

# TECHNICAL EXPLORATION AND DEVELOPMENT REPORT

FOR THE PERIOD MAY 1, 2010 – APRIL 5, 2011

## INVESTIGATION OF SHALES - Haslam Formation

PREPARED and SUBMITTED BY David James Napper - FMC #215015

### TITLE PAGE

BC Geological Survey  
Assessment Report  
32300

Relating to **Event Number ID 4851147**, dated April 5, 2011

Claims: Victoria Mining District on Vancouver Island.

602213 – “Paulette” claim – Tenure Owner & Operator – David James Napper

606719 – “Paulette II” claim - Tenure Owner & Operator – David James Napper

619363 - “Paulette III” claim – Tenure Owner– Paulette M. Napper  
Agent & Operator: David James Napper

Consultant: Caracle Creek International Consulting Inc.

Location: centre of area of interest: 48.47.48 N, 123.51.40 W (Crown)

Land owners: Crown, except for a portion of claim 602213, the surface rights of which are owned by Khowutzun Forest Services Ltd., of Duncan, BC

Prepared by: David J. Napper

Submitted: June 27, 2011

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### INTRODUCTION

**Geographic:** Please see map attached showing the three subject claims. These claims are located on Highway 18, the Lake Cowichan Highway, west of Duncan, approximately 4 km west from the Island Highway. The centre of our initial interest is: 48.47.48 N, 123.51.40 W. Access is off Highway 18, at the N. Paldi Road intersection. Travel across the claims using pre-existing logging access roads.

The initial location of interest is a pre-existing open pit located at the coordinates given above.

**Ownership:** Crown, apart from a portion of Claim 602213, which is owned by Khowutzun Forest Services Ltd., of Duncan, BC. History of the property is unknown, although surface re-growth would indicate logging occurred within approximately 10 years. Several drill holes are apparent adjacent to the two open pits found on Claim 602213, but it is not known whether these were to facilitate blasting or exploration.

### Summary of Types of Work:

- 1) A general quantitative survey on the three claims to obtain indications of the greatest shale reserves based on known geological data, and
- 2) Ceramics kiln testing of grab samples taken from across all three claims for expansion potential.

### Conclusions:

- 1) As indicated in the Caracle Creek International Consulting Inc. report attached: “As the west side of claim 606719 appears to be Crown Land and this area appears to have a thick sequence of Haslam Formation (~ 250 m) ***it is concluded that this area holds the best potential for shale extraction on the claims.***”
- 2) Potter’s Ceramics Kiln testing supports that this shale is bloating shale requiring close attention to time and temperature for maximum expansion. Marketability and strength were not determined in this testing.

# TECHNICAL EXPLORATION AND DEVELOPMENT REPORT

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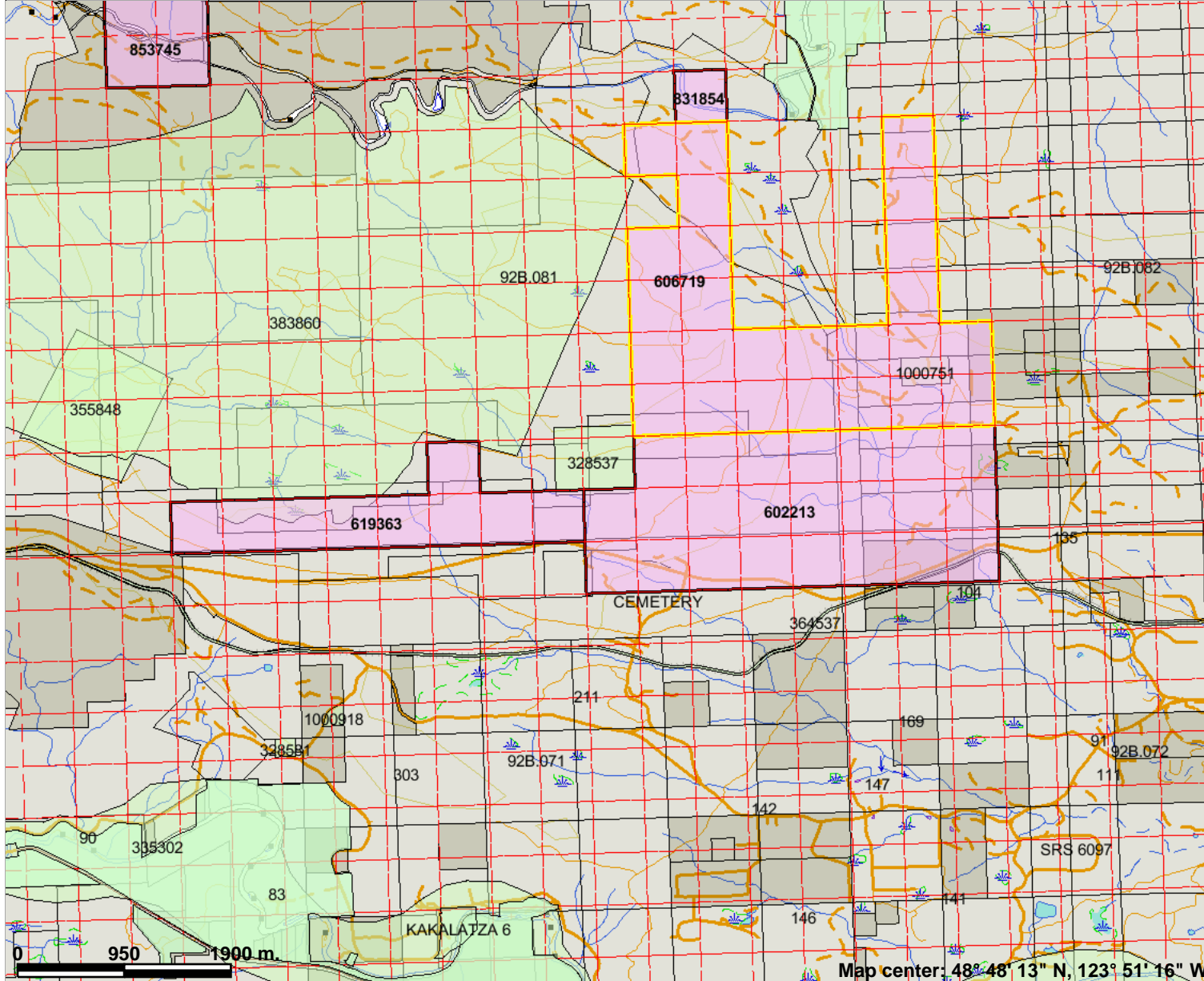
## INVESTIGATION OF SHALES - Haslam Formation

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### SUMMARY OF COSTS

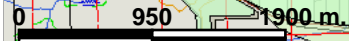
Caracle Creek International Consulting Inc	560.00
Potter, for kiln testing	<u>300.00</u>
Total	<u>860.00</u>

# 3 Shale claims



## Legend

- Indian Reserves
- National Parks
- Conservancy Areas
- Parks
- MTO Grid (MTO)
- Blocked by MEM
- Other
- Mineral Tenure (current)
- Mineral Claim
- Mineral Lease
- Mineral Reserves (current)
- Placer Claim Designation
- Placer Lease Designation
- No Staking Reserve
- Conditional Reserve
- Release Required Reserve
- Surface Restriction
- Recreation Area
- Others
- Survey Parcels
- BCGS Grid
- Contours (1:250K)
- Contour - Index
- Contour - Intermediate
- Area of Exclusion
- Area of Indefinite Contours
- Transportation - Points (TRIM)
- Helipad
- Transportation - Lines (TRIM)
- Airfield
- Airport
- Airstrip



Map center: 48° 48' 13" N, 123° 51' 16" W



Scale: 1:53,911

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Notes: Area of interest is at centre of this map.



December 17<sup>th</sup>, 2010

**ShaleX Resources Ltd.**  
Attn: David Napper  
6199 Old Kamloops Rd.  
Vernon, BC V1H 1P8

Re: Shale industrial mineral potential on claims #602213, 606719, and 619363

Dear Mr. Napper,

The purpose of this letter is to render an opinion on the amount of shale on the mineral claims #602213, 606719, and 619363 in the Victoria Mining District on Vancouver Island.

Claims 619363 and 602213 can be accessed by a paved road (Hwy 18) which traverses along the southern boundary of these claims. This highway also provides access to a popular recreational lake, Lake Cowichan and development along this road may encounter significant permitting issues. Furthermore these two claims overlie existing privately owned district lots that have surface rights attached and may also have mineral rights. A legal property search will be required to determine what rights these private land owners have. Regardless, any development or exploration activities in these areas will require permission from the land owners and possibly purchase of these properties for work to commence. The eastern third of claim 606719 is also underlain by private property/Crown grants and will have the same issues permitting and land use issues as claims 619363 and 602213.

In this area of Vancouver Island, the dominant shale/argillite bedrock units belong to the Cretaceous Nanaimo Group. The Nanaimo Group is a sequence of sedimentary rocks that records two uplift/subsidence events within the Cretaceous and these have been broken into two pairs of rock formations starting with coarse grained clastic sedimentary units (conglomerate and sandstone) which grade into fine grained clastic units comprised of argillite and shale. The four formations which comprise the Nanaimo Group in this area from oldest (lowest) to youngest (highest) are:

1. Comox Formation ( $K_c$ ) – boulder and pebble conglomerate, sandstone and minor siltstone
2. Haslam Formation ( $K_h$ ) – argillite, siltstone, shale and minor sandstone,
3. Extension-Protection Formation ( $K_e$ ) – boulder and pebble conglomerate and sandstone,
4. Cedar District Formation ( $K_{cd}$ ) – argillite and siltstone

The three upper formations (Haslam, Extension-Protection and Cedar District) are recognized by regional mapping to underlie the claims locally (Figure 1; Massey *et al*, 1988 and Massey *et al*, 1987). As the economic focus is shale the Haslam and Cedar District Formations are the main units of concern.



Claim 619363 is almost completely underlain by Jurassic Island Intrusive rocks except for some Haslam Formation occurring on the extreme north and east end of the claims. As the bedding dips moderately northward the shale will thicken northward off of the claim and this claim has limited shale potential.

Claim 602213 is underlain mainly by Haslam Formation however it is at the bottom of a valley and overburden in this area may be thick. Regional mapping indicates there is no outcrop on the eastern two thirds of the claim and the existence of Haslam Formation is entirely based on interpretation.

Claim 606719 is underlain by the three upper most Nanaimo Group formations. Areally, the Haslam Formation is by far the most common bedrock on the claims. It appears as though the upper ~ 250 m of the Haslam Formation exists on the claim below the contact with the Extension-Protection Formation conglomerate units at the top of the hills to the west and east of the claims. As the west side of claim 606719 appears to be Crown Land and this area appears to have a thick sequence of Haslam Formation (~ 250 m) ***it is concluded that this area holds the best potential for shale extraction on the claims.***

Respectfully,

”signed”

Stephen Wetherup,  
BSc. (Hons. Geology), P.Geo (APEGBC, APGO)  
Principal Geoscientist  
Caracle Creek International Consulting Inc.

#### References:

Massey, N.W.D., Friday, S.J., Tercier, P.E. and Potter, T.E., 1987: Geology of the Duncan and Chemainus River Area, NTS 92B/13 and 92C/16E; British Columbia Ministry of Energy and Mines and Petroleum Resources, Geological Survey Branch, Open File 1988-8, Map.

Massey, N.W.D., and Friday, S.J., 1988: Geology of the Chemainus River-Duncan Area, Vancouver Island (92C/16 and 92B/13); British Columbia Ministry of Energy and Mines and Petroleum Resources, Geological Survey Branch, Geological Field Work, 1987, Paper 1988-1, pages 81 to 91.