213001

ANNUAL REPORT

FOR

95-3745

RETENTION LICENCE 8802

AND

CONSOLIDATED MINING LEASE 46M/90

AT

MAIN CREEK, SAVAGE RIVER, TASMANIA

FOR THE PERIOD
24 MAY 1994 TO 23 MAY 1995

BY

R. W. ANNETT

JUNE 1995

SAVAGE RESOURCES LIMITED
Incorporated in Tasmania

SUMMARY

Two mining (haulage) easements have been granted for a period of ten years; these will ensure free movement of material between the extraction sites and either the Savage River Mine lease area or the Waratah to Corinna road. Retention Licence 8802 has been extended for a fourth term of three years.

The Wynyard-Waratah Council has agreed to extend the life of the Planning Permit to the 11th January 1997. The Department of Environment and Land Management has given in principal approval to certain changes to the Pigment Project.

Ground exploration has included the construction of costeans and sondage (depth determination) points at the HT ochre site and Bowry Creek umber site and auger drilling at the latter site. The extracted materials have been point or bulk sampled for physical and chemical analyses.

Four diamond drill holes have been drilled at the Long Plains magnetite deposit. Core samples have been analysed for chemical impurities found to be important at Savage River Mines for iron/steel applications, magnetic properties for dense media applications and colour characteristics for pigment applications.

In respect of the pigments, market studies to determine the quality of the pigment are on-going both in Australia, the United States, Europe and Japan. Several Australian research and testing facilities continue to undertake weathering tests on bricks/tiles that have been made using Savox® pigments. Optimisation of the process route has been completed. Pigment specifications have been determined.

® Savox is a registered Trade Name.

PREVIOUS EXPLORATION

The following annual and supplementary reports have been lodged with Tasmania Development Resources - Mineral Resources Tasmania:

- annual: 23 May 1988 to 23 May 1989;
- supplementary: 23 May 1988 to 23 May 1989;
- supplementary: 24 May 1989 to 31 Aug 1989;
- annual: 31 Aug 1989 to 22 May 1990;
- annual: 24 May 1990 to 23 May 1991;
- annual: 24 May 1991 to 31 Aug 1992 Volumes I and II;
- annual: 01 Sep 1992 to 30 Aug 1993 (DP&EMP); and
- annual: 01 Sep 1993 to 23 May 1994 (Joint Report with CML 46M/90).

Throughout the period of tenure investigations have focussed on the following mineral occurrences:

Fine Grained Iron Oxides: the weathering of magnesite has led to the formation of secondary products which includes yellow (ochre) and brown (umber) pigments;

Magnetite: as a feed supply for iron/steel (in conjunction with activities at Savage River), as dense media coal washing magnetite and as a black pigment;

Magnesite: for industrial applications within cement/masonry products and in the neutralisation of acid streams.

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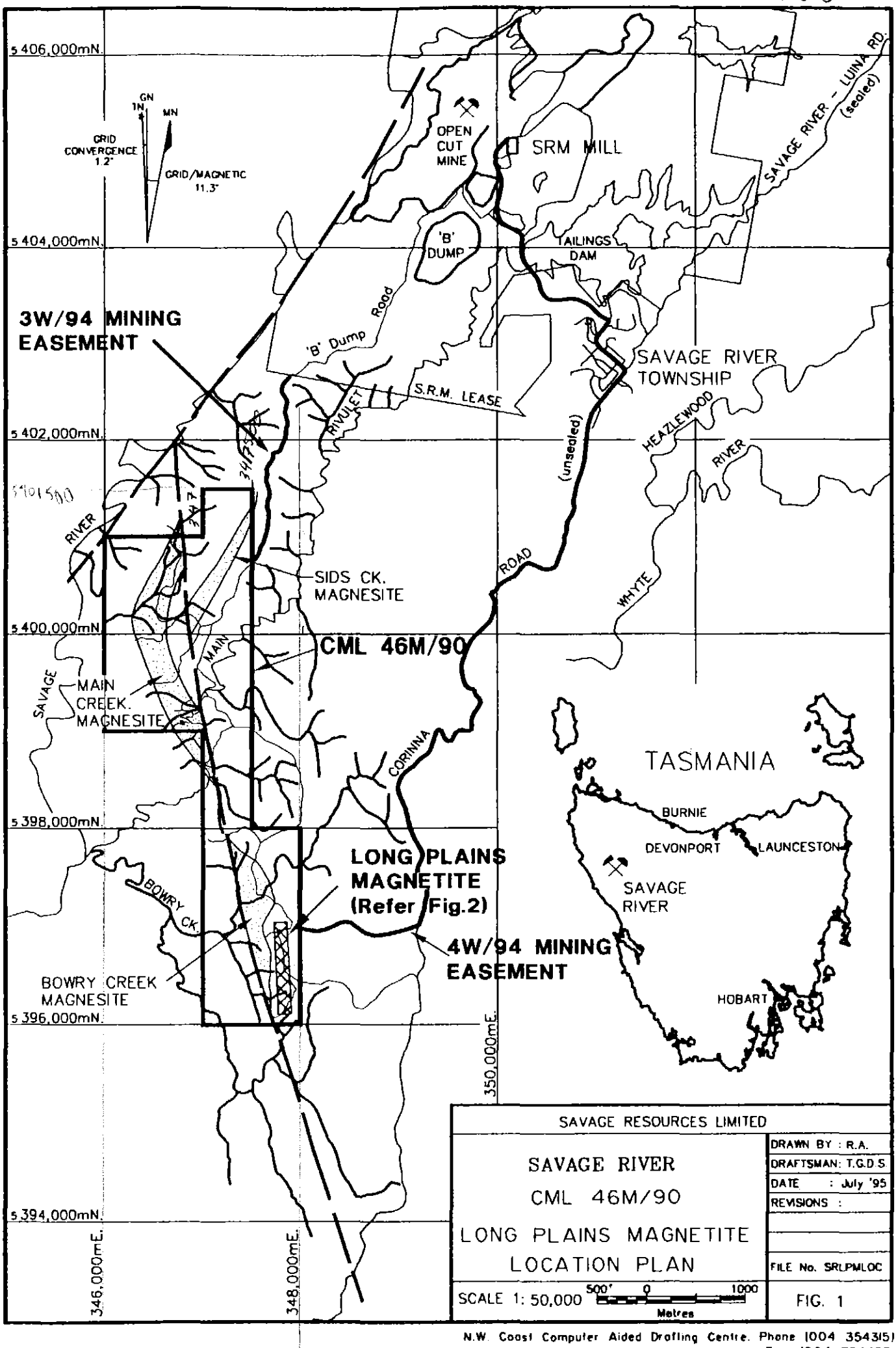
213006



SAVAGE RESOURCES LIMITED	
SAVAGE RIVER CML 46M/90 LONG PLAINS MAGNETITE LOCATION PLAN	DRAWN BY : R.A. DRAFTSMAN: T.G.D.S. DATE : July '95 REVISIONS : FILE No. SRLPMLOC
SCALE 1: 50,000 (500' 0 1000 Metres)	FIG. 1

N.W. Coast Computer Aided Drafting Centre. Phone (004 354315)
Fax (004 354495)

1. INTRODUCTION

The consolidated mining lease, retention licence and mining (haulage) easements are located approximately 6 km south-west of the Savage River Township.

Access to the ochre site is south along an exploration track (the *B dump road*) from the SRM iron ore operations, a distance of some 5 km. The umber site is located another 4 km to the south and 13 km by road from SRM, access is gained via a track that runs off the Waratah to Corinna road (Figure 1).

The northern most part of the Long Plains magnetite deposit is located a few hundred metres east of the Bowry Creek umber site; both deposits share a common access route.

2. TENURE

Tenure is held under a Retention Licence 8802, Consolidated Mining Lease 46M/90 and two Mining (Haulage) Easements 3W and 4W/94. The area comprises State Forest - Multiple Use Forest Land and Crown Land - Deferred Forest Land.

2.1 Retention Licence 8802

On the 7th May 1995 RL 8802 was extended for a further term of three years to expire on the 23 May 1998. The licence applies to an area of 4 sqkm (more or less) and excludes 575 hectares of consolidated mining lease (CML 46M/90).

Activities relating to this licence and CML 46M/90 are jointly reported.

2.2 Mining (Haulage) Easements 3W and 4W/94

Two mining (haulage) easements were marked out on the 21st July 1994 to ensure security of movement between the consolidated mining lease and either the SRM lease area or a public road (the Waratah to Corinna road).

On the 24th February 1995 Governor-in-Council consented to their grant for a period of ten (10) years commencing on the 1st February 1995.

2.3 Consolidated Mining Lease 46M/90

There has been no change to the status of this tenement within the reporting period.

3. PLANNING APPROVALS

On the 9th March 1995 the Department of Environment and Land Management (DELM) was asked whether minor (*evolutionary*) changes to the proposed Pigment Project would contravene any of the conditions of the Licence to Operate a Scheduled Premises. DELM has yet to formally advise of its position, although it is believed that the proposed changes do not necessitate any amendment or alteration of the conditions under Section 29 of the Environment Protection Act 1973.

The Wynyard-Waratah Council agreed to extend the life of the Planning Permit issued to Savage Resources Ltd until the 11th January 1997.

4. EXPLORATION

4.1 HT Ochre Site

A number of costeans were constructed by excavator. These either infilled and/or extended previous costeans lying between the HZ and HC sections or opened *new ground* in an area between sections HD and HE (Figure 2). Costean excavation involved the removal of the top 1.5 m of surface material. Depth determinations to a maximum of 6 m (sondages) were established at 20 sites with the extracted material stockpiled for point and bulk sampling.

Ochre intervals were mapped. Costean construction and mapping were surveyed to AHD and AMG.

Point samples of the sondage material were processed by Savage Resources's laboratory at Savage River (blunged and screened to minus 45 micron) and the product assayed for iron by wet titration method (refer text on Figure 2); sub samples of the product were also despatched to ALS in Brisbane for whole rock analysis (Appendices 1 and 2).

Miscellaneous chemical and physical analyses of raw *as-mined* ochre and chemical analysis of raw minus 75 micron ochre are reproduced in Appendix 3.

Point samples were composited to form bulk samples which were later processed by the laboratory and used in commercial pigment trials (manufacture of coloured bricks and tiles, etc).

4.1.1 HT Ochre Site Reserve Calculation

The following reserve tonnages are specific to two areas where exploration data is sufficient to determine a reserve, these are between the HZ and HC sections and in the vicinity of the HD and HE sections (Figure 2).

Only ochre widths greater than 4 m in thickness that lie within the pit limits constitute the reserve. While thinner bodies may be exploitable their exclusion in general may account for the demands associated with the mining of irregular bodies. The reserve has been downgraded by a factor of 5%, as ochre lying marginal to greenschist bands will not be mined. Ochre horizons are interpreted as extending either a distance of 15 m to the north and south of a costean line or to the mid-point between costean lines, whichever occurs first.

Continuity of the ochre horizons to depths around 5 m has been proved by the excavation of the sondage points.

The probable continuity of the ochre horizons to depths of 20-30 m (pit floor) is demonstrated by the auger holes that are positioned within or close to the pit limits.

The volume of each ore block was calculated using the following depths below the surface for particular categories of ore:

0 to 2 metres from surface; Topsoil/Vegetation
2 to 7 metres from surface; Proven Reserve
7 to 20 metres from surface; Probable Reserve

These volumes were then multiplied by density, moisture and recovery factors to achieve tonnage figures (Appendix 4).

Table 1. Recovered Ochre (Yellow) Pigment From Mining Areas (Tonnes)

	PROVED	PROBABLE	TOTAL
Southern Pit	2,920	2,920	5,840
Northern Pit	11,450	29,700	41,150
TOTAL	**14,370**	**32,620**	**46,990**

The ochre discovered in the northern half of the HT Ochre Site nor the numerous other occurrences of ochre seen elsewhere (at least four other sites) are included in the ochre reserve. Exploration in these areas has yet to determine the extent of the ochre deposits.

4.2 The Bowry Creek (East) Umber Site

The Bowry Creek East umber site constitutes the principal umber site; it lies on the eastern bank of Bowry Creek some 40 m east of the first costean which uncovered umber material. So far it is the largest single occurrence of umber yet exposed.

Ground surveys this reporting period consisted of the auger drilling of the Bowry Creek East umber site and exploration costeaning. The latter technique was used to extend the known area of the eastern umber resource immediately to the north (on the opposite bank of Bowry creek), south (further along the ridge) and east.

The costean exploration programme exposed a number of scattered umber horizons some of which, with further work, may yet equal the size and importance of the eastern site. A number of small ochre horizons were also exposed. Costean exploration work is at a preliminary level and has yet to be surveyed to AHD and AMG, final presentation of the data set has been left for the next reporting period.

Seven auger holes were drilled into the eastern site using a nominal 6 inch diameter auger flight. Six of the holes failed to penetrate greenschist horizons at depths between 12 and 20 m; auger hole BC3 remained in umber at 18.8 m,

when it was abandoned through caving. Unfortunately the auger was not able to penetrate the more competent greenschist units.

Sampling was generally at 1.5 or 3.0 m intervals; all the material was collected after the removal of contaminated material from wall-rock smearing. The umber horizons appeared massive and, macroscopically, without colour variation.

The samples were processed by Savage Resources's laboratory at Savage River (blunged and screened to minus 45 micron) and the product assayed for iron by wet titration method (Appendix 5); sub samples of the product were also despatched to ALS in Brisbane for whole rock analysis (Appendices 6 to 8).

Miscellaneous chemical and physical analyses of raw *as-mined* umber and chemical analysis of raw minus 75 micron umber are reproduced in Appendix 9.

Point samples were composited to form bulk samples which were later processed by the laboratory and used in commercial pigment trials (manufacture of coloured bricks and tiles, etc).

4.2.1 The Bowry Creek (East) Umber Site Reserve Calculation

A body of umber, on the eastern side of Bowry Creek, lying within the pit limits and above the final pit floors constitutes the reserve (Figure 3). The umber appears to be a single body with well defined boundaries to the west, south and east. It remains partially open to the north, however any probable umber extensions have been excluded from the reserve; this omission compensates for the narrow and intermittent greenschist bands which lie within the umber body. The reserve has been down-graded by a factor of 5%, as umber lying marginal to the greenschist bands will not be mined. This will ensure that contamination is kept to a minimum.

The surface extent of the umber is well defined. Its continuity to depths between 15-20 m beneath ground surface is confirmed by four of the six auger holes (Appendix 5).The volume of the umber reserve was determined by first dividing the surface area into seven polygons, the centre of which is an auger hole. The polygons were then clipped; laterally to the pit limits and vertically to the final pit floor. An umber volume for each polygon was then calculated by multiplying the thickness of the umber lying within the polygon by the polygon's area. The volume was divided further into four ore categories (dependent upon the iron grade of the umber within the corresponding auger hole) using the following ore categories:

Table 2. Umber Ore Categories

<25% Fe_2O_3	waste,
25 - 35% Fe_2O_3	Grade D
35 - 48% Fe_2O_3	Grade C
48 - 55% Fe_2O_3	Grade B
+55% Fe_2O_3	Grade A

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These ore block volumes were then multiplied by density, moisture and recovery factors (Appendix 5) to achieve tonnage figures shown in the following table.

Table 3. Recovered Tonnage of Umber by Ore Category

	Recovered Fe_2O_3 Grades of Umber Pigment (Dry Tonnes)			
GRADE	25 - 35 % (D)	35 - 48% (C)	48 - 55% (B)	+55% (A)
PROVEN	1,463	7,814	3,895	3,382
PROBABLE	646	2,080	1,558	636
TOTAL	2,109	9,894	5,453	4,018

Weighted average iron grades for various umber ore categories is given in Appendix 5; two principal umbers are of interest a low iron (Grade C) and a blended high iron (Grade B and/or A + D).

Reserve tonnages of the blended material have been independently verified by an external consultant, Mr M. McKeown, and his reserve estimates downgraded by 5% are shown in the table below.

Table 4. Recovered Umber Pigment By Grade (Dry Tonnes)

	SAVAGE RESOURCES LTD		CONSULTANT	
GRADE	LOW IRON (C)	HIGH IRON (B,A+D)	LOW IRON (C)	HIGH IRON (B,A&D)
PROVEN	7,814	8,740		
PROBABLE	2,080	2,840		
TOTAL	9,894	11,580	10,545	10,925

4.3 Long Plains Magnetite Deposit

The deposit was first investigated in the early 1960's by the Bureau of Mineral Resources (BMR), during their regional magnetic studies of the Savage River area, and Industrial and Mining Investigations Pty Limited (IMI).

The magnetite deposit lies within the Bowry Formation and, along with the other Savage River magnetite deposits, is suggested to be an exhalative deposit. It extends over a strike distance of approximately 3 km of which the northern most 600 m contains the richest development of magnetite (Figure 4).

The magnetite zones are sub vertical to strongly east dipping and when considered as a single entity appear wedge shaped with the apex pointing down and plunging to the north. The magnetite is bounded by magnesite beds to the west (footwall) and micaceous greenschist to the east (hanging wall).

Ground exploration by Savage Resources this reporting period consisted of the establishment of a grid over the northern most 900 m of the Long Plains

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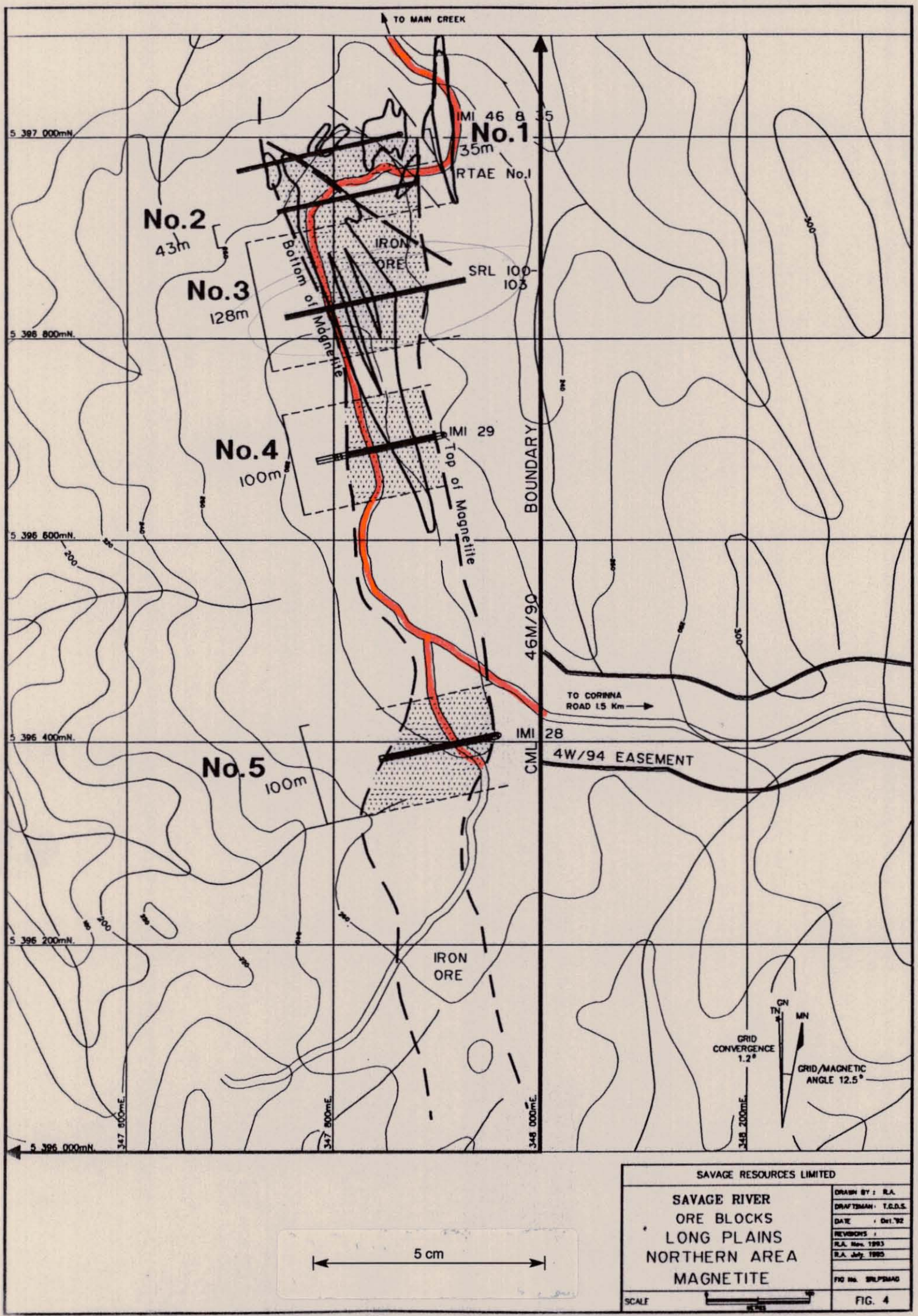


SAVAGE RESOURCES LIMITED

SAVAGE RIVER
ORE BLOCKS
LONG PLAINS
NORTHERN AREA
MAGNETITE

DRAWN BY : R.A.
DRAFTSMAN : T.C.D.S.
DATE : Oct.'92
REVISIONS :
R.A. Nov. 1993
R.A. July 1995
FIG No. SRLPSMAG

SCALE

FIG. 4

magnetite deposit. Grid north approximates to AMG north with orthogonal east-west traverses, of varying lengths up to 350 m, extending across the line of the magnetic strike. While there was no ground evidence of the old BMR grid it appears from the records that BMR grid north is some 14° to the west of the new grid (Appendix 10).

A magnetometer survey was run over the grid and the data interpreted in conjunction with the BMR data (Appendix 10).

A four hole diamond drill programme of some 525 m provided reliable drill core across the entire width of the magnetite deposit in an area of moderate magnetite development lying between bore holes RTAE 1 and IMI 29 (Figure 5).

Routine assaying of holes LP100 to LP103 was undertaken by Savage River Mines at their Port Latta laboratory. Core was split longitudinally by diamond saw and, after crushing and pulverising the sample was analysed using a Davis Tube apparatus.

The Davis Tube retains magnetic material, under standard conditions, allowing non magnetic materials to be washed from the sample. Essentially, the Davis Tube gives an estimate of the proportion of magnetite concentrate which can be recovered from an ore sample. Davis Tube analyses are expressed as "percentage Davis Tube Recovery", abbreviated to %DTR.

For each sample, the magnetite concentrate recovered in the Davis Tube was assayed for ferrous iron and total iron, and the chemical impurities which have been found to be important at Savage River Mines; nickel, titania, vanadium, magnesia and phosphorous. The ratio of ferrous iron to total iron is a measure of how far oxidation of magnetite to hematite has progressed (Appendix 11).

The analyses indicate that only the top 15 m of ore is oxidised; the ore is characterised principally by ore types 1 (containing pyrite), 4 (massive magnetite) and 6 (magnetite with inclusions of greenschist).

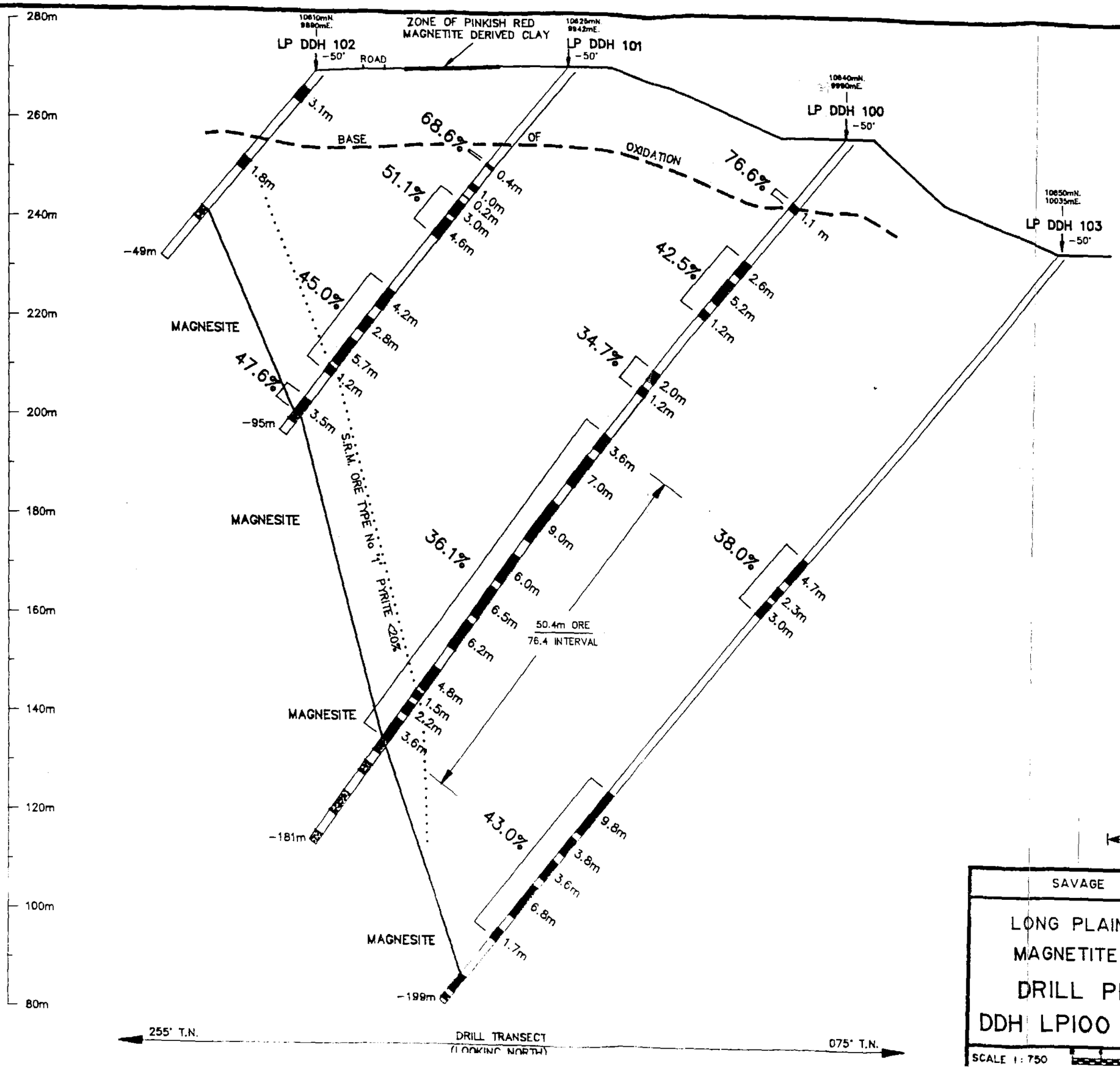
4.3.1 Long Plains Magnetite Ore Resource Estimate

For the most part the recovery of drill core within the magnetite lenses is acceptable, however it is unfortunate that higher grade magnetite lenses are often powdery and therefore extremely susceptible to wash-out and non-core recovery. This has the net effect of downgrading the ore resource estimate.

The average %DTR's for intersections in the diamond drill holes have been weighted by mass. This is in accordance with the practice at Savage River Mines. The ore densities used for mass calculations for assay weighting, and for ore tonnage estimates in the pit design were calculated according to the formula in use at Savage River. This formula allows calculation of density from %DTR:

$$\text{ore density} = 2.588 + (0.01923 \times \%\text{DTR})$$

The waste density of 2.81 tonnes per cubic metre used at Savage River was also used. Oxidised material was classed as overburden.



213014

SAVAGE RESOURCES LIMITED

LONG PLAINS SOUTH
MAGNETITE DEPOSIT
DRILL PROFILE
DDH LP100 - LP 103

DRAWN BY : L.V
DRAFTSMAN: T.G.D.S.
DATE : OCT. 94
REVISIONS
R.A. DECEMBER 1994
FILE No. SRLPSF:

SCALE 1 : 750

FIG 5

The pit design is a first pass design and preliminary only. It should be considered as giving an indicative idea of the size of the resource. It is based principally on that part of the Long Plains deposit which stretches from IMI 46 in the north to just south of the LP series holes; further south the resource is restricted to strike extensions around holes IMI 29 and IMI 28 (Figure 4).

Table 5. Long Plains Resource Estimate

ORE BLOCK	% DTR	ORE RESOURCE	CONTAINED CONCENTRATE
1	67.6	826,177	559,006
2	69.7	1,681,603	1,171,812
3	41.0	4,083,320	1,673,508
Sub total		6,591,100	3,404,326
4	24.6	1,694,137	416,951
5	34.1	1,192,855	406,539
Sub total		2,886,992	823,490
TOTAL	**44.6**	**9,478,092**	**4,227,816**

Infill drilling south of the LP series holes, particularly between IMI 29 and IMI 28, could provide a considerable increase to the current ore resource estimate.

5. DEVELOPMENT ACTIVITIES

5.1 The Pigment Project

Activities have focussed on the commercial viability of the Pigment Project. This has entailed the finalisation of the process flow sheets, preliminary engineering and site construction analysis, market appreciation of the Savox pigments and financial analysis.

Overseas marketing tests have been undertaken with various companies in the UK, USA and Japan. All test work using Savox pigments has been for concrete masonry/roofing tile and industrial paint applications. Favourable and very encouraging reports have been received.

Domestic marketing trials have been undertaken in Tasmania, South Australia, New South Wales and Queensland with a number of concrete manufacturing companies. Weathering and physical tests are on-going, however to date there have been no adverse reports and it appears that the Savox pigments perform as good as other commercially available natural pigments.

The typical specifications of the pigments to be produced are given in table 6 over the page.

Table 6. Typical Specifications of Savox Pigments

		BLACK	RED	YELLOW	LIGHT BROWN	DARK BROWN	CALSIRO
Typical chemical analysis		%	%	%	%	%	%
Total iron as Fe_2O_3		96.0 - 98.0	67.0 - 77.0	53 - 60	53 - 58	54.19	94.8
$SiO_2 + Al_2O_3$		1.0 - 2.0	17.9 - 28.0	25 - 40	13 - 26	19.45	2.18
MnO		< .01	0.3 - 0.7	< 0.5	13 - 16	13.95	0.09
Loss on ignition		-2.52	3.5 - 3.75	13.0	10 - 13	N/A	-0.35
Water soluble salts		0.31	0.32 - 0.6	0.3	0.02	N/A	0.31
Matter volatile @ 105°C		0.29	0.96 - 1.06	0.5	0.5	N/A	0.29
Acid insoluble matter		2.8	12.70 - 24.0	11.5	6.7	6.0	2.8
Typical physical properties	**Units**	**Value**	**Value**	**Value**	**Value**	**Value**	**Value**
Oil absorption	gm/100 gm	31	42	51.0	50.0	50.0	30.0
Specific gravity	-	4.6	3.2 - 3.6	3.2	3.4	3.4	4.6
Loose bulk density	kg/litre	1.3	0.38	0.7	0.4	N/A	1.3
Dispersibility in water	-	excellent	excellent	excellent	excellent	excellent	excellent
pH of 5% aqueous suspension	-	7.8	5 to 7	5 to 7	4 to 6	4 to 6	7.8
Residue on a 45 micron sieve (325 mesh)	%	0.0	0.0	0.0	0.0	0.0	0.0
Maximum stable temperature	°C	200.0	200.0	200.0	200.0	600.0	200.0
Hegman fineness	-	4	7.0	5.5	7.5	6.5	6.5
Average particle size	micron	2.9	1.2	1.2	1.5	1.5	2.9
Particle shape	-	equant	equant	equant	equant	equant	equant
Light resistance	-	excellent	excellent	excellent	excellent	excellent	excellent
Alkali resistance	-	excellent	pass	excellent	pass	pass	excellent
Conforms to BS 1014:1975*	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* Specifications for "Pigments for Portland Cement and Portland Cement Products".

346 550mE. 346 600mE. 346 650mE. 346 700mE.

5 400 400mN. 5 400 400nN.

5 400 350mN. 5 400 350nN.

5 400 300mN. 5 400 300mN.

5 400 250mN. 5 400 250mN.

5 400 200mN.

5 400 150mN. 5 400 150mN.

5 400 100mN. 5 400 100mN.

5 399 950mN.

PIT OUTLINE

HZ1 HZ2 HZ3

HA1 HA2 HA3 HA4 HA5 HA6 HA7 HA8

HB1 HB2 HB3

HC1 HC2 HC3 HC4 HC5

HD1 HD2 HD3 HD4 HD5 HD6

HE1 HE2 HE3

HQ1 HQ2 HQ3 HQ4 HQ5

RAMP

RAMP

Creek

175 180 185 190

PIT OUTLINE

IRON ASSAY RESULTS FOR HT SAMPLES (Fe_2O_3)

	SAVAGE	ALS/rpt		SRL	ALS/rpt
1	67.4	66.5	101	39.2	44.4
2	55.4	55.0	102	31.4	31.8
3	38.9	35.8	103	42.8	49.0
4	75.3	76.8	104/106	63.4	58.9
5	69.1	66.1	105/106	56.7	
6	76.4	55.1	107	28.7	46.0
7	64.8	73.6	108	61.4	62.2
8	64.1	61.6	109	39.2	58.1
9	66.3	62.6	110	36.2	62.2
10	75.5	72.8/73.2	111	36.5	57.1/57.5
11	52.6	48.9/49.5	112	52.0	53.6
12	38.1	39.1	113	70.0	66.2
13	67.6	66.2	115/116	64.9	66.3
14	79.9	72.8	117	34.3	51.4
15	86.5	74.8	118	54.7	55.5
16	74.6	74.8			
17	84.4	80.5			
18	81.6	78.9			
19	85.1	63.2		SRL	ALS
20	72.8	73.5	WEIGHTED AVERAGE	55.6	58.2

FINAL WEIGHTED AVERAGE 56.9%

5 cm

95-3745

ANNUAL REPORT FOR RL 8802 & 46M/90
MAIN CK SAVAGE RIVER 23/5/94 TO 23/5/95
- ANNETT R W SAVAGE RESOURCES

SAVAGE RESOURCES LIMITED

SAVAGE RIVER CML 46M/90
MAIN CREEK
YELLOW SITE
DRILLING, GEOLOGY
& ORE BLOCKS

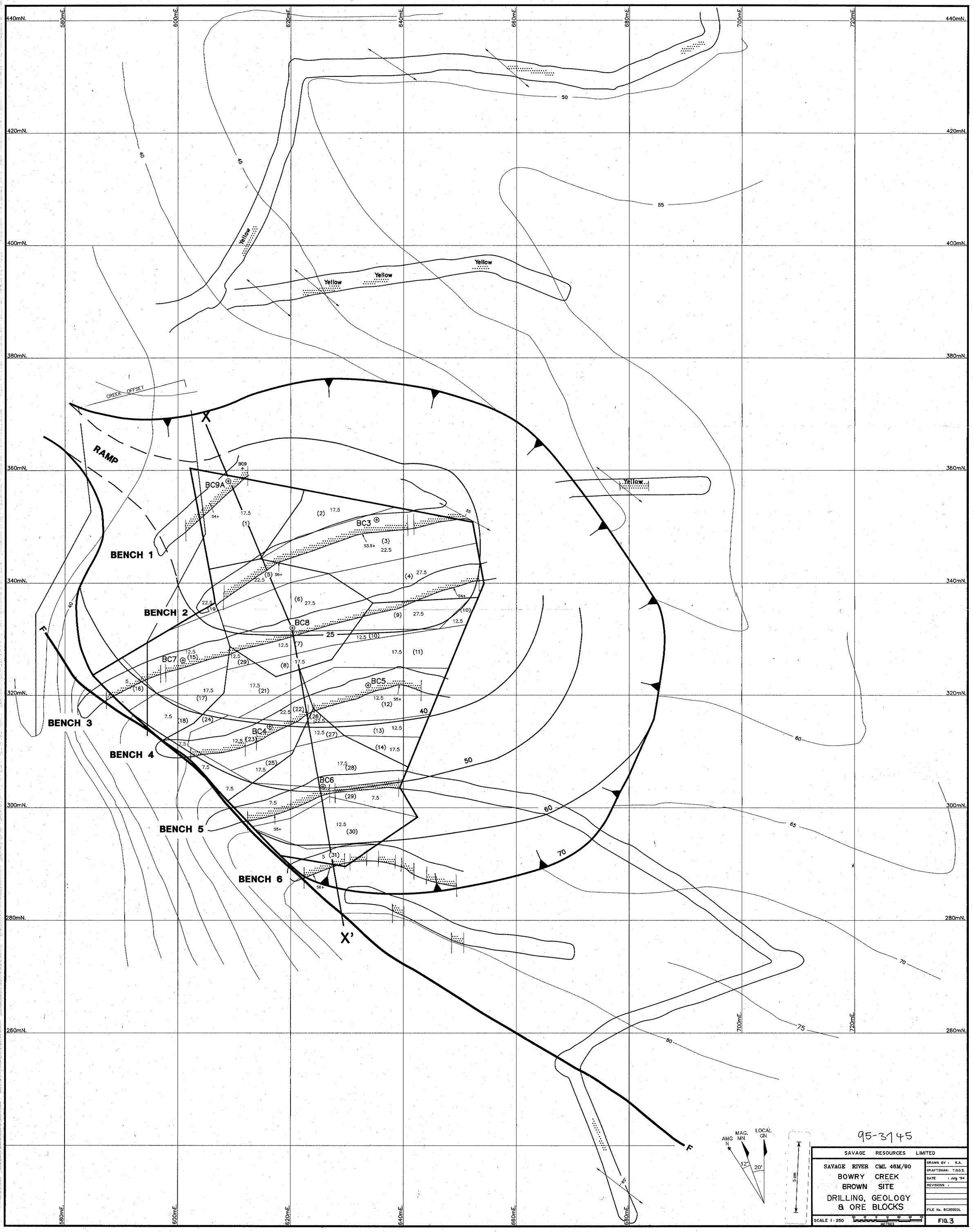
DRAWN BY : R.A.
DRAFTSMAN: T.G.D.S.
DATE : July '94
REVISIONS :
FILE No. MC56E0L

SCALE 1 : 500 METRES

FIG. 2

N.W. Coast Computer Aided Drafting Centre. Phone (004 354385)

215017


440mN.
420mN.
400mN.
380mN.
360mN.
340mN.
320mN.
300mN.
280mN.
260mN.
580mE.
600mE.
620mE.
640mE.
660mE.
680mE.
700mE.
720mE.
X
X'
RAMP
CREEK OFFSET
BENCH 1
BENCH 2
BENCH 3
BENCH 4
BENCH 5
BENCH 6
BC9
BC9A
BC3
BC8
BC7
BC5
BC4
BC6
Yellow
50
55
45
40
60
70
65
75
80
25
AMG N
MAG. MN
LOCAL GN
12°
20°
5 cm
SCALE 1 : 250
METRES
95-3145
SAVAGE RESOURCES LIMITED
SAVAGE RIVER CML 46M/90
BOWRY CREEK
BROWN SITE
DRILLING, GEOLOGY & ORE BLOCKS
DRAWN BY : R.A.
DRAFTSMAN: T.G.D.S.
DATE : July '94
REVISIONS :
FILE No. BC259E0L
FIG.3
213018
N.W. Coast Computer Aided Drafting Centre. Phone (004) 354351 Fax. (004) 354490

213019

APPENDIX ONE

ALS ANALYTICAL REPORT (ST 9026-0)

HT OCHRE SITE SAMPLES 06 - 20 (INC)

213020

AUSTRALIAN LABORATORY SERVICES P/L
A.C.N. 009 936 029

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST9026-0

No. of SAMPLES: 29
DATE RECEIVED: 21/06/94
DATE COMPLETED: 28/06/94

ORDER No: ALS010668 SAMPLE TYPE: SOLID PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SiO2 % M275	Al2O3 % M275	Fe2O3 % M275	CaO % M275	MgO % M275
OCHRE 101		43.30	3.03	44.40	<0.01	0.24
OCHRE 102		58.90	2.16	31.80	0.01	0.21
OCHRE 103		38.90	2.39	49.00	0.02	0.38
OCHRE 104-106		25.30	3.78	58.90	0.01	0.37
OCHRE 107		38.00	5.51	46.00	0.03	0.37
OCHRE 108		15.00	8.47	62.20	0.01	0.41
OCHRE 109		23.80	5.83	58.10	0.01	0.44
OCHRE 110		21.00	4.54	62.20	0.01	0.35
OCHRE 111		18.00	9.88	57.10	0.01	0.52
OCHRE 112		17.70	12.80	53.60	0.01	0.44
OCHRE 113		10.90	7.71	66.20	<0.01	0.55
OCHRE 117		24.50	9.22	51.40	<0.01	0.50
OCHRE 115 & 116#		12.00	6.22	66.30	<0.01	0.69
OCHRE 118		23.00	6.90	55.50	<0.01	0.58
OCHRE HT 06		18.00	10.40	55.10	0.03	0.72
OCHRE HT 07		6.74	4.94	73.60	0.02	0.25
OCHRE HT 08		8.90	12.20	61.60	0.01	0.24
OCHRE HT 09		8.26	11.80	62.60	0.02	0.44
OCHRE HT 10		8.95	3.79	72.60	0.01	0.69
OCHRE HT 11		29.00	8.43	48.90	0.05	0.58
OCHRE HT 12		30.20	14.80	39.10	0.02	0.24
OCHRE HT 13		12.40	5.45	66.20	0.02	0.69
OCHRE HT 14		9.13	3.64	72.90	0.01	0.65
OCHRE HT 15		6.95	4.11	74.80	0.01	0.53
OCHRE HT 16		4.57	5.42	74.60	0.01	0.57
OCHRE HT 17		3.32	2.69	80.50	0.01	0.41
OCHRE HT 18		3.29	3.65	78.90	0.01	0.41
OCHRE HT 19		8.40	9.64	63.20	0.04	0.28
OCHRE HT 20		10.60	3.07	73.50	0.01	0.21
DETECTION LIMIT:		0.01	0.01	0.01	0.01	0.01

COMMENTS:

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All pages of this report have been checked and approved for release.

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213021 [redacted]

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST9026-0

No. of SAMPLES: 29
DATE RECEIVED: 21/06/94
DATE COMPLETED: 28/06/94

ER No: AL5010668 SAMPLE TYPE: SOLID PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	TiO2 % M275	Na2O % M275	K2O % M275	P2O5 % M275	MnO % M275
OCHRE 101		0.10	<0.01	0.01	0.10	0.23
OCHRE 102		0.08	<0.01	0.03	0.26	0.12
OCHRE 103		0.10	0.01	0.03	0.20	0.21
OCHRE 104-106		0.20	<0.01	0.02	0.13	0.17
OCHRE 107		0.26	0.02	0.08	0.22	0.15
OCHRE 108		0.41	0.05	0.23	0.25	0.21
OCHRE 109		0.25	0.05	0.28	0.24	0.14
OCHRE 110		0.13	0.01	0.07	0.14	0.23
OCHRE 111		0.45	0.01	0.13	0.11	0.37
OCHRE 112		0.54	0.03	0.16	0.09	0.17
OCHRE 113		0.32	<0.01	0.09	0.07	0.46
OCHRE 117		0.66	<0.01	0.26	0.06	0.26
OCHRE 115 & 116#		0.39	<0.01	0.11	0.07	0.57
OCHRE 118		0.95	0.03	0.38	0.09	0.24
OCHRE HT 06		0.36	0.02	0.17	0.16	0.24
OCHRE HT 07		0.18	0.02	0.16	0.42	0.14
OCHRE HT 08		0.44	<0.01	0.04	0.29	0.62
OCHRE HT 09		0.18	0.06	0.19	0.26	0.14
OCHRE HT 10		0.12	0.01	0.02	0.41	0.26
OCHRE HT 11		0.44	<0.01	0.21	0.26	0.17
OCHRE HT 12		0.19	<0.01	0.05	0.13	0.93
OCHRE HT 13		0.10	0.02	0.06	0.09	1.19
OCHRE HT 14		0.33	0.01	0.38	0.10	0.52
OCHRE HT 15		0.18	0.03	0.14	0.33	0.31
OCHRE HT 16		0.03	0.02	0.02	0.04	0.44
OCHRE HT 17		0.10	0.03	0.12	0.34	0.14
OCHRE HT 18		0.03	0.04	0.01	0.12	0.31
OCHRE HT 19		0.16	<0.01	0.03	1.15	0.11
OCHRE HT 20		0.03	<0.01	0.01	0.47	0.19
C ON LIMIT:		0.01	0.01	0.01	0.01	0.01

MENTS:

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213022

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST9026-0

No. of SAMPLES: 29
DATE RECEIVED: 21/06/94
DATE COMPLETED: 28/06/94

No: ALS010668 SAMPLE TYPE: SOLID PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SrO % M275	ZrO2 % M275	LOI @ 800c % M275
OCHRE 101		<0.01	0.01	7.71
OCHRE 102		0.02	0.01	5.60
OCHRE 103		0.01	0.01	8.06
OCHRE 104-106		0.01	0.01	10.50
OCHRE 107		0.01	0.02	8.86
OCHRE 108		0.02	0.01	12.30
OCHRE 109		0.02	0.01	10.50
OCHRE 110		0.01	0.02	10.90
OCHRE 111		<0.01	0.01	13.00
OCHRE 112		<0.01	0.01	14.00
OCHRE 113		0.01	<0.01	13.40
OCHRE 117		<0.01	<0.01	12.60
OCHRE 115 & 116#		<0.01	<0.01	13.30
OCHRE 118		0.01	<0.01	11.60
OCHRE HT 06		0.01	0.01	13.90
OCHRE HT 07		0.01	0.01	12.60
OCHRE HT 08		<0.01	0.01	14.60
OCHRE HT 09		0.01	0.01	15.00
OCHRE HT 10		<0.01	0.01	12.10
OCHRE HT 11		0.01	0.01	11.10
OCHRE HT 12		<0.01	0.02	13.50
OCHRE HT 13		<0.01	<0.01	12.80
OCHRE HT 14		<0.01	<0.01	11.50
OCHRE HT 15		0.01	<0.01	11.90
OCHRE HT 16		<0.01	<0.01	13.40
OCHRE HT 17		0.02	<0.01	11.70
OCHRE HT 18		0.01	<0.01	12.60
OCHRE HT 19		<0.01	<0.01	16.30
OCHRE HT 20		0.01	<0.01	11.30
ECTION LIMIT:		0.01	0.01	0.01

MENTS:

Springs Laboratory
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Laboratory
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ters Towers Laboratory
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213023

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST9026-0

No. of SAMPLES: 29
DATE RECEIVED: 21/06/94
DATE COMPLETED: 28/06/94

D[illegible] No: ALS010668 SAMPLE TYPE: QUALITY CONTROL PROJECT No:

SAMPLE NUMBER	ELEMENT / UNIT / METHOD	SiO2 % M275	Al2O3 % M275	Fe2O3 % M275	CaO % M275	MgO % M275
~~*** OCHRE 111~~		~~18.20~~	~~9.84~~	~~57.50~~	~~<0.01~~	~~0.51~~
*** OCHRE HT 10		8.88	3.78	73.20	0.01	0.71
*** OCHRE HT 11		28.60	8.50	49.50	0.05	0.59
ECTION LIMIT:		0.01	0.01	0.01	0.01	0.01

MENTS: Results which appear on this report are routine laboratory checks for QUALITY CONTROL purposes.

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213024

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST9026-0

No. of SAMPLES: 29
DATE RECEIVED: 21/06/94
DATE COMPLETED: 28/06/94

R No: ALS010668 SAMPLE TYPE: QUALITY CONTROL PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	TiO2 % M275	Na2O % M275	K2O % M275	P2O5 % M275	MnO % M275
~~*** OCHRE 111~~		~~0.44~~	~~0.01~~	~~0.13~~	~~0.11~~	~~0.38~~
*** OCHRE HT 10		0.12	<0.01	0.02	0.42	0.26
*** OCHRE HT 11		0.45	0.01	0.21	0.26	0.17
CTION LIMIT:		0.01	0.01	0.01	0.01	0.01

M NTS:

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ANALYTICAL REPORT

213025

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST9026-0

No. of SAMPLES: 29
DATE RECEIVED: 21/06/94
DATE COMPLETED: 28/06/94

ORDER No: AL5010668 SAMPLE TYPE: QUALITY CONTROL PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SrO % M275	ZrO2 % M275	LOI @ 800c % M275
~~*** OCHRE 111~~		~~<0.01~~	~~<0.01~~	~~12.60~~
*** OCHRE HT 10		<0.01	<0.01	12.10
*** OCHRE HT 11		0.01	<0.01	11.00
DETECTION LIMIT:		0.01	0.01	0.01

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APPENDIX TWO

ALS ANALYTICAL REPORT (AM 8952-0; AMENDED)

HT OCHRE SITE SAMPLES 01 - 05 (INC)

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213027

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: AMENDED
BATCH NUMBER: AM8952-0

No. of SAMPLES: 14
DATE RECEIVED: 28/06/94
DATE COMPLETED: 28/06/94

R R No: ALS010667 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SiO2 % M275	Al2O3 % M275	Fe2O3 % M275	CaO % M275	MgO % M275
BC8/02		23.00	10.40	37.70	0.03	0.50
BC8/03		15.50	8.98	44.10	0.04	0.76
BC8/04		14.00	4.53	51.40	0.03	1.02
BC8/05		18.50	3.47	50.80	0.03	0.54
BC8/06		23.20	1.09	49.60	0.04	0.41
BC8/07		21.80	1.08	49.80	0.05	0.48
BC9/01		14.00	5.74	44.80	0.06	3.10
HT 1		15.30	4.44	66.50	0.04	0.43
HT 2		27.10	6.22	55.00	0.04	0.50
HT 3		32.50	17.90	35.80	0.04	0.34
HT 4		5.07	2.09	76.80	0.02	0.35
HT 5		10.00	7.79	66.10	0.04	0.62
SRM PC 1		1.38	0.50	100.0	0.10	1.29
SRM PC-45 2		0.74	0.35	100.6	0.05	0.82
DETECTION LIMIT:		0.01	0.01	0.01	0.01	0.01

Sulphur
01 -006/-009
.01 -006

COMMENTS: This batch supersedes ST8952.
Fe2O3 is Total Fe expressed as Fe2O3.
IS = Insufficient Sample to conduct assay.

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laboratory
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213028

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: AMENDED
BATCH NUMBER: AM8952-0

No. of SAMPLES: 14
DATE RECEIVED: 28/06/94
DATE COMPLETED: 28/06/94

ORDER No: ALS010667 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	TiO2 % M275	Na2O % M275	K2O % M275	P2O5 % M275	MnO % M275
BC8/02		0.04	<0.01	0.02	0.09	13.70
BC8/03		0.12	<0.01	0.10	0.13	15.80
BC8/04		0.02	<0.01	<0.01	0.13	15.60
BC8/05		0.03	<0.01	0.02	0.08	13.90
BC8/06		0.03	<0.01	0.03	0.10	14.30
BC8/07		0.09	<0.01	0.06	0.08	15.20
BC9/01		0.51	0.10	0.57	0.11	18.00
HT 1		0.09	<0.01	0.02	0.12	0.54
HT 2		0.25	0.04	0.06	0.08	0.35
HT 3		0.41	0.03	0.13	0.12	0.10
HT 4		0.05	<0.01	0.01	0.06	2.47
HT 5		0.28	0.03	0.16	0.05	0.65
SRM PC 1		1.16	0.01	<0.01	<0.01	0.11
SRM PC-45 2		1.05	<0.01	<0.01	<0.01	0.11
DETECTION LIMIT:		0.01	0.01	0.01	0.01	0.01

COMMENTS:

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ANALYTICAL REPORT

213029

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: AMENDED
BATCH NUMBER: AM8958-0

No. of SAMPLES: 14
DATE RECEIVED: 28/06/94
DATE COMPLETED: 28/06/94

DEA No: ALS010667 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SrO % M275	ZrO2 % M275	LOI 800'c % M275
BC8/02		<0.01	0.01	13.00
BC8/03		<0.01	0.01	12.50
BC8/04		<0.01	<0.01	11.50
BC8/05		<0.01	<0.01	11.10
BC8/06		<0.01	<0.01	9.75
BC8/07		0.01	<0.01	10.20
BC9/01		0.01	0.01	10.20
HT 1		0.01	<0.01	11.70
HT 2		0.01	<0.01	9.31
HT 3		<0.01	0.01	11.50
HT 4		<0.01	<0.01	12.20
HT 5		<0.01	0.01	13.60
SRM PC 1		<0.01	<0.01	-2.74
SRM PC-45 2		<0.01	<0.01	-2.97
DETECTION LIMIT:		0.01	0.01	0.01

COMMENTS:

Springs Laboratory
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Phone: (054) 46 1390 Fax: (054) 46 1389
Laboratory
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APPENDIX THREE

MISCELLANEOUS PHYSICAL AND CHEMICAL ANALYSES OF

- RAW *AS-MINED* OCHRE; AND
- RAW MINUS 75 MICRON OCHRE.

As-Mined Size Distributions of Ochre

Screen Aperture Microns	OCHRE	
	% Wt Retained	Cum % Wt Passing
2,000	8.0	92.0
500	4.0	88.0
150	10.0	78.0
75	15.0	63.0
+45	2.5	60.5
-45	60.5	
Total	**100.00**	
P_{80}	220 microns	

Chemical Analyses for RAW Minus 75 micron Ochre

	Ochre HT4
% Fe_2O_3	58.34
% SiO_2	24.05
% Al_2O_3	2.32
% CaO	0.09
% MgO	1.65
% MnO	0.25
% Na_2O	1.14
% K_2O	0.11
% P_2O_5	1.17
% TiO_2	0.05

Multi-Element Chemical Analyses for Typical Raw Ochre by ICP

	Ochre HT
% Fe_2O_3	60.76
%SiO_2 tot	27.8
% Al	1.58
%Mn	0.18
%Ca	0.21
%Mg	0.91
%Na	0.38
%K	<0.05
%Ti	0.38
Ag ppm	<0.5
As ppm	<5
Cd ppm	0.6
Co ppm	48
Cr ppm	88
Cu ppm	67
Mo ppm	<5
Ni ppm	50
P ppm	482
Pb ppm	17
Sb ppm	<5
Se ppm	<5
V ppm	211
Zn ppm	334
Total Ba ppm	126
Leachable Ba ppm	5*
Cl ppm **	590
Acid Sol. S ppm	1010
SO_4 as mg/kg S	900

Source: Enviromet Analytical Report No's 940756 & 9708093 August 1994

213033

APPENDIX FOUR

HT OCHRE SITE

TECHNICAL INFORMATION AND CALCULATIONS

213034

HT OCHRE SITE TECHNICAL INFORMATION AND CALCULATIONS

Table 1. Iron Assays and Weighted Average Iron Calculations

Table 2. Weighted Average In-situ Moisture and *Pigment* Recoveries within the Pit Boundaries.

Table 3. Apparent and In-Situ Specific Gravity Calculations

Table 4. Calculation of the Area of the Ochre Ore Blocks

Table 5. Ore/Waste Ratios for the HT Drill Site Area

213035

TABLE 1. HT OCHRE SITE

Iron Assays and Weighted Average Iron Assay Calculations

SAMPLE NO	SRLL Fe_2O_3	ALS Fe_2O_3	BLOCK	AREA	SRLL	ALS
1	67.4	66.5	27	224.8	15152	14949
2	55.4	55.0	26	143.4	7994	7887
3	38.9	35.8	25	195.9	7621	7013
4	75.3	76.8	24	458.4	33096	32753
5	69.1	66.1				
6	76.4	55.1	21	97.4	7441	5367
13	67.6	66.2	20	237.3	16041	15709
107/108	45.1	52.1	19	148.4	6693	7732
109	39.2	58.1	18	139.8	5480	8132
110	36.2	62.2	17	108	3910	6718
110	36.2	62.2	16	194.7	7048	12110
104-106	60.1	58.9	9	222.8	13390	13123
115/113	67	66.2	29	308.6	20676	20429
111/112	44.3	55.5	28	137.7	6100	7642
14/116	72.4	69.6	33	320.5	23204	22307
118	54.7	55.5	30	124.2	6794	6893
103/102	37.1	40.4	11	21	779	848
101/12	38.7	41.8	12	562.5	21769	23513
11	52.6	49.2	13	111	5839	5461
			TOTALS	3756	208977	218577

	SRL	ALS
Weighted average	55.6%	58.2%

Final Weighted Average Iron Grade = 56.9% as Fe_2O_3

213036

TABLE 2. HT OCHRE SITE

Weighted Average In-situ Moisture and *Pigment* Recoveries within the Pit Boundaries.

sample	moisture	recov	area #	area	moisture	recovery
1	48	26.8	27	224.8	10790	6025
2	48	46.1	26	143.4	6883	6611
3	43	55.8	25	195.9	8424	10931
4	48	90.1	24	458.4	22920	41302
5	52	83.4				
6	46	63.1	21	97.4	4480	6146
13	48	82.7	20	237.3	11390	19625
107/108	47	75	19	148.4	6975	11130
109	18	69	18	139.8	2516	9646
110	44	70	17	108	4752	7560
110	44	70	16	194.7	8567	13629
104-106	38	62	9	222.8	8466	13814
115/113	50	62	29	308.6	15430	19133
111/112	53	46	28	137.7	7298	6334
14/116	37	77	33	320.5	11859	24679
118	51	62	30	124.2	6334	7700
103/102	23	57	11	21	483	1197
101/12	24	39	12	562.5	13500	21938
11	34	16	13	111	3774	1776
			TOTALS	3756	154842	229175

	moisture	recovery
Weighted average	41.2%	61.0%

213037

TABLE 3. HT OCHRE SITE

Apparent and In-Situ Specific Gravity Calculations

Assumptions:

- 58% material as Goethite (SG 4.3 g/cc),
- 42% material as Alumina-silicates (SG 2.7 g/cc),
- 41.2% in-situ moisture and,
- 61% recovery.

wt material	%wt material	SG material	vol of material
58	58	4.3	13.49
42	42	2.7	15.56
100			29.05

Apparent SG of dried ochre is 3.44 g/cc therefore,

wt material	%wt material	SG material	vol of material
58.8	58.8	3.44	17.09
41.2	41.2	1	41.2
100			58.29

Calculated SG of in-situ material 1.72 g/cc and thus,

1 m^3 in situ material = 1.72 tonnes In-Situ

1 m^3 in situ material = 1.01 tonnes (dry)

1 m^3 in situ material = 0.61 tonnes (pigment)

213038

TABLE 4. HT OCHRE SITE

Calculation of the Area of the Ochre Ore Blocks

block	angle	L1	L2	Area	block	angle	L1	L2	Area
1	15	26.5	27.5	94.3	2	11.5	27	26	70.0
3	3	30	29.5	23.2	4	9	30.5	28.5	68.0
5	3	28.5	28.5	21.3	6	41	33.5	27	296.7
7	40	19.5	23	144.2	8	40	17.5	16	54.7
9	32	29	29	222.8	10	12.5	17.5	18	34.1
11	47	47	24.5	21	12	55.5	45.5	30	562.5
13	15	36.5	23.5	111	14	7	32.5	27	53.5
15	6	29.5	26	40.1	16	38	27.5	23	194.7
17	14	32.5	25	108	18	19.5	33.5	25	139.8
19	23	31	24.5	148.4	20	30	36.5	26	237.3
21	16.5	28	24	97.4	22		25	1	25
23		26	1	26	24	67	41.5	24	458.4
25	36	31	21.5	195.9	26	20.5	31.5	26	143.4
27	29	35	26.5	224.8	28	22	30	24.5	137.7
29	57	32	23	308.6	30	19.5	31	24	124.2
31	10	31.5	29	79.3	32	8.5	29.5	27	58.9
33	44.5	31	29.5	320.5	34	12	45.5	32.5	153.7
35	19	30.5	28	139	36	35	31	27	240
37	18.5	28	25.5	113.3	38	10.5	26.5	25	60.4
39	28	29.5	27	187	40	18	27	26	108.5
41	17	24.5	25	89.5	42	14	24.5	24	71.1

213039

TABLE 6. HT OCHRE SITE

Ore/Waste Ratios for the HT Drill Site Area

1. Southern Pit

sin80 x 71 x 87 /2	3041 m^2	TOTAL
Blocks 35 -42	1008.8 m^2	ORE
	2031 m^2	WASTE

2. Northern Pit

sin72 x 124 x 80 /2 sin87 x 115 x 60 /2 sin86 x 44 x 46 /2 sin74 x 63 x 48 /2 sin75 x 77 x 56 /2	12,708 m^2	TOTAL
Blocks 7-9, 11-13, 16-21, 24-30, 33	3955.3 m^2	ORE
	8753 m^2	WASTE

sample	ore or waste	ore:waste total	ore:waste to 20m	ochre > at depth
MC27		1:1		
South Pit		1:2		
North Pit		1:2.2		
HA1	ore	1:4	1:4	
HA3	waste	1:4.6	1:4.6	12-16.5
HA5	ore	1:0.6	1:0.6	15-end (21 m)
HA7	waste	1:1.2	1:5	18-end (31 m)
HA8	waste	1:0.7	1:1.3	17-end (28 m)
HB2	ore	1:1.6	1:1.6	
HB3	ore	1:0.4	1:0.4	5-21
HZ1	ore	1:6.8	1:6.8	
HZ2		1:1		
HD1	ore	1:0.8	1:0.8	
HD4		1:0.1	1:0.1	2.5-30
HE1		1:0.4	1:0.4	2.5-end (9.5m)
HE2		1:0.8	1:0.8	9-14.5
HE3		1:2.3	1:2.3	

APPENDIX FIVE

BOWRY CREEK (EASTERN) UMBER SITE

TECHNICAL INFORMATION AND CALCULATIONS

213041

BOWRY CREEK UMBER SITE TECHNICAL INFORMATION AND CALCULATIONS

Table 1. Drill Hole Depths, Sample Intervals, Iron Assays, Ore Range and Ore Type.

Table 2. Weighted Average Iron Grade for the Various Umber Ore Categories.

Table 3. Weighted Average Moisture and Recoveries for High and Low Iron Umber Ore Categories.

Table 4. Apparent and In-Situ Specific Gravity Calculations

Table 5. Interval of Ore, Area of Blocks, Proven and Probable Volume.

213042

TABLE 1. BOWRY CREEK UMBER SITE

Drill Hole Depths, Sample Intervals, Iron Assays, Ore Range and Ore Types.

Sample	Interval	SRLL Fe_2O_3	ALS Fe_2O_3	Range	Type
bc3/01	1.6 - 2.9	34.0	31.8	25-35	B
02	2.9 - 4.3	47.2	48.5	48-55	High
03	4.3 - 5.8	48.2	53.8	48-55	High
04/05	5.8 - 8.8	50.4	56.9	+55	+55
06/07	8.8 - 12.8	54.0	55.7	+55	+55
08/09	12.8 - 18.8	44.3	46.1	35-48	Low
bc4/01	1.3 - 2.8	43.3	44.7	35-48	Low
02	2.8 - 4.3	32.5	34.7	25-35	B
03	4.3 - 5.8	24.1	22.4/22.1	-	-
04/05	5.8 - 8.8	21.5	23.3	-	-
06	8.8 - 10.3	35.9	36.4	35-48	Low
bc5/01	0 - 1.3	27.4	27.1	-	-
02	1.3 - 2.8	22.2	37.6	35-48	Low
03	2.8 - 4.3	25.7	43.4	35-48	Low
04	4.3 - 5.8	27.6	43.4	35-48	Low
05/06	5.8 - 8.8	29.3	36.4	35-48	Low
07/08	8.8 - 11.8	27.2	35.6	35-48	Low
09	11.8 -14.8	30.8	34.9	25-35	B
10	14.8 - 17.8	33.9	36.4/35.6	35-48	Low
11	17.8 - 20.8	42.7	43.9/43.0	35-48	Low
bc6/01	1.3 - 2.8	54.8	55.4	+55	+55
02	2.8 - 4.3	51.7	52.4	48-55	High
03	4.3 - 7.3	47.3	44.9	35-48	Low
04/05	7.3 - 10.3	38.9	41.2	35-48	Low
06	10.3 - 13.3	44.8	46.0	35-48	Low
07	13.3 - 15.3	48.6	48.2	48-55	High
bc7/01	0 - 1.3	59.7	59.9	+55	+55
02	1.3 - 2.8	56.3	56.9	+55	+55
03	2.8 - 4.3	56.2	56.6	+55	+55
04	4.3 - 7.3	58.7	60.0	+55	+55
05	7.3 - 10.3	56.6	55.3	48_55	High
06	10.3 - 12.3	50.1	51.0	48-55	High
bc8/02	1.3 - 2.8	38.2	37.7	35-48	Low
03	2.8 - 4.3	43.8	44.1	35-48	Low
04	4.3 - 7.3	46.5	51.4	48-55	High
05	7.3 - 10.3	50.1	50.8	48-55	High
06	10.3 - 13.3	49.6	49.6	48-55	High
07	13.3 - 15.1	42.9	49.8	48-55	High
bc9/01	4.3 - 5.8	45.0	44.8	35-48	Low

213043

TABLE 2. BOWRY CREEK UMBER SITE

Weighted Average Iron Grade for the Various Umber Ore Categories

	Fe_2O_3			
	25-35%	35-48%	48-55%	+55%
Weighted Average Iron	33.1	39.9	51.0	57.1

213044

TABLE 3. BOWRY CREEK UMBER SITE

Weighted Average Moisture and Recoveries for High and Low Iron Umbers - Auger Drill Hole Samples

Sample Number	Interval (m)	Ore Type (%)	Moisture (%)	Recovery (%)
bc3/01	1.6 - 2.9	25-35	32	44.0
02	2.9 - 4.3	48-55	35	49.3
03	4.3 - 5.8	48-55	34	52.2
04/05	5.8 - 8.8	+55	44	58.8
06/07	8.8 - 12.8	+55	48	64.8
08/09	12.8 - 18.8	35-48	46	50.2
bc4/01	1.3 - 2.8	35-48	46	60.0
02	2.8 - 4.3	25-35	46	54.8
03	4.3 - 5.8	-		
04/05	5.8 - 8.8	-		
06	8.8 - 10.3	35-48	43	56.1
bc5/01	0 - 1.3	-		
02	1.3 - 2.8	35-48	45	44.4
03	2.8 - 4.3	35-48	37	43.5
04	4.3 - 5.8	35-48	41	40.3
05/06	5.8 - 8.8	35-48	39	26.9
07/08	8.8 - 11.8	35-48	45	45.7
09	11.8 -14.8	25-35	41	41.4
10	14.8 - 17.8	35-48	42	45.6
11	17.8 - 20.8	35-48	46	38.4
bc6/01	1.3 - 2.8	+55	50	64.9
02	2.8 - 4.3	48-55	47	51.4
03	4.3 - 7.3	35-48	45	54.8
04/05	7.3 - 10.3	35-48	44	64.0
06	10.3 - 13.3	35-48	46	57.1
07	13.3 - 15.3	48-55	52	66.7
bc7/01	0 - 1.3	+55	56	76.1
02	1.3 - 2.8	+55	45	63.8
03	2.8 - 4.3	+55	45	61.8
04	4.3 - 7.3	+55	45	67.3
05	7.3 - 10.3	48-55	44	60.2
06	10.3 - 12.3	48-55	42	52.7
bc8/02	1.3 - 2.8	35-48	42	49.0
03	2.8 - 4.3	35-48	43	43.1
04	4.3 - 7.3	48-55	47	60.7
05	7.3 - 10.3	48-55	44	53.2
06	10.3 - 13.3	48-55	45	56.1
07	13.3 - 15.1	48-55	42	49.8
bc9/01	4.3 - 5.8	35-48	45	68.6

	Moisture	Recovery
Weighted Average Low Iron	43.3%	50.0%
Weighted Average High Iron	45.2%	59.6%

213045

TABLE 4. BOWRY CREEK UMBER SITE

Apparent and In-Situ Specific Gravity Calculations

Assumptions:

- 58% material as Goethite (SG 4.3 g/cc),
- 42% material as Alumina-silicates (SG 2.7 g/cc),
- 43.3% (low iron) and 45.2% (high iron) in-situ moisture,
- 50% (low iron) and 59.6% (high iron) recovery.

wt material	%wt material	SG material	vol of material
58	58	4.3	13.49
42	42	2.7	15.56
100			29.05

Apparent SG of dried umber is 3.44 g/cc therefore,

1. LOW IRON UMBER

wt material	%wt material	SG material	vol of material
58.8	58.8	3.44	17.09
41.2	41.2	1	41.2
100			58.29

Calculated SG of in-situ material 1.67 g/cc and thus,

1 m^3 in situ material = 1.67 tonnes In-Situ
1 m^3 in situ material = 0.95 tonnes (dry)
1 m^3 in situ material = 0.47 tonnes (pigment)

2. HIGH IRON UMBER

wt material	%wt material	SG material	vol of material
54.8	54.8	3.44	15.93
45.2	45.2	1	45.2
100			61.13

Calculated SG of in-situ material 1.64 g/cc and thus,

1 m^3 in situ material = 1.64 tonnes In-Situ
1 m^3 in situ material = 0.90 tonnes (dry)
1 m^3 in situ material = 0.53 tonnes (pigment)

213046

TABLE 5. BOWRY CREEK UMBER SITE

Interval of Ore, Area of Blocks, Proven and Probable Volume.

Area	Hole	PROVEN B	PROVEN Low	PROVEN High	PROVEN +55	PROBABLE B	PROBABLE Low	PROBABLE High	PROBABLE +55	Area	PROVEN B	PROVEN Low	PROVEN High	PROVEN +55	PROBABLE B	PROBABLE Low	PROBABLE High	PROBABLE +55
1	9	-	9	-	-	-	7.2	-	-	214	-	1926	-	-	-	1541	-	-
2	3	1.3	4.7	2.9	7	-	1.3	-	-	96	125	451	279	672	-	125	-	-
3	3	1.3	6.0	2.9	7	0.3	1.3	0.6	1.5	237	308	1422	687	1659	71	308	142	356
4	3	1.3	6.0	2.9	7	0.7	3.0	1.5	3.5	183	238	1098	531	1281	128	549	275	641
5	8	-	3.0	10.8	-	-	1.6	5.8	-	98	-	294	1058	-	-	157	568	-
6	8	-	3.0	10.8	-	-	2.7	9.7	-	184	-	552	1987	-	-	497	1785	-
7	8	-	3.0	8.2	-	-	-	-	-	81	-	243	664	-	-	-	-	-
8	8	-	3.0	10.8	-	-	0.5	1.9	-	35	-	105	378	-	-	18	67	-
9	5	4.3	16.5	-	-	1.4	5.3	-	-	81	343	1337	-	-	113	429	-	-
10	5	2.2	9.0	-	-	-	-	-	-	32	70	288	-	-	-	-	-	-
11	5	3.0	13.2	-	-	-	-	-	-	32	70	288	-	-	-	-	-	-
12	5	3.0	16.5	-	-	0.4	1.3	-	-	202	606	3333	-	-	81	263	-	-
13	5	2.2	9.0	-	-	-	-	-	-	45	99	405	-	-	-	-	-	-
14	5	3.0	13.2	-	-	-	-	-	-	36	103	475	-	-	-	-	-	-
15	7	-	-	5.0	7.5	-	-	-	-	162	-	-	760	1140	-	-	-	-
16	7	-	-	-	5.0	-	-	-	-	56	-	-	-	280	-	-	-	-
17	7	-	-	5.0	7.3	-	-	2.1	3.1	53	-	-	265	387	-	-	111	164
18	7	-	-	-	7.5	-	-	-	-	59	-	-	-	443	-	-	-	-
19	7	-	-	5.0	7.3	-	-	4.2	6.0	12	-	-	60	88	-	-	50	72
20	4	3.0	1.5	-	-	1.5	0.7	-	-	9	27	14	-	-	6	14	-	-
21	4	3.0	1.5	-	-	4.8	2.4	-	-	83	249	125	-	-	398	199	-	-
22	4	3.0	1.5	-	-	8.1	4.1	-	-	45	135	68	-	-	365	183	-	-
23	4	3.0	1.5	-	-	1.5	0.7	-	-	130	390	195	-	-	195	91	-	-
24	4	1.5	1.5	-	-	-	-	-	-	79	119	119	-	-	-	-	-	-
25	4	3.0	1.5	-	-	4.8	2.4	-	-	19	57	29	-	-	91	46	-	-
26	6	-	9.0	3.5	1.5	-	6.8	1.9	0.5	4	-	36	14	6	-	19	8	4
27	6	-	8.2	1.5	1.5	-	-	-	-	18	-	148	27	27	-	-	-	-
28	6	-	9.0	3.5	1.5	-	1.5	0.6	0.2	147	-	1323	515	221	-	221	88	29
29	8	-	3.2	1.5	1.5	-	-	-	-	147	-	470	221	221	-	-	-	-
30	6	-	8.2	1.5	1.5	-	-	-	-	147	-	1250	221	221	-	-	-	-
31	6	-	0.7	1.5	1.5	-	-	-	-	50	-	35	75	75	-	-	-	-

	VOLUMES							
	PROVEN				PROBABLE			
	B	LOW	HIGH	+55	B	LOW	HIGH	+55
TOTALS	3,278	17,497	7,741	6,721	1,448	4,662	3,094	1.266

APPENDIX SIX

ALS ANALYTICAL REPORT (AM 8952-0)

BOWRY CREEK (EAST) UMBER SITE

AUSTRALIAN LABORATORY SERVICES P/L
A.C.N. 009 936 029

ANALYTICAL REPORT

213048

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: AMENDED
BATCH NUMBER: AM8952-0

No. of SAMPLES: 14
DATE RECEIVED: 28/06/94
DATE COMPLETED: 28/06/94

No: AL5010667 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SiO2 % M275	Al2O3 % M275	Fe2O3 % M275	CaO % M275	MgO % M275
BC8/02		23.00	10.40	37.70	0.03	0.50
BC8/03		15.50	8.98	44.10	0.04	0.76
BC8/04		14.00	4.53	51.40	0.03	1.08
BC8/05		18.50	3.43	50.80	0.03	0.54
BC8/06		23.20	1.09	49.60	0.04	0.41
BC8/07		21.80	1.08	49.80	0.05	0.48
BC9/01		14.00	5.74	44.80	0.06	3.10
HT 1		15.30	4.44	66.50	0.04	0.43
HT 2		27.10	6.22	55.00	0.04	0.50
HT 3		32.50	17.90	35.80	0.04	0.34
HT 4		5.07	2.09	76.80	0.02	0.35
HT 5		10.00	7.79	66.10	0.04	0.66
SRM PC 1		1.38	0.50	100.0	0.10	1.29
SRM PC-45 2		0.74	0.35	100.6	0.05	0.84
DETECTION LIMIT:		0.01	0.01	0.01	0.01	0.01

Sulphur
1 .006/.009
.01 .006

COMMENTS: This batch supersedes ST8952.
Fe2O3 is Total Fe expressed as Fe2O3.
IS = Insufficient Sample to conduct assay

Townsville Laboratory
Phone: (077) 79 6020 Fax: (089) 52 6028
Laboratory
(0[illegible] 46 1390 Fax: (054) 46 1389
ne Laboratory
(07) 352 5577 Fax: (07) 352 5109
rs Towers Laboratory
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Mt Isa Laboratory
Phone: (077) 49 5545 Fax: (077) 48 5546
Orange Laboratory
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Perth Laboratory
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All pages of this report have been checked and approved for release.

AUSTRALIAN
LABORATORY
SERVICES P/L
A.C.N. 009 936 029

ANALYTICAL REPORT

213049

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: AMENDED
BATCH NUMBER: AM8952-0

No. of SAMPLES: 14
DATE RECEIVED: 28/06/94
DATE COMPLETED: 28/06/94

ORDER No: AL.S010667 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	TiO2 % M275	Na2O % M275	K2O % M275	P2O5 % M275	MnO % M275
BC8/02		0.04	<0.01	0.02	0.09	13.70
BC8/03		0.12	<0.01	0.10	0.13	15.80
BC8/04		0.02	<0.01	<0.01	0.13	15.60
BC8/05		0.03	<0.01	0.02	0.09	13.90
BC8/06		0.03	<0.01	0.03	0.10	14.30
BC8/07		0.09	<0.01	0.06	0.08	15.20
BC9/01		0.51	0.10	0.57	0.11	18.00
HT 1		0.09	<0.01	0.02	0.12	0.54
HT 2		0.25	0.04	0.06	0.08	0.35
HT 3		0.41	0.03	0.13	0.12	0.10
HT 4		0.05	<0.01	0.01	0.06	2.47
HT 5		0.28	0.03	0.16	0.05	0.65
SRM PC 1		1.16	0.01	<0.01	<0.01	0.11
SRM PC-45 2		1.05	<0.01	<0.01	<0.01	0.11
DETECTION LIMIT:		0.01	0.01	0.01	0.01	0.01

COMMENTS:

AUSTRALIAN
LABORATORY
SERVICES P/L
A.C.N. 009 936 029

ANALYTICAL REPORT

213050

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: AMENDED
BATCH NUMBER: AM8952-0

No. of SAMPLES: 14
DATE RECEIVED: 28/06/94
DATE COMPLETED: 28/06/94

ORDER No: ALS010667 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SrO % M275	ZrO2 % M275	LOI 800'c % M275
BC8/02		<0.01	0.01	13.00
BC8/03		<0.01	0.01	12.50
BC8/04		<0.01	<0.01	11.50
BC8/05		<0.01	<0.01	11.10
BC8/06		<0.01	<0.01	9.75
BC8/07		0.01	<0.01	10.20
BC9/01		0.01	0.01	10.20
HT 1		0.01	<0.01	11.70
HT 2		0.01	<0.01	9.31
HT 3		<0.01	0.01	11.50
HT 4		<0.01	<0.01	12.20
HT 5		<0.01	0.01	13.60
SRM PC 1		<0.01	<0.01	-2.74
SRM PC-45 2		<0.01	<0.01	-2.57
DETECTION LIMIT:		0.01	0.01	0.01

COMMENTS:

Springs Laboratory
e: (089) 52 6020 Fax: (089) 52 6028
Kalgoorlie Laboratory
e: (054) 46 1390 Fax: (054) 46 1389
Brisbane Laboratory
e: (07) 352 5577 Fax: (07) 352 5109
Mackay Laboratory
e: (077) 87 4155 Fax (077) 87 4220

Cloncurry Laboratory
Phone: (077) 42 1323 Fax: (077) 42 1685
Kalgoorlie Laboratory
Phone: (090) 21 1457 Fax: (090) 21 6253
Mt Isa Laboratory
Phone: (077) 49 5545 Fax: (077) 48 5546
Orange Laboratory
Phone: (063) 63 1722 Fax: (063) 63 1189

Perth Laboratory
Phone: (09) 249 2988 Fax: (09) 249 2942
Townsville Laboratory
Phone: (077) 79 9155 Fax: (077) 79 9729

AUSTRALIAN LABORATORY SERVICES P/L
A.C.N. 009 936 029

213051

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: AMENDED
BATCH NUMBER: AM8952-0

No. of SAMPLES: 14
DATE RECEIVED: 28/06/94
DATE COMPLETED: 28/06/94

ER No: ALS010667 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SrO % M275	ZrO2 % M275	LOI 800'c % M275		
BC8/02		<0.01	0.01	13.00		
BC8/03		<0.01	0.01	12.50		
BC8/04		<0.01	<0.01	11.50		
BC8/05		<0.01	<0.01	11.10		
BC8/06		<0.01	<0.01	9.75		
BC8/07		0.01	<0.01	10.20		
BC9/01		0.01	0.01	10.20		
HT 1		0.01	<0.01	11.70		
HT 2		0.01	<0.01	9.31		
HT 3		<0.01	0.01	11.50		
HT 4		<0.01	<0.01	12.20		
HT 5		<0.01	0.01	13.60		
SRM PC 1		<0.01	<0.01	-2.74		
SRM PC-45 2		<0.01	<0.01	-2.57		
DETECTION LIMIT:		0.01	0.01	0.01		

COMMENTS:

Springs Laboratory
e: (089) 52 6020 Fax: (089) 52 6028
Laboratory
e: (054) 46 1390 Fax: (054) 46 1389
Laboratory
e: (07) 352 5577 Fax: (07) 352 5109
Townsville Laboratory
e: (077) 87 4155 Fax (077) 87 4220

Cloncurry Laboratory
Phone: (077) 42 1323 Fax: (077) 42 1685
Kalgoorlie Laboratory
Phone: (090) 21 1457 Fax: (090) 21 6253
Mt Isa Laboratory
Phone: (077) 49 5545 Fax: (077) 48 5546
Orange Laboratory
Phone: (063) 63 1722 Fax: (063) 63 1189

Perth Laboratory
Phone: (09) 249 2988 Fax: (09) 249 2942
Townsville Laboratory
Phone: (077) 79 9155 Fax: (077) 79 9729

APPENDIX SEVEN

ALS ANALYTICAL REPORT (ST 8958-0)

BOWRY CREEK (EAST) UMBER SITE

AUSTRALIAN
LABORATORY
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A.C.N. 009 936 029

ANALYTICAL REPORT

213053

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8958-0

No. of SAMPLES: 12
DATE RECEIVED: 14/06/94
DATE COMPLETED: 22/06/94

ER No: ALS37956 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SiO2 % M275	Al2O3 % M275	Fe2O3 % M275	CaO % M275	MgO % M275
BC6-01		12.00	4.41	55.40	0.03	0.65
BC6-02		16.50	3.68	52.40	0.03	0.53
BC6-03		27.10	4.52	44.90	0.02	1.74
BC6-04+05		21.10	10.60	41.20	0.02	2.18
BC6-06		23.00	4.90	46.00	0.02	0.63
BC6-07		20.20	4.93	48.20	0.02	0.73
BC7-01		4.30	4.86	59.90	0.06	0.64
BC7-02		8.61	4.51	56.90	0.05	0.70
BC7-03		12.80	3.12	56.60	0.04	0.64
BC7-04		8.24	2.74	60.00	0.03	0.67
BC7-05		16.40	0.66	55.30	0.04	0.53
BC7-06		20.50	0.88	51.00	0.04	0.53
CC ON LIMIT:		0.01	0.01	0.01	0.01	0.01

MENTS: Fe2O3 is Total Fe expressed as Fe2O3.

All pages of this report have been checked and approved for release.

pring Laboratory
8 2 6020 Fax: (089) 52 6028
La oratory
0 46 1390 Fax: (054) 46 1389
oratory
0 5577 Fax: (07) 352 5109
vers Laboratory
R 4155 Fax: (077) 87 4220
Cloncurry Laboratory
Phone: (077) 42 1323 Fax: (077) 42 1685
Kalgoorlie Laboratory
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Perth Laboratory
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Townsville Laboratory
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AUSTRALIAN
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ANALYTICAL REPORT

213054

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8958-0

No. of SAMPLES: 12
DATE RECEIVED: 14/06/94
DATE COMPLETED: 22/06/94

ER No: ALS37956 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT / UNIT / METHOD	TiO2 % M275	Na2O % M275	K2O % M275	P2O5 % M275	MnO % M275
BC6-01		0.14	<0.01	0.12	0.07	13.40
BC6-02		0.08	<0.01	0.13	0.12	13.60
BC6-03		0.23	<0.01	0.35	0.09	10.30
BC6-04+05		0.40	<0.01	0.75	0.21	10.60
BC6-06		0.11	<0.01	0.23	0.17	13.70
BC6-07		0.14	<0.01	0.26	0.13	13.60
BC7-01		0.09	<0.01	0.13	0.15	15.60
BC7-02		0.07	<0.01	0.39	0.07	15.10
BC7-03		0.06	0.01	0.19	0.09	14.80
BC7-04		0.08	0.01	0.13	0.09	16.10
BC7-05		0.01	<0.01	0.10	0.08	16.40
BC7-06		0.01	<0.01	0.08	0.05	16.60
EC ON LIMIT:		0.01	0.01	0.01	0.01	0.01

MMENTS:

Sp gs Laboratory
(089) 52 6020 Fax: (089) 52 6028
go Laboratory
(054) 46 1390 Fax: (054) 46 1389
ane Laboratory
(077) 352 5577 Fax: (077) 352 5109
er owers Laboratory
(077) 87 4155 Fax (077) 87 4220

Cloncurry Laboratory
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213055

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8958-0

No. of SAMPLES: 12
DATE RECEIVED: 14/06/94
DATE COMPLETED: 22/06/94

E No: AL537956 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SrO % M275	ZrO2 % M275	LOI 800'c % M275		
BC6-01		0.01	<0.01	12.10		
BC6-02		0.01	<0.01	11.50		
BC6-03		0.01	<0.01	9.55		
BC6-04+05		<0.01	<0.01	11.50		
BC6-06		0.01	<0.01	10.10		
BC6-07		0.01	<0.01	10.70		
BC7-01		0.01	<0.01	13.20		
BC7-02		0.01	<0.01	12.40		
BC7-03		0.01	<0.01	10.80		
BC7-04		0.01	<0.01	11.00		
BC7-05		0.01	<0.01	9.65		
BC7-06		0.01	<0.01	9.45		
EC TION LIMIT:		0.01	0.01	0.01		

MMENTS:

Sp gs Laboratory
e 52 6020 Fax: (089) 52 6028
ig boratory
e. (054) 46 1390 Fax: (054) 46 1389
ene Laboratory
e. (07) 352 5577 Fax: (07) 352 5109
Te owers Laboratory
e 87 4155 Fax (077) 87 4220

Cloncurry Laboratory
Phone: (077) 42 1323 Fax: (077) 42 1685
Kalgoorlie Laboratory
Phone: (090) 21 1457 Fax: (090) 21 6253
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Orange Laboratory
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Perth Laboratory
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AUSTRALIAN LABORATORY SERVICES P/L
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213056

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8958-0

No. of SAMPLES: 12
DATE RECEIVED: 14/06/94
DATE COMPLETED: 22/06/94

B No: ALS37956 SAMPLE TYPE: QUALITY CONTROL PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SiO2 % M275	Al2O3 % M275	Fe2O3 % M275	CaO % M275	MgO % M275
*** BC7-03		12.40	3.11	56.50	0.04	0.64
*** BC7-04		8.14	2.69	59.40	0.04	0.67
CTION LIMIT:		0.01	0.01	0.01	0.01	0.01

MEN TS: Results which appear on this report are routine laboratory checks for QUALITY CONTROL purposes.

213057

[redacted]

AUSTRALIAN LABORATORY SERVICES P/L
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ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8958-0

No. of SAMPLES: 12
DATE RECEIVED: 14/06/94
DATE COMPLETED: 22/06/94

E No: ALS37956 SAMPLE TYPE: QUALITY CONTROL PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	TiO2 % M275	Na2O % M275	K2O % M275	P2O5 % M275	MnO % M275
*** BC7-03		0.05	0.01	0.17	0.08	14.80
*** BC7-04		0.08	0.01	0.12	0.08	15.90
CTION LIMIT:		0.01	0.01	0.01	0.01	0.01

M NTS:

Springs Laboratory
(089) 52 6020 Fax: (089) 52 6028
Laboratory
46 1390 Fax: (054) 46 1389
Laboratory
352 5577 Fax: (07) 352 5109
Towers Laboratory
87 4155 Fax: (077) 87 4220
Cloncurry Laboratory
Phone: (077) 42 1323 Fax: (077) 42 1685
Kalgoorlie Laboratory
Phone: (090) 21 1457 Fax: (090) 21 6253
Mt Isa Laboratory
Phone: (077) 49 5545 Fax: (077) 48 5546
Orange Laboratory
Phone: (063) 63 1722 Fax: (063) 63 1189
Perth Laboratory
Phone: (09) 249 2988 Fax: (09) 249 2942
Townsville Laboratory
Phone: (077) 79 9155 Fax: (077) 79 9729

[redacted]

AUSTRALIAN
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213058

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8956-0

No. of SAMPLES: 12
DATE RECEIVED: 14/06/94
DATE COMPLETED: 22/06/94

ER No: ALS37956 SAMPLE TYPE: QUALITY CONTROL PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SrO % M275	ZrO2 % M275	LOI 800'c % M275		
*** BC7-03		0.01	<0.01	11.30		
*** BC7-04		0.01	<0.01	11.90		
C[illegible]ON LIMIT:		0.01	0.01	0.01		

MENTS:

pr[illegible]s Laboratory
(089) 52 6070 Fax: (089) 52 6028
o Laboratory
(054) 46 1390 Fax: (054) 46 1389
[illegible]oratory
([illegible]) 352 5577 Fax: (07) 352 5109
[illegible]vers Laboratory
([illegible]) 87 4155 Fax (077) 87 4220

Cloncurry Laboratory
Phone: (077) 42 1323 Fax: (077) 42 1685
Kalgoorlie Laboratory
Phone: (090) 21 1457 Fax: (090) 21 6253
Mt Isa Laboratory
Phone: (077) 49 5545 Fax: (077) 48 5546
Orange Laboratory
Phone: (063) 63 1722 Fax: (063) 63 1189

Perth Laboratory
Phone: (09) 249 2988 Fax: (09) 249 2942
Townsville Laboratory
Phone: (077) 79 9155 Fax: (077) 79 9729

213059

APPENDIX EIGHT

ALS ANALYTICAL REPORT (ST 8920-0)

BOWRY CREEK (EAST) UMBER SITE

AUSTRALIAN
LABORATORY
SERVICES P/L
A.C.N. 009 936 029

213060

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8920-0

No. of SAMPLES: 22
DATE RECEIVED: 08/06/94
DATE COMPLETED: 22/06/94

DER No: ALS010665 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SiO2 % M275	Al2O3 % M275	Fe2O3 % M275	CaO % M275	MgO % M275
BC3/01		32.20	14.70	31.80	0.04	1.74
BC3/02		19.30	7.32	48.50	0.03	0.92
BC3/03		16.70	3.85	53.80	0.02	1.09
BC3/04+05		11.80	5.08	56.90	0.03	0.75
BC3/06+07		13.70	1.20	55.70	0.07	0.45
BC3/08+09		26.70	0.80	46.10	0.11	0.74
BC4/01		29.20	3.50	44.70	0.03	0.51
BC4/02		25.10	12.50	34.70	0.03	1.97
BC4/03		38.30	16.00	22.40	0.03	2.70
BC4/04+05		37.10	16.00	23.30	0.02	4.36
BC4/06		31.30	8.89	36.40	0.03	2.24
BC5/01		36.40	16.80	27.10	0.05	2.04
BC5/02		27.90	13.50	37.60	0.03	1.28
BC5/03		25.90	6.11	43.40	0.03	0.62
BC5/04		22.90	6.41	43.40	0.04	0.70
BC5/05+06		35.30	3.63	36.40	0.03	0.31
BC5/07+08		37.10	4.84	35.60	0.03	0.36
BC5/09		33.60	5.74	34.90	0.03	0.34
BC5/10		37.10	3.87	36.40	0.03	0.53
BC5/11		22.90	5.11	43.90	0.04	0.94
BC8/01		41.30	6.17	32.60	0.05	0.51
BC9/02		21.00	10.40	37.30	0.15	5.35
DETECTION LIMIT:		0.01	0.01	0.01	0.01	0.01

COMMENTS:

Springs Laboratory
Phone: (089) 52 6020 Fax: (089) 52 6028
Bendigo Laboratory
Phone: (054) 46 1390 Fax: (054) 46 1389
Ballarat Laboratory
Phone: (07) 352 5577 Fax: (07) 352 5108
Townsville Laboratory
Phone: (077) 79 9155 Fax: (077) 79 9729
Cloncurry Laboratory
Phone: (077) 42 1323 Fax: (077) 42 1685
Kalgoorlie Laboratory
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Orange Laboratory
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Perth Laboratory
Phone: (09) 249 2988 Fax: (09) 249 2942

All pages of this report have been checked and approved for release.

AUSTRALIAN LABORATORY SERVICES P/L
A.C.N. 009 936 029

213061

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8920-0

No. of SAMPLES: 22
DATE RECEIVED: 08/06/94
DATE COMPLETED: 22/06/94

ER No: ALS010665 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	TiO2 % M275	Na2O % M275	K2O % M275	P2O5 % M275	MnO % M275
BC3/01		1.54	0.18	1.83	0.12	5.18
BC3/02		0.55	0.04	0.60	0.08	9.99
BC3/03		0.16	0.03	0.29	0.06	11.40
BC3/04+05		0.04	<0.01	0.08	0.05	11.60
BC3/06+07		0.02	<0.01	0.06	0.05	16.30
BC3/08+09		0.06	0.06	0.16	0.06	14.80
BC4/01		0.06	0.01	0.08	0.09	10.90
BC4/02		1.46	0.08	2.77	0.26	10.20
BC4/03		1.79	0.15	4.35	0.17	5.79
BC4/04+05		1.71	0.16	3.47	0.15	4.78
BC4/06		0.76	0.07	1.59	0.11	8.67
BC5/01		1.76	0.15	3.04	0.14	1.77
BC5/02		1.04	0.06	1.73	0.12	5.16
BC5/03		0.33	0.03	0.54	0.15	11.50
BC5/04		0.41	0.02	0.67	0.19	13.20
BC5/05+06		0.07	<0.01	0.20	0.14	13.60
BC5/07+08		0.07	<0.01	0.11	0.04	11.30
BC5/09		0.09	0.02	0.12	0.44	14.20
BC5/10		0.10	0.02	0.15	0.06	11.80
BC5/11		0.14	<0.01	0.11	0.09	13.50
BC8/01		0.38	0.07	0.23	0.06	8.19
BC9/02		1.15	0.32	1.30	0.10	9.76
CTION LIMIT:		0.01	0.01	0.01	0.01	0.01

MENTS:

pri[illegible] Laboratory
(0[illegible]2 6020 Fax: (089) 52 6028
-o L[illegible]oratory
(054) 46 1390 Fax: (054) 46 1389
ne Laboratory
(07) 352 5577 Fax: (07) 352 5109
rs [illegible]vers Laboratory
(0[illegible]7 4155 Fax (077) 87 4220

Cloncurry Laboratory
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Kalgoorlie Laboratory
Phone: (090) 21 1457 Fax: (090) 21 6253
Mt Isa Laboratory
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Orange Laboratory
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Perth Laboratory
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AUSTRALIAN
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213062

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8920-0

No. of SAMPLES: 22
DATE RECEIVED: 08/06/94
DATE COMPLETED: 22/06/94

E No: ALS010665 SAMPLE TYPE: PIGMENT PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SrO % M275	ZrO2 % M275	LOI 800° C % M275
BC3/01		<0.01	0.02	9.90
BC3/02		<0.01	0.01	11.20
BC3/03		<0.01	<0.01	11.10
BC3/04+05		<0.01	<0.01	12.20
BC3/06+07		<0.01	<0.01	10.90
BC3/08+09		0.01	<0.01	9.19
BC4/01		0.01	<0.01	10.10
BC4/02		<0.01	0.01	10.10
BC4/03		<0.01	0.01	7.54
BC4/04+05		<0.01	<0.01	8.27
BC4/06		0.01	<0.01	9.30
BC5/01		<0.01	0.01	9.81
BC5/02		<0.01	<0.01	10.70
BC5/03		0.01	<0.01	10.60
BC5/04		0.01	<0.01	11.00
BC5/05+06		0.01	<0.01	9.34
BC5/07+08		0.01	<0.01	9.62
BC5/09		<0.01	<0.01	9.92
BC5/10		0.01	<0.01	9.03
BC5/11		0.01	<0.01	12.50
BC8/01		<0.01	<0.01	9.25
BC9/02		<0.01	0.01	10.40
CTION LIMIT:		0.01	0.01	0.01

MARKS:

prings Laboratory
(08) [illegible] 6020 Fax: (089) 52 6028
o Laboratory
(05) [illegible]6 1390 Fax: (054) 46 1389
e Laboratory
(07) 352 5577 Fax: (07) 352 5109
s Towers Laboratory
(077) [illegible] 4155 Fax (077) 87 4220

Cloncurry Laboratory
Phone: (077) 42 1323 Fax: (077) 42 1685
Kalgoorlie Laboratory
Phone: (090) 21 1457 Fax: (090) 21 6253
Mt Isa Laboratory
Phone: (077) 49 5545 Fax: (077) 48 5546
Orange Laboratory
Phone: (063) 63 1722 Fax: (063) 63 1189

Perth Laboratory
Phone: (09) 249 2988 Fax: (09) 249 2942
Townsville Laboratory
Phone: (077) 79 9155 Fax: (077) 79 9729

AUSTRALIAN
LABORATORY
SERVICES P/L
A.C.N. 009 936 029

213063

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8920-0

No. of SAMPLES: 22
DATE RECEIVED: 08/06/94
DATE COMPLETED: 22/06/94

ORDER No: ALS010665 SAMPLE TYPE: QUALITY CONTROL PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SiO2 % M275	Al2O3 % M275	Fe2O3 % M275	CaO % M275	MgO % M275
*** BC4/03		38.20	15.20	22.10	0.02	2.61
*** BC5/10		37.50	3.79	35.60	0.03	0.53
*** BC5/11		23.10	4.99	43.00	0.04	0.93
DETECTION LIMIT:		0.01	0.01	0.01	0.01	0.01

COMMENTS: Results which appear on this report are routine laboratory checks for QUALITY CONTROL purposes.

AUSTRALIAN
LABORATORY
SERVICES P/L
A.C.N. 009 936 029

213064

ANALYTICAL REPORT

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8920-0

No. of SAMPLES: 22
DATE RECEIVED: 08/06/94
DATE COMPLETED: 22/06/94

ORDER No: ALS010665 SAMPLE TYPE: QUALITY CONTROL PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	TiO2 % M275	Na2O % M275	K2O % M275	P2O5 % M275	MnO % M275
*** BC4/03		1.72	0.14	4.22	0.16	5.80
*** BC5/10		0.10	0.02	0.17	0.07	11.60
*** BC5/11		0.14	0.01	0.15	0.11	13.10
DETECTION LIMIT:		0.01	0.01	0.01	0.01	0.01

COMMENTS:

Springvale Laboratory
Phone: (089) 52 6020 Fax: (089) 52 6028
Bendigo Laboratory
Phone: (054) 46 1390 Fax: (054) 46 1389
Brisbane Laboratory
Phone: (07) 352 5977 Fax: (07) 352 5109
Townsville Laboratory
Phone: (077) 79 4155 Fax: (077) 87 4220

Cloncurry Laboratory
Phone: (077) 42 1323 Fax: (077) 42 1685
Kalgoorlie Laboratory
Phone: (090) 21 1457 Fax: (090) 21 6253
Mt Isa Laboratory
Phone: (077) 49 5545 Fax: (077) 48 5546
Orange Laboratory
Phone: (063) 63 1722 Fax: (063) 63 1189

Perth Laboratory
Phone: (09) 249 2988 Fax: (09) 249 2942
Townsville Laboratory
Phone: (077) 79 9155 Fax: (077) 79 9729

AUSTRALIAN LABORATORY SERVICES P/L
A.C.N. 009 936 029

[redacted]

ANALYTICAL REPORT

213065

CLIENT: SAVAGE RESOURCES LIMITED
ADDRESS: P O BOX 1179
BALLARAT MAIL CENTRE
VICTORIA 3354

CONTACT: MR R ANNETT

LABORATORY: STAFFORD
BATCH NUMBER: ST8920-0

No. of SAMPLES: 22
DATE RECEIVED: 08/06/94
DATE COMPLETED: 22/06/94

ORDER No: ALS010665 SAMPLE TYPE: QUALITY CONTROL PROJECT No:

SAMPLE NUMBER	ELEMENT UNIT METHOD	SrO % M275	ZrO2 % M275	LOI 800° C % M275
*** BC4/03		<0.01	0.01	8.00
*** BC5/10		0.01	<0.01	9.51
*** BC5/11		0.01	<0.01	13.70
DETECTION LIMIT:		0.01	0.01	0.01

COMMENTS:

Spr[illegible]s Laboratory
([illegible]52 6020 Fax: (089) 52 6028
go Laboratory
(054) 46 1390 Fax: (054) 46 1389
ine Laboratory
([illegible]352 5577 Fax: (07) 352 5109
ers Laboratory
([illegible]87 4155 Fax (077) 87 4220
Cloncurry Laboratory
Phone: (077) 42 1323 Fax: (077) 42 1685
Kalgoorlie Laboratory
Phone: (090) 21 1457 Fax: (090) 21 6253
Mt Isa Laboratory
Phone: (077) 49 5545 Fax: (077) 48 5546
Orange Laboratory
Phone: (063) 63 1722 Fax: (063) 63 1189
Perth Laboratory
Phone: (09) 249 2988 Fax: (09) 249 2942
Townsville Laboratory
Phone: (077) 79 9155 Fax: (077) 79 9729

APPENDIX NINE

MISCELLANEOUS PHYSICAL AND CHEMICAL ANALYSES OF

- RAW *AS-MINED* UMBER; AND
- RAW MINUS 75 MICRON UMBER.

As Mined Size Distribution of Umber

Screen Aperture Microns	UMBER	
	% Wt Retained	Cum % Wt Passing
2,000	2.0	98.0
500	3.0	95.0
150	24.0	71.0
75	11.0	60.0
+45	2.4	57.6
-45	57.6	
Total	**100.00**	
P_{80}		280 microns

Chemical Analyses for Raw Minus 75 Micron Umber

	Low Iron Eastern Umber	High Iron Eastern Umber
% Fe_2O_3	42.00	49.04
% SiO_2	29.50	12.90
% Al_2O_3	6.27	2.27
% CaO	0.01	<0.014
% MgO	0.98	0.57
% MnO	8.80	12.54
% Na_2O	0.05	0.22
% K_2O	0.43	0.35
% P_2O_5	0.10	0.11
% TiO_2	0.40	0.046

Multi Element Chemical Analyses for Typical Raw Umber

	Low Iron Eastern Umber	High Iron Eastern Umber
% Fe_2O_3	36.60	49.04
%SiO_2 tot	36.7	12.9
% Al	2.10	1.2
%Mn	3.52	9.71
%Ca	0.27	<0.01
%Mg	0.62	0.34
%Na	0.33	0.16
%K	0.49	0.29
%Ti	0.36	0.03
Ag ppm	<0.5	0.7
As ppm	<5	<5
Cd ppm	0.8	1.8
Co ppm	90	55
Cr ppm	26	4
Cu ppm	116	76
Mo ppm	<5	<5
Ni ppm	33	53
P ppm	338	226
Pb ppm	19	50
Sb ppm	<5	9
Se ppm	<5	<5
V ppm	66	54
Zn ppm	311	545
Total Ba ppm	922	1610
Leachable Ba ppm	770*	1440
Cl ppm **	340	<50
Acid Sol. S ppm	1260	1230
SO_4 as mg/kg S	1160	1060

Source: Enviromet Analytical Report No's 940756 & 9708093 August 1994

* possibly present as traces of witherite, BaC03, or as barium intergrown with manganese oxides.

** Laboratory test work at Huon Street, Savage River, used chlorinated town water which has also been treated with other water purification chemicals.

APPENDIX TEN

GEOPHYSICAL REPORT OF THE LONG PLAINS MAGNETITE DEPOSIT

SUBMITTED BY LEIGH FARRER

GEOPHYSICAL PROSPECTING ANALYSIS PTY LTD

23 Edward Street Willoughby NSW 2068 Australia
Telephone (02) 95 4358

LONG PLAINS MAGNETITE

213071

GEOPHYSICAL PROSPECTING ANALYSIS PTY LTD

23 Edward Street Willoughby NSW 2068 Australia
Telephone (02) 9585062
9582865 Fax

5th December 1994

BOB ANNETT
SAVAGE RESOURCES LIMITED
BALLARAT VICTORIA

Re: **LONG PLAINS MAGNETITE**

Dear Bob

Here is a summary of work to date.

A selected portion of the Long Plains Area was gridded and surveyed for Total Field Magnetics during August 1994 by Luke VanZino.

This survey was designed to reestablish control over the location of the magnetic anomalies, previously defined by Keunecke(1958), Sedmik(1961), and Eadie(1962,1963).

Although the total field magnetometer was not capable of operating in the strong magnetic gradient experienced in the central portion of the anomaly, the flanks were well defined.

On the basis of consistency of magnetic character, over a substantial strike-length, a zone which included previous drilling, RTAE1 and DDH46, was chosen for special attention.

A central cross-section was tested by four diamond drillholes, and the results were appraised during November 1994.

With a view to completing detailed magnetic coverage, the work reported by Eadie was reviewed in conjunction with the drilling results.

Discussion was carried out with regard to the fax memo and diagram(23/11/94) which illustrate some preliminary ideas and conclusions.

A set of plans at 1:1000 scale were produced, depicting ground surface magnetics which combine the work by VanZino and Eadie, topography, the prospective zone, and a reappraised cross-section.

The reappraised cross-section was drawn with the purpose of creating a mathematical model, by which a set of magnetic profiles may be appraised from section to section.

This magnetic model may be used to assess the quality of some two dozen, five metre thick, iron bearing slabs which vary in terms of depth, length, and magnetic susceptibility on individual cross-sections.

The detailed magnetic coverage of the northern portion of the grid, demonstrates the existence of a major discontinuity and the transgressive nature of the iron bearing material relative to the direction of strike. Neither of these features would be apparent in the 250' spaced traverses.

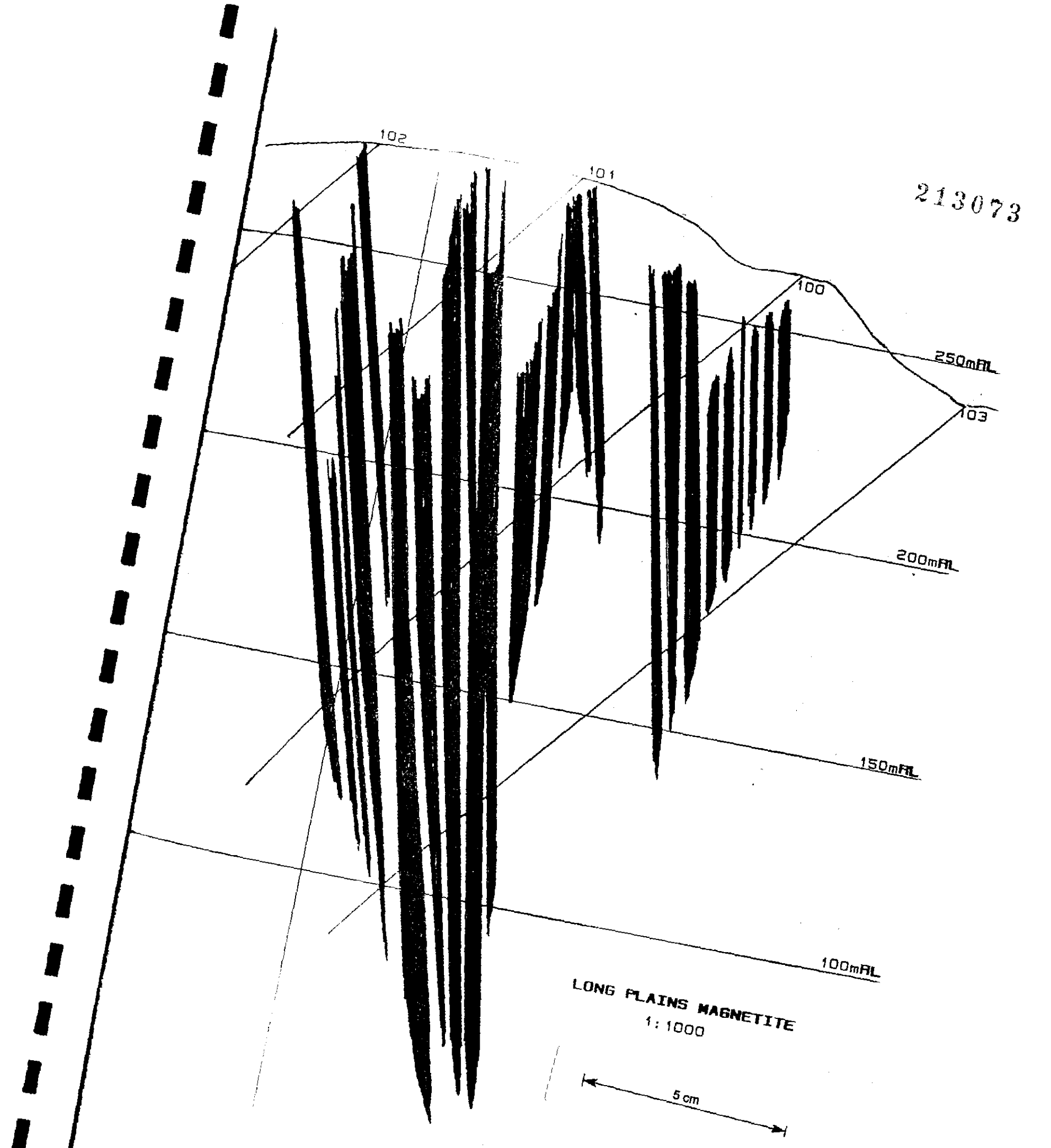
However, the overall magnetic coverage and drilling suggests that the transgressive lenses are restricted to some degree, as a thicker western zone, and a thinner eastern concentration.

Improvement in the quality of this project may be achieved by completion of detailed magnetics, in conjunction with mathematical modelling of the data obtained.

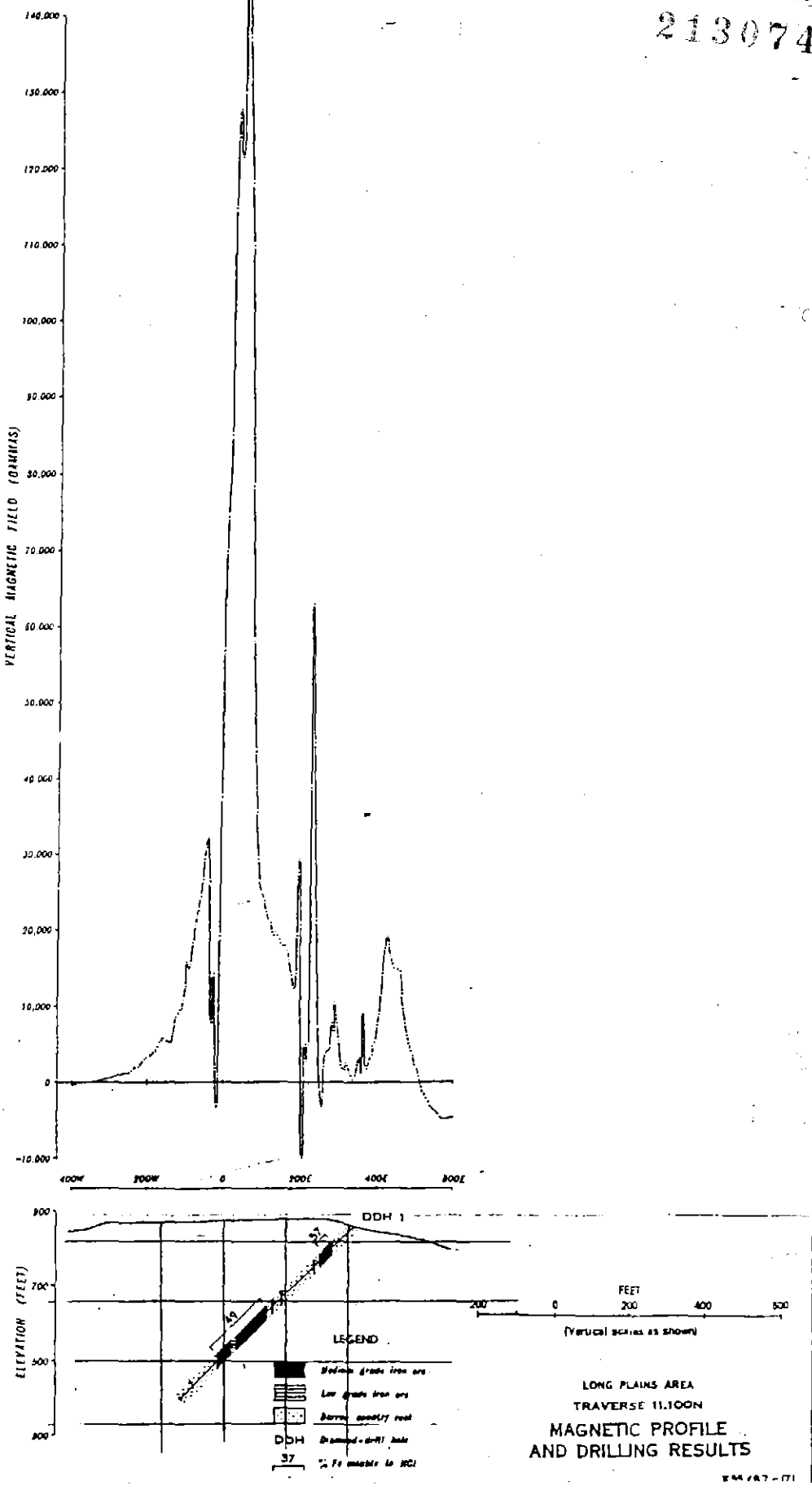
Yours faithfully

Leigh Farrar

213073


102
101
100
103
250mRL
200mRL
150mRL
100mRL
LONG PLAINS MAGNETITE
1:1000
5 cm

213074


VERTICAL MAGNETIC FIELD (GAMMAS)
140,000
130,000
120,000
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
-10,000
400W
200W
0
200E
400E
600E
ELEVATION (FEET)
900
700
500
300
DDH 1
LEGEND
DDH
FEET
200
0
200
400
600
(Vertical scales as shown)
LONG PLAINS AREA
TRAVERSE 11.100N
MAGNETIC PROFILE
AND DRILLING RESULTS

5 cm

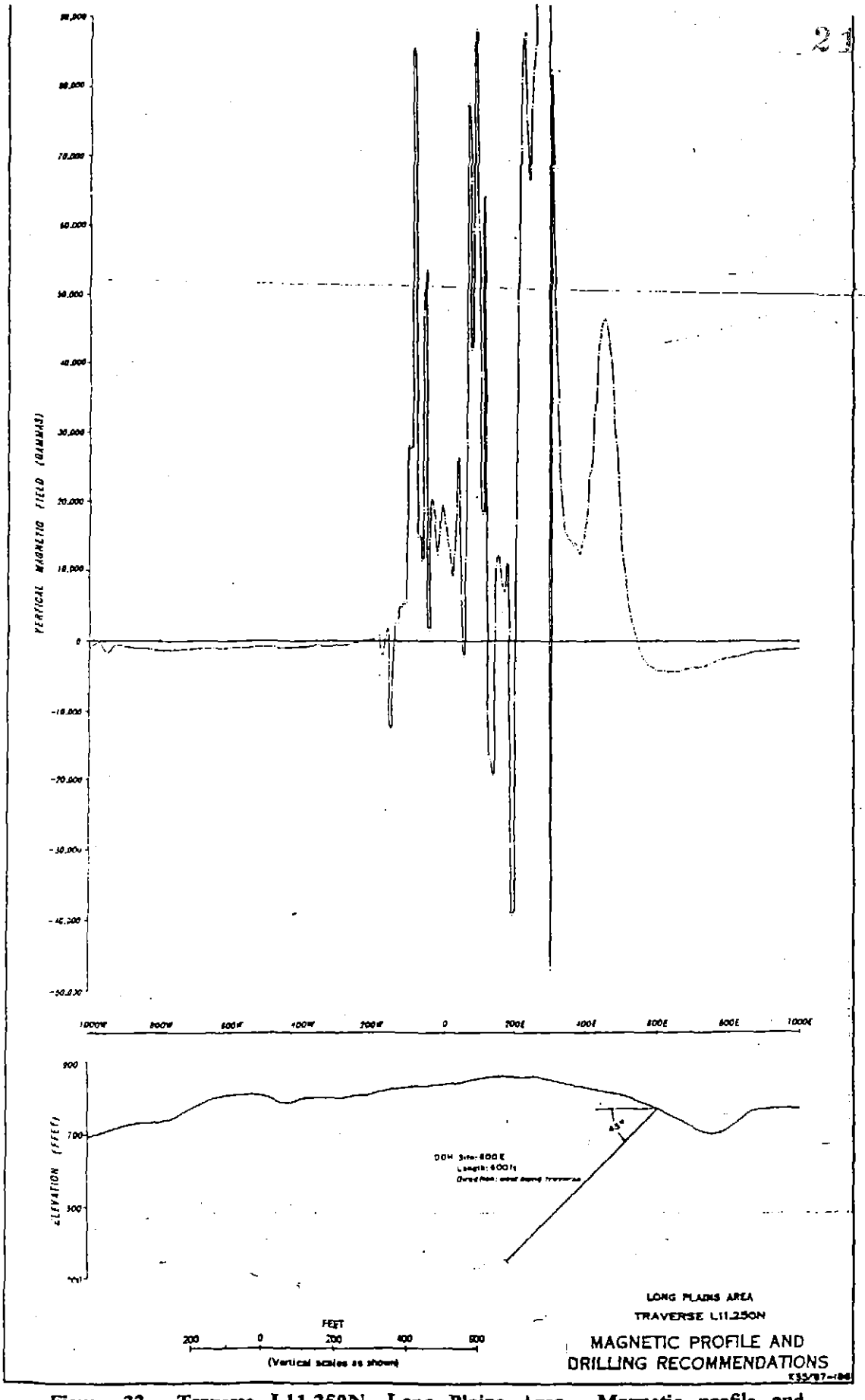
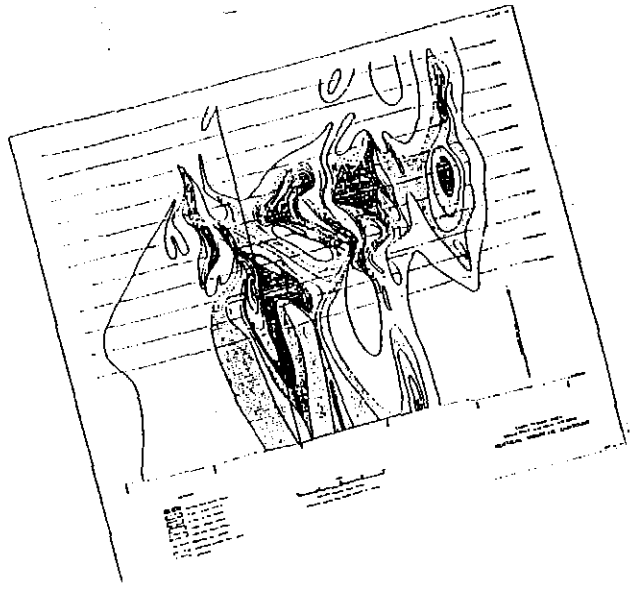


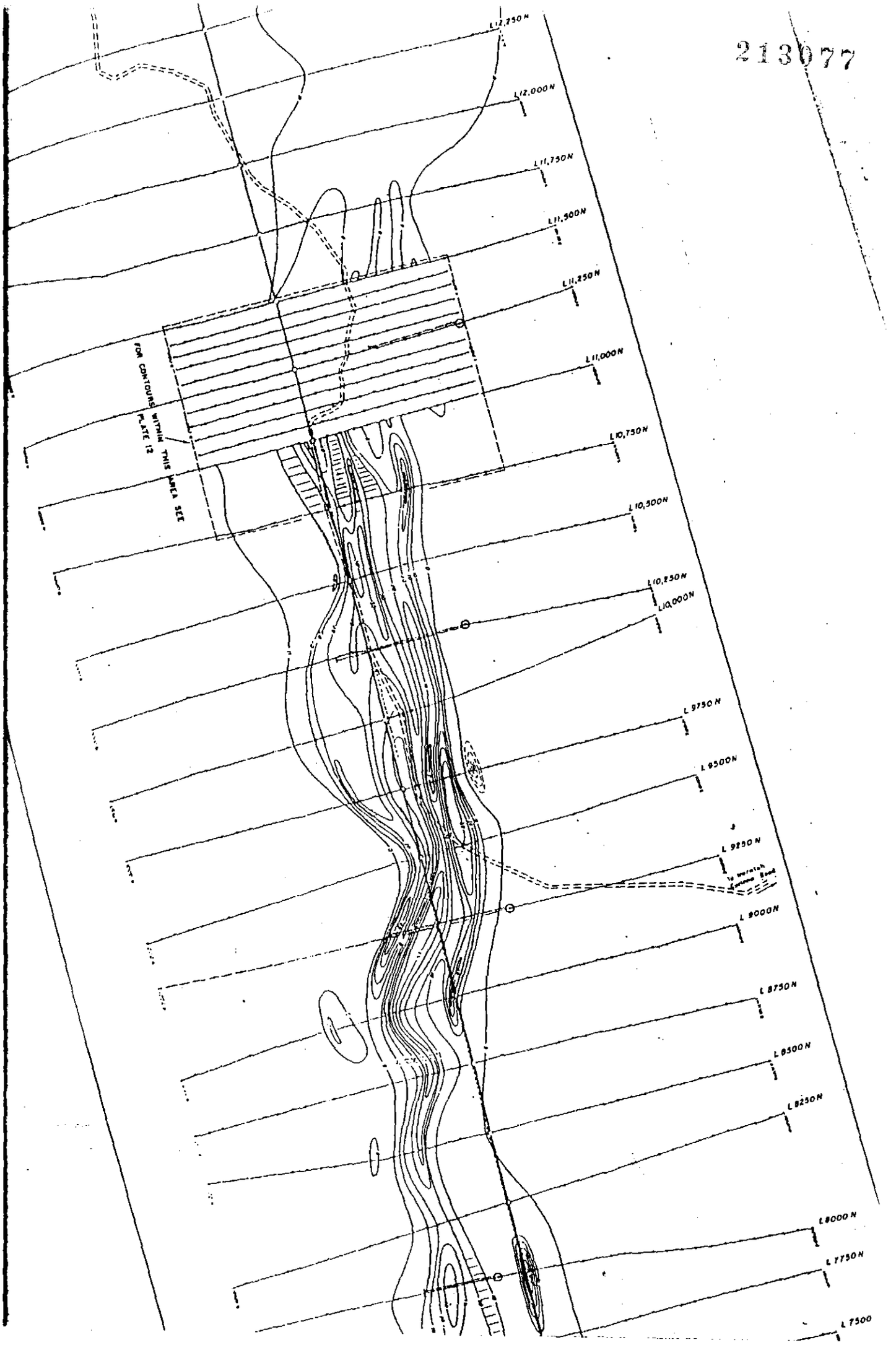
Figure 32. Traverse L11,250N, Long Plains Area. Magnetic profile and drilling recommendations.

5 cm

213076



213077


L12,250N
L12,000N
L11,750N
L11,500N
L11,250N
L11,000N
L10,750N
L10,500N
L10,250N
L10,000N
L 9750N
L 9500N
L 9250N
L 9000N
L 8750N
L 8500N
L 8250N
L 8000N
L 7750N
L 7500
FOR CONTOURS WITHIN THIS AREA SEE PLATE 12

213078

5 cm

LONG PLAINS MAGNETICS 1:1000

9800mE 9900mE 10000mE

10880mN

10840mN

10800mN

10760mN

10720mN

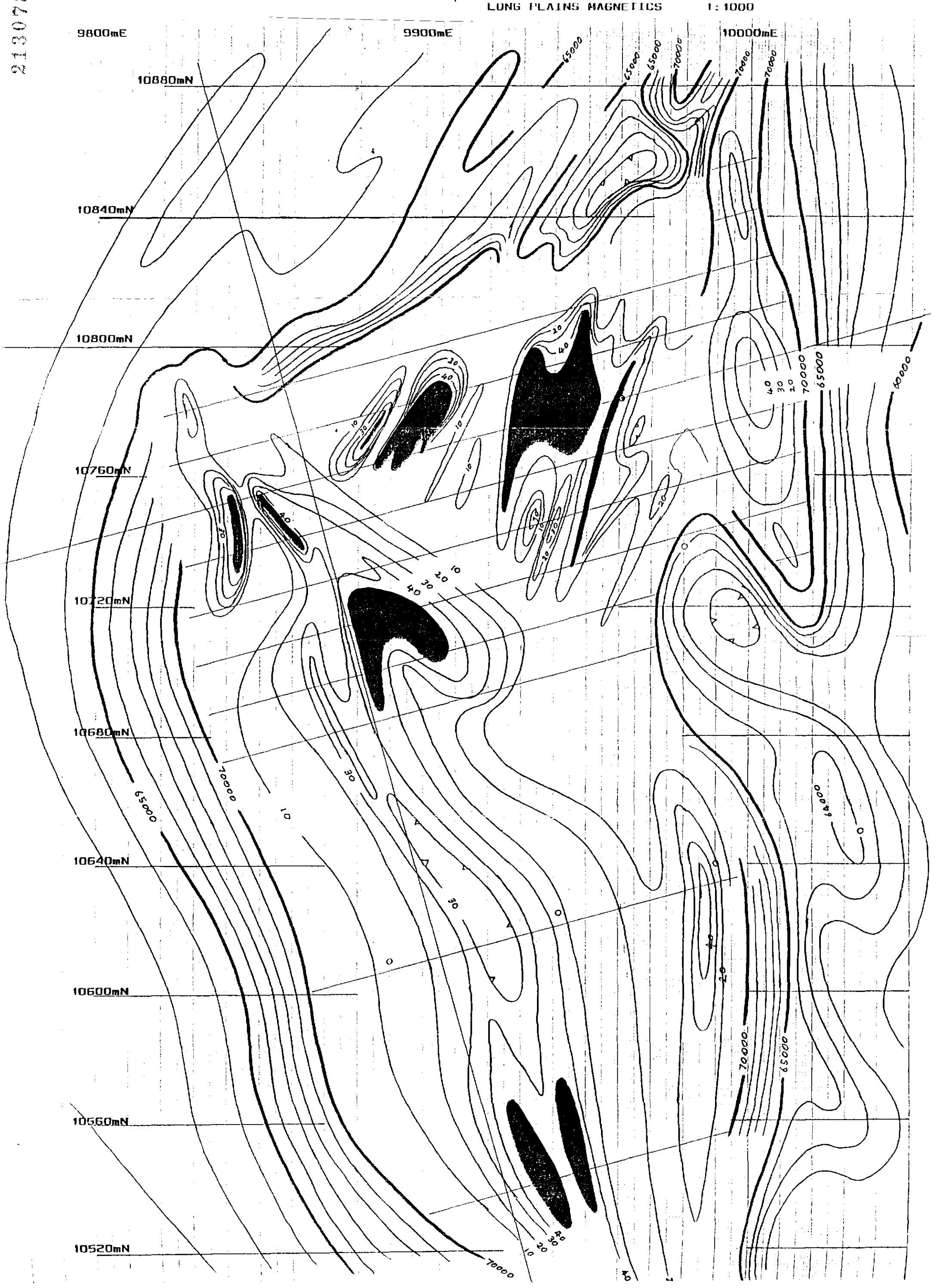
10680mN

10640mN

10600mN

10560mN

10520mN



5 cm

LONG PLAINS 1:1000

9800mE

9900mE

10000mE

10800mN

10700mN

10600mN

23rd Nov 1990

213080

GEOPHYSICAL PROSPECTING ANALYSIS PTY LTD

23 Edward Street Willoughby NSW 2068 Australia
Telephone (02) 9585062
9582865 Fax

ATTENTION: BOB ANNETT
MICK McKEOWN

Re: **LONG PLAINS MAGNETITE**

The West Body may be considered to be **44**m thick with the grades shown on the enclosed illustration.

The East Body may be considered to be **11**m thick with a grade of 45%Fe.

The gap between the West and East Bodies may be considered to be **35**m.

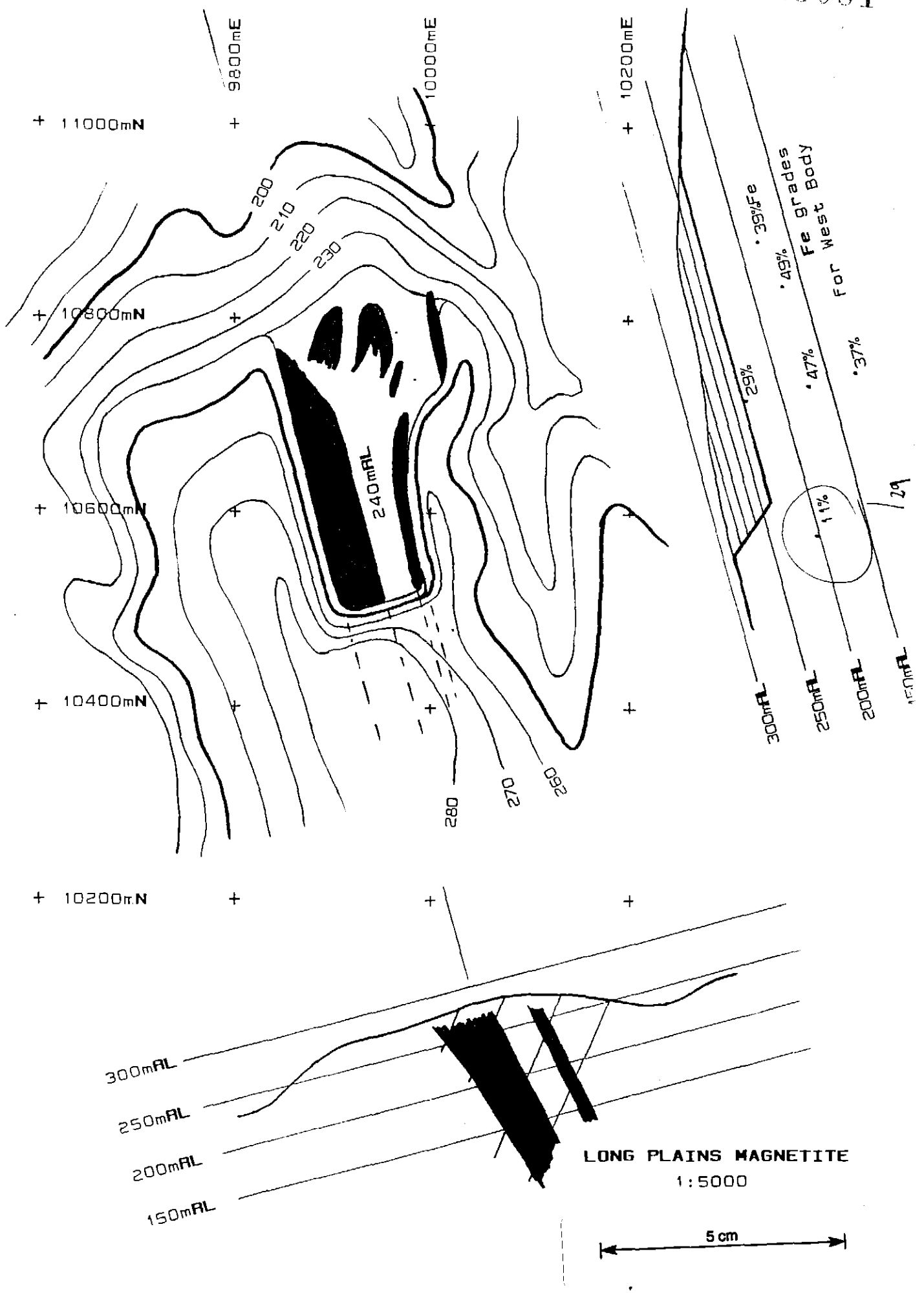
The North Lenses have been identified as having grades of 49%,40%,57%,67%, and 55%.

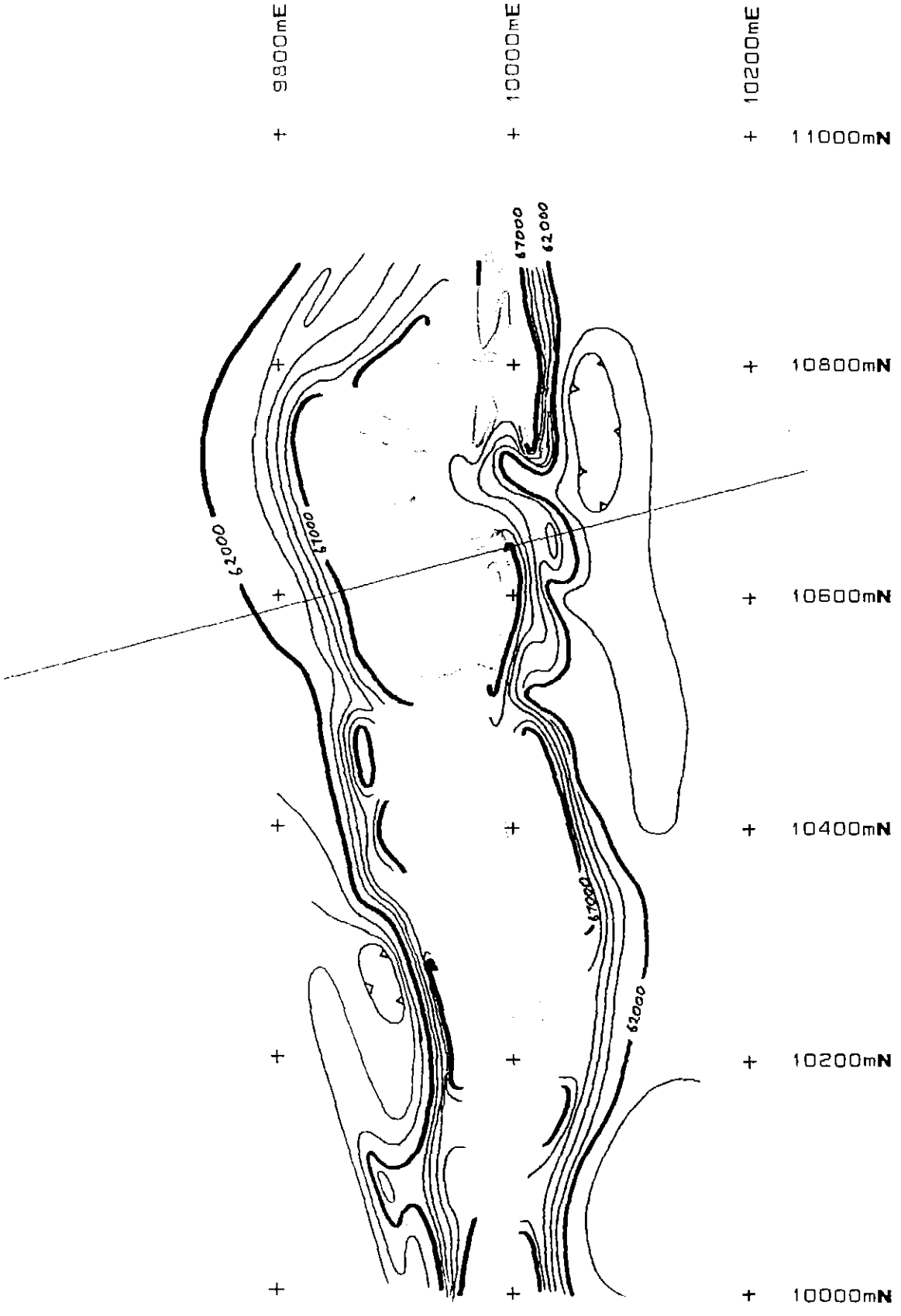
The Magnetite bodies are portrayed here as they might appear at 240mRL, at a crucial stage of open pit mining.

Regards

Leigh Ferrar

213081


9800mE
10000mE
10200mE
11000mN
10800mN
10600mN
10400mN
10200mN
200
210
220
230
240mRL
270
280
260
·39%Fe
·49%
Fe grades
For West Body
·29%
·47%
·37%
11%
300mRL
250mRL
200mRL
150mRL
300mRL
250mRL
200mRL
150mRL
LONG PLAINS MAGNETITE
1:5000
5 cm

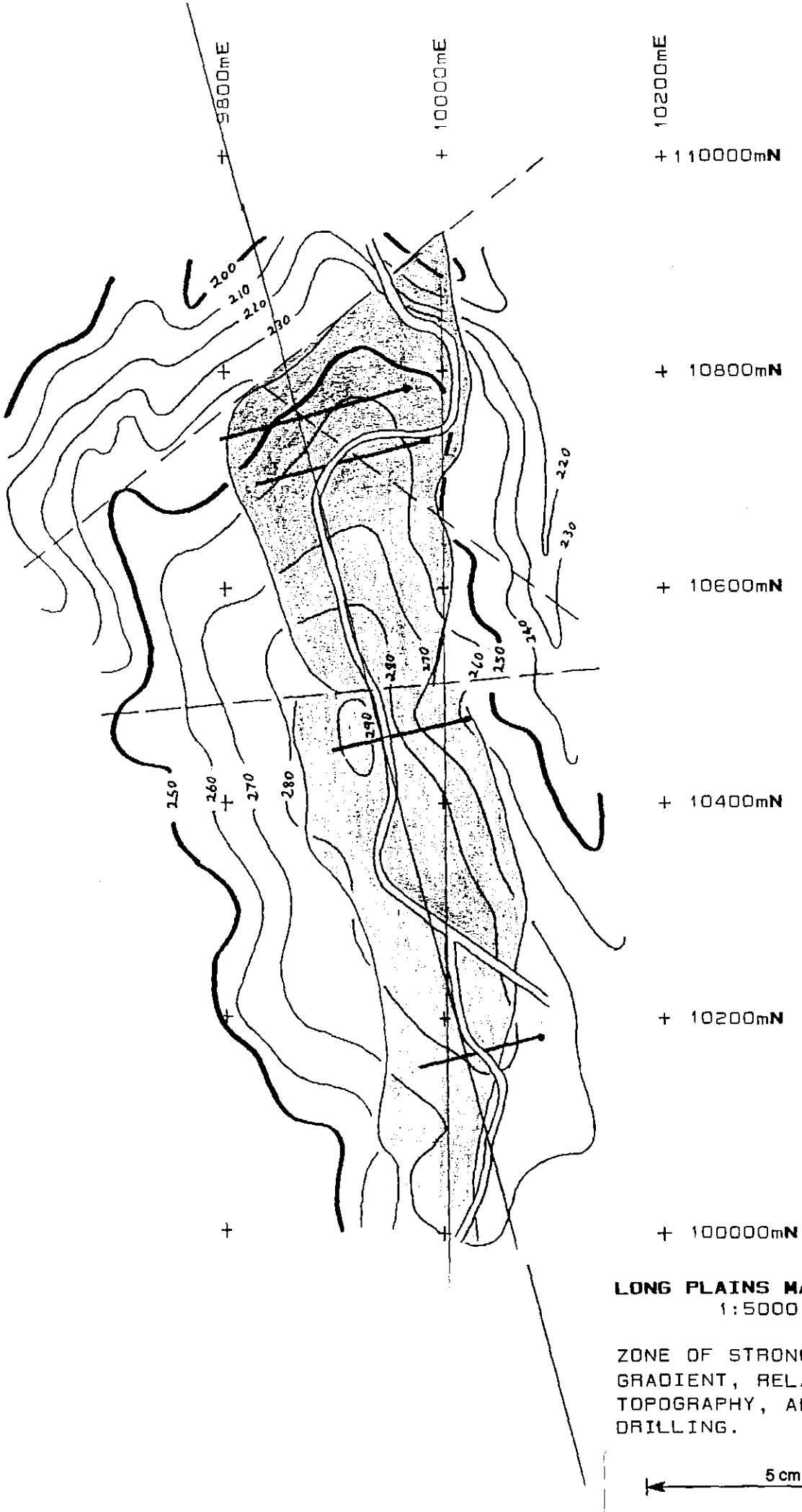


LONG PLAINS MAGNETITE
1:5000

TOTAL MAGNETIC FIELD STRENGTH

5 cm

213083

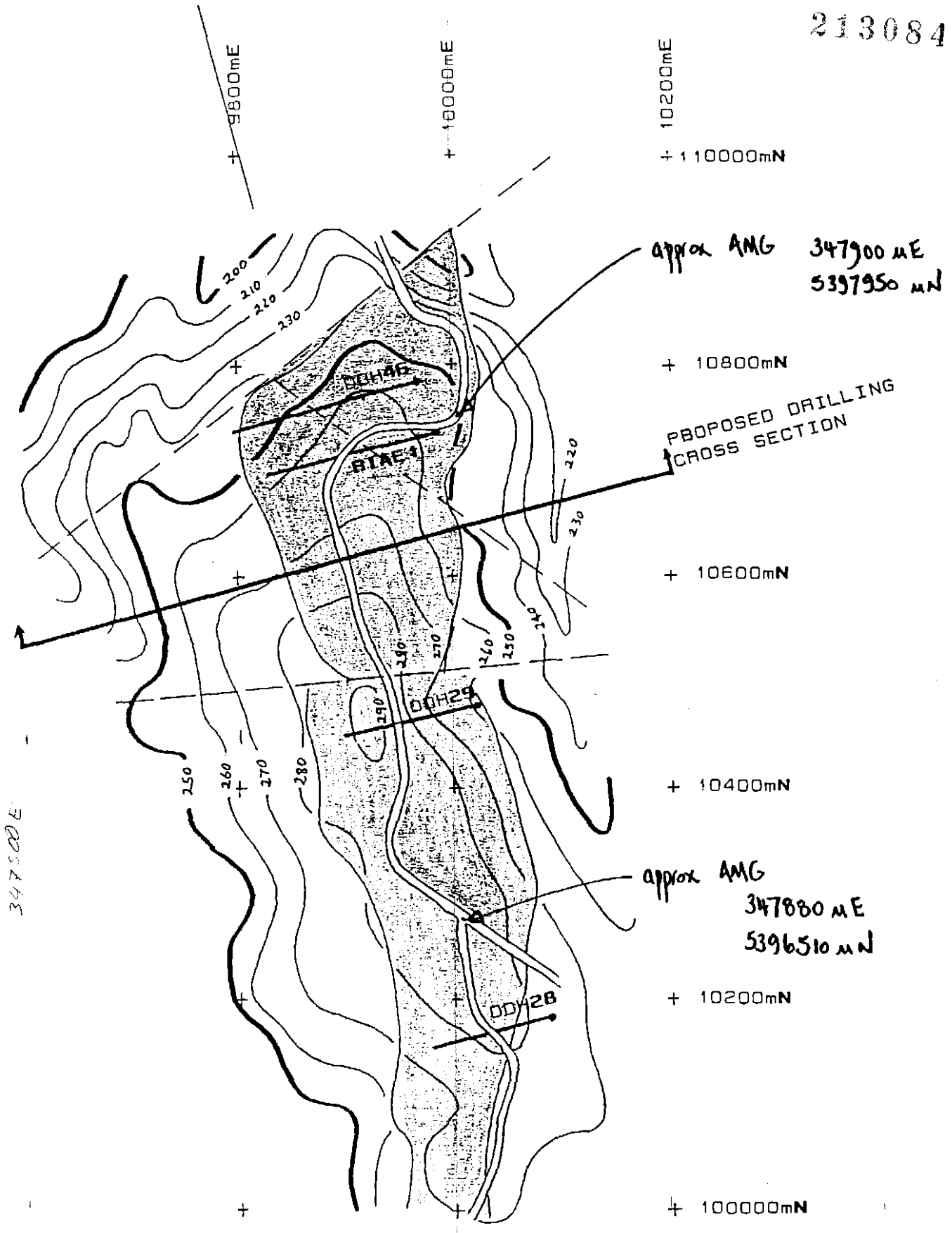


LONG PLAINS MAGNETITE
1:5000

ZONE OF STRONG MAGNETIC GRADIENT, RELATIVE TO TOPOGRAPHY, AND PREVIOUS DRILLING.

5 cm

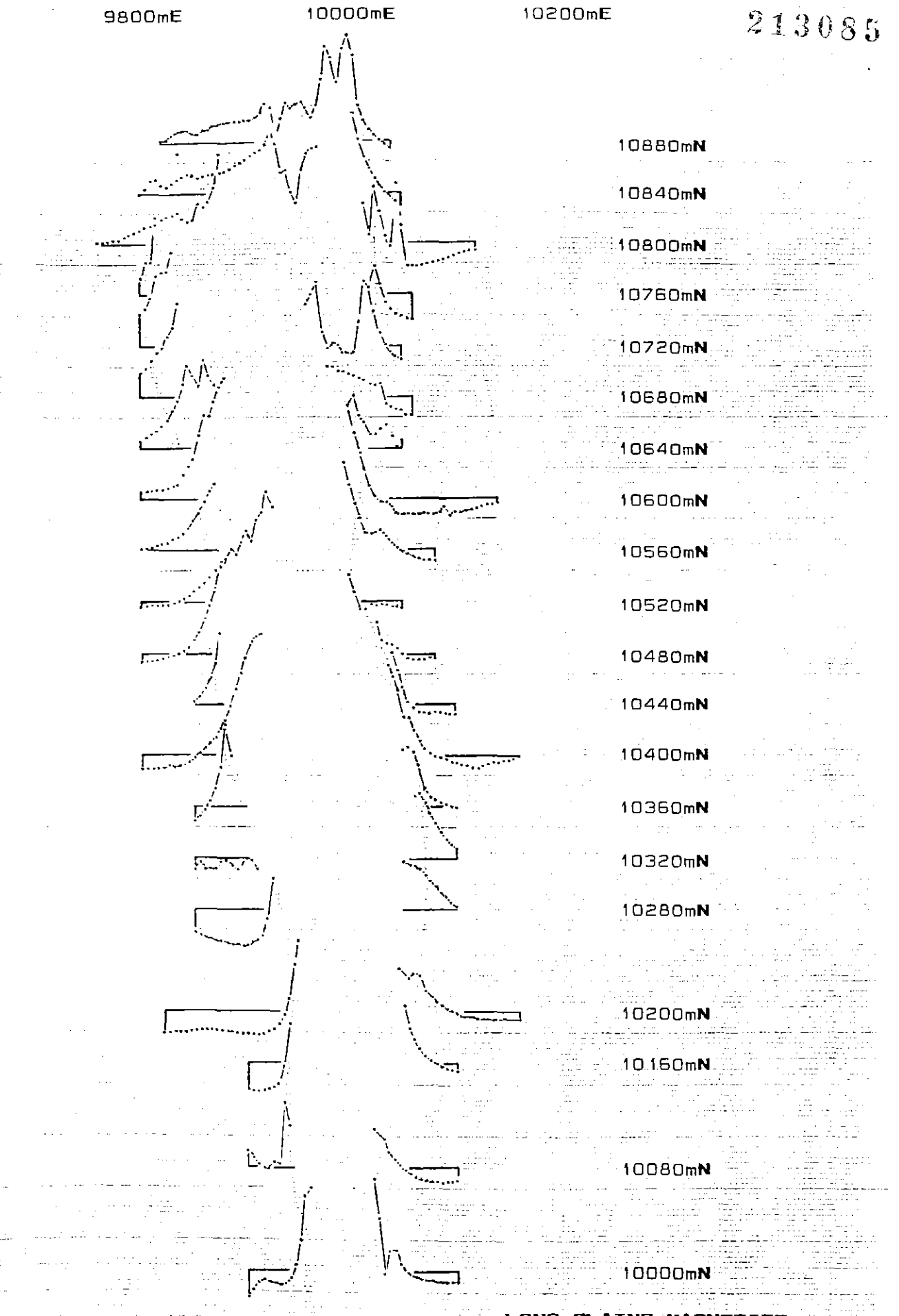
213084



LONG PLAINS MAGNETITE
1:5000

ZONE OF STRONG MAGNETIC GRADIENT, RELATIVE TO TOPOGRAPHY, AND PREVIOUS DRILLING.

5 cm



LONG PLAINS MAGNETITE

1:5000

TOTAL MAGNETIC FIELD STRENGTH PROFILES

Datum: 62000nT

Vert.Scale: 5000nT/cm

APPENDIX ELEVEN

LONG PLAINS MAGNETITE DEPOSIT

SAVAGE RIVER MINES ASSAY DATA

Sample	Interval	%DTR	Fe^{II}	T Fe	Ni	TiO_2	V	MgO	P
LP100/1*	17.4 - 18.4	76.6	22.1	68.78	0.032	1.31	0.38	0.82	0.002
2	32.8 - 35.4	62.8	22.1	69.13	0.040	0.84	0.34	0.77	0.007
3	37.5 - 40.1	58.3	22.1	68.15	0.036	1.08	0.37	0.91	0.001
4	40.1 - 42.7	55.7	22.1	69.38	0.045	1.24	0.40	0.80	0.000
5	45.5 - 46.7	65.2	21.9	68.64	0.032	1.23	0.36	1.10	0.002
6	61.6 - 63.5	51.4	22.1	69.51	0.028	1.04	0.39	0.71	0.001
7	65.3 - 66.5	49.4	22.0	69.01	0.033	0.99	0.33	0.93	0.001
8	77.8 - 81.4	35.5	22.5	70.26	0.016	0.47	0.37	0.36	0.001
9	83.5 - 87.0	60.0	22.1	68.74	0.018	1.09	0.38	1.25	0.000
10	87.0 - 90.0	57.3	21.9	68.24	0.024	0.92	0.34	1.72	0.001
11	95.7 - 98.7	56.5	21.7	67.97	0.032	0.92	0.37	1.70	0.003
12	98.7 -101.7	31.4	21.6	67.61	0.029	0.90	0.34	1.52	0.003
13	101.7-104.6	44.3	21.7	67.27	0.047	0.88	0.31	1.73	0.004
14	108.1-111.3	62.7	22.0	69.10	0.018	0.98	0.36	0.90	0.006
15	111.3-114.6	52.3	21.6	66.53	0.019	1.05	0.37	1.12	0.002
16	116.7-120.0	49.4	21.7	67.74	0.024	1.07	0.35	1.55	0.001
17	120.0-123.2	67.0	22.1	68.77	0.026	0.98	0.38	0.99	0.002
18	125.2-128.3	45.8	22.5	68.54	0.027	0.87	0.32	1.30	0.001
19	128.3-131.4	48.1	22.1	67.89	0.021	0.76	0.33	1.45	0.002
20	137.0-139.4	50.5	22.6	69.61	0.047	0.52	0.37	0.58	0.002
21	139.4-141.8	34.4	22.2	68.58	0.020	0.84	0.38	1.24	0.001
22	143.0-144.6	63.7	22.2	68.98	0.088	0.64	0.39	1.03	<.001
23	145.8-148.0	46.7	22.6	69.62	0.164	0.47	0.32	0.68	0.001
24	150.6-154.2	50.7	22.8	70.11	0.112	0.05	0.22	0.89	<.001
101/49*	26.1 - 26.5	68.6	19.4	70.46	0.107	0.32	0.31	0.59	0.001
50*	31.5 - 32.5								
25	35.7 - 38.7	58.3	22.5	70.05	0.025	0.50	0.36	0.59	<.001
25	35.7 - 38.7	65.2	21.7	68.43	0.033	0.74	0.41	1.31	0.003
26	40.0 - 42.3	61.9	22.2	70.83	0.021	0.42	0.39	0.54	<.001
27	42.3 - 44.5	47.4	22.1	69.88	0.020	0.34	0.37	0.44	<.001
28	58.7 - 60.8	69.3	22.2	68.79	0.034	0.64	0.35	1.24	0.002
29	60.8 - 62.9	65.3	22.3	69.03	0.036	0.86	0.37	1.06	0.001
30	66.2 - 69.0	59.4	22.6	69.65	0.022	0.50	0.35	1.07	<.001
31	71.4 - 74.2	61.5	22.7	69.88	0.025	0.42	0.34	0.67	0.001

AMMTEC BULK

213088

Sample	Interval	%DTR	Fe^{++}	T Fe	Ni	TiO_2	V	MgO	P
101/32	74.2 - 77.2	48.1	22.7	70.50	0.026	0.50	0.38	0.55	0.003
33	78.5 - 79.7	50.5	22.6	70.05	0.046	0.70	0.36	0.46	0.005
34	87.0 - 90.5	47.6	22.7	70.43	0.080	0.04	0.19	0.46	0.005
103/35	81.7 - 84.0	41.1	22.2	69.22	0.037	0.88	0.36	0.78	0.002
36	84.0 - 86.4	34.9	22.5	70.28	0.034	0.53	0.35	0.42	0.003
37	89.5 - 91.8	63.6	22.0	68.92	0.030	1.10	0.36	0.97	0.003
38	93.5 - 96.5	63.1	22.0	69.07	0.038	0.95	0.36	0.93	0.002
39	144.2-147.7	63.0	21.9	68.30	0.025	0.97	0.37	1.36	0.002
40	148.7-151.4	79.4	21.5	67.59	0.021	1.06	0.39	1.97	0.002
41	151.4-154.0	55.6	21.6	67.79	0.021	0.94	0.37	1.68	0.001
42	155.8-159.6	70.1	21.6	68.18	0.042	0.96	0.37	1.45	0.001
43	162.0-165.6	57.7	21.6	67.21	0.035	0.98	0.34	2.07	0.001
44	168.8-172.2	52.3	21.8	67.53	0.023	0.88	0.34	1.85	0.002
45	172.7-175.6	57.4	21.4	66.84	0.022	0.93	0.32	2.34	0.002
46	180.6-182.3	57.5	22.4	70.25	0.017	0.41	0.36	0.54	0.002
102/47	4.1 - 7.0	13.9							
AMMTEC 47	4.1 - 7.0	12.7	1.0	65.93	0.027	1.19	0.41	1.90	0.008
BULK 48	25.0 - 26.8	68.1	21.7	70.66	0.093	0.53	0.34	0.33	0.001
48	25.0 - 26.8	70.8	22.1	69.16	0.115	0.73	1.30	0.38	0.004
# COMP51			21.7	67.83	0.075	1.30	0.38	1.69	0.004

Comp 51 = DDH 101 26.1 - 26.5
31.5 - 32.5
DDH 100 17.4 - 18.4

1. All samples meet coal washing spec except 102/47 4.1-7.0 M
2. Oxidation probably to 13-15 M beneath ground surface.