MAR 20090009: K300 EMBAYMENT

Received date: Apr 22, 2009

Public release date: Dec 30, 2010

FINAL REPORT

PART B

ASSESSMENT REPORT
For
K300 EMBAYMENT PROPERTY

And

PART C

APPENDICES
For
K300 EMBAYMENT PROPERTY

ASSESSMENT REPORT
Metallic and Industrial Mineral Permit Number
9307010939

K300 EMBAYMENT PROPERTY
NTS: 84B/13
(8000 Ha within Township 90, Range 12 west of the 5th Meridian)

For

SandSwamp Exploration Ltd.

Submitted by:
Lester B. Vanhill

March, 2009

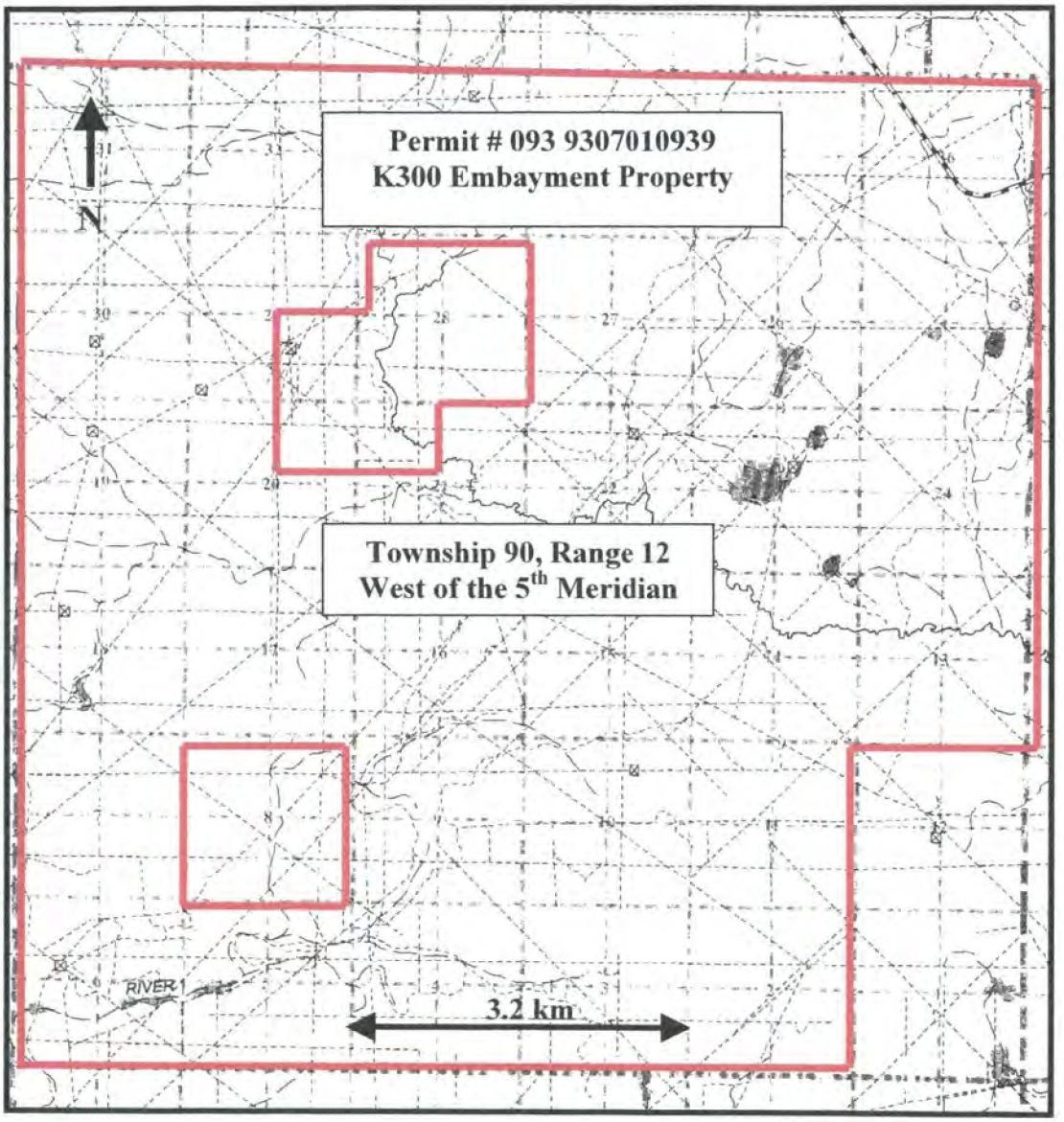
Table of Contents

LIST OF FIGURES

Page

PART C – APPENDICES

Map of Current Permit and Boundaries



Permit # 093 9307010939 boundary marked in red (see back pocket for legend and scale)

Summary

The K300 Embayment Property is located within Township 90, Range 12 west of the 5th Meridian. This places it within the Buffalo Head Hill Kimberlite Field, which is approximately 350 km north of Edmonton, Alberta and approximately 50 km north west of Red Earth Creek, Alberta. The permit falls between 56°, 46', 11" – 56°, 51', 24" N latitude and 115°, 45', 21" – 115°, 54', 54" W longitude on NTS map sheets 84B/13.

Sandswamp Exploration Ltd. (Sandswamp) acquired mineral permit #9307010939, known as the property, via staking and then sealed bid for the total price of $10,882.11. The original permit area was 8000 ha but has been reduced at the end of its first two-year exploration term period, for which this assessment report applies.

The K300 Embayment Property is considered to be a diamond exploration project. The main focus of exploration on the project was to discover a new kimberlite body that was overlooked by the previous permit holder Buffalo Head Hills Joint Venture (BHH JV). As there are several different types of kimberlite bodies present within the Buffalo Head Hills (BHH) Kimberlite Field, including hill-type, buried, roofed and sills. This first pass exploration on the property was focused on the areas that a hill-type kimberlite would have the best chance of preservation and yet be near surface enough for easy extraction, if warranted.

Historical data compilations, field prospecting, kimberlite indicator mineral (KIM) sampling, soil sampling and air photograph mapping was used to narrow the property down to higher priority target areas. The northeast corner of the property which lies below the 725 metre topography contour line appears to be the best area of this property for the placement and major preservation of a surface or near surface kimberlite body. As well, two small subtle magnetic anomalies (TQ201 & K59) in the southwestern portion of the property may be the possible locations of deeper buried or roofed kimberlites.

Within the period of January 25th 2007 to January 24th 2009, Sandswamp conducted three exploration field trips to the property totalling 7 days. Property access, prospecting, KIM sampling and Geochem sampling were the main exploration activities done in the field. A greater amount of effort was incurred researching historical data and kimberlite prospecting via the Alberta Government archived air photograph database.

The exploration efforts for this property revealed the following:

(1) Very high priority hill-type kimberlite target	(T-22)
(1) High priority hill-type kimberlite target	(T-26)
(2) Moderate priority buried kimberlite target	(TQ201 & K59)
(1) Close proximity unexplained KIM train	(T-36)

Exploration on this permit is ongoing and will focus on the prospective kimberlite targets identified within this assessment report.

MINERAL ASSESSEMENT
EXPENDITURE BREAKDOWN BY TYPE OF WORK

[X] **Actual Expenditure**

Project Name: **K300 Embayment Property**

	Amount
1. Prospecting	$ 5,752.42
2. Geological Mapping & Petrography	$
3. Geophysical Surveys a. Airborne	$
b. Ground	$
4. Geochemical Surveys	$ 4,768.48
5. Trenching and Stripping	$
6. Drilling	$
7. Assaying & whole rock analysis	$
8. Other Work: Assessment Report Writing	$ 1,601.05
SUBTOTAL	$
9. Administration (up to 10% of subtotal)	$ 1,212.19
TOTAL	**$ 13,334.14**

Lester Vanhill
SUBMITTED BY (Print Name)

March, 2009
Date

Introduction

This assessment report is a summary of the exploration activities undertaken by Sandswamp Exploration Ltd. (Sandswamp) on the Metallic and Industrial Mineral Permit (permit) # 9307010939, referred to as the K300 Embayment Property. Exploration activities on the property included both ground based and desktop exploration methods. Ground methods include prospecting, light auger drilling, KIM sampling, water sampling, ground based geophysical spot-checking (gamma survey) and geo-chemical soil sampling. The desktop exploration methods involved historical data research, partial petroleum database review and kimberlite prospecting via the Alberta Government archived air photograph database. All exploration activities were conducted between January 25th of 2007 and January 24th of 2009, and were focused on locating prospective kimberlite anomalies within the property area.

Location

The K300 Embayment Property is located within Township 90, Range 12 west of the 5th Meridian. This places it within the known area of the Buffalo Head Hill Kimberlite Field, which is approximately 350 km north of Edmonton, Alberta and approximately 50 km north west of Red Earth Creek, Alberta. The permit falls between 56°46'11" – 56°51'24" N latitude and 115°45'21" - 115°54'54" W longitude on NTS map sheets 84B/13.

The project area is accessible by road and a network of overgrown up cut lines. The airstrip marked in section 35 on the forestry maps is overgrown and not useable for fixed-wing aircraft. The nearest community is Red Earth, Alberta which is 50 southeast of the property. Slave Lake, Alberta is the next nearest larger community (approx 120 km south of Red Earth).

Property Description and Term

Agreement #: 093 9307010939
Term Date: 2007-01-25
Area: 8000

Designated Representative:
Client Id: 8076256
Client Name: SANDSWAMP EXPLORATION LTD.
Address: PO BOX 10 COMP 8 DAPP, ALBERTA T0G 0S0

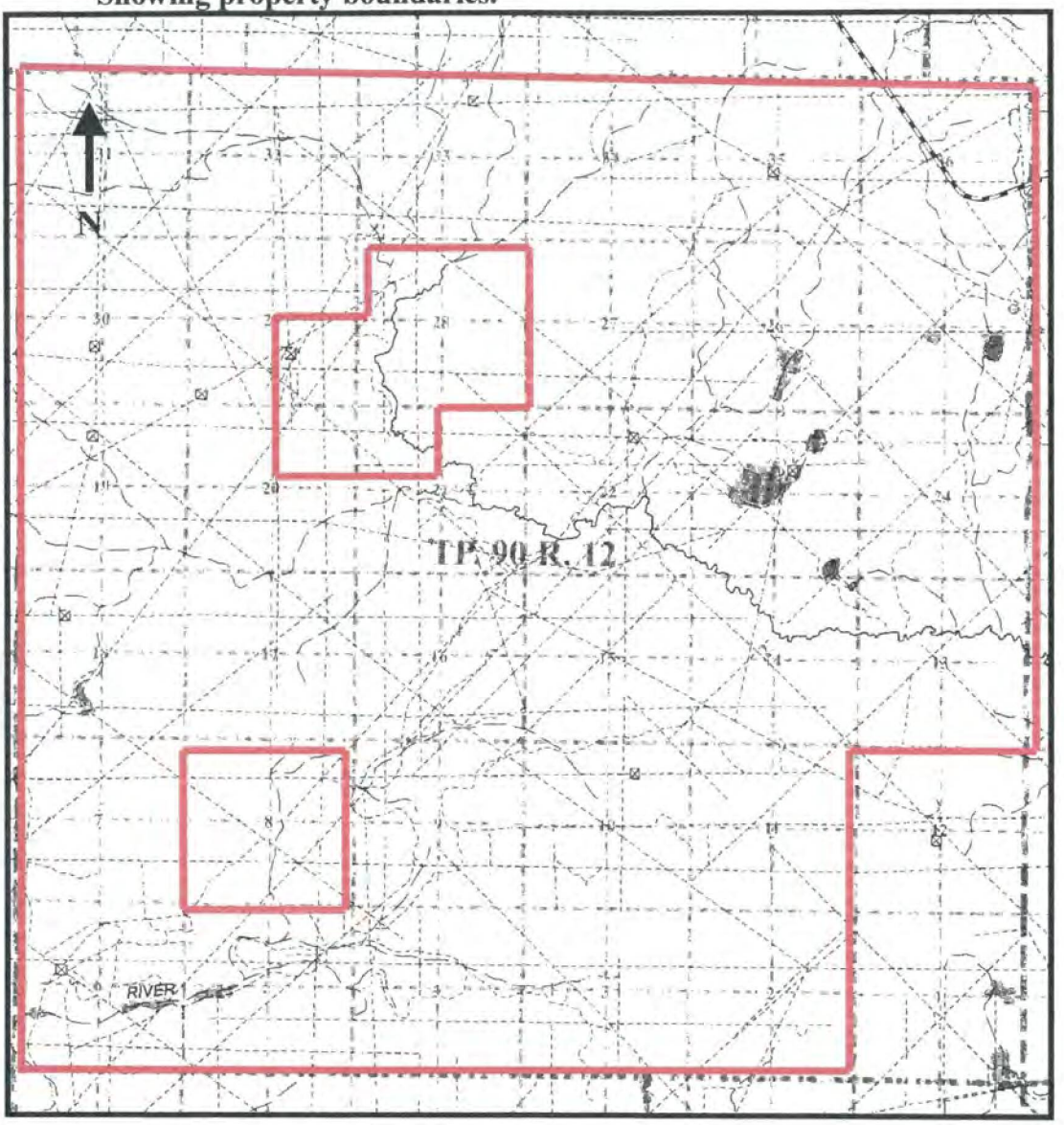
Land: 5-12-090:02-07; 09-11; 13-19; 20S,NW; 21S,NE; 22-27; 29N,SW; 30-36

Figure 1: K300 Embayment Property Location within Alberta

Location of Twp 90, Range 12 W5th within NTS 84B

***see next page for property details**

Figure 2: Resource access map of Twp 90, Range 12 West of the 5th Showing property boundaries.



Permit # 093 9307010939 boundary marked in red (see back pocket for legend and scale)

Geology

Bedrock Geology
Sedimentary Rocks

The Cretaceous strata of the Western Sedimentary Basin underlie the Southern Buffalo Head Hills (BHH). The majority of the property is underlain by Cretaceous shales of the Smoky Group (Pawlowicz et al., 2005). These shales consist of a soft medium grey to light grey mudstone interrupted with thin bands (~2 cm) of hard white shale. The Smoky Group is shown on the following geology map (Figure 3).

The northeast tip of the property (N1/2 of section 36) is mapped by the Alberta Geological Survey (AGS) as being underlain by Upper Campanian rocks, which are of the lower Wapiti Formation correlative. This Upper Campanian rock unit is composed of a dark to buff sandstone unit with fine siltstone intervals. Local oil staining and oxidation have been noted in clasts from this sandstone unit by the author.

Kimberlites

The Buffalo Head Hills kimberlite field contains at least 13 known kimberlites within the Sawn Lake map sheet (NTS 84B/13). These kimberlites are hosted by a Cretaceous succession composed of the Smoky Group. This group is capped by deltic to marine sandstones of the Dunvegan Formation (Hamilton et al., 1999). The (5) most interesting, from a prospector's point of view, of the local kimberlites are K4, K5, K6, K14 and K300. The first (4) of theses kimberlites are considered hill-type kimberlites by the author, while K300 appears to be a large roofed kimberlite protected and capped by encasing mudstones. All (5) of these kimberlites appear to be large (up to 600m diameter) multi-phased kimberlitic bodies. The hill-type kimberlites form bedrock highs. These highs may be accompanied by topographic highs, due to their greater resistance to weathering and glacial erosion relative to the soft surrounding sedimentary rocks. K5, K6 and K14 have indicated emplacement ages of 88+/-5, 91.9+/-2 and 87+/-3 million years respectfully. K6, K14 and K300 may contain economic diamond contents. The following map shows the location of these kimberlites in relation to the property.

REGIONAL GEOLOGY

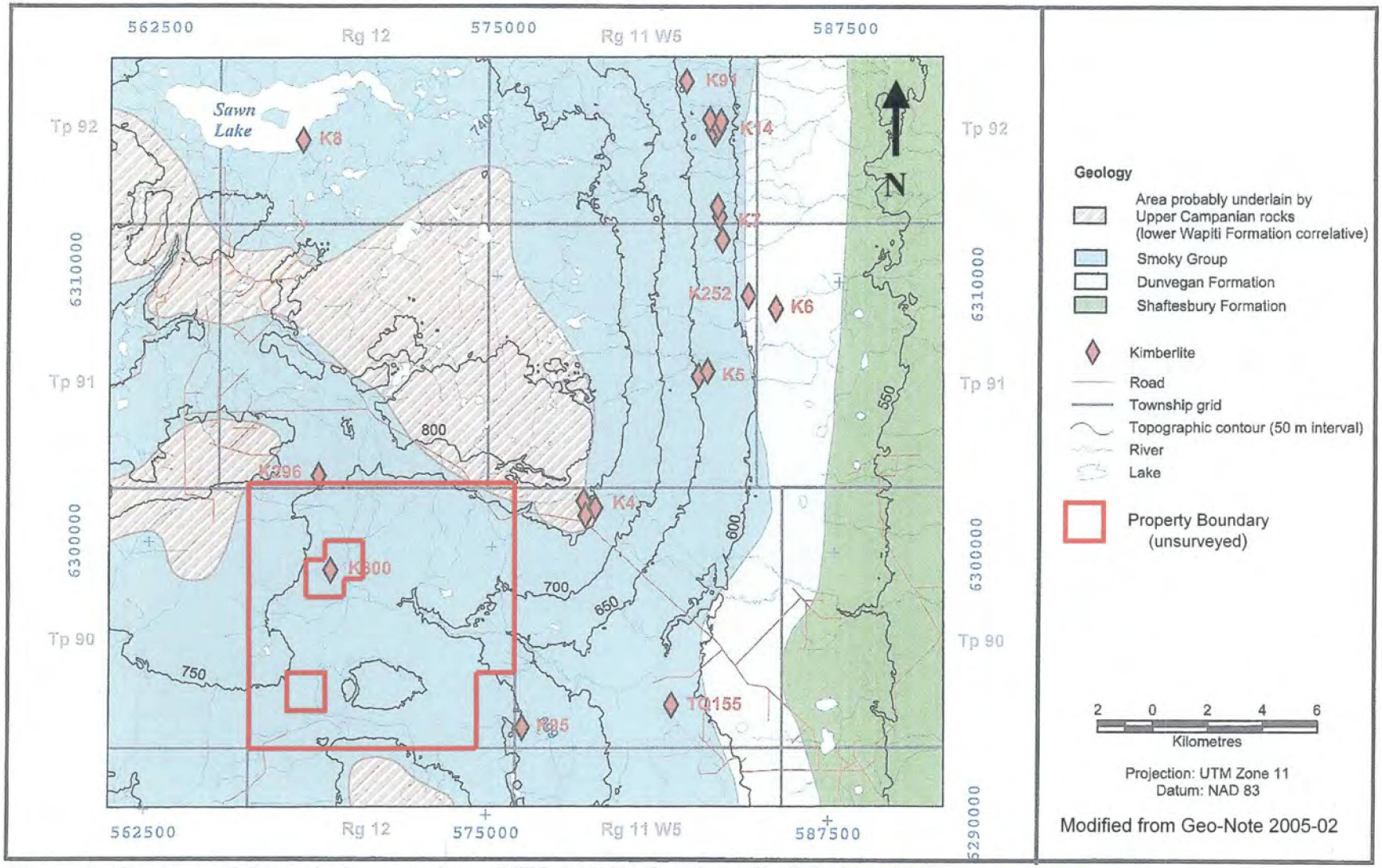


Figure 3: Geology of Sawn Lake map Area (NTS 84/13), Southern Buffalo Head Hills (Modified after Hamilton et al., 1999; Pawlowicz et al., 2005)

Surficial Geology
Surficial Materials

The current natural surficial geology in the property area is largely the result of the advances and retreats of the Late Wisconsin ice sheet. This ice sheet deposited and reworked glacial drift over most of the property and surrounding area. The drift thickness ranges from a thin (<1m) veneer on the highland tops and flanks to over 30 m in the low lands adjacent to the BHH highlands.

The typical drift cover in this area can be classed as two main types of tills, basal till and ablation till.

Basal till is characterized by non-sorted diamicton with silty-clay matrix that is commonly fissile and compact, and contains 1% to 10% clasts ranging from granules to cobbles. Basal till is "generally", material that has been deposited directly by glacial ice without sufficient modification by water. In the BHH area of Alberta these basal tills tend to be silt rich and clay-based due to the composition of the mudstone and siltstone bedrock that acted as the primary source material for this till. Due to this texture, the tills tend to have low topographic gradients and contain water tables, which tend to be perched. These features combine on the low relief areas of the property to host fens and bogs. The majority of these fens and bogs are located below 725 m of elevation within the property.

Ablation till is sometimes referred to as "stagnant ice till". The material consists of non-sorted diamicton with a matrix ranging from sandy-silt to silty-clay. This matrix tends to be poorly compacted and may contain thin, discontinuous sand lenses. In ablation till, the diamicton tends to contain 5% to 15% clasts of varying composition. Ablation till clasts tend to be more angular and less polished than the flat sided basal till clasts. Ablation and basal tills may contain the same types of clasts (ie: cemented sandstone or shield rocks) as they both may sample the same bedrock sources.

The main difference between the two till types is the depositional nature of the tills and their contained clasts. Ablation till originated as material that was caught inside the glacial ice. As the ice melted, this ablation till was deposited in a passive setting, either as glacial fluvial outwash or as stagnant ice blocks that melted in place. These blocks could have been dropped in place or become icebergs that floated in the glacial lake at the toe of the retreating ice sheet. These icebergs deposited their contained materials in thin veneers as they melted. Ablation till tends to form hummocky terrain with telltale doughnut shaped and uneven hilly landforms. Basal till is consistent with glacial pushed material, less concentrated and sorted.

Ablation till is not a good sample medium for KIM sampling as it is difficult to determine the location of the source material that constitutes the till. As well, ablation till usually contains sand lenses that act as contaminates to a systematic KIM sample program.

Basal till is a much more preferred sample medium for KIM sampling, as this basal till tends to be less contaminated with glacial fluvial material and the source locations for basal till tend to be more predictable and based on simple ice direction.

Exploration Work Performed Overview

Within the first term period of this mineral permit, the exploration work performed on the property included the following:

- Examination of historical exploration data for the property and area
- Review of government data for Buffalo Head Hill kimberlites for the property & area
- Extensive air photograph survey crossed referenced with known kimberlites
- Field prospecting in both summer and winter seasons
- KIM sampling in clay-till and glacial fluvial sands
- Gold grain sampling in clay till and glacial fluvial sands
- Short-hole (>1.5m) auger sampling of clay till and glacial fluvial sands
- Soil & clay till sampling for geo-chemical analysis
- Field water sampling of surface springs and beaver ponds
- Trail cutting (recutting) and access marking for future exploration work
- Trapper and first nation consultation for future exploration work

The results or details of each of the above activities area discussed within the following sections of this report.

Review of Historical and Government Data

Historical and government data research was conducted at the (AGS) library in Edmonton, Alberta. Historical petroleum exploration activities were searched in the Alberta Sustainable Resource Development databases.

- True locations of surface or near surface BHH kimberlites was documented
- Locations of unresolved geophysical anomalies on the property was documented
- Resent AGS KIM sample data was reviewed
- Drill logs from kimberlites near and up ice of the property were reviewed
- AGS surficial geological maps were reviewed

- AGS bedrock geological maps were reviewed
- Government surface disposition maps and databases were searched for historical work and petroleum activity timelines
- Former employees of the BHH JV were interviewed for BHH kimberlite knowledge
- AGS staff were interviewed for BHH kimberlite knowledge

Air Photograph Study

A very intensive air photo study was conducted for the property and immediate surrounding area in an effort to achieve the following goals related to kimberlite exploration:

Mapping:

- Map the property boundaries.
- Cross reference the property boundaries to known features that could be identified on the ground.
- Locate useable trails and clearing for access to different areas of the property.

Surficial Landform Determination:

- Map surficial landforms to determine ice direction, material composition.
- Map forest cover vegetation to determine local soil types.
- Locate prospective surface or near surface kimberlite targets.
- Cross-reference known hill-type and buried kimberlite surface expressions to similar features selected on the property.
- Determine areas of the property with thick ablation till that would hamper future exploration efforts.
- Locate prospective surface deposits that may contain placer minerals (ie: eskers).
- Locate local geological trends that may be surface expressions of buried faults.
- Locate surface expressions of geological boundary changes (ie: sandstone caps).

Environmental Consideration Mapping:

- Map areas that would be too environmentally sensitive to conduct further exploration or mineral production (ie: lakes or streams).
- Determine areas of the property to avoid during certain wildlife timing considerations (ei: caribou winter habitat and fish spawning streams).
- Determine areas of the property with high valued timber cover, which should be avoided due to high Alberta Government stumpage costs.
- Determine areas of the property that have a deep muskeg cover, which would deter future exploration efforts.

Manmade Evidence of Anomalous Geology:

- Locate flowing springs including flowing seismic shot holes.
- Search for undocumented diamond drill pads.
- Locate seismic lines that show seismic data confusion (similar to the K296 wagon wheel confusion).
- Locate areas on the property with drilled but dry petroleum drill holes.
- Locate areas on the property with drilled and producible petroleum drill holes.

Prospective kimberlite target results derived from this air photograph study are documented in **Appendix 1** of this report.

Prospecting and Sampling

Three field exploration visits were made to the property within the first term of this permit. Ground access to most of the property is encumbered by the presence of creeks, muskeg and overgrown trails. The majority of field exploration focused on the previously unexplained anomalous KIM occurrences in the road accessible northeast portion of the property. Different types of till were sampled to determine the KIM carrying capacity of each individual type. All samples, except one, were screened, panned and roughly picked by the author. The other sample was sent to Overburden Drilling Management (ODM) in Ottawa, Ontario for verification of sample results. The results of this sampling and other prospecting activities are documented in the **Appendix 2** of this report.

Conclusion

The property was explored with a combination of several exploration techniques. These techniques included:

- Blind ground prospecting
- Air photographic mapping
- Till sampling for KIMs
- Till sampling for gold grains
- Ground truthing of historic government KIM samples
- Water sampling
- Historic data base review

Blind ground prospecting, although useful for understanding surficial geology, appears to be a difficult way to find new kimberlites within the BHH area.

Air photographic mapping was the most useful method of first pass exploration on the property. It resulted in the determination of several key exploration criteria. These key exploration criteria included the following:

- Best accesses to the properties different areas
- Boundary mapping
- Mapping of surficial geology types for future till sampling programs
- Determined areas of the property to be released due to environmental sensitivities
- Direct potential kimberlite target selection

The property area is difficult to explore using till sampling. The area is infested with direct and stray KIMs and most till contains gold grains. The large variable in till compositions and origins make till sampling difficult, as natural KIM contamination is common. Most of the KIMs within the property appear to have originated from known kimberlites located north, northeast (up ice) of the property. The KIMs that may be from a local unknown kimberlite sources are dispersed amongst KIMs from known sources.

Past KIM sampling was conducted in ablation till, sands and basal till with little to no documented differentiation between the till types. This leads to false KIM anomalies being included in all historical data sets. Each historic sample site should be revisited and inspected before the historic sample results are to be relied upon.

Water sampling in the field did not produce any tangible results. The limited sample set was insufficient. More water sampling needs to be done before this exploration method is completely abandoned. To properly determine the usefulness of water sampling for kimberlite exploration a database of water chemistry should be complied from sources next to known kimberlites.

A historical review of past exploration data is very important to any exploration program. The only documented historic exploration targets on the property, are two magnetic anomalies listed as TQ 201 and K59. These anomalies were retained in the property for future exploration.

Of the original 8000 hectares included in the property only 2304 hectares are deemed prospective enough to warrant future exploration.

Author Qualifications:

I, Lester B. Vanhill, of Dapp, Alberta, Canada do hereby certify that:

1. I am a prospector with; and sole owner of; Sandswamp Exploration Ltd.

2. I am a graduate of the Northern Alberta Institute of Technology (N.A.I.T.) with an honours diploma in Geological Technology (2003) and a diploma in Business Administration (1997).

3. I have been an active prospector within the Yukon, NWT, Nunavut and Alberta at various times since 1994.

4. I do not belong to any professional association(s).

5. I currently hold 100% beneficial interest in this Property.

6. Since 1994, I have worked as an employee and as a freelance prospector for several mineral exploration companies including Ashton Mining of Canada and Diamondex Resources Ltd. (both have had the role of operator of the BHH JV)

6. I am currently aware of several geological facts and information that have been omitted from this report. These omissions may cause this report to be not as truthful as it could have been created. Every intentional fact of knowledge or material information omitted from this report is done under effective and binding legal contract, confidentiality agreements and professional work ethics. The binding legal contracts state that I am not allowed to publicly disclose certain information that I have become aware of through my contractual work. Even if these confidentiality obligations were not legally binding, I would not disclose that information for professional ethic reasons until it was made public by the rightful owner of the information.

   Where information within this report must reflect confidential information, that information is completely omitted or deferred to current and accepted Alberta Geological Survey data, even if I personally know the accepted data to be false or misleading. All other data disclosed within this report, which does not fall under active confidentiality obligations, is truthful and accurate to the best of my knowledge.

[redacted]

Lester B. Vanhill
Sign at: Edmonton, Alberta, Canada
March 15, 2009

References

Almeida-Filho, R. and Castelo-Branco, R.M.G. (1992): Location of kimberlites using Landsat Thematic Mapper images and aerial photographs: the Redondao diatreme, Brazil; International Journal of Remote Sensing, Vol. 13, No 7 & 8

Alberta Government Air Photo Data Base Edmonton, Alberta, 1945 to 2009

Alberta Sustainable Resource Development LSAS Data Base, 2008 & 2009

Alberta Sustainable Resource Development Township Plot Data Base, 2008

Ashton Mining of Canada Inc. (1997-2004) Alberta Kimberlites; unpublished press releases dated March, 1997 to 2004, various archived press releases approx # 47
(source: SEDAR Pubic company history).

Diamondex Resources Ltd. (2007-2009) Buffalo Head Hills; unpublished press releases dated 2007 to 2009, various archived press releases
(source: SEDAR Public company history).

Dufresne, M.B., Olson, R.A., Schmitt, D.R., Mckinstry, B., Eccles, D.R., Fenton, M.M., Palowicz, J.G., Edwards, W.A.D. and Richardson, R.J.H. (1995). The Diamond Potential of Alberta: A Regional Synthesis of the Structural and Stratigraphic Setting, and Other Perliminary Indications of Diamond Potential. MDA Project M93-04-037, Alberta Research Council Open File Report 1994-10.

Eccles, D.R. (1998a): Biochemical orientation survey over the mountain Lake Diatreme, Alberta; Alberta Energy and Utilities Board, EUB/AGS Open File Report 1998-06.

Fipke, C.E., Gurney, J.J. and Moore, R.O.(1995): Diamond exploration techniques emphasizing indicator mineral geochemistry and Canadian examples; Geological Survey of Canada, Bulletin 423.

Hamilton, W.N., Price, M.C. and Chao, D.K. Geological Map of Alberta. Alberta Energy and Utilities Board, Alberta Geological Survey, Scale 1:1,000,000.

Personal Communications: anonymous

Prior, G.J., Paulen, R.C., Pawlowicz, J.G. and Fenton M.M. (2005): Kimberlite-indicator mineral till survey of the Sawn Lake area (NTS 84B/13), southern Buffalo Head Hills, Alberta; Alberta Energy and Utilities Board, EUB/AGS Geo-Note 2005-02.

Seneshen, D.M., Grunsky, E.C., Renez, A., Hall, G.E.M. and Dunn, C.E. (2005): Geochemical orientation surveys (fiscal year 2000-2001) for kimberlites in northern Alberta; Alberta Energy and Utilities Board, EUB/AGS, Earth Sciences Report 2005-01.

Appendix 1

Appendix 1

Air Photograph Study

For the

K300 Embayment Property

Air Photograph Study

for

K300 EMBAYMENT PROPERTY

NTS: 84B/13
(8000 Ha within Township 90, Range 12 west of the 5th Meridian)

For

SandSwamp Exploration Ltd.

March 2009

Air Photograph Study

Introduction

The K300 Embayment property covered an area of 8000 ha. An air photograph study of the entire property was used as a first pass exploration program.

Method

The K300 Embayment Property was studied using several generations of Alberta Government archived air photograph data sets. The quality, age, scale and area coverage varied greatly within these data sets. Selected data sets were viewed using a high-end government stereoscope, rented at the Edmonton facility over the coarse of 12 hours on three separate days. The best of the data sets were ordered as contact prints and studied at the author's office by use of a field stereoscope. The property was narrowed down from the original 8000 ha size to an in depth study area of only ~2000 ha based on landforms, access and favourable geology.

Access and property boundaries from a government resource access map were plotted on a working data set. This working data set was cropped and cut into 2 cm strips to give perfect stereoscope enhancement. Various light sources and filters were used to enhance subtle features within the data sets. Specific anomalies were set-up and viewed at 30X and 60X under a binocular microscope to determine the nature of small details within the anomaly.

A good set of contact prints were cropped and scanned into digital format. Prospective kimberlite targets were plotted onto the scanned data set and compiled into this report.

Study Purpose

The air photo study was conducted in an effort to achieve the following goals related to kimberlite exploration:

Mapping:

- Map the property boundaries.
- Cross-reference the property boundaries to known features that could be identified on the ground.
- Locate useable trails and clearing for access to different areas of the property.

Surficial Landform Determination:

- Map surficial landforms to determine ice direction, material composition.
- Map forest cover vegetation to determine local soil types.
- Locate prospective surface or near surface kimberlite targets.
- Cross-reference known hill-type and buried kimberlite surface expressions to similar features selected on the property.
- Determine areas of the property with thick ablation till that would hamper future exploration efforts.
- Locate prospective surface deposits that may contain placer minerals (ie: eskers).
- Locate local geological trends that may be surface expressions of buried faults.
- Locate surface expressions of geological boundary changes (ie: sandstone caps).

Environmental Consideration Mapping:

- Map areas that would be too environmentally sensitive to conduct further exploration or mineral production (ie: lakes or streams).
- Determine areas of the property to avoid during certain wildlife timing considerations (ie: caribou winter habitat and fish spawning streams).
- Determine areas of the property with high valued timber cover, which should be avoided due to high Alberta Government stumpage costs.
- Determine areas of the property that have a deep muskeg cover, which would deter future exploration efforts.

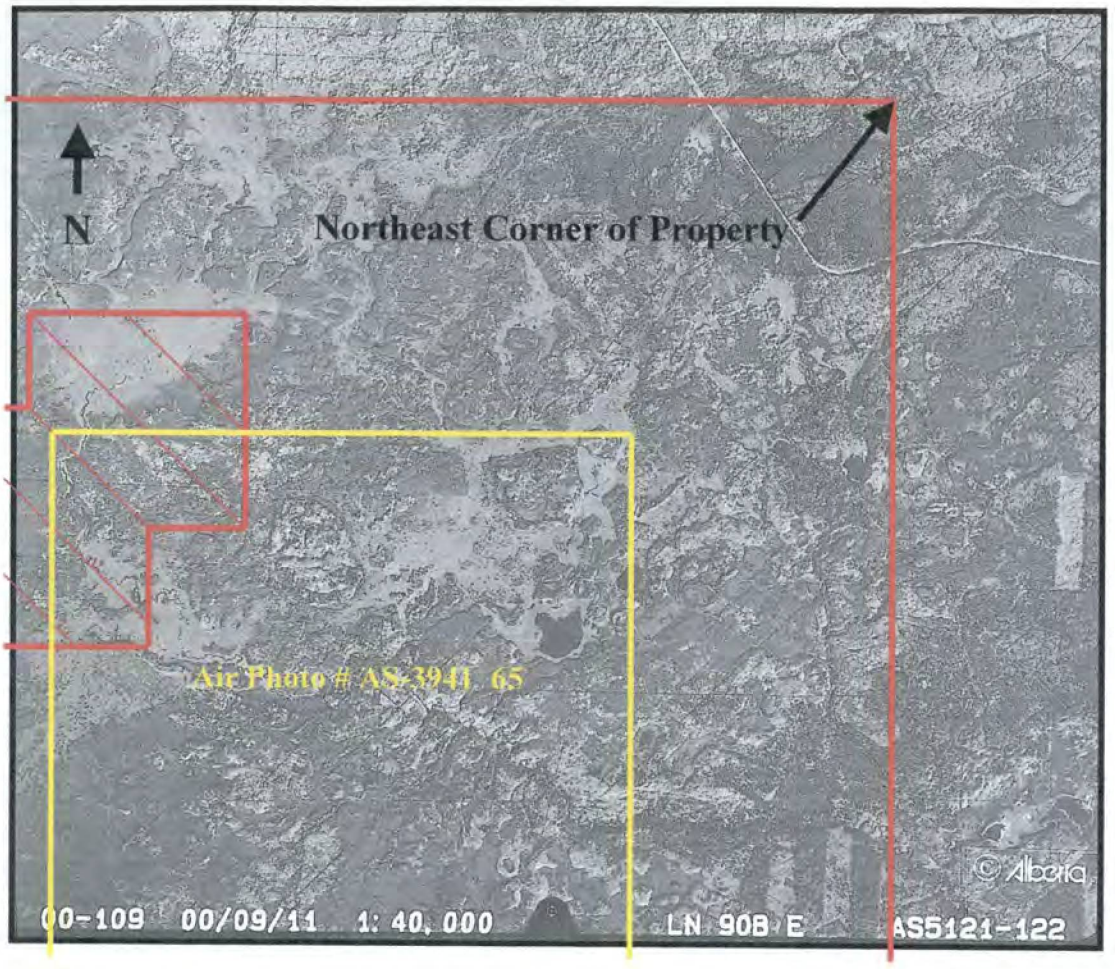
Manmade Evidence of Anomalous Geology:

- Locate flowing springs including flowing seismic shot holes.
- Search for undocumented diamond drill pads.
- Locate seismic lines that show seismic data confusion (similar to the K296 wagon wheel confusion).
- Locate areas on the property with drilled <u>but</u> dry petroleum drill holes.
- Locate areas on the property with drilled and producible petroleum drill holes.

The main area of interest and photo investigation was the northeast portion of the property. This part of the property has several key aspects that may aid in the discovery of a new surface expressed kimberlite.

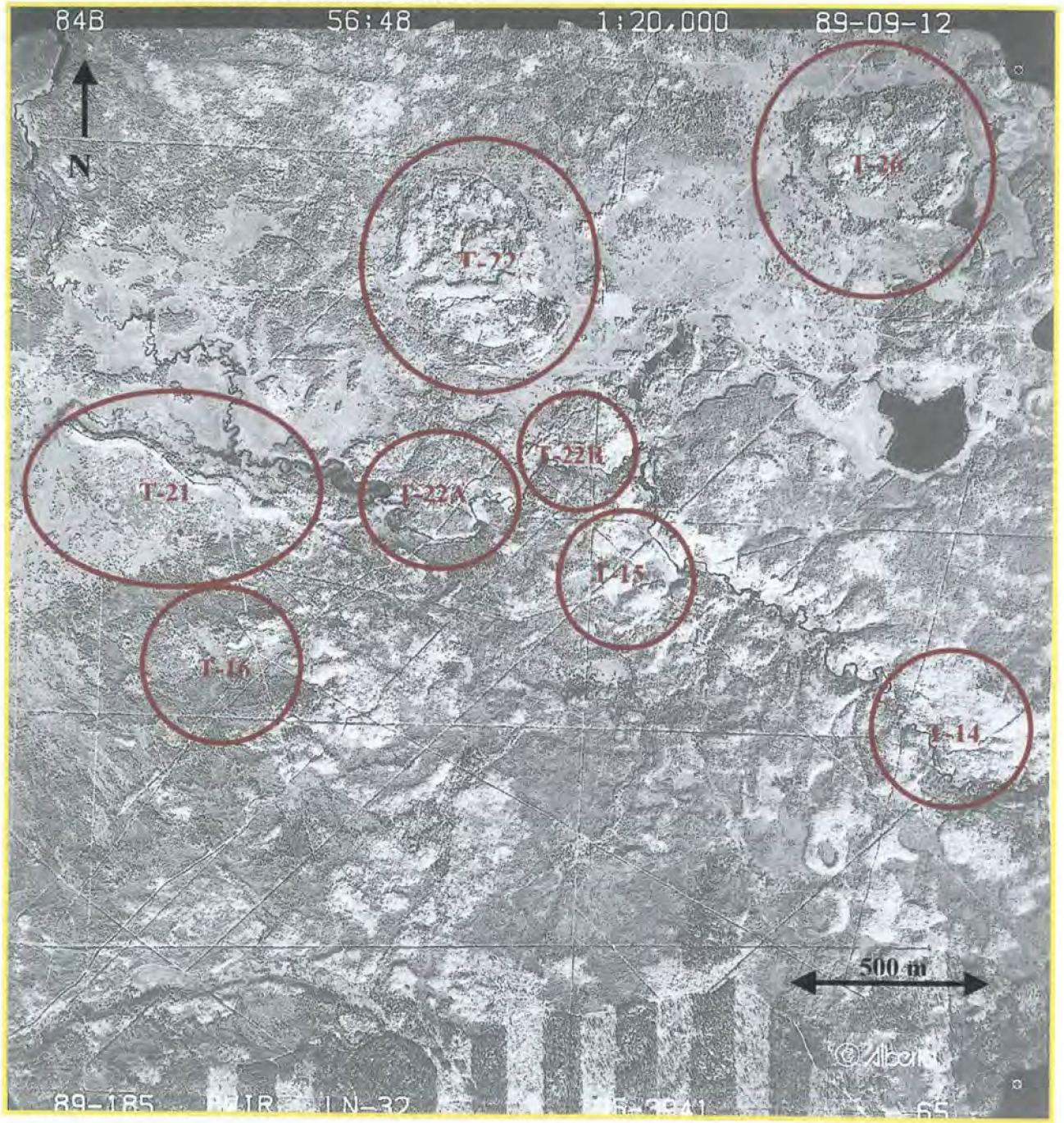
- It lies below the 725 metre elevation contour.
- Has a mostly basal till cover to the local surficial geology.
- Is located on trend with other known kimberlites (perceived basement fault).
- Contains several anomalous surface features (as listed below).

Figure 1: Air photo # AS-3941 65 position within property



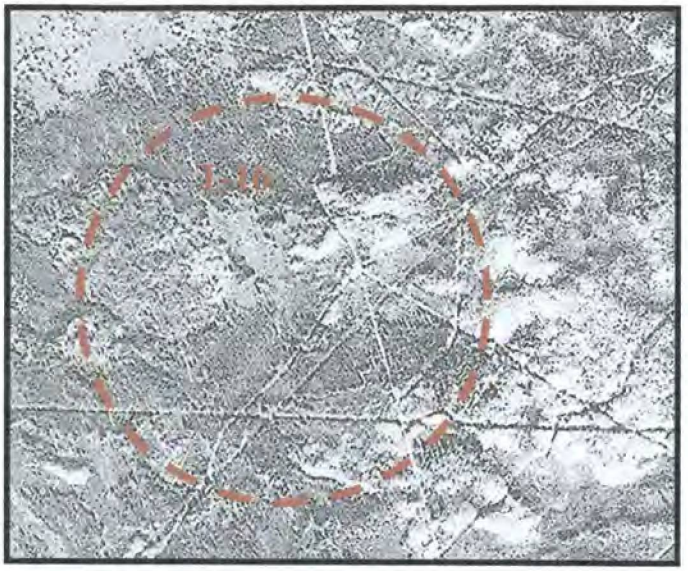
The above figure shows the position of Air Photo # AS-3941 65 within Air Photo # AS5121-122 and within approximate position to the Northeast property boundary.

Figure 2: Surface Expressed Topographic Anomalies Within Air Photo # AS-3941 65



Targets are labelled according to the section in which they are located; A & B are used when more than one is located within the same section.

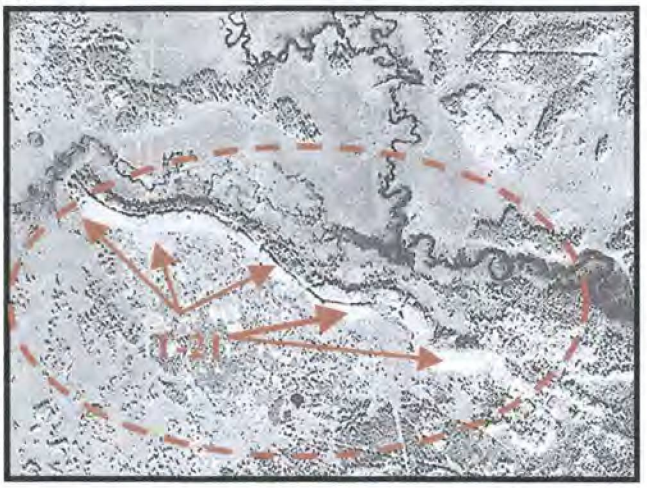
Figure 3: Target # 16



T-16 is a small low priority anomaly with the following noteworthy features:

1) The T-16 anomaly is a small shallow domed hill that does not appear to be outwash or ablation till derived.
2) The anomaly shows "petroleum exploration confusion", the high density of seismic lines radiating from the anomaly highlights this confusion. These seismic lines are from several generations of exploration spanning 3 years. The centre of the T-16 anomaly is close to the wagon wheel hub of the seismic programs. In comparison, K-296 has a very similar seismic hub over the top of it.
3) As with K-296, the T-16 anomaly was never drilled for petroleum.
4) T-16 has a subtle vegetation anomaly composed of a burned over spruce area, flanked by a semi-circle of aspen to east. The centre of the anomaly contains a small aspen covered hill.

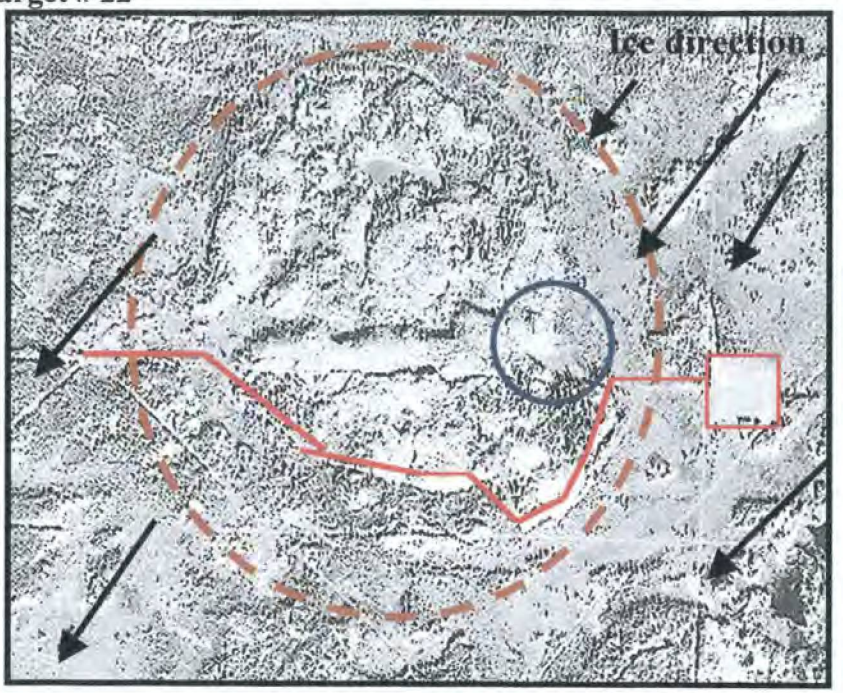
Figure 4: Target # 21



This surface target is suspected to be a glacial esker deposit and is not a kimberlite or volcanic body. If the anomaly is a true esker it may have diamond content or other resources contained within it for the following reasons:

1) This esker drained an area of two known diamondiferous kimberlites (K296 & K300).
2) The curving shape and long continuous length would provide good placer traps for any heavy minerals such as diamonds.
3) The esker starts near K300. K300 is a roofed pipe but may have had an eroded sister pipe or eroded side-blow sill that could have contributed diamonds to the esker material.
4) The aspen growth on the esker indicates it is clay-till covered, which may be responsible for it still being intact.
5) As an esker, the anomaly may contain economic gravel resources.
6) If the T-21 anomaly is not an esker, it maybe a weather resistive kimberlitic dike or other rock type exposed on surface.

Figure 5: Target # 22

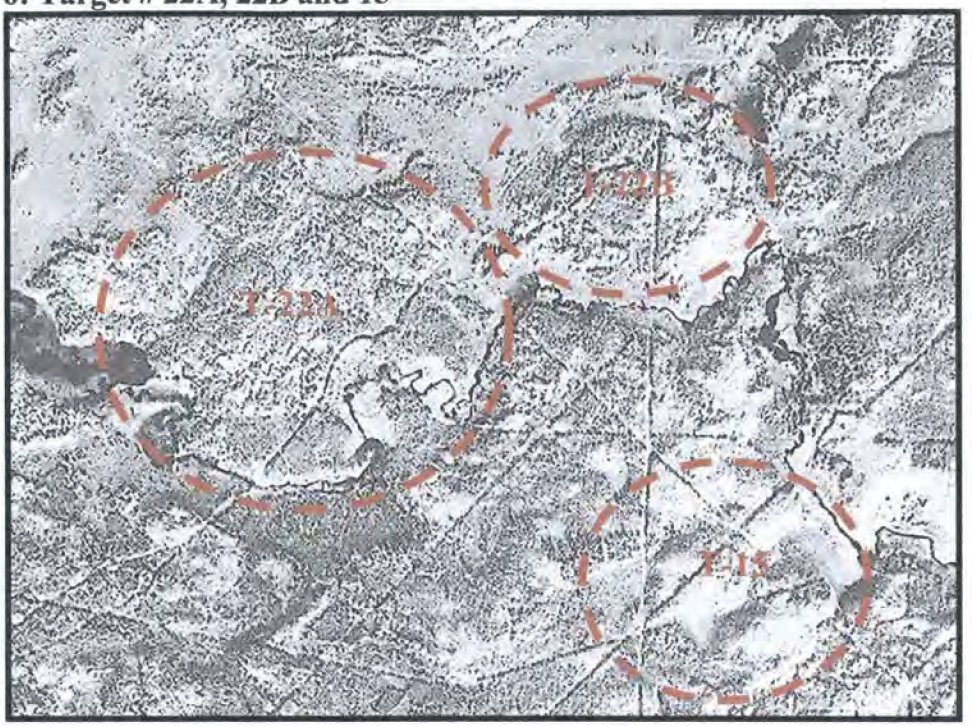


The T-22 target is the highest priority of the topographical expressed anomalies within the property. There are several features of the T-22 target that make it a candidate for being a kimberlite body.

1) The size (~ 25 ha (550m x 450m)) is directly comparable to other nearby kimberlites.
2) The oval shape is very comparable to other BHH hill-type kimberlites.
3) This oval shape is perpendicular to local glacial ice direction ruling out a glacial landform.
4) The target has a small bald hill (~1 (Ha)) and cliff face on the east side (referred to as the "cat-skinner bluff" shown in blue circle). This bald hill is very similar to the pre-discovery bald hills on K5, K6 and K14.
5) This cat-skinner bluff appears to be made of hard material (rock) and not sand or clay. The oilfield drill rig that drilled the dry hole east of the bluff was moved to the west. A new rig road was constructed around the south end of the T-22 target to avoid the steep trail crossing the bluff (shown in red). In the 1960s – 1980s the cat-skinners would have cut the steep hill down on the direct route, if they could, rather than make a new longer trail around the hill.
6) The dry drill hole could be a symptom of a seismic recognizable petroleum trap that was degassed by the intruding structure of a volcanic pipe.
7) The T-22 target appears to have a cover of aspen (Populus tremuloides) and large spruce (Picea glauca), which indicates a till based soil. If the soil were sand

based, a pine (Pinus banksiana) forest cover would be expected. K5, K6 and K14 are aspen, spruce and black poplar (Populus balsamifera) covered hills.

Figure 6: Target # 22A, 22B and 15



The above three targets are low priority anomalies for possible kimberlites but have interesting stream deflecting abilities and other features that may be symptoms of a shallow buried kimberlite body.

T-22A has the following anomalous properties:

1) 15 ha clay-till based hill elongated in ice direction.
2) The anomaly is roughly oval shaped
3) This hill was resistive enough to deflect the stream channel
4) The large beaver pond network within the stream channel on the west side of the anomaly shows that the anomaly has the ability to retain water. This means that the anomaly must be composed of clay or rock but not sand.
5) If T-22 is a kimberlite T-22A maybe connected to it or be a sister pipe.

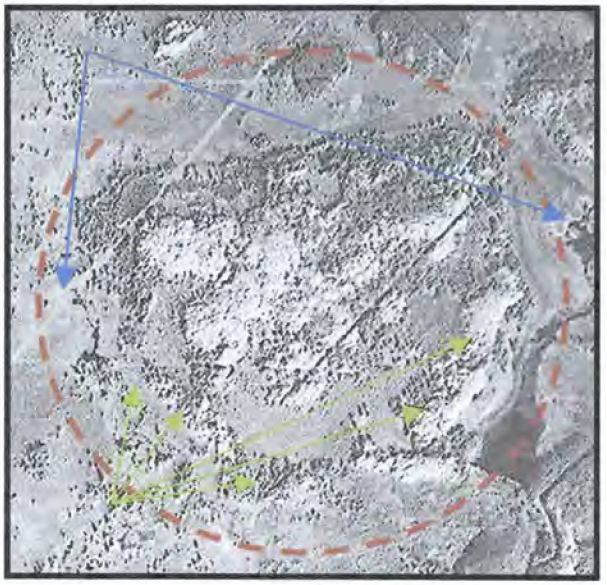
T-22B has the following anomalous properties:

1) Small (~4 ha) clay-till based hill elongated in ice direction.
2) The anomaly is roughly oval shaped.
3) This small hill was resistive enough to deflect two separate stream channels and resist glacial melt water.
4) If T-22 or T-22A is a kimberlite T-22B maybe connected to it or be a sister pipe.

T-15 shows two unique features:

1) The clay till hill deflected the main stream channel.
2) The aspen covered hill has an unusually round shape without the telltale ice melt centre hole of ablation till deposits (till donuts) in the surrounding area.

Figure 7: Target # 26



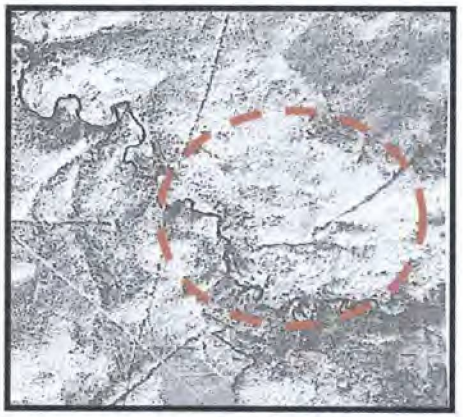
Target-26 is a large and interesting anomaly. At first glance it appears to be an outwash glacial fluvial deposit of sand, which had been reworked under a glacial lake within the K300 embayment.

Target-26 may be a kimberlite for the following reasons:

1) The hill is elongated to ice and flow direction with a spear point shape showing a resistive nature, similar to other hill-type kimberlites.
2) The halo ring ridge on the south edge of the anomaly (shown by green arrows) maybe the accumulated weather resistive material of a hill-type kimberlite's talus slope still intact after the encasing mudstone has been removed. (shown in green)
3) Springs come to surface on both the west and east sides of the anomaly. K5, K6 and K14 have flowing springs close to their flanks. (shown in blue)
4) The main topographic high body is aspen covered (indicating clay tills), with pine and black spruce (Picea mariana) on the edges. Whereas, the nearby sand eskers are 90% pine covered.

5) Glacial ice and melt water carved deeply on the east side of this anomaly. This is expressed by a deep beaver pond on the side of the anomaly. If this anomaly is just an out wash deposit, it would be expected that the glacial ice and melt water that carved the beaver pond channel would have cut through the anomaly instead of going around it.
6) If target-22 is a kimberlite, target-26 shows many vegetation and shape similarities to it.

Figure 8: Target # 14



Target-14 is a low priority anomaly but stands out from of the surrounding area:

1) T-14 deflects the stream channel and the stream has steep banks at it location.
2) It may be caused by a thick ablation till deposit rich in clay.
3) The anomaly is a small domed hill with a healthy cover of aspen.

Conclusion

The above listed anomalies should be ground checked and cross-referenced to existing exploration data. The T-22 target should be ground checked and till sampled as it has the best chances of being a new surface exposed kimberlite discovery within the property area.

Areas outside of the north east portion of the property should be allowed to lapse as they appear to contain deep till or bedrock covers that make kimberlite exploration difficult.

Appendix 2

Appendix 2

Field Exploration Activities

For the

K300 Embayment Property

Field Exploration Activities

The field portions of this exploration program involved three trips to the property for exploration purposes.

Summer 2007

The first field program to the property was a quick reconnaissance visit to check access availability and road conditions. It also gave a site inspection overview and a verification of surficial material used in the AGS sample data. Visible historic till sample locations along the road were noted. Proximity to existing features of interest such as gravel pits, streams, gas wells, trails and roads were evaluated and later used to compare published map data.

Sampling consisted of filling four 10 litre pails of glacial fluvial material from different locations along the main access road. These samples were taken to a small campsite along the creek (off property), screened to <1mm and panned to a concentrate. The concentrates were viewed in a petri dish under a binocular field scope at 60X and 30X power. Numerous possible KIM such as chromites, pyrope garnet and olivine were noted including fine gold grains in each concentrate. For the purposes of prairie kimberlites fine gold should be counted as a possible KIM. The concentrates were discarded and pails washed for reuse.

The same four 10 litre pails were reused to transport suspect basal till samples from four separate locations west of the previous four samples, along the main access road. These samples were transported to Elk Island area for processing and KIM picking.

The remaining field time during the first field visit was spent prospecting for outcrops along portions of a small creek, prospecting for boulders and panning from several small sand bars on the edge of this creek.

The area to the east along the creek contained more heavy minerals in pan samples and within those samples more fine-grained magnetite was noted. As well, not more than 10 gold grains were every recovered from one pan sample (~5 L size) although almost ever pan sample contained at least one gold grain. No concentrates or rock samples were retained from this traverse. KIMs were even recovered by panning the mud from a beaver dam. No fish of any size was noted in the creek. No caribou tracks were noticed. No endangered plants or animals were noticed.

The four till samples were processed at a later date. Three were considered to be basal till by their clast shape and material content as they had little to no sand sized grains. The 4th sample taken along the main road ~100 east of the creek was deemed to be ablation till or basal till with glacial fluvial contamination. Numerous KIMs were noted but not

retained. Several gold grains were noted in each sample as well. See table below for details.

2007 till sample prospecting locations and results:

Sample	Date	Method	Location	Size	Till	# of KIMs
S7-70	07/07	Test pit	11V 575470 / 6301035	10 L	GF:	50 +
S7-71	07/07	Test pit	11V 575380 / 6301035	10 L	GF:	60 +
S7-72	07/07	Test pit	11V 575160 / 6301080	10 L	GF:	40 +
S7-73	07/07	Test pit	11V 574880 / 6301425	10 L	GF:	50 +
S7-74	07/07	Test pit	11V 574850 / 6301485	10 L	Basal:	30 +
S7-75	07/07	Test pit	11V 574745 / 6301655	10 L	Basal:	30 +
S7-76	07/07	Test pit	11V 574645 / 6301770	10 L	Basal:	30 +
S7-78	07/07	Test pit	11V 574550 / 6301895	10 L	GF/Ab:	50 +

(Results = Till type and approx number of KIMs:)
GF =glacial fluvial, Ab =Ablation till, Basal = Basal till
Suspect KIM # estimated
Location = UTM / NAD 83

Summer 2008:

The 2008 summer program was part of a salvaged exploration program from another property after being rained out. Property maps and data were not in the field at that time. 1.5 days were spent in the mud prospecting and exploring part of the northeast portion of the property.

The program involved prospecting by ATV and walking along small creeks. A hand held scintilometer was used to field check gamma radiation levels while prospecting. The radioactive background of the entire area was considered low to dead with only a subtle increase (1.2X back ground) near the property boundary along an old logging road. This increase is believed to be due to the edge of a sandstone bedrock being close to surface at this location.

A walking traverse was made to an old abandoned airstrip located in Sec 35 of the property. The airstrip is overgrown but appears to have been surfaced with local sourced gravels (glacial fluvial material). Prospecting of this area was done by looking for radioactive and volcanic sandstone clasts within the gravels and searching for kimberlitic clasts within the exposed fine surface gravels on the old airstrip. A pan was not taken during this traverse but sandy samples were shovel panned (~1.5 L) in puddles to check for KIMs and other heavy minerals. The shovel panning confirmed more KIM grains within the glacial fluvial material compared to the basal tills further north. It is believed that the glacial fluvial deposits within the area are a heavy mineral dumping ground and may contain minerals from much further away than the local basal till. The glacial fluvial

material may have directly sampled portions of K4, which is only 2 km east of the property boundary.

Water samples were taken from a spring near the old trappers cabin, a beaver pond and the small creek to field check for elevated chloride levels (none found). No other samples were retained from this prospecting, except for some polished sandstone clasts retrieved from the airstrip.

Suspected kimberlitic rocks were observed on the edge of the road east of the property boundary. They appeared to be well-rounded volcanic pitted cobble. The samples were assumed to be from K4 and handed over to Diamondex's field crew at the old gravel pit site south of K5.

Winter 2009:

After undergoing an extensive air photograph study of the property, several possible kimberlite targets were picked for immediate follow up and exploration. The T-22 target was the main focus of the 2009 winter program. The original plan, was to snowmobile into the T-22 anomaly and take a sample from the exposed suspect outcrop referred to as the catskinner bluffs.

17 days of extremely cold weather saw the truck loaded with gear and a snowmobile waiting for the daytime temperatures to be above -20°C. On the 18th day while unloading the snowmobile for Christmas an oil injection line froze off and damaged the engine crank of the snowmobile.

A spare snowmobile (Indy 340 GT Lite) was loaded and waited for the weather to warm. It never did. With assessment time running low, gear was mobilized to Red Earth via Dapp field camp. At Dapp, the exploration gear was reloaded. The spare snowmobile was modified for deeper snow (wider skins) and winter camping gear (tent and wood stove) was unloaded.

Day 1:
Drove to the property and found that an early December ice storms had choked the trails with bent over trees, topped by deep (>75cm) snow. An attempt was made to open up the main trail to the airstrip. This attempt took 2 hrs to cut and walk ~1 km. Had to walk, then drive the snowmobile 100m at a time. At the first beaver pond the water had gone out from under the ice and the snow was drifted 1.2 m deep on the pond. While crossing the beaver pond the snowmobile dropped through the ice but was able to get out. After circling the pond twice to relocate the trail, had to cross a second beaver pond. The second beaver pond was dry, so had to jump the 1.7m beaver dam. The snow was too deep. There was no base under the snow, as it had not settled yet due to the cold weather. In places there was water under the snow as it was still thawed in the grass meadows.

The trail to T-22 was choked with ice bent trees. The temperature was still –32°C. Another ~0.75 km of trail was cut by hiking before giving up.

On the way back to the main road, a beaver stick drove through the snowmobile belly pan and flipped the snowmobile down steep side of the beaver dam, breaking the windshield in the cold (repairs not counted in assessment cost). Returned to Red Earth, stayed at Red Earth Lodge.

Day 2:
-35°C at daylight. I drove to the property and scouted the oilfield roads to attempt to access the T-22 from the west or from the old K300 trail system. A winter ice road had been plowed along the west side of property but the K300 trail was not plowed out. It had already grown up with small trees. I returned to Section 36 on the property and snowmobiled to the northern property boundary, past an old moose hunting camp. It was too cold for the auger to start, so a shallow (1.2 m) test pit was dug to check the till composition. The till was basal, same as at the main road but darker in colour. No sample was retained. I ate lunch at the truck. Then started to cut open the existing trail from the road going north. The alders and poplar were bent over with snow, the trees shatter and jump when hit by the machete. It was not safe to do, so I gave up after only ~75 metres.

Went back to the old logging trail and dug two good test pits in undisturbed ground near the intersection of the logging road and main road (section 36). The best test pit was1.3 m deep. The hole contained silica clasts up to 5cm with dragon skin texture on two opposite sides. This was an "interesting clast", which is a suspect weathered vein from K4. The test pit had "good" basal till, so one 20 L pail was filed for KIM processing at ODM (sample # S9-39). The weather warmed up to –18°C by sunset.

Day 3:
-22°C at daylight. I drove to the property and thawed out the power soil auger. Soil sampled with 1.0 to 0.75 metre auger holes spaced 100m apart along the old logging trail. Then soil sampled along the main road ~ 5 metres into bush every 100m until the new cutting bit became to dull to auger. All the sample hole locations were sampled, bagged and tagged with steel tags nailed to trees at each location. All the auger holes were refilled. At the end of the day, demobed back to Dapp field camp, unloaded gear and returned to Elk Island office.

Winter Sample Processing:
Sample S9-39 was sent to ODM for processing. The other soil & till samples were cut down to 500ml sized samples for future geo-chemical analysis. The remaining material from each sample was screened to <1mm. Over size material was viewed under a binocular scope. Odd cemented grains were noted in the oversize. These grains appear to be small <3mm dark grey sandstone clasts but have a volcanic cementing texture and

grain alignment. The grains are very similar to Black Butte volcanic material. They are suspected of being kimberlitic tuff. Over 5 hours of time was spent sorting and counting grains from the retained soil/till samples, other than sample S9-39.

A blue corundum grain was viewed in one tuff clast. Several suspect pyrope garnets were viewed in several other grains. The grains have numerous quartz sand grains, some of which are oil coated and stained. The numerous black grains are difficult to determine. A vial of these grains was sent to ODM for verification. See ODM letter for details. ODM suspected these clasts were only sandstone. I believe these clasts to be derived in part, by weathered volcanic material.

The following table is a summary of the winter sampling program results:

Sample #	Sample Location UTM NAD 83 Zone 11V	Sample type	Volume (Litre)	# of Suspect KIMs	# of Suspect Kimberlitic Clasts
251	575116 / 6302022	Basal	1	10+	50
252	575049 / 6301943	Basal	1	10+	70
253	574973 / 6301876	Basal	1	10+	30
254	574899 / 6301809	Basal	1	10+	30
255	574829 / 6301742	Basal	1	10+	20
256	574757 / 6301661	Basal	1	10+	30
257	574678 / 6301727	Basal	1	10+	15
258	574613 / 6301809	Gf ?	0.5	10+	5
259	574548 / 6301897	Gf ?	1	10+	5
260	574853 / 6301484	Gf	0.5	10+	0
261	574922 / 6301394	Gf	0.5	10+	0
	Sample Date: 01/09				

*Sample numbers based on pre-stamped steel tree tags used to mark location sample
**KIM grains viewed and rough estimate of number (mostly suspect pyrope garnet & chromite)

Basal till KIM sample (20 L) taken at sample location 256 (UTM 574757 / 6301661). See the ODM report in the Appendix of this report for details of sample # S9-39.

See map in back pocket for prospecting traverse details.

Photographs of Winter Exploration

Trails choked due to ice & snow bending trees to ground.

Sample # S9-39
Hole 1.3 m in depth

Sent to ODM for confirmation of prospecting sample results

Till sampling by power auger.

Note: tree tag as marker

Appendix 3

Appendix 3

Overburden Drilling Management
KIM Picking Results

For the

K300 Embayment Property

EXPLORING HEAVY MINERALS

February 10, 2009

Mr. Lester Vanhill
Sandswamp Exploration Ltd.
Box 10, Comp 8
Dapp, Alberta
T0G 0S0

E-Mail: lbv@sandswamp.com

Dear Mr. [redacted]

Re: Indicator Minerals in Till Sample S9-39, Buffalo Head Hills Area, Alberta

Attached please find our laboratory data for the above till sample.

The major heavy minerals, comprising >15 percent of the paramagnetic and nonparamagnetic populations, respectively, are almandine with subordinate earthy hematite and sillimanite with subordinate apatite. Only the hematite is of local provenance (derived from the subjacent Cretaceous sediments); the other major minerals are sourced from the Precambrian basement rocks of the Canadian Shield to the northeast.

The lithic grains in the vial that you submitted separately as kimberlite candidates are all of Cretaceous sediments; survival of kimberlite grains of such a small size would not be expected because kimberlite is very susceptible to weathering. Nevertheless, the bulk sample is very anomalous in kimberlite indicator minerals (KIMs), especially for such a clayey till with only a minimal medium to coarse sand (i.e. KIM-sized) fraction. The KIM population is unusual in that it is dominated by chromite. This should aid you in determining whether the KIMs are from a new or known pipe. The orange garnets appear to be eclogitic rather than megacrystic, and megacrystic Mg-ilmenite is also absent. This is positive for diamond preservation as it indicates that the kimberlite melt did not pass through a hot, diamond-destructive, megacryst-bearing melt during its ascent from the mantle.

I hope these observations, explanations and interpretations are helpful. Please call me if you have any questions.

Yours sincerely,

[redacted]

Stuart Averill, P.Geo.
President

Overburden Drilling Management Limited
107-15 Capella Court
Ottawa ON Canada K2E 7X1
Tel. 613 226 1771
Fax 613 226 8753
odm@storm.ca

OVERBURDEN DRILLING MANAGEMENT LIMITED
DETAILED GOLD GRAIN SHEET

Project: BuffaloHead Hills
Filename: SandSwamp - Vanhill - (S9-39) - Feb 2009
Total Number of Samples in this Report = 1

Batch Number: 4460

Sample Number	Panned Yes/No	Dimensions (microns)			Number of Visible Gold Grains				Nonmag HMC Weight (g)	Calculated V.G. Assay in HMC (ppb)	Remarks
		Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
S9-39	No	8 C	25	50	1			1			
								1	85.6	1	

*Most sand and gravel (but few till) samples prescreened to <3.5 in the field.

OVERBURDEN DRILLING MANAGEMENT LIMITED
LABORATORY SAMPLE LOG

Project: BuffaloHead Hills
Filename: SandSwamp - Vanhill - (S9-39) - Feb 2009
Total Number of Samples in this Report = 1

Batch Number: 4460

Sample Number	Weight (kg)				Clasts >2.0 mm					Matrix <2.0 mm							Class
						Percentage				Distribution					Colour		
	Bulk Rec'd	Table Split	+2 mm Clasts	Table Feed	Size	V/S	GR	LS	OT	S/U	SD	ST	CY	Org	Sand	Clay	
S9-39	23.0	22.5	1.1	21.4	P	100	Tr	0	Tr	U	-	Y	+	Y	LOC	LOC	TILL

*Most sand and gravel (but few till) samples prescreened to <3.5 in the field.

OVERBURDEN DRILLING MANAGEMENT LIMITED
LABORATORY SAMPLE LOG
KIMBERLITE INDICATOR MINERAL COUNTS

Project: BuffaloHead Hills
Filename: SandSwamp - Vanhill - (S9-39) - Feb 2009
Total Number of Samples in this Report = 1

	Weight (g)											Selected MMSIMs								
	<2.0 mm Table Concentrate											1.0 to 2.0 mm			0.5 to 1.0 mm			0.25 to 0.5 mm		
			0.25-2.0 mm Heavy Liquid Separation S.G 3.20																	
					Nonferromagnetic HMC															
						Processed Split														
						Total														
Sample Number	Total	-0.25 mm	Heavy Liquid Lights	Mag HMC	Total	%	Weight	<0.25 mm (wash)	0.25 to 0.5 mm	0.5 to 1.0 mm	1.0 to 2.0 mm	Low-Cr diopside	Cpy	Gh	Low-Cr diopside	Cpy	Gh	Low-Cr diopside	Cpy	Gh
S9-39	1,266.6	773.3	482.2	2.2	8.9	100	8.9	2.7	4.3	1.70	0.20	0	0	0	2	0	0	5	0	0

	KIMs																		
	1.0 to 2.0 mm						0.5 to 1.0 mm						0.25 to 0.5 mm						
	GP	GO	DC	IM	CR	FO	GP	GO	DC	IM	CR	FO	GP	GO	DC	IM	CR	FO	Total
	0	0	1	0	0	0	19	1	3	0	47	1	48	2	10	0	60(250)	5	387

*Most sand and gravel (but few till) samples prescreened to <3.5 in the field.

Batch Number: 4460

Number of Grains																		
KIMs																		
1.0 to 2.0 mm							0.5 to 1.0 mm						0.25 to 0.5 mm						
GP	GO	DC	IM	CR	FO	GP	GO	DC	IM	CR	FO	GP	GO	DC	IM	CR	FO	Total
0	0	1	0	0	0	19	1	3	0	47	1	48	2	10	0	60(250)	5	387

*Most sand and gravel (but few till) samples prescreened to <3.5 in the field.

OVERBURDEN DRILLING MANAGEMENT LIMITED
KIMBERLITE INDICATOR MINERAL PICKING FOOTNOTES

Project: BuffaloHead Hills
Filename: SandSwamp - Vanhill - (S9-39) - Feb 2009
Total Number of Samples in this Report = 1
Batch Number: 4460

SAMPLE NO.	REMARKS:
S9-39	Almandine-earthy hematite/sillimanite-apatite assemblage. SEM checks from 1.0-2.0 mm fraction: 1 GO versus almandine candidate = 1 almandine. SEM checks from 0.5-1.0 mm fraction: 3 GO versus almandine candidates = 1 GO (pyrope-almandine) and 2 almandine; and 3 IM versus CR candidates = 3 CR; and 1 FO vesus zoisite candidate = 1 FO. 2 GP from 0.25-0.5 mm fraction have partial alteration mantles.

INPUT ASSEMBLAGE
Almandine-earthy hematite/sillimanite-apatite

INPUT REMARKS
SEM checks from 1.0-2.0 mm fraction: 1 GO versus almandine candidate = 1 almandine. SEM checks from 0.5-1.0 mm fraction: 3 GO versus almandine candidates = 1 GO (pyrope-almandine) and 2 almandine; and 3 IM versus CR candidates = 3 CR; and 1 FO vesus zoisite candidate = 1 FO. 2 GP from 0.25-0.5 mm fraction have partial alteration mantles.

*Most sand and gravel (but few till) samples prescreened to <3.5 in the field.

EN

INPUT ASSEMBLAGE
Almandine-earthy hematite/sillimanite-apatite

*Most sand and gravel (but few till) samples prescreened to <3.5 in the field.

ITER ASSEMBLAGE AND REMARKS DATA HERE

INPUT REMARKS

SEM checks from 1.0-2.0 mm fraction: 1 GO versus almandine candidate = 1 almandine. SEM checks from 0.5-1.0 mm fraction: 3 GO versus almandine candidates = 1 GO (pyrope-almandine) and 2 almandine; and 3 IM versus CR candidates = 3 CR; and 1 FO vesus zoisite candidate = 1 FO. 2 GP from 0.25-0.5 mm fraction have partial alteration mantles.

*Most sand and gravel (but few till) samples prescreened to <3.5 in the field.

OVERBURDEN DRILLING MANAGEMENT LIMITED
LABORATORY ABBREVIATIONS

SEDIMENT LOG

Largest Clasts Present:
- G: Granules
- P: Pebbles
- C: Cobbles

Clast Composition:
- V/S: Volcanics and/or sediments
- GR: Granitics
- LS: Limestone, carbonates
- OT: Other Lithologies (refer to footnotes)
- TR: Only trace present
- NA: Not applicable
- OX: Very oxidized, undifferentiated

Matrix Grain Size Distribution:
- S/U: Sorted or Unsorted
- SD: Sand (F: Fine; M: Medium; C: Coarse)
- ST: Silt
- CY: Clay
- Y: Fraction present
- +: Fraction more abundant than normal
- -: Fraction less abundant than normal
- N: Fraction not present

Matrix Organics:
- ORG: Y: Organics present in matrix
  - N: Organics absent or negligible in matrix
  - +: Matrix is mainly organic

Matrix Colour:

Primary:
- BE: Beige
- GY: Grey
- GB: Grey-beige
- GN: Green
- GG: Grey-green
- PP: Purple
- PK: Pink
- PB: Pink-Beige

Secondary (soil):
- OC: Ochre
- BN: Brown
- BK: Black

Secondary Colour Modifier:
- L: Light
- M: Medium
- D: Dark

GOLD GRAIN LOG

Thickness:
- VG: Visible gold grains
- M: Actual measured thickness of grain (microns)
- C: Thickness of grain (microns) calculated from measured width and length

KIM (kimberlite indicator mineral) LOG

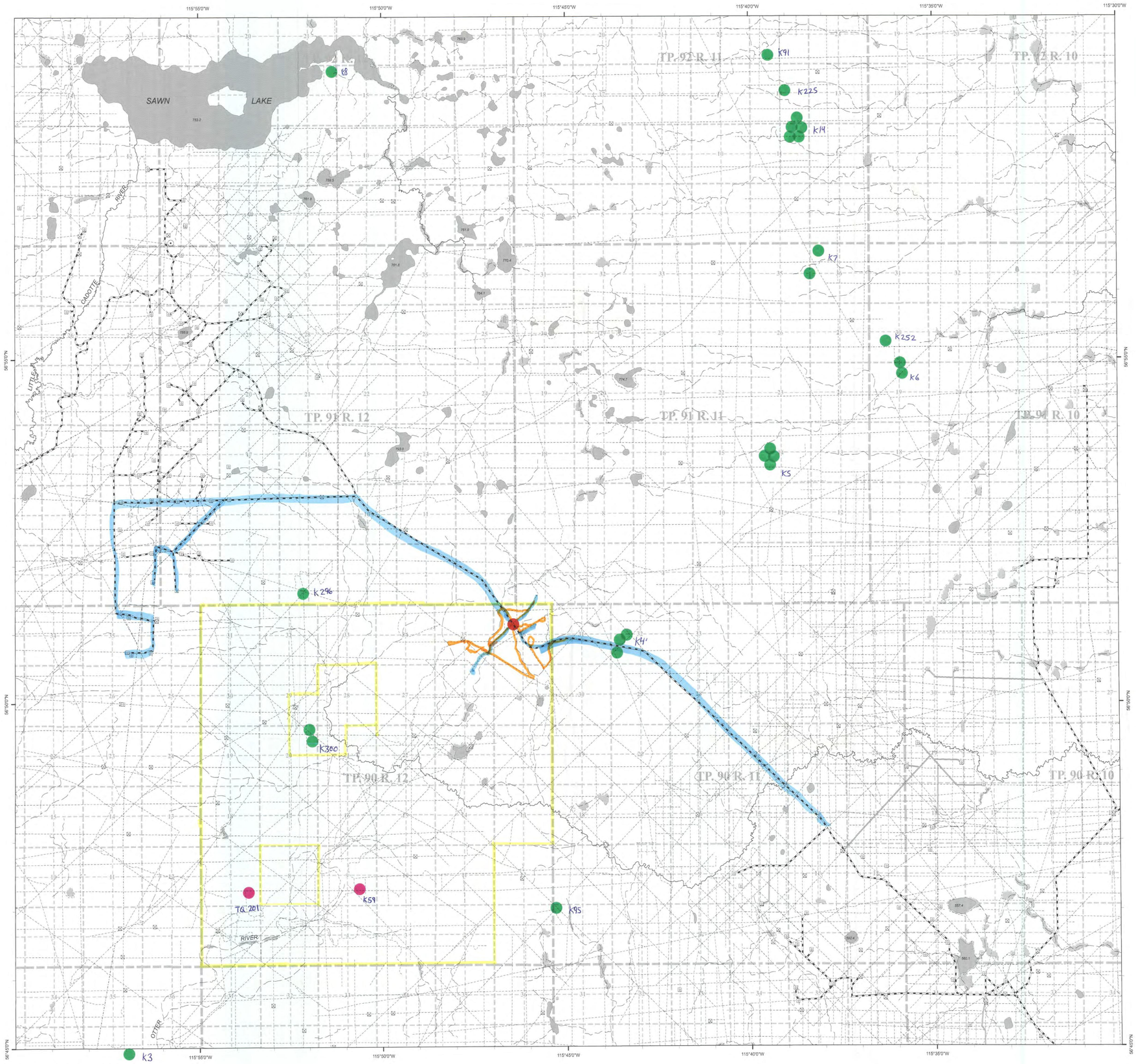
- GP: Purple to red peridotitic garnet (G9/10 Cr-pyrope)
- GO: Orange mantle garnet; includes both eclogitic pyrope-almandine (G3) and Cr-poor megacrystic pyrope (G1/G2) varieties; may include unchecked (by SEM) grains of common crustal garnet (G5) lacking diagnostic inclusions or crystal faces
- DC: Cr-diopside; distinctly emerald green (paler emerald green low-Cr diopside picked separately)
- IM: Mg-ilmenite; may include unchecked (by SEM) grains of common crustal ilmenite lacking diagnostic inclusions or crystal faces
- CR: Chromite
- FO: Forsterite

MMSIM (metamorphosed or magmatic massive sulphide indicator mineral) and PCIM (porphyry Cu indicator mineral) LOGS

Adr: Andradite	Cr: Chromite	Ky: Kyanite	Sil: Sillimanite	Ttn: Titanite
Ap: Apatite	Fay: Fayalite	Mz: Monazite	Spi: Spinel	
Ase: Anatase	Gh: Gahnite	Ol: Olivine	Sps: Spessartine	
Ax: Axinite	Gr: Grossular	Opx: Orthopyroxene	St: Staurolite	
Cpy: Chalcopyrite	Gth: Goethite	Py: Pyrite	Tm: Tourmaline	

*Most sand and gravel (but few till) samples prescreened to <3.5 in the field.

SHEET NO. 84-B-13



SHEET NO. 84-B-13

Alberta
Sustainable Resource Development

PROVINCIAL BASE MAP
1:50 000

Alberta Resource Map (84-B-13)
Showing Property & Prospecting Traverses

- Paved Road
- 2 Lane Gravel Road
- 1 Lane Gravel Road
- Unimproved Road
- Truck Trail/Winter Road
- Cutlines
- Railway
- Railway -Abandoned
- Pipeline
- Major Powerline
- Township
- Township (Unsurveyed)
- Section
- Section (Unsurveyed)
- Quarter Section
- Perennial Stream/River
- Intermittent/ Indefinite Stream/River
- Lake (water level in metres A.S.L.)
- Sandbar
- Intermittent Lake
- Hamlet/Locality
- Wildfire Lookout
- Major Tower
- Well
- Well -Abandoned
- Property
- Summer Prospecting
- Winter Prospecting Access Attempt
- kimberlites (Drilled)
- Mag Targets (Historical)
- S9-39 Sample

PUBLISHED IN MARCH 2007

84B

13	14	15	16
12	11	10	9
5	6	7	8
4	3	2	1

DIAGRAM SHOWING ACCESS CURRENCY

2003

1997

Magnetic Chart of Alberta for Epoch 2005

- Average Declination of the Compass in Degrees
- Average Decrease of Declination in Minutes of Arc

Note: Information as depicted, is subject to change, therefore the Government of Alberta assumes no responsibility for discrepancies at time of use

WEST OF THE FIFTH MERIDIAN

1 0 1 2 3 Kilometers
1 0 1 2 Miles

Air Photograph Mosaic of Property