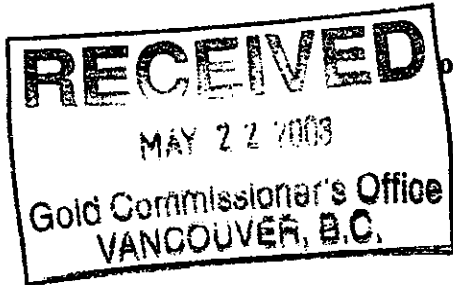


**An Assessment Report from a Field Trip to Nelson, B. C
to Evaluate the Volume**



of the Amorphous Graphite Deposit

in the Area of the

Fortune Graphite Properties

Claims No. Fortune 7 to 18,

in the Nelson Mining Division, B. C.

the specific NTS location

is NTS 82 F 3

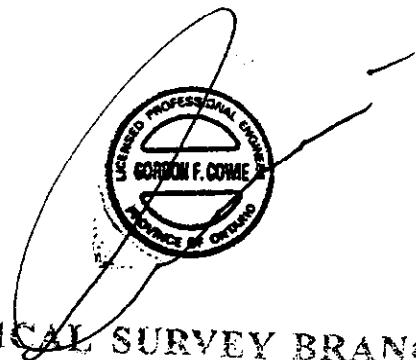
Latitude 49° 08' 23," Longitude 117° 14' 16",

Owner of the Claims: Worldwide Graphite Producers,

Operator- Worldwide Graphite Producers

Author of this report: Gordon F. Cowie, P. Eng,

Date Submitted: October, 2002



**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

27,165

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Introduction,

The purpose of this report, is to describe the work program done during the summer of 2002. That was carried out in-order to account for the total of the work done on the Claims - Fortune 1 to 6, and Fortune 7 to 18. See page 5, plus 5a, 5b and 5c describing the detailed outline of the Claims mentioned, above.

In this instance, the work was done by Horst Klassen, Ms. Diana Wynne Morton and Gordon F. Cowie. We have included here Pages 5, 5a, 5b and 5c which shows the locations of Claims 1 through 6, and also 7 through 18, where the work this work was carried out over the past summer's field season.

These property's geology's are as mapped on page 5c. As the reader will notice, the main rock units are # 7 which are the Laib Formation which carries graphitic matter. Bordering units are no. 6 to the East and 19b to the west. No. 7 - Laib Formation is argillite, argillaceous quartzite, limestone dolomite, phyllite and schist. No. 6 - Reno Formation is argillatious quartzite, schist, argillatious, quartzite, schist, argillite and limestone. No. 5 Quartzite Range Formation is white, green and pinkish quartzite and conglomerate. No. 19b are Nelson Granites.

Mineralization in these Claims is amply discussed in the paragraph above here.

Laboratory analysis's by "Acme Analytical Laboratories Ltd." of Vancouver are included, following on page 6, as the penultimate item with-in the sample listings.

By the application of some credible assumptions, we have made a forecast of the tonnage's of these Amorphous Graphite occurrences. They are as presented on page 7. We have already discussed the assumptions, being that area was overlain by a one meter thick layer of amorphous graphite.

Graphite Reserves expected in the Dump Claims.

This report attempts to predict an Inferred Volume of Graphite Ore present in 12 of those Fortune Claims, numbered 7 to 18 at the dump site in Salmo, B. C. We have done an VLF – EM geo-physical survey of one of the Claims in this group, No. 8, for it to be used for the making of a conservative prediction of the total volume of Graphite ore that can perhaps be found under these Claims.

Our survey, reports Graphite is below several places over the extent of the Claim's surface. Unfortunately, our survey can only suggest that there is Graphite there, but it cannot measure the thickness of that layer.?

A more definitive measure of thickness can only be made by trenching down until we encounter the Graphite layer, and then by piercing down through that layer to measure the thickness at that particular spot. We have guessed those Graphite layers at being as being One Meter in thickness and of 500 M's by 500 M's in area. Such a configuration will yield a sum total of 550,000 tons per claim at 2.2 tons per cubic Meter. These approximations will yield a grand-total of 6,600,000 tons.

Our survey as above described, will be useful in developing an efficient Mining plan which can be used to successfully get the graphite out from being underground. We are presently leaning toward a plan of using Push-Cats to remove the gravel over-burden, this would be, as best we can see, be followed by the work of stripping off the layers of Graphite off with a Front end-loader dumping into trucks for collection at a convenient shipment site.

We believe that the majority of this Graphite deposit just lies there flat, and is composed mostly of several horizontal lying blocks. These geo-physical were carried out from 7th till 12th of October, 2002. After, doing the VMF – EM survey, we had to use a Frazer Filter (this is a numerical manipulation of the data) in order to obtain readings that can then be plotted and perhaps might show up those layer's thickness' too.

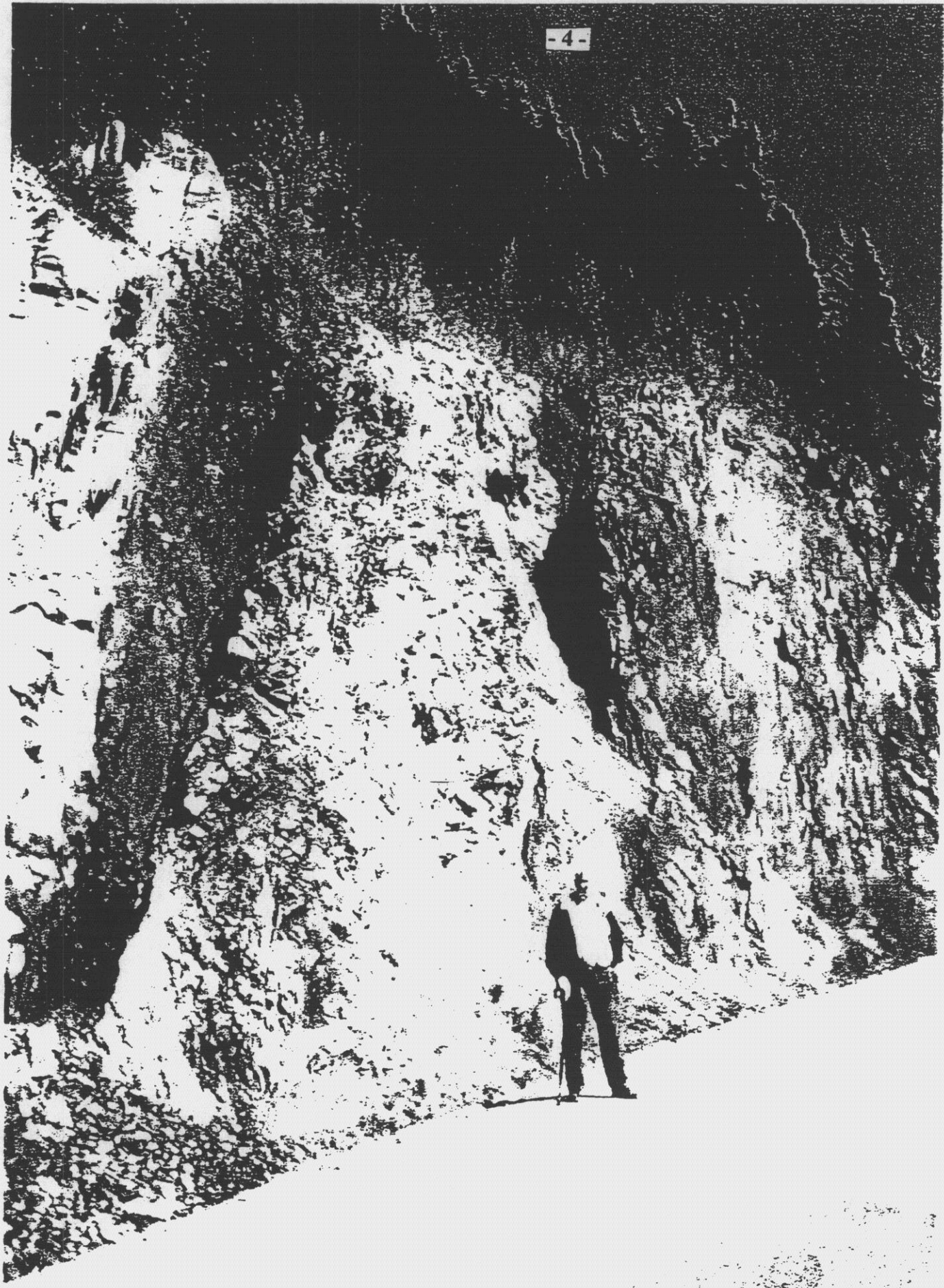
An other deposit of Amorphous Graphite occurs in Claims No's 1 through 6, which lye's across and along the West side of highway No. 3A that runs south and east of Nelson, B. C. along the east side of the Nelson Range. This occurrence presents in two Graphite massive veins, of what we believed to was Graphite. They are each about one Meter wide, by 40 Meters high and they are visible while they cross the road cut, as pictured on page – 4 - Our careful VLF – EM survey was done as pictured on plot A, where they crossed the highway and proceeding up and down, that is, North and South from where the road crosses the veins and show up as black veins. See the plot of these identified as conductors in the described survey. It's extent is described in here, as Plot A. ... 3

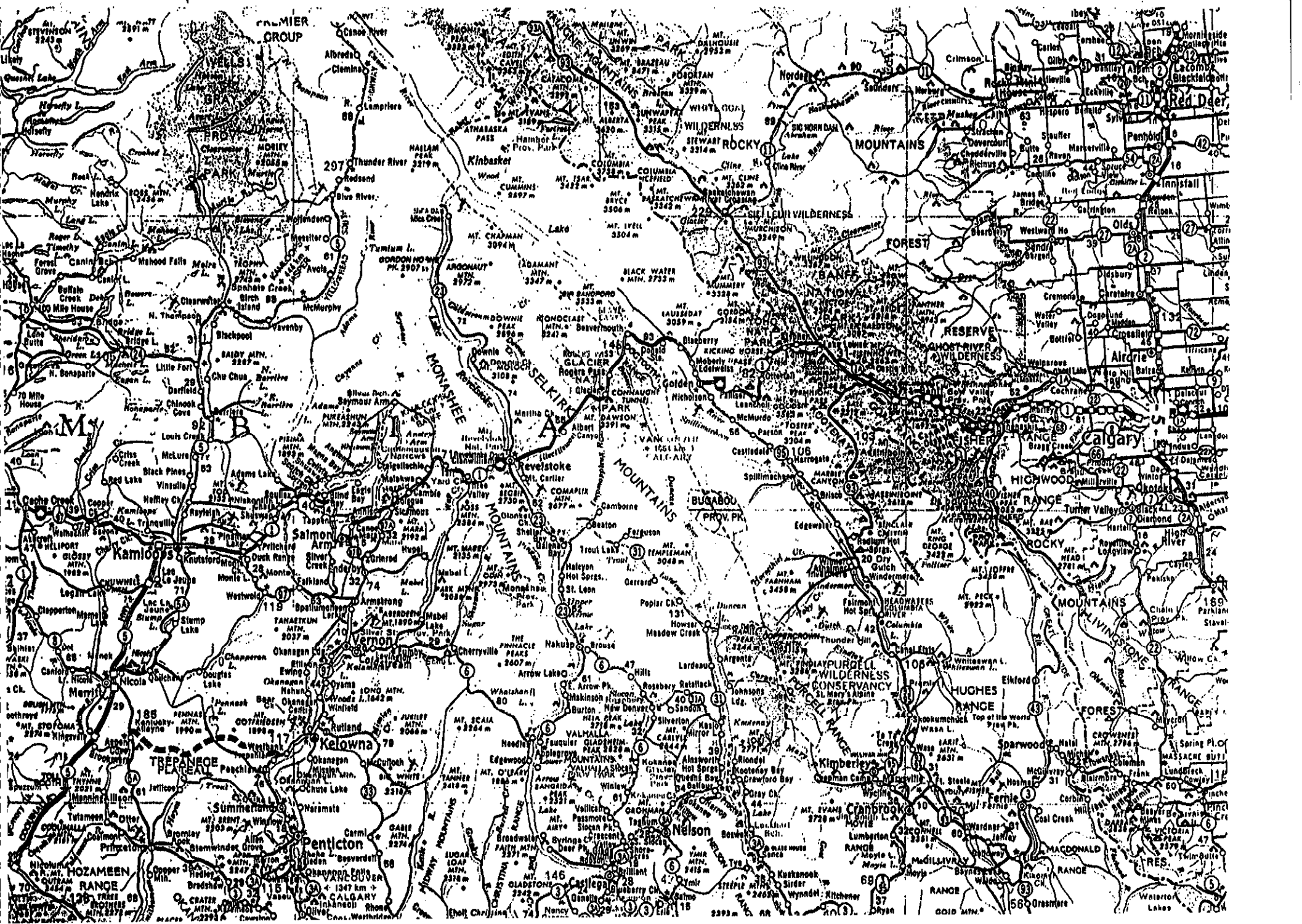
We have summed up, the indicated lengths of these veins in the plots, that comes to a total of 1,690 M's and that translates to a total of 74,000 tones in this small occurrence here. The survey traces the veins up across the westerly hill-side and also down to into the valley south and east of the road side crossing.

This writer here, believes that a small open pit mine would be the most efficient method of recovering any Graphite found in this small deposit. Good access is assured because of this deposit's close proximity to a Provincial Highway. In fact, that circumstance might indicate an unusual cost that would have to be endured for such a mining operation to be done here.

We doubt if B. C. would readily welcome mining operations to be done here, adjacent to a road-way, this as carried on so close, as this ore body is to one of their high-ways.? B. C.'s department of Highways will also require that all blasting be carried out, well away from their traffic way routing. Any haul trucks will looked upon as a hazard, and they might be impeded in gaining access to, and passage along these road-ways. These deposits proximity to the Highway and the very steep terrain make this deposit questionable as an economic target, plus the small amount of inferred ore here, means that this ore body may not be an attractive target for further exploration at this present time. The Dump Claims, or Fortune 7 to 18 will be more economical to operate a mine in.



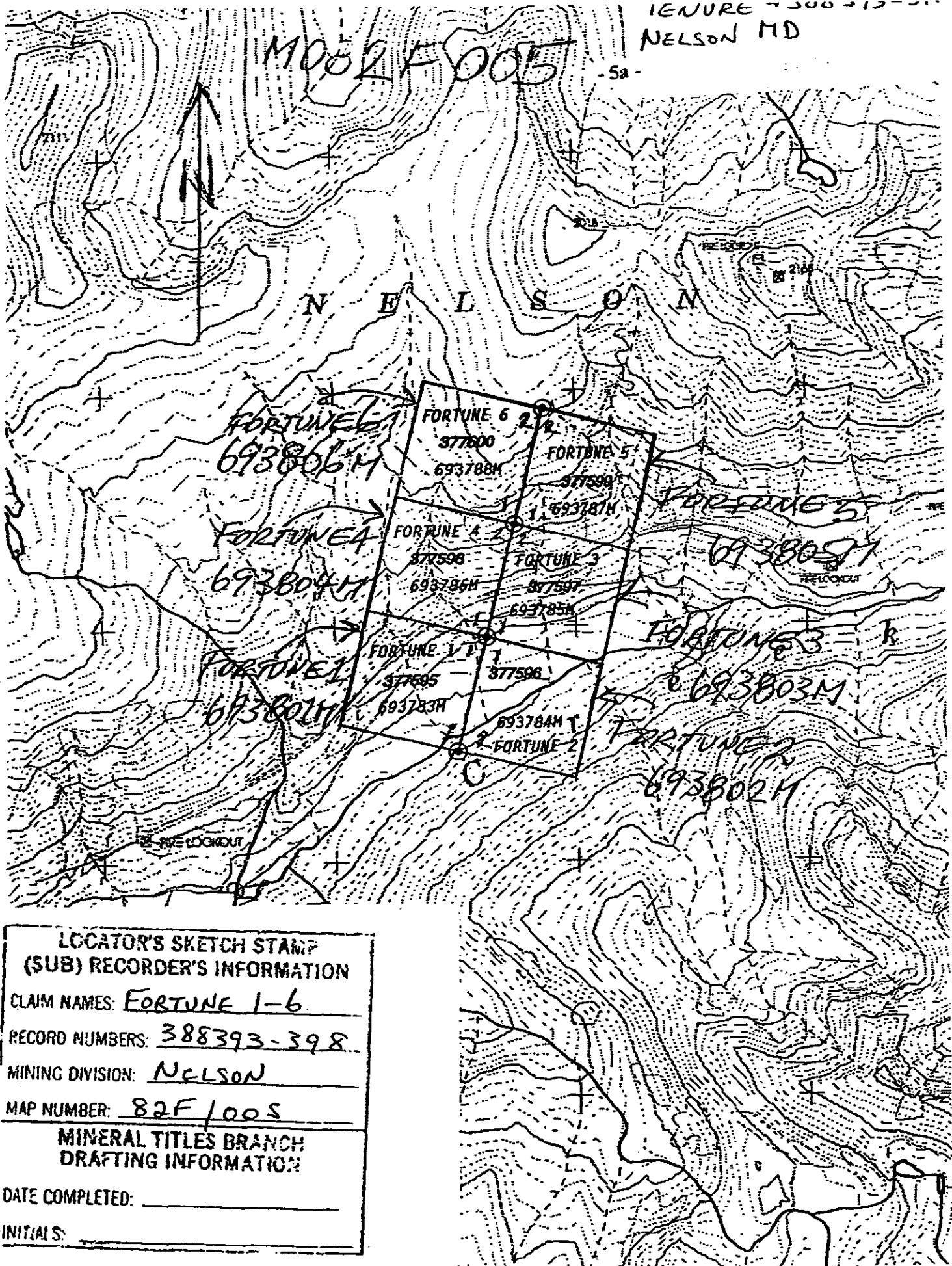




LEADURE 7500-15-11
NELSON MD

MOOZAF 005

-5a-



LOCATOR'S SKETCH STAMP
(SUB) RECORDER'S INFORMATION

CLAIM NAMES: FORTUNE 1-6

RECORD NUMBERS: 388393-398

MINING DIVISION: NELSON

MAP NUMBER: 82F/005

MINERAL TITLES BRANCH
DRAFTING INFORMATION

DATE COMPLETED: _____

INITIALS: _____

- 5a(i) -

492000 E

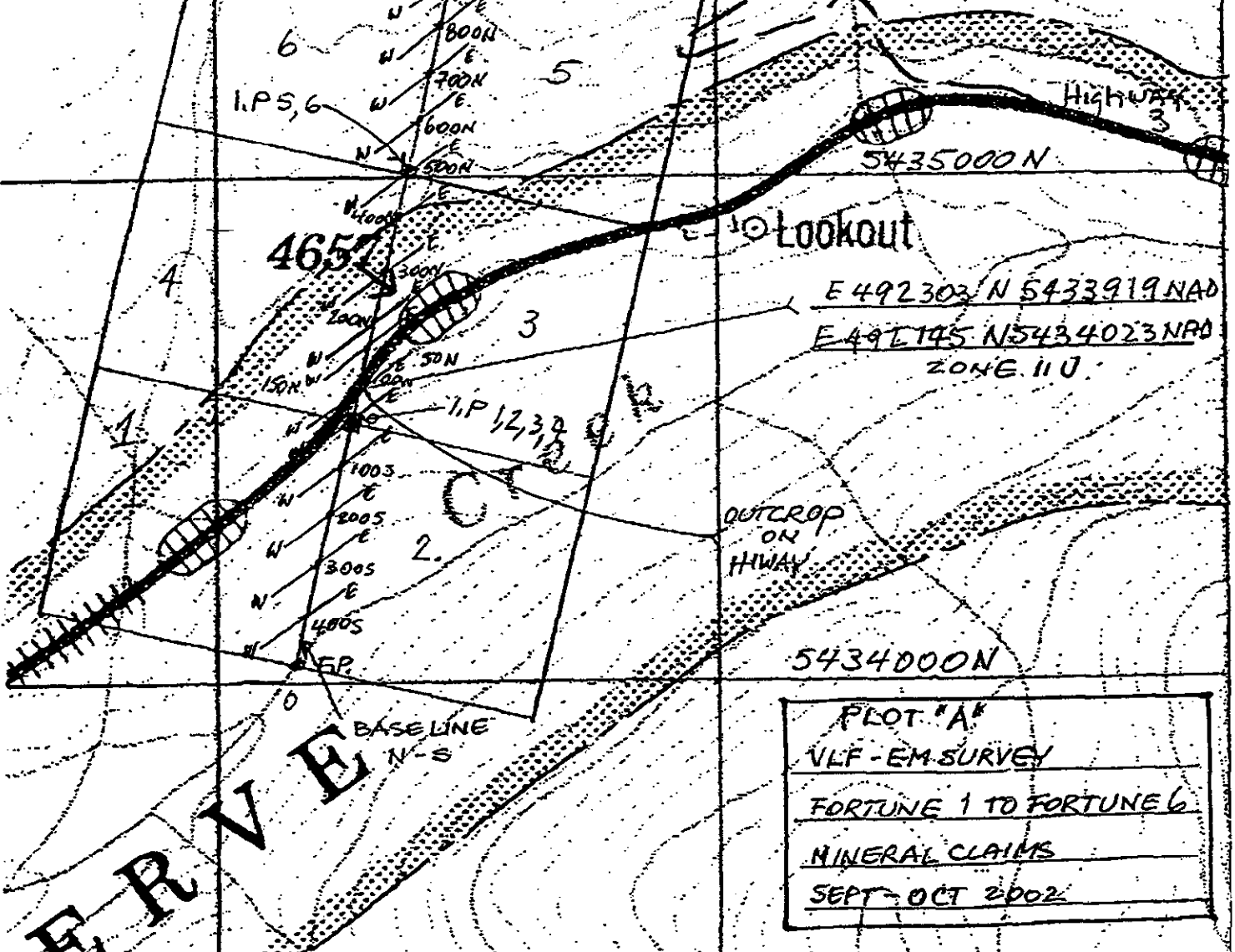
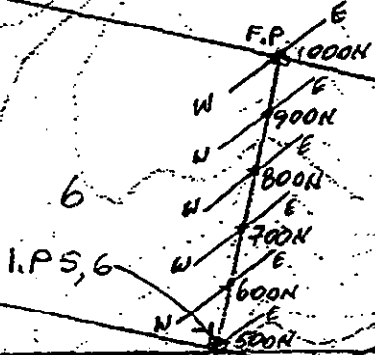
493000 E

NOTE: EACH E-W LINE
HAS 21 STATIONS
SPACED @ 10M
TOTAL STATIONS 336

Lookout Fire

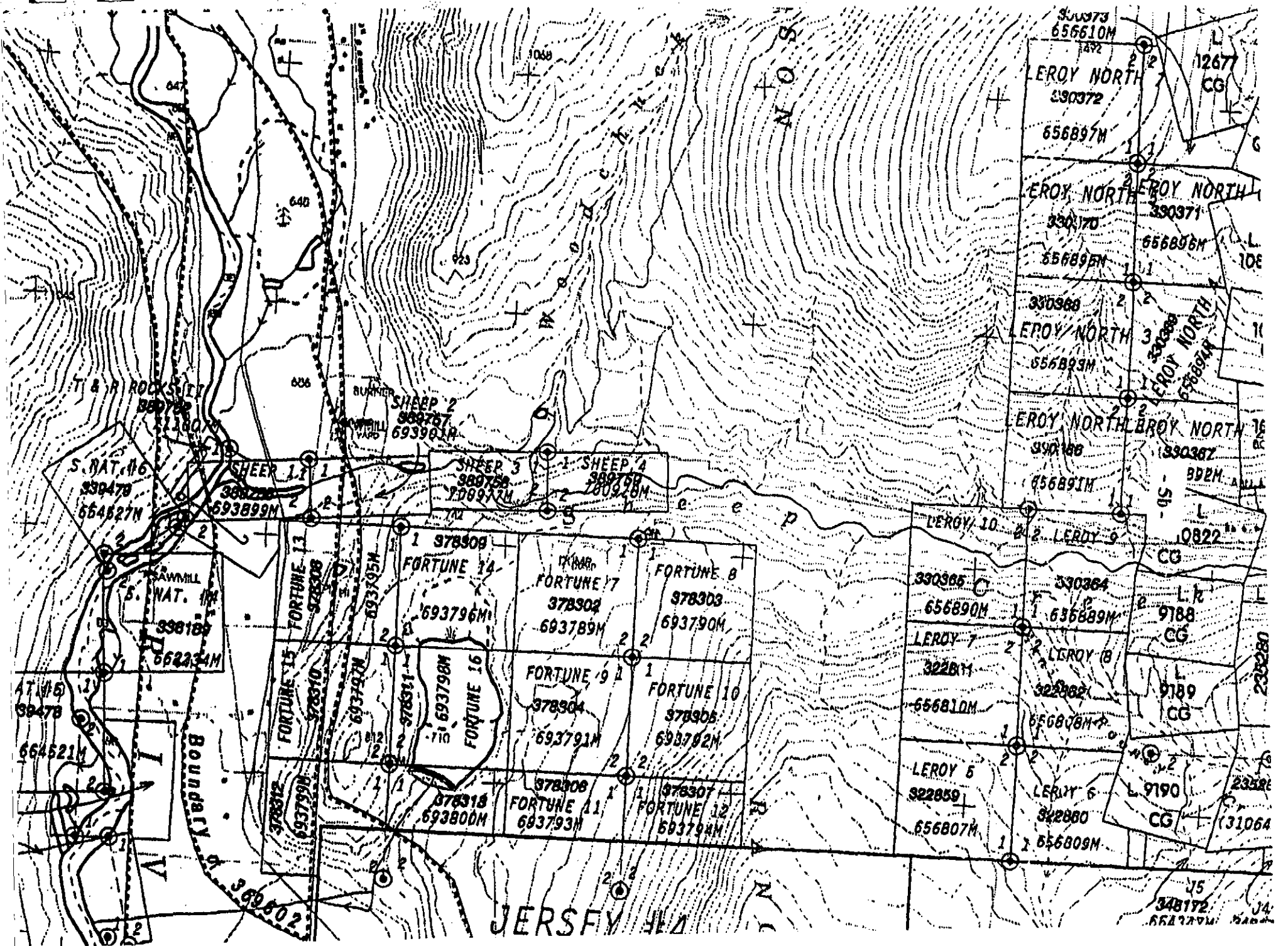
NTS MAP B2F3
NAD 29

FORTUNE 1 TO 6
MINERAL CLAIMS



E 492303 N 5433919 NAD
E 492145 N 5434023 NAD
ZONE 11U

| |
|------------------------|
| PLOT "A" |
| VLF-EM SURVEY |
| FORTUNE 1 TO FORTUNE 6 |
| MINERAL CLAIMS |
| SEPT-OCT 2002 |



T. & P. ROCKS...
S. NAT. #6
390478
654827M

654827M
693899M
390478
654827M

S. NAT. #6
390478
654827M

AT #5
39478
664521M

Boundary

FORTUNE 13
978308
693798M
978312
693798M

FORTUNE 14
978909
693796M
978311
693798M

FORTUNE 15
978308
693793M
978318
693800M

FORTUNE 16
978304
693791M
978308
693793M

FORTUNE 7
978302
693789M
978304
693791M

FORTUNE 8
978303
693790M
978307
693794M

FORTUNE 9
978304
693791M
978308
693793M

FORTUNE 10
978305
693792M
978307
693794M

FORTUNE 11
978308
693793M
978308
693793M

FORTUNE 12
978307
693794M

LEROY 7
322811
656810M
LEROY 5
322859
656807M

LEROY 8
322862
656808M
LEROY 6
322880
656809M

LEROY 9
330384
656890M
LEROY 10
330385
656890M

LEROY 11
9788
CG
LEROY 12
9789
CG
LEROY 13
9790
CG

9788
CG
9789
CG
9790
CG

J5
348172
J4
652279M

| |
|-----------------|
| PLOT "B" |
| VLF-EM SURVEY |
| FORTUNE 7 TO 18 |
| MINERAL CLAIMS |
| SEPT OCT 2002 |

NOTE: EACH EAST-WEST LINE HAS 61 STATIONS

3
6

2168

Burner
Sawmill

POSITION OF
FORTUNE
7, 8 I.P.

NTS MAP

B2F 3

NAD 27

E 0482572

N 5443029

E 0482652

N 5442820

ZONE II U

Sawmill

13

LOCATION OF
GRAPHITE
SAMPLE

14

I.P. FORTUNE 7, 8

I.P. FORTUNE
13, 14

Dump

| | |
|-------|------------|
| 500 W | 100 E 50 |
| 500 W | 100 E 100 |
| 500 W | 100 E 150 |
| 500 W | 100 E 200 |
| 500 W | 100 E 250 |
| 500 W | 100 E 300 |
| 500 W | 100 E 350 |
| 500 W | 100 E 400 |
| 500 W | 100 E 450 |
| 500 W | 100 E 500 |
| 500 W | 100 E 550 |
| 500 W | 100 E 600 |
| 500 W | 100 E 650 |
| 500 W | 100 E 700 |
| 500 W | 100 E 750 |
| 500 W | 100 E 800 |
| 500 W | 100 E 850 |
| 500 W | 100 E 900 |
| 500 W | 100 E 950 |
| 500 W | 100 E 1000 |

I.P.
16, 16

15

16

BASELINE
N-S

SURVEY

5 442 000 N

13 LINE

2010MSE

793 STA

9

10

I.P.
17, 18

I.P.
11, 12

17

18

11

12

I.P. 17, 18

FP 9, 10

2081

481000E

482000E



| UNIT # | |
|--------|-------------------------|
| 7 | LAIB FORM. |
| 6 | RENO FORM |
| 5 | QUARTZITE RGE FORMATION |
| (B) | FOSSILS |
| 196 | NEON PLUTONIC ROCKS |
| * | MICROWAVE TOWER |

190

191

192

193

194

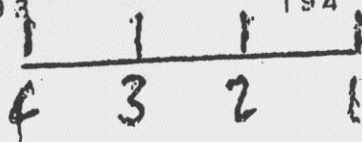
195

49°00'

15'



KM



MILES

117°00'

-5c-

FROM : HORST KLASSEN SALMO BC

PHONE NO. : 2503552839

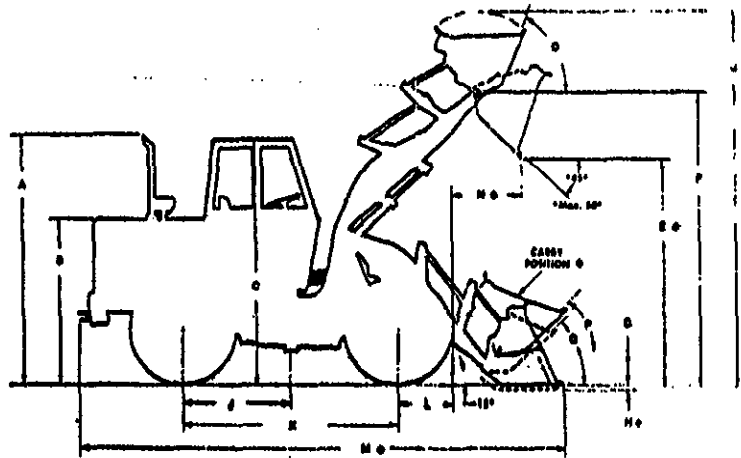
Jun. 15 2003 11:50PM F

MAPPING BRANCH

Wheel Loaders

910-950B Dimensions

• With GP Bucket



◆ Varies with Bucket Size —
Refer to Performance Data.

| MODEL: | 910 | | 910 High Lift | | 920 | | 930 | | 950B | |
|---------------------------------------|---------------------------------------|----------------------|---------------------------------------|----------------------|--|----------------------|--|----------------------|---------------------------------------|---------------------|
| | General Purpose 1.0 m ³ | 1.25 yd ³ | General Purpose 1.0 m ³ | 1.25 yd ³ | General Purpose 1.34 m ³ | 1.75 yd ³ | General Purpose 1.72 m ³ | 2.25 yd ³ | General Purpose 2.4 m ³ | 3.0 yd ³ |
| A Height to top of stack | 2.73 m | 8'11" | 2.73 m | 8'11" | 3.10 m | 10'3" | 3.20 m | 10'6" | 3.220 m | 10'7" |
| B Height to top of engine compartment | 1.82 m | 6'0" | 1.82 m | 6'0" | 2.01 m | 6'7" | 2.07 m | 6'9" | 2.265 m | 7'5" |
| C Height to top of ROPS | 3.02 m | 9'11" | 3.02 m | 9'11" | 3.05 m | 10'0" | 3.14 m | 10'3.5" | 3.470 m | 11'5" |
| D Hinge pin height at carry position | 400 mm | 15.8" | 493 mm | 19.4" | 370 mm | 14.5" | 378 mm | 14.8" | 508 mm | 20" |
| E Minimum dump clearance at full lift | 2.44 m | 8'0" | 2.692 m | 8'10" | 2.74 m | 9'0" | 2.79 m | 9'2" | 2.900 m | 9'6" |
| F Hinge pin height at full lift | 3.05 m | 10'1" | 3.33 m | 10'11" | 3.55 m | 11'7" | 3.65 m | 11'11" | 3.900 m | 12'8.5" |
| G Maximum overall height | 4.08 m | 13'4" | 4.34 m | 14'3" | 4.80 m | 15'0" | 4.83 m | 15'10" | 5.100 m | 16'9" |
| H Maximum digging depth | 79 mm | 3.1" | 114 mm | 4.5" | 86 mm | 2.8" | 85 mm | 3.4" | 75 mm | 2.95" |
| J Machine center point to rear axle | 1.17 m | 3'10" | 1.17 m | 3'10" | 1.27 m | 4'2" | 1.37 m | 4'4" | 1.560 m | 5'2.6" |
| K Wheelbase | 2.34 m | 7'8" | 2.34 m | 7'8" | 2.54 m | 8'4" | 2.75 m | 9'0" | 3.180 m | 10'5" |
| L Radius of wheel | 635 mm | 25" | 635 mm | 25" | 640 mm | 25.2" | 660 mm | 23.75" | 780 mm | 29.4" |
| M Maximum overall length | 5.74 m | 18'11" | 6.05 m | 19'10" | 5.9 m | 19'5" | 6.27 m | 20'7" | 7.244 m | 23'9" |
| N Reach at full lift | 885 mm | 34.8" | 917 mm | 36.1" | 762 mm | 30" | 860 mm | 33.9" | 1,040 mm | 3'5" |
| O Maximum rollback at maximum lift | 61° | | 64.3° | | 65° | | 65° | | 69° | |
| P Maximum rollback at carry height | 45.8° | | 45° | | 44° | | 45° | | 45° | |
| Q Maximum rollback at ground | 39° | | 39° | | 39° | | 40° | | 40° | |
| Ground clearance | 406 mm | 16" | 406 mm | 16" | 335 mm | 13.2" | 335 mm | 13.5" | 427 mm | 16.8" |
| Tread width | 1.85 m | 6'5" | 1.73 m | 5'8" | 1.85 m | 6'1" | 1.93 m | 6'4" | 2,090 mm | 6'10" |
| Width over tires | 2.03 m | 6'10" | 2.14 m | 7'1" | 2.26 m | 7'5" | 2.39 m | 7'10" | 2,670 mm | 8'9" |

Summary of Inferred Amorphous Graphite Reserves Deposits found,

| <u>Location</u> | <u>Amount found</u> |
|-------------------------|---------------------|
| 1. Salmo Dump - | 6,600,000 tons |
| 2. Under, Hi-way No. 3A | 77,000 tons |
| 3. | |
| <hr/> | |
| Totals Found | 6,677,000 tons |

Equipment Productivity and Cost Predictions.

Following are copy's from a Caterpillar Performance Handbook of the outputs that can be expected from specific pieces of equipment that might be used to mine and haul the Graphite ore from the various locations where it presents its self. Firstly, on the following page - 8 - is Cat's performance sheet for some of it's various sizes of Push-Cats.that we might use to push-back the layers of gravel over-burden lying over the blocks of Graphite. (See in particular - Plot B at the back of this report)

We have presumed an Average Dozing Distance of about 30 M's using a D9 with a U blade. As the reader will, easily see, this situation will give us an Estimated production of 1,400 Lm³ / hr.

Our calculations presume an average depth of over-burden at 15 ft. or 5 meters of depth. We are basing these volumes on Claim dimensions of 500 m's by 500 m's this will reduce to 500 x 500 x 5 = 1,250,000 m's or 893 hours, which reduces to 18 hrs per claim. For the 10 claims that, we have to uncover here, we then an indicated need for push Cats for 180 hours, or for say, 2 week for two machines devoted to this work. The replacement of that gravel will require a similar two weeks duration. Estimating, based on an hourly rental rate of \$ 200.00 per each.

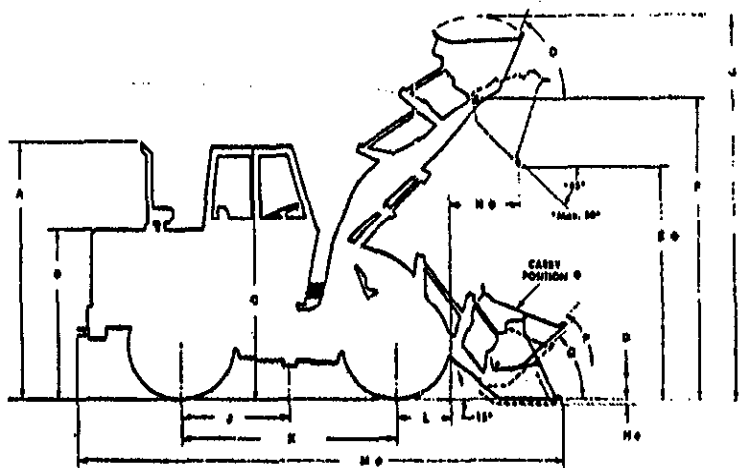
We feel comfortable in predicting total costs based on use of Two Cats removing and replacing gravel for 4 Cat-weeks, for a total cost of say \$ 32,000 dollars.

More duration's predictions follow here for the Time expected to shave off the layers of Graphite and load then into trucks to haul them into a small storage yard in Salme. Based on hourly production figures spelled out on pages 9 - 11, we are forecasting a need for a wheel loader and trucks for say, four weeks, at \$ 4,000 per each totaling \$ 16,000 for this work.

The Total of costs for removing the over-burden are predicted above to came to \$ 32,000, while digging out the blocks of Graphite has been guessed at \$ 16,000. These two totals aggregate \$ 48,000 of over-all costs.

We have not predicted costs to do an open-pit mine for the two-veins crossing Highway # 3A, as we have concluded that the 77,000 M's³ that we believe are contained there, will not pay enough to merit opening this workup and shipping the graphite off for processing.?

Wheel Loaders | **910-950B Dimensions**
 • With GP Bucket



◆ Varies with Bucket Size ---
 Refer to Performance Data.

| MODEL: | 910 | | 910 High Lift | | 920 | | 930 | | 950B | |
|---------------------------------------|---------------------------------------|----------------------|---------------------------------------|----------------------|--|----------------------|--|----------------------|---------------------------------------|---------------------|
| | General Purpose 1.0 m ³ | 1.25 yd ³ | General Purpose 1.0 m ³ | 1.25 yd ³ | General Purpose 1.34 m ³ | 1.75 yd ³ | General Purpose 1.72 m ³ | 2.25 yd ³ | General Purpose 2.4 m ³ | 3.0 yd ³ |
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| B Height to top of engine compartment | 1.82 m | 6'0" | 1.82 m | 6'0" | 2.01 m | 6'7" | 2.07 m | 6'9" | 2.285 m | 7'6" |
| C Height to top of ROPS | 3.02 m | 9'11" | 3.02 m | 9'11" | 3.05 m | 10'0" | 3.14 m | 10'3.5" | 3.470 m | 11'5" |
| D Hinge pin height at carry position | 400 mm | 15.6" | 493 mm | 19.4" | 370 mm | 14.5" | 376 mm | 14.8" | 505 mm | 20" |
| E Minimum dump clearance at full lift | 2.44 m | 8'0" | 2.692 m | 8'10" | 2.74 m | 9'0" | 2.79 m | 9'2" | 2.900 m | 9'6" |
| F Hinge pin height at full lift | 3.08 m | 10'1" | 3.33 m | 10'11" | 3.55 m | 11'7" | 3.65 m | 11'11" | 3.900 m | 12'9.5" |
| G Maximum overall height | 4.08 m | 13'4" | 4.34 m | 14'3" | 4.60 m | 15'0" | 4.83 m | 15'10" | 5.100 m | 16'9" |
| H Maximum digging depth | 79 mm | 3.1" | 114 mm | 4.5" | 66 mm | 2.6" | 86 mm | 3.4" | 75 mm | 2.95" |
| J Machine center point to rear axle | 1.17 m | 3'10" | 1.17 m | 3'10" | 1.27 m | 4'2" | 1.37 m | 4'4" | 1.590 m | 5'2.5" |
| K Wheelbase | 2.34 m | 7'8" | 2.34 m | 7'8" | 2.54 m | 8'4" | 2.76 m | 9'0" | 3.180 m | 10'5" |
| L Radius of wheel | 635 mm | 25" | 635 mm | 25" | 640 mm | 25.2" | 680 mm | 26.75" | 750 mm | 29.4" |
| M Maximum overall length | 5.74 m | 18'11" | 6.05 m | 19'10" | 5.9 m | 19'5" | 6.27 m | 20'7" | 7.244 m | 23'9" |
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| O Maximum rollback at maximum lift | 61° | | 64.3° | | 65° | | 65° | | 59° | |
| P Maximum rollback at carry height | 46.6° | | 45° | | 44° | | 45° | | 46° | |
| Q Maximum rollback at ground | 39° | | 39° | | 39° | | 40° | | 40° | |
| Ground clearance | 406 mm | 16" | 406 mm | 16" | 335 mm | 13.2" | 338 mm | 13.5" | 427 mm | 16.8" |
| Tread width | 1.65 m | 5'5" | 1.73 m | 5'8" | 1.85 m | 6'1" | 1.93 m | 6'4" | 2.090 m | 6'10" |
| Width over tires | 2.03 m | 6'10" | 2.14 m | 7'1" | 2.26 m | 7'5" | 2.39 m | 7'10" | 2.670 m | 8'9" |

Z-bar linkage on 950B

Machine Selection | Wheel Loaders

| <i>Loose Material Size</i> | <i>Fill factor</i> |
|--|--------------------|
| Mixed moist aggregates | 95-100% |
| Uniform aggregates up to 3 mm (1/8") ... | 95-100% |
| 3 mm (1/8") to 9 mm (3/8") | 90- 95% |
| 12 mm (1/2") to 20 mm (3/4") | 85- 90% |
| 24 mm (1") and over | 85- 90% |

| <i>Blasted Material</i> | |
|-------------------------|---------|
| Well blasted | 80- 85% |
| Average | 75- 80% |
| Poorly blasted* | 60- 65% |

*with slabs or blocks

NOTE: Fill factors on new Wheel Loaders can be greater than 100% due to improved loadability, buckets and greater rackback angle, plus new Z-bar linkage.

Example:

12 mm (1/2") material and 3 m³ (4 yd³) bucket.
 .90 x 3 m³ = 2.75 Loose m³ delivered per cycle.
 .90 x 4 yd³ = 3.6 Loose yd³ delivered per cycle.

NOTE: Check the static tipping load on the specific machine to determine if bucket load is in fact a safe operating load.

Bucket Selection

$$\text{Tons Required/Cycle} = \frac{\text{Tons Required/Hour}}{\text{Cycles/Hour}}$$

$$\text{Kg (Pounds) Required/Cycle} = \frac{\text{Tons Required/Cycle} \times 907 \text{ kg (2000 lb)}}{1}$$

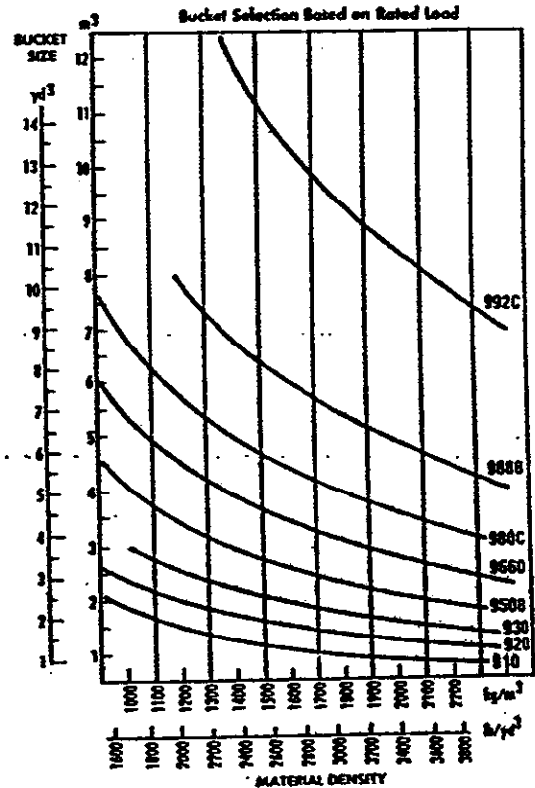
$$\text{Volume Required/Cycle} = \frac{\text{kg (Pounds)/Cycle}}{\text{Material Weight kg/m}^3 \text{ (lb/yd}^3\text{)}}$$

5. Machine Selection

Required machine capacity can be calculated by multiplying the heaped capacity of the bucket selected times the loose density of the material. The following table can then be used to select the proper machine. It indicates recommended capacity of each machine.

RECOMMENDED OPERATING CAPACITY

| | | |
|----------------|-----------|-----------|
| 910 | 1750 kg | 3,750 lb |
| 910 high lift | 1580 kg | 3,430 lb |
| 920 | 2380 kg | 5,250 lb |
| 930 | 3050 kg | 6,750 lb |
| 950B | 4200 kg | 9,250 lb |
| 966D | 5500 kg | 12,100 lb |
| 980C | 7000 kg | 15,400 lb |
| 988B | 9600 kg | 21,200 lb |
| 992C | 18 370 kg | 40,500 lb |
| 992C high lift | 16 330 kg | 36,000 lb |



Wheel Loaders | Machine Selection

CYCLE TIME FACTORS

A basic cycle time (Load, Dump, Maneuver) of .45-.55 minutes is average for an articulated loader (the basic cycle for large loaders, 3 m³ (4 yd³) and up, can be slightly longer), but variations can be anticipated in the field. The following values for many variable elements are based on normal operations. Adding or subtracting any of the variable times will give the total basic cycle time.

| | <i>Minutes added (+) or Subtracted (-) From Basic Cycle</i> |
|--|---|
| Materials | |
| - Mixed | +.02 |
| - Up to 3 mm (1/8") | +.02 |
| - 3 mm (1/8") to 20 mm (3/4") | -.02 |
| - 20 mm (3/4") to 150 mm (6") | .00 |
| - 150 mm (6") and over | +.03 and Up |
| - Bank or broken | +.04 and Up |
| Pile | |
| - Conveyor or Dozer piled 3 m (10') and up | .00 |
| - Conveyor or Dozer piled 3 m (10') or less | +.01 |
| - Dumped by truck | +.02 |
| Miscellaneous | |
| - Common ownership of trucks and loaders | Up to -.04 |
| - Independently owned trucks .. | Up to +.04 |
| - Constant operation | Up to -.04 |
| - Inconsistent operation | Up to +.04 |
| - Small target | Up to +.04 |
| - Fragile target | Up to +.05 |

Using actual job conditions and the above factors, total cycle time can be estimated. Convert total cycle time to cycles per hour.

$$\text{Cycles per hour at } 100\% \text{ Efficiency} = \frac{60 \text{ Min.}}{\text{Total Cycle Time in Minutes}}$$

TRUCK LOADING

Average loader cycle times

| | |
|-----------------|-----------|
| 910-950B | 0.45-0.50 |
| 986D-980C | 0.50-0.55 |
| 988B | 0.55-0.60 |
| 992C | 0.65-0.75 |

3. Required Payload Per Cycle

Required payload per cycle is determined by dividing required hourly production by the number of cycles per hour.

4. Bucket Selection

After required payload per cycle has been calculated, the payload should be divided by the loose cubic yard (meter) material weight to determine number of loose cubic yards (meters) required per cycle.

The bulk of material handled does not weigh 1800 kg/m³ (3000 lb/yd³), so a reasonable knowledge of material weight is necessary for accurate production estimates. The Tables Section has average weight for certain materials when actual weights are not known.

The percentage of rated capacity a bucket carries in various materials is estimated below. The bucket size required to handle the required volume per cycle is found with the aid of the percentage of rated bucket capacity called "Bucket Fill Factor."

The bucket size needed is determined by dividing loose cubic yards (or meters) required per cycle by the bucket fill factor.

$$\text{Bucket size} = \frac{\text{Volume Required/Cycle}}{\text{Bucket Fill Factor}}$$

BUCKET FILL FACTOR

The following indicates the approximate amounts of material as a percent of rated bucket capacity which will actually be delivered per bucket per cycle. This is known as "Bucket Fill factor."

-12-

① We see

Sept. 23rd 2002

Report on the Fortune claims in the Nelson Mining Division.

Location of parking area below the face, where the graphite veins occurs. 11U 0492303 UTM 5433919

We cut out all brush on the steep trail to the rockface, it was heavily overgrown with alder and snowbrush.

Started to dig in to expose the graphite vein on very steep side-hill, we are about 30 to 50 Meters above the highway

We collected five graphite samples on the first vein, but it needs more work to expose the width of the whole vein. The location of the samples are 11U 0492282 UTM 5433967. The samples are taken across the vein because quality varies.

The second vein is buried deeper and needs more work with a pick and shovel. Further up the mountain the veins disappear under the overburden and we will make then an attempt to expose them after the bottom is done.

We went to the claim post below the highway, where the grid for the geo-physical survey starts. The stations along the base-line will be 100 Meters and the cross-line spacing will be 6 Meters to get a good signal signature.

-13-

Sept. 24th 2002

Report on the Fortune claims 1 to 6 in the Nelson Mining Division.

Worked on the Number 1 Vein (West Vein) exposed all of the vein. Collected a further ten samples. The width of this vein is approximately 1.25 Meters (4 feet).

Then, the Number 2 Vein was also exposed and it's width is also 1.25 Meters. But the width of both veins vary and they swell and pinch from about a foot to five feet across. Ten samples were also collected from this vein.

Laid out the Baseline coincident with the claim line. The stations were placed at 100 Meter intervals and the clinometer was used to correct for the steepness of the slope.

We plan on going up to the Slocan early (leave at 5 45am) on Wednesday morning, if weather permits, to climb up the ravine to see if we can find any graphite bands which cross the mountain opposite the Main deposit (Mount Rinda). This is the location which John Rapski and I wanted to reach, but bad weather prevented us from going there.

-14-

Sept. 25th 2002

Report on the prospecting traverse of the Superior Claim Group in the Slocan Mining Division.

We left early and arrived at the bottom of the gully which we climbed up the very steep incline to reach the waterfall and went beyond where we thought the graphite band was. But we only found loose and small pieces of graphite bearing rock indicating that higher up there must be graphite in situ. We searched up the gully for some distance but none could be found in situ.

The highest point reached was at 11U 0445882 UTM 5509106. The altitude was 1785 Meters. On the way down, we came across the LCP of the Mother Superior Claim. We saw no rock which bore any graphite on the way down the slope since we were below the strata which has graphite.

On the way back we stopped at the Lemon Creek Lodge and picked up the Winkie Drill and most of the drill steel and what else belonged to the drill. We told Barry that probably next week the trailer would be picked up by Mikes RV and be moved to Salmo. We contacted Mikes RV and they need at least several days notice, since they have to move many trailers, because people want them from their holiday locations on their lake properties.

The location which we tried to find is further west and along the claim line of the 2-post claims which I originally staked. This makes it necessary that we go up there again, if we want to come across the band which I seen when I staked originally.

-15-

Sept. 26th 2002

An extra six samples were taken from each of the veins, because once snow falls it will be almost impossible to collect more.

The base line to the North was extended to 950 North with stations every 100 Meters and substation intermittently at 50 Meters. The terrain is very steep and it reaches up to 40 degrees of slope. The base line crosses the Highway between 50 and 120 Meters, measured from the IP of the Fortune 3 and 4 claim posts.

The VLF - EM 16 will be used once all the cross lines are in place.

Tomorrow we will bring everything which was left at Lemon Creek Lodge. Dismantle the roof on the trailer and bring the planks and the tarps back, so we can put it over the trailer to protect it from the weight of the snow so it will not collapse.

Also, everything which is stored under the trailer (water hoses and miscallenous.) will be brought to Salmo as well. Then, we can notify Mikes RV to move the trailer, so that we know when it is coming here and we can be present to place it in the back of my property. If needed on the job site than I can haul it from here to the job site.

The Winkie Drill and all steels and accessories will all be at Salmo and be available when needed.

-16-

Sept. 27th 2002

This morning we went to the Lemon Creek Lodge and loaded on all of the remaining equipment and materials.

In order for the trailer to be towed by Mikes RV, we took off the roof structure and also the tarps and loaded these materials and brought them back to Salmo.

We stopped at Mikes RV in Castlegar and gave them our instructions and a sketch of the location in Salmo where to drop off the trailer. We gave the lady (Tracy) your Toronto phone and fax numbers, so that she can get your authorization for moving the trailer.

In Nelson, we went to the Government Agent to register the Koch 12 and 13 Mineral claims, which will join the Superior Group and the Koch Group together for the purpose of distributing the Assessment credits to any of the claim in the whole group.

Tomorrow, we will start with the VFL - EM 16 survey on the Fortune 1 to 6 claims. In order to establish the cross-line spacing we have to take some reading to see how the response of the instrument is.?

If the response is favourable, then we can finish the grid lay-out and then do the rest of the survey.

-17-

Sept. 28th 2002

We went to the property and started to collect data with a VLF - EM 16 survey on Fortune 1 to 6 claims.

Before commencing the survey, we checked for the most suitable submarine signal station. We chose Seattle because of the strengths of the signal and the closeness to the direction to our base-line.

We started with the first line south of the Highway. The station was N 50. The line to the west was 10 of ten Meter stations and to the east was 9 including the 0 station of the base-line.

Then, we went to the north side of the Highway and took the same number of station readings. This line is the N 100 line. After all of the readings were taken we went up the cliff to line N 150.

We took the same number of readings and all data was recorded in the field book.

Upon analysis, it showed that there was a strong conductor along the highway which turned out to be probably a telephone duct.

The first and third line show a small crossover where the veins are but were still influenced by the proximity of the buried duct.

The next lines should get away from this anomaly and should give a more positive indication of the location of the conductive buried body, likely the extension of the graphite veins.

-18-

Sept. 30th 2002

This morning, we went up to the Fortune claim group, when we arrived there was snow on the ground up there and higher up where we worked on Saturday, up to 10 cm of snow. The instrument cannot be used in such conditions because moisture would damage the circuitry.

It is a requirement of the Mines Right Of Way Act that the surface rights holder is notified if any work is done on such a property.

The Regional District of Central Kootenay in Nelson own's the surface rights to the dump. Part of the Fortune 7 to 18 is located on this land. We went in to Nelson to get a copy of the Mineral Title Map from the Government Agent and after that we went to the offices of the Regional District to meet Mr Reinhard Trautmann, who is the Services and Waste Management Supervisor, to give him notice of our work program. He said that we have to send him a formal letter to that effect, and we should have no problems since we won't create any ground disturbance (no power equipment will be used).

Upon returning to Salmo we started to prepare all the samples for shipment. They each have to be split into three parts and numbered and cross-referenced to the map locations. We also transcribed the GPS stations on to the daily report to easily identify the sample locations later.

Tomorrow, if the weather permits, we will go up to the Fortune 1 to 7, otherwise we will start with the grid on the lower claims (Fortune 7 to 18). We wrote and faxed the requested letter by Mr. Trautmann to him this evening.

-19-

Oct. 1st 2002

This morning we went to pick up ten samples from an excavation which was done two years ago. These materials were stored at a site away from the Landfill site. We took ten samples of the best material, we could find, at that time.

These materials were collected by Klassen two years ago when the excavation was done at the dump site to sample for leachate by the RDCK (owners of landfill surface). A week later this pit was filled in with refuse and gravel.

The site staff was notified by their Supervisor Mr. R. Trautmann and they welcomed us to come on to the site and do our work-program.

We went to the filled in pit and took some readings with instrument to see if we had any interference from the electrical fence which is around the site to keep bears out. There was no noticable interference, so we proceeded with the layout of the base-line for the grid. We spaced the stations 100 Meters along the baseline with substation at 25 Meters. A total of 21 stations were marked today. Also, at each of the stations, reading were taken with the VLF - EM.

Tomorrow, we will be working on the Fortune 1 to 7 because the weather turned warmer and the snow should be gone below the Highway were we plan on taking the VLF - EM readings.

Oct. 2nd 2002

This morning, we went up to the Fortune 1 to 7 claims and started taking readings with VFL - EM on the south and lower side of the Highway. The lines along the base-line were extended to the east and west.

Lines 0, 100 S, 200 S, 300 S, and 400 S all extend ten stations to the east and west and are each at 10 Meter intervals.

Line 0 is below the Highway and on very steep terrain. Line 100 south is along an old logging road which is grown over with dense young alders. As we went down, the slope decreased to almost flat, and mature old-growth forest prevailed.

The VLF - EM readings were all of good quality and were all entered in the field book. Once, all reading are taken, then they will have to be processed to see if there are any conductors indicated, this may show the possibility of the down hill continuation of the graphite veins.

We hope that we can continue tomorrow on the upper side of the Highway, since we may have only a few more days of good weather. The next snowfall could be so large that we might not be able to take any readings because the terrain is consistently too steep.

-21-

Oct. 3rd 2002

This morning the US Army Submarine Signal station was shut down for maintenance, therefore no VLF - EM signal was available this is done every week.

We went to the Fortune 7 to 18 claims at the land fill site and continued the survey grid which we started two days ago.

The base-line was extended from 525 S to 1300 S, because that is where the Fortune 11 and 12 claims meet an other claim boundary. The spacing of the stations are 100 Meters apart with substation being placed at 25 Meters.

Then at 270 degrees from the base-line at 1300 S, we put in a cross line with stations marked at 25 Meters intervals. This line ended at the tailings pond at 640 Meters where it met up with the lake.

Tomorrow we will be back up at the Fortune 1 to 7 claims because the VLF - EM transmitting station is on again on Friday.

The forecast for the weather is good again and should be so until the weekend.

The next few day will be routine and we will be only using the instrument and recording the readings.

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Fri. Oct. 4th 2002

This morning we went up to the Fortune 1 to 7 claims and started taking readings at the N 200 station at the base-line.

From the 200 N station, we took readings along the base-line every 50 Meters until we reached the 600 N station. From there, we took VLF - EM readings every station east and west of the base-line at 10 Meter intervals for 100 Meters. The cross lines are 100 Meters apart along the base-line.

Five cross lines were done, with a total of 109 readings taken and entered into the field book.

The slope is steep and covered with mature pine. Tomorrow, we keep on taking readings higher up from 650 N to 950 N and then, take readings on the cross lines.

-23-

Sat. Oct. 5th 2002

Early this morning, we went back up to the Fortune 1 to 7 claims and continued with the VLF - EM survey.

We started at 650 N up the base-line to 1000 N which is about 75 Meters past the Fortune 5 and 6 north boundary, and took readings 50 Meters along the base-line.

The cross lines were again at 100 Meters along the base-line and VLF - EM readings were taken at 10 Meters intervals.

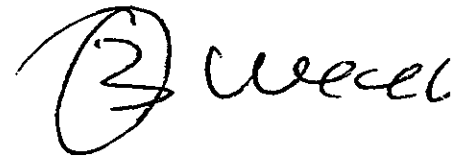
This completes the VLF - EM survey up here and now only the data has to be reduced and plotted. The results of this should demonstrate the extent of the conductor (graphite).

We should be able to reduce the data and produce a map within a few days. For this, we may need the assistance of an Engineer familiar with the processing of this field data.

George Addie P. Eng has directed us, with-out charge, on the first few days of the field data acquisition and should help us to produce the map.

Tomorrow Horst will do the data reduction and then George will help him in producing the contour map.

-24-



Mon. Oct. 7th 2002

We have processed the survey data from the Fortune 1 to 7 claims. The result show an almost continues conductor, which extends on both sides of the highway along the strike from 400 S to 1000 N. The total lengths of the indicated strike is 1,400 Meters. In several places there are two or more veins that run parallel. Also, they might extend beyond the existing claim boundries, to the north and south.

The conductors shown, that we have drawn on to the map from the VLF - EM 16 survey, indicate that these veins may extend beyond the existing out crop and also might be graphitic.

In our opinion, we estimate the volume in these claims to be about 24,000 tons. This is a conservative estimate and the amount could be a lot greater. To say that with more confidence further work such as drilling, assays and a study of the geological structure will have to be done.

The grade and quality can only be corroborated once the assays are completed. There-fore, we should send the samples as soon as possible to Ashbury Graphite in the USA. Please indicate that you want this done, and also by what means,(bus or transport)? The best time for this would be on Thursday Oct. 10th since the signal is down all that day.

Today, we worked at the lower properties (dump) taking more VLF - EM readings, tomorrow we will continue with this survey.

Please find enclosed the VLF - EM map (in three parts) from the Fortune 1 to 7 claims, which you can join together yourself.

-25-

Tue. Oct. 8th 2002

Report on the Fortune 7 to 18 claims.

Today, we continued with the VLF - EM survey on the 250 S, 200 S, and 150 S cross lines. 152 readings were taken and recorded. Tomorrow we will continue with this survey as planned.

The phone number of Mike's RV Ranch is 250 365 5741, or the internet address: www.mikesrv.com

We called Moses Goldenberg and left word at the place which he left at the Chamber of Mines to contact him, and are now waiting for his call.

We need the shipping instructions, the address for Ashbury, how to ship the graphite samples (collect or prepaid ?) and arrangements have to be made with ACME Labs in Vancouver for billing for the assays.

We anticipate that we will be finished with the survey by this weekend, and then we do not need Diana Morton anymore.

As far as the Slocan goes, we have to see how the weather develops. Also hopefully Moses will have contacted us by then and is able to come along on the climb.?

I will tell Moses to contact you to make the arrangements for pay and also how much.

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Thursday Oct. 10th 2002

Report on work done:

Today, we packed all samples into six pails, two for each, (Ashbury, ACME and WWGP). The pails are almost full and are ready to be shipped. We assume that the Ashbury pails go by Truck Freight.? If so, they have to be shipped from the Castlegar Terminal and I have to prepay the freight. That's the way we sent the samples last time. (coreboxes last fall),

The ACME samples can be shipped by bus to Vancouver and they will pick them up at the bus terminal.

What should we do with the WWGP samples? Hold them here or do you want them shipped to Toronto.?

We are working on the reports and have been getting some more maps copied to include in the reports. Also we are tabulating the data we have collected so far on the camp, so we can do the mapping later.

We will relay your message to Moses that he should call you collect, as soon as possible.

The next two days we will be doing the VLF - EM survey to complete the field work on the Fortune 7 to 18 claims.

-28-

Fri. Oct. 11th 2002

Report on the Fortune 7 to 18 claims.

Today, we took readings on the 450 S, 500S, and 550S cross lines. The lengths of the cross-lines were 500 Meters with stations every 10 Meters. All readings were recorded in the field book. Gordon started working on the report on the Fortune 1 to 6 using the library computer.

We got your message that Mossess phoned you. Also that, you want the pails for Ashbury Graphite to be shipped prepaid and either by Purolator or Fedex? We are waiting for your call on this matter.

We also found a Klohn Crippen report on the dump-site, but it seems to only be a report concerning the surface waters and probably is not of much use to us, except we may be able to use some of the maps and cross-sections.

Tomorrow will be our last day on the dump site, we should have all of the readings done, as necessary to compile the presence of any sub-surface conductors. This will aid us in defining the extent of any conductors. With this information, an inferred quantity and a volume can be specified.

We look forward to see on Wednesday and hope that by that time the weather is still on our side.

Sat. Oct. 12th 2002

Today, we finished taking the VLF - EM readings. Now we have to reduce the data, plot the results and make the maps. We did extend all the lines 100 Meters to the east and added the 600 S line. We took a total of 181 station readings.

In total between the Fortune 1 to 6 and Fortune 7 to 18 claims, we recorded 1035 data stations. We will make a map for each area, indicating the conductive areas showing the zones which present an anomaly, which is perhaps graphite. Since we have existing known areas with graphite. We presume that these extensions will also be graphite bearing.

We received your call and are holding off with the shipment of samples, until directed to do so by you.

Mossess called and said that he has a short job for Sunday, Monday and possibly Tuesday, after that he would be available. That will give us time to complete the reduction of data and transcribe field notes so that we can plot the maps and compile the report.

Today was the last day of work for Diana Morton and she did her work to our complete satisfaction.

We will should know your agenda for Wednesday, so we can insure that everything is in order. Are you here for one or two days.? What about transportation, for you.? Are there more than you coming, and are we still walking up to the Panama.?

④ WWC

**Report on the work to Fortune 7 to 18 claims done.
Oct. 14th and 15th 2002**

We been working on the report and maps and data reduction all day yesterday and today. We also shipped the samples to Ashbury via Purolator. Also, 2 pails were shipped to WWGP in Toronto to your office via Greyhound.

Before, we could plot results obtained with the VLF - EM survey, we had to manipulate 1150 station readings. After that, all the results had to be transcribed on the map blank. This permitted us to finish the map. Several trips for copying were necessary to the local library since that is the only place with a modern copier which can handle the 11" x 17 inch paper format.

We finished the map showing several buried conductive zones, all bearing NE to SW. The location of the sample site coincides with one of the indicated lenses. Across the property, there are about five major trends, they align in the NE to SW direction as reported above. We are faxing herewith copies of that map.

We project that after we have calculated inferred quantities, we may be able to suggest that graphite underlies about 20% of the surveyed area. Projecting the trend to the SW, it might be much larger, however that cannot yet be determined?

Tomorrow, we will be going to the Superior group in the Slocan, where we expect to work on the south side of the main showing. This is crystalline graphitic and it should give us a good response on the VLF - EM 16 instrument. This is recommended by George Addie, since he has had good success himself in finding graphitic veins in this type of geological setting.

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Report on the Superior Group of claims**Oct. 17th 2002**

Today, because Seattle was not in service, we used the Cutler Main station for the survey. Also, the Hawaii station, was working but it quit at about 12:30 pm and no more signals were being received. We have the readings but have not been able to do the data reduction, as yet.

The readings on the other frequency is corroborated by the later readings that we took this pm. This indicates that there is probably a long continuous layer and since it is where the graphite is, most likely the graphite also goes the full length of the indicated conductor. If this is the case, the tonnage in the main showing could be a total up to 30 Million tons. This would be the maximum provided that the dimensions of the graphite bed measures about 1000M by 30M and could be mined to 1000M downdip. This is a maximum estimate and assumes that all the mined rock would be ore grade, and that the spoil (tailings) would be filled back into the stopes.

Tomorrow, we take the readings on the upper (200W) line and then we take the readings for the remainder of the time towards the Frieda creek from the zero base line, to the north.

Enclosed herewith is the statement of some of the expenses which were paid out.

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Report on the Superior group of claims

Oct. 18th 2002

This morning, we did the survey on the 200 S line from 0 to 780 S at Knight Creek. Station spacing was 10 Meters.

After that I took readings from the Baseline (0) north to 410 N which ends at Frieda creek.

This was the furthest west line and also the highest line, which was brushed out last year by myself and Mossess.

Tomorrow we will finish the zero and 100 W line, which both end at Frieda creek. Then, if time permits take readings on the Baseline from the main showing down to Hoder creek which is in an easterly direction.

The data has to be processed by Gord then in Toronto and also the map composed, which will be part of the Assessment report. The pictures from the Fortune claims have to be taken at a later time. possibly next week if weather permits.

At the Superior Group the grid should be extended east of the main showing for at least three or four lines at 100 M spacing. This would allow us to see if there are more conductors which could be also graphite bearing. The whole area around the Main showing has not been properly evaluated and explored. This is the best place of all the Group to concentrate on and probably will yield the best results.

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Report on the Superior Group

Oct. 19th, 2002

Today, we went to the Slocan up Hoder creek to do the 0 and 100 West line both ending at the Frieda creek. 81 station were read and recorded.

This completes three "complete" lines from Knight Creek to Frieda Creek. The data has to be reduced so a map can be drawn. It seems that, we have long conductors stretching from Frieda Creek all the way to Knight Creek.

Below the main showing, there is at least one more band of graphite bearing marble and possibly more layers, but because of the overburden they are not obvious. To find out, the grid should be extended and more geophysics should be done. Also the showings should be trenched across the strike so that the true widths can be established. This is necessary to make an informed estimate of the volume or tonnage of the deposit. It seems the more we look, the more places show up where there is graphite bearing rock.

As far as tonnage is concerned, at the present time with the information we have, our speculation is that there is a further chance for another 30 Million tons, if the lower bands and the bands North of Frieda creek and also north of the creek which is about 2 km further north of Frieda creek are included and they all have economic grades, these quantities might prove very possible.

**VLF readings, for—
Fortune 1 to 6 for VLF EM-16 - Base Line Stations**

①

FORTUNE 1-6
VLF EM-16
BASE LINE STATIONS

21

2002 Oct. 4 Fortune 3/4 Hwy 3
Baseline 12° Azimuth

| Line X | Station Y | In Phase Z' | Quad Z'' |
|-----------------|---------------|-------------|----------|
| 100N | 0 | +38 | +6 |
| 200N | 0 | +22 | 0 |
| 300N | 0 | +28 | +11 |
| 350N | | +30 | +10 |
| 400N | | +29 | +9 |
| 450N | | +38 | +9 |
| GPS 3/4 ITP 5/6 | GPS Loc. Δ324 | 492384 | 543433 |
| Δ323 | 500N 11015m | +43 | +10 |
| | 550N | +42 | +7 |
| | 600N | +38 | +6 |

2002 Oct 5 Baseline 12° Azimuth

| Line X | Station Y | In Phase Z' | Quad Z'' |
|--------------|---------------|-------------|----------------|
| 650N | 0 | +30 | +5 |
| 700N | | +27 | +6 cross creek |
| 750N | | +25 | +9 |
| 800N | | +30 | +13 |
| 850N | | +29 | +9 |
| 900N | | +14 | +9 |
| GPS 1/6 3/25 | GPS Loc. Δ325 | 492457 | 5434790 |
| | 950N | +9 | +7 |
| | 1000N | | |

1790 m

②

LINE 1010
VLE-EM 16

LINE 4005

Page 5

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2002 Oct. 2 FORTUNE 3/4 Hwy 3 Creston

| Area | Station | In Phase | Quad |
|-------------|------------|----------|------|
| X | Y | Z' | Z'' |
| IP 3/4 4005 | 0 | +6 | +1 |
| | E 50° (10) | +4 | -2 |
| | (20) | +4 | -4 |
| | (30) | +4 | -5 |
| | (40) | +2 | -6 |
| | (50) | +3 | -5 |
| | (60) | +4 | -5 |
| | (70) | +7 | -5 |
| | (80) | +10 | -5 |
| | (90) | +11 | -5 |
| | (100) | +12 | -4 |
| IP 3/4 4005 | 230° (10) | +5 | -2 |
| | (20) | +3 | 0 |
| | (30) | 0 | 0 |
| | (40) | 0 | -1 |
| | (50) | +2 | +2 |
| | (60) | -2 | +2 |
| | (70) | 0 | 0 |
| | (80) | -2 | -3 |
| | (90) | -3 | 0 |
| | (100) | -3 | 0 |

3

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2002 Oct. 2 Fortune 3/4 Hwy 3. Creston

| Line | Station | In Phase | Quad |
|------------------|----------|----------------|-----------------|
| X | Y | Z ^I | Z ^{II} |
| 1P3/4 300 S | 0 | +5 | -2 |
| | 50° (10) | +15 | -2 |
| | (20) | +15 | -3 |
| | (30) | +14 | -5 |
| | (40) | +15 | -3 |
| | (50) | +12 | -5 |
| | (60) | +12 | -8 |
| | (70) | +15 | -11 |
| | (80) | +16 | -9 |
| | (90) | +20 | -7 |
| | (100) | +20 | -5 |
| 1P3/4 300 S 230° | (10) | +15 | 0 |
| | (20) | +14 | +1 |
| | (30) | +14 | +1 |
| | (40) | +14 | +1 |
| | (50) | +12 | +2 |
| | (60) | +10 | +2 |
| | (70) | +6 | -1 |
| | (80) | +5 | -1 |
| | (90) | +3 | 0 |
| | (100) | +5 | -2 |

Jan. 12 2004 11:54PM

PHONE NO. : 2503552839

FROM : HORST KLASSEN SALMO BC

(4)

FORTUNE 16-10

VLF-EM 16

LINE 200S

17
2000 Oct 2 Fortune 3/4 Hwy 3 Creston

| Line | Station | In Phase | Quad |
|-----------|-----------|----------------|-----------------|
| | 1 | Z ¹ | Z ¹¹ |
| 1834 200S | 0 | +30 | -2 |
| | 50° (10) | +30 | +1 |
| | (20) | +35 | +1 |
| | (30) | +40 | +3 |
| | (40) | +43 | +3 |
| | (50) | +46 | +5 |
| | (60) | +45 | +4 |
| | (70) | +39 | +3 |
| | (80) | +30 | 0 |
| | (90) | +27 | +1 |
| | (100) | +26 | +2 |
| 1P34 200S | 230° (10) | +28 | -4 |
| | (20) | +26 | -2 |
| | (30) | +29 | +1 |
| | (40) | +32 | -1 |
| | (50) | +30 | +3 |
| | (60) | +28 | 0 |
| | (70) | +24 | +1 |
| | (80) | +23 | 0 |
| | (90) | +22 | +2 |
| | (100) | +23 | +1 |

5

FORTUNE 1-6

W.F. 1-6

LINE 1005

16

2002 Oct 2 Fortune 3/4 Hwy 3 Creston

| Line | Station | In Phase | Quad |
|------------|-----------|----------------|-----------------|
| X | Y | Z ¹ | Z ¹¹ |
| IP3/4 1005 | 0 | +45 | -2 |
| | 150° (10) | +35 | +1 |
| | (20) | +30 | -4 |
| | (30) | +27 | -4 |
| | (40) | +30 | -3 |
| | (50) | +30 | -1 |
| | (60) | +28 | -1 |
| | (70) | +21 | -3 |
| | (80) | +23 | +2 |
| | (90) | +24 | +3 |
| | (100) | +25 | +3 |
| IP3/4 1005 | 230° (10) | +50 | -3 |
| | (20) | +53 | +2 |
| | (30) | +54 | -2 |
| | (40) | +47 | -2 |
| | (50) | +45 | -3 |
| | (60) | +43 | -4 |
| | (70) | +42 | -4 |
| | (80) | +38 | -2 |
| | (90) | +39 | -3 |
| | (100) | +41 | +1 |

stream
lynes stone

cut. creek

washout

6

FUTURE

VLF-EM -16

LINE 0

15

2002 Oct 2 Forture 3/4 Hwy 3
ZERO LINE

| Line | Station | In Phase | Quad |
|---------|--------------|----------|------|
| X | Y | Z' | Z'' |
| P 3/4 0 | 0 | +45 | -3 |
| ZERO | 1/2 50° (10) | +43 | -3 |
| | (20) | +47 | -1 |
| | (30) | +47 | -3 |
| | (40) | +43 | -1 |
| | (50) | +48 | -1 |
| | (60) | +45 | -2 |
| | (70) | +47 | -1 |
| | (80) | +45 | -6 |
| | (90) | +45 | -7 |
| | (100) | +45 | -6 |
| P 3/4 0 | 1/2 30° (10) | +57 | -4 |
| | (20) | +55 | -5 |
| | (30) | +54 | -5 |
| | (40) | +60 | -4 |
| | (50) | +58 | -8 |
| | (60) | +60 | -1 |
| | (70) | +84 | +2 |
| | (80) | +84 | -4 |
| | (90) | +80 | -4 |
| | (100) | +74 | -3 |

7

FORTUNE 1-6
VLF EM 16
LINE 50N

9

△ 316 2002 September 28 Saturday
Hwy 3 Fortune 1-6 ³¹⁶ ~~211~~ ~~221~~ ~~231~~ ~~241~~ ~~251~~ ~~261~~ ~~271~~ ~~281~~ ~~291~~ ~~301~~ ~~311~~ ~~321~~ ~~331~~ ~~341~~ ~~351~~ ~~361~~ ~~371~~ ~~381~~ ~~391~~ ~~401~~
Trans Seattle 250° Bear #12E Face north

| Line | Station | In Phase | Quad | Slope | Remarks |
|--------|---------|-----------|----------|----------|--------------------|
| X | Y | Z' | Z'' | | |
| IP 3/4 | 50N | 0 | +65 | -16 | 24 S side of Hwy 3 |
| IP 3/4 | 50N | 236 (10) | +67 | -14 | 0 south edge |
| IP 3/4 | 50N | 236 (20) | +60 | -13 | 0 south edge |
| IP 3/4 | 50N | 236 (30) | +50 | -17 | 0 south edge |
| IP 3/4 | 50N | 236 (40) | +30 | -17 | 0 |
| IP 3/4 | 50N | 236 (50) | +24 | -16 | 0 |
| IP 3/4 | 50N | 236 (60) | +70 | -21 | 0 |
| IP 3/4 | 50N | 236 (70) | +80 | -24 | 0 |
| IP 3/4 | 50N | 236 (80) | +84 | -26 | 0 |
| IP 3/4 | 50N | 236 (90) | +114 | -20 | 0 |
| IP 3/4 | 50N | 236 (100) | +100 | -26 | 0 |
| IP 3/4 | 50N | 56 (10) | +55 | -21 | 10ft track |
| IP 3/4 | 50N | 56 (20) | +55 | -26 | 20ft track |
| IP 3/4 | 50N | 56 (30) | +53 (53) | -23 (24) | road verge |
| IP 3/4 | 50N | 56 (40) | +70 | -22 | |
| IP 3/4 | 50N | 56 (50) | +70 | -26 | |
| IP 3/4 | 50N | 56 (60) | +70 | -24 | |
| IP 3/4 | 50N | 56 (70) | +78 | -28 | |
| IP 3/4 | 50N | 56 (80) | +70 | -24 | |
| IP 3/4 | 50N | 56 (90) | | | |
| IP 3/4 | 50N | 56 (100) | | | |

⑧

FORTUNE 1-10
 VLF-EM 10
 LINE 100M
 SIGNAL RECEIVED FROM
 CABLE ALONG HIGHWAY

10

Sept., 2002 Sept. 28 ALONG HIGHWAY
 Hwy 3 Fortune 3/4 IP TELEPHONE CABLE
 WITHIN 3 METERS

| Line | Station | In Phase | Quad | Slope (%) | Remarks |
|-------------|-----------|----------|------|-----------|---------------|
| X | Y | Z' | Z'' | | |
| IP 3/4 100M | 0 | -160 | +20 | | Edge Hwy 3 |
| | 230 (10) | -150 | +20 | | base of cliff |
| | 230 (20) | -125 | +20 | | |
| | 230 (30) | -125 | +31 | | |
| | 230 (40) | -120 | +34 | | |
| | 230 (50) | -105 | +36 | | |
| | 230 (60) | -98 | +35 | | |
| | 230 (70) | -95 | +32 | | |
| | 230 (80) | -88 | +34 | | |
| | 230 (90) | -80 | +30 | | |
| | 230 (100) | -68 | +30 | | |
| IP 3/4 100M | 50 (10) | -150 | +22 | | ↑ increase |
| ? | 50 (20) | -150 | +15 | | unrecorded |
| | 50 (30) | -155 | +17 | | ditto |
| | 50 (40) | -170 | +18 | | |
| | 50 (50) | -180 | +17 | | |
| | 50 (60) | -180 | +19 | | |
| | 50 (70) | -180 | +20 | | |
| | 50 (80) | -180 | +19 | | |
| | 50 (90) | | | | |
| | 50 (100) | | | | |

⑨

LINE 150 N
VLF EH 16

11

2002 Sept 28
Flag 3 Fortune 3/4 IP

| Station | In Proc | Quad. | | |
|-----------------|-----------|-------|-----|-------------|
| Y | Z' | Z'' | | |
| IP 3/4 150N | 0 | +45 | +20 | shore cliff |
| | 230° (10) | +10 | +14 | cross above |
| | (20) | +10 | +16 | sample + Z |
| | (30) | +8 | +18 | area |
| | (40) | +7 | +19 | |
| | (50) | +12 | +19 | |
| | (60) | +8 | +20 | ravine dry |
| | (70) | +15 | +24 | |
| | (80) | +15 | +19 | |
| | (90) | +13 | +16 | |
| | (100) | +10 | +14 | |
| IP 3/4 150N 50° | (10) | +58 | +25 | |
| | (20) | +55 | +23 | |
| | (30) | +53 | +20 | |
| | (40) | +57 | +19 | |
| | (50) | +55 | +21 | |
| | (60) | +55 | +18 | |
| | (70) | +57 | +20 | |
| | (80) | +53 | +21 | |
| | (90) | +48 | +15 | |
| | (100) | +50 | +13 | |

10

Fd - UNF 1-1

NFL - Oct 16

11/15/2003

25

2002 Oct 4

11/15/03

| Line | Station | In Phase | Quadr |
|----------|---------|----------|-----------------|
| X | Y | Z' | Z'' |
| P3/4-200 | 0 | +38 | +6 |
| " | 50 (10) | +50 | +14 |
| | (20) | +70 | +18 |
| | (30) | +88 | +24 |
| | (40) | +86 | +21 |
| | (50) | +80 | +20 |
| | (60) | +76 | +16 |
| | (70) | +74 | +16 |
| | (80) | +70 | +14 |
| | (90) | +67 | +12 |
| | (100) | +65 | +13 |
| | | | End of gridline |
| W236 | (10) | +24 | +15 |
| | (20) | +19 | +15 |
| | (30) | +18 | +18 |
| | (40) | +22 | +20 |
| | (50) | +24 | +24 |
| | (60) | +23 | +23 |
| | (70) | +25 | +22 |
| | (80) | +26 | +21 |
| | (90) | +30 | +23 |
| | (100) | +29 | +20 |

spring

End of gridline

rock outcrop above

rock outcrop

Xsmall ravine at end

End of gridline

(11)

FORTUNE 1-6

VLF - EM 16

LINE 300N

25

2002 Oct 4 Lumbis Geophysical

| Line | Station | In Phase | Quad |
|------------------|----------|----------------|----------------|
| X | Y | Z ¹ | Z ² |
| IR 24 300N | 0 | +28 | +11 |
| | E50 (10) | +32 | +10 |
| | (20) | +35 | +9 |
| | (30) | +37 | +9 |
| | (40) | +37 | +8 |
| | (50) | +46 | +6 |
| | (60) | +84 | +6 |
| | (70) | +94 | +3 |
| | (80) | +94 | +1 |
| | (90) | +98 | -1 |
| | (100) | +98 | -3 |
| IR 24 300N W230° | (10) | +28 | +12 |
| | (20) | +27 | +13 |
| | (30) | +29 | +16 |
| | (40) | +30 | +15 |
| | (50) | +30 | +17 |
| | (60) | +33 | +17 |
| | (70) | +35 | +20 |
| | (80) | +35 | +19 |
| | (90) | +35 | +22 |
| | (100) | +35 | +21 |

slope corr 2m
 SW edge of sl creek
 End of gridline

below rock bluff

top of ridge
 End of gridline

(12)

FORTUNE 1-6
VLF-ENT 16
LINE 400N

24

2002 Oct 4

Humy 3

| Line | Station | In | Phase | Quad | |
|------------------|------------|----------------|----------------|------|---------------|
| X | Y | Z ¹ | Z ² | | |
| IP34 400N | 0 | +29 | +9 | | |
| | E 10° (10) | +29 | +10 | | |
| | (20) | +27 | +10 | | |
| | (30) | +29 | +9 | | |
| | (40) | +33 | +12 | | |
| | (50) | +40 | +13 | | |
| | (60) | +30 | +10 | | ravine Slack |
| cont 72 | (70) | +33 | +5 | | Slope 45° |
| cont 86 | (80) | +51 | +9 | | Slope 33° |
| cont 98 | (90) | +83 | +7 | | |
| cont 110 | (100) | +61 | +2 | | End of Line |
| IP34 400N W 230° | (10) | +35 | +11 | | |
| | (20) | +40 | +12 | | |
| | (30) | +42 | +14 | | |
| | (40) | +45 | +17 | | |
| | (50) | +43 | +16 | | |
| | (60) | +44 | +16 | | |
| | (70) | +45 | +17 | | |
| | (80) | +43 | +20 | | crossed ridge |
| | (90) | +44 | +19 | | |
| | (100) | +45 | +21 | | End of Line |

(13)

FORM 16
VLF-EM 16
LINE 500N

23

2002 Oct 4 - Nov 3

Baseline 12° Azimuth Gridline 50° Azimuth

Line Station In Phase Quad.

| | X | Y | Z' | Z'' | |
|-------------------|-------|------------|-----|-----|-------------------|
| 1P5/6 500N | 0 | | +43 | +10 | Δ 323 |
| | | E 50° (10) | +49 | +11 | slope 0° across |
| | | (20) | +40 | +11 | 45° slope |
| | | (30) | +40 | +9 | |
| | | (40) | +42 | +10 | |
| | | (50) | +42 | +8 | slope 35° |
| corr. 62 | (60) | +37 | +1 | | |
| corr. 74 | (70) | +53 | +3 | | |
| corr. 86 | (80) | +68 | +4 | | |
| corr. 98 | (90) | +74 | +3 | | |
| corr. 110 | (100) | +70 | +2 | | End of gridline |
| 1P5/6 500N W 230° | (10) | +42 | +7 | | slope 0° across |
| | (20) | +40 | +8 | | 45° slope |
| | (30) | +40 | +9 | | |
| | (40) | +41 | +9 | | |
| | (50) | +40 | +9 | | |
| | (60) | +37 | +8 | | outcrop above lin |
| | (70) | +38 | +8 | | |
| | (80) | +38 | +5 | | |
| | (90) | +38 | +9 | | |
| | (100) | +38 | +9 | | End of gridline |

14

LINE 1-5
1-5

2002 Oct 4

Hwy 3

12° Azimuth

Line Station In Phase Quad

| X | Y | Z' | Z'' | |
|-------|------|-------------|-----|--------------------|
| IP 36 | 600N | 0 | +36 | +6 50° Azimuth |
| | | E 50° (10) | +36 | +5 |
| 1630m | | (20) | +42 | +11 slope 30° |
| corr. | 32 | (30) | +44 | +5 |
| corr. | 44 | (40) | +43 | +7 |
| corr. | 56 | (50) | +45 | -2 |
| corr. | 68 | (60) | +55 | +1 |
| 1660m | 085 | (70) | +70 | +6 |
| corr. | 92 | (80) | +76 | +4 |
| corr. | 104 | (90) | +80 | +5 |
| corr. | 116 | (100) | +80 | +4 End of gridline |
| IP 64 | 600N | W 230° (10) | +35 | +5 230° AZ Slope 0 |
| | | (20) | +36 | +6 Traverse across |
| | | (30) | +35 | +6 45° slope |
| | | (40) | +40 | +9 |
| | | (50) | +39 | +8 |
| | | (60) | +40 | +7 |
| | | (70) | +38 | +6 |
| | | (80) | +35 | +5 |
| | | (90) | +37 | +7 |
| | | (100) | +38 | +7 End of gridline |

(16)

VLF-EM

LINE 800N
FORTUNE 1-6

29

2002 Oct 5

May 3

Station 12°N

Station In Phase Quad:

| | Y | Z' | Z'' | |
|-----------|-------|-----|-----|---------------|
| 0 | 0 | +28 | +13 | |
| 150° | (0) | +32 | +4 | slope 20° |
| | (20) | +29 | +4 | creek to east |
| | (30) | +28 | +14 | of line |
| | (40) | +28 | +14 | |
| | (50) | +22 | +4 | |
| | (60) | +17 | +10 | |
| | (70) | +8 | +10 | |
| | (80) | +7 | +5 | |
| | (90) | +7 | +6 | |
| | (100) | +6 | +4 | |
| 800 W230° | (0) | +35 | +3 | |
| | (20) | +38 | +5 | |
| | (30) | +38 | +6 | |
| | (40) | +38 | +7 | |
| | (50) | +38 | +7 | |
| | (60) | +40 | +10 | |
| | (70) | +42 | +10 | |
| | (80) | +43 | +7 | |
| | (90) | +44 | +9 | |
| | (100) | +45 | +8 | |

(17)

LINE 200 N

28

2002 Oct 5

Hwy 3

Baseline 12° N

Line Station Interval Quad

| X | Y | Z' | Z'' | |
|------------|------|-----|-----|-----------|
| 1254 900 | 0 | +14 | +9 | slope 20° |
| | 50 | +13 | +9 | |
| | 100 | +12 | +10 | |
| | 150 | +11 | +8 | |
| | 200 | +8 | +5 | |
| | 250 | +5 | +9 | |
| | 300 | +2 | +4 | |
| | 350 | 0 | +5 | |
| | 400 | 0 | +4 | |
| | 450 | -1 | 0 | |
| | 500 | -2 | 0 | 1810 m |
| 900 W 230° | 150 | +1 | +9 | slope 20° |
| | 200 | +15 | +7 | |
| | 300 | +5 | +4 | |
| | 400 | +13 | +4 | |
| | 500 | +12 | +5 | |
| | 600 | +8 | 0 | |
| | 700 | +3 | -2 | |
| | 800 | +4 | -2 | |
| | 900 | +9 | -3 | |
| | 1000 | +17 | 0 | |

(18)

FORTUNE 1-6
VLF EM 16
LINE 1000 N

27

2002 Oct 5

Page 3

1000 BASELINE 192° AZIMUTH

Line Station In Phase Quad

| | Y | Z ¹ | Z ² |
|-------------|---|----------------|----------------|
| 1000 | 0 | 0 | +3 |
| E 50 (10) | | -1 | +4 |
| (20) | | 0 | +2 |
| (30) | | 0 | +2 |
| (40) | | 0 | +4 |
| (50) | | 0 | +3 |
| (60) | | -1 | +2 |
| (70) | | -2 | +4 |
| (80) | | -3 | +3 |
| (90) | | -4 | +2 |
| (100) | | -4 | +1 |
| 1000 W 230° | | +3 | +5 |
| (20) | | +5 | +4 |
| (30) | | +7 | +4 |
| (40) | | +9 | +7 |
| (50) | | +10 | +7 |
| (60) | | +8 | +5 |
| (70) | | +7 | +3 |
| (80) | | +5 | +2 |
| (90) | | +6 | 0 |
| (100) | | +5 | +2 |

19

7-2-21-11-11
VLF EM 16
BASE LINE 10

2002 Oct. 1 Fortune 7/8 Dump
Baseline

| Line | Station | In Phase | Quad | Data | Reduction |
|------|---------|----------|------|------|------------------|
| X | Y | Z' | Z'' | | |
| 478 | 0 | 0 | -10 | -8 | |
| 525 | 80° | -12 | -7 | -22 | |
| 50 | 180° | -11 | -7 | -23 | (-6) - (-22) 6 |
| 75 | 180° | -5 | -2 | -16 | (-8) - (-23) 15 |
| 100 | 180° | 0 | +3 | -8 | (-3) - (-16) 13 |
| 125 | 180° | -3 | +3 | -5 | (-9) - (-5) -4 |
| 150 | 180° | -6 | 0 | -9 | (-11) - (-2) -9 |
| 175 | | -5 | -2 | -11 | (-4) - (-9) 5 |
| 200 | | -7 | -5 | -12 | (-1) - (-11) 10 |
| 225 | | -4 | -2 | -11 | (-2) - (-12) 10 |
| 250 | | +2 | -4 | -2 | (-9) - (-11) 20 |
| 275 | | +7 | -2 | +9 | (-2) - (-2) 20 |
| 300 | | +15 | -6 | +22 | (-1) - (-9) 82 |
| 325 | | +26 | 05 | +41 | (-2) - (-22) 34 |
| 350 | | +38 | -10 | +56 | (-5) - (-4) 4 |
| 375 | | +15 | +2 | +48 | (-5) - (-56) -41 |
| 400 | | 0 | +2 | +15 | (-5) - (-15) -10 |
| 425 | | -5 | +6 | -5 | (-1) - (-15) -10 |
| 450 | | 0 | +7 | -5 | (-10) - (-5) -15 |
| 475 | | +10 | -7 | +10 | (-10) - (-5) -15 |
| 482 | FP 7/8 | IP 9/10 | | | |
| 500 | | 0 | -1 | +10 | |

20

44 LINE 50S OE TO 100E

2002 Oct. 11

918 IP 550 Baseline (90°) 270° Azimuth

Line Station In Phase Quad

Y Z' Z''

| | | | | |
|---|------|-------|----|--|
| 1 | 100S | W270° | | |
| | (10) | +5 | -3 | |
| | (20) | +6 | 0 | |
| | (30) | +5 | 0 | |
| | (40) | +6 | 0 | |
| | (50) | +6 | +2 | |
| | (60) | +6 | +2 | |
| | (70) | +5 | +1 | |
| | (80) | +5 | 0 | |
| | (90) | +5 | -1 | |

A. 337 952055 5492555 750m

| | | |
|-----|-----|----|
| 50 | -11 | -7 |
| 100 | 0 | +3 |
| 150 | -6 | 0 |
| 200 | -7 | -5 |
| 250 | +2 | -1 |
| 300 | +5 | -6 |
| 350 | +30 | -1 |
| 400 | 0 | +2 |

2002 Oct. 12

918 IP Baseline 90° Azimuth

Line Station In Phase Quad

Y Z' Z''

| | | | | |
|---|---------|---------|-----|-----------|
| 1 | 100S | E90°0 | -10 | -8 |
| | (10) | -15 | -10 | gran. pit |
| | (20) | -21 | -5 | |
| | (30) | -27 | -6 | |
| | (40) | -22 | -5 | |
| | (50) | -10 | -6 | |
| | (60) | -7 | -5 | |
| | (70) | 0 | 0 | |
| | (80) | +2 | 0 | |
| | (90) | +1 | +2 | |
| | (100) | +3 | +7 | |
| 1 | 918 50S | E90°(0) | -11 | -7 |
| | (10) | -10 | -5 | |
| | (20) | -3 | -1 | |
| | (30) | 0 | -1 | |
| | (40) | 0 | -3 | |
| | (50) | +6 | -3 | |
| | (60) | +12 | 0 | |
| | (70) | +12 | 0 | |
| | (80) | +15 | -3 | |
| | (90) | +7 | -1 | |
| | (100) | +19 | -2 | |

21

250S TO E TO 100E

4F

2002 Oct 12

IP 718 180° Baseline 90° Azimuth

Line Station In Phase Quad

X Y Z' Z''

| | | | | | |
|--------|-------|------|---|-----|----|
| IP 718 | 100S | E90° | 0 | 0 | +3 |
| | (10) | | | +2 | +2 |
| | (20) | | | +4 | +1 |
| | (30) | | | +8 | 0 |
| | (40) | | | +12 | -1 |
| | (50) | | | +14 | -1 |
| | (60) | | | +19 | 0 |
| | (70) | | | +23 | +1 |
| | (80) | | | +23 | 0 |
| | (90) | | | +24 | 0 |
| | (100) | | | +23 | 0 |
| IP 718 | 150S | E90° | 0 | -6 | 0 |
| | (10) | | | -3 | -2 |
| | (20) | | | +4 | 0 |
| | (30) | | | +10 | 0 |
| | (40) | | | +16 | +2 |
| | (50) | | | +20 | -2 |
| | (60) | | | +26 | -4 |
| | (70) | | | +27 | -2 |
| | (80) | | | +27 | -2 |
| | (90) | | | +21 | -2 |
| | (100) | | | +13 | -3 |

2002 Oct 12

IP 718 180° Baseline 90° Azimuth

Line Station In Phase Quad

X Y Z' Z''

| | | | | | |
|--------|-------|------|---|-----|----|
| IP 718 | 200S | E90° | 0 | -7 | -5 |
| | (10) | | | -4 | -4 |
| | (20) | | | 0 | -5 |
| | (30) | | | +3 | -8 |
| | (40) | | | +7 | -4 |
| | (50) | | | +17 | -1 |
| | (60) | | | +28 | -3 |
| | (70) | | | +33 | 0 |
| | (80) | | | +15 | +1 |
| | (90) | | | +7 | +2 |
| | (100) | | | +4 | +4 |
| IP 718 | 250S | E90° | 0 | +2 | -4 |
| | (10) | | | +6 | -2 |
| | (20) | | | +11 | -4 |
| | (30) | | | +13 | +5 |
| | (40) | | | +15 | -6 |
| | (50) | | | +14 | -6 |
| | (60) | | | +8 | 0 |
| | (70) | | | 0 | +4 |
| | (80) | | | -5 | +2 |
| | (90) | | | -3 | +6 |
| | (100) | | | 0 | +9 |

1:00

22

36

TOURNE 7-18

LINE 300 S - EO TO 100 E

LINE 350 S - EO TO 100 E

2002 Oct 12

IP 718 180° Baseline E 90° Azimuth Dump

| Line | Station | In Phase | Quad |
|------|---------|----------|------|
| X | Y | Z' | Z'' |

| | | | | |
|--------------|-------|-------|-----|-----|
| IP 718 300 S | E 90° | 0 | +15 | -6 |
| | | (10) | +23 | -5 |
| | | (20) | +32 | -5 |
| | | (30) | +32 | 0 |
| | | (40) | +18 | +2 |
| | | (50) | -3 | +4 |
| | | (60) | -9 | +4 |
| | | (70) | -6 | +3 |
| | | (80) | +3 | +14 |
| | | (90) | +15 | +16 |
| | | (100) | +20 | +14 |

| | | | | |
|--------------|-------|-------|-----|-----|
| IP 718 350 S | E 90° | 0 | +30 | -1 |
| | | (10) | +24 | +6 |
| | | (20) | +2 | +4 |
| | | (30) | -3 | +9 |
| | | (40) | -2 | +11 |
| | | (50) | 0 | +10 |
| | | (60) | -1 | +6 |
| | | (70) | 0 | +5 |
| | | (80) | +3 | +4 |
| | | (90) | +8 | +1 |
| | | (100) | +17 | +2 |

23

POINT LINE 7-18

LINE 400S - EO TO 100E
450S - EO TO 100E
500S - EO TO 100E
550S - EO TO 100E

IP 7/18 180° Baseline E 90° Azimuth

Line Station In Phase Quad

X Y Z' Z''

| | | | |
|--------------------|-----|----|----|
| IP 7/18 400S E 90° | 0 | 0 | +2 |
| (10) | -4 | +7 | |
| (20) | -5 | +5 | |
| (30) | -5 | +3 | |
| (40) | -3 | +2 | |
| (50) | +2 | 0 | |
| (60) | +5 | 0 | |
| (70) | +12 | +1 | |
| (80) | +18 | +2 | |
| (90) | +18 | +3 | |
| (100) | +10 | +2 | |
| 450S E 90° | 0 | 0 | +7 |
| (10) | 0 | +2 | |
| (20) | +5 | 0 | |
| (30) | +9 | +1 | |
| (40) | +12 | +1 | |
| (50) | +15 | 0 | |
| (60) | +18 | 0 | |
| (70) | +18 | 0 | |
| (80) | +13 | 0 | |
| (90) | +3 | 0 | |
| (100) | -1 | 0 | |

2002 Oct 12

IP 7/18 180° Baseline E 90° Azimuth

Line Station In Phase Quad

X Y Z' Z''

| | | | |
|--------------------|-----|----|-------------|
| IP 7/18 500S E 90° | 0 | +7 | -1 |
| (10) | +3 | -2 | |
| (20) | +5 | -3 | |
| (30) | +7 | -2 | ridge extra |
| (40) | +11 | -1 | |
| (50) | +11 | -2 | |
| (60) | +2 | -4 | |
| (70) | -2 | -3 | |
| (80) | -3 | -3 | |
| (90) | -3 | -3 | |
| (100) | -2 | -1 | |
| IP 7/18 550S E 90° | 0 | +7 | 0 |
| (10) | +3 | 0 | |
| (20) | +8 | +1 | ridge 150m |
| (30) | +8 | +1 | |
| (40) | +4 | -2 | |
| (50) | +2 | -1 | |
| (60) | +1 | 0 | |
| (70) | +4 | +1 | |
| (80) | +3 | 0 | |
| (90) | +5 | +3 | |
| (100) | +7 | 0 | |

24

40

2002 Oct 12

IP 718 180° Baseline E 90° Azimuth

Line Station In Phase Quad

X Y Z' Z''

IP 718 600 S E 90° 0 0 -1

(10) +5 +1

(20) +6 +3

(30) +8 +3

(40) +8 +3

(50) +9 +2

(60) +9 +2 landing

(70) +10 +3

(80) +12 +2

(90) +14 +3

(100) +15 +2

IP 718 600 S W 270° 0 0 -1 1325

(10) -4 +1

(20) -8 +1

(30) -9 +3

(40) -10 +3

(50) -12 +1

(60) -16 0

(70) -17 -2

(80) -15 -4

(90) -18 -5

(100) over

2002 Oct 12

IP 718 180° Baseline W 270° Azimuth

Line Station In Phase Quad

X Y Z' Z''

IP 718 600 S W 270° (100) -1 -4

(110) -5 -3

(120) +3 -6

(130) +2 -3

(140) -1 -2

(150) -3 -4

(160) -3 -2

(170) -4 -2

(180) -3 -7

(190) -5 -7

(200) -5 -7

(210) -6 -6

(220) -4 -6

(230) -4 -6

(240) -4 -5

(250) -4 -5

(260) -5 -5

(270) -5 -3

(280) -4 -4

(290) -4 -5

(300) -3 -5

(25)

LINE 10 - 100' TO 100' W

34

2002 Oct 9
IP 718 0 Baseline 270° horizontal
Line Station In Phase Quad

| X | Y | Z' | Z'' | |
|-------|-----------|-----------|---------|---------------------------|
| (0) | 0 | -12 (-10) | -4 (-2) | 1.2 (road, Oct 10) |
| (10) | 0 | -3 (-5) | | center, Maine |
| (20) | +26 (+43) | +8 (+9) | | intersection top entrance |
| (30) | +27 (+42) | +12 (11) | | |
| (40) | +14 (+18) | +2 (+3) | | |
| (50) | +14 | 0 | | |
| (60) | +13 | -4 | | |
| (70) | +12 | -5 | | |
| (80) | +12 | -5 | | |
| (90) | +10 | -7 | | |
| (100) | +12 | -8 | | edge of road in ramp |
| (110) | +12 | -7 | | |
| (120) | +10 | -8 | | shoulder of rd ramp |
| (130) | +9 | -6 | | |
| (140) | +33 | +8 | | chainlink fence |
| (150) | +9 | -3 | | |
| (160) | +9 | -3 | | |
| (170) | +10 | +1 | | |
| (180) | +12 | +7 | | |
| (190) | +15 | +6 | | |
| (200) | +14 | +8 | | |

2002 Oct 9
IP 718 0 Baseline 270° horizontal
Line Station In Phase Quad

| X | Y | Z' | Z'' | |
|-------|-----|-----|-----|--|
| (210) | +14 | +10 | +5 | |
| (220) | +23 | +6 | | |
| (230) | +28 | +6 | | |
| (240) | +31 | +22 | | |
| (250) | +25 | +16 | | |
| (260) | +22 | +14 | | |
| (270) | +15 | +11 | | |
| (280) | +16 | +6 | | |
| (290) | +36 | +8 | | |
| (300) | +42 | +7 | | |
| (310) | +37 | +3 | | |
| (320) | +33 | +1 | | |
| (330) | +32 | +4 | | |
| (340) | +25 | +3 | | |
| (350) | +19 | +4 | | |
| (360) | +13 | +3 | | |
| (370) | +7 | -1 | | |
| (380) | +3 | -1 | | |
| (390) | +5 | 0 | | |
| (400) | +15 | -4 | | |

26

36

2002 Oct 9

IP 7/8 0 Baseline 270° Azimuth

Line Station In Phase Quad

X Y Z' Z''

IP 7/8 0 W 270°

(410) +19 -6

(420) +23 -6

(430) +24 -9 gate to dump (lower)

(440) +23 -9

(450) +21 -9

(460) +19 -13

(470) +13 -15

(480) +15 -11

(490) +15 -4

(500) +11 0

△ 333 482069 3445040 741m

(510) +7 0

2002 Oct 10 Thursday

EMF not functioning
- prepared samples for analysis

2002 Oct 11

IP 7/8 450 S 180° Baseline 270° Azimuth

Line Station In Phase Quad

X Y Z' Z''

IP 7/8 450 S W 270° 0 +7

(100) 0 +0

(110) +2 -2

(120) +10 -3

(130) +27 +6

(140) +28 +4

(150) +22 +9

(160) +17 +12

(170) +11 +11

(180) +12 +16

(190) +5 +20

(200) 0 +0

(210) -4 +19

(220) -6 +15

(230) -8 +14

(240) -8 +7

(250) -8 +2

(260) -8 +4

(270) -4 +9

(280) -2 +9

(290) 0 +12

27

FORTUNE 1-18

VLF - EM 16

LINE 50S - ONTO 200W

31

2002 Oct 9

Dump

IR718 50S Baseline 270° Azimuth

Line Station In Phase (quad)

| X | Y | Z' | Z'' |
|-----------|-------|-----|-----|
| IR718 50S | (0) | -11 | -7 |
| | (10) | -10 | -5 |
| | (20) | -9 | -2 |
| | (30) | -9 | -1 |
| | (40) | -3 | -1 |
| | (50) | +5 | -3 |
| over 51 | (60) | +4 | -2 |
| | (70) | +21 | 0 |
| | (80) | +23 | -6 |
| | (90) | +21 | -5 |
| | (100) | +20 | -6 |
| | (110) | +14 | -7 |
| | (120) | +4 | -7 |
| | (130) | +2 | -11 |
| | (140) | +7 | -6 |
| | (150) | +5 | -7 |
| | (160) | 0 | -14 |
| | (170) | 0 | -10 |
| | (180) | +5 | -8 |
| | (190) | +5 | -6 |
| | (200) | +12 | -7 |
| | (210) | | -9 |

Yes: 1:10

stop record

28

LINE 50 S + 210 W TO 570 W

32
2002 Oct. 9
IP 7/8 50 S Baseline 270° Azimuth

| Line | Station | In Phase | Quad | X | Y | Z | Z' |
|-------------|-----------|----------|------|---|---|---|---------------------|
| IP 7/8 50 S | 210 (210) | +13 | -8 | | | | |
| | (220) | +19 | -8 | | | | |
| | (230) | +18 | -9 | | | | |
| | (240) | +20 | -9 | | | | |
| | (250) | +22 | -9 | | | | |
| | (260) | +22 | -5 | | | | |
| | (270) | +23 | -4 | | | | |
| | (280) | +19 | +2 | | | | |
| corr 29% | (290) | +26 | +8 | | | | |
| | (300) | +12 | +7 | | | | |
| | (310) | -5 | 0 | | | | |
| | (320) | -3 | -7 | | | | |
| | (330) | +19 | +2 | | | | old scrap iron pile |
| | (340) | +12 | -6 | | | | |
| | (350) | +12 | -8 | | | | |
| | (360) | +13 | -4 | | | | |
| | (370) | +15 | -4 | | | | |
| | (380) | +11 | -2 | | | | |
| | (390) | +10 | 0 | | | | |
| | (400) | +10 | 0 | | | | |

2002 Oct. 9
IP 7/8 50 S Baseline 270° Azimuth

| Line | X | Y | Z' | Z'' |
|--------------------|--------|---------|-------|------|
| IP 7/8 50 S W 270° | | | | |
| | | (110) | +7 | -2 |
| | | (120) | +7 | -1 |
| | | (130) | +5 | -4 |
| | | (140) | +4 | -2 |
| | | (150) | +5 | -4 |
| | | (160) | -6 | -4 |
| | | (170) | +3 | -4 |
| | | (180) | 0 | -2 |
| | | (190) | -5 | +2 |
| | | (200) | -8 | +6 |
| | | (210) | -10 | +9 |
| Δ 332 | 482052 | 5742993 | 7.39m | 7.15 |

edge of fly b

Geokojon Studies for Dump
Ground Grooks

79

TO ABOVE

46

2002 Oct 9 DUMP

10 7-18 1005 Baseline 270° Azimuth

Line Station In Phase Grad

X Y Z' Z''

| | | | | |
|-----------|-------|-----|-----|-----------|
| 1075 1005 | 270° | 0 | 0 | +3 |
| | (10) | +5 | -2 | |
| | (20) | +5 | -4 | |
| | (30) | 0 | -3 | |
| | (40) | -5 | 0 | |
| | (50) | -7 | 0 | |
| | (60) | -10 | +4 | |
| | (70) | -13 | -2 | |
| | (80) | -4 | -3 | |
| | (90) | -2 | -3 | |
| | (100) | +12 | 0 | |
| | (110) | +10 | +1 | |
| | (120) | +10 | -4 | |
| | (130) | +8 | -2 | |
| | (140) | +13 | -8 | |
| | (150) | -3 | -19 | |
| | (160) | -5 | -10 | Yous. 1.2 |
| 1075 | (170) | -2 | -12 | |
| | (180) | 0 | -12 | Yous. 1.1 |
| 1075 | (190) | -5 | -10 | |
| | (200) | -7 | -8 | |

DUMP EXCEEDED

Yous. 1.2

Yous. 1.1

2002 Oct 9

10 7-18 1005 Baseline 270° Azimuth DUMP

Line Station In Phase Grad

10 7-18 1005

| | | |
|-------|-----|-----|
| (210) | -7 | -9 |
| (220) | -7 | -3 |
| (230) | -9 | -3 |
| (240) | -10 | -3 |
| (250) | -8 | -1 |
| (260) | -10 | -1 |
| (270) | -10 | -2 |
| (280) | -12 | -5 |
| (290) | -9 | -9 |
| (300) | -5 | -5 |
| (310) | +2 | -12 |
| (320) | +7 | -10 |
| (330) | +17 | -7 |
| (340) | -15 | -5 |
| (350) | +8 | -3 |
| (360) | +4 | -3 |
| (370) | -8 | -1 |
| (380) | -6 | +1 |
| (390) | -5 | +1 |
| (400) | -5 | +2 |

Yous. 1.2

30

FOLLOWING
VLF - EM 416
LINE 100 S - 400 W TO 500 W

48

002079 AU FX 352 2130

| Line | Station | In | Phase | Quadrant |
|-------|---------|---------|-------|---------------------|
| X | Y | Z | | |
| 1070 | 1000 W | (410) | -5 | +3 |
| | | (420) | +5 | +1 |
| | | (430) | -4 | +2 |
| | | (440) | -5 | +4 |
| | | (450) | -5 | +2 |
| | | (460) | -4 | 0 |
| | | (470) | -2 | -1 |
| | | (480) | -2 | +2 |
| | | (490) | -3 | 2 |
| | | (500) | -6 | +3 |
| Δ 338 | 482096 | 5442938 | 351m | 75 |
| | (510) | -8 | 0 | } DATA NOT USED. |
| | (520) | -9 | 0 | |
| | (530) | -6 | +2 | |
| | (540) | 0 | +3 | |
| | (550) | +5 | +2 | |
| | (560) | +7 | -1 | |
| | (570) | 0 | -2 | |
| Δ 331 | 481996 | 5442953 | | |

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U TO 500 W

44

2002 Oct 8

718 1505 270° Azimuth

Line Station In Phase Quad

| X | Y | Z' | Z'' |
|---------------------|-------|-----|-----|
| IP 718 1505 W (100) | | -10 | 0 |
| | (110) | -14 | -1 |
| | (120) | -3 | -7 |
| | (130) | +27 | -5 |
| | (140) | +34 | 0 |
| | (150) | +21 | -7 |
| corr 165.5 (160) | | +14 | 0 |
| corr 170 (170) | | +12 | -10 |
| corr 185 (180) | | +6 | -8 |
| | (190) | -13 | -9 |
| | (200) | -21 | -10 |
| | (210) | -24 | -10 |
| | (220) | -28 | -10 |
| | (230) | -30 | -12 |
| | (240) | -25 | -15 |
| | (250) | -22 | -20 |
| | (260) | -21 | -24 |
| | (270) | -24 | -17 |
| | (280) | -28 | -21 |
| | (290) | -20 | -25 |
| | (300) | -10 | -21 |

deviate from Az 3m

back on Azimuth

2002 Oct 8

718 1505 270° Azimuth

Line Station In Phase Quad

| X | Y | Z' | Z'' |
|--------------------|-------|-----|-----|
| IP 718 1505 W 270° | | | |
| | (310) | 0 | -16 |
| | (320) | +3 | -16 |
| | (330) | +2 | -17 |
| | (340) | +3 | -13 |
| | (350) | 0 | -12 |
| | (360) | 0 | -9 |
| | (370) | -2 | -13 |
| | (380) | -2 | -3 |
| | (390) | -5 | 3 |
| | (400) | -3 | -2 |
| | (410) | -6 | +1 |
| | (420) | -7 | +4 |
| | (430) | -8 | +4 |
| | (440) | -2 | +4 |
| | (450) | -8 | +4 |
| | (460) | -7 | +6 |
| | (470) | -7 | +3 |
| | (480) | -10 | +5 |
| | (490) | -10 | +2 |
| | (500) | -12 | +1 |

read in phase

Δ 330 490 500 740

32

W to 500 W
W to 700 W

2002 Oct. 8
IP 7/8 2005 270° Azimuth

Line Station In Phase Quad
X Y Z' Z''

| Line | Station | In Phase | Quad | |
|------------|---------|----------|------|-----------------------|
| X | Y | Z' | Z'' | |
| IP 7/8 | (210) | +41 | +3 | |
| | (220) | +63 | +4 | |
| | (230) | +32 | -5 | |
| | (240) | +15 | -10 | |
| | (250) | +13 | -2 | |
| | (260) | +16 | +4 | metal pile 40' across |
| | (270) | +7 | 0 | cross = 1.45 |
| corn 287.5 | (280) | +3 | -1 | |
| corn 299 | (290) | +3 | -6 | |
| corn 310 | (300) | 0 | -3 | |
| | (310) | +14 | -5 | cross road |
| | (320) | +10 | -6 | |
| | (330) | +8 | -3 | |
| | (340) | +7 | -5 | |
| | (350) | +10 | -8 | edge of pond |
| | (360) | +7 | -14 | ground left edge |
| | (370) | +14 | -14 | 15' off line |
| | (380) | +20 | -15 | |
| | (390) | +22 | -10 | |
| | (400) | +20 | -10 | back to line |

2002 Oct 8

IP 7/8 2005, 270° Azimuth

Line Station In Phase Quad
X Y Z' Z''

| Line | Station | In Phase | Quad | |
|-------------|---------|----------|------|-------------|
| X | Y | Z' | Z'' | |
| IP 7/8 2005 | (410) | +17 | -7 | |
| | (420) | +10 | -5 | |
| | (430) | +15 | -1 | |
| | (440) | +12 | +2 | |
| | (450) | +10 | +2 | |
| | (460) | +7 | +2 | |
| | (470) | +5 | +2 | |
| | (480) | +2 | +2 | |
| | (490) | 0 | +3 | |
| | (500) | -12 | +3 | near narrow |
| 40 328 | 482057 | 5442845 | 736m | |
| 10 1/8 1505 | 0 | -5 | 0 | |
| | (10) | -10 | 0 | |
| | (20) | -3 | -1 | |
| | (30) | +23 | -12 | |
| | (40) | +25 | -6 | |
| | (50) | +14 | -3 | |
| | (60) | +7 | -1 | |
| | (70) | +2 | -2 | |
| | (80) | 0 | +1 | |
| | (90) | -5 | 0 | |



40

2002 Oct 8

IP 7/B 2505 Baseline 300W 270° Azimuth

Line Station In Phase Quad

| X | Y | Z' | Z'' |
|-----------------|-------|-----|-----|
| IP 7/B 2505 270 | (510) | -5 | -9 |
| | (520) | +5 | -6 |
| | (380) | +5 | -3 |
| | (340) | +2 | -2 |
| | (350) | +2 | -2 |
| | (360) | +7 | -1 |
| | (370) | +12 | -8 |
| | (380) | +25 | -14 |
| | (390) | +38 | -13 |
| | (400) | +52 | -13 |
| | (410) | +45 | -14 |
| | (420) | +30 | -14 |
| | (430) | +27 | -15 |
| | (440) | +24 | -8 |
| | (450) | +10 | -15 |
| | (460) | +47 | +0 |
| corr 480 | (470) | +35 | +4 |
| | (480) | +16 | -1 |
| | (490) | +9 | -6 |
| | (500) | +6 | -2 |
| | (510) | +3 | -2 |
| | (520) | -2 | 0 |

W TO 520 W
TO 200 W

2002 Oct 8

IP 7/B 2005 Baseline 270° Azimuth

Line Station In Phase Quad

| X | Y | Z' | Z'' |
|-----------------|-------|-----|-----|
| IP 7/B 2005 270 | AZ 0 | -7 | -5 |
| | (10) | -10 | -3 |
| | (20) | -10 | -2 |
| | (30) | -5 | -1 |
| | (40) | -3 | -7 |
| | (50) | +12 | -12 |
| | (60) | +20 | -10 |
| | (70) | +39 | -4 |
| | (80) | +33 | -2 |
| | (90) | +28 | 0 |
| | (100) | +18 | 0 |
| | (110) | +12 | +1 |
| | (120) | +5 | +1 |
| | (130) | ? | -1 |
| | (140) | -3 | -10 |
| | (150) | +13 | +4 |
| corr 162.1 | (160) | +14 | 0 |
| 173.1 | (170) | 0 | +3 |
| 184.1 | (180) | -2 | -6 |
| 194.6 | (190) | +14 | +6 |
| corr 204.6 | (200) | +15 | -2 |

turn out to

erroneous

read (2)

34

35

2002 Oct 7 Seattle
 IP 7/8 300.5 270° Azimuth

Line Station In Phase Quad
 X Y Z' Z''

IP 7/8 300.5 W 270°
 (410) +7 0
 (420) +2 -2
 (430) -1 0
 (440) +4 -2
 (450) +9 -3 edges of dump.

327 482122 5442735 762m

2002 Oct 8 IP 7/8 250.5 E baseline

Line Station In Phase Quad
 X Y Z' Z''

IP 7/8 250.5 0 +2 -4
 N 270° (10) -2 0
 (20) -6 +3
 (30) -9 -4
 (40) -11 -4
 (50) -15 -2
 (60) -15 -1
 (70) -8 -2
 (80) -2 -4
 (90) +3 -2

W 450 W
 E 300 W

2002 Oct 8

IP 7/8
 Line Station In Phase Quad
 X Y Z' Z''

IP 7/8 200.5 W 270° (100) +10 -1
 (110) +40 +3
 (120) +40 +8
 (130) +28 0
 (140) +15 -3 mid road.
 (150) +5 -3
 (160) 0 +1
 (170) +10 +2
 (180) +20 -3
 corr 196 (190) +10 -3 ditch road
 (200) +10 -3
 (210) +9 -3 ditch road
 (220) +5 -4
 (230) +3 -3
 (240) -2 -5
 (250) -3 -3
 (260) +2 -1
 (270) +3 -2
 corr 286.5 (280) +5 -3 $\frac{1}{2} = 1.10$
 (290) +15 -8
 (300) +30 -1

35

36

2002 Oct 7

IP 7/8 Baseline 3005 270° Azimuth

Line Station In Phase Quad

| X | Y | Z' | Z'' | |
|---------------|-------|-----|-----|---------------------|
| IP 7/8 3005 | 0 | +15 | -6 | |
| W 270° (10) | | +8 | -7 | |
| | (20) | +5 | 0 | |
| | (30) | +5 | +1 | |
| | (40) | 0 | +3 | |
| | (50) | 0 | +3 | base of rock strike |
| 1.20% corr 62 | (60) | -2 | +2 | rock bluff |
| corr 74 | (90) | -5 | +2 | s = 1.20 corr |
| | (50) | -10 | +4 | s = 1.10 corr |
| corr 93 | (90) | -10 | +1 | |
| | (100) | -7 | 0 | |
| | (110) | +5 | -13 | |
| | (120) | +15 | -18 | |
| | (130) | +35 | -15 | |
| | (140) | +37 | -4 | |
| corr 159m | (150) | +12 | -1 | top of road cut |
| corr 170 | (160) | +15 | -4 | road (1) |
| corr 180.5 | (170) | +10 | -6 | |
| corr 191 | (180) | +25 | +5 | |
| corr 202 | (190) | -40 | +4 | |
| corr 211 | (200) | 0 | +1 | road (2) middle |

to 400 W

2002 Oct 7

IP 7/8 Baseline 3005 180° Azimuth

Line Station In Phase Quad

| X | Y | Z'' | Z''' | |
|-------------|--------|-----|------|---------------|
| IP 7/8 3005 | W 270° | | | |
| corr | (210) | +10 | -3 | |
| | (220) | +13 | -5 | |
| | (230) | 0 | -10 | |
| | (240) | -5 | -10 | |
| | (250) | -10 | -4 | |
| | (260) | -8 | -4 | |
| | (270) | -5 | +2 | |
| | (180) | -8 | +5 | |
| | (290) | 0 | +1 | s = 1.10 |
| corr 312 | (300) | +5 | +3 | |
| | (310) | -2 | -10 | ditch of road |
| | (320) | +9 | -1 | ditch of road |
| corr 343 | (330) | +2 | -2 | |
| | (340) | +6 | +3 | |
| | (350) | +8 | 0 | |
| | (360) | +8 | +4 | |
| | (370) | +12 | +1 | |
| | (380) | +12 | -1 | |
| | (390) | +14 | +3 | |
| | (400) | +10 | 0 | |

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2002 Oct. 7

IP 7/8 3505 Baseline 190° Azimuth

Line Station In Phase Quad

| X | Y | Z' | Z'' | |
|--------------|-------------|-----|-----|------------------------|
| IP 7/8 3505 | (110) | -7 | -1 | ribbon 10' W |
| | W270° (120) | -5 | -6 | |
| | (130) | +4 | -11 | |
| | (140) | +21 | -13 | |
| | (150) | +40 | +6 | |
| Corr. 163m | (160) | +25 | +8 | |
| | (170) | +15 | +6 | |
| | (180) | +8 | +1 | |
| | (190) | 0 | +2 | shoulder road (1) |
| ribbon @ 200 | (200) | -3 | +4 | mid road (1) |
| | (210) | -3 | +3 | |
| | (220) | -7 | +5 | |
| | (230) | -10 | +3 | ditch between 2 feds |
| | (240) | -10 | +1 | |
| Corr 257 | (250) | 0 | 0 | |
| | (260) | +3 | 0 | |
| | (270) | -3 | -2 | next to electric fence |
| | (280) | -2 | -1 | |
| | (290) | -7 | -4 | |
| | (300) | -10 | -5 | |

2002 Oct 7

IP 7/8 3505 Baseline 190° Azimuth

| X | Y | Z' | Z'' | |
|-------------|-------------|-----|-----|---------------|
| IP 7/8 3505 | | | | |
| | W270° (310) | -7 | -1 | |
| | (320) | -3 | +4 | shoulder road |
| | (330) | -15 | +4 | ditch road |
| | (340) | -13 | +2 | |
| | (350) | -7 | +8 | |
| | (360) | -2 | +6 | |
| | (370) | +2 | 0 | |
| | (380) | +2 | 0 | |
| | (390) | 0 | +2 | |
| | (400) | 0 | +2 | flat area cor |
| | (410) | -2 | -2 | |
| | (420) | 0 | -3 | |
| | (430) | +2 | -1 | |
| | (440) | +2 | -2 | |
| | (450) | +3 | -5 | |
| | (460) | +2 | -6 | |
| | (470) | +8 | -9 | |
| | (480) | +17 | -8 | |

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2002 Oct. 7

| Line | Station | In Phase | Quad | |
|-------------------|------------|----------|------|------------------------------------|
| X | Y | Z' | Z'' | |
| 1P 78.4005 | W270°(210) | +2 | +10 | |
| | (220) | 0 | +10 | s = 1.01 |
| | (230) | -2 | +7 | |
| | (240) | +2 | +7 | |
| | (250) | +2 | +9 | |
| corr. 272m | (260) | +2 | +9 | |
| | (270) | +2 | +8 | |
| | (280) | 0 | +5 | shoulder road |
| | (290) | 0 | +3 | mid road (1) |
| ribbon 304m | 312m (300) | +1 | +2 | shoulder road |
| corr. 323 | (310) | -1 | +5 | |
| corr. 335 | (320) | -5 | +4 | s = 1.20 |
| | (330) | -12 | +5 | ditch of road |
| | (340) | -25 | +1 | mid road (2) |
| corr. 365 | (350) | -38 | -2 | shoulder road |
| | (360) | -55 | 0 | ditch road |
| | (370) | -63 | -1 | ditch |
| corr. 395 | (380) | -68 | +4 | ditch |
| | (390) | -60 | +9 | |
| no flag corr. 415 | (400) | -55 | +11 | intersection next to shredded wood |

2002 Oct 7

| Line | Station | In Phase | Quad | |
|-------------|------------|-----------|---------|---------------|
| Y | Z' | Z'' | | |
| 1P 78.4005 | W270°(410) | -30 | +18 | shredded wood |
| | (420) | -17 | +14 | |
| corr. 445 | (430) | -15 | +14 | |
| | (440) | -15 | +15 | |
| | (450) | -12 | +7 | |
| | (460) | -8 | +4 | |
| | (470) | -8 | +3 | |
| top of dump | (480) | -5 | +2 | 5 m from we |
| 2 326 | 48 2077 | 5442628 | 748 m | |
| 1P 78.5505 | 0 | +30 (-32) | -1 (-3) | |
| | W270°(10) | +23 | -2 | |
| | (20) | +17 | -3 | |
| | (30) | +13 | -1 | |
| | (40) | +8 | -2 | |
| | (50) | +3 | -1 | |
| | (60) | 0 | 0 | |
| | (70) | -3 | +4 | |
| | (80) | -3 | +3 | rock strike |
| | (90) | -4 | +3 | |
| | (100) | -5 | 0 | |

38

FORTUNE 7-18
VLF-EH 16
LINE 4005

31

0502 Oct 7

Baseline 180° Fortune 7/8 Dump

Station In Phase Quad Data

X Y Z' (s) Z'' (s)

000 0 0 +2 -5

(1) 270° (10) +22 (-23) -1 (-2)

(20) +25 -4

(30) +23 -1

(40) +15 -4

(50) +10 +4

(60) +8 0

(70) +3 +0

(80) 0 0

(90) 0 +5 s=1.60

(100) -2 +3 s=1.41

(110) -2 +3 top 50x50 m x 10

(120) -2 0 strike 25°

(130) -1 -1 s=1.03

(140) +4 0 s=1.01

(150) +4 -1

(160) +3 +5

(170) +4 +8

(180) +1 +10 s=1.005

(190) +5 +12

(200) +6 +10 s=1.021

39

LINE 450 S - 100 W TO 500 W
500 S - 5 W TO 30 W

38

Oct. 4, 2002

IP 718 450 S Baseline 180° 270° Azimuth

Loc Station In Phase Grad

| X | Y | Z' | Z'' |
|--------------|--------|-----|---------------|
| IP 718 450 S | 270° N | | |
| (210) | +2 | +14 | |
| (220) | +5 | +10 | |
| (230) | +5 | +12 | |
| (240) | +5 | +7 | |
| (250) | +8 | +9 | |
| (260) | +6 | +7 | |
| (270) | +4 | +9 | |
| (280) | +2 | +8 | |
| (290) | 0 | +6 | |
| (300) | -2 | +5 | |
| (310) | -3 | +3 | |
| (320) | -3 | +1 | |
| (330) | -4 | +2 | |
| (340) | -6 | +2 | |
| (350) | -7 | +3 | |
| (360) | -7 | +5 | cat excavator |
| (370) | -13 | +6 | |
| (380) | -17 | +7 | |
| (390) | -22 | +6 | |
| (400) | -28 | +7 | |

Oct. 4

IP 718 450 S Baseline 180° 270° Azimuth

Loc Station In Phase Grad

| X | Y | Z' | Z'' |
|--------------|--------|--------|-------|
| IP 718 450 S | 270° N | | |
| (410) | -35 | +8 | |
| (420) | -46 | +8 | |
| (430) | -62 | +7 | |
| (440) | -68 | +5 | |
| (450) | -76 | +2 | |
| (460) | -80 | +1 | |
| (470) | -86 | +2 | |
| (480) | -37 | -8 | |
| (490) | -18 | -5 | |
| (500) | -5 | -8 | |
| Σ 335 | 482070 | 544268 | 74.1m |
| IP 718 500 S | 0 | 0 | -1 |
| (10) | +8 | 0 | |
| (20) | +15 | +4 | |
| (30) | +21 | +8 | |
| (40) | +28 | +11 | |
| (50) | +32 | +14 | |
| (60) | +34 | +16 | |
| (70) | +32 | +15 | |
| (80) | +20 | +10 | |
| (90) | +11 | +4 | |

40

VLF FIELD
LINE 500 S - 100 W TO 510 W

40
2002 Oct 11
IP 718 500 S Baseline 270° Azimuth

| Line | Station | Inline | Quad |
|--------------|---------|--------|------|
| X | Y | Z' | Z'' |
| IP 718 500 S | 4(100) | 0 | +1 |
| | (110) | -5 | 0 |
| | (120) | -7 | +2 |
| | (130) | -7 | +1 |
| | (140) | -5 | +1 |
| | (150) | -5 | +2 |
| | (160) | -5 | -1 |
| | (170) | -6 | +1 |
| | (180) | -2 | -2 |
| | (190) | 0 | 0 |
| | (200) | 0 | +2 |
| | (210) | +3 | +3 |
| | (220) | +5 | +3 |
| | (230) | +5 | +4 |
| | (240) | +7 | +4 |
| | (250) | +7 | +5 |
| | (260) | +6 | +8 |
| | (270) | +6 | +5 |
| | (280) | +5 | +7 |
| | (290) | +5 | +5 |
| | (300) | +4 | +7 |

40
2002 Oct 11
IP 718 500 S 270° Azimuth

| Line | Station | Inline | Quad |
|--------------|---------|--------|------|
| X | Y | Z' | Z'' |
| IP 718 500 S | 270 W | | |
| | (310) | +1 | +4 |
| | (320) | +3 | +4 |
| | (330) | +5 | +5 |
| | (340) | +5 | +4 |
| | (350) | +5 | +5 |
| | (360) | +4 | +5 |
| | (370) | +3 | +5 |
| | (380) | +2 | +7 |
| | (390) | 0 | +5 |
| | (400) | -2 | +9 |
| | (410) | -3 | +7 |
| | (420) | -5 | +8 |
| | (430) | -3 | +9 |
| | (440) | -3 | +12 |
| | (450) | -3 | +10 |
| | (460) | -2 | +10 |
| | (470) | +1 | +9 |
| | (480) | +1 | +9 |
| | (490) | +5 | +3 |
| | (500) | +7 | -1 |
| | (510) | +11 | -1 |

(4)

LINE 5505 270° TO 400 W

42

2002 Oct 11

IP 7/8 5505 Baseline 270° Azimuth L

| Line | Station | In Phase | Quad | $V_{200} = 1.20$ |
|-------------|---------|----------|------|------------------|
| X | Y | Z' | Z'' | |
| IP 7/8 5505 | 270° | 0 | +7 | 0 |
| | (10) | +5 | -4 | |
| | (20) | +2 | 0 | |
| | (30) | +5 | +6 | |
| | (40) | +5 | +5 | |
| | (50) | +3 | +5 | |
| | (60) | 0 | -1 | |
| | (70) | +1 | -6 | |
| | (80) | -3 | -11 | |
| | (90) | -8 | -17 | |
| | (100) | -12 | -15 | |
| | (110) | -13 | -15 | |
| | (120) | -15 | -11 | |
| | (130) | -14 | -10 | |
| | (140) | -8 | -4 | |
| | (150) | -13 | -11 | |
| | (160) | -10 | -11 | |
| | (170) | -6 | -7 | |
| | (180) | -4 | -7 | |
| | (190) | -4 | -7 | |
| | (200) | -5 | -9 | |

43

2007 Oct 11

IP 7/8 5505 Baseline W 270° Azimuth L

| Line | Station | In Phase | Quad |
|-------------|---------|----------|------|
| X | Y | Z' | Z'' |
| IP 7/8 5505 | 270° | -4 | -8 |
| | (20) | -5 | -5 |
| | (30) | -5 | -8 |
| | (40) | -3 | -6 |
| | (50) | -2 | -6 |
| | (60) | -1 | -5 |
| | (70) | 0 | -5 |
| | (80) | 0 | -4 |
| | (90) | -2 | -5 |
| | (100) | +1 | -3 |
| | (110) | +2 | -3 |
| | (120) | 0 | -1 |
| | (130) | +2 | 0 |
| | (140) | +4 | -2 |
| | (150) | +4 | -2 |
| | (160) | +4 | -2 |
| | (170) | +4 | -2 |
| | (180) | +5 | -4 |
| | (190) | +5 | -3 |
| | (200) | +4 | -5 |

42

42

2002 Oct. 12

IP 718 180° Baseline W 270° Azimuth

Line Station In Phase Quad

| X | Y | Z' | Z'' |
|--------|-------|--------|-------|
| IP 718 | 6005 | W 270° | (300) |
| | (310) | -3 | -5 |
| | (320) | -3 | -8 |
| | (330) | -3 | -8 |
| | (340) | -3 | -4 |
| | (350) | -3 | -4 |
| | (360) | -3 | -4 |
| | (370) | -2 | -5 |
| | (380) | -2 | -9 |
| | (390) | -1 | -8 |
| | (400) | -1 | -9 |
| | (410) | -1 | -11 |
| | (420) | -2 | -10 |
| | (430) | -1 | -10 |
| | (440) | -1 | -10 |
| | (450) | -2 | -10 |
| | (460) | -2 | -9 |
| | (470) | -2 | -6 |
| | (480) | -2 | -6 |
| | (490) | -3 | -6 |
| | (500) | -5 | -5 |

400 hr.

A 338

48 20 48

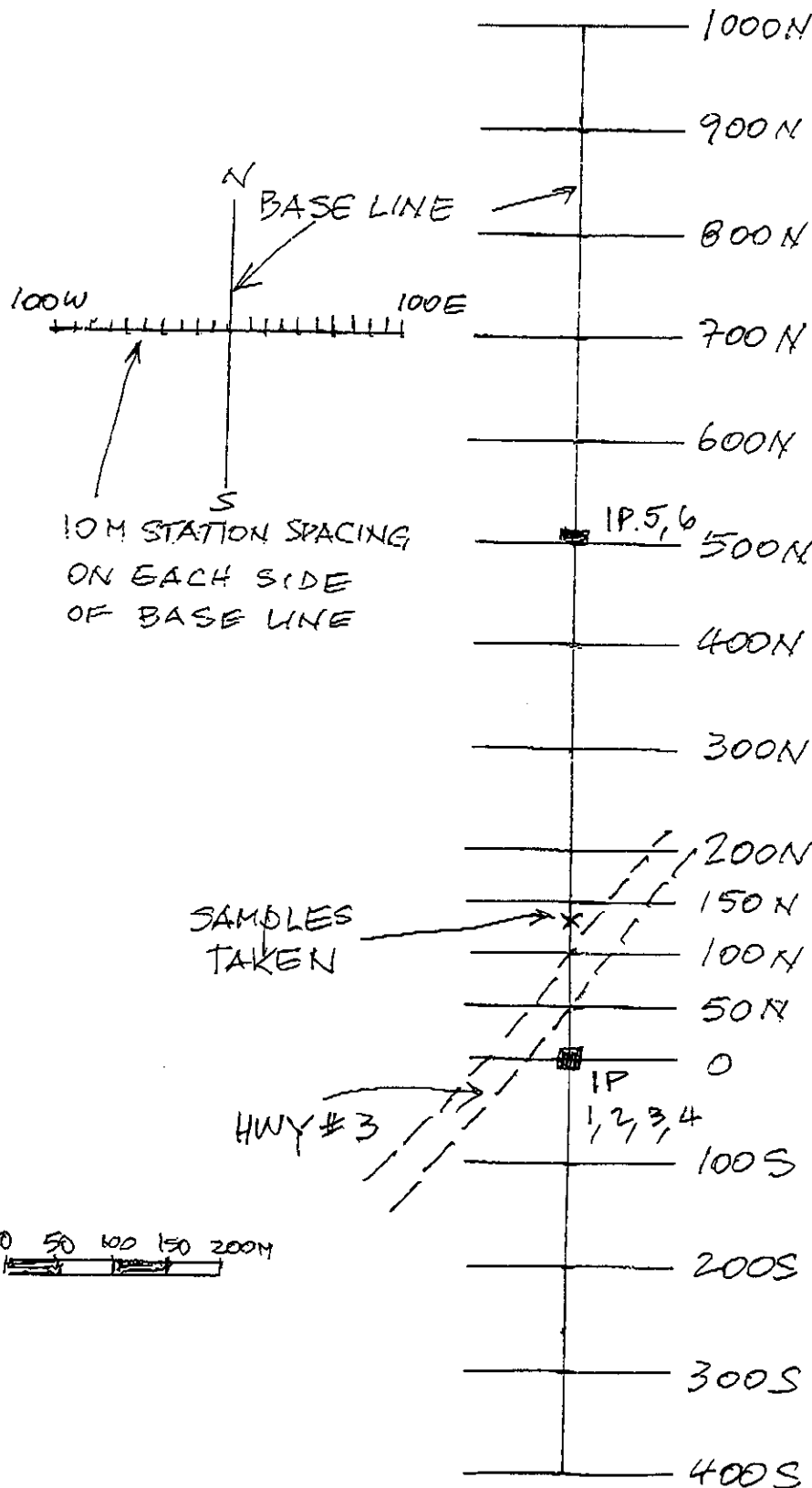
5442.434

760m

MSA

43

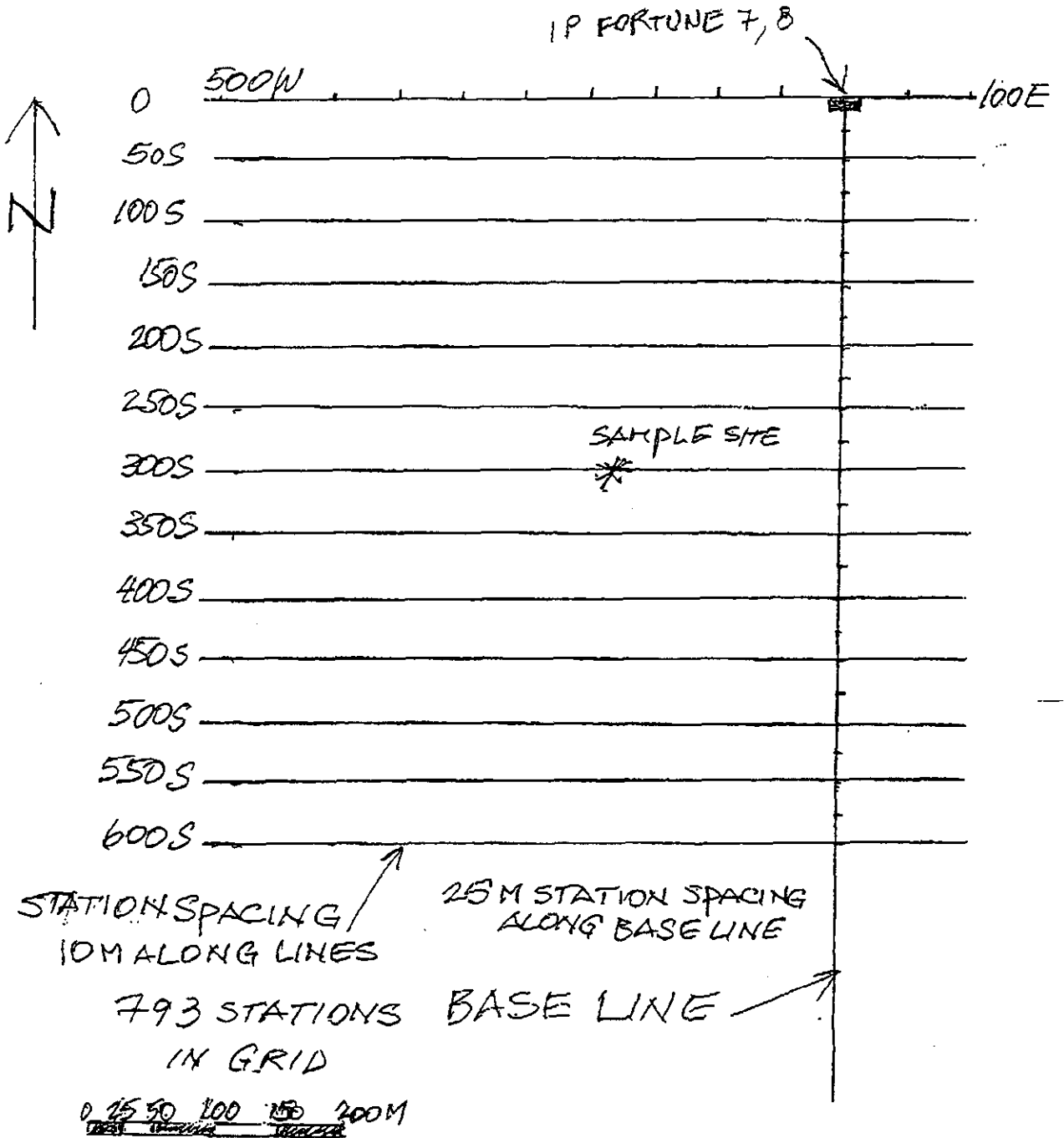
Fortune 1 to 6 Mineral Claims Grid layout for VLF EM 16 Survey



↑
N
AZIMUTH OF
BASE-LINE
012°
357 STATIONS
MARKED

44

Fortune 7 to 18 Mineral Claims Grid layout for VLF EM 16 Survey



(45)

**Fortune 1 to 6 Mineral Claims
Cost Statement for the work**

| | |
|---|--------------------------|
| Grid layout and sample collecting | 1705.59 |
| VLF data collecting | 3310.48 |
| Engineering Supervision Report writing | 1458.30 |
| Truck | 431.58 |
| Sampling | 321.00 |
| VLF EM 16 rental | 224.71 |
| Travel and Meals | <u>357.29</u> |
| Total | \$ <u>7808.75</u> |

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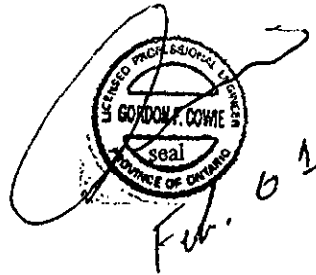
**Fortune 7 to 18 Mineral Claims
Cost Statement for the work**

| | |
|---|--------------------------|
| Grid layout and sample collecting | 1585.05 |
| VLF data collecting | 3167.26 |
| Engineering Supervision Report writing | 1041.66 |
| Truck | 382.24 |
| Sampling | 321.00 |
| VLF EM 16 rental | 163.84 |
| Travel and Meals | <u>255.20</u> |
| Total | <u>\$ 6916.25</u> |

Disclaimer,

**I, Gordon F. Cowie, P. Eng, of # 108 - 145 St. George Street in
Toronto, Canada, M5R 2N1**

- 1. That, I have visited (1 day) at the Fortune Graphite Property site and four days on the Superior Graphite Property from 9th July to 14th July, 2,000.**
- 2. That, I have not received, nor do I expect to receive any interest in the properties, or securities from Worldwide Graphite Producers nor from International Mineral Resources Ltd.**



Dated at Toronto, Ontario on this 15th day of February, 2,001