

MINERAL RESOURCES		
FILE REF: EL43/92-PT3		
14 MAR 2001		
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S. J. HOLLIS		
HL		
RESUBMIT TO	DATE	

ALLEGIANCE MINING NL

MICROFILMED
FICHE No. 015640-

MELBA FLATS PROJECT

EL 43/92

**ANNUAL REPORT
FOR PERIOD ENDING
FEBRUARY 2001**

February 2001

01_4532

Annual Report for period ending February 2001 - EL
43/92 - Melba Flats Project
Allegiance Mining NL; Newnham Exploration and Mining
Newnham, L.A. EL43/1992



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CONTENTS

- 1. EXPLORATION STRATEGY**
- 2. WORK COMPLETED
MARCH 2000-FEBRUARY 2001**
- 3. WORK PLANNED
MARCH 2001-FEBRUARY 2002**

Appendices:

- 1. Log MF13**
- 2. Assays MF13**
- 3. Logistics and Operations Report on IP Survey
- Scintrex**
- 4. Report on IP Survey - Hungerford**

Figures:

- 1. Location Plan**
- 2. IP Chargeability Results**
- 3. IP Resistivity Results**
- 4. Nickel Reward Structure Contours**
- 5. Nickel Reward Drill Section MF13**
- 6. Nickel Reward Longitudinal Projection**

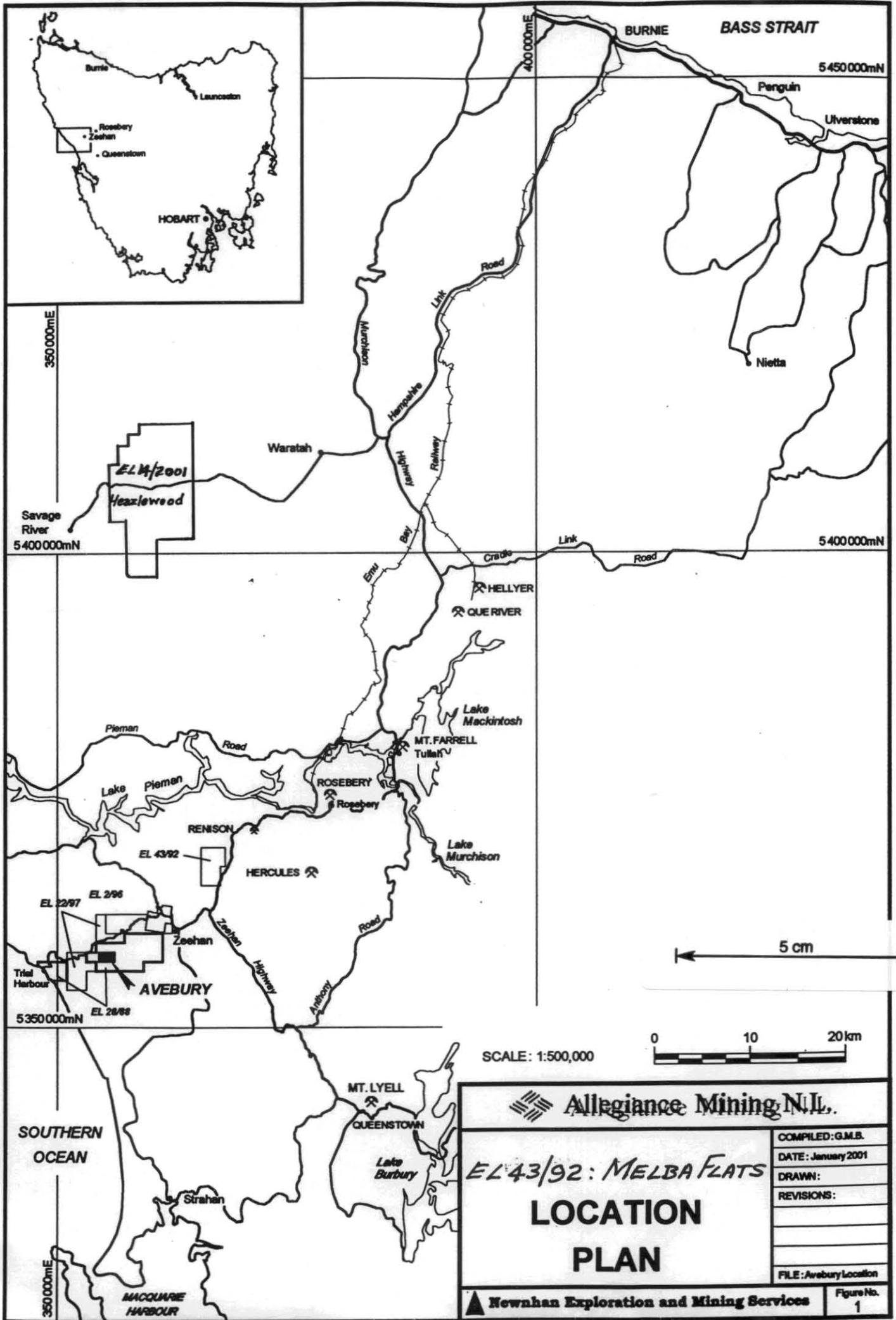
1. EXPLORATION STRATEGY

Allegiance Mining NL is heavily committed to the exploration for nickel sulfide deposits in the Zeehan area. To date this work has focused on the Avebury deposits west of Zeehan and Melba Flats (EL 43/92) north of Zeehan.

Melba Flats is considered to have high prospectivity for the development of high grade Ni-Cu sulfide deposits with associated platinum group metals and gold, both near surface and at depth.

Such deposits could form either the basis for a stand-alone mining operation or an early high grade feed-stock to a larger operation at Avebury.

Despite the fact that the Melba Flats area has been intermittently explored for the past 100 years, much of this previous work is considered superficial and ineffective for the target type sought.



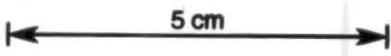
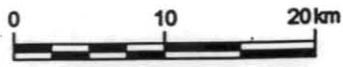
EL 43/2001
Heazlewood

 Allegiance Mining N.L.	
EL 43/92: MELBA FLATS	
LOCATION PLAN	
PLAN	
<small>FILE: Avebury Location</small>	
<small>Figure No. 1</small>	

▲ Newnhan Exploration and Mining Services

COMPILED: G.M.B.
DATE: January 2001
DRAWN:
REVISIONS:

SCALE: 1:500,000



2. WORK COMPLETED MARCH 2000-FEBRUARY 2001

Work completed during the year consisted of:

- (i) establishing a grid between Nickel Reward and South Cuni
- (ii) completing a gradient array IP survey on this grid
- (iii) drilling DDH MF13 at Nickel Reward

2.1 Grid:

The previously-completed Nickel Reward grid was extended north to the South Cuni workings, with lines at 50 m spacing. Some of these lines were new; others were re-cleared and re-pegged CRA grid lines.

2.2 IP Survey:

The IP survey was designed to extend the similar, but more detailed, survey completed previously at Nickel Reward to the north. This new survey covered the Vaudeau, Blowfly, Mosquito and South Cuni workings. The results have been "stitched" with the Nickel Reward survey results.

Key features to emerge are:

- (a) presence of small chargeability anomalies to the south of Vaudeau, south of South Cuni and at Devereau (south-west of Nickel Reward)
- (b) strong chargeability anomaly east of the main line of workings, which is interpreted at this stage as due to a black shale unit

Survey specifications and results are included as Appendices 3, 4, and Figs 3, 4.

2.3 Drilling:

Cored drill hole MF13 was completed to test the down-dip extent of the high grade Ni-Cu mineralisation intersected in MF11. Down-hole and surface geophysics previously completed on MF11 and MF12

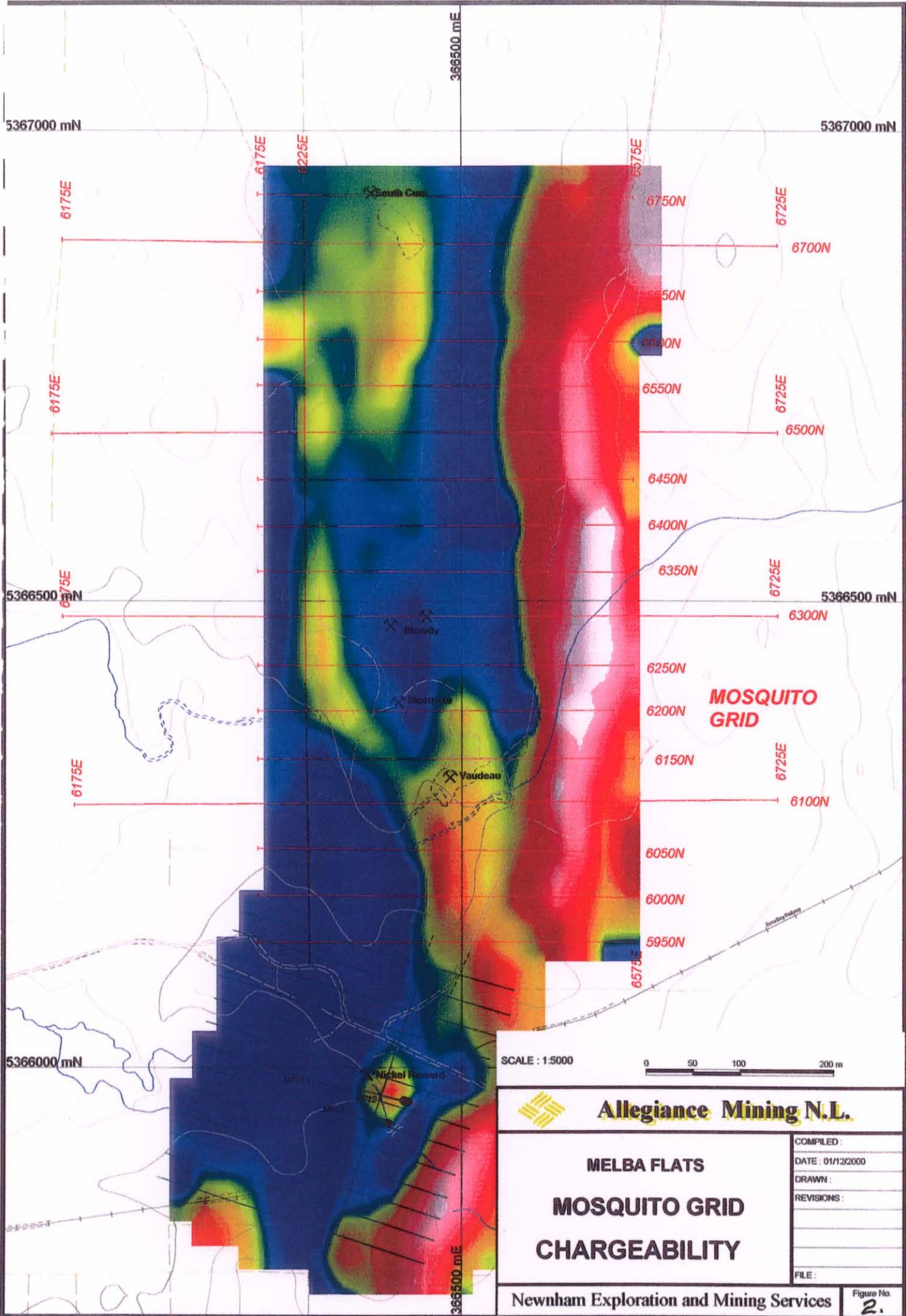
suggested the massive sulfide and disseminated sulfides, intersected in MF11 and MF12 respectively, might plunge at depth to the south-east.

MF13 intersected four narrow sulfidic gabbro dykes carrying significant nickel sulfides, including 88.3-89.7 m, 1.4 m 7.26% Ni, 2.1% Cu.

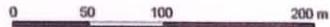
Results of MF13 are presented on the accompanying log, plan and section, along with an interpretative longitudinal projection of Nickel Reward drilling.

The high grade intersection (above) represents the deepest high grade intersection to date on the Melba Flats field and dispels the long-held unsupported view that the high grade deposits at Melba Flats all cut out at 10-20 m depth.

821007



SCALE : 1:5000



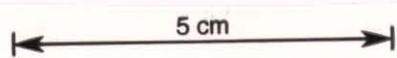
Allegiance Mining N.L.

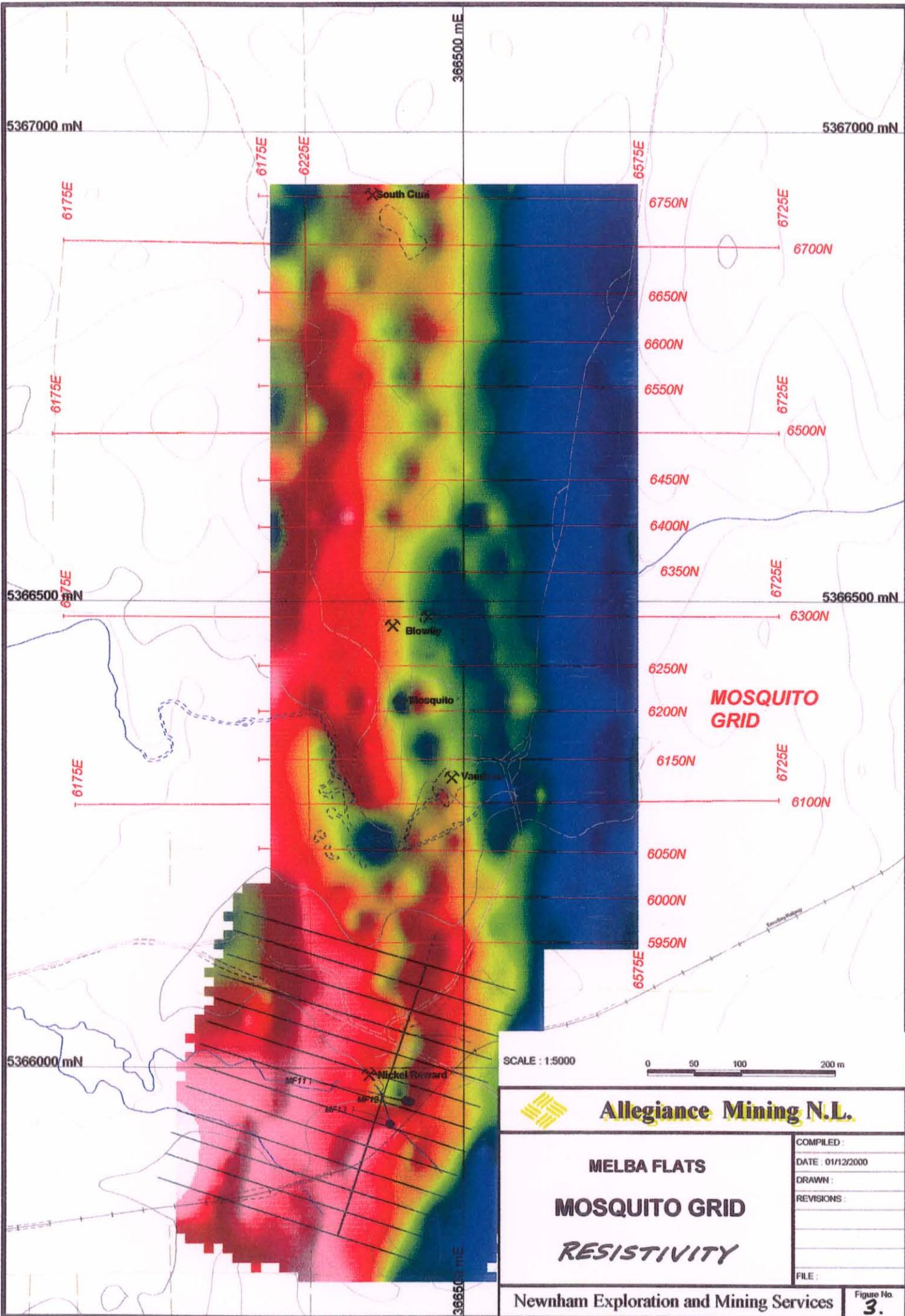
MELBA FLATS
MOSQUITO GRID
CHARGEABILITY

COMPILED:	
DATE: 01/12/2000	
DRAWN:	
REVISIONS:	
FILE:	

Newnham Exploration and Mining Services

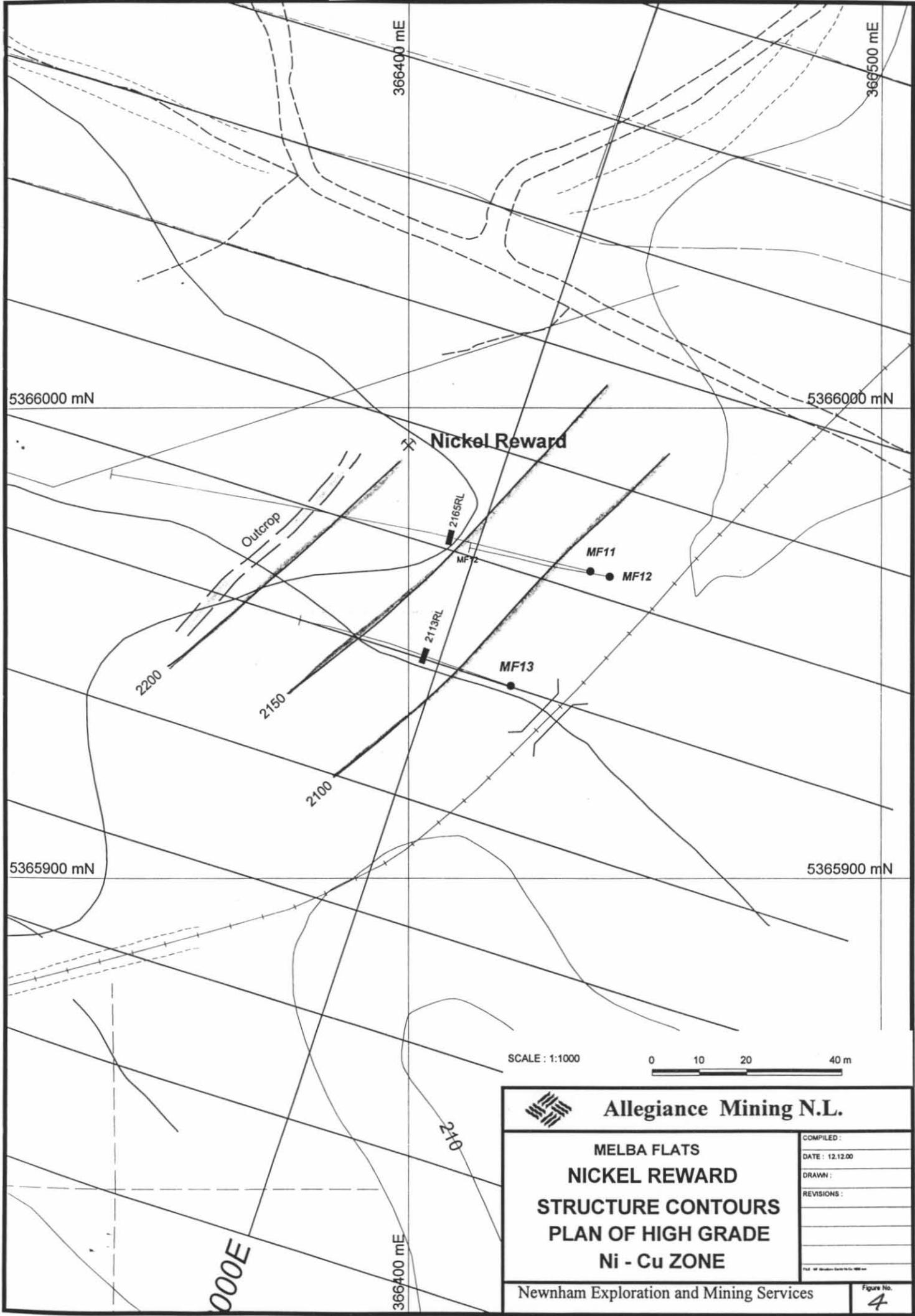
Figure No. **2.**





 <p>Allegiance Mining N.L.</p> <p>MELBA FLATS</p> <p>MOSQUITO GRID</p> <p>RESISTIVITY</p>	COMPILED :
	DATE : 01/12/2000
	DRAWN :
	REVISIONS :
	FILE :
Newnham Exploration and Mining Services	
Figure No. 3.	

5 cm



SCALE: 1:1000

0 10 20 40 m



Allegiance Mining N.L.

MELBA FLATS
 NICKEL REWARD
 STRUCTURE CONTOURS
 PLAN OF HIGH GRADE
 Ni - Cu ZONE

COMPILED:

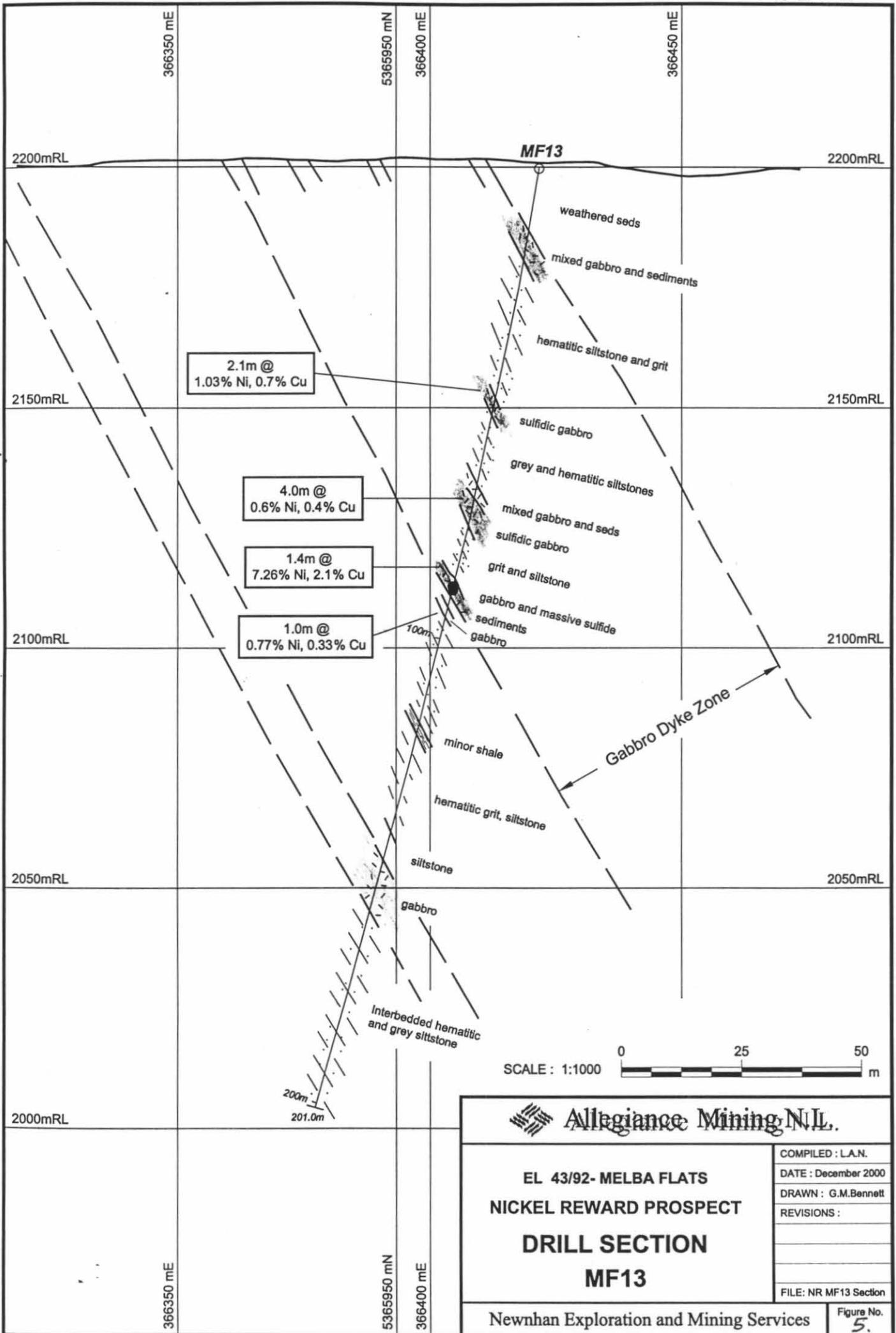
DATE: 12.12.00

DRAWN:

REVISIONS:

Newnham Exploration and Mining Services

Figure No. 4



2.1m @
1.03% Ni, 0.7% Cu

4.0m @
0.6% Ni, 0.4% Cu

1.4m @
7.26% Ni, 2.1% Cu

1.0m @
0.77% Ni, 0.33% Cu

 Allegiance Mining N.L.	
EL 43/92- MELBA FLATS NICKEL REWARD PROSPECT DRILL SECTION MF13	
Newnhan Exploration and Mining Services	
COMPILED : L.A.N. DATE : December 2000 DRAWN : G.M.Bennett REVISIONS : FILE: NR MF13 Section	
Figure No. 5.	

5 cm

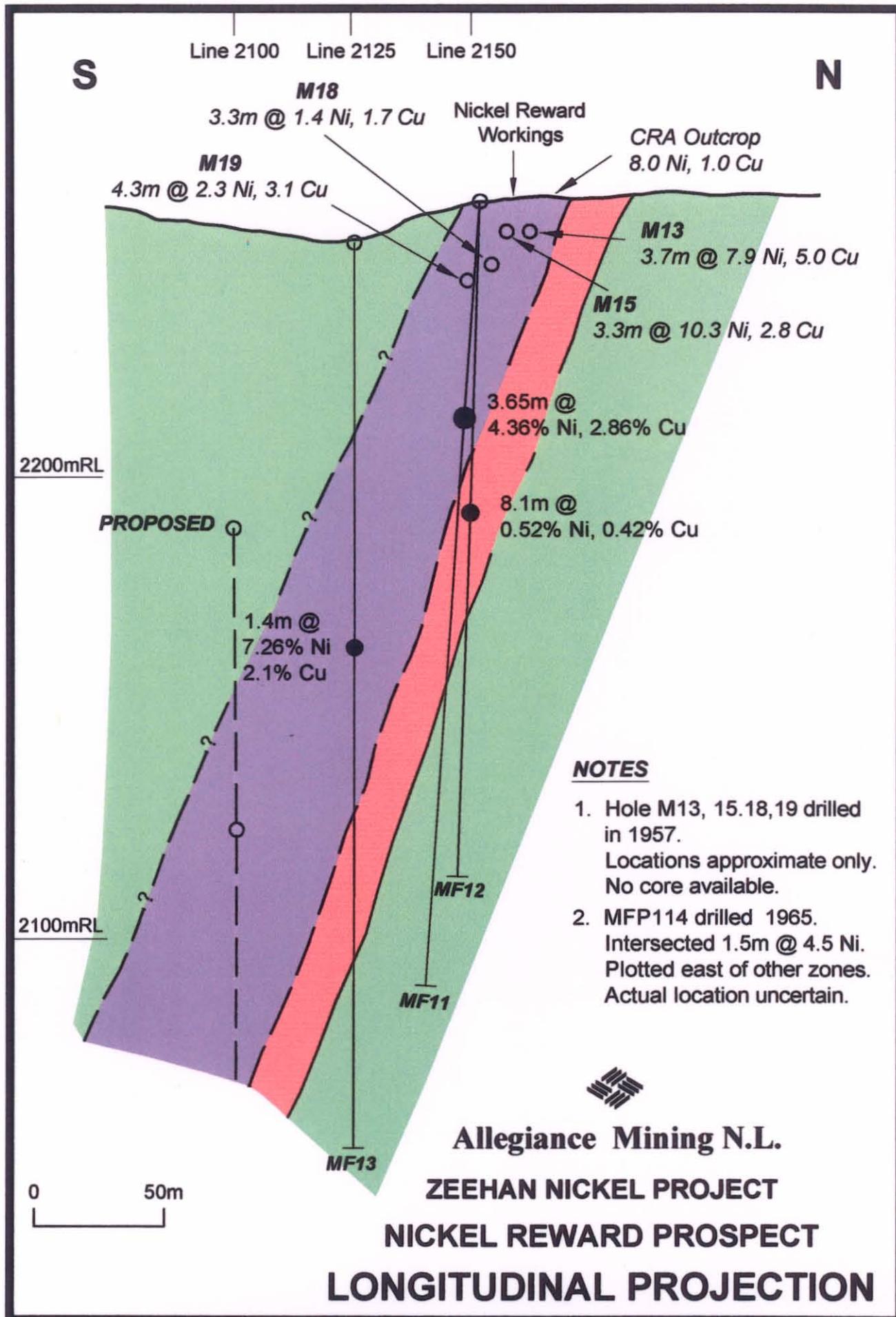


Fig 6.

**3. WORK PLANNED
MARCH 2001-FEBRUARY 2002**

The following work is planned for the coming year:

- | | | |
|-------|---|------------|
| (i) | map EL 43/92 in detail | (\$15,000) |
| (ii) | drill minimum of four holes into Nickel Reward, Vaudeau and possibly South Cuni | (\$65,000) |
| (iii) | extend the detailed ground geophysical survey north to Genets Winze | (\$10,000) |
| (iv) | undertake down-hole EM on MF13 and other drill intersections | (\$10,000) |

The above program is estimated to cost \$100,000.

.....

821013

APPENDIX 1

Log MF13

COMPANY: Allegiance Mining NL
 PROJECT: Melba Flats
 HOLE NUMBER: MF 13

821014

Commenced:	25 Oct 000
Completed:	31 Oct 00
Logged By:	L.A.Newnham
Drilled By:	Almac Drilling

Purpose of Hole
to test the Nickel Reward mineralisation 25 m. south of MF 11 and MF 12.

Comments on Completion
four gabbro dykes containing significant Ni sulfide mineralisation were intersected between 49.5-94.7 m; the high grade zone intersected between 88.3-89.7 m. is tentatively equated with the main Nickel Reward shoot and the high grade intersection in MF 11, suggestive of an east dipping, south plunging shoot;

Collar Details

Grid	Northing	Easting	Elevation	Dip	Bearing
GDA	5 365 940.8	366 421.7	2199.7	-80	288

Length (m)
201

Hole Size	
To (m)	Size
19.1	HQ
201	NQ

Significant Core Loss Zones		
From	To	%Rec.
nil		

Hole Condition on Completion
all steel casing removed from hole and slotted PVC placed in whole hole;

Summary of Results:

Depth		Recovery %	Description	Assays							
From	To			Length	Ni %	Cu %	Au ppb	Pt ppb	Pd ppb	S %	Co %
49.5	51.5	100	gabbro with sulfide	2.0	1.03	0.70	93	87	130	4	0.03
71.0	75.0	100	gabbro with sulfide	4.0	0.60	0.45	83	86	123	2	0.02
88.3	89.7	100	gabbro with massive sulfide	1.4	7.26	2.10	113	235	488	18.4	0.12
93.7	94.7	100	gabbro with sulfide	1.0	0.77	0.33	33	68	114	3.6	0.02

COMPANY: Allegiance Mining NL
 PROJECT: Melba Flats
 HOLE NUMBER: MF 13

Page No: 1

Description		Core Recovery			RQD			Assays									
From	To		From	To	%	From	To	%	From	To	NI	Cu	Au	Pt	Pd	S	
											%	%	g/t	g/t	g/t	%	
0.0	12.0	WEATHERED SEDIMENTS: orange-light brown limonitic siltstone; severely weathered; significant core losses; 5.0-9.0 m: rubbly shale and purple grits and quartz fragments - all rounded, possibly cave material; core very broken with no cohesive strength;	0.0	3.0	30												
			3.0	6.0	50												
			6.0	9.0	10	cave											
			9.0	12.0	30												
12.0	14.6	GRITS and SILTSTONE: light gray interbedded grits and siltstone; very broken and rubbly in places; limonite on joints; BCA 50°;	12.0	14.7	60												
14.6	15.5	GABBRO: coarse grained, dark gray-green gabbro; contacts broken but probably both 50° CA; minor fine grained disseminated sulfide (pyrite?); core leached, and broken by several joint sets;	14.7	15.5	100				14.6	15.5	0.014	0.006					0.22
15.5	16.3	SILTSTONE: light gray siltstone; BCA 40°;	15.5	18.0	100												
16.3	16.5	GABBRO: 200 mm gabbro as for 14.6 m....; contacts sharp, possibly faulted and discordant to bedding; possible xenolith;															
16.5	17.8	GRITS and SILTSTONE: intermixed gray siltstone and red hematitic grits;															
17.8	18.5	GABBRO: 700 mm. dark gray-green coarse grained gabbro with minor fine disseminated sulfides; sharp HW contact 55° CA; diffuse FW contact at low angle to CA; "splashes" of gabbro in adjacent FW sediments;	18.0	18.5	100				17.8	18.5	0.05	0.03					<0.05

COMPANY: Allegiance Mining NL
 PROJECT: Melba Flats
 HOLE NUMBER: MF 13

Page No: 2

Description		Core Recovery			RQD			Assays								
From	To		From	To	%	From	To	%	From	To	Ni	Cu	Au	Pt	Pd	S
											%	%	g/t	g/t	g/t	%
18.5	47.4	.HEMATITIC SILTSTONE and GRITS: reddish brown hematitic siltstone and grits; soft, fine grained and bleached in places (eg) below 23.5 m; BCA variable but generally 30-45°; average 35°; soft sediment slumping and brecciation features in softer siltstones; fine irregular and disrupted white carbonate and quartz-carbonate veins and segregations common; ground moderately competent but some rough irregular jointing;	18.5	47.4	100											
47.4	53.2	GABBRO with SULFIDE: dark gray medium grained gabbro; HW contact diffuse but appears high angled; FW contact irregular but approx. 30°; 47.4-49.5 m: only very minor fine grained sulfides; 49.5-52.5 m: 5-10% (locally to 20%) coarse grained disseminated sulfides, diminishing gradually towards base of unit; 52.5-53.2 m: medium grained gabbro with only minor sulfides; FW contact irregular but approx 30°; ground conditions competent;	47.4	53.2	100				47.4	48.4	0.02	0.02				0.1
									48.4	49.5	0.02	0.01				0.2
									49.5	50.5	0.85	0.67	0.029	0.026	0.041	3.0
									50.5	51.5	1.22	0.77	0.158	0.149	0.22	5.0
									51.5	52.5	0.44	0.34				1.2
									52.5	53.2	0.06	0.03				0.2
											Co %					
									49.5	50.5	0.024					
									50.5	51.5	0.034					
53.2	67.5	MUDSTONE-SILTSTONE and GRITS: interbedded hematitic siltstone, mudstone and grits with light gray units in places; BCA 45°; soft sediment slumping and brecciation common; pervasive irregular carbonate and quartz- carbonate veining;	53.2	67.5	100											
67.5	70.0	ZONE of MIXED GABBRO and SEDIMENTS: narrow zones of medium grained dark gray gabbro intermixed with narrow units of dark gray fine grained sediments; minor disseminated sulfides in gabbro;	67.5	70.0	100											

COMPANY: Allegiance Mining NL
 PROJECT: Melba Flats
 HOLE NUMBER: MF 13

Page No: 4

Description		Core Recovery			RQD			Assays									
From	To		From	To	%	From	To	%	From	To	Ni	Cu	Au	Pt	Pd	S	
89.7	93.7	INTERBEDDED GRITS and SILTSTONE: thinly interbedded light gray siltstone and light gray medium-coarse grained grits; small scale faulting or adjustment common; BCA disrupted and varies from 30-60° CA but typically 35-40° CA; minor random fracturing infilled with white carbonate; very minor disseminated sulfides; several very broken sections but overall ground moderately competent;	89.7	93.7	100							%	%	g/t	g/t	g/t	%
93.7	94.7	GABBRO, altered, broken and sulfidic: dark gray finer grained gabbroic dyke with intense white carbonate alteration, particularly near margins; Both HW and FW contacts appear to be dipping about 30° CA and striking 90° to sediments either side (ie) gabbro is discordant to sedimentary bedding; interval quite broken;	93.7	94.7	100				93.7	94.7	0.78	0.33	0.033	0.068	0.114	3.65	
												Co%					
									93.7	94.7	0.019						
94.7	102.3	INTERBEDDED GRITS and SILTSTONE: bleached (?) light gray grits interbedded with light gray siltstone; BCA variable but generally 40-45°; common veins and irregular masses of white carbonate and quartz-carbonate-chlorite intergrowths; minor sulfides as aggregates and disseminations associated with carbonate and quartz-carbonate veining; minor small scale faulting evidenced by small breccia zones and disrupted bedding; ground moderately competent;	94.7	102.3	100												
102.3	108.3	HEMATITIC SILTSTONE and GRITS: fine grained hematitic siltstone interbedded with fine-medium grained grits; BCA 45-50°; minor irregular white carbonate veining; ground conditions good;	102.3	108.3	100												

COMPANY: Allegiance Mining NL
 PROJECT: Melba Flats
 HOLE NUMBER: MF 13

Page No: 5

Description		Core Recovery			RQD			Assays									
From	To		From	To	%	From	To	%	From	To	Ni	Cu	Au	Pt	Pd	S	
											%	%	g/t	g/t	g/t	%	
108.3	133.0	SILTSTONE, minor shale component: light gray siltstone with minor interbedded dark gray shale; BCA variable 30-60° but generally 35-45°; small scale faulting evident in disrupted shale beds; white carbonate and quartz-carbonate veins and irregular masses common; veins generally strike parallel to bedding but dip in opposite direction; sulfide as small veinlets and aggregates, generally associated with shaley bands; orientation survey at 108 m. indicates hole perpendicular to strike and BCA 35°; orientation survey at 132 m. indicates hole perpendicular to strike and BCA 45°;	108.3	133.0	100												
133.0	142.7	HEMATITIC SILTSTONE-GRITS: interbedded fine grained hematitic siltstone and light gray fine-medium grained grits; BCA range 40-60°, but generally 45°; minor narrow discordant white carbonate and quartz-carbonate veins; ground conditions very good;	133.0	142.7	100												
142.7	149.0	SILTSTONE: light gray well bedded siltstone; BCA 45-50°; increase in white quartz-carbonate and carbonate veining towards base of unit; ground conditions very good;	142.7	149.0	100												
149.0	160.5	GABBRO: medium-coarse grained dark gray gabbro; white carbonate and quartz-carbonate veins and irregular masses throughout, becoming common towards base of unit; only minor disseminated sulfides (<1%); HW contact sharp at 45° CA and striking at an angle of approx 20° to strike of HW sediments (ie) the gabbro is discordant to bedding; FW contact sharp 60° but parallel to bedding; ground conditions very good;	149.0	160.5	100				149.0	150.0	0.03	0.01					0.12
									151.0	152.0	0.05	0.02					0.12
									153.0	154.0	0.01	<0.01					0.40
									155.0	156.0	0.01	<0.01					0.15
									157.0	158.0	0.01	<0.01					<0.05
									159.0	160.0	0.03	0.01					<0.05

COMPANY: Allegiance Mining NL
 PROJECT: Melba Flats
 HOLE NUMBER: MF 13

Description		Core Recovery			RQD			Assays							
From	To	From	To	%	From	To	%	From	To	Ni	Cu	Au	Pt	Pd	S
160.5	201.0	160.5	201.0	100						%	%	g/t	g/t	g/t	%
		<p>INTERBEDDED GRAY and HEMATITIC SILTSTONE, GRITS and minor SHALE: fine grained hematitic siltstone interbedded with light gray fine-medium grained grits and minor dark gray shaley beds; BCA 40-50°; thin irregular white carbonate veins throughout; only trace of fine grained disseminated pyrite; ground conditions very good; shaley sections broken; 160.5-167.5 m: mixed red and gray sediments; 167.5-170.0 m: hematitic, BCA 40-45°; 170.0-179.5 m: mixed red and gray, BCA 45°; 179.5-198.5 m: hematitic, BCA 40-45°; 198.5-201.0 m: gray sediments, slumped in places; BCA 45°; orientation survey at 177 m. indicates bedding striking 80° to direction of drill hole (dextral); orientation survey at 198 m. indicates bedding striking 85° to direction of drill hole (dextral);</p> <p style="text-align: center;">END of HOLE</p>													

821022

APPENDIX 2

Assays MF13



Our reference : BU018229
 Your reference : 143648
 Project code : Tasmania
 Date received : 03/11/00
 Date reported : 30/11/00

Analabs Pty. Ltd.
 ACN 004 591 664
 14 Thirkell St, Burnie
 Tasmania 7320
 Telephone : (03) 6431 6837
 Facsimile : (03) 6431 8890

Lindsay Newnham
 Managing Geologist
 Allegiance Mining NL
 C/Newnham Exploration & Mining Service
 PO Box 183
 EXETER
 TAS 7275

Number of pages of results : 2
 Number of Samples : 23
 First Sample : MF13 14.6-15.5
 Last Sample : MF13 159.0-160.0

Invoice to:
 Lindsay Newnham
 Managing Geologist
 Allegiance Mining NL
 C/Newnham Exploration & Mining Service
 PO Box 183
 EXETER
 TAS 7275

Electronic Data Transmission :
 Modem : Y 30/11/00
 Facsimile : / /
 Disk Report : Y / /

Results to:

Results to:

Remarks :

Authorised by *M. A. Good*
 On behalf of:

Rob Chapman
 Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.



Our reference : BU018229
 Your reference : 143648
 Project code : Tasmania
 Report date : 30/11/00
 Report status : Final
 Page : 1 of 2

Analabs Pty. Ltd.
 ACN 004 591 664
 14 Thirkell St, Burnie
 Tasmania 7320
 Telephone : (03) 6431 6837
 Facsimile : (03) 6431 8890

ANALYTICAL DATA

Sample	Ni	Cu	S	Co	
MF13 14.6-15.5	145	64	2200	--	
MF13 17.8-18.5	530	305	<500	--	
MF13 47.4-48.4	220	175	1050	--	
MF13 48.4-49.5	230	105	1950	--	
MF13 49.5-50.5	8530	6720	3.00%	240	2 m. 1.03 Ni, 0.7 Cu, 4% S.
MF13 50.5-51.5	1.22%	7730	5.00%	345	
MF13 51.5-52.5	4360	3410	1.23%	--	
MF13 52.5-53.2	580	310	2400	--	
MF13 70.0-71.0	1200	785	1.07%	--	
MF13 71.0-72.0	6920	5580	2.15%	195	
MF13 72.0-73.0	8790	6030	3.35%	230	71.0-75.0 m
MF13 73.0-74.0	2420	1830	7250	100	4 m. 0.6 Ni, 0.45 Cu, 2% S.
MF13 74.0-75.0	6140	4630	1.96%	185	
MF13 88.0-88.3	1210	2620	7700	1570	
MF13 88.3-89.3	9.60%	2.65%	23.5%	--	88.3-89.7
MF13 89.3-89.7	1.41%	8320	5.90%	375	1.4 m 7.26 Ni, 2.1 Cu, 18.4 S.
MF13 93.7-94.7	7790	3310	3.65%	195	93.7-94.7
MF13 149.0-150.0	325	120	1200	--	1 m.
MF13 151.0-152.0	495	175	1200	--	
MF13 153.0-154.0	110	92	4000	--	
MF13 155.0-156.0	105	76	1500	--	
MF13 157.0-158.0	130	56	<500	--	
MF13 159.0-160.0	365	105	<500	--	
*Rep MF13 88.3-89.3	9.75%	2.70%	23.9%	--	
*Blk BLANK	<25	<25	<500	--	
*Std SU 1A	1.19%	9500	8.25%	--	
*Std MHO	5760	415	1.43%	--	
Method	1105	1105	1105	1105	
Units	ppm	ppm	ppm	ppm	
Detection Limit	25	25	500	15	

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received



Our reference : BU018229
 Your reference : 143648
 Project code : Tasmania
 Report date : 30/11/00
 Report status : Final
 Page : 2 of 2

Analabs Pty. Ltd.
 ACN 004 591 664
 14 Thirkell St, Burnie
 Tasmania 7320
 Telephone : (03) 6431 6837
 Facsimile : (03) 6431 8890

ANALYTICAL DATA

Sample	Au	Pd	Pt		
MF13 14.6-15.5	--	--	--		
MF13 17.8-18.5	--	--	--		
MF13 47.4-48.4	--	--	--		
MF13 48.4-49.5	--	--	--		
MF13 49.5-50.5	29	41	26		
MF13 50.5-51.5	158	220	149		
*Std STANDARD	--	--	--		
*Std STANDARD	--	--	--		
MF13 51.5-52.5	--	--	--		
MF13 52.5-53.2	--	--	--		
MF13 70.0-71.0	--	--	--		
MF13 71.0-72.0	100	163	116		
MF13 71.0-72.0	--	--	--		
MF13 72.0-73.0	100	156	107		
MF13 73.0-74.0	54	45	31		
MF13 74.0-75.0	77	130	90		
MF13 88.0-88.3	--	--	--		
MF13 88.3-89.3	118	547	252		
MF13 89.3-89.7	100	341	191		
MF13 93.7-94.7	33	114	68		
MF13 149.0-150.0	--	--	--		
MF13 151.0-152.0	--	--	--		
MF13 153.0-154.0	--	--	--		
MF13 155.0-156.0	--	--	--		
MF13 157.0-158.0	--	--	--		
MF13 159.0-160.0	--	--	--		
*Blk BLANK	9	<2	<2		
*Rep F13 155.0-156.0	--	--	--		
Method Units	1627 ppb	1627 ppb	1627 ppb		
Detection Limit	2	2	2		

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

APPENDIX 3

**Logistics & Operations Report
on IP Survey
- Scintrex**

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PRIVATE AND CONFIDENTIAL

LOGISTICS AND OPERATIONS
REPORT ON AN
INDUCED POLARIZATION/RESISTIVITY SURVEY
MELBA FLATS, NEAR ZEEHAN, TASMANIA.
ON BEHALF OF
ALLEGIANCE MINING N.L.
SCINTREX REF.: TAS136

by
J.A. Low, B.Sc.

SCINTREX

TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
EQUIPMENT AND PARAMETERS USED	1
LOGISTICS SUMMARY	2
GEOPHYSICAL SURVEY SUMMARY	3
FIELD OPERATIONS	4
CONCLUSION	5

APPENDICES

APP 1	{	IPR-12 Timing Slices
		IPR-12 Specification
		TSQ-3 Specification
		Health and Safety Reports (MISSING)

**LOGISTICS AND OPERATIONS REPORT
ON AN
INDUCED POLARIZATION/RESISTIVITY SURVEY
MELBA FLATS, NEAR ZEEHAN, TASMANIA.
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SCINTREX REF.: TAS136**

INTRODUCTION

At the request of Mr. Lindsay Newnham, Consulting Geologist for Allegiance Mining N.L., Scintrex Pty Ltd executed an induced polarization/resistivity survey on the EL43192 Mosquito Grid, Melba Flats, north of Zeehan, Tasmania.

The Geophysical survey was carried out by the staff of Scintrex, with senior field geophysicist, Mr. Alex Low, B.Sc. crewleading. The work was undertaken between October 6 and October 11, 2000.

EQUIPMENT AND PARAMETERS USED

The equipment consisted of a Scintrex TSQ-3 3kW IP transmitter, a Briggs and Stratton motor generator, and a Scintrex IPR-12 time domain receiver. Porous ceramic pots containing a saturated solution of copper sulphate were used for potential electrodes. The current electrodes consisted of a 1.0 x 0.5 x 0.3m pit lined with aluminium foil.

A current stabilised two second time domain pulse was transmitted. The IPR-12 receiver's monitoring chargeability time slice (Mx) was set at 820 – 1050mSec.

Data was downloaded, edited, processed and backed-up using a Compaq laptop computer.

LOGISTICS SUMMARY

Mr. Low mobilised from Perth to Launceston on Friday October 6, and was met by Mr. L. Newnham and Mr. Bill Cox an experienced field assistant, provided by Newnham Exploration & Mining Services. Transportation to Zeehan was provided by Newnham Exploration & Mining Services.

Accommodation was supplied by Allegiance Mining at the Heemskerk Hotel in Zeehan.

Mr. Cox received a briefing on Scintrex's safe operating procedures for electric resistivity/IP surveys.

Access to the motor generator and transmitter was restricted by fencing off the access track with yellow 'Danger' tape and 'Danger, High Voltage' warning signs. The current wires were strung above the ground to avoid contact with groundwater and swamps present within the survey area.

No attempts to access the area by the public were made during the course of the survey.

The survey involved:

3.75 production days

0.25 breakdown days

0.25 standby days

2.00 travel days (ex Perth)

The quarter day breakdown occurred at the start of the program, when the ignition switch on the motor generator failed to operate properly.

The quarter day standby day occurred when a leach entered and attached itself to the interior of Mr. Low's eye socket, requiring a visit to the Rosebury hospital.

Mr. Low demobilised from Zeehan on the morning of October 11, 2000.

GEOPHYSICAL SURVEY SUMMARY

Resistivity and induced polarization readings were taken on four adjacent gradient arrays. The lines were 50m apart and readings every 25 metres. The survey involved 20 lines, each 400m in length. A total of 320 stations were read (including overlap readings), over 8.0 line kilometres of grid.

Overlap lines were read between adjacent arrays to enable control on any level shifts between them.

The current was stabilised for each array. Primary voltages ranged from 19mV to 207mV. Pot resistances were very low ranging from 0.2 to 13k Ω .

ARRAY 1

Current electrodes 6700N: 5975E, 6725E

LINE	STATIONS	No. READINGS	DISTANCE (m)	Current (A)
6750N	6175E - 6575E	16	400	2.5
6700N	6175E - 6575E	16	400	2.5
6650N	6175E - 6575E	16	400	2.5
6600N	6175E - 6575E	16	400	2.5

ARRAY 2

Current electrodes 6500N: 5975E, 6725E

LINE	STATIONS	No. READINGS	DISTANCE (m)	Current (A)
6600N	6175E - 6575E	16	400	2.1
6550N	6175E - 6575E	16	400	2.1
6500N	6175E - 6575E	16	400	2.0
6450N	6175E - 6575E	16	400	2.0
6400N	6175E - 6575E	16	400	2.0

ARRAY 3

Current electrodes 6300N: 5975E, 6725E

LINE	STATIONS	No. READINGS	DISTANCE (m)	Current (A)
6400N	6175E - 6575E	16	400	2.1

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4

6350N	6175E - 6575E	16	400	2.1
6300N	6175E - 6575E	16	400	2.15
6250N	6175E - 6575E	16	400	2.15
6200N	6175E - 6575E	16	400	2.15

ARRAY 4

Current electrodes 6100N: 5975E, 6725E

LINE	STATIONS	No. READINGS	DISTANCE (m)	Current (A)
6200N	6175E - 6575E	16	400	2.65
6150N	6175E - 6575E	16	400	2.7
6100N	6175E - 6575E	16	400	2.65
6050N	6175E - 6575E	16	400	2.65
6000N	6175E - 6575E	16	400	2.65
5950N	6175E - 6575E	16	400	2.65

FIELD OPERATIONS

A typical field day comprised approximately 10hrs performing activities associated with acquisition of data, including driving to and from survey the location.

Mr. Bill Cox was trained in the safe emergency shutdown procedures for the transmitter and notified of the hazards associated with IP surveys. Testing of the TSQ-3 safety / protection circuitry was undertaken prior to each days work.

The local environment of the infinite potential electrodes was generally swampy and as such the electrodes were prepared on the same day as surveying commenced for that array. The current and potential wires were laid in such a position as to reduce coupling effects. As access through uncut bush was impossible the current electrode wire was lain down the central line of the array, upon completion of the nearest line the current wire was transferred to the completed line enabling the central line of the array to be read.

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5

Data was edited in the evenings to one representative reading per station and then emailed to the Perth Scintrex office for archiving. The data was also emailed daily to Mr. Nigel Hungerford, Consulting Geophysicist for interpretation.

CONCLUSION

The survey was completed efficiently and safely well within the time frame proposed. The quality of the resistivity and chargeability data was good. One minor safety incident was recorded.

For and On Behalf of

SCINTREX PTY LTD



pp

J. A. Low

SENIOR FIELD GEOPHYSICIST

PERTH

OCTOBER, 2000

APPENDIX ONE

IPR-12 Timing Slices

IPR-12 Specifications

TSQ-3 Specifications

IPR-12 Timing Slices

Receive Time = 2 seconds

Slice #	Width (ms)	Start	Mid- Point	End
4	20	50	60.0	70
5	40	70	90.0	110
6	40	110	130.0	150
7	80	150	190.0	230
8	80	230	270.0	310
9	140	310	380.0	450
10	140	450	520.0	590
11	230	590	705.0	820
12	230	820	935.0	1050
13	360	1050	1230.0	1410
14	360	1410	1590.0	1770

APPENDIX 4

**Report on IP Survey
- Hungerford**



HUNGERFORD

GEOPHYSICAL

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Mr Lindsay Newnham
Newnham Exploration and Mining Services
PO Box 132
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TAS 7250

11 October 2000

Dear Lindsay

MELBA FLATS IP SURVEY, October 2000

I have processed the IP data from Scintrex over the Melba Flat area. This involved importing the raw data for each array into a Geosoft database, changing from local to AMG84 grid and then converting to GDA94 (zone 55). This should put the data in the correct position. Comparison of the plotted survey lines with those sent to me by Gillian Bennett indicates a shift of about 5metres. I don't know why this is so but it should be of no concern.

For the IP I calculated an approximation to the Newmont Chargeability (which is a defacto standard) by adding the IP windows 10, 11 and 12 from the IPR12 receiver (thus giving a total window from 4590 to 1050msecs). This was done for all the 4 new gradient arrays as well as the previous array over Nickel Reward. All these 5 arrays were then merged using Geosoft's Gridknit program to provide a single merged grid. This grid was then exported as a MapInfo TIF image which can be displayed in conjunction with survey lines, roads, geology, etc.

The same process was carried out with the (log) Resisitivity.

The Mapinfo images have been emailed to Gillian Bennett for her to plot at whatever scales you require.

Regarding the results of the survey, the most interesting feature is the extensive chargeable horizon that runs along the eastern edge of the arrays. Its long strike extent suggests that it may be a stratigraphic horizon, possibly a black shale. However it is not particularly conductive (minimum of about 100 ohm-m) which explains why it was not detected on either the Nickel Reward ground EM survey or the CRA airborne EM survey. The high chargeability may indicate a substantial amount of disseminated but not massive sulphides (unless a lot of zinc is present). This trend is not magnetic suggesting the absence of ultramafics.

The Nickel Reward sulphides remain an isolated feature on the chargeability image, although a weak IP trend does occur about 300m along strike (?) to the NNE. This is coincident with the Vaudeau diggings.

I hope these data are some use to you. I will be in contact when I return in mid November.

Best regards

Nigel Hungerford