	8
08DAP703	90.80	91.50	
08DAP703	91.50	91.55	
08DAP704	91.55	92.11	5.1
08DAP704	92.20	92.97	
08DAP705	93.40	93.61	8
08DAP705	94.85	95.60	
08DAP705	95.76	95.78	
08DAP705	96.00	96.99	
08DAP706	96.99	99.01	8
08DAP707	99.01	100.61	8
08DAP707	100.81	101.01	
08DAP708	101.01	101.73	8
08DAP708	101.83	102.87	
08DAP709	102.87	103.64	8
08DAP709	103.77	104.82	
08DAP710	104.82	106.31	8
08DAP711	106.31	106.77	8
08DAP711	106.96	108.17	
08DAP712	108.17	110.13	8
08DAP713	110.13	110.26	8
08DAP713	110.39	111.84	
08DAP714	111.84	111.92	8
08DAP714	112.00	113.60	
08DAP715	113.60	114.50	8
08DAP715	114.64	115.50	
08DAP716	115.50	116.21	8
08DAP716	116.35	117.21	
08DAP717	117.21	117.41	8
08DAP718	117.54	121.06	8
08DAP719	121.06	121.93	8
08DAP719	122.07	122.97	
08DAP720	122.97	123.86	8
08DAP720	124.01	124.94	
08DAP721	124.94	125.77	8
08DAP721	125.86	126.71	
08DAP722	126.71	127.50	8
08DAP722	127.71	128.37	
08DAP723	128.37	129.98	8
08DAP724	129.98	130.21	
08DAP724	130.39	131.35	
08DAP724	131.47	132.08	
08DAP725	132.08	132.66	2.9
08DAP726	132.66	134.24	8
08DAP726	134.39	134.78	
08DAP727	134.78	136.84	8
08DAP728	136.84	137.04	1.9
08DAP729	137.04	138.50	6.9
08DAP730	138.66	139.41	8
08DAP730	139.50	139.64	
08DAP730	139.75	140.69	
08DAP731	140.69	141.23	8
08DAP731	141.50	142.40	
08DAP732	142.40	144.15	8
08DAP733	144.15	144.68	8
08DAP733	144.81	145.96	
08DAP734	145.96	146.17	8
08DAP734	146.31	147.82	
08DAP735	147.82	149.31	7.8
08DAP735	149.46	149.64	
08DAP736	149.64	151.50	7.1
08DAP737	151.50	152.26	2.9

GRIZZLY DIAMONDS

2008 Smoky the Bear

GEOLOGICAL DRILL LOG - SAMPLE SUMMARY
08SMB08

Caustic Fusion Samples

Sample ID	From (m)	To (m)	Mass (Kg)
NO SAMPLES TAKEN			

GRIZZLY DIAMONDS

2008 Smoky the Bear

GEOLOGICAL DRILL LOG - SAMPLE SUMMARY
Drill Hole 08SMB09

Caustic Fusion Samples

Sample ID	From (m)	To (m)	Mass (Kg)
NO SAMPLES TAKEN			

APPENDIX 5b

Caustic Fusion Results

Geoanalytical Laboratories Diamond Services
#4 - 820 - 51st Street East, Saskatoon, Saskatchewan, S7K 0X8
Tel: (306) 933-7177 Fax: (306) 933-7197 Email: geolab@src.sk.ca

Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:
Samples: 130

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

1) Original Sample Weight in kilograms (SWT)
2) Bottom Sieve Size in microns (Sieve)
3) Diamonds > 500 microns (Macro)
4) Diamonds < 500 microns (Micro)
5) Weight of Diamonds > 500 microns in milligrams (Wt+)
6) Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)
7) Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)
8) Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)
9) Number of synthetic diamonds recovered (whole and fragments) (SYN)

Sample #	SWT	Sieve	Macro	Micro	Wt+	Wt-	QC 1	QC 2	SYN
08DAP501	6.70	75	0	10	0	0.142	10/10	10/10	62
08DAP502	6.55	75	0	2	0	0.049	13/13	10/10	13
08DAP503	7.65	75	1	0	1.755	0	14/14	10/10	5
08DAP504	7.35	75	0	10	0	0.045	13/13	10/10	0
08DAP505	7.65	75	0	4	0	0.011	17/17	10/10	5
08DAP506	7.45	75	0	2	0	0.004	17/17	10/10	1
08DAP507	7.65	75	0	3	0	0.007	13/14	10/10	10
08DAP508	7.40	75	0	10	0	0.063	14/14	10/10	20
08DAP509	7.40	75	0	9	0	0.042	14/14	10/10	3
08DAP510	7.50	75	0	2	0	0.005	9/13	10/10	6
08DAP511	7.55	75	0	6	0	0.015	12/12	10/10	26
08DAP512	7.35	75	0	5	0	0.121	11/11	9/10	1
08DAP513	7.25	75	0	12	0	0.160	11/11	10/10	0
08DAP514	7.45	75	0	6	0	0.092	13/13	10/10	95
08DAP515	7.65	75	0	5	0	0.055	13/13	10/10	3
08DAP516	7.70	75	0	13	0	0.152	16/17	10/10	3
08DAP517	7.45	75	0	2	0	0.004	16/16	10/10	0
08DAP518	7.60	75	0	2	0	0.013	10/12	9/10	0
08DAP519	7.25	75	0	1	0	0.003	14/14	10/10	2
08DAP520	7.20	75	0	9	0	0.045	15/15	10/10	0
08DAP521	7.20	75	0	2	0	0.005	11/13	10/10	0
08DAP522	7.70	75	0	1	0	0.011	17/17	10/10	0
08DAP523	7.50	75	0	2	0	0.004	19/19	10/10	0
08DAP524	7.60	75	0	7	0	0.061	18/18	10/10	0
08DAP525	7.80	75	0	3	0	0.007	11/12	10/10	2

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:
Samples: 130

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample #	SWT	Sieve	Macro	Micro	Wt+	Wt-	QC 1	QC 2	SYN
08DAP526	7.55	75	0	2	0	0.009	13/13	10/10	24
08DAP527	7.35	75	0	0	0	0	18/18	10/10	18
08DAP528	7.15	75	0	19	0	0.062	20/20	10/10	1
08DAP529	7.70	75	0	5	0	0.026	13/13	10/10	8
08DAP530	7.70	75	0	6	0	0.036	14/14	10/10	1
08DAP531	7.50	75	0	1	0	0.008	14/14	10/10	1
08DAP532	7.20	75	0	7	0	0.031	14/14	10/10	9
08DAP533	7.05	75	0	5	0	0.038	14/14	10/10	4
08DAP534	7.15	75	0	2	0	0.004	13/13	10/10	15
08DAP535	7.00	75	0	0	0	0	16/16	8/10	9
08DAP536	7.30	75	0	6	0	0.017	13/13	10/10	2
08DAP537	1.40	75	0	1	0	0.007	10/10	10/10	2
08DAP601	7.55	75	0	1	0	0.001	10/10	10/10	9
08DAP602	7.80	75	0	1	0	0.008	16/16	10/10	2
08DAP603	6.10	75	0	1	0	0.014	13/13	10/10	1
08DAP604	7.65	75	0	5	0	0.057	12/12	10/10	0
08DAP605	7.75	75	0	9	0	0.040	13/15	10/10	72
08DAP606	7.80	75	0	2	0	0.010	11/11	10/10	0
08DAP607	7.75	75	0	6	0	0.029	14/14	10/10	2
08DAP608	7.25	75	0	0	0	0	11/11	10/10	9
08DAP609	2.15	75	0	1	0	0.011	10/10	10/10	2
08DAP610	7.25	75	0	10	0	0.037	11/11	10/10	0
08DAP611	7.30	75	0	2	0	0.022	13/13	10/10	2
08DAP612	7.35	75	0	6	0	0.023	17/18	10/10	6
08DAP613	7.65	75	0	3	0	0.010	12/15	10/10	7
08DAP614	7.40	75	0	11	0	0.066	16/16	10/10	24
08DAP615	7.70	75	0	5	0	0.040	13/17	9/10	12
08DAP616	7.75	75	0	2	0	0.004	13/13	10/10	40
08DAP617	7.70	75	0	16	0	0.135	18/20	10/10	49
08DAP618	1.85	75	0	0	0	0	20/20	10/10	0
08DAP619	7.65	75	0	5	0	0.015	13/13	10/10	16
08DAP620	7.45	75	0	0	0	0	11/11	9/10	1
08DAP621	7.55	75	0	4	0	0.007	14/15	10/10	34
08DAP622	7.45	75	0	3	0	0.042	16/16	10/10	2
08DAP623	8.00	75	0	6	0	0.025	20/20	10/10	2
08DAP624	7.80	75	0	3	0	0.012	16/16	10/10	1

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Report No: D-08-157

Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:
Samples: 130

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample #	SWT	Sieve	Macro	Micro	Wt+	Wt-	QC 1	QC 2	SYN
08DAP625	7.55	75	0	6	0	0.029	17/17	10/10	5
08DAP626	2.15	75	0	0	0	0	17/17	10/10	0
08DAP627	6.90	75	0	3	0	0.006	13/14	10/10	0
08DAP628	7.90	75	0	2	0	0.004	14/14	10/10	3
08DAP629	3.60	75	0	1	0	0.002	16/16	10/10	1
08DAP630	4.70	75	0	3	0	0.022	15/16	10/10	0
08DAP631	3.90	75	0	3	0	0.006	20/20	10/10	1
08DAP632	6.95	75	0	7	0	0.012	19/19	10/10	28
08DAP633	7.70	75	0	6	0	0.016	18/18	10/10	369
08DAP634	3.00	75	0	5	0	0.047	20/20	9/10	46
08DAP635	5.85	75	0	1	0	0.008	15/17	10/10	45
08DAP636	7.40	75	0	4	0	0.014	18/18	10/10	12
08DAP637	3.05	75	0	1	0	0.001	15/15	10/10	9
08DAP638	3.25	75	0	3	0	0.033	17/17	10/10	7
08DAP639	7.40	75	0	2	0	0.019	20/20	10/10	13
08DAP640	7.65	75	0	7	0	0.150	16/16	10/10	54
08DAP641	7.30	75	0	11	0	0.183	19/19	10/10	132
08DAP642	7.60	75	0	6	0	0.030	13/13	10/10	25
08DAP643	7.75	75	0	4	0	0.032	20/20	10/10	2
08DAP644	7.75	75	1	7	0.465	0.126	19/20	10/10	6
08DAP645	7.90	75	0	8	0	0.026	19/19	10/10	9
08DAP646	7.80	75	0	5	0	0.070	19/19	10/10	142
08DAP647	7.80	75	0	3	0	0.027	20/20	10/10	5
08DAP648	1.60	75	0	0	0	0	16/20	10/10	0
08DAP649	5.40	75	0	5	0	0.013	20/20	10/10	0
08DAP650	6.15	75	0	2	0	0.018	11/11	10/10	4
08DAP651	2.80	75	0	4	0	0.009	12/12	9/10	4
08DAP652	5.40	75	0	1	0	0.010	15/15	10/10	24
08DAP653	7.60	75	0	5	0	0.024	15/15	10/10	14
08DAP654	7.65	75	0	0	0	0	13/13	10/10	22
08DAP655	7.90	75	0	0	0	0	14/14	10/10	6
08DAP656	8.35	75	0	0	0	0	12/12	10/10	17
08DAP701	7.50	75	0	0	0	0	12/12	10/10	0
08DAP702	7.80	75	0	15	0	0.069	16/16	10/10	0
08DAP703	7.35	75	0	6	0	0.064	20/20	10/10	0
08DAP704	4.70	75	0	0	0	0	14/14	10/10	0

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Test Report
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Samples: 130

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Date of Observation: December 05, 2008

Sample #	SWT	Sieve	Macro	Micro	Wt+	Wt-	QC 1	QC 2	SYN
08DAP705	7.40	75	0	4	0	0.011	10/10	10/10	0
08DAP706	7.40	75	0	6	0	0.139	19/19	10/10	13
08DAP707	7.90	75	0	3	0	0.007	14/14	10/10	0
08DAP708	7.55	75	0	3	0	0.021	12/12	10/10	1
08DAP709	7.35	75	0	7	0	0.101	16/16	10/10	1
08DAP710	7.20	75	0	3	0	0.044	18/18	10/10	0
08DAP711	7.50	75	0	0	0	0	15/15	10/10	2
08DAP712	7.55	75	0	3	0	0.059	11/11	10/10	1
08DAP713	7.60	75	0	2	0	0.004	16/16	10/10	0
08DAP714	7.40	75	0	5	0	0.012	17/17	10/10	3
08DAP715	7.45	75	0	6	0	0.156	17/17	10/10	1
08DAP716	7.30	75	0	3	0	0.015	17/17	10/10	0
08DAP717	7.35	75	0	10	0	0.034	20/20	10/10	8
08DAP718	7.45	75	0	3	0	0.044	15/15	10/10	0
08DAP719	7.45	75	0	7	0	0.050	12/13	10/10	2
08DAP720	7.50	75	0	5	0	0.246	14/15	10/10	0
08DAP721	7.45	75	0	1	0	0.119	14/14	10/10	0
08DAP722	6.25	75	0	1	0	0.005	16/16	10/10	1
08DAP723	7.35	75	1	2	1.417	0.019	14/14	10/10	3
08DAP724	7.35	75	0	5	0	0.029	11/11	10/10	1
08DAP725	2.35	75	0	1	0	0.002	10/11	10/10	5
08DAP726	7.45	75	0	0	0	0	10/10	10/10	2
08DAP727	7.15	75	0	3	0	0.035	17/17	10/10	4
08DAP728	1.00	75	0	1	0	0.003	16/16	10/10	0
08DAP729	6.15	75	0	4	0	0.013	16/16	10/10	0
08DAP730	7.05	75	0	1	0	0.003	14/14	10/10	0
08DAP731	7.10	75	0	2	0	0.010	19/19	10/10	2
08DAP732	7.00	75	0	7	0	0.043	11/11	10/10	3
08DAP733	7.25	75	0	6	0	0.016	18/19	10/10	6
08DAP734	7.40	75	0	5	0	0.014	20/20	10/10	1
08DAP735	7.05	75	0	1	0	0.002	11/11	10/10	0
08DAP736	6.40	75	0	1	0	0.001	20/20	10/10	3
08DAP737	2.50	75	0	0	0	0	19/19	10/10	18

9/13 Synthetic tracers were recovered for sample # 08 DAP 510.

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Test Report
Method CF

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Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample #	SWT	Sieve	Macro	Micro	Wt+	Wt-	QC 1	QC 2	SYN

The method validation allows for a 95% confidence level for a minimum tracer recovery of 80%.
QC2 recovery was 10/10 and no other recovery deviations were reported for the group.
The reported QC failure is therefore within acceptable limits set by the method.

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13/17 Synthetic tracers were recovered for sample # 08 DAP 615.
The method validation allows for a 95% confidence level for a minimum tracer recovery of 80%.
QC2 recovery was 9/10 and no other recovery deviations were reported for the group.
The reported QC failure is therefore within acceptable limits set by the method.

Total carats in this group is: 0.03963

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP501

Original Sample Weight in kilograms (SWT)	**6.70**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**10**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.142**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**10/10**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**62**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 300	1	0.46	0.38	0.32	0.102	0.102	White/colorless, translucent, noticeable inclusions, octahedron, resorbed, serrate laminae, shield laminae.
+ 212	1	0.26	0.22	0.22		0.024	White/colorless, transparent, no inclusions, octahedral, twinned, serrate laminae, etched trigons.
+ 106	1	0.24	0.12	0.10		0.006	White/colorless, transparent, no inclusions, octahedron, resorbed, pits / cavity.
+ 106	1	0.20	0.12	0.06			White/colorless, transparent, no inclusions, macle, resorbed, serrate laminae.
+ 75	1	0.12	0.10	0.08		0.010	White/colorless, transparent, no inclusions, octahedron, resorbed.
+ 75	1	0.12	0.10	0.06			White/colorless, transparent, no inclusions, macle.
+ 75	1	0.12	0.08	0.06			White/colorless, transparent, no inclusions, octahedron, resorbed, serrate laminae.
+ 75	1	0.10	0.10	0.08			White/colorless, transparent, no inclusions, octahedron, resorbed.
+ 75	1	0.10	0.10	0.06			White/colorless, transparent, no inclusions, octahedroid, resorbed.

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Report No: D-08-157

Test Report
Method CF

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PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP501

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.08	0.08	0.06			Off-white, transparent, no inclusions, cubic, resorbed.

Total octacarats in this sample is: 71,000.00

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Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP502

Original Sample Weight in kilograms (SWT)	6.55
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.049
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	13

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.38	0.26	0.20		0.047	White/colorless, transparent, noticeable inclusions, octahedron, twinned, serrate laminae, shield laminae, etched trigons.
+ 75	1	0.18	0.10	0.06		0.002	White/colorless, transparent, no inclusions, octahedron, twinned, resorbed.

Total octacarats in this sample is: 24,500.00

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Test Report
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Apex Geoscience Ltd
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PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP503

Original Sample Weight in kilograms (SWT)	**7.65**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**1**
Diamonds < 500 microns (Micro)	**0**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**1.755**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**14/14**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**5**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 850	1	1.26	1.02	0.84	1.755	1.755	Off-white, transparent, minor inclusions, octahedron, resorbed, serrate laminae, shield laminae, etched trigons.

Total octacarats in this sample is: 877,500.00

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Report No: D-08-157

Test Report
Method CF

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Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP504

Original Sample Weight in kilograms (SWT)	7.35
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	10
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.045
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.20	0.16	0.14		0.012	White/colorless, translucent, minor inclusions, octahedron, twinned, resorbed, shield laminae, pits / cavity.
+ 106	1	0.20	0.12	0.10		0.027	White/colorless, transparent, minor inclusions, octahedron, twinned, resorbed.
+ 106	1	0.18	0.14	0.10			White/colorless, translucent, no inclusions, aggregate, resorbed.
+ 106	1	0.18	0.12	0.10			White/colorless, translucent, noticeable inclusions, octahedroid, twinned, resorbed, shield laminae.
+ 106	1	0.18	0.12	0.08			White/colorless, translucent, no inclusions, octahedron, resorbed, frosted.
+ 106	1	0.18	0.12	0.06			White/colorless, transparent, no inclusions, macle, resorbed, serrate laminae.
+ 106	1	0.16	0.14	0.10			White/colorless, transparent, no inclusions, octahedron, resorbed, shield laminae.
+ 75	1	0.14	0.10	0.06		0.006	White/colorless, transparent, no inclusions, aggregate, resorbed.

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Date of Observation: December 05, 2008

Sample Number: 08DAP504

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.12	0.08	0.06			White/colorless, transparent, no inclusions, octahedroid, twinned, resorbed.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, no inclusions, aggregate.

Total octacarats in this sample is: 22,500.00

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Date of Observation: December 05, 2008

Sample Number: 08DAP505

Original Sample Weight in kilograms (SWT)	7.65
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	4
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.011
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	17/17
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	5

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.16	0.12	0.10		0.005	White/colorless, transparent, no inclusions, aggregate, resorbed, serrate laminae.
+ 75	1	0.22	0.08	0.08		0.006	White/colorless, transparent, no inclusions, aggregate, resorbed.
+ 75	1	0.18	0.10	0.08			White/colorless, transparent, minor inclusions, fragment <40%, resorbed.
+ 75	1	0.10	0.08	0.04			White/colorless, transparent, no inclusions, octahedroid, resorbed, low relief.

Total octacarats in this sample is: 5,500.00

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Test Report
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Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP506

Original Sample Weight in kilograms (SWT)	**7.45**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**2**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.004**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**17/17**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**1**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.12	0.10	0.06		0.004	White/colorless, transparent, no inclusions, octahedroid, twinned.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, minor inclusions, octahedron, twinned, resorbed.

Total octacarats in this sample is: 2,000.00

Geoanalytical Laboratories Diamond Services
#4 - 820 - 51st Street East, Saskatoon, Saskatchewan, S7K 0X8
Tel: (306) 933-7177 Fax: (306) 933-7197 Email: geolab@src.sk.ca

Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP507

Original Sample Weight in kilograms (SWT)	7.65
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.007
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	10

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.14	0.08	0.04		0.007	White/colorless, transparent, no inclusions, macle.
+ 75	1	0.12	0.10	0.06			White/colorless, transparent, no inclusions, octahedron, twinned.
+ 75	1	0.10	0.10	0.04			White/colorless, transparent, no inclusions, aggregate.

Total octacarats in this sample is: 3,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP508

Original Sample Weight in kilograms (SWT)	7.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	10
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.063
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	20

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.24	0.16	0.10		0.044	White/colorless, translucent, no inclusions, fragment <40%, resorbed.
+ 150	1	0.22	0.16	0.14			White/colorless, translucent, minor inclusions, aggregate, resorbed, serrate laminae.
+ 150	1	0.20	0.20	0.10			White/colorless, translucent, no inclusions, distorted, resorbed.
+ 106	1	0.16	0.12	0.06		0.008	White/colorless, transparent, no inclusions, fragment <40%, resorbed.
+ 106	1	0.12	0.12	0.08			White/colorless, transparent, no inclusions, octahedron, broken >60%, shield laminae, pits / cavity.
+ 75	1	0.18	0.08	0.08		0.011	White/colorless, transparent, no inclusions, distorted, resorbed.
+ 75	1	0.16	0.08	0.04			White/colorless, transparent, no inclusions, octahedron, twinned.
+ 75	1	0.12	0.10	0.06			White/colorless, transparent, no inclusions, octahedron, twinned.
+ 75	1	0.12	0.10	0.04			White/colorless, transparent, no inclusions, fragment <40%, resorbed, pits / cavity.
+ 75	1	0.10	0.08	0.04			White/colorless, transparent, no inclusions, macle.

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Sample Number: 08DAP508

Total octacarats in this sample is: 31,500.00

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Report No: D-08-157

Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP509

Original Sample Weight in kilograms (SWT)	7.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	9
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.042
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	3

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.22	0.20	0.18		0.020	White/colorless, opaque, minor inclusions, aggregate, resorbed, rough.
+ 106	1	0.18	0.12	0.10		0.014	White/colorless, transparent, minor inclusions, octahedron, broken >60%, shield laminae.
+ 106	1	0.16	0.12	0.12			White/colorless, transparent, noticeable inclusions, octahedron, twinned, resorbed.
+ 106	1	0.14	0.12	0.10			White/colorless, transparent, obvious inclusions, macle, resorbed.
+ 75	1	0.16	0.10	0.06		0.008	White/colorless, transparent, no inclusions, octahedroid, resorbed.
+ 75	1	0.12	0.10	0.06			White/colorless, transparent, no inclusions, octahedron, resorbed, shield laminae.
+ 75	1	0.10	0.10	0.06			White/colorless, transparent, no inclusions, octahedroid, resorbed.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, minor inclusions, octahedron, twinned, resorbed, shield laminae.
+ 75	1	0.10	0.06	0.06			White/colorless, transparent, no inclusions, aggregate, resorbed, low relief.

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Test Report
Method CF

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Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP509

Total octacarats in this sample is: 21,000.00

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Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP510

Original Sample Weight in kilograms (SWT)	7.50
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.005
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	9/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	6

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.12	0.10	0.06		0.005	White/colorless, transparent, minor inclusions, macle, resorbed.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, no inclusions, octahedron, twinned, resorbed.

Total octacarats in this sample is: 2,500.00

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Report No: D-08-157

Test Report
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PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP511

Original Sample Weight in kilograms (SWT)	7.55
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.015
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	12/12
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	26

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.34	0.14	0.08		0.013	White/colorless, transparent, no inclusions, distorted.
+ 106	1	0.22	0.14	0.12			White/colorless, transparent, minor inclusions, aggregate, resorbed.
+ 106	1	0.20	0.12	0.10			White/colorless, transparent, minor inclusions, aggregate, resorbed, hillocks.
+ 75	1	0.16	0.10	0.08		0.002	White/colorless, transparent, minor inclusions, octahedron, twinned, resorbed.
+ 75	1	0.14	0.06	0.04			White/colorless, transparent, no inclusions, fragment <40%, resorbed.
+ 75	1	0.08	0.08	0.06			White/colorless, transparent, no inclusions, macle.

Total octacarats in this sample is: 7,500.00

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Report No: D-08-157

Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP512

Original Sample Weight in kilograms (SWT)	7.35
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.121
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	11/11
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	9/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 300	1	0.46	0.30	0.24	0.103	0.103	White/colorless, transparent, noticeable inclusions, aggregate, resorbed, serrate laminae.
+ 150	1	0.20	0.18	0.12		0.009	White/colorless, transparent, no inclusions, octahedron, resorbed, serrate laminae.
+ 106	1	0.14	0.12	0.10		0.005	White/colorless, transparent, no inclusions, octahedral.
+ 75	1	0.18	0.10	0.04		0.004	White/colorless, transparent, no inclusions, fragment <40%.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, no inclusions, octahedroid, resorbed.

Total octacarats in this sample is: 60,500.00

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Report No: D-08-157

Test Report
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PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP513

Original Sample Weight in kilograms (SWT)	**7.25**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**12**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.160**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**11/11**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**0**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 300	1	0.54	0.30	0.14	0.070	0.070	White/colorless, transparent, minor inclusions, aggregate, resorbed.
+ 212	1	0.34	0.24	0.16		0.057	White/colorless, transparent, no inclusions, octahedron, resorbed, serrate laminae, shield laminae, etched trigons.
+ 150	1	0.26	0.16	0.14		0.009	White/colorless, transparent, no inclusions, aggregate, resorbed, serrate laminae.
+ 106	1	0.18	0.14	0.10		0.016	White/colorless, transparent, no inclusions, octahedron, twinned, broken >60%, serrate laminae.
+ 106	1	0.14	0.10	0.06			White/colorless, transparent, no inclusions, octahedron, twinned, resorbed, shield laminae.
+ 106	1	0.14	0.10	0.06			White/colorless, transparent, no inclusions, octahedron, twinned, resorbed, serrate laminae.
+ 106	1	0.12	0.10	0.08			White/colorless, transparent, no inclusions, octahedron, twinned, resorbed.
+ 106	1	0.12	0.10	0.08			White/colorless, transparent, no inclusions, macle, resorbed.
+ 75	1	0.14	0.08	0.06		0.008	White/colorless, transparent, no inclusions, aggregate.

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Test Report
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Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP513

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.12	0.08	0.06			White/colorless, transparent, no inclusions, octahedron, twinned, resorbed, frosted.
+ 75	1	0.12	0.08	0.06			White/colorless, transparent, no inclusions, aggregate, resorbed.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, noticeable inclusions, aggregate, resorbed.

Total octacarats in this sample is: 80,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP514

Original Sample Weight in kilograms (SWT)	7.45
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.092
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	95

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.32	0.30	0.30		0.055	White/colorless, transparent, minor inclusions, octahedron, resorbed, serrate laminae, shield laminae.
+ 150	1	0.20	0.20	0.18		0.011	White/colorless, transparent, minor inclusions, octahedroid, twinned, resorbed.
+ 106	1	0.26	0.16	0.10		0.025	White/colorless, transparent, no inclusions, aggregate, resorbed.
+ 106	1	0.20	0.16	0.12			White/colorless, transparent, minor inclusions, octahedron, broken >60%.
+ 106	1	0.18	0.12	0.06			White/colorless, translucent, no inclusions, distorted.
+ 75	1	0.12	0.10	0.08		0.001	White/colorless, translucent, minor inclusions, fragment <40%, resorbed.

Total octacarats in this sample is: 46,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP515

Original Sample Weight in kilograms (SWT)	**7.65**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**5**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.055**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**13/13**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**3**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.38	0.28	0.22		0.036	White/colorless, translucent, minor inclusions, octahedron, resorbed, frosted
+ 150	1	0.28	0.20	0.14		0.012	White/colorless, translucent, minor inclusions, octahedron, twinned, resorbed, frosted.
+ 106	1	0.16	0.14	0.12		0.005	White/colorless, transparent, minor inclusions, octahedroid, resorbed.
+ 75	1	0.12	0.10	0.08		0.002	White/colorless, transparent, minor inclusions, octahedroid, broken >60%, resorbed, pits / cavity.
+ 75	1	0.12	0.10	0.06			White/colorless, transparent, minor inclusions, octahedroid, resorbed.

Total octacarats in this sample is: 27,500.00

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Report No: D-08-157

Test Report
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Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP516

Original Sample Weight in kilograms (SWT)	7.70
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	13
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.152
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/17
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	3

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 300	1	0.36	0.30	0.20	0.055	0.055	White/colorless, translucent, noticeable inclusions, octahedron, twinned, broken >60%, resorbed, pits / cavity.
+ 212	1	0.26	0.22	0.18		0.056	White/colorless, translucent, noticeable inclusions, fragment <40%, resorbed, hillocks.
+ 212	1	0.24	0.22	0.14			White/colorless, translucent, noticeable inclusions, octahedron, broken >60%, resorbed, serrate laminae, pits / cavity, hillocks.
+ 150	1	0.24	0.16	0.12		0.018	White/colorless, translucent, noticeable inclusions, fragment <40%, resorbed, hillocks.
+ 150	1	0.18	0.16	0.14			White/colorless, translucent, minor inclusions, fragment <40%, resorbed, pits / cavity.
+ 106	1	0.24	0.12	0.08		0.013	White/colorless, translucent, minor inclusions, fragment <40%, resorbed.
+ 106	1	0.20	0.12	0.08			White/colorless, translucent, minor inclusions, distorted, resorbed.
+ 106	1	0.14	0.12	0.08			White/colorless, transparent, minor inclusions, fragment <40%.

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Date of Observation: December 05, 2008

Sample Number: 08DAP516

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.16	0.08	0.04		0.010	White/colorless, transparent, minor inclusions, fragment <40%, resorbed.
+ 75	1	0.12	0.10	0.04			White/colorless, transparent, minor inclusions, octahedron, resorbed.
+ 75	1	0.12	0.08	0.04			White/colorless, translucent, minor inclusions, fragment <40%.
+ 75	1	0.10	0.08	0.02			White/colorless, transparent, minor inclusions, fragment <40%, resorbed.
+ 75	1	0.10	0.06	0.06			White/colorless, translucent, minor inclusions, octahedroid, resorbed, hillocks.

Total octacarats in this sample is: 76,000.00

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Test Report
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PO #/Project:

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Date of Observation: December 05, 2008

Sample Number: 08DAP517

Original Sample Weight in kilograms (SWT)	7.45
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.004
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/16
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.14	0.12	0.10		0.003	White/colorless, transparent, minor inclusions, octahedron, twinned.
+ 75	1	0.12	0.10	0.06		0.001	White/colorless, transparent, minor inclusions, octahedron, resorbed.

Total octacarats in this sample is: 2,000.00

Geoanalytical Laboratories Diamond Services
#4 - 820 - 51st Street East, Saskatoon, Saskatchewan, S7K 0X8
Tel: (306) 933-7177 Fax: (306) 933-7197 Email: geolab@src.sk.ca

Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP518

Original Sample Weight in kilograms (SWT)	7.60
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.013
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	10/12
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	9/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.24	0.18	0.10		0.008	White/colorless, translucent, noticeable inclusions, macle.
+ 106	1	0.16	0.14	0.12		0.005	White/colorless, transparent, minor inclusions, octahedroid, pits / cavity.

Total octacarats in this sample is: 6,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP519

Original Sample Weight in kilograms (SWT)	7.25
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.003
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.12	0.10	0.08		0.003	White/colorless, transparent, minor inclusions, octahedroid, twinned, resorbed.

Total octacarats in this sample is: 1,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP520

Original Sample Weight in kilograms (SWT)	7.20
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	9
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.045
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	15/15
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.32	0.20	0.18		0.017	White/colorless, transparent, noticeable inclusions, octahedron, twinned, resorbed, serrate laminae, shield laminae.
+ 106	1	0.24	0.12	0.12		0.019	White/colorless, translucent, no inclusions, aggregate, resorbed, rough.
+ 106	1	0.22	0.14	0.12			White/colorless, translucent, minor inclusions, octahedroid, twinned, resorbed.
+ 106	1	0.20	0.14	0.10			White/colorless, transparent, minor inclusions, octahedron, resorbed, shield laminae.
+ 106	1	0.18	0.14	0.12			White/colorless, transparent, minor inclusions, octahedroid, twinned, resorbed, low relief.
+ 75	1	0.18	0.10	0.08		0.009	White/colorless, transparent, minor inclusions, distorted, resorbed.
+ 75	1	0.16	0.10	0.06			White/colorless, transparent, no inclusions, fragment <40%, resorbed.
+ 75	1	0.16	0.08	0.06			White/colorless, transparent, minor inclusions, octahedroid, twinned, rough.
+ 75	1	0.12	0.10	0.08			Off-white, transparent, no inclusions, octahedron, shield laminae.

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Test Report
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Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP520

Total octacarats in this sample is: 22,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP521

Original Sample Weight in kilograms (SWT)	7.20
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.005
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	11/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.12	0.12	0.04		0.003	White/colorless, transparent, minor inclusions, octahedron, resorbed, shield laminae, low relief.
+ 75	1	0.10	0.08	0.04		0.002	White/colorless, transparent, minor inclusions, octahedroid, broken >60%.

Total octacarats in this sample is: 2,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP522

Original Sample Weight in kilograms (SWT)	**7.70**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**1**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.011**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**17/17**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**0**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.26	0.16	0.12		0.011	White/colorless, transparent, minor inclusions, aggregate, rough.

Total octacarats in this sample is: 5,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP523

Original Sample Weight in kilograms (SWT)	**7.50**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**2**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.004**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**19/19**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**0**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.16	0.10	0.10		0.004	White/colorless, translucent, no inclusions, aggregate, frosted.
+ 106	1	0.12	0.10	0.10			White/colorless, transparent, minor inclusions, aggregate, resorbed, serrate laminae, shield laminae.

Total octacarats in this sample is: 2,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP524

Original Sample Weight in kilograms (SWT)	7.60
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	7
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.061
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	18/18
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.20	0.16	0.14		0.054	White/colorless, transparent, no inclusions, octahedral, serrate laminae, etched trigons.
+ 150	1	0.18	0.18	0.10			White/colorless, transparent, minor inclusions, octahedroid, resorbed, shield laminae.
+ 150	1	0.18	0.16	0.12			White/colorless, transparent, noticeable inclusions, octahedron, twinned, resorbed, serrate laminae, shield laminae.
+ 150	1	0.16	0.16	0.12			White/colorless, transparent, minor inclusions, octahedroid, resorbed, serrate laminae, shield laminae.
+ 75	1	0.14	0.10	0.06		0.007	White/colorless, transparent, no inclusions, octahedron, twinned, resorbed.
+ 75	1	0.10	0.10	0.06			White/colorless, transparent, no inclusions, octahedron, twinned, resorbed.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, minor inclusions, distorted, frosted.

Total octacarats in this sample is: 30,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP525

Original Sample Weight in kilograms (SWT)	7.80
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.007
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	11/12
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.16	0.10	0.06		0.007	White/colorless, transparent, no inclusions, aggregate, resorbed.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, minor inclusions, octahedron, resorbed.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, minor inclusions, aggregate, resorbed.

Total octacarats in this sample is: 3,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP526

Original Sample Weight in kilograms (SWT)	7.55
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.009
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	24

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.22	0.14	0.10		0.006	White/colorless, transparent, minor inclusions, octahedroid, resorbed, pits / cavity, hillocks.
+ 75	1	0.12	0.10	0.06		0.003	White/colorless, transparent, minor inclusions, distorted, resorbed.

Total octacarats in this sample is: 4,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP528

Original Sample Weight in kilograms (SWT)	7.15
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	19
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.062
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.22	0.16	0.16		0.030	White/colorless, transparent, minor inclusions, octahedron, broken >60%, resorbed, serrate laminae, shield laminae.
+ 150	1	0.20	0.16	0.14			White/colorless, transparent, minor inclusions, octahedron, twinned, resorbed, shield laminae, etched trigons, low relief.
+ 150	1	0.18	0.16	0.12			White/colorless, transparent, minor inclusions, octahedron, resorbed, shield laminae, hillocks.
+ 106	1	0.24	0.14	0.08		0.019	White/colorless, transparent, minor inclusions, fragment <40%, resorbed, shield laminae, lamination.
+ 106	1	0.16	0.12	0.10			White/colorless, transparent, minor inclusions, fragment <40%.
+ 106	1	0.14	0.12	0.04			White/colorless, transparent, no inclusions, macle.
+ 106	1	0.14	0.12	0.04			White/colorless, transparent, no inclusions, fragment <40%, polycrystalline aggregate.
+ 106	1	0.12	0.10	0.08			White/colorless, transparent, no inclusions, octahedron, broken >60%.
+ 106	1	0.12	0.10	0.08			Off-white, transparent, no inclusions, octahedron, broken >60%.
+ 75	1	0.12	0.08	0.06		0.013	White/colorless, transparent, minor inclusions, fragment <40%.

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Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP528

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.12	0.08	0.04			White/colorless, transparent, no inclusions, octahedroid, twinned.
+ 75	1	0.10	0.10	0.04			White/colorless, transparent, no inclusions, aggregate, resorbed.
+ 75	1	0.10	0.08	0.06			White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, minor inclusions, fragment <40%.
+ 75	1	0.10	0.08	0.04			White/colorless, translucent, minor inclusions, fragment <40%, polycrystalline aggregate.
+ 75	1	0.10	0.06	0.02			White/colorless, transparent, no inclusions, octahedroid.
+ 75	1	0.08	0.08	0.06			White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.06	0.06	0.02			Off-white, transparent, no inclusions, fragment <40%.

Total octacarats in this sample is: 31,000.00

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Report No: D-08-157

Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP529

Original Sample Weight in kilograms (SWT)	7.70
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.026
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	8

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.26	0.20	0.06		0.012	White/colorless, transparent, no inclusions, fragment <40%, resorbed, serrate laminae, lamination.
+ 106	1	0.16	0.14	0.06		0.009	White/colorless, transparent, minor inclusions, aggregate, etched trigons.
+ 106	1	0.14	0.14	0.08			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.10	0.08	0.08		0.005	White/colorless, transparent, minor inclusions, octahedroid, resorbed.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, no inclusions, octahedroid, twinned, resorbed.

Total octacarats in this sample is: 13,000.00

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Test Report
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Apex Geoscience Ltd
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Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP530

Original Sample Weight in kilograms (SWT)	7.70
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.036
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.34	0.12	0.08		0.032	White/colorless, transparent, minor inclusions, fragment <40%.
+ 106	1	0.32	0.12	0.06			White/colorless, transparent, no inclusions, fragment <40%.
+ 106	1	0.14	0.10	0.08			White/colorless, transparent, minor inclusions, octahedron.
+ 106	1	0.12	0.12	0.10			White/colorless, transparent, no inclusions, octahedroid.
+ 75	1	0.14	0.08	0.06		0.004	White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.08	0.08	0.06			White/colorless, transparent, minor inclusions, octahedron, twinned.

Total octacarats in this sample is: 18,000.00

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Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP531

Original Sample Weight in kilograms (SWT)	7.50
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.008
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.14	0.12	0.10		0.008	White/colorless, transparent, no inclusions, macle.

Total octacarats in this sample is: 4,000.00

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Report No: D-08-157

Test Report
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Apex Geoscience Ltd
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PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP532

Original Sample Weight in kilograms (SWT)	7.20
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	7
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.031
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	9

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.26	0.18	0.12		0.019	White/colorless, transparent, minor inclusions, octahedron, resorbed, serrate laminae, shield laminae, pits / cavity.
+ 106	1	0.18	0.12	0.04		0.008	White/colorless, transparent, minor inclusions, fragment <40%.
+ 106	1	0.12	0.10	0.10			White/colorless, transparent, no inclusions, octahedron.
+ 106	1	0.12	0.10	0.08			White/colorless, translucent, no inclusions, octahedroid.
+ 75	1	0.14	0.08	0.06		0.004	White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.12	0.08	0.04			White/colorless, transparent, no inclusions, octahedroid.
+ 75	1	0.08	0.06	0.06			White/colorless, translucent, no inclusions, octahedroid.

Total octacarats in this sample is: 15,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP533

Original Sample Weight in kilograms (SWT)	7.05
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.038
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	4

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.28	0.20	0.16		0.024	Off-white, transparent, minor inclusions, octahedron, broken >60%, resorbed, serrate laminae, shield laminae.
+ 106	1	0.14	0.12	0.10		0.007	White/colorless, transparent, minor inclusions, octahedroid.
+ 75	1	0.12	0.08	0.08		0.007	White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.12	0.08	0.06			White/colorless, transparent, no inclusions, macle.
+ 75	1	0.10	0.06	0.06			White/colorless, transparent, no inclusions, macle.

Total octacarats in this sample is: 19,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP534

Original Sample Weight in kilograms (SWT)	7.15
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.004
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	15

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.18	0.12	0.06		0.003	White/colorless, translucent, minor inclusions, aggregate, resorbed.
+ 75	1	0.12	0.08	0.04		0.001	White/colorless, transparent, no inclusions, macle, resorbed.

Total octacarats in this sample is: 2,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP536

Original Sample Weight in kilograms (SWT)	7.30
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.017
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.16	0.14	0.10		0.014	White/colorless, transparent, no inclusions, macle.
+ 106	1	0.14	0.14	0.06			White/colorless, transparent, minor inclusions, distorted.
+ 106	1	0.14	0.12	0.08			White/colorless, transparent, noticeable inclusions, octahedron.
+ 75	1	0.12	0.08	0.04		0.003	White/colorless, translucent, no inclusions, fragment <40%.
+ 75	1	0.10	0.10	0.06			White/colorless, translucent, no inclusions, distorted.
+ 75	1	0.08	0.08	0.06			White/colorless, transparent, minor inclusions, octahedroid.

Total octacarats in this sample is: 8,500.00

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Report No: D-08-157

Test Report
Method CF

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Sample Number: 08DAP537

Original Sample Weight in kilograms (SWT)	1.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.007
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	10/10
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.18	0.16	0.14		0.007	White/colorless, transparent, minor inclusions, octahedral.

Total octacarats in this sample is: 3,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP601

Original Sample Weight in kilograms (SWT)	**7.55**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**1**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.001**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**10/10**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**9**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.16	0.10	0.08		0.001	White/colorless, transparent, no inclusions, octahedroid, twinned, resorbed.

Total octacarats in this sample is: 500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP602

Original Sample Weight in kilograms (SWT)	7.80
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.008
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/16
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.22	0.16	0.14		0.008	White/colorless, transparent, no inclusions, octahedron, resorbed.

Total octacarats in this sample is: 4,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP603

Original Sample Weight in kilograms (SWT)	**6.10**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**1**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.014**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**13/13**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**1**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.30	0.20	0.16		0.014	White/colorless, translucent, noticeable inclusions, fragment <40%, resorbed.

Total octacarats in this sample is: 7,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP604

Original Sample Weight in kilograms (SWT)	7.65
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.057
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	12/12
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.30	0.26	0.18		0.020	White/colorless, translucent, no inclusions, fragment <40%, resorbed, hillocks.
+ 150	1	0.34	0.20	0.14		0.035	White/colorless, translucent, no inclusions, fragment <40%, resorbed, hillocks.
+ 150	1	0.30	0.20	0.12			White/colorless, translucent, no inclusions, fragment <40%, resorbed, hillocks.
+ 150	1	0.26	0.18	0.12			White/colorless, translucent, no inclusions, fragment <40%, resorbed, hillocks.
+ 75	1	0.22	0.10	0.08		0.002	White/colorless, translucent, no inclusions, fragment <40%, resorbed, hillocks.

Total octacarats in this sample is: 28,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP605

Original Sample Weight in kilograms (SWT)	**7.75**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**9**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.040**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**13/15**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**72**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.34	0.18	0.14		0.011	White/colorless, translucent, no inclusions, fragment <40%, stepped, serrate laminae.
+ 106	1	0.38	0.16	0.04		0.021	White/colorless, transparent, no inclusions, fragment <40%.
+ 106	1	0.20	0.16	0.12			White/colorless, transparent, minor inclusions, fragment <40%, resorbed, pits / cavity.
+ 106	1	0.18	0.12	0.10			White/colorless, transparent, minor inclusions, octahedron, twinned, resorbed, shield laminae.
+ 106	1	0.12	0.10	0.10			White/colorless, transparent, minor inclusions, macle.
+ 75	1	0.14	0.08	0.06		0.008	White/colorless, translucent, minor inclusions, distorted.
+ 75	1	0.12	0.10	0.04			White/colorless, transparent, no inclusions, octahedron, resorbed, low relief.
+ 75	1	0.10	0.08	0.06			White/colorless, translucent, minor inclusions, octahedroid.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, no inclusions, octahedron.

Total octacarats in this sample is: 20,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP606

Original Sample Weight in kilograms (SWT)	7.80
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.010
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	11/11
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.26	0.18	0.14		0.009	White/colorless, translucent, no inclusions, aggregate.
+ 75	1	0.14	0.10	0.08		0.001	White/colorless, translucent, no inclusions, octahedroid, resorbed.

Total octacarats in this sample is: 5,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP607

Original Sample Weight in kilograms (SWT)	7.75
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.029
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.30	0.20	0.14		0.018	White/colorless, translucent, no inclusions, octahedroid, twinned, resorbed.
+ 75	1	0.22	0.10	0.08		0.011	White/colorless, transparent, no inclusions, octahedral.
+ 75	1	0.16	0.10	0.10			White/colorless, transparent, no inclusions, octahedral.
+ 75	1	0.16	0.10	0.08			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.16	0.10	0.06			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, no inclusions, fragment <40%.

Total octacarats in this sample is: 14,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP609

Original Sample Weight in kilograms (SWT)	2.15
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.011
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	10/10
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.22	0.18	0.14		0.011	White/colorless, transparent, minor inclusions, octahedral, twinned, serrate laminae, shield laminae.

Total octacarats in this sample is: 5,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP610

Original Sample Weight in kilograms (SWT)	7.25
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	10
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.037
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	11/11
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.30	0.16	0.14		0.012	White/colorless, translucent, no inclusions, distorted, resorbed.
+ 106	1	0.22	0.14	0.10		0.012	Off-white, opaque, obvious inclusions, aggregate, polycrystalline aggregate.
+ 106	1	0.18	0.16	0.14			White/colorless, transparent, no inclusions, octahedron, resorbed.
+ 75	1	0.20	0.12	0.08			White/colorless, translucent, minor inclusions, distorted, resorbed.
+ 75	1	0.16	0.10	0.10		0.013	White/colorless, translucent, minor inclusions, octahedroid, broken >60%.
+ 75	1	0.16	0.10	0.10			White/colorless, translucent, no inclusions, fragment <40%.
+ 75	1	0.16	0.10	0.08			White/colorless, translucent, no inclusions, octahedroid, twinned, resorbed.
+ 75	1	0.12	0.10	0.08			White/colorless, translucent, minor inclusions, fragment <40%.
+ 75	1	0.12	0.10	0.08			White/colorless, translucent, no inclusions, octahedroid.
+ 75	1	0.10	0.08	0.06			White/colorless, translucent, no inclusions, octahedron, twinned.

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP610

Total octacarats in this sample is: 18,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP611

Original Sample Weight in kilograms (SWT)	**7.30**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**2**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.022**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**13/13**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**2**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.28	0.20	0.18		0.015	White/colorless, transparent, no inclusions, thh, low relief.
+ 106	1	0.22	0.16	0.12		0.007	White/colorless, transparent, no inclusions, octahedron, resorbed.

Total octacarats in this sample is: 11,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP612

Original Sample Weight in kilograms (SWT)	7.35
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.023
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	17/18
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	6

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.24	0.18	0.16		0.013	White/colorless, transparent, minor inclusions, octahedron, frosted.
+ 106	1	0.16	0.14	0.08		0.004	White/colorless, transparent, no inclusions, fragment <40%.
+ 75	1	0.14	0.10	0.08		0.006	White/colorless, translucent, no inclusions, octahedroid, twinned.
+ 75	1	0.10	0.08	0.08			White/colorless, translucent, no inclusions, octahedral.
+ 75	1	0.10	0.08	0.08			White/colorless, translucent, no inclusions, octahedron.
+ 75	1	0.10	0.08	0.08			White/colorless, transparent, noticeable inclusions, octahedroid.

Total octacarats in this sample is: 11,500.00

Geoanalytical Laboratories Diamond Services
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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP613

Original Sample Weight in kilograms (SWT)	7.65
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.010
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	12/15
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	7

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.22	0.14	0.12		0.006	White/colorless, transparent, no inclusions, octahedron, twinned.
+ 75	1	0.12	0.10	0.08		0.004	White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.10	0.10	0.08			White/colorless, transparent, no inclusions, octahedron.

Total octacarats in this sample is: 5,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP614

Original Sample Weight in kilograms (SWT)	7.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	11
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.066
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/16
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	24

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.26	0.22	0.16		0.017	White/colorless, translucent, no inclusions, aggregate, resorbed, polycrystalline aggregate, serrate laminae, rough.
+ 150	1	0.30	0.20	0.14		0.023	White/colorless, transparent, no inclusions, octahedron.
+ 106	1	0.24	0.16	0.08		0.021	White/colorless, translucent, minor inclusions, fragment <40%, resorbed.
+ 106	1	0.24	0.14	0.08			White/colorless, translucent, no inclusions, fragment <40%.
+ 106	1	0.20	0.12	0.08			White/colorless, translucent, no inclusions, octahedroid, twinned.
+ 106	1	0.16	0.14	0.08			White/colorless, translucent, minor inclusions, octahedroid, twinned.
+ 106	1	0.14	0.12	0.08			White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.12	0.10	0.10		0.005	White/colorless, transparent, no inclusions, octahedral.
+ 75	1	0.12	0.08	0.04			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.10	0.10	0.08			White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.10	0.10	0.06			White/colorless, transparent, minor inclusions, octahedron, broken >60%.

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP614

Total octacarats in this sample is: 33,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP615

Original Sample Weight in kilograms (SWT)	7.70
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.040
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/17
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	9/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	12

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.32	0.22	0.22		0.020	White/colorless, transparent, no inclusions, distorted, resorbed, etched trigons, pits / cavity.
+ 106	1	0.24	0.16	0.14		0.020	White/colorless, translucent, minor inclusions, octahedron, twinned.
+ 106	1	0.16	0.16	0.12			White/colorless, translucent, no inclusions, octahedroid.
+ 106	1	0.16	0.16	0.08			White/colorless, translucent, no inclusions, aggregate.
+ 106	1	0.14	0.12	0.10			White/colorless, translucent, no inclusions, distorted.

Total octacarats in this sample is: 20,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP616

Original Sample Weight in kilograms (SWT)	7.75
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.004
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	40

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.14	0.10	0.06		0.004	White/colorless, transparent, no inclusions, macle.
+ 75	1	0.12	0.10	0.08			White/colorless, translucent, no inclusions, aggregate.

Total octacarats in this sample is: 2,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP617

Original Sample Weight in kilograms (SWT)	7.70
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	16
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.135
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	18/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	49

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 300	1	0.54	0.30	0.30		0.077	White/colorless, translucent, minor inclusions, octahedron, twinned, resorbed, rough.
+ 150	1	0.40	0.20	0.18		0.026	White/colorless, opaque, minor inclusions, fragment <40%, rough.
+ 150	1	0.22	0.18	0.10			Off-white, transparent, no inclusions, macle, serrate laminae.
+ 106	1	0.22	0.14	0.10		0.025	White/colorless, translucent, no inclusions, fragment <40%, polycrystalline aggregate.
+ 106	1	0.20	0.12	0.08			White/colorless, translucent, no inclusions, fragment <40%, polycrystalline aggregate.
+ 106	1	0.18	0.14	0.12			White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.
+ 106	1	0.18	0.14	0.12			White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.
+ 106	1	0.18	0.12	0.10			White/colorless, translucent, no inclusions, distorted, polycrystalline aggregate.
+ 106	1	0.16	0.14	0.08			White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP617

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.14	0.12	0.10			White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.
+ 106	1	0.14	0.12	0.08			White/colorless, transparent, no inclusions, macle.
+ 75	1	0.14	0.10	0.08		0.007	White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.
+ 75	1	0.14	0.10	0.04			White/colorless, transparent, no inclusions, macle, resorbed.
+ 75	1	0.14	0.08	0.08			White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.
+ 75	1	0.14	0.08	0.08			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.12	0.10	0.08			White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.

Total octacarats in this sample is: 67,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP619

Original Sample Weight in kilograms (SWT)	7.65
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.015
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	16

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.34	0.24	0.04		0.010	White/colorless, transparent, no inclusions, macle, resorbed, serrate laminae, etched trigons.
+ 75	1	0.14	0.08	0.06		0.005	White/colorless, transparent, no inclusions, octahedroid, twinned.
+ 75	1	0.10	0.10	0.06			White/colorless, transparent, minor inclusions, octahedroid, broken >60%.
+ 75	1	0.10	0.10	0.04			White/colorless, transparent, minor inclusions, octahedron.
+ 75	1	0.08	0.06	0.06			White/colorless, translucent, minor inclusions, octahedroid.

Total octacarats in this sample is: 7,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP621

Original Sample Weight in kilograms (SWT)	**7.55**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**4**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.007**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**14/15**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**34**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.16	0.08	0.08		0.007	White/colorless, translucent, no inclusions, aggregate.
+ 75	1	0.14	0.10	0.10			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.14	0.10	0.04			White/colorless, translucent, noticeable inclusions, fragment <40%.
+ 75	1	0.10	0.10	0.08			White/colorless, transparent, no inclusions, macle.

Total octacarats in this sample is: 3,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP622

Original Sample Weight in kilograms (SWT)	7.45
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.042
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/16
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.34	0.18	0.16		0.039	White/colorless, transparent, noticeable inclusions, octahedron, twinned, serrate laminae, hillocks.
+ 150	1	0.26	0.18	0.18			White/colorless, transparent, no inclusions, distorted, low relief.
+ 106	1	0.14	0.12	0.10		0.003	White/colorless, translucent, minor inclusions, octahedron, broken >60%.

Total octacarats in this sample is: 21,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP623

Original Sample Weight in kilograms (SWT)	8.00
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.025
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.18	0.12	0.06		0.019	White/colorless, transparent, noticeable inclusions, aggregate.
+ 106	1	0.14	0.12	0.10			White/colorless, transparent, minor inclusions, octahedron.
+ 106	1	0.14	0.10	0.10			White/colorless, transparent, no inclusions, macle.
+ 75	1	0.12	0.08	0.06		0.006	White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.12	0.08	0.06			White/colorless, transparent, minor inclusions, octahedroid.
+ 75	1	0.12	0.08	0.04			White/colorless, transparent, minor inclusions, octahedral, twinned.

Total octacarats in this sample is: 12,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP624

Original Sample Weight in kilograms (SWT)	**7.80**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**3**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.012**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**16/16**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**1**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.20	0.14	0.06		0.010	White/colorless, transparent, no inclusions, aggregate.
+ 106	1	0.14	0.12	0.10			White/colorless, translucent, no inclusions, aggregate.
+ 75	1	0.10	0.10	0.06		0.002	White/colorless, transparent, no inclusions, octahedron.

Total octacarats in this sample is: 6,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP625

Original Sample Weight in kilograms (SWT)	7.55
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.029
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	17/17
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	5

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.30	0.20	0.12		0.014	White/colorless, opaque, no inclusions, aggregate, polycrystalline aggregate, rough.
+ 106	1	0.20	0.16	0.10		0.013	White/colorless, translucent, no inclusions, fragment <40%.
+ 106	1	0.18	0.12	0.10			White/colorless, translucent, no inclusions, octahedron, twinned.
+ 106	1	0.16	0.14	0.14			White/colorless, translucent, no inclusions, octahedroid.
+ 75	1	0.18	0.08	0.08		0.002	White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.
+ 75	1	0.14	0.08	0.08			White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.

Total octacarats in this sample is: 14,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP627

Original Sample Weight in kilograms (SWT)	6.90
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.006
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.12	0.12	0.08		0.003	White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.14	0.08	0.06		0.003	White/colorless, transparent, no inclusions, octahedron, twinned.
+ 75	1	0.12	0.08	0.06			White/colorless, transparent, no inclusions, fragment <40%.

Total octacarats in this sample is: 3,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP628

Original Sample Weight in kilograms (SWT)	7.90
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.004
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	3

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.16	0.14	0.10		0.003	White/colorless, transparent, no inclusions, macle.
+ 75	1	0.12	0.08	0.06		0.001	White/colorless, translucent, no inclusions, aggregate.

Total octacarats in this sample is: 2,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP629

Original Sample Weight in kilograms (SWT)	3.60
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.002
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/16
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.12	0.10	0.08		0.002	White/colorless, translucent, minor inclusions, octahedron, broken >60%.

Total octacarats in this sample is: 1,000.00

Geoanalytical Laboratories Diamond Services
#4 - 820 - 51st Street East, Saskatoon, Saskatchewan, S7K 0X8
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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP630

Original Sample Weight in kilograms (SWT)	**4.70**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**3**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.022**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**15/16**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**0**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.28	0.24	0.12		0.018	White/colorless, transparent, no inclusions, macle, resorbed, serrate laminae.
+ 106	1	0.16	0.14	0.12		0.003	White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.12	0.08	0.08		0.001	White/colorless, transparent, no inclusions, fragment <40%.

Total octacarats in this sample is: 11,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP631

Original Sample Weight in kilograms (SWT)	3.90
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.006
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.16	0.12	0.10		0.003	White/colorless, transparent, no inclusions, octahedroid, twinned.
+ 75	1	0.12	0.10	0.06		0.003	White/colorless, transparent, no inclusions, octahedroid.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, no inclusions, octahedroid, twinned.

Total octacarats in this sample is: 3,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP632

Original Sample Weight in kilograms (SWT)	6.95
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	7
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.012
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	19/19
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	28

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.28	0.10	0.08		0.012	White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.16	0.10	0.06			White/colorless, translucent, no inclusions, distorted.
+ 75	1	0.16	0.08	0.08			White/colorless, transparent, no inclusions, octahedroid.
+ 75	1	0.14	0.10	0.06			White/colorless, transparent, noticeable inclusions, octahedron, twinned.
+ 75	1	0.12	0.08	0.08			White/colorless, translucent, no inclusions, octahedroid.
+ 75	1	0.12	0.08	0.06			White/colorless, transparent, no inclusions, fragment <40%.
+ 75	1	0.10	0.10	0.08			White/colorless, translucent, minor inclusions, aggregate.

Total octacarats in this sample is: 6,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP633

Original Sample Weight in kilograms (SWT)	7.70
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.016
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	18/18
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	369

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.18	0.16	0.10		0.008	White/colorless, translucent, minor inclusions, aggregate, polycrystalline aggregate.
+ 106	1	0.16	0.14	0.06		0.003	White/colorless, translucent, minor inclusions, aggregate, polycrystalline aggregate.
+ 75	1	0.16	0.08	0.04		0.005	White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, no inclusions, fragment <40%.
+ 75	1	0.10	0.06	0.06			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.10	0.06	0.06			White/colorless, translucent, minor inclusions, aggregate, polycrystalline aggregate.

Total octacarats in this sample is: 8,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP634

Original Sample Weight in kilograms (SWT)	3.00
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.047
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	9/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	46

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.32	0.26	0.22		0.032	White/colorless, transparent, no inclusions, octahedral, stepped, shield laminae, etched trigons.
+ 150	1	0.22	0.20	0.12		0.006	White/colorless, transparent, no inclusions, macle, twinned, shield laminae.
+ 106	1	0.18	0.16	0.08		0.007	White/colorless, transparent, no inclusions, macle, resorbed, etched trigons.
+ 106	1	0.16	0.12	0.10			White/colorless, translucent, no inclusions, aggregate.
+ 75	1	0.12	0.10	0.06		0.002	White/colorless, transparent, no inclusions, aggregate.

Total octacarats in this sample is: 23,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP635

Original Sample Weight in kilograms (SWT)	5.85
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.008
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	15/17
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	45

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.22	0.18	0.12		0.008	White/colorless, translucent, no inclusions, aggregate, resorbed, pits / cavity, rough.

Total octacarats in this sample is: 4,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP636

Original Sample Weight in kilograms (SWT)	7.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	4
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.014
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	18/18
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	12

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.22	0.18	0.14		0.010	Off-white, opaque, minor inclusions, octahedron, broken >60%, frosted.
+ 75	1	0.14	0.10	0.10		0.004	White/colorless, transparent, no inclusions, octahedron, broken >60%.
+ 75	1	0.12	0.10	0.06			White/colorless, transparent, no inclusions, octahedron, twinned.
+ 75	1	0.10	0.08	0.08			White/colorless, translucent, noticeable inclusions, octahedroid.

Total octacarats in this sample is: 7,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP637

Original Sample Weight in kilograms (SWT)	3.05
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.001
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	15/15
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	9

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.14	0.10	0.06		0.001	White/colorless, transparent, minor inclusions, fragment <40%.

Total octacarats in this sample is: 500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP638

Original Sample Weight in kilograms (SWT)	3.25
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.033
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	17/17
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	7

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.30	0.18	0.16		0.030	White/colorless, transparent, no inclusions, octahedron, broken >60%, resorbed, shield laminae.
+ 150	1	0.22	0.18	0.16			White/colorless, translucent, minor inclusions, octahedron, broken >60%, resorbed.
+ 75	1	0.12	0.10	0.06		0.003	White/colorless, transparent, no inclusions, thh.

Total octacarats in this sample is: 16,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP639

Original Sample Weight in kilograms (SWT)	7.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.019
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	13

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.22	0.20	0.18		0.014	White/colorless, transparent, no inclusions, octahedron, resorbed, pits / cavity.
+ 106	1	0.18	0.16	0.12		0.005	White/colorless, translucent, minor inclusions, octahedron.

Total octacarats in this sample is: 9,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP640

Original Sample Weight in kilograms (SWT)	7.65
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	7
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.150
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/16
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	54

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 300	1	0.68	0.42	0.30		0.101	White/colorless, translucent, minor inclusions, aggregate, resorbed, rough.
+ 212	1	0.34	0.22	0.18		0.022	White/colorless, translucent, no inclusions, octahedroid, broken >60%.
+ 150	1	0.30	0.20	0.16		0.020	White/colorless, translucent, no inclusions, octahedroid, broken >60%.
+ 150	1	0.26	0.20	0.10			White/colorless, translucent, no inclusions, distorted, twinned, resorbed.
+ 106	1	0.14	0.12	0.10		0.003	White/colorless, transparent, no inclusions, aggregate, resorbed, shield laminae.
+ 75	1	0.16	0.10	0.06		0.004	White/colorless, translucent, no inclusions, distorted, resorbed.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, noticeable inclusions, octahedron.

Total octacarats in this sample is: 75,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP641

Original Sample Weight in kilograms (SWT)	7.30
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	11
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.183
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	19/19
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	132

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.46	0.28	0.14		0.093	White/colorless, transparent, no inclusions, macle, twinned, resorbed, serrate laminae.
+ 212	1	0.36	0.28	0.24			White/colorless, translucent, minor inclusions, octahedroid, twinned, resorbed, hillocks.
+ 150	1	0.60	0.20	0.08		0.073	White/colorless, translucent, no inclusions, distorted, resorbed.
+ 150	1	0.50	0.20	0.12			White/colorless, translucent, no inclusions, distorted, resorbed.
+ 150	1	0.22	0.18	0.18			White/colorless, translucent, no inclusions, octahedron, resorbed.
+ 106	1	0.20	0.14	0.08		0.012	White/colorless, translucent, no inclusions, octahedroid, twinned, resorbed.
+ 106	1	0.16	0.14	0.12			White/colorless, translucent, no inclusions, octahedron, twinned.
+ 106	1	0.16	0.14	0.08			White/colorless, translucent, no inclusions, aggregate.
+ 75	1	0.18	0.10	0.08		0.005	White/colorless, transparent, no inclusions, fragment <40%, resorbed.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, no inclusions, octahedral, twinned.

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Report No: D-08-157

Test Report
Method CF

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PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP641

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, noticeable inclusions, macle, twinned, resorbed.

Total octacarats in this sample is: 91,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP642

Original Sample Weight in kilograms (SWT)	7.60
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.030
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	13/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	25

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.38	0.20	0.16		0.018	White/colorless, translucent, no inclusions, distorted, resorbed.
+ 150	1	0.20	0.18	0.16			White/colorless, transparent, minor inclusions, octahedron, resorbed, serrate laminae, shield laminae, pits / cavity.
+ 106	1	0.20	0.16	0.14		0.006	White/colorless, translucent, no inclusions, octahedron, twinned, stepped, shield laminae, pits / cavity.
+ 75	1	0.18	0.10	0.10		0.006	White/colorless, translucent, minor inclusions, octahedral, twinned.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, minor inclusions, aggregate, stepped.
+ 75	1	0.12	0.08	0.08			White/colorless, translucent, no inclusions, octahedron, resorbed, rough.

Total octacarats in this sample is: 15,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP643

Original Sample Weight in kilograms (SWT)	7.75
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	4
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.032
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.30	0.20	0.12		0.027	White/colorless, transparent, minor inclusions, octahedron, twinned, serrate laminae, shield laminae, etched trigons.
+ 150	1	0.28	0.18	0.16			White/colorless, translucent, no inclusions, distorted, resorbed, pits / cavity.
+ 75	1	0.18	0.10	0.06		0.005	White/colorless, translucent, no inclusions, fragment <40%, resorbed.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, no inclusions, aggregate, shield laminae.

Total octacarats in this sample is: 16,000.00

Geoanalytical Laboratories Diamond Services
#4 - 820 - 51st Street East, Saskatoon, Saskatchewan, S7K 0X8
Tel: (306) 933-7177 Fax: (306) 933-7197 Email: geolab@src.sk.ca

Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP644

Original Sample Weight in kilograms (SWT)	7.75
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	1
Diamonds < 500 microns (Micro)	7
Weight of Diamonds > 500 microns in milligrams (Wt+)	0.465
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.126
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	19/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	6

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 425	1	0.80	0.56	0.46	0.465	0.465	White/colorless, transparent, no inclusions, octahedral, broken >60%, shield laminae.
+ 300	1	0.46	0.34	0.32	0.097	0.097	White/colorless, transparent, no inclusions, octahedron, broken >60%, resorbed, shield laminae.
+ 212	1	0.26	0.24	0.20		0.017	White/colorless, transparent, no inclusions, aggregate, resorbed, serrate laminae.
+ 106	1	0.18	0.16	0.10		0.004	White/colorless, transparent, minor inclusions, distorted.
+ 75	1	0.18	0.10	0.08		0.008	Off-white, translucent, minor inclusions, octahedroid, twinned, resorbed.
+ 75	1	0.12	0.10	0.10			White/colorless, transparent, no inclusions, octahedron, resorbed.
+ 75	1	0.12	0.10	0.08			Off-white, transparent, no inclusions, octahedroid, resorbed.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, no inclusions, octahedron, resorbed.

Total octacarats in this sample is: 295,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP645

Original Sample Weight in kilograms (SWT)	7.90
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	8
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.026
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	19/19
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	9

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.20	0.16	0.10		0.014	White/colorless, transparent, no inclusions, octahedral, broken >60%.
+ 106	1	0.20	0.12	0.10			White/colorless, transparent, no inclusions, aggregate.
+ 106	1	0.16	0.14	0.10			White/colorless, transparent, no inclusions, macle, resorbed.
+ 75	1	0.16	0.10	0.10		0.012	White/colorless, transparent, no inclusions, octahedral, twinned.
+ 75	1	0.14	0.10	0.08			White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.14	0.10	0.08			White/colorless, translucent, no inclusions, octahedron.
+ 75	1	0.14	0.10	0.06			White/colorless, transparent, no inclusions, fragment <40%.
+ 75	1	0.12	0.10	0.10			White/colorless, transparent, no inclusions, macle.

Total octacarats in this sample is: 13,000.00

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Report No: D-08-157

Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP646

Original Sample Weight in kilograms (SWT)	7.80
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.070
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	19/19
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	142

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 300	1	0.40	0.32	0.30	0.063	0.063	White/colorless, translucent, noticeable inclusions, octahedron, resorbed, serrate laminae, pits / cavity.
+ 106	1	0.16	0.16	0.10		0.003	White/colorless, translucent, no inclusions, fragment <40%.
+ 75	1	0.14	0.10	0.08		0.004	White/colorless, transparent, minor inclusions, octahedron, resorbed.
+ 75	1	0.12	0.10	0.10			White/colorless, transparent, minor inclusions, octahedroid, resorbed.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, minor inclusions, octahedroid, resorbed.

Total octacarats in this sample is: 35,000.00

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Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP647

Original Sample Weight in kilograms (SWT)	7.80
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.027
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	5

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.30	0.22	0.20		0.019	White/colorless, transparent, noticeable inclusions, octahedron, broken >60%, resorbed, etched trigons, hillocks, lamination.
+ 106	1	0.28	0.16	0.14		0.007	White/colorless, transparent, no inclusions, octahedron, resorbed.
+ 75	1	0.12	0.10	0.08		0.001	White/colorless, transparent, minor inclusions, octahedron, resorbed.

Total octacarats in this sample is: 13,500.00

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Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP649

Original Sample Weight in kilograms (SWT)	5.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.013
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.22	0.14	0.10		0.009	White/colorless, translucent, minor inclusions, octahedron.
+ 106	1	0.18	0.12	0.10			White/colorless, transparent, no inclusions, fragment <40%.
+ 75	1	0.12	0.10	0.08		0.004	White/colorless, translucent, no inclusions, fragment <40%.
+ 75	1	0.12	0.10	0.08			White/colorless, translucent, no inclusions, octahedron.
+ 75	1	0.10	0.08	0.08			White/colorless, translucent, no inclusions, macle.

Total octacarats in this sample is: 6,500.00

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Report No: D-08-157

Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP650

Original Sample Weight in kilograms (SWT)	6.15
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.018
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	11/11
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	4

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.28	0.20	0.18		0.014	White/colorless, translucent, no inclusions, octahedron, resorbed.
+ 106	1	0.28	0.14	0.10		0.004	White/colorless, transparent, no inclusions, fragment <40%.

Total octacarats in this sample is: 9,000.00

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Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP651

Original Sample Weight in kilograms (SWT)	2.80
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	4
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.009
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	12/12
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	9/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	4

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.20	0.16	0.08		0.007	White/colorless, transparent, no inclusions, fragment <40%.
+ 106	1	0.14	0.12	0.12			White/colorless, transparent, no inclusions, macle.
+ 75	1	0.12	0.10	0.08		0.002	White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.10	0.10	0.08			White/colorless, transparent, no inclusions, octahedron.

Total octacarats in this sample is: 4,500.00

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Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP652

Original Sample Weight in kilograms (SWT)	5.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.010
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	15/15
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	24

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.22	0.20	0.10		0.010	White/colorless, transparent, no inclusions, fragment <40%, resorbed, shield laminae.

Total octacarats in this sample is: 5,000.00

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Report No: D-08-157

Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP653

Original Sample Weight in kilograms (SWT)	7.60
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.024
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	15/15
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	14

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.22	0.20	0.14		0.011	White/colorless, transparent, no inclusions, macle, resorbed, shield laminae.
+ 106	1	0.18	0.16	0.10		0.010	White/colorless, translucent, no inclusions, fragment <40%.
+ 106	1	0.18	0.16	0.10			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.14	0.10	0.06		0.003	White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.10	0.08	0.08			White/colorless, translucent, no inclusions, octahedron.

Total octacarats in this sample is: 12,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP702

Original Sample Weight in kilograms (SWT)	7.80
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	15
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.069
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/16
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.28	0.20	0.18		0.024	White/colorless, transparent, no inclusions, aggregate.
+ 150	1	0.28	0.20	0.14			White/colorless, transparent, no inclusions, aggregate, frosted.
+ 106	1	0.22	0.16	0.14		0.034	Off-white, transparent, noticeable inclusions, aggregate, resorbed.
+ 106	1	0.22	0.16	0.10			White/colorless, transparent, no inclusions, octahedron, twinned, shield laminae.
+ 106	1	0.22	0.14	0.10			White/colorless, translucent, no inclusions, fragment <40%, frosted.
+ 106	1	0.18	0.14	0.12			White/colorless, transparent, no inclusions, octahedron, frosted.
+ 106	1	0.16	0.12	0.10			White/colorless, transparent, no inclusions, octahedron, broken >60%.
+ 106	1	0.16	0.12	0.10			White/colorless, translucent, no inclusions, octahedron, twinned, broken >60%.
+ 106	1	0.14	0.14	0.12			White/colorless, transparent, no inclusions, octahedron, resorbed.
+ 75	1	0.18	0.10	0.06		0.011	White/colorless, transparent, no inclusions, fragment <40%.
+ 75	1	0.16	0.10	0.10			Off-white, transparent, no inclusions, octahedroid, twinned.

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Test Report
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Apex Geoscience Ltd
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Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP702

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.14	0.10	0.08			White/colorless, transparent, no inclusions, octahedroid, broken >60%.
+ 75	1	0.14	0.10	0.06			White/colorless, transparent, no inclusions, octahedroid.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, no inclusions, octahedroid, resorbed.
+ 75	1	0.12	0.10	0.06			White/colorless, translucent, no inclusions, aggregate, broken >60%.

Total octacarats in this sample is: 34,500.00

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Test Report
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Apex Geoscience Ltd
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PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP703

Original Sample Weight in kilograms (SWT)	7.35
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.064
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.44	0.26	0.18		0.038	White/colorless, transparent, no inclusions, octahedron, twinned, resorbed, serrate laminae, shield laminae.
+ 150	1	0.40	0.14	0.12		0.010	White/colorless, translucent, no inclusions, fragment <40%, stepped, serrate laminae.
+ 106	1	0.16	0.12	0.10		0.011	White/colorless, translucent, no inclusions, fragment <40%.
+ 106	1	0.12	0.12	0.10			White/colorless, translucent, no inclusions, aggregate.
+ 75	1	0.16	0.10	0.10		0.005	White/colorless, translucent, no inclusions, octahedron, twinned.
+ 75	1	0.16	0.10	0.08			White/colorless, translucent, no inclusions, fragment <40%.

Total octacarats in this sample is: 32,000.00

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Test Report
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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP705

Original Sample Weight in kilograms (SWT)	**7.40**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**4**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.011**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**10/10**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**0**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.28	0.12	0.10		0.006	White/colorless, translucent, no inclusions, distorted.
+ 75	1	0.16	0.12	0.10		0.005	White/colorless, transparent, minor inclusions, octahedral.
+ 75	1	0.12	0.10	0.06			White/colorless, translucent, no inclusions, fragment <40%.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, no inclusions, octahedral.

Total octacarats in this sample is: 5,500.00

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Test Report
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Apex Geoscience Ltd
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PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP706

Original Sample Weight in kilograms (SWT)	7.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.139
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	19/19
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	13

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.40	0.30	0.20		0.121	White/colorless, transparent, minor inclusions, octahedron, twinned, stepped, shield laminae, hillocks.
+ 212	1	0.30	0.26	0.20			White/colorless, translucent, noticeable inclusions, aggregate, stepped, shield laminae.
+ 212	1	0.28	0.24	0.20			White/colorless, translucent, no inclusions, octahedral, resorbed, shield laminae, pits / cavity, hillocks.
+ 150	1	0.22	0.18	0.16		0.008	White/colorless, translucent, minor inclusions, octahedroid, twinned, resorbed.
+ 106	1	0.14	0.12	0.12		0.008	White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.14	0.10	0.08		0.002	White/colorless, transparent, no inclusions, macle.

Total octacarats in this sample is: 69,500.00

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Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP707

Original Sample Weight in kilograms (SWT)	7.90
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.007
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.14	0.12	0.12		0.003	White/colorless, transparent, no inclusions, octahedroid.
+ 75	1	0.16	0.10	0.08		0.004	White/colorless, transparent, no inclusions, octahedron, twinned.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, no inclusions, octahedral.

Total octacarats in this sample is: 3,500.00

Geoanalytical Laboratories Diamond Services
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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP708

Original Sample Weight in kilograms (SWT)	7.55
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.021
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	12/12
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.40	0.26	0.08		0.015	White/colorless, transparent, no inclusions, fragment <40%, lamination.
+ 106	1	0.14	0.14	0.12		0.004	White/colorless, transparent, no inclusions, octahedron, shield laminae.
+ 75	1	0.24	0.10	0.06		0.002	White/colorless, translucent, no inclusions, aggregate, frosted.

Total octacarats in this sample is: 10,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP709

Original Sample Weight in kilograms (SWT)	7.35
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	7
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.101
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/16
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.40	0.30	0.20		0.083	White/colorless, transparent, no inclusions, aggregate, resorbed, serrate laminae, shield laminae.
+ 212	1	0.32	0.28	0.18			White/colorless, transparent, no inclusions, aggregate, serrate laminae.
+ 212	1	0.28	0.24	0.20			Off-white, transparent, noticeable inclusions, octahedron, broken >60%, resorbed, shield laminae, etched trigons.
+ 106	1	0.32	0.16	0.14		0.012	White/colorless, transparent, no inclusions, aggregate, low relief.
+ 75	1	0.16	0.10	0.06		0.006	White/colorless, transparent, minor inclusions, fragment <40%.
+ 75	1	0.14	0.10	0.08			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.12	0.10	0.06			Off-white, transparent, minor inclusions, octahedron, resorbed.

Total octacarats in this sample is: 50,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP710

Original Sample Weight in kilograms (SWT)	7.20
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.044
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	18/18
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.30	0.22	0.22		0.030	White/colorless, transparent, no inclusions, octahedral, twinned, serrate laminae, shield laminae.
+ 150	1	0.38	0.18	0.14		0.013	White/colorless, transparent, no inclusions, octahedron, resorbed, hillocks.
+ 75	1	0.08	0.08	0.08		0.001	White/colorless, transparent, no inclusions, octahedron.

Total octacarats in this sample is: 22,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP712

Original Sample Weight in kilograms (SWT)	7.55
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.059
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	11/11
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.40	0.30	0.18		0.046	White/colorless, transparent, no inclusions, aggregate, resorbed, serrate laminae, shield laminae.
+ 150	1	0.26	0.18	0.16		0.011	White/colorless, transparent, noticeable inclusions, aggregate, resorbed, shield laminae.
+ 75	1	0.12	0.10	0.08		0.002	White/colorless, transparent, no inclusions, octahedroid.

Total octacarats in this sample is: 29,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP713

Original Sample Weight in kilograms (SWT)	7.60
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.004
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/16
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.14	0.10	0.08		0.004	White/colorless, transparent, no inclusions, octahedroid, twinned.
+ 75	1	0.12	0.10	0.06			White/colorless, transparent, no inclusions, fragment <40%.

Total octacarats in this sample is: 2,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP714

Original Sample Weight in kilograms (SWT)	7.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.012
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	17/17
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	3

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.18	0.14	0.10		0.007	White/colorless, transparent, no inclusions, fragment <40%.
+ 106	1	0.18	0.12	0.10			White/colorless, transparent, no inclusions, distorted.
+ 75	1	0.16	0.08	0.08		0.005	White/colorless, translucent, no inclusions, distorted.
+ 75	1	0.14	0.10	0.08			White/colorless, transparent, no inclusions, macle.
+ 75	1	0.14	0.10	0.08			White/colorless, translucent, no inclusions, fragment <40%.

Total octacarats in this sample is: 6,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP715

Original Sample Weight in kilograms (SWT)	7.45
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.156
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	17/17
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 300	1	0.48	0.34	0.30	0.086	0.086	White/colorless, transparent, minor inclusions, aggregate, stepped, serrate laminae, shield laminae, etched trigons.
+ 212	1	0.36	0.30	0.28		0.051	White/colorless, transparent, no inclusions, octahedron, resorbed, serrate laminae, shield laminae.
+ 150	1	0.30	0.18	0.14		0.010	White/colorless, transparent, no inclusions, aggregate, resorbed, shield laminae, pits / cavity.
+ 106	1	0.14	0.10	0.08		0.004	White/colorless, transparent, minor inclusions, octahedron, resorbed.
+ 75	1	0.10	0.08	0.08		0.005	White/colorless, transparent, no inclusions, macle.
+ 75	1	0.10	0.08	0.08			White/colorless, transparent, no inclusions, octahedron.

Total octacarats in this sample is: 78,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP716

Original Sample Weight in kilograms (SWT)	**7.30**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**3**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.015**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**17/17**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**0**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.26	0.14	0.12		0.014	White/colorless, translucent, minor inclusions, octahedroid, twinned.
+ 106	1	0.20	0.16	0.10			White/colorless, transparent, no inclusions, octahedron, twinned.
+ 75	1	0.12	0.10	0.08		0.001	White/colorless, transparent, no inclusions, octahedroid.

Total octacarats in this sample is: 7,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP717

Original Sample Weight in kilograms (SWT)	7.35
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	10
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.034
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	8

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.28	0.22	0.18		0.017	White/colorless, transparent, no inclusions, aggregate, broken >60%, resorbed, serrate laminae.
+ 75	1	0.18	0.10	0.08		0.017	White/colorless, transparent, minor inclusions, aggregate.
+ 75	1	0.14	0.10	0.10			White/colorless, translucent, no inclusions, aggregate, polycrystalline aggregate.
+ 75	1	0.12	0.10	0.10			White/colorless, transparent, minor inclusions, aggregate.
+ 75	1	0.12	0.10	0.10			White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.12	0.10	0.10			White/colorless, transparent, minor inclusions, octahedroid.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, no inclusions, octahedroid.
+ 75	1	0.12	0.10	0.06			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.10	0.10	0.08			White/colorless, transparent, no inclusions, fragment <40%.
+ 75	1	0.10	0.08	0.08			White/colorless, transparent, no inclusions, aggregate.

Total octacarats in this sample is: 17,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP718

Original Sample Weight in kilograms (SWT)	7.45
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	3
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.044
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	15/15
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.32	0.30	0.24		0.040	Off-white, transparent, noticeable inclusions, octahedron, twinned, stepped, sheild laminae.
+ 75	1	0.16	0.08	0.08		0.004	White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, no inclusions, aggregate.

Total octacarats in this sample is: 22,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP719

Original Sample Weight in kilograms (SWT)	7.45
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	7
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.050
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	12/13
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 212	1	0.24	0.22	0.20		0.018	White/colorless, translucent, no inclusions, aggregate, stepped, shield laminae, pits / cavity.
+ 150	1	0.20	0.16	0.14		0.009	White/colorless, transparent, no inclusions, octahedron, shield laminae.
+ 106	1	0.24	0.16	0.16		0.019	White/colorless, transparent, no inclusions, octahedroid, broken >60%, pits / cavity.
+ 106	1	0.18	0.14	0.12			White/colorless, transparent, no inclusions, aggregate, resorbed, shield laminae.
+ 106	1	0.16	0.14	0.12			White/colorless, transparent, minor inclusions, octahedron, resorbed, shield laminae.
+ 75	1	0.16	0.10	0.10		0.004	White/colorless, transparent, no inclusions, fragment <40%.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, no inclusions, octahedroid.

Total octacarats in this sample is: 25,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP720

Original Sample Weight in kilograms (SWT)	7.50
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.246
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/15
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 425	1	0.90	0.66	0.20	0.235	0.235	White/colorless, translucent, no inclusions, distorted, resorbed, rough, frosted.
+ 106	1	0.20	0.16	0.10		0.005	Off-white, transparent, no inclusions, octahedroid, broken >60%.
+ 75	1	0.18	0.10	0.08		0.006	White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.18	0.10	0.06			White/colorless, transparent, no inclusions, fragment <40%, twinned, resorbed.
+ 75	1	0.12	0.10	0.08			White/colorless, translucent, no inclusions, octahedroid, twinned.

Total octacarats in this sample is: 123,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP721

Original Sample Weight in kilograms (SWT)	7.45
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.119
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 300	1	0.52	0.44	0.36	0.119	0.119	White/colorless, translucent, minor inclusions, octahedron, resorbed, serrate laminae, etched trigons, pits / cavity.

Total octacarats in this sample is: 59,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP722

Original Sample Weight in kilograms (SWT)	**6.25**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**1**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.005**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**16/16**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**1**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.18	0.14	0.10		0.005	White/colorless, transparent, minor inclusions, octahedroid, resorbed.

Total octacarats in this sample is: 2,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP723

Original Sample Weight in kilograms (SWT)	7.35
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	1
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	1.417
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.019
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	3

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 600	1	1.24	0.84	0.62	1.417	1.417	Off-white, translucent, obvious inclusions, octahedral, frosted, serrate laminae, etched trigons, pits / cavity.
+ 106	1	0.26	0.16	0.14		0.019	Off-white, transparent, minor inclusions, octahedron, twinned.
+ 106	1	0.20	0.16	0.12			White/colorless, transparent, obvious inclusions, octahedral.

Total octacarats in this sample is: 718,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP724

Original Sample Weight in kilograms (SWT)	7.35
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.029
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	11/11
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.24	0.20	0.10		0.012	White/colorless, transparent, noticeable inclusions, macle, shield laminae.
+ 106	1	0.18	0.14	0.12		0.012	White/colorless, transparent, no inclusions, octahedron, twinned, shield laminae.
+ 106	1	0.16	0.12	0.12			White/colorless, transparent, no inclusions, aggregate, shield laminae.
+ 75	1	0.14	0.12	0.08		0.005	White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.14	0.12	0.08			White/colorless, transparent, minor inclusions, aggregate.

Total octacarats in this sample is: 14,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP725

Original Sample Weight in kilograms (SWT)	2.35
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.002
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	10/11
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	5

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.12	0.08	0.08		0.002	Off-white, transparent, minor inclusions, octahedroid.

Total octacarats in this sample is: 1,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP727

Original Sample Weight in kilograms (SWT)	**7.15**
Bottom Sieve Size in microns (Sieve)	**75**
Diamonds > 500 microns (Macro)	**0**
Diamonds < 500 microns (Micro)	**3**
Weight of Diamonds > 500 microns in milligrams (Wt+)	**0**
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	**0.035**
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	**17/17**
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	**10/10**
Number of synthetic diamonds recovered (whole and fragments) (SYN)	**4**

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.28	0.20	0.16		0.031	White/colorless, transparent, no inclusions, octahedron, shield laminae.
+ 150	1	0.26	0.20	0.18			White/colorless, transparent, no inclusions, octahedron, broken >60%.
+ 106	1	0.12	0.12	0.12		0.004	White/colorless, transparent, no inclusions, octahedroid.

Total octacarats in this sample is: 17,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP728

Original Sample Weight in kilograms (SWT)	1.00
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.003
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/16
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.14	0.12	0.10		0.003	White/colorless, transparent, no inclusions, octahedroid.

Total octacarats in this sample is: 1,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP729

Original Sample Weight in kilograms (SWT)	6.15
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	4
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.013
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	16/16
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.14	0.12	0.10		0.008	White/colorless, transparent, no inclusions, octahedroid.
+ 106	1	0.12	0.12	0.10			White/colorless, transparent, no inclusions, octahedron, broken >60%.
+ 75	1	0.12	0.10	0.06		0.005	White/colorless, transparent, no inclusions, octahedroid.
+ 75	1	0.12	0.10	0.04			White/colorless, transparent, minor inclusions, octahedron, resorbed.

Total octacarats in this sample is: 6,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP730

Original Sample Weight in kilograms (SWT)	7.05
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.003
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	14/14
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.16	0.10	0.08		0.003	White/colorless, transparent, minor inclusions, fragment <40%.

Total octacarats in this sample is: 1,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP731

Original Sample Weight in kilograms (SWT)	7.10
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	2
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.010
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	19/19
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	2

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.22	0.20	0.10		0.009	Off-white, transparent, no inclusions, octahedron, shield laminae, low relief.
+ 75	1	0.12	0.10	0.06		0.001	White/colorless, transparent, no inclusions, octahedroid.

Total octacarats in this sample is: 5,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP732

Original Sample Weight in kilograms (SWT)	7.00
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	7
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.043
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	11/11
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	3

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 150	1	0.30	0.20	0.18		0.019	White/colorless, transparent, noticeable inclusions, octahedron, resorbed, rough.
+ 106	1	0.20	0.16	0.08		0.016	White/colorless, transparent, no inclusions, octahedron, resorbed.
+ 106	1	0.16	0.16	0.14			White/colorless, transparent, no inclusions, octahedral.
+ 106	1	0.16	0.14	0.12			White/colorless, transparent, no inclusions, octahedral.
+ 75	1	0.16	0.10	0.10		0.008	White/colorless, transparent, no inclusions, octahedron.
+ 75	1	0.14	0.10	0.08			White/colorless, transparent, no inclusions, distorted, resorbed.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, no inclusions, octahedron.

Total octacarats in this sample is: 21,500.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP733

Original Sample Weight in kilograms (SWT)	7.25
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	6
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.016
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	18/19
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	6

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.32	0.12	0.08		0.008	White/colorless, transparent, noticeable inclusions, aggregate.
+ 75	1	0.12	0.08	0.06		0.008	White/colorless, transparent, minor inclusions, macle.
+ 75	1	0.12	0.08	0.06			White/colorless, transparent, no inclusions, octahedroid, twinned.
+ 75	1	0.12	0.08	0.04			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.10	0.08	0.06			White/colorless, transparent, minor inclusions, octahedron, twinned.
+ 75	1	0.10	0.06	0.06			White/colorless, transparent, no inclusions, octahedroid.

Total octacarats in this sample is: 8,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP734

Original Sample Weight in kilograms (SWT)	7.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	5
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.014
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	1

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 106	1	0.18	0.16	0.10		0.006	White/colorless, transparent, minor inclusions, octahedroid.
+ 75	1	0.18	0.10	0.08		0.008	White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.12	0.10	0.08			White/colorless, transparent, noticeable inclusions, macle.
+ 75	1	0.10	0.10	0.08			White/colorless, transparent, no inclusions, aggregate.
+ 75	1	0.10	0.10	0.08			White/colorless, transparent, minor inclusions, octahedral, twinned.

Total octacarats in this sample is: 7,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP735

Original Sample Weight in kilograms (SWT)	7.05
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.002
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	11/11
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	0

Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.16	0.10	0.08		0.002	White/colorless, transparent, noticeable inclusions, octahedroid.

Total octacarats in this sample is: 1,000.00

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Report No: D-08-157

Test Report
Method CF

Apex Geoscience Ltd
Attention: Dean Besserer
PO #/Project:

Date of Report: December 08, 2008

Date of Observation: December 05, 2008

Sample Number: 08DAP736

Original Sample Weight in kilograms (SWT)	6.40
Bottom Sieve Size in microns (Sieve)	75
Diamonds > 500 microns (Macro)	0
Diamonds < 500 microns (Micro)	1
Weight of Diamonds > 500 microns in milligrams (Wt+)	0
Weight of Diamonds >75microns < 500 microns in milligrams (Wt-)	0.001
Number of QC/QA Tracers (-212+180microns) Recovered Fusion (QC 1)	20/20
Number of QC/QA Tracers (-300+250microns) Recovered Chemical Treatment (QC 2)	10/10
Number of synthetic diamonds recovered (whole and fragments) (SYN)	3

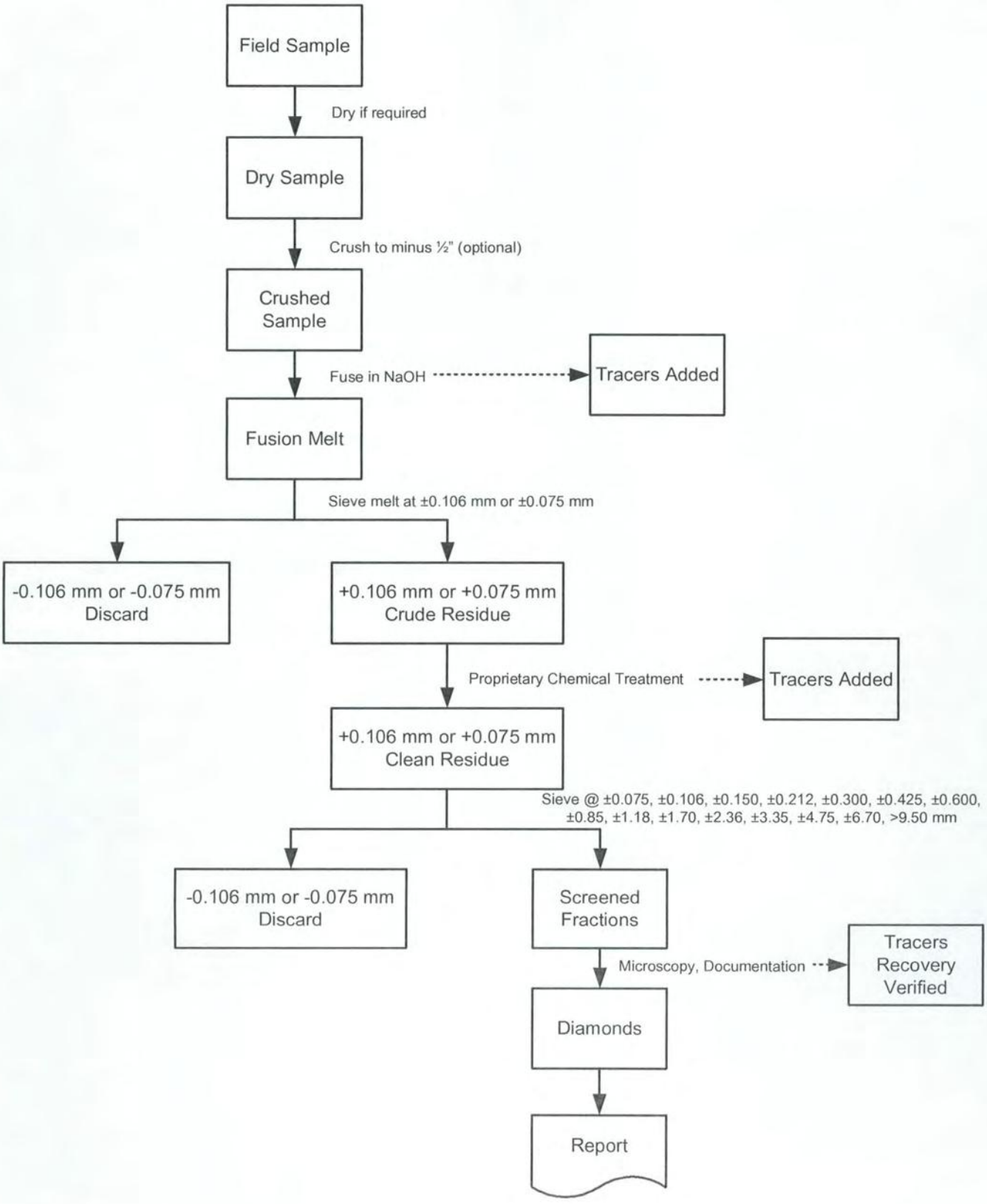
Fraction Size Microns	Diamond Count	Length mm	Width mm	Height mm	Individual Diamond Weight mg	Total Diamond Weight in Fractions mg	Diamond Description
+ 75	1	0.16	0.10	0.08		0.001	White/colorless, transparent, noticeable inclusions, octahedron, twinned.

Total octacarats in this sample is: 500.00

APPENDIX 5c

SRC Caustic Fusion Flowchart

Caustic Fusion Method for Diamonds



APPENDIX 6

Diamond Indicator Mineral Samples

GRIZZLY DIAMONDS

2008 Smoky the Bear

GEOLOGICAL DRILL LOG - SAMPLE SUMMARY
DDH - 08SMB05

Samples taken for diamond indicator mineral analysis
Sample 08JAP501

To (m)	From (m)	Interval (m)
110.54	111.32	0.78
112.52	112.81	0.29
118.82	119.32	0.50
123.65	124.06	0.41
129.20	129.55	0.35
136.13	136.50	0.37
140.70	141.26	0.56
147.86	148.50	0.64
149.89	150.44	0.55
153.23	153.75	0.52
156.23	156.68	0.45
162.99	163.89	0.90
169.07	169.50	0.43
171.92	172.50	0.58
176.06	176.61	0.55
179.43	179.79	0.36
181.50	182.09	0.59
188.90	190.15	1.25

GRIZZLY DIAMONDS

2008 Smoky the Bear

GEOLOGICAL DRILL LOG - SAMPLE SUMMARY

Drill Hole - 08SMB06

Samples taken for diamond indicator mineral analysis

Sample 08JAP601

To (m)	From (m)	Interval (m)
69.99	70.37	0.38
75.03	75.28	0.25
77.29	77.50	0.21
82.33	82.63	0.30
84.44	84.60	0.16
89.50	89.70	0.20
95.02	95.23	0.21
98.73	98.89	0.16
99.49	99.71	0.22
103.07	103.25	0.18
108.84	109.04	0.20
110.92	111.06	0.14
113.65	113.84	0.19
121.08	121.22	0.14
122.15	122.36	0.21
125.83	126.04	0.21
133.03	133.22	0.19
138.58	138.69	0.11
143.69	143.83	0.14
146.29	146.50	0.21
150.40	150.54	0.14
153.73	153.99	0.26
161.70	161.94	0.24
163.19	163.39	0.20
170.25	170.41	0.16

GRIZZLY DIAMONDS

2008 Smoky the Bear

Geological Drill Log - Sample Summary

Drill Hole 08SMB07

Intervals taken for diamond indicator mineral analysis
07JAP701

From (m)	To (m)	interval (m)
87.40	87.60	0.20
95.78	96.09	0.31
100.61	100.81	0.20
106.77	106.96	0.19
110.26	110.39	0.13
117.41	117.54	0.13
123.86	124.01	0.15
130.21	130.39	0.18
134.24	134.29	0.05
139.64	139.75	0.11
144.68	144.81	0.13
149.31	149.46	0.15

GRIZZLY DIAMONDS

2008 Smoky the Bear

GEOLOGICAL DRILL LOG - SAMPLE SUMMARY
08SMB08

DIM Samples

Sample ID	From (m)	To (m)	Mass (Kg)
NO SAMPLES TAKEN			

GRIZZLY DIAMONDS

2008 Smoky the Bear

GEOLOGICAL DRILL LOG - SAMPLE SUMMARY
Drill Hole 08SMB09

DIM Samples

Sample ID	From (m)	To (m)	Mass (Kg)
NO SAMPLES TAKEN			