

**Braeburn Limestone Property
Bulk Sample Collection**

Whitehorse Mining District
Yukon Territory
NTS 105 E/12
Latitude: 61° 32'40N
Longitude: 135° 48'30W

Quartz Claims:

Grant #	Claim Name
YC82824 to YC82835	BL 5 to BL 16
YC82836 to YC 82845	BL 21 to BL 30
YC82855 to YC 82862	BL 1 to BL 8

By:

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Casselman Geological Services Ltd.
Whitehorse, Yukon, Y1A 4R5

For:

Western Copper Corporation
2050 - 1111 West Georgia Street
Vancouver, BC, V6E 4M3

December 24, 2010

SUMMARY

Western Copper Corporation staked the Braeburn Limestone Property as a potential source of industrial lime to be used at the company's future development projects at Williams Creek (Carmacks Copper Project) and at Casino Creek (Casino Project).

The BL Limestone Property is located in the Whitehorse Mining District, 5 kilometres north of the Braeburn Lodge on the North Klondike Highway, or 95 kilometres north of Whitehorse. Access to the centre of the property is by ATV bush trail, 1 kilometre off the North Klondike Highway.

On the 27th of April, 2010, Scott Casselman (geologist) and Gary Lee (Blaster) traveled from Whitehorse to the property and blasted a sample of limestone from outcrop that weighed approximately 300 kilograms. The sample was shipped to F.L. Smith Incorporated of Bethlehem, Pennsylvania for testing to determine its' suitability as an industrial lime product.

The resultant analysis of the physical and mechanical properties of the limestone and how the stone responds to attempts at producing a high-quality lime product were very favorable. The bulk sample from the Braeburn property is a medium- to high-grade source of calcite with low sulphur content. The rock has a favorable resistance to decrepitation, calcination rate, percent calcined, and reactivity to slaking.

On the BL claims, the area of limestone measures approximately 450 metres by 825 metres on surface with an estimated thickness of 100 to 150 metres. A projected tonnage of the limestone is estimated at 80 million tonnes.

Further work is recommended to focus on drilling the area of exposed Hancock Member limestone to determine true thickness and purity. Systematic drilling is recommended to assess the volume of the limestone resource. Exploration of the northern claim block could also commence if an additional resource was needed.

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1.0 INTRODUCTION

In July 2008, Western Copper Corporation staked thirty BL claims in two claim blocks (the northern and southern block) covering a historical high-grade limestone occurrence. The property was staked as a potential source of industrial lime to be used at the company's future development projects at Williams Creek (Carmacks Copper Project) and at Casino Creek (Casino Project). On April 27, a two-person crew traveled to the site to blast and collect a 300 kilogram sample of limestone for testing purposes. The sample took one day to collect.

The program was managed by Scott Casselman, B.SC, P.Geo, with the assistance of licensed blaster, Gary Lee.

2.0 LOCATION AND ACCESS

The Braeburn Limestone Property is located 95 kilometres north of Whitehorse, or 5 kilometres north of Braeburn Lodge, immediately east of the North Klondike Highway, Yukon (Figure 1). It is located on NTS map sheet 105 E/12 at latitude 62° 32' 40"N and longitude 135° 48' 30"W.

Access to the property is by the North Klondike Highway to a rough bush trail that leads 1.5 kilometres into the centre of the southern block of claims. The north block of claims is accessible by foot from the North Klondike Highway. The property access trail is unmaintained, narrow and rough with steep sections. ATV's are required to reach the top of the mountain.

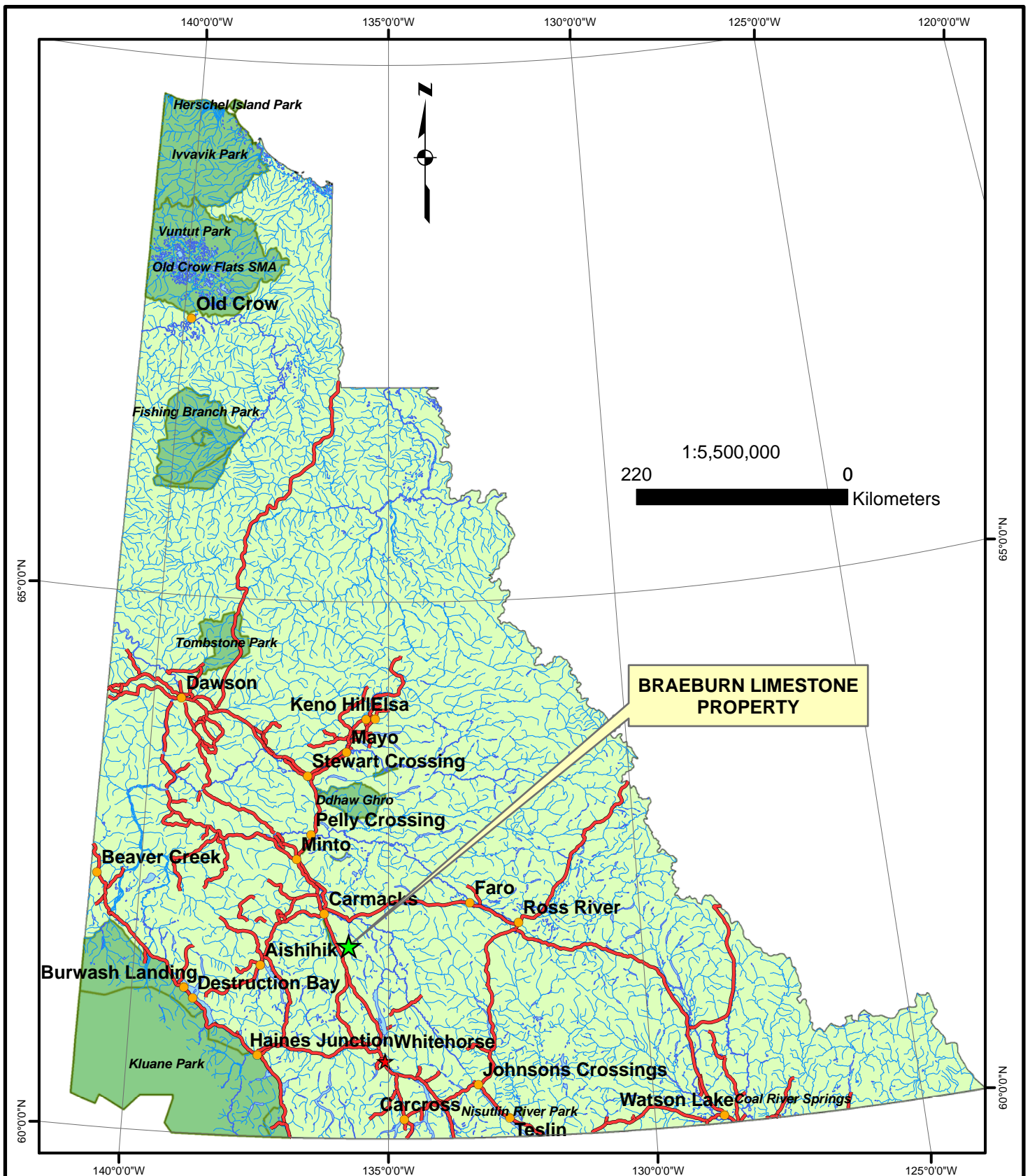
3.0 CLAIM INFORMATION

The Braeburn Limestone Property is in the Whitehorse Mining District and consists of thirty Quartz Claims acquired in accordance with the *Yukon Quartz Mining Act*. The claims are registered in the name of, and owned 100% by CRS Copper Resources Corp., a 100% owned subsidiary of Western Copper Corporation. The claim location map is included in Figure 2.

Claim Information is as follows:

Grant #	Claim Name	Expiry Date
YC82824 to YC82831	BL 5 to BL 12	July 25, 2012
YC82832 to YC82834	BL 13 to BL 16	July 25, 2011
YC82836 to YC82839	BL 21 to BL 24	July 25, 2012
YC82840 to YC82845	BL 25 to BL 30	July 25, 2011
YC82855 to YC82862	BL 1 to BL 8	August 1, 2014

The project is located on Crown land administered by the Yukon Government.



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BRAEBURN LIMESTONE PROPERTY**

Figure 1. Property Location Map

November 2, 2009

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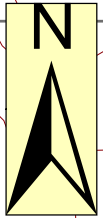
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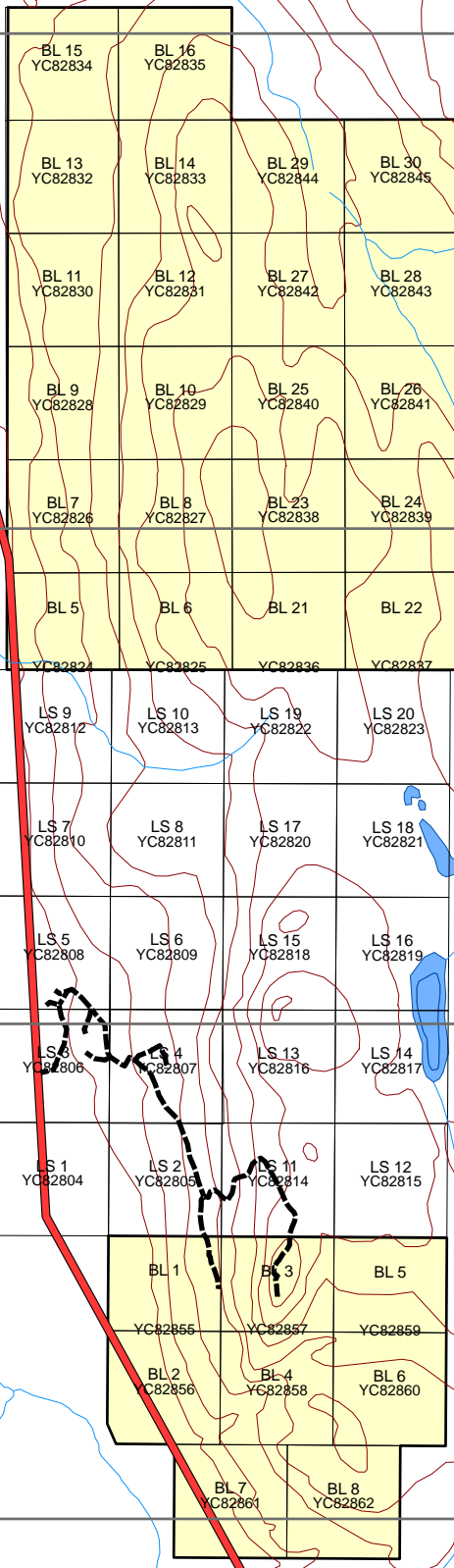
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Klondike Highway



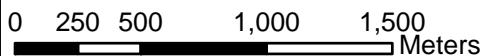
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Legend

- 4x4 Trails
- Western Copper Claims
- Highway

1:30,000



**WESTERN COPPER CORPORATION
BRAEBURN LIMESTONE PROPERTY
Figure 2 - CLAIM LOCATION MAP**

NTS: 105E12

Mining District: Whitehorse

Projection: UTM, zone 8

Datum: NAD 83

Date: June 4, 2009

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4.0 PHYSIOGRAPHY AND CLIMATE

The Braeburn Limestone property is located between the Miners Range and the Semenoff Hills in the Yukon. The claims cover moderate relief that is generally between 670 and 1000 metres of elevation. The property is covered predominantly by pine and poplar trees, with minor black spruce, birch and alder, as well as sparse willow occurring at the lower elevations.

Outcrop on the property occurs as steep, near vertical cliffs at higher elevations and a steep gulch in the southern block of claims. Lower elevations on the property are covered by a thick layer of glacial till and overburden.

The climate is generally fairly dry in the summer months with most precipitation occurring in July and early August. Average annual precipitation is approximately 40 centimetres with rain and thundershowers common in the summer months. Temperatures range from -40°C in the winter to 30°C in the summer. Snow begins to accumulate in early October and is mostly melted by early May.

5.0 PROPERTY HISTORY

The first recorded exploration in the area was in 1995 when the MAC 1 through 4 claims were staked by Yukon Lime Inc. to cover the limestone occurrence as a potential source of lime for local industrial use. In 1996, Yukon Lime added the Jeanie 1 through 12 claims.

In 1997, the property was optioned to 145976 Yukon Inc. and the BDM 1 through 4, Rob 1 through 3, Rich 1 through 3 and Harv 1 and 2 claims were added to the property. In 1997, seven reverse circulation holes were drilled on the MAC claims. This drilling program identified high purity calcium carbonate with substantial thickness; the best results being 16.8 metres of 94.8% CaCO₃ in hole BL-RC97-3. In 1998, seven more reverse circulation holes were drilled on the Harv claims. The results from this program were not filed for assessment and the data is not publicly available. No subsequent work was recorded on the property and therefore the claims were allowed to lapse.

In June of 2008, Archer, Cathro and Associates staked the LS 1 to 20 claims to cover the ground previously covered by the MAC and Jeannie claims. Shortly thereafter, Western Copper staked the BL claims to cover the ground previously covered by the BDM, Rob, Rich and Harv claims.

The 2009, Western Copper conducted an exploration program consisting of access trail rehabilitation, geological mapping, prospecting and rock sampling. A four-person crew spent seven days working the property.

6.0 GEOLOGY

6.1 REGIONAL GEOLOGY

The regional geology of the area was described by Tempelman-Kluit (1984) and Hart (1997), and is shown in Figure 3.

The Breaburn Property occurs in the northern portion of Stikinia. Stikinia is composed of Upper Triassic arc volcanic and sedimentary rocks of the Lewes River Group and Lower to Middle Jurassic sedimentary strata of the Laberge Group. In this portion of Stikinia the Lewes River Group and Laberge Group deposited in a down dropped block of the Whitehorse Trough (Hart, 1997). The Whitehorse Trough is bounded on the west by the Braeburn fault, a dextral strike-slip fault with an estimated 8 kilometres of displacement. The eastern margin of the Whitehorse Trough is defined by the southeast-dipping Tadru thrust fault. The Lewes River Group and Laberge Group rocks are separated by an erosional disconformity along the western margin of the Trough (Hart, 1997). The Laberge Group is unconformably overlain by the Upper Jurassic to Lower Cretaceous Tantalus Formation (Tempelman-Kluit, 1984).

LEWES RIVER GROUP

The Lewes River Group records the earliest known sedimentation in the Whitehorse Trough. The oldest rocks of the Lewes River Group are the Povoas Formation volcanic package. These are overlain by sedimentary rocks of the Aksala Formation.

Povoas Formation (uTrP)

The Povoas formation is comprised of augite or feldspar phyric, locally pillowed andesitic basalt flows, breccia, tuff, sandstone and argillite; local dacitic breccia and tuff with minor limestone; and greenschist, chlorite schist, chlorite-augite-feldspar gneiss, and amphibolite.

Aksala Formation (uTrAK)

Tempelman-Kluit divided the Aksala formation into the Casca, Hancock, and Mandanna members. The Casca Member (uTrAK1) is comprised of brown shale, black and minor red siltstone, greenish, calcareous greywacke and interbedded bioclastic, argillaceous limestone; igneous- or limestone-clast pebble and cobble conglomerate; lahaaric debris flows; and rare feldspar-augite porphyry flows.

The Hancock Member (uTrAK2) is composed of massive to thick bedded limestone; minor thin bedded argillaceous to sooty limestone; coarsely crystalline, massive dolostone; minor laminated chert; and massive to poorly bedded, limestone conglomerate debris flows and fanglomerate.

The Mandanna Member (uTrAK3) is comprised of red weathering, medium bedded, green

and red greywacke and pebble conglomerate; red shale partings and minor interbedded, red, bioturbated siltstone; crystal-rich greywacke and shale; and coarse-grained, tan to brown, massive, lithic arenite.

LABERGE GROUP

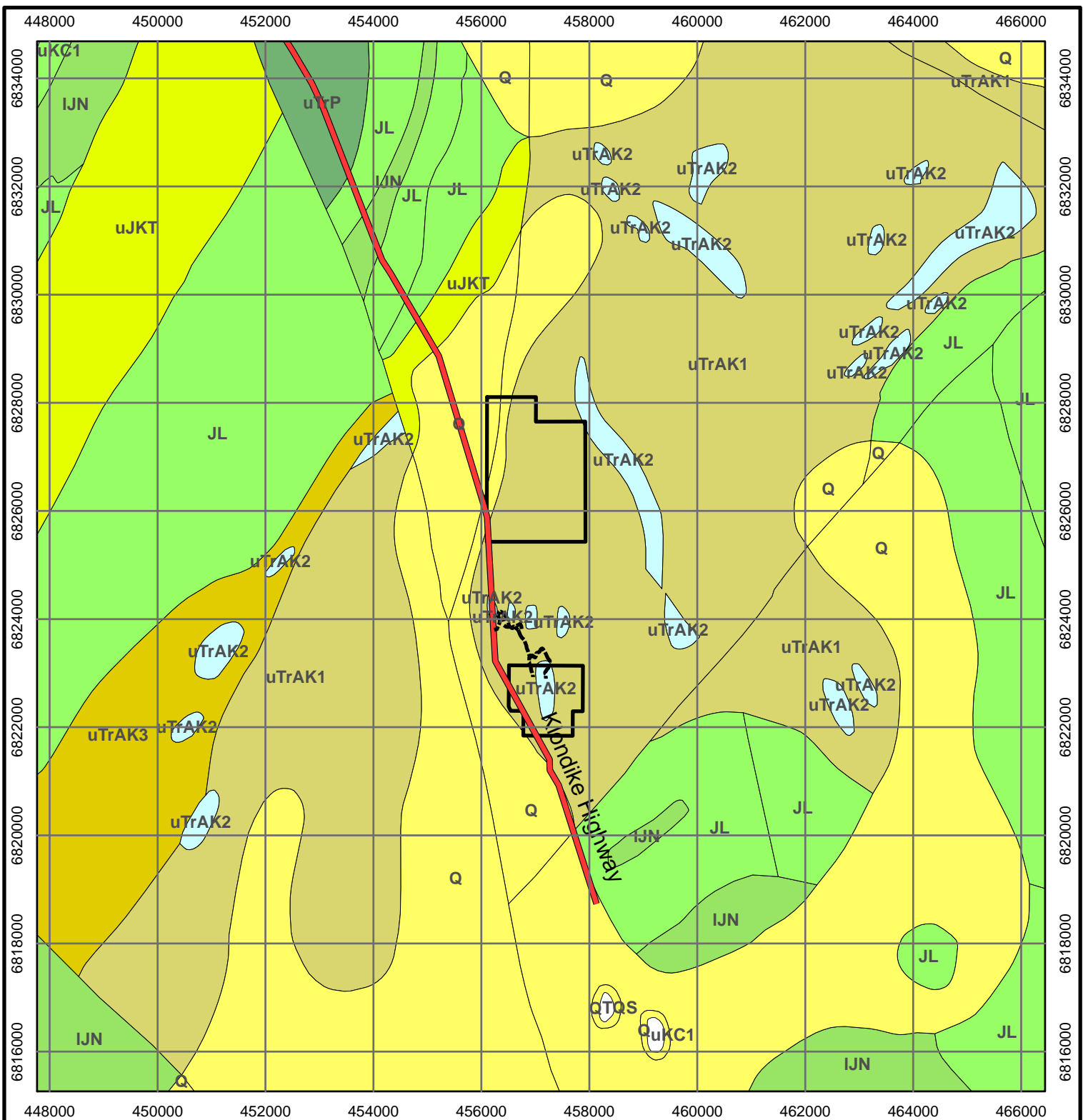
The Laberge Group has traditionally been subdivided into three units, the Richthofen, Nordenskiöld, and Tanglefoot formations. Only the Nordenskiöld Formation is observed in the Braeburn area. The known thickness of the Laberge Group ranges from over 1158 metres in the Braeburn-Kynocks area to an assumed thickness of 3048 metres in the Whitehorse district.

Nordenskiöld Formation (IJN)

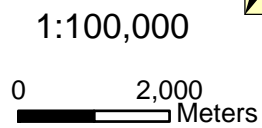
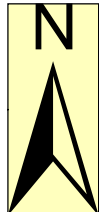
The Nordenskiöld Formation consists of resistant, reddish-brown weathering, massive khaki-green dacite tuff with fresh plagioclase, hornblende and biotite; grading locally to pale green, punky weathering, salt and pepper textured, massive sandstone and interbedded conglomerate.

Tantalus Formation (uJKT)

The Tantalus Formation represents the most recent record of deposition in the Whitehorse Trough. It is characterized by thick-bedded chert-pebble conglomerate; gritty quartz-chert-feldspar sandstone; interbedded dark grey shale, argillite, siltstone, arkose and coal; and rarely will include red-weathering dacite to andesite flows at its base.



Legend	
Q	Quaternary Sediments
uJKT	Tantalus Fm
JL	Lewes Fm
IJN	Nordenskoild Fm
uTrAK1	Aksala Fm - shale
uTrAK2	Aksala Fm - limestone
uTrAK3	Aksala Fm - greywacke
uTrP	Pavoas Fm



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BRAEBURN LIMESTONE PROPERTY
Figure 3 - REGIONAL GEOLOGY MAP
 NTS: 105E12 Mining District: Whitehorse
 Projection: UTM, zone 8 Datum: NAD 83
 Date: June 4, 2009
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6.2 PROPERTY GEOLOGY

The northern BL claim block is mostly till covered with less than 1% outcrop or sub-crop. Three small outcrops or sub-crop were noted in the northern block and were comprised of brownish to red pebble conglomerate, likely of the Mandanna Member of the Aksala Formation of the Lewes River Group.

The southern BL claim block has good outcrop exposure on the mountain ridge in the centre of the block. Lower down, in the valleys, thick glacial till and overburden mask geological contacts. On the ridge, limestone of the Hancock Member is exposed in steep southerly and westerly facing cliffs. The limestone beds strike north to north-northeast and are moderately east dipping to flat lying (10 to 30 degrees to the east). Locally limestone is mylonitized and cut by prominent white calcite veining on the 1 to 25 centimetre scale, with veins running parallel to the bedding.

Underlying the Hancock Member limestone in the central and southern part of the southern block are flat lying buff-cream to brown, prominently jointed, locally orange-rusty weathering siltstone and locally red to maroon sandy siltstone of the Tanglefoot Formation. In the northern part of the southern block, Mandanna Member conglomerate underlies the Hancock Member.

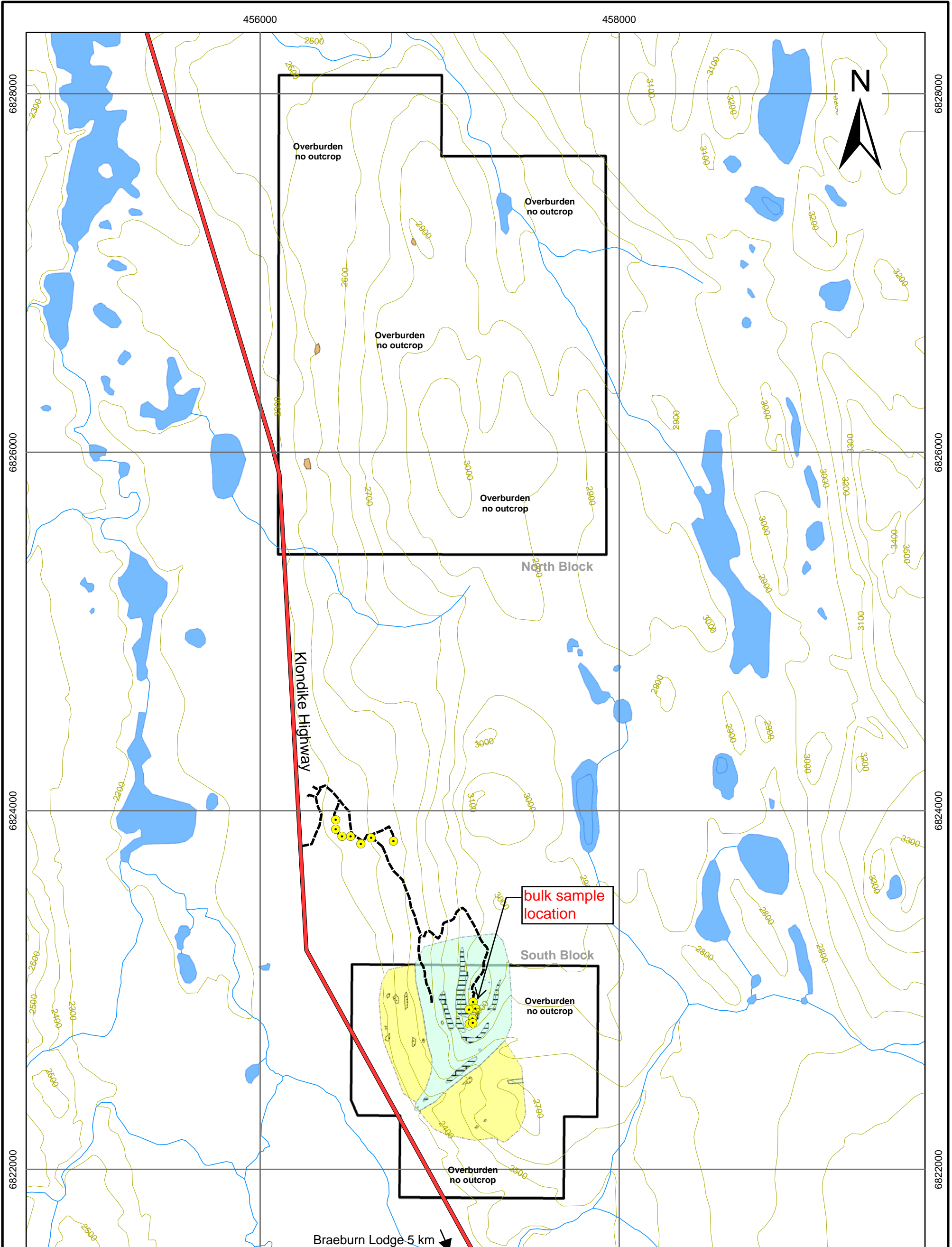
Contacts between Hancock Member limestone and underlying rocks are inferred as they are obscured by overburden and till. In the central portion of the southern claim group is a prominent north-easterly trending gulch. The northern slope of this feature is well exposed as near vertical cliff faces of grey limestone. The southern exposure within this feature is a flat lying, grey to locally rusty weathering buff-cream siltstone. The contact between these two units appears to be very sharp but is not exposed in the gulch. This gulch is interpreted to be a splay fault or tension gash of the Braeburn Fault. A single sub-crop of Nordenskiold formation biotite-hornblende dacite was also noted in the southeastern part of the southern claim block.

7.0 2010 EXPLORATION PROGRAM





The Hancock member limestone is fine grained, thinly bedded, locally mylonitized, medium to dark grey and contains 85-98% CaCO₃ in the cleaner portions. For the 2010 sampling program a location was selected where the limestone was well exposed, where it did not appear to be overly weathered, and where it was believed to be relatively clean and pure calcium carbonate.

A gasoline-powered plugger was used to drill holes in a two-row pattern with six holes in each row. The holes and rows were spaced nominally at 60 centimetre intervals and drilled to a depth of 60 to 120 centimetres. The holes were filled with dynamite and wired together using blasting cord. The blast was ignited using a time-delay fuse.




The blast pattern created a pit that measured 3.5 metres by 1.5 metres by 0.7 metres deep.

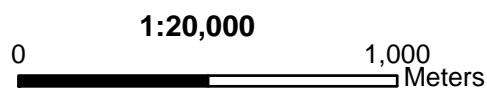


Geology Legend

-  Conglomerate
-  Dacite
-  Limestone
-  Siltstone

Property Geology Units

-  Limestone
-  Siltstone
-  Reverse Circulation Collars



**WESTERN COPPER CORPORATION
BRAEBURN LIMESTONE PROPERTY**

Figure 4. Property Geology

NTS: 105E12 Mining District: Whitehorse
 Projection: UTM, zone 8 Datum: NAD 83
 Date: November 2, 2009

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The rock material was shattered into pieces that were generally less than 15 centimetres.

Approximately 300 kilograms of hand-sorted material was collected and placed in twenty 20 litre plastic pails, which were then sealed with a lid.

8.0 ANALYTICAL PROCEDURE

The Braeburn limestone bulk sample was shipped to F. L. Smidth Inc. of Bethlehem, Pennsylvania for analysis of physical and chemical properties. F. L. Smidth Inc. is a fully accredited materials-testing laboratory, adhering to all ISO, EN, and ASTM standards. For the complete analytical procedure the reader is referred to the report prepared by F. L. Smidth, included in Appendix II.

Whole rock analysis of the sample was determined XRD microscopy. Total sulphur content of the sample was determined by LECO sulphur analyser. Available lime level was determined by ASTM C25 procedure and sulphur removal tests were performed at temperatures of 1050°C, 1110°C and 1170°C. Thermal and mechanical breakage tests were performed and Hydration reactivity (slake rate) tests were also performed.

ASTM International has established three standards for testing methodologies for quantitative analysis of limestone for purposes of liming operations:

- ASTM C25 - “Standard Test Methods for Chemical Analysis of Limestone, Quicklime, and Hydrated Lime”,
- ASTM C1271 - Standard Test Method for X-Ray Spectrometric Analysis of Lime and Limestone”, and
- ASTM C1301 - “Standard Test Method for Major and Trace Elements in Limestone and Lime by Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP) and Atomic Absorption (AA)”.

Analysis and testing of a limestone assesses the suitability of the rock for industrial use. The chemical and mineralogical composition of the limestone determines the process and controls to undertake in quarry planning, storage, and mill and kiln operation, resulting in a higher product quality. For example, if the industrial mineral is deemed a suitable resource, the results of the testing will optimize the design of the processing plant and will lead to a selection and sizing of appropriate machinery.

9.0 RESULTS

The following comments are summarized from the F. L. Smidth report included in Appendix II.

Chemical Assay

Worldwide, lime (CaO) is produced from limestone with a calcium carbonate (CaCO₃) content approaching 97%. Lime production requires high temperatures for dissociation of the calcium carbonate with the resultant formation of calcium oxide and carbon dioxide, a process called calcination:



In high-grade limestone, this process releases close to 44% of the initial volume of limestone as carbon dioxide gas. The carbon dioxide percentage from the Braeburn limestone (39.5%), and the total calcite content (96.5%) attest to the medium-to-high purity of the material (Table 2). It is directly comparable to high-purity limestones being mined in the United Kingdom (Table 3).

Table 2: Typical classification of limestone purity (from Harrison, D.J.)

Category	Percentage CaCO ₃
Very high purity	>98.5
High purity	97.0 to 98.5
Medium purity	93.5 to 97.0
Low purity	85.0 to 93.5
Impure	<85.0

Table 3: Comparison of high-purity limestones in the UK with the Braeburn LS.

Weight Percent	Bee Low LS, UK	Malham Fm., UK	Braeburn LS, YT
CaO	55.09	55.54	55.0
MgO	0.37	0.26	0.32
SiO ₂	0.64	0.26	1.16
Fe ₂ O ₃	0.05	0.08	0.16
Al ₂ O ₃	0.11	0.13	0.19
Na ₂ O	0.00	0.01	<0.01
K ₂ O	0.02	0.05	<0.01
P ₂ O ₅	0.02	0.01	0.09
MnO	0.02	0.01	<0.01
SO ₃	0.18	0.02	0.34 (total S)
Loss	43.44	43.40	43.0

In addition, the limestone responded well to calcination, with almost 98% of the calcite converting to lime. According to F.L.Shmidt Inc., the conversion is typically around 95%.

After 60 minutes, the pyro-processing was complete with little or no more calcination occurring in the sample.

A very high-grade limestone can be almost pure with less than 1.4% impurities. Impurities, such as iron, sulphur, silica and lead amount to less than 2% in the Braeburn sample.

Sulphur Removal Summary

During calcination, the gasses that are produced include sulphur dioxide (SO₂), an environmental pollutant with emission restrictions. Removing sulphur dioxide from kiln by-products can be accomplished by the addition of a sorbent at one or more stages of the calcination process. If the kiln atmosphere is enriched in nitrogen gas, the study found that a maximum of 77% of the SO₂ could be captured, turned into calcium sulphate (CaSO₄), and effectively removed from kiln emissions. As this method could be potentially costly, further investigation should be performed into the projected and/or permissible level of SO₂ emissions from such a plant.

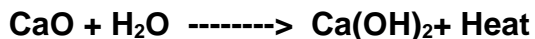
Thermal Breakage (Decrepitation)

Thermal breakage parameters must be considered when determining the suitability of the stone when subjected to calcination. As an equi-dimensional, limestone feed will increase the efficiency of the lime kiln, excess decrepitation during calcination impedes the escape of gasses from the kiln, thereby lowering kiln efficiency.

The thermal breakage percentage for the Braeburn material was low, at just over 1% when sieved through a -6 mesh. This indicates that the Braeburn limestone will behave well in the kiln and makes it suitable for lime making. Moreover, a low thermal breakage percentage is characteristic of a relatively fine-grained and dense limestone.

Hydration Reactivity (Slaking)

Hydrated lime (slacklime) is produced by adding water to lime as per the equation:



The reaction is exothermic, providing a convenient calorimetric test to measure the efficiency of the reagents. The Braeburn limestone was found to be very reactive to slaking leaving very little unreactive residue. Of the many possible reasons for residue include purity of limestone, slaking time, particle size, type of slaker and associated temperature, water supply, and mixing method.

Hydrated lime is of low toxicity and is valuable in many industrial applications, including waste and water treatment, the drying and stabilization of soil, Ph and odor control, agricultural applications, asphalt modification and building product components such as plasters and whitewash.

Emission Profile

Evaluation of limestone emissions expected to occur during calcining were also tested. Safeguarding against possible gaseous emissions such as NO, SO₂, O₂, CO and THC (total hydrocarbons) will help select the calcining kiln. Unburned hydrocarbons and the by-products of combustion can be reduced by improving the energy efficiency of the process, shifting to a more energy efficient process, replacing high carbon fuels by low carbon fuels, and removing CO₂ from the flue gases.

10.0 CONCLUSIONS AND RECOMENDATIONS

The bulk sample of limestone collected from the Braeburn limestone property is a medium to high-grade source of calcite in a form amenable to lime and quicklime creation. The material excels in the areas of low sulphur content, resistance to decrepitation, calcination rate, percent calcined, and reactivity to slaking.

The area of high purity limestone measures approximately 450 metres by 825 metres, as measured on surface. The Hancock Member limestone on the ridge top in the centre of the southern block of the BL claims is comprised of high purity calcium carbonate (CaCO₃). This unit appears to have a thickness of 100 to 150 metres, based on exposure in the cliffs on the property. Using these dimensions, a crude approximate tonnage of limestone in the southern block ridge is estimated at 80 million tonnes.

The Braeburn limestones are upper moderate- to lower high-purity calcite. These results are encouraging and it is unlikely that sulphur removal tests or emission tests were abnormal.

It is recommended that exploration efforts should be focused on the Hancock Member limestone and that follow-up work on the property should involve drilling the area of exposed limestone to determine the volume and purity. A program of systematic grid drilling is recommended to prove the quantity and quality of the limestone resource. This program would consist of approximately 2400 metres in twenty holes, at an approximate hole density of 100 metres by 100 metres. As a secondary target, should additional limestone be required, the northern claim block could be explored with trenching or diamond drilling. An estimated budget for the grid drilling program is \$600,000.

11.0 STATEMENT OF EXPENDITURES

Consulting Charges

Casselman Geological Services Ltd.

Scott Casselman – Project Manager	\$819.00
Gary Lee – Blaster	\$1,155.00
Vehicle and Equipment rental	\$444.71
Fuel – Diesel and gasoline	\$183.25
Field supplies	\$617.10
Sample shipping	\$100.00
Analytical charges	\$5,900.00
Report writing	<u>\$4,500.00</u>
	<u>\$13,719.06</u>

12.0 REFERENCES

Casselmann, S.C. and Torgerson, D.K. , 2009. 2009 Assessment Report for the Braeburn Limestone Project. Government assessment report.

Doherty, R.A., 1999. Report on the 1997 RC Drilling Program On The MAC 1-4 & JEANI 1-12 Claims. Government assessment report # 093946.

Harrison, D.J. Industrial Minerals Laboratory Manual: Limestone. BGS Technical Report WG/92/29.

APPENDIX I
STATEMENT OF QUALIFICATIONS

Statement of Qualifications

I, Scott Casselman, P. Geo., certify that:

- A. I am a geologist employed by Casselman Geological Services Ltd. and reside at 33 Firth Road, Whitehorse, Yukon Territory, Y1A 4R5.
- B. I graduated from Carleton University in Ottawa, Ontario with a Bachelor of Science Degree in Geology in 1985 and have worked as a geologist since that time.
- C. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia, Registration No. 20032.
- D. I supervised the 2010 exploration program on the Braeburn Limestone Property in Central Yukon, for Western Copper Corporation described in this report.

Dated this 24th day of December, 2010, at Whitehorse, Yukon Territory.

Scott G. Casselman, BSc., P.Geo.

Appendix II

LABORATORY LIMESTONE EVALUATION REPORT, FLSMIDTH INC.

FLSmidth Inc.
2040 Avenue C • Bethlehem, PA 18017-2188 • USA
Tel +1 610 264 6011 • Fax +1 610 264 6170
www.flsmith.com



LABORATORY LIMESTONE EVALUATION

PERFORMED FOR

**WESTERN COPPER CORPORATION
VANCOVER, BRITISH COLUMBIA, CANADA**

**PROJECT #: 1001050271
AUGUST 2010**

WRITTEN BY:

**L.S. DUTT
LABORATORY MANAGER**

REVIEWED BY:

**M.E. PROKESCH, P.E.
MANAGER-MINERALS PROCESS**

EVALUATION SUMMARY

A laboratory study was performed for Western Copper Corporation to evaluate the physical and chemical properties of a limestone sample. The sample received for the study is identified as follows:

Limestone: FLSmidth Lab # 100222

A photograph of the as received sample taken prior to crushing is included in Figure 1 on pages 5. The particle size analysis of the as received sample is included in Table 1 on page 6.

The chemical assays for the samples were established in terms of complete oxide composition (X-ray fluorescence), and total sulfur reported as S (LECO). These results are summarized in Table 2 on page 7.

The available lime level determined on a sample following calcination at 982 °C (ASTM C25 procedure), calculated potential available CaO level (stone loss-free CaO level) and associated conversion level include:

94.4% available CaO 96.5% potential A. CaO 97.8% conversion

The typical level of conversion of calcium carbonate to available lime is approximately 95%.

Sulfur removal tests were conducted at temperatures of 1050 °C, 1110 °C and 1170 °C under air and nitrogen atmospheres. Feed and fired sample sulfur data are included in on Table 3 page 7. Maximum reduction levels achieved include:

60.0% in air 76.7% in nitrogen

The stone loss on ignition (LOI) levels as a function of time at 982 °C are plotted in Figure 2 on page 8. Little or no change in the sample LOI level after a burn time of 60 minutes indicates a normal limestone in terms of the calcination rate. Based on the results the stone calcination rate is faster than normal.

Thermal and mechanical breakage tests were performed on the samples at room temperature, 204 °C, 538 °C and 982 °C. This information is utilized to determine the suitability of the stone for various calcination processes. The breakage levels measured are low and indicate that the stone can be processed in a preheater kiln system designed using normal parameters. Results are displayed in Figure 3 on page 8.

Hydration reactivity (slaking rate) and +200 mesh hydrate residue level were determined on the sample following calcination at 982 °C for 60 minutes. This information is included in Figure 4 on page 9. The sample reactivity is very high (40 °C rise in 0.07 minutes) and the residue level of 4.3% is well below the typical level of 15%.

A laboratory emission test was performed to estimate the emission of pollutants from the stone sample. The emission profile and corresponding emission rates are included in Figure 5 and Table 4 on pages 10 and 11. A summary of the emissions observed is included below in terms of mg emitted per kg of stone and the emission temperature range. These emissions must be considered when projecting the commercial calciner emissions.

<u>CO</u>	<u>NO</u>	<u>THC (total hydrocarbons)</u>
73 (250-520°C)	30 (350-580°C)	49 (125-500°C)

In conclusion, the sample has the potential to yield a lime product with a high reactivity and available lime level. Due to the good strength of the stone it can be processed in a preheater kiln system. As there is the potential for variation in sample properties across a deposit, the analysis of additional samples representing the overall quarry assets is highly recommended.

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Figure 1: Photograph – As Received Limestone

Table 1 : Particle Size Distribution

FL SMIDTH Inc. - Test Center LABORATORY SCREEN ANALYSIS								
Sample From:	Western Copper Corp.			Date Rec'd:	6/11/2010			
	Vancouver, BC, Canada			Sample No.	100222			
Material:	Limestone as rec'd			Was Screen Sample Dried?				
				Yes:	<input checked="" type="checkbox"/>	No:		<input type="checkbox"/>
Moisture as Rec'd.:	0.10%			Bulk Density:	76.3		#/cf (as rec'd)	
Method to Screen:	Hand Screen			Bulk Density:			#/cf (dry)	
U.S. Screen	Wt. Grams	% Retained		microns	Cum. % Ret.	Cum.% Pass.	Comments	
+4 inch		0.0	4 inch	101600	0.0	100.0		
-4+3 inch		0.0	3 inch	76200	0.0	100.0		
-3+2 1/2inch		0.0	2 1/2 inch	63500	0.0	100.0		
-2 1/2+2 inch	151.1	5.0	2 inch	50800	5.0	95.0		
-2 +1 3/4 inch	0.0	0.0	1 3/4 inch	44450	5.0	95.0		
-1 3/4 +1 1/2 inch	484.2	16.1	1 1/2 inch	38100	21.1	78.9		
-1 1/2 +1 1/4 inch	357.2	11.9	1 1/4 inch	31750	33.0	67.0		
-1 1/4 +1 inch	612.1	20.3	1 inch	25400	53.3	46.7		
-1 +3/4 inch	516.8	17.2	3/4 inch	19050	70.4	29.6		
-3/4 +1/2 inch	431.7	14.3	1/2 inch	12700	84.8	15.2		
-1/2 +3/8 inch	165.5	5.5	3/8 inch	9525	90.3	9.7		
-3/8 +1/4 inch	155.8	5.2	1/4 inch	6350	95.4	4.6		
-1/4 +4 mesh	54.2	1.8	4 mesh	4750	97.2	2.8		
-4 + 6 mesh	57.2	1.9	6 mesh	3350	99.1	0.9		
-6 +8 mesh	22.6	0.8	8 mesh	2360	99.9	0.1		
-8 mesh	3.6	0.1			100.0	0.0		
-12 +16 mesh		0.0	16 mesh	1180	100.0	0.0		
-16 +20 mesh		0.0	20 mesh	850	100.0	0.0		
-20 +30 mesh		0.0	30 mesh	600	100.0	0.0		
-30 +40 mesh		0.0	40 mesh	425	100.0	0.0		
-40 +50 mesh		0.0	50 mesh	300	100.0	0.0		
-50 + 70 mesh		0.0	70 mesh	212	100.0	0.0		
-70 +100 mesh		0.0	100 mesh	150	100.0	0.0		
-100 +140 mesh		0.0	140 mesh	106	100.0	0.0		
-140 +170 mesh		0.0	170 mesh	90	100.0	0.0		
-170 +200 mesh		0.0	200 mesh	75	100.0	0.0		
-200 +325 mesh		0.0	325 mesh	45	100.0	0.0		
-325 mesh		0.0						
Total	3012.0	100.0						
SIGNED: J Wilk DATE: 8/2/2010								

Table 2: Chemical Assay Summary

CHEMISTRY		
Lab No.:	100222	
SiO₂	1.16	%
Al₂O₃	0.19	%
Fe₂O₃	0.16	%
CaO	55.0	%
MgO	0.32	%
K₂O	<0.01	%
Na₂O	<0.01	%
S(total)	0.034	%
TiO₂	0.02	%
MnO	<0.01	%
P₂O₅	0.09	%
Cr₂O₃	<0.01	%
V₂O₅	<0.01	%
Loss @ 982° C	43.0	%
Total	99.97	%
CO₂	39.5	%
Avail CaO	94.41	%
(60 min burn at 982°C)		

Table 3: Sulfur Removal Summary

SULFUR REMOVAL ANALYSIS		
Sample ID	100222	
	%S (Total)	
Head	0.034	As Received
Head	0.060	Loss Free Basis
(a) 1050°C in air	0.030	
(b) 1110°C in air	0.025	
(c) 1170°C in air	0.024	
(d) 1050°C in N2	0.027	
(e) 1110°C in N2	0.020	
(f) 1170°C in N2	0.014	

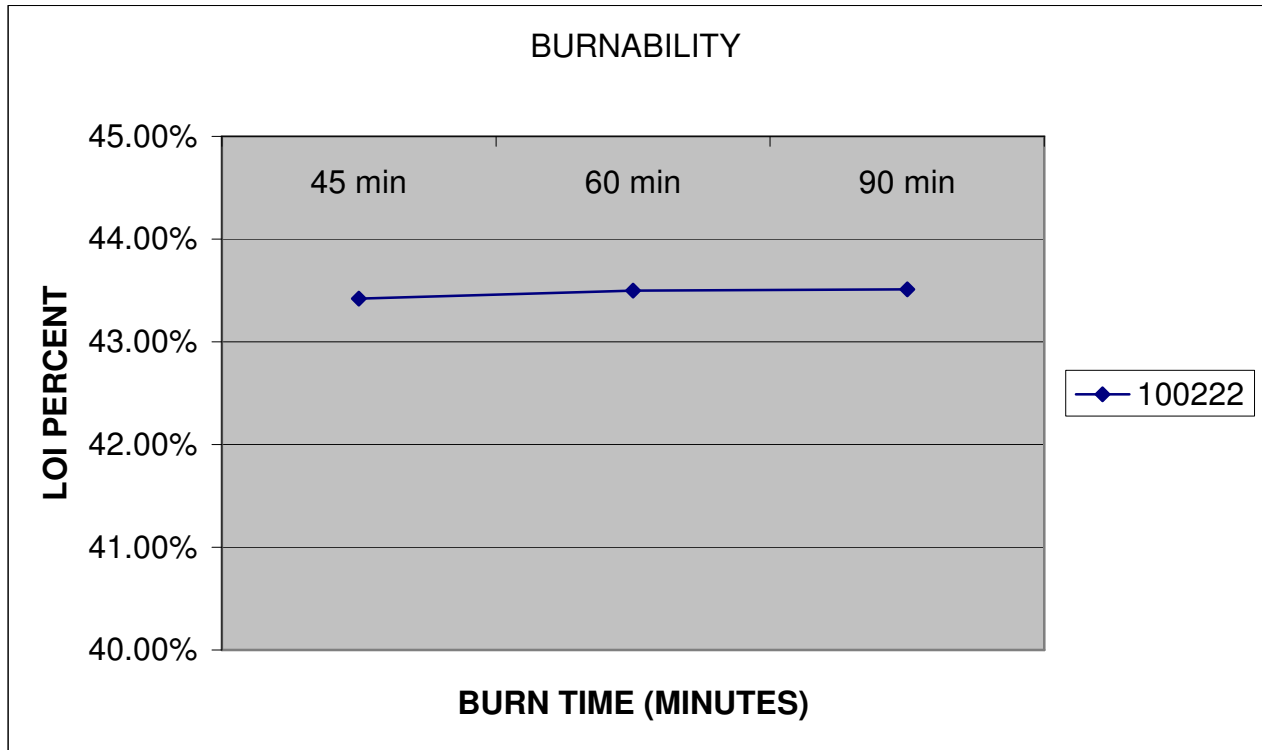


Figure 2: LOI Versus Calcination Time

Lab # 100222		Sample: Chalk				
Temperature (°C)	THERMAL BREAKAGE			MECHANICAL BREAKAGE		
	+ 3/8"	- 3/8" + 6 Mesh	-6 Mesh	+ 3/8"	- 3/8" + 6 Mesh	-6 Mesh
982° C	90.9%	8.0%	1.1%	62.5%	31.5%	6.0%
871° C	89.6%	9.9%	0.5%	66.9%	26.9%	6.2%
760° C	92.8%	6.2%	0.9%	60.8%	32.4%	6.8%
538 C	93.4%	6.3%	0.2%	93.0%	5.7%	1.3%
204 C	94.8%	5.1%	0.1%	92.7%	6.0%	1.3%
Room Temp	X	X	X	87.2%	11.6%	1.2%

Figure 3: Thermal/Mechanical Breakage Summary

ASTM C110 HYDRATION REACTIVITY (SLAKING) TEST
FL Smidth Inc.

Project:	Western Copper Corp.	Sample ID:	60 min.burn @ 982°C
Project Number:			LOI = 43.50%
Date:	30-Jul-10		
Lab Number:	100222	Residue (+200 mesh):	4.3%
		Time for 40°C Rise:	0.07 MIN 4 SEC

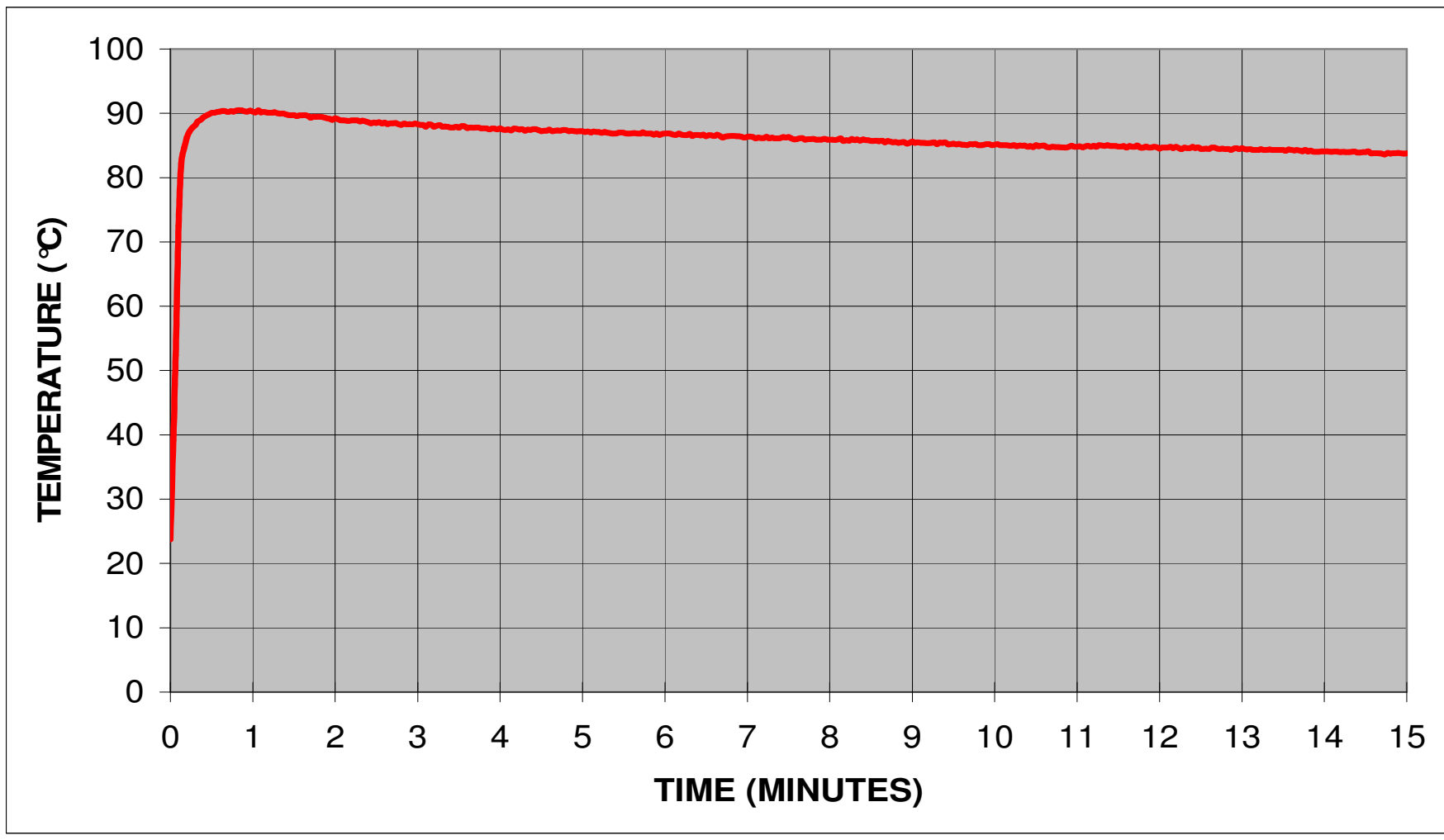
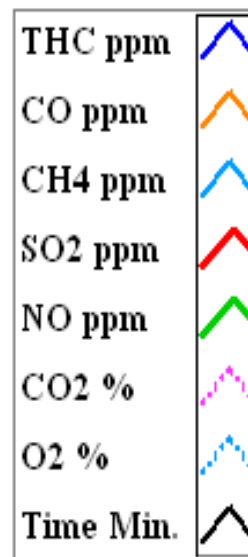
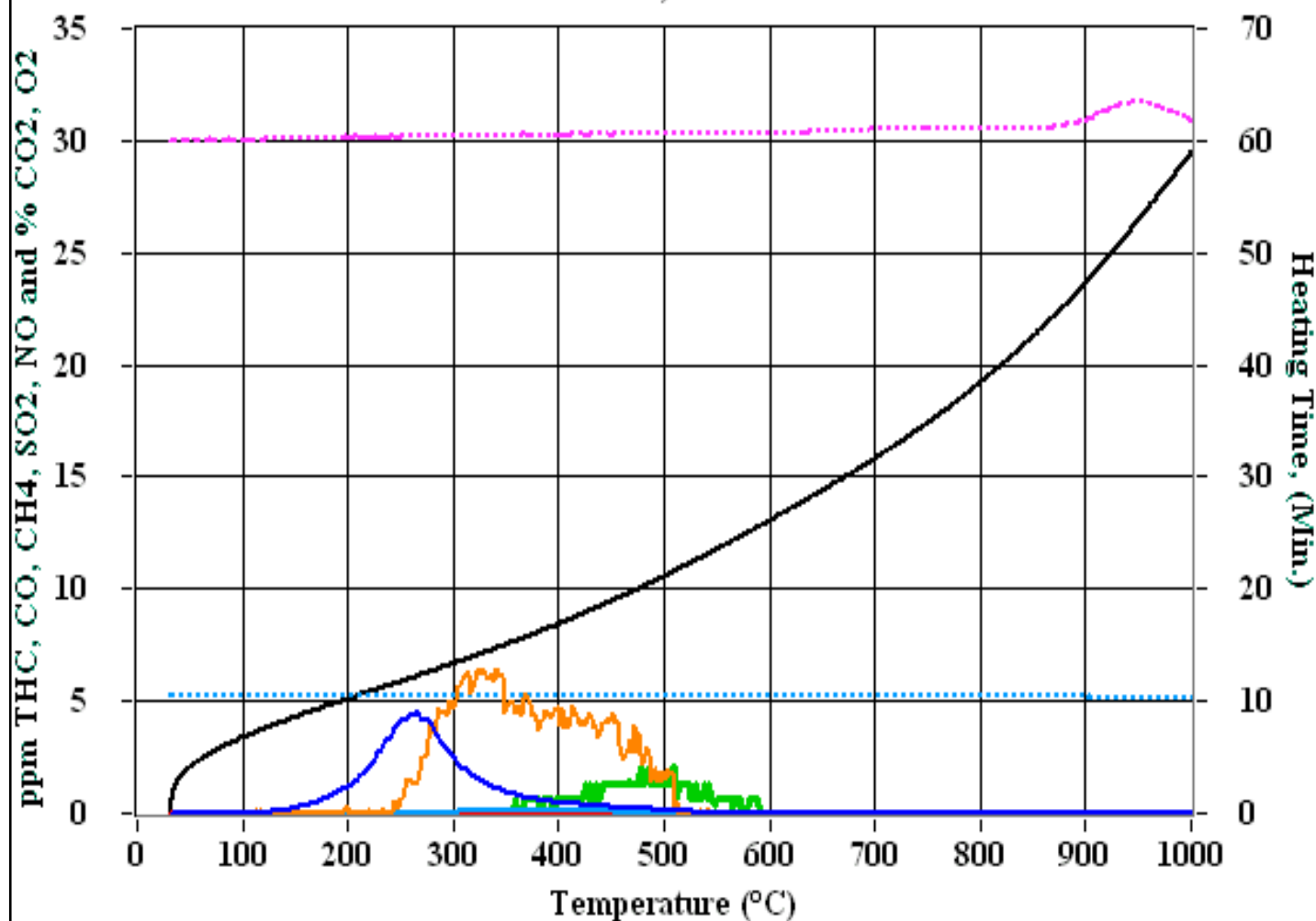


Figure 4: Hydration Reactivity Profile

Western Copper Limestone (Lab# 100222)
Off Gas Test, 07/12/2010



Gas Composition

	%
N2	64.2
CO2	30.7
O2	5.1

Test No.
 Lab Number: 100222
 Sample Weight (g): 3.000
 Gas Flow (SCFH): 10.38

Figure 5: Emission Profile

Table 4: Emission Summary

**Western Copper Limestone (Lab# 100222)
Off Gas Test, 07/12/2010
Summary Table**

	THC ppm	CO ppm	CH4 ppm	SO2 ppm	NO ppm	CO2 %	O2 %
Average	0.276	0.652	0.010	0.000	0.165	30.540	5.188
Peak	4.593	6.410	0.131	0.000	2.037	31.738	5.206
mg/kg feed	4.873E+1	7.311E+1	6.718E-1	0.000E+0	3.035E+1	5.381E+7	6.649E+6

Cumulative mg/kg Feed versus Temperature


	THC	CO	CH4	SO2	NO	CO2	O2
100	1.374E-2	0.000E+0	1.398E-2	0.000E+0	1.480E-2	6.042E+6	7.623E+5
125	8.501E-2	3.755E-2	1.398E-2	0.000E+0	2.540E-2	6.889E+6	8.690E+5
150	4.322E-1	7.073E-2	1.398E-2	0.000E+0	5.056E-2	7.667E+6	9.669E+5
175	1.476E+0	7.969E-2	1.398E-2	0.000E+0	6.918E-2	8.399E+6	1.059E+6
200	3.679E+0	1.687E-1	1.398E-2	0.000E+0	8.478E-2	9.109E+6	1.148E+6
225	7.832E+0	1.920E-1	1.398E-2	0.000E+0	9.394E-2	9.811E+6	1.236E+6
250	1.570E+1	4.474E-1	1.398E-2	0.000E+0	1.109E-1	1.051E+7	1.324E+6
275	2.586E+1	3.051E+0	1.575E-2	0.000E+0	1.175E-1	1.122E+7	1.413E+6
300	3.362E+1	9.684E+0	4.176E-2	0.000E+0	1.175E-1	1.195E+7	1.504E+6
325	3.826E+1	1.898E+1	1.049E-1	0.000E+0	1.431E-1	1.270E+7	1.597E+6
350	4.124E+1	2.860E+1	1.932E-1	0.000E+0	1.659E-1	1.347E+7	1.693E+6
375	4.327E+1	3.671E+1	3.028E-1	0.000E+0	1.120E+0	1.428E+7	1.794E+6
400	4.477E+1	4.441E+1	4.149E-1	0.000E+0	2.784E+0	1.513E+7	1.900E+6
425	4.597E+1	5.233E+1	5.271E-1	0.000E+0	4.975E+0	1.602E+7	2.012E+6
450	4.693E+1	6.019E+1	6.144E-1	0.000E+0	8.482E+0	1.695E+7	2.128E+6
475	4.771E+1	6.695E+1	6.630E-1	0.000E+0	1.314E+1	1.795E+7	2.252E+6
500	4.827E+1	7.152E+1	6.718E-1	0.000E+0	1.838E+1	1.897E+7	2.380E+6
525	4.861E+1	7.302E+1	6.718E-1	0.000E+0	2.343E+1	2.005E+7	2.515E+6
550	4.873E+1	7.311E+1	6.718E-1	0.000E+0	2.647E+1	2.114E+7	2.652E+6
575	4.873E+1	7.311E+1	6.718E-1	0.000E+0	2.867E+1	2.229E+7	2.795E+6
600	4.873E+1	7.311E+1	6.718E-1	0.000E+0	2.977E+1	2.346E+7	2.941E+6
625	4.873E+1	7.311E+1	6.718E-1	0.000E+0	2.980E+1	2.466E+7	3.091E+6
650	4.873E+1	7.311E+1	6.718E-1	0.000E+0	2.983E+1	2.588E+7	3.243E+6
675	4.873E+1	7.311E+1	6.718E-1	0.000E+0	2.985E+1	2.715E+7	3.401E+6
700	4.873E+1	7.311E+1	6.718E-1	0.000E+0	2.985E+1	2.847E+7	3.565E+6
725	4.873E+1	7.311E+1	6.718E-1	0.000E+0	2.987E+1	2.988E+7	3.739E+6
750	4.873E+1	7.311E+1	6.718E-1	0.000E+0	2.989E+1	3.137E+7	3.923E+6
775	4.873E+1	7.311E+1	6.718E-1	0.000E+0	2.993E+1	3.296E+7	4.120E+6
800	4.873E+1	7.311E+1	6.718E-1	0.000E+0	2.999E+1	3.466E+7	4.330E+6
825	4.873E+1	7.311E+1	6.718E-1	0.000E+0	3.005E+1	3.645E+7	4.553E+6
850	4.873E+1	7.311E+1	6.718E-1	0.000E+0	3.010E+1	3.838E+7	4.792E+6
875	4.873E+1	7.311E+1	6.718E-1	0.000E+0	3.014E+1	4.045E+7	5.049E+6
900	4.873E+1	7.311E+1	6.718E-1	0.000E+0	3.018E+1	4.272E+7	5.327E+6
925	4.873E+1	7.311E+1	6.718E-1	0.000E+0	3.019E+1	4.527E+7	5.635E+6
950	4.873E+1	7.311E+1	6.718E-1	0.000E+0	3.022E+1	4.796E+7	5.952E+6
975	4.873E+1	7.311E+1	6.718E-1	0.000E+0	3.026E+1	5.076E+7	6.281E+6
1000	4.873E+1	7.311E+1	6.718E-1	0.000E+0	3.033E+1	5.354E+7	6.615E+6
1002.3	4.873E+1	7.311E+1	6.718E-1	0.000E+0	3.035E+1	5.381E+7	6.649E+6

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