

General Nature of Report: Geological & Physical Mapping

Claims: Hob #1, #2, #3, #4 Tenure Numbers 204230, 204231
204232, 204233



(Hobson Horsefly Mine)

Mining Division: Cariboo

NTS 093 A033 (6W)

Latitude 52° 22' N' Longitude 121° 24' W

Owner: J. D. Graham & J. M. Ashton

Operator: J. D. Graham & Associates Ltd.

Author: J. D. Graham, P. Eng.

Date Submitted: Dec 20 2006

GEOLOGICAL SURVEY BRANCH

2006

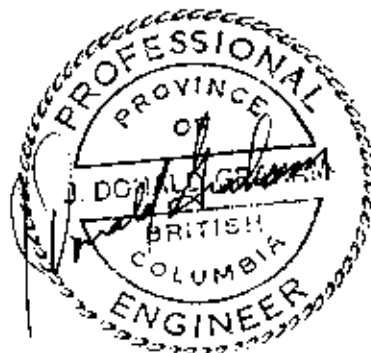


Table of Contents

	<u>Page</u>
Introduction	1
Detailed technical data and interpretation	1
Itemized cost statement	5
Authors qualifications	6

List of Figures

		<u>Following page</u>
Figure 1	Index Map	1
Figure 2	Hobson Pit	Pocket
Figure 3	Outcrop exposed on Horsefly River	3
Figure 4	Hobson Pit Wall	3
Figure 5	Detail of Lower Section, Pit Wall	3

1. Introduction

The subject claims, referred to historically as the Hobson Horsefly Mine, are located near Horsefly, BC, approximately 55 km east of the settlement of 150 Mile House on Highway 97, (See Figure 1). A paved road connects 150 Mile House and Horsefly. The mine is adjacent to the Horsefly - Likely unpaved secondary road, 7.6 km from the centre of Horsefly village. The road is marked "Mitchell Bay Rd." at the north end of Horsefly. A rural power line follows this road, servicing a number of ranches and homes in the area.

The property consists of six claims (Hob #1, Hob #2, Hob #3, Hob #4, Hob #5, and Hob #6 tenure numbers 204230 to 204235) and is owned by J. D. Graham and J. M. Ashton. The Augustine ranch covers a substantial portion of the property. The operator is J. D. Graham & Associates Ltd.. Work covered by this report was confined to claims Hob #1, Hob #2, Hob #3 and Hob #4. The field work commenced on July 24, 2006 and consisted of approximately 20 hours of orientation, reconnaissance, and mapping.

The terrain in this area is moderate rolling timberland, hayfields and rough pasture.

The mine was worked in the 1890's, first by hydraulic means, but the gravels were found to be cemented to the extent that they are considered to be conglomerate. Hydraulic techniques were not effective and the deposit was mined by extensive underground galleries. The ore was processed in a stamp mill. The location of the stamp mill is noted on Figure 2.

The MINFILE report (093A 042) states that "The total recorded production for 1894 to 1899 and 1912 was 238,653 grams of gold". At the date of this report, with gold quoted at US\$650 per troy ounce, this production represents almost US\$ 5 million.

New work documented in this report is a detailed map of the pit showing major features such as the power line and regional road, Hobson pit rim and toe, features in the pit such as standing water and ridges, roads, trails and the caved adit portal, along with mapping of unconsolidated gravels, consolidated sedimentary units, which are exposed only at several sites. Mapping, which covered approximately 20 hectares, was at a scale of 1:1,000.

2. Detailed Technical Data and Interpretation

2.1 Objective

The objective of this field work was:

1. the preparation of a map showing the location of the Hobson pit, both rim and toe, access roads, power line, known portal, Horsefly river and outcrops, and
2. the preparation of cross sections showing exposed geological units.

The map and associated reconnaissance was intended to be used in planning and laying out a future exploration program involving the re-opening of the underground workings.

2.2.1 Geological Setting

The MINFILE description of this deposit notes that "The auriferous gravels are in a calcite cemented conglomerate that overlies Eocene lacustrine (shale and siltstone) sediments." The cemented horizon is reported to have an average thickness of 2.4 metres with a predominance of quartz pebbles with some small fragment of black shale. While the Minister of Mines Annual Report for 1897 states that gold is present from grass roots to the lacustrine sediments, the higher grade portion is a "blue gravel", "2 to 8 feet thick, according to the lie of the bedrock". This blue gravel is probably the cemented horizon noted in the MINFILE report. This Annual Report states that the bedrock dips 12 degrees to the south.

2.2.2 Mapping

Mapping was carried out on the following mineral claims: Hob #1, #2, #3 and #4. Control was provided by a Garmin GPS unit, model no. 12 XL, operated under NAD 83 map datum.

The lacustrine formation (bedrock) was not seen in the face of the open pit, primarily because of sloughing at the toe. It is present in several mounds on the floor of the pit. The attitude of the shale - siltstone is not obvious due to weathering but it is estimated to have a strike of 050 azimuth and a dip of 10 degrees to the south. See Figure 2.

An outcrop of shale and siltstone is present along the Horsefly river at GPS station H-28. See Figure 3. The attitude of the southern portion of the formation seen in this outcrop is strike 055 azimuth and dip 10 degrees south, which is similar to the attitude seen in the pit.

This outcrop shows a transition zone with the southern portion exhibiting the attitude noted above, while the northern portion represents an eroded section of the formation. This northern portion is probably a section that has been eroded by river action, judging from the presence of shale and sandstone fragments intermixed with gravel in a chaotic mixture showing little sorting.

A section of the open pit face approximately 30 metres east of a caved adit was also mapped. This work is illustrated in Figure No. 4. The location of this face is shown in the plan map, Figure 2.

Figure 4 shows the full section of the pit wall, from GPS station H-14 at the top to H-21 at the bottom. Total bank height is 60 metres.

The section is capped by 1 metre of till and organic material. Below this is a 3 to 4 metre section, with a faint rusty colour. It consists of unsorted sandy gravel containing cobbles up to 4 cm. A few weakly cemented lenses are present measuring 1 metre long and 25 to 50 cm. thick.

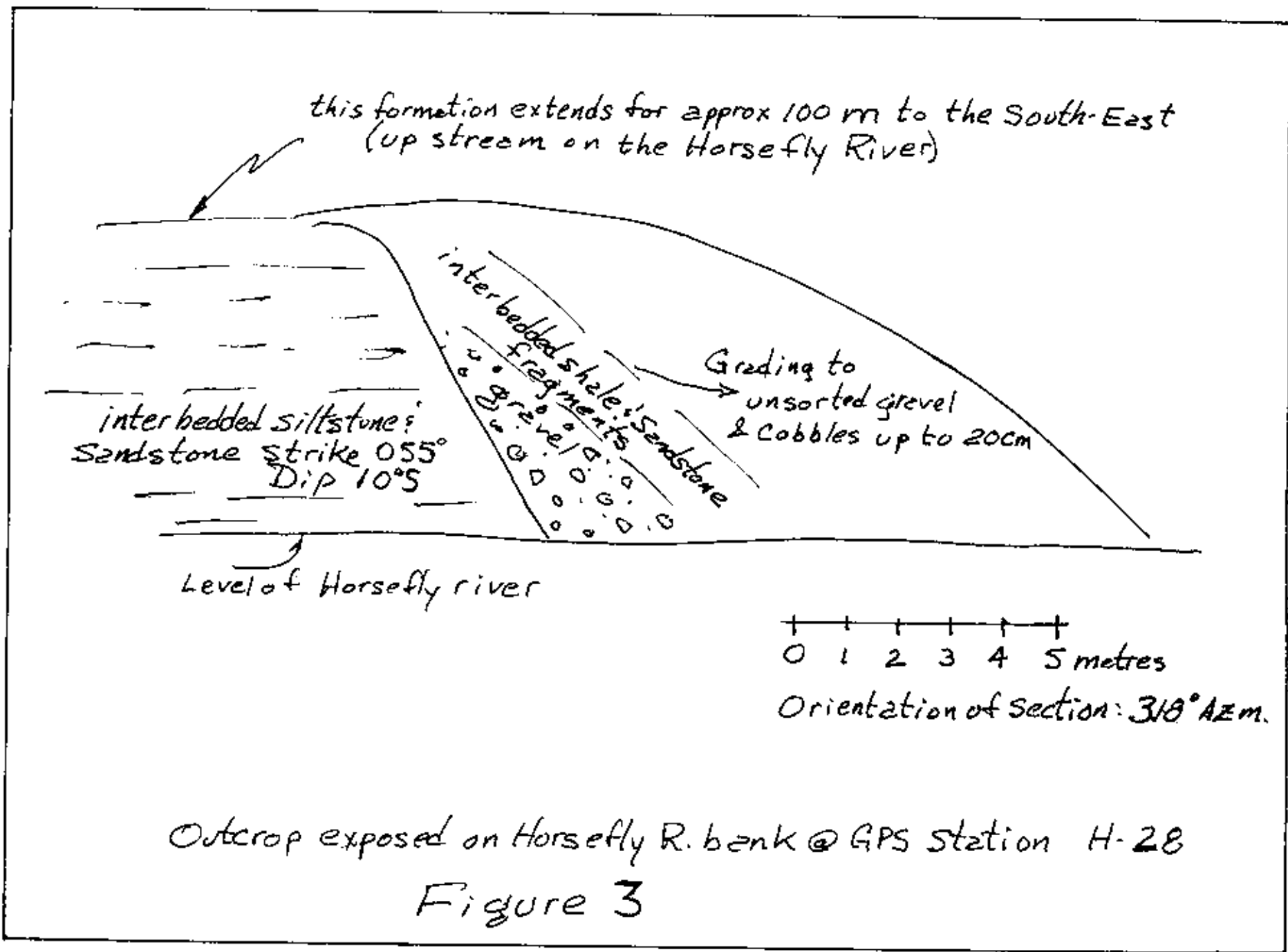
Below this unit, to the pit floor, the pit wall consists of poorly sorted gravel containing cemented lenses and one more or less continuous cemented layer. The lenses represent 15% to 20 % of the bank and usually protrude from the bank. The cemented layer is 60 cm thick and is horizontal. It also protrudes from the more easily eroded bank. Two lenses are exposed 3 metres above the pit wall. The more northerly contains cobbles up to 8 cm in diameter and contains a white mineral, probably an evaporate concentrated at the bottom of the lens. The more southerly lens, "lens #1", contains cobbles up to 18 cm, contains 10% to 20% quartz cobbles and is well cemented. Some sheared cobbles are present.

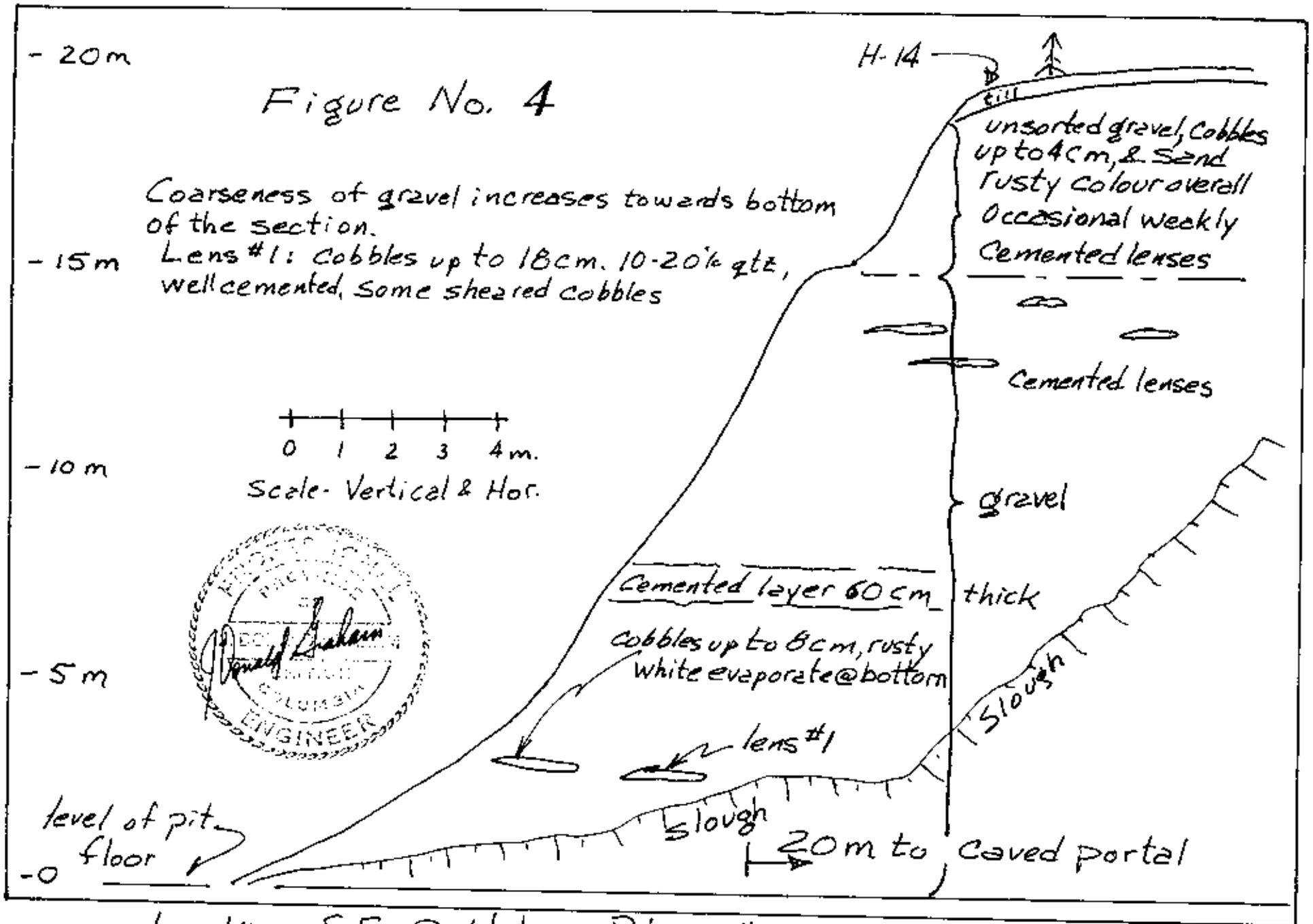
Figure No. 5 shows detail of the sedimentary section at GPS station H-21, ending at an elevation 6 metres above the pit floor. The section is described as follows:

0 metres to 0.5 m slough

0.5 m to 2.5 m portion "A" consisting of well cemented cobbles, some of which are sheared, up to 16 cm in diameter. This portion is probably the strata referred to in the Minister of Mines Annual Report for 1897 as "a band of nearly barren and very hard cement 6 to 10 feet thick."

2.5 m to 3.5 m weakly cemented with a whitish matrix. Poorly sorted. Cobbles up to 40 cm.

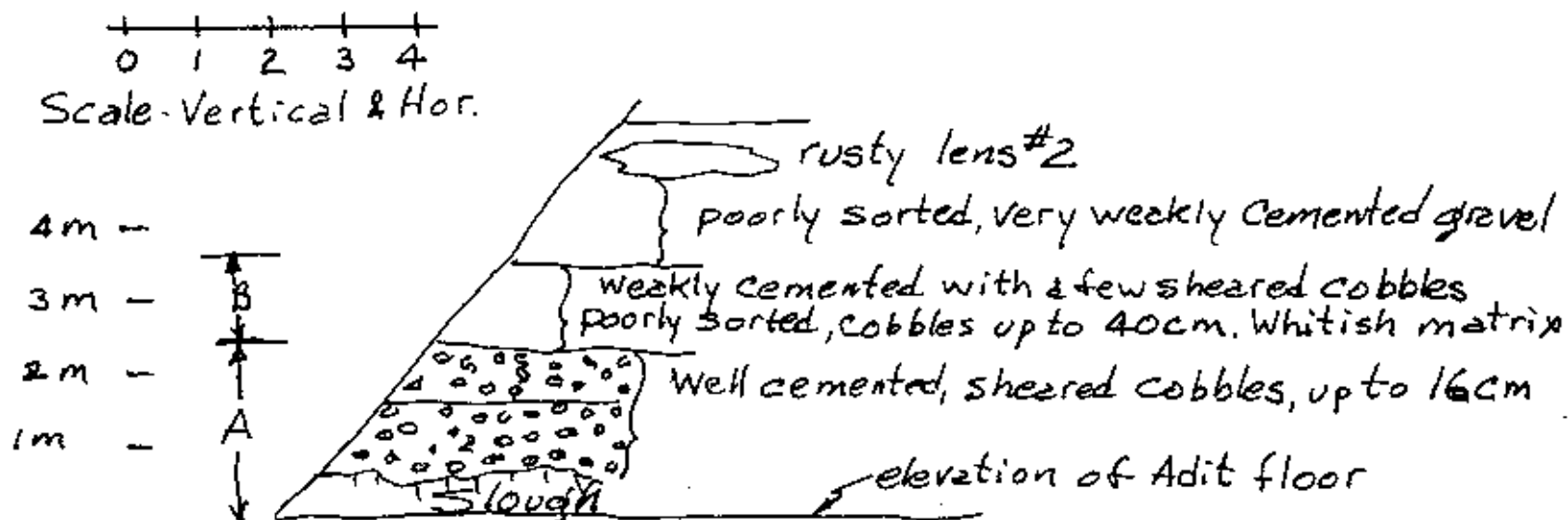




Looking SE. @ Hobson Pit wall

Figure No. 4

Orientation of Section is roughly North-South

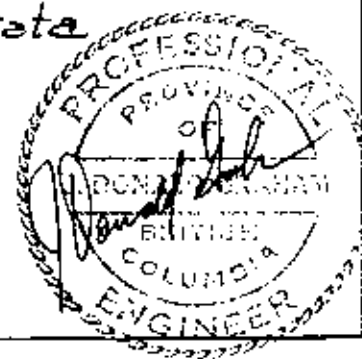


'A' is probably the strata referred to in M. Mines Annual Rpt for 1897 as "a band of nearly barren and very hard cement 6 to 10 feet thick ---"

The gold bearing strata or "blue gravel" lies below the 'A' strata

Detail of lower section @ GPS station H-21

Figure No. 5



3.5 m to 6 m poorly sorted very weakly cemented gravel, occasional lens of moderately cemented gravel.

2.2.3 Test Panning

Several samples taken from the pit walls were panned. No significant gold was found. This result is not surprising considering that the auriferous horizon is at or below the level of the gravels exposed in the pit walls. The auriferous horizon is essentially only exposed in the underground workings.

3. Discussion and Interpretation

The main auriferous horizon is not exposed in the Hobson pit nor along the Hobson river bank. This horizon might be exposed by cleaning off the slough at the toe of the pit wall. Observations did confirm that the sandstone – siltstone, which is reported to underlie the auriferous horizon, does dip to the south at approximately 10 degrees.

Test panning confirmed that the pay zone lies below the sedimentary units exposed in the Hobson pit.

4. Conclusions

The caved adit must be opened up in order to test the auriferous gravels reported to be present at the Hobson Horsefly mine.

5. References

1. Minister of Mines Report, British Columbia for the year 1897.
2. Assessment Report dated October 27, 1998.
3. MINFILE Record Summary 093A 042.

Itemized Cost Statement

1. Travel time from Chemainus to Horsefly, July 24, 2006	\$ 500.
2. July 25, 26, & 27 field work, mapping	\$2,400.
3. Travel time Horsefly to Chemainus	\$ 500.
4. Portions of November 30 & December 4 & 10, report writing	\$1,400.
5. Expenses, food & accommodation	\$ 581.04
4 x 4 vehicle, including gas, insurance & ferry	<u>\$ 1,000</u>
Total	\$6,381.04

Author's Qualifications

I, John Donald Graham, certify that:

1. I am a graduate of the University of British Columbia, holding the following degrees granted by UBC: B. Appl. Sc., Geological Engineering, and M. Appl. Sc., Mining Engineering, and
2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, and
3. I have practiced my profession in the areas of mineral exploration and mine operations continuously since 1964. My qualifications include the technical and managerial aspects of the profession.

BCGS Geology

Mineral Inventory Layers

- ● **ARIS reports by year**
 - 1930 - 1950
 - 1951 - 1970
 - 1971 - 1980
 - 1981 - 1990
 - 1991 - 2000
 - 2001 - 2010
 - All Others

- **ARIS number label**

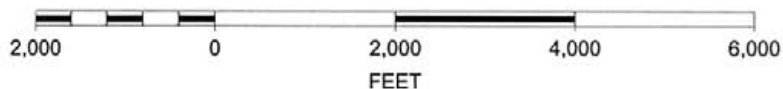
- ⊗ ▲ **MINFILE status**
 - ⊗ Developed Prospect
 - ⊗ Past Producer
 - ⊗ Producer
 - ▲ Prospect
 - ▲ Showing
 - All Others

Mineral Titles Layers

- □ **MTO Mineral Titles Online Polygons**
 - Placer
 - Mineral

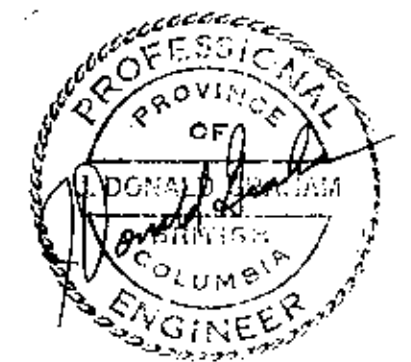
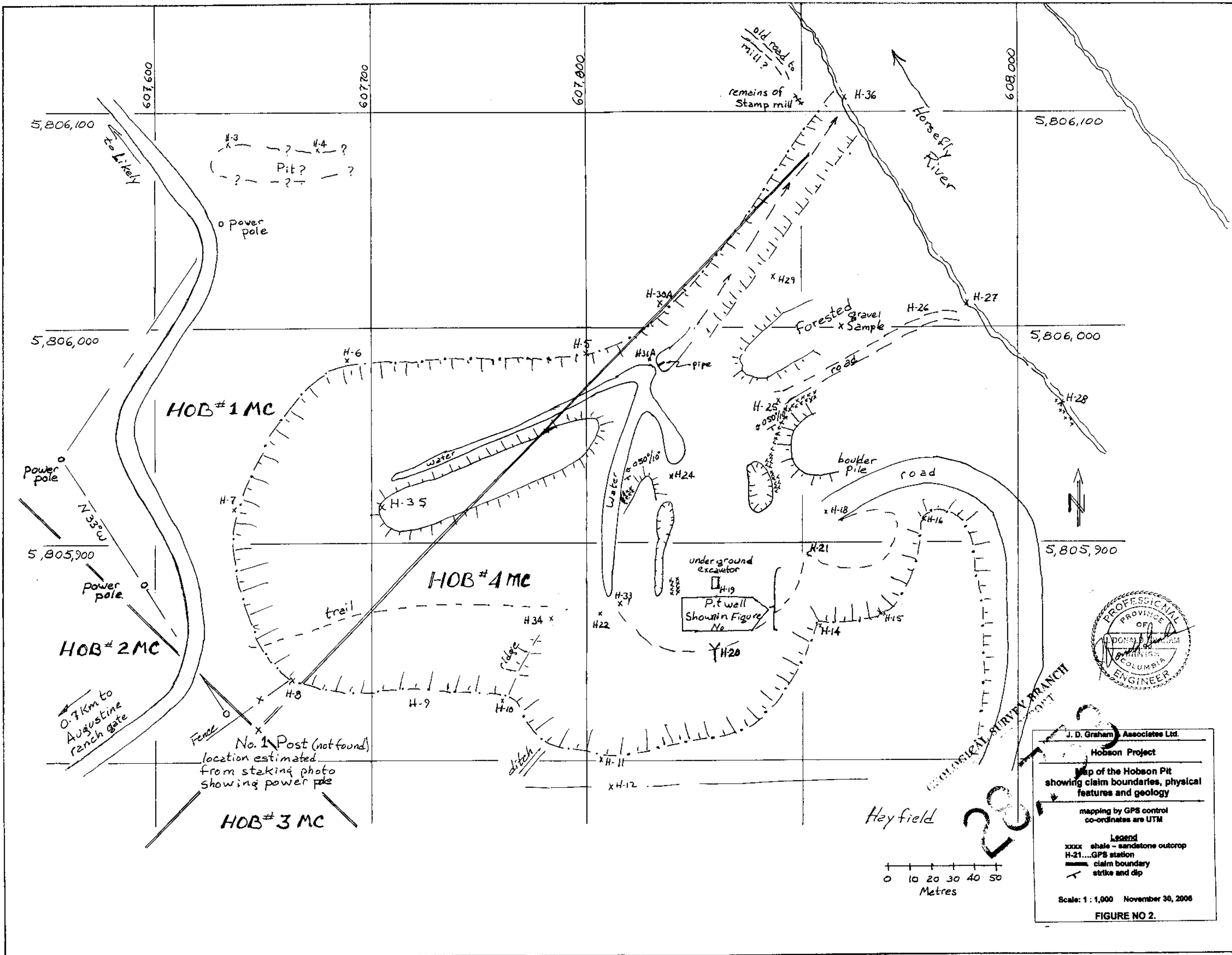


SCALE 1 : 25,660



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J. D. Graham & Associates Ltd.
Hobson Project
 Map of the Hobson Pit showing claim boundaries, physical features and geology
 mapping by GPS control co-ordinates are UTM

Legend
 xxxxx shale - sandstone outcrop
 H-21....GPS station
 --- claim boundary
 / strike and dip

Scale: 1 : 1,000 November 30, 2006
FIGURE NO 2.

2013

0 10 20 30 40 50
 Metres

Hayfield

ORIGINAL SURVEY BRANCH
 DEPARTMENT OF MINES
 BRITISH COLUMBIA

No. 1 Post (not found)
 location estimated
 from staking photo
 showing power pole

underground excavator
 Pit well
 Shown in Figure No

HOB #1 MC

HOB #4 MC

HOB #2 MC

HOB #3 MC

to Lively

0.7 km to
 Augustine
 ranch gate

old road to
 mill?
 remains of
 Stamp mill

Forested
 gravel
 x Sample

underground excavator
 Pit well
 Shown in Figure No

H-3
 H-4
 Pit?
 ?

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