SOUTH AUSTRALIA

DEPARTMENT OF MINES AND ENERGY

OPEN FILE ENVELOPE NO. 8025

EL 1502, LORDS WELL

Progress and final reports for the period 11/10/88 to 10/7/90

Submitted by

Aberfoyle Resources Ltd

1990

ENVELOPE 8025

TENEMENT: EL 1502 - Lords Well

TENEMENT HOLDER: Aberfoyle Resources Ltd

TITLE: Progress and final reports for the period 11/10/88 to 10/7/90.

CONTENTS

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Incorporated in Victoria
EXPLORATION DIVISION
Lords Well 61

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The Director General
Department of Mines and Energy
PO Box 151
EASTWOOD SA 5063

6th December 1988

Dear Sir

EL1502 Lords Well

REPORT FOR THE FIRST QUARTER
ending 11 October 1988

Work in the first Quarter commenced with the preparation of base maps and study of Landsat data. A drilling programme was designed, aimed at evaluating the potential of the EL for heavy minerals.

RAB drilling commenced during the Quarter and was still in progress at the end of the Quarter. Analytical results are not yet available. Field examinations have indicated no significant concentration of heavy minerals.

Drilling will continue in the second Quarter.

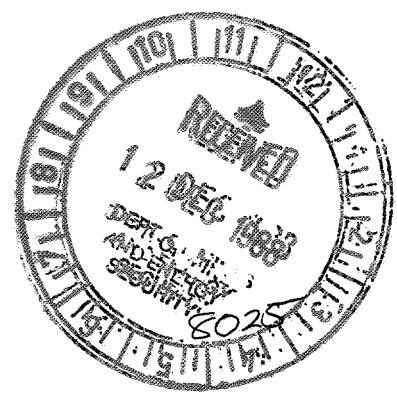
A statement of expenditure is attached.

Yours faithfully
ABERFOYLE RESOURCES LIMITED
Exploration Division

M. G. Teakle

MG Teakle
Project Geologist

MGT/maf
Att
cc KERD



LORDS WELL EL 1502

SUMMARY OF EXPENDITURE FOR QUARTER ENDED 11 October, 1988.

GEOLOGY	2,128.25
RAB DRILLING	21,337.85
TENURE	5,835.90
INDIRECT COSTS	4,511.06
TOTAL COSTS	$34,585.44

Prepared 7-12-88
HR.

ABERFOYLE RESOURCES LIMITED

EXPLORATION DIVISION

EXPLORATION LICENCE 1502 "LORDS WELL"

REPORT ON EXPLORATION
FOR THE FIRST AND SECOND QUARTERS
11th July 1988 to 10th January 1989

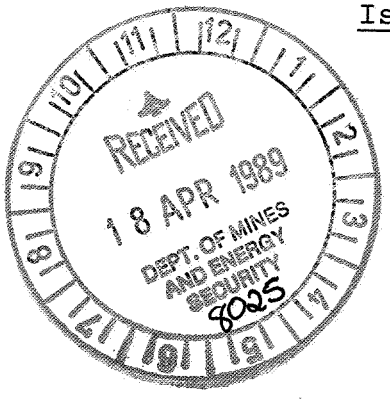
Distribution:

DME Adelaide	(1)
ARL Hawthorn	(1)
ARL Adelaide	(1)

Prepared By:

M.G. Teakle
MG Teakle
Senior Geologist

JAC Painter
Geologist



Issued By:

John A Anderson
JA Anderson
Regional Manager

14th April 1989

ARL Report No: Lords Well 1

S U M M A R Y

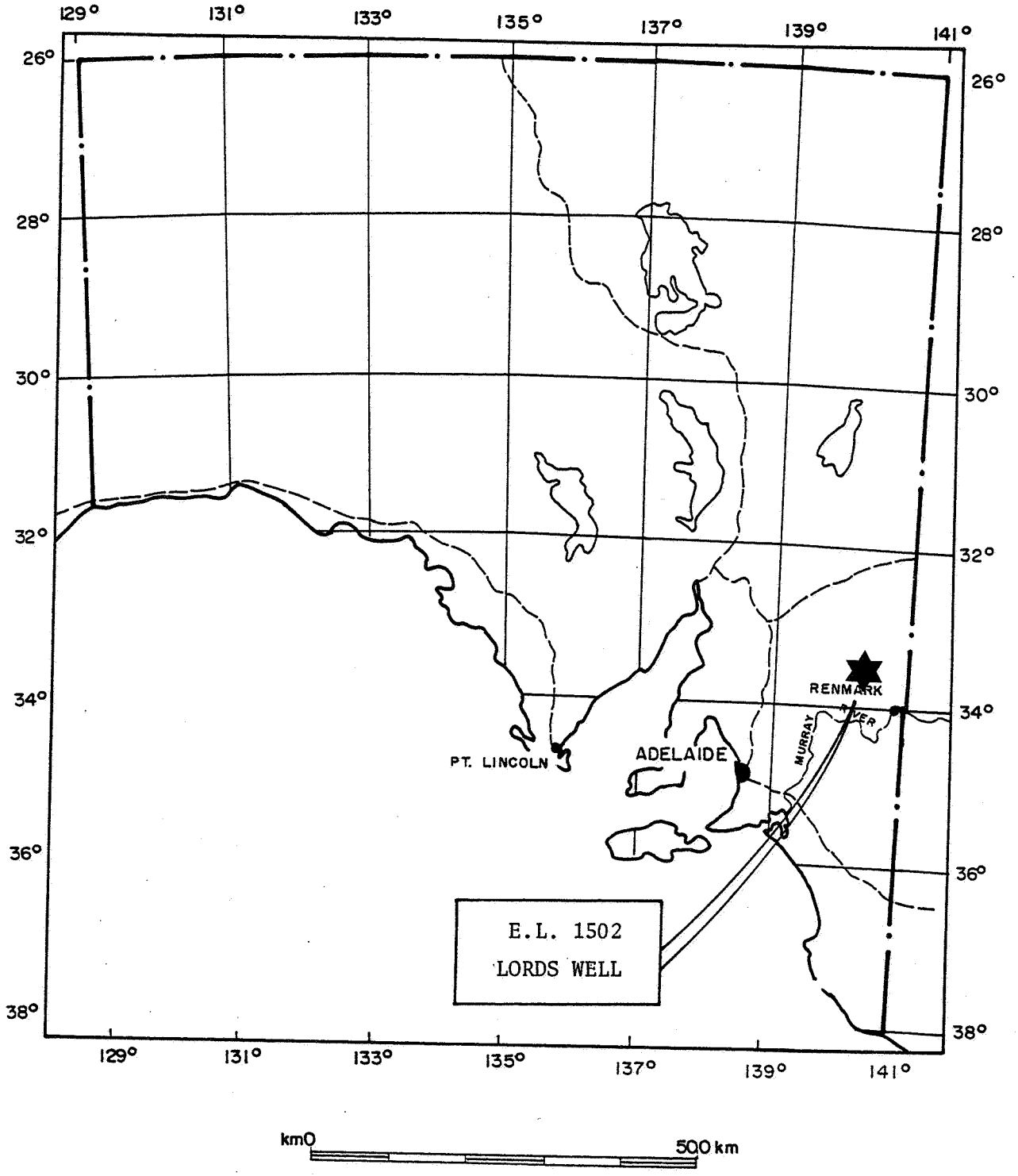
Exploration was carried out on Exploration Licence 1502 "Lords Well" with the objective of locating economic concentrations of heavy minerals in Pliocene sand.

A RAB drilling programme was completed consisting of 169 holes along 33km of traverse in 5 lines for a total of 2596m. Drill holes encountered the target sand horizon, but the sand generally contained only trace amounts of heavy minerals. One small low grade lens is indicated by visual estimation of heavy mineral content, but analytical results are awaited. Further work is under consideration.

C O N T E N T S

A P P E N D I C E S

F I G U R E S



Aberfoyle Resources Limited

EXPLORATION DIVISION

FIGURE 1

REVISIONS			
Init.	Date	Init.	Date

SOUTH AUSTRALIA

E.L. 1502 - LORDS WELL

LOCALITY PLAN

Compiled : JP

Drawn :

Traced : JB

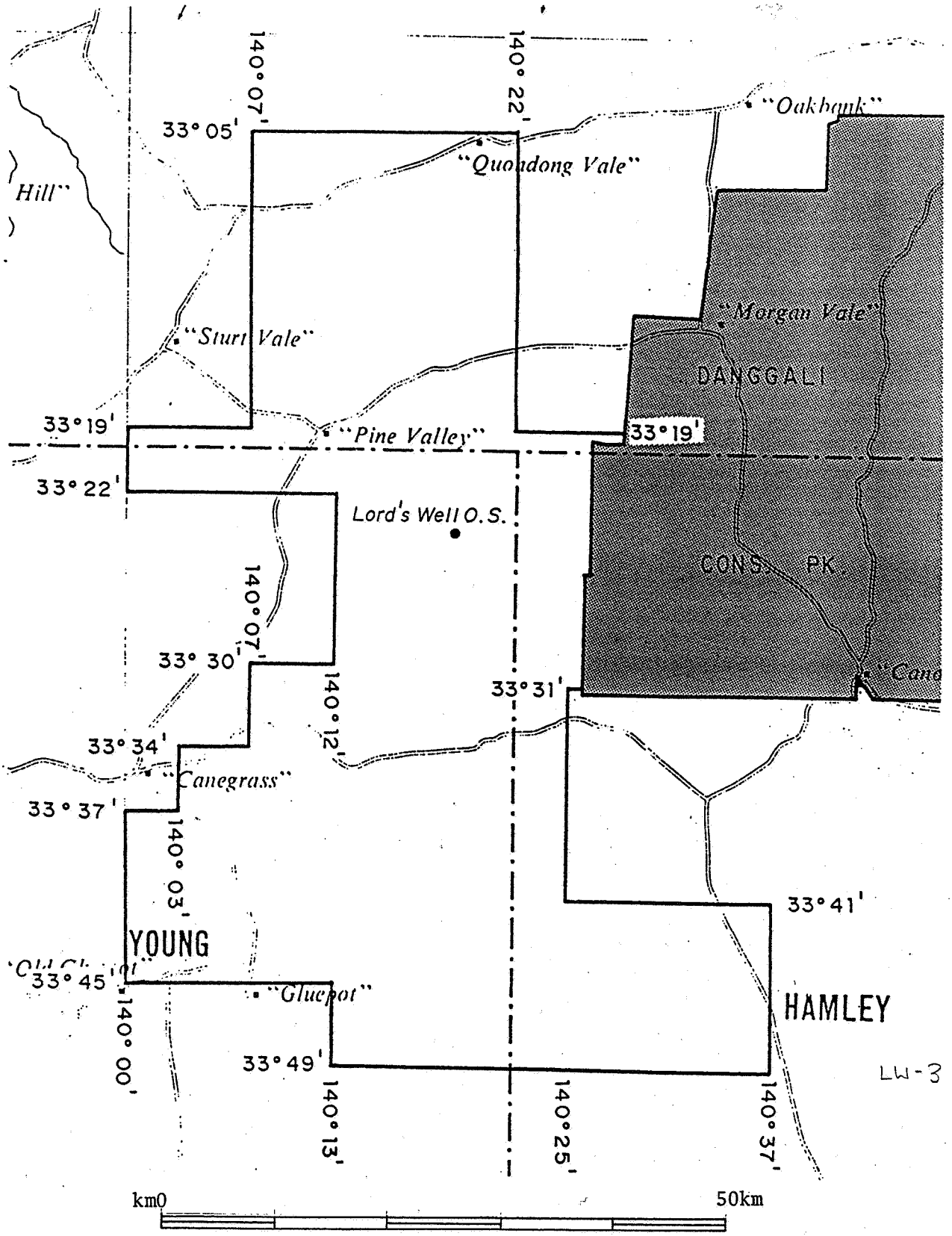
Checked :

Location Code : I54/6

Scale : as shown

Date : December 1988

Plate No. : LW-2



Aberfoyle Resources Limited

EXPLORATION DIVISION

FIGURE 2

REVISIONS			
Init.	Date	Init.	Date

SOUTH AUSTRALIA

E.L. 1502 - LORDS WELL

DETAILS OF LICENCE AREA

Compiled :

Drawn :

Traced :

Checked :

Location Code : I54/6

Scale : 1:500,000

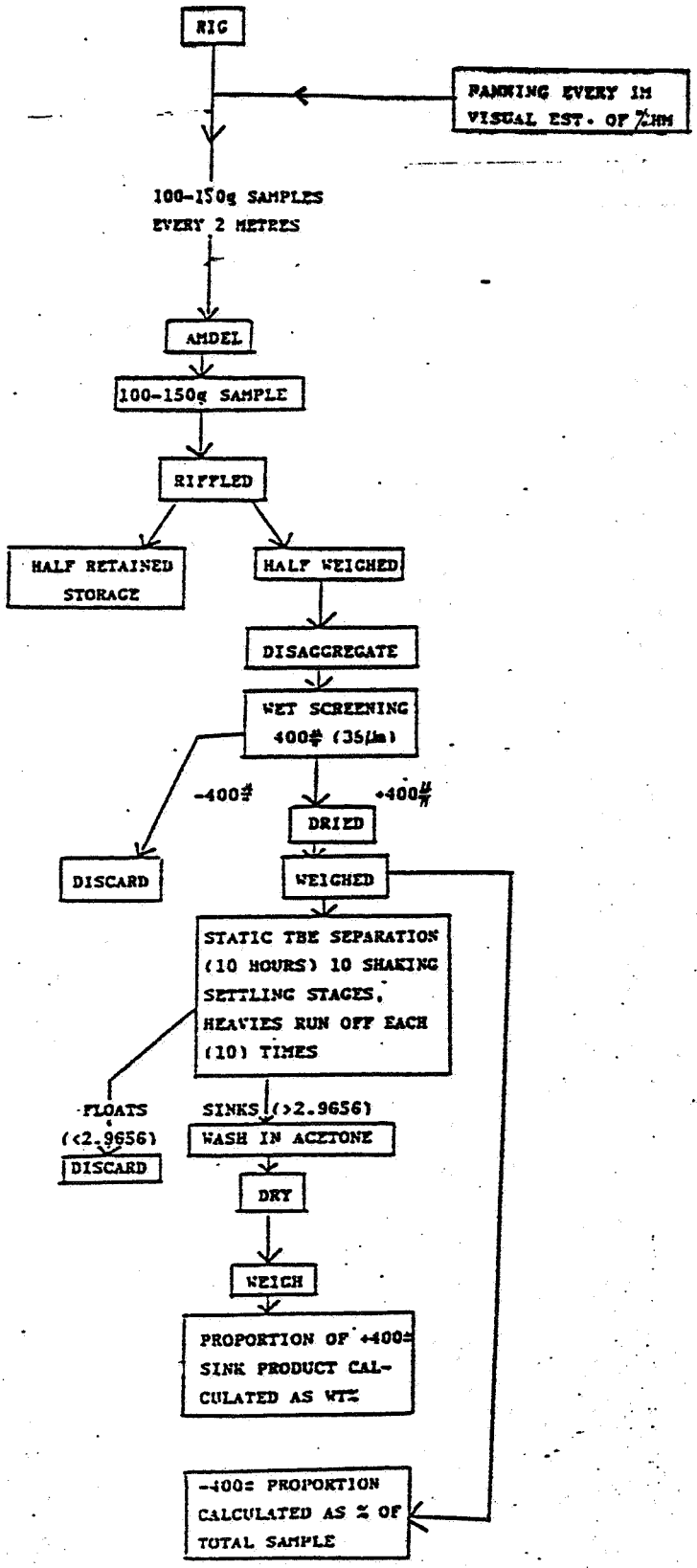
Date : April 1989

Plate No. : LW-3

1511

8025-1

Aberfoyle Resources Limited EXPLORATION DIVISION		FIGURE 3
REVISIONS	LORDS WELL E.L. 1502 DRILL LINE LOCATIONS	Compiled : JB Drawn : Traced : Checked :
	Scale	Date : JUNE 1988	Plate No : LW-1



Aberfoyle Resources Limited

EXPLORATION DIVISION

FIGURE 4

REVISIONS			
Init.	Date	Init.	Date

SOUTH AUSTRALIA

FLOW CHART OF
HEAVY LIQUID SEPARATION

Compiled :
Drawn :
Traced :
Checked :

Location Code :

Scale : NTS

Date : December 1988

Plate No. : --

1511

1. INTRODUCTION:

This report describes exploration carried out by Aberfoyle Resources Limited on Exploration Licence 1502 "Lords Well" during the first and second quarters from 11th July 1988 to 10th January 1989.

The licence was secured by Aberfoyle to explore for heavy minerals. The potential for accumulation of heavy minerals in sediments of the Murray Basin has recently been recognised. Upper Tertiary Loxton Sands - Parilla Sand, which occur at shallow depth over much of the south-western half of the basin, have been identified as having most potential. Marine regression during the Pliocene resulted in deposition of these sands and the formation of a prograding series of beach dunes at successively stranded coastlines. Conditions under which the dunes formed were also favourable for the accumulation and concentration of heavy minerals. The stranded coastlines are reflected in modern topographic expression by a series of long arcuate ridges, and are a major target feature in exploration.

Exploration by Aberfoyle has consisted of study of Landsat data and topographic maps to identify palaeoshorelines and strandline ridges, followed by RAB drilling along five traverse lines.

2. TENURE AND LOCATION:

Exploration Licence 1502 "Lords Well" was granted to Aberfoyle on 11th July 1988 for a term of 12 months. The licence covers approximately 2532 square kilometres and is centred 80km NNW of Renmark (Fig. 1).

3 GEOLOGICAL SETTING:

The Exploration Licence is located in the western portion of the Murray Basin. The geology of the area is shown on the Chowilla 1:250,000 geological sheet (Rogers, 1977).

A succession of Quaternary and Tertiary sediments more than 100m thick rests unconformably on Mesozoic and Palaeozoic sediments, which in turn overlie Proterozoic basement.

Oldest Tertiary sediments are Paleocene to Eocene marine carbonaceous sand and sandy clay of the Renmark Beds and Buccleuch Beds. They are overlain by fossiliferous marine sediments of Oligocene to Lower Pliocene Age, consisting of the Ettrick Formation, Mannum Formation, Pata Limestone (Morgan Limestone) and Bookpurnong Beds. These sediments, mainly calcareous silty sands and limestones, are often clayey and generally glauconitic. Pliocene sands complete the Tertiary sequence. These are the Loxton Sands and Parilla Sand, generally fine to medium and coarse grained sands with some clayey sand. Rogers (1977) describes the sands as fluviatile. However a substantial marine component which hosts near-shore heavy mineral concentrations is now recognised.

Tertiary sediments do not outcrop in the licence area, but are everywhere overlain by a variable veneer of Quarternary sediments. Lower Pleistocene Blanchetown Clay outcrops in places. It is a pale brown and mottled red-brown silty clay, commonly overlain by thin Bungunnia Limestone, with nodular and sheet calcrete of Bakara Soil being more widespread. Most of the area is blanketed by Late Pleistocene sands of the Woorinen Formation, a pale red-brown silty quartz sand forming east-west trending linear dunes. Many units are covered by a thin overlay of Recent Bunyip sand.

The Pliocene Parilla Sand and Loxton Sands are considered the most likely horizon for accumulations of heavy minerals, and were the main target of the drilling programme.

4. EXPLORATION PROGRAMME:

4.1 Drilling and Sampling

RAB drilling was carried out between September and November 1988 by HA and JE Wilson of Cobar, NSW. The drill used was an Investigator Mk5 air rig rated at 250cfm and 120psi. Holes were drilled vertically to an intended depth of 18m using a 100mm blade bit. Many holes did not reach the intended depth, being abandoned, most commonly in collapsing dry sand, at depths as shallow as 10m.

Holes were usually spaced at 200m intervals along five traverse lines ranging in length from 3.4 to 10.4km. Traverses were located along the sides of mainly secondary roads. Traverse locations are shown in Figure 2.

One hundred and sixty nine holes were drilled along 33 line km for a total of 2596m.

Grab samples of 100-150 grams were collected from 2m intervals. One sample from each interval was bagged and retained for subsequent heavy mineral determination. A second sample was panned on site and heavy mineral concentration was visually estimated.

4.2 Heavy Liquid Separations

Experience gained in earlier work has resulted in the practice of submitting samples for heavy mineral determination when visual estimates of panned samples indicate more than 0.5% heavy minerals in the sample. In addition adjacent samples are also submitted in order to clearly define the limits of mineral concentration.

In this investigation only trace amounts of heavy minerals were observed in most panned samples. Consequently only 30 samples from three lines were submitted for analysis. Heavy liquid separation was carried out by Amdel using the method shown schematically on the flow chart (Fig.3). Mineralogical examination was not undertaken.

5. RESULTS:

The results of drilling are presented as cross sections along traverse lines (Appendix I). Results of heavy liquid separations are not yet available.

Drill holes show a noticeable variation in the geological sequence across the area tested.

Line LW07, near the central western margin, shows an almost continuous surface clay layer 2 to 4m thick overlying fine to medium sand which in places becomes more or less clayey. This sequence is thought to represent the Blanchetown Clay overlying Parilla Sand. A short distance to the north-east Line LW03 shows a generally similar sequence except that the surface clay is less widespread.

Slightly further south, line LW04 shows a sequence of sand, clayey sand and sandy clay containing numerous discontinuous clay horizons which may be up to 14m thick and persist for more than 1000m but which show abrupt lateral lensing.

Near the south-eastern boundary, holes on lines LW05 and LW06 show a sequence of mainly sand with occasional gradations to clayey sand and sandy clay, and containing occasional discontinuous lenses of clay which rarely persist more than 500m and are mainly less than 6m thick.

The sand sequence is thought to be the target Parilla Sand containing variable clay lenses.

Heavy minerals were generally not noted in panned samples. However visual estimates indicate that a lens containing more than 1% heavy minerals might occur on line LW04. Results are awaited for the 30 samples submitted for TBE analysis.

6. CONCLUSIONS AND FUTURE PROGRAMME:

The drilling programme undertaken on Exploration Licence 1502 "Lords Well" indicated one zone of potential heavy mineral accumulation. This zone, on line LW04, may require further testing by drilling, depending upon the results of heavy liquid separations.

Drilling to date has been restricted to the southern half of the exploration licence area. Further RAB drilling to test the northern half of the area is under consideration.

7. EXPENDITURE:

Expenditure on Exploration Licence 1502 "Lords Well" for the first Quarter (as previously reported in correspondence of 6 December, 1988) was $34,585.44. Expenditure for the second Quarter from 11th October 1988 to 10th January 1989 was $11,908.40. Total expenditure for the first and second Quarters was $46,493.84. A statement of expenditure appears on the following page.

8. REFERENCES:

Rogers, P.A. (Compiler) 1977 CHOWILLA, South Australia. Explanatory Notes, 1:250,000 geological series. Sheet SI54-6. Geological Survey South Australia.

EXPLORATION LICENCE 1502 "LORDS WELL"

SUMMARY OF EXPENDITURE FOR THE SECOND QUARTER ending 10th January 1989.

GEOLOGY	782.60
RAB DRILLING	9,802.55
TENURE	16.88
OTHER SERVICES	457.68
INDIRECT COSTS	847.69
TOTAL COSTS	$11,908.40

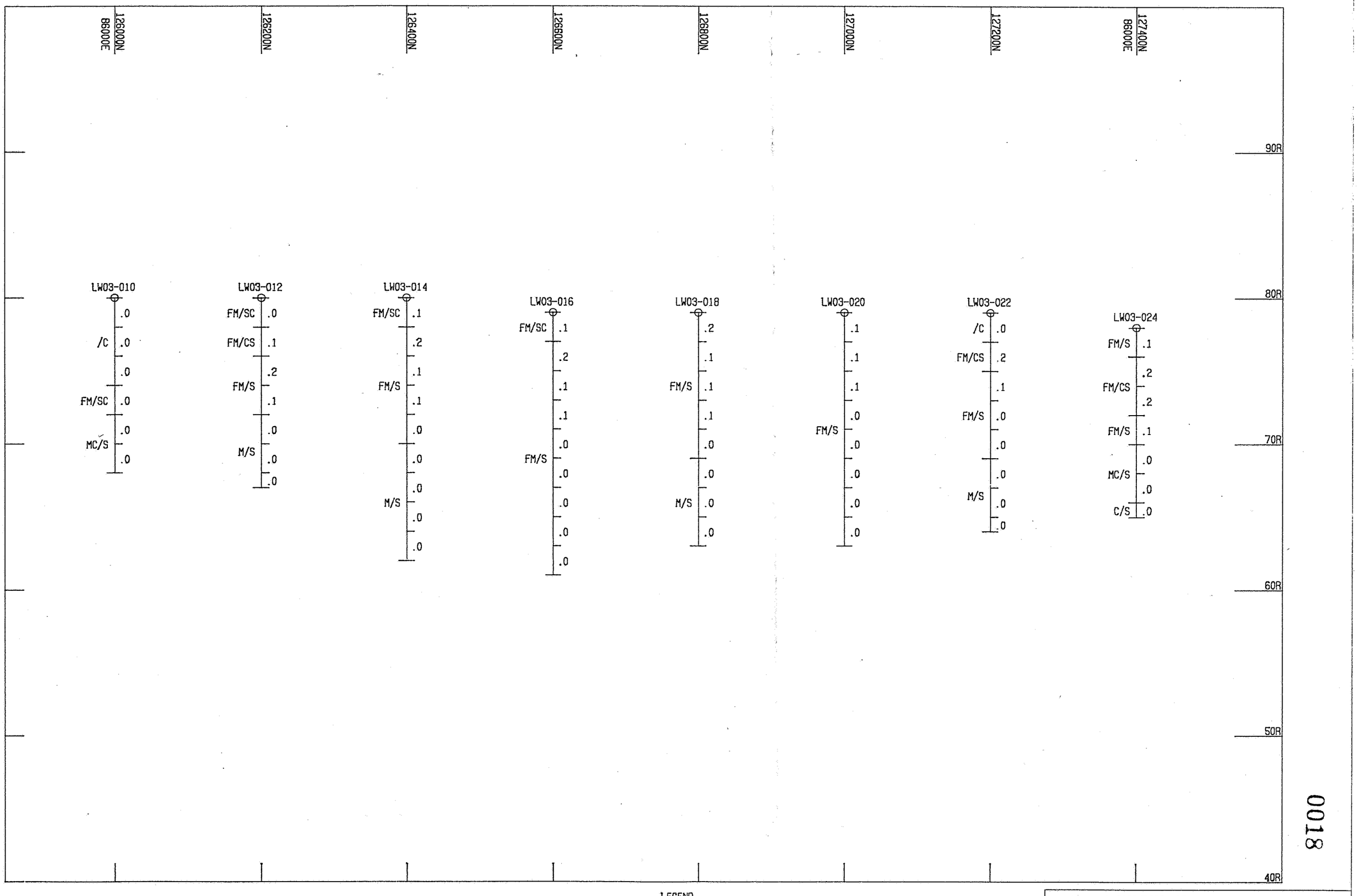
APPENDIX I

DRILL HOLE CROSS SECTIONS

Legend:

/ CA - calcrete
/ C - clay
/ CS - clayey sand
/ S - sand
/ SC - sandy clay

F/ - fine
FM/ - fine to medium
M/ - medium
MC/ - medium to coarse
C/ - coarse
VC/ - very coarse

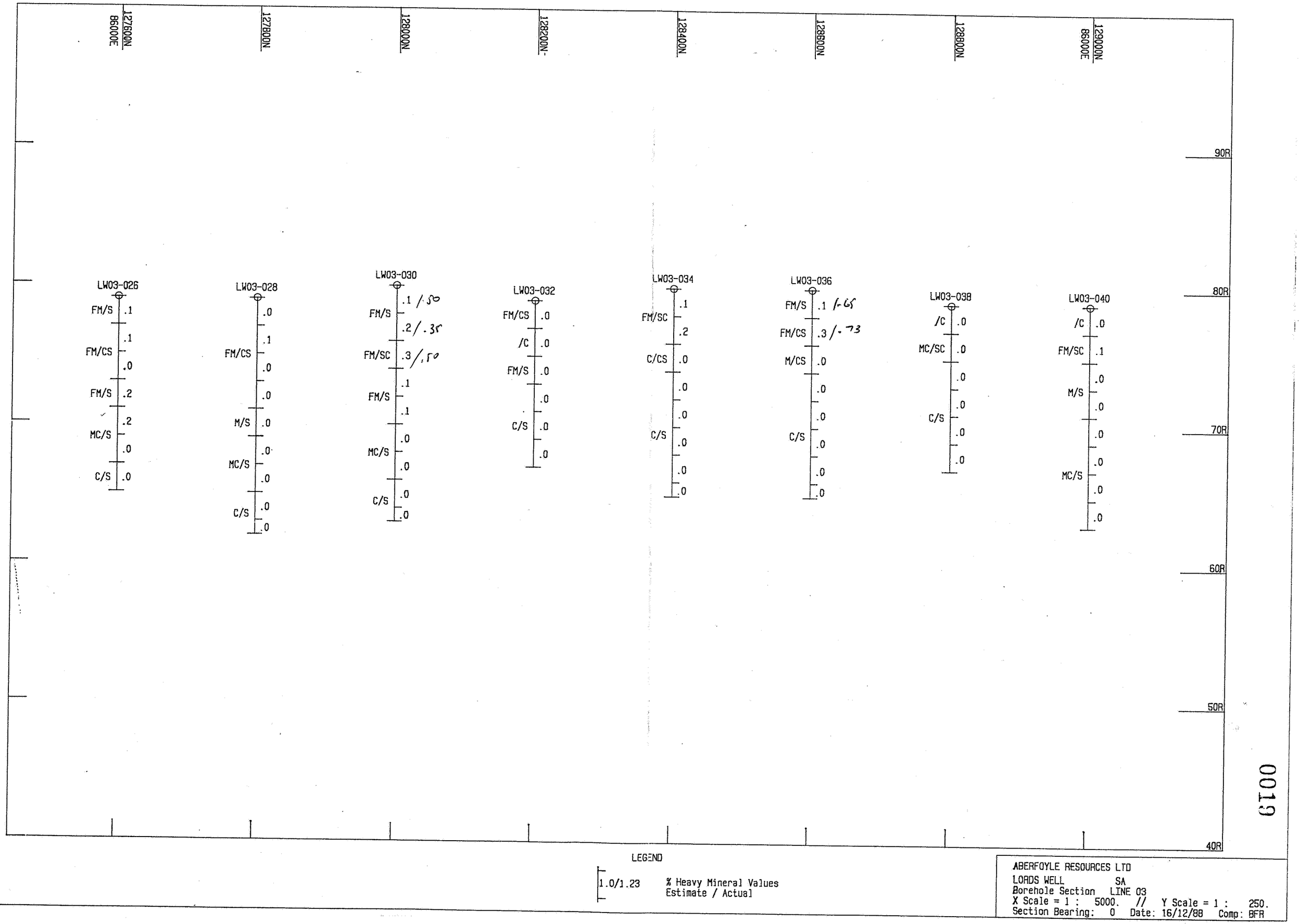


LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 03
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 16/12/88 Comp: BFR

0018



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 03
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 16/12/88 Comp: BFR

129200N
86000E
129400N
129600N
129800N
130000N
130200N
130400N
130600N
86000E

90R
80R
70R
60R
50R
40R

LW03-042

/C	.0
FM/SC	.1
	.0
	.0
M/S	.0
	.0
	.0
	.0

LW03-044

FM/CS	.0
FM/SC	.0
	.0
	.0
F/S	.0
	.0
	.0
	0

0200

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 03
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 16/12/88 Comp: BFR

110000N
87000E
110200N
110400N
110600N
110800N
111000N
111200N
111400N
87000E

80R
70R
60R
50R
40R
30R

LW04-010
.0
.0
.0
/C .0
.0
.0

LW04-012
.0
.0
/C .0
.0
.0
FM/SC .0
.0
FM/S .0
.0
M/S .0

LW04-014
.0
.0
.0
/C .0
.0
.0
.0
FM/SC .0
.0
MC/SC .0
.0

LW04-016
.0
.0
/C .0
.0
FM/CS .0
.0
.0
FM/S .0
.0
.0

LW04-018
.0
.2
FM/CS .2
.2
.2
.1

LW04-020
.1
FM/CS .7
.0
/C .0
.0
.0
FM/S .0
.0
M/S .0

LW04-022
FM/CA .0
/C .0
.1
.3 /.87
.5 /1.06
FM/CS .5 /.39
.1 /.21
.0
.0

LW04-024
.2 /81.03
FM/CS .3 /1.17
.3 /.98
.2 /.86
FM/S 1.0 /2.39
.5 /1.78

0021

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 04
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 16/12/88 Comp: BFR

111800N 87000E | 111800N | 112000N | 112200N | 112400N | 112600N | 112800N | 113000N 87000E

80R

70R

60R

50R

40R

30R

LW04-026

FM/CS	.1
	.0
/C	.0
	.0
FM/CS	.0
FM/SC	.1
	.0
FM/S	.0
	.0

LW04-028

FM/S	.1
	.0
	.0
/C	.0
	.0
	.0
	.0
M/S	.0
	.0

LW04-030

	.3 /1.53
FM/S	.3 /3.61
	.1 /2.29.
FM/CS	.0
	.0
	.0
FM/S	.0
	.0
	.0
M/S	.0
MC/S	.0

LW04-032

	.1 /.43
FM/S	.3 /1.01
	1.0 /2.8%
FM/CS	.2 /.22
FM/S	.0
FM/SC	.0
/C	.0
	.0

LW04-034

	.0
FM/S	.1 /.23
	.7 /2.17
FM/CS	.2 /.83
	.2 /1.43
FM/SC	.1
FM/CS	.0
	.0

LW04-036

FM/CS	.0
	.0
	.0
	.0
/C	.0
	.0
	.0
	.0

LW04-038

FM/S	.0
	.1
	.0
	.0
/C	.0
	.0
	.1
	.0
FM/CS	.0
FM/S	.0

LW04-040

FM/CS	.0
	.0
	.0
	.0
/C	.0
	.0
	.0
	.0

0022

LEGEND

1.0/1.23 — % Heavy Mineral Values, Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 04
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 16/12/88 Comp: BFR

113200N
87000E
113400N
113600N
113800N
114000N
114200N
114400N
114600N
87000E

80R
70R
60R
50R
40R
30R

LW04-042
FM/CS .1
.0
/C .0
.0

LW04-044
FM/S .1
.0
.0
/C .0
.0
.0
.0

LW04-046
FM/CS .1
.0
/C .0
.0
FM/SC .0
.0
.0
FM/S .0
.1

LW04-048
/CA .0
FM/SC .0
.0
/C .0

LW04-050
FM/S .0
FM/CS .0
.0
/C .0
.0
.0
FM/S .0
.0

LW04-052
FM/S .0
.0
/C .0
.0
FM/CS .0
FM/SC .0
FM/CS .0
/C .0
FM/S .0

LW04-054
FM/CS .0
.0
.0
.0
/C .0
.0
.0
FM/S .0

LW04-056
.0
.0
.0
/C .0
.0
.0
.0
FM/S .0
.0
.0

0023

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 04
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date. 16/12/88 Comp: BFR

114800N 87000E | 115000N | 115200N | 115400N | 115600N | 115800N | 116000N | 116200N 87000E

80R

70R

LW04-058

FM/SC	.1
/C	.0
FM/SC	.0
FM/C	.0
FM/CS	.0
	.0
	.0
FM/S	.1
	.0

LW04-060

	.1
FM/SC	.0
FM/CS	.0
	.0
/C	.0
	.0
	.0
FM/S	.0
	.0

LW04-062

FM/SC	.0
	.0
FM/CS	.0
	.0
/C	.0
/CA	.0
FM/CA	.0
	.0
FM/S	.0
	.0

LW04-064

/C	.0
	.0
FM/S	.0
	.0
FM/SC	.0
FM/CS	.0
/C	.0
	.0
FM/S	.0
	.0

LW04-066

FM/S	.0
	.0
	.0
	.0
/C	.0
	.0
	.0

LW04-068

FM/CS	.0
	.0
FM/C	.0
	.0
	.0
FM/SC	.0
	.0
	.0
FM/S	.0
	.0

LW04-070

FM/CS	.0
FM/SC	.0
	.0
	.0
	.0
FM/S	.0
	.0
	.0

LW04-072

	.0
	.0
FM/CS	.0
	.0
	.0
	.0
	.0
M/S	.0
	.0
	.0

60R

50R

40R

30R

137208

0024

LEGEND

1.0/1.23 — % Heavy Mineral Values, Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 04
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 16/12/88 Comp: BFR

116400N
87000E

116600N

116800N

117000N

117200N

117400N

117600N

117800N
87000E

80R

70R

60R

50R

40R

30R

LW04-074
FM/SC .0
/C .0
FM/S .0
/C .0
.0
FM/S .0
.0
M/S .0
.0

LW04-076
/CS .0
.0
/C .0
.0
.0
FM/S .0
.0
.1

LW04-078
FM/S .0
.0
FM/SC .0
.0
FM/S .0

LW04-080
FM/S .0
/CA .0
FM/CS .0
.0
FM/S .0
.0
M/S .0
.0

LW04-082
.0
.0
FM/CS .0
.0
.0
.0
FM/S .0
.0

LW04-084
.0
FM/CS .0
.0
/C .0
.0
FM/S .0
.0

LW04-086
FM/S .0
/C .0
FM/CS .0
.0
FM/S .0
.0

LW04-088
FM/SC .0
.0
.0
FM/S .0
.0
.0

0025

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 04
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 16/12/88 Comp: BFR

118000N
87000E
118200N
118400N
118600N
118800N
119000N
119200N
119400N
87000E

80R
70R
60R
50R
40R
30R

LW04-090
FM/SC .0
.0
/C .0
.0
FM/S .0
.0

LW04-092
FM/SC .0
.0
FM/S .0
.0
.0

LW04-094
FM/SC .0
.0
FM/S .0

LW04-096
/C .0
FM/CS .0
.0
.0
FM/S .0
.0
.0

LW04-098
.0
.0
/C .0
.0
.0
FM/S .0
.0

LW04-100
.0
.0
.0
/C .0
.0
.0

LW04-102
.0
.0
.0
.0
FM/S .0
.0
.0
.0

LW04-104
FM/S .0
.0
M/S .0
.0
FM/S .0
.0

0026

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 04
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 16/12/88 Comp: BFR

119600N
87000E

119800N

120000N

120200N

120400N

120600N

120800N

121000N
87000E

80R

70R

60R

50R

40R

30R

LW04-106

/C	.0
	.0
FM/SC	.0
	.0
M/S	.0
	.0

LW04-108

FM/CS	.0
FM/SC	.0
	.0
FM/S	.0
	.0
M/S	.0
	.0
MC/S	.0
M/S	.0

LW04-110

FM/SC	.0
FM/CS	.0
	.0
FM/S	.0
	.0
M/S	.0
	.0
	.0

LW04-112

	.0
/C	.0
	.0
FM/S	.0
	.0

LW04-114

FM/SC	.0
M/SC	.0
	.0
M/S	.0

0027

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 04
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 16/12/88 Comp: BFR

1075003E 1014000N 1016000N 1018000N 1020000N 1022000N 1024000N 1026000N 1028000N 1030000N 1075003E

70R
60R
50R
40R
30R
20R

LW05-010
.0
FM/S .0
FM/SC .1
.0
FM/CS .0
.0
.0
FM/S .0
.0
.0

LW05-012
FM/S .0
FM/CS .0
FM/SC .0
.0
FM/S .0
.0
M/S .0

LW05-014
FM/S .0
FM/CS .0
.0
FM/S .0
.0
.0
M/S .0
.0

LW05-016
FM/S .0
FM/CS .0
.0
FM/S .0
.0
M/S .0
.0

LW05-018
.0
/C .0
FM/CS .0
.0
FM/S .0
.0
M/S .0
.0
C/S .0

LW05-020
/CA .0
.0
FM/CS .0
.0
.0

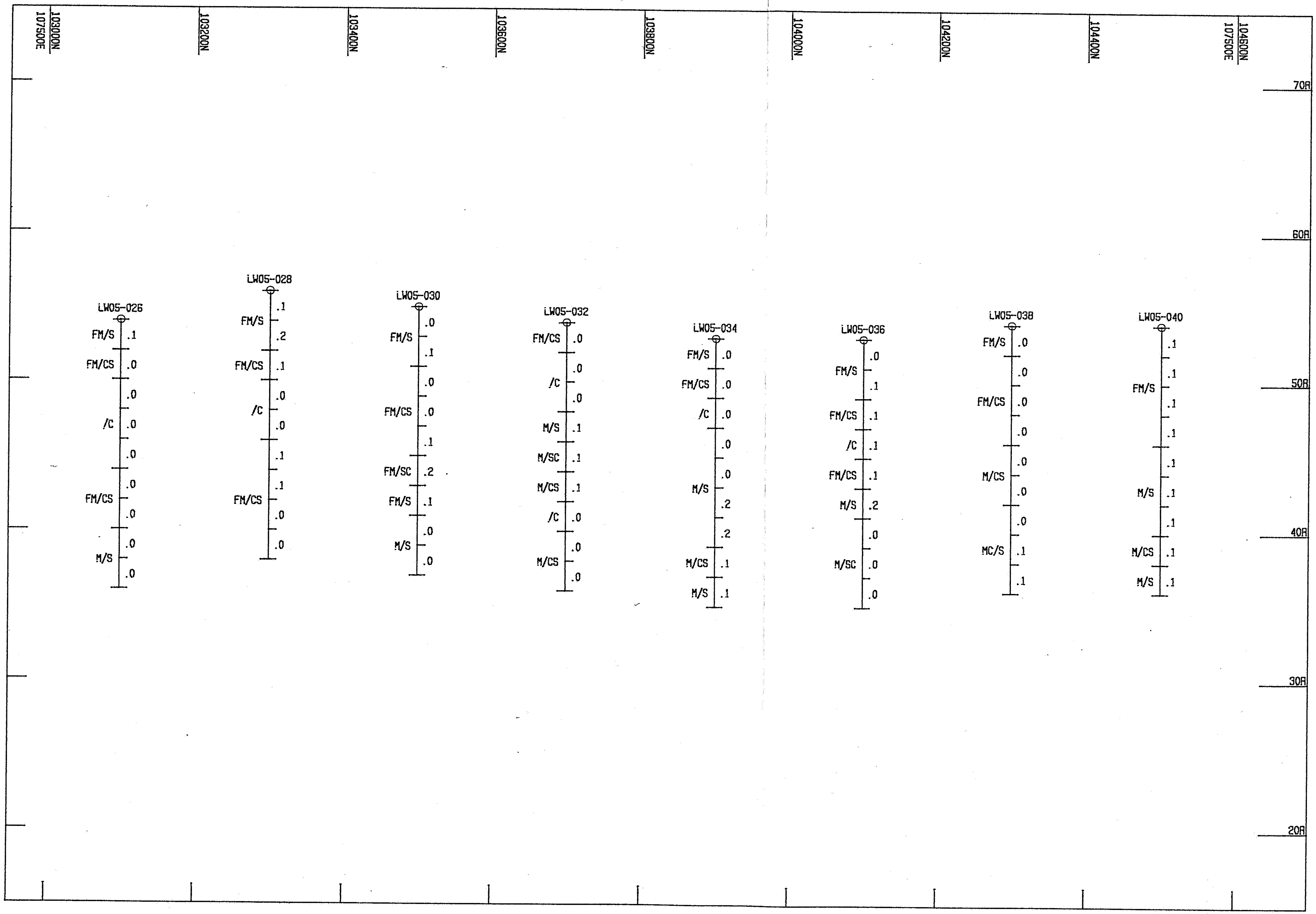
LW05-022
FM/S .1
.0
.0
FM/CS .0
.0
.0
FM/S .0
.0

LW05-024
FM/S .1
.0
/C .0
FM/CS .0
.0
FM/SC .0
.0
M/SC .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 05
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 02/01/89 Comp: BFR



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 05
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR

104600N 107500E | 104800N | 105000N | 105200N | 105400N | 105600N | 105800N | 106000N | 106200N 107500E

70R
60R
50R
40R
30R
20R

LW05-042
.1
.2
.2
FM/S .1
.1
.1
.1
.1

LW05-044
FM/S .0
.1
.0
FM/CS .0
.1
.1
.0
M/S .0
.0

LW05-046
FM/S .1
.0
FM/CS .1
.0
FM/SC .1
.1
FM/S .1
.1
M/S .1

LW05-048
FM/S .0
/C .0
FM/SC .1
FM/S .1
FM/SC .1
.1
.0
FM/S .1
.1
.1

LW05-050
.1
FM/S .1
.1
.0
FM/CS .1
.1
.1
FM/S .1
.1
.1

LW05-052
.1
FM/S .1
.1
FM/SC .0
/C .0
FM/CS .1
FM/S .1
FM/CS .1
.1
M/SC .1

LW05-054
.1
FM/S .1
.0
.0
/C .0
.1
.1
FM/S .1
.1
M/S .0

LW05-056
FM/S .1
M/S .1
.0
FM/S .0
.0
FM/CS .0
.2
FM/S .2
M/S .1
M/SC .0

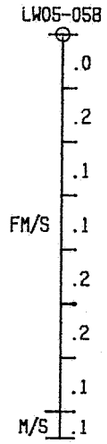
LEGEND

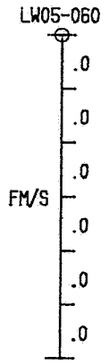
1.0/1.23 % Heavy Mineral Values
Estimate / Actual

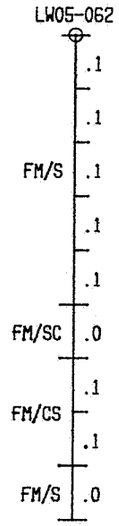
ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 05
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR

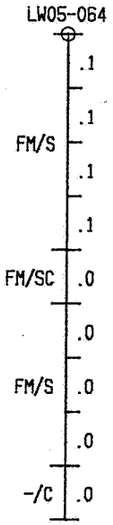
106200N 107500E | 106400N | 106600N | 106800N | 107000N | 107200N | 107400N | 107600N | 107800N 107500E

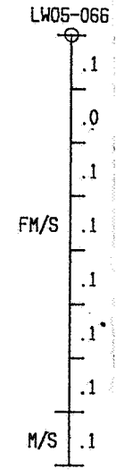
70R
60R
50R
40R
30R
20R

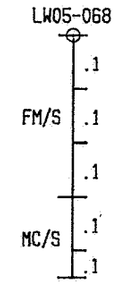


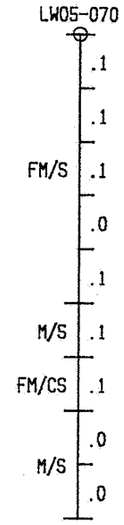


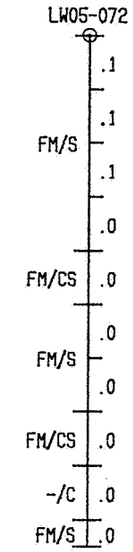












LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 05
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR

107800N 107500E | 108000N | 108200N | 108400N | 108600N | 108800N | 109000N | 109200N | 109400N 107500E

70R

60R

50R

40R

30R

20R

LW05-074

	.0
FM/S	
	.0
FM/CS	.1
FM/SC	.0
FM/CS	.0
	.1
FM/S	
	.1
FM/CS	.1
FM/SC	.1

LW05-076

	.1
	.1
FM/S	
	.1
	.1
	.1
FM/CS	
	.0
-/C	.0
	.0
FM/SC	
	.0

LW05-078

FM/S	.0
FM/CS	.1
FM/SC	.1
FM/S	.1
FM/SC	.1
	.0
-/C	
	.0
	.0
FM/SC	
	.0

LW05-080

FM/S	.0
	.1
FM/CS	.1
	.0
FM/SC	.0
	.0
	.0
-/C	
	.0
	.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 05
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR

94400N 107500E | 94600N | 94800N | 95000N | 95200N | 95400N | 95600N | 95800N | 96000N 107500E

90R

80R

70R

60R

50R

40R

LW06-010
.0
.0
.0
FM/S .0
.0
.0

LW06-012
-/C .0
FM/CS .0
.0
.0
.0
FM/S .0
.0
.0

LW06-014
.0
FM/CS .0
.0
.0
FM/S .0

LW06-016
.0
FM/CS .0
.0
.0
.0
.0
.0
FM/S .0
.0
.0
.0
.0

LW06-018
FM/S .0
.0
-/C .0
.0
.0
.0
.0
FM/S .0
.0
.0
.0
.0

LW06-020
.0
FM/S .1
.1
.1
FM/SC .1
-/C .0
FM/CS .0
.0
FM/S .0

LW06-022
.1
FM/S .1
.1
FM/SC .1
-/C .0
FM/SC .0
.0
FM/S .0

LW06-024
FM/S .1
FM/SC .0
FM/CS .0
.0
FM/S .0
.0
M/S .0
.0
C/S .0
.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 06
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR

107500E 96000N 96200N 96400N 96600N 96800N 97000N 97200N 97400N 107500E 97600N

90R

80R

70R

60R

50R

40R

LW06-026

FM/S	.1
-/C	.0
FM/SC	.1
	.2 / .31
FM/S	.5 / 1.15
	.5 / .74
M/S	.2 / 1.10
C/S	.0
M/S	.1

LW06-028

FM/S	.1
FM/SC	.0
FM/S	.0
M/S	.0
MC/S	.0
	.0
M/S	.0
	.0
FM/S	.0

LW06-030

FM/S	.1
FM/CS	.0
FM/SC	.0
	.0
FM/S	.0
	.0
F/S	.0

LW06-032

FM/S	.1
FM/CS	.1
-/C	.0
FM/CS	.0
FM/S	.0
M/S	.0
F/S	.0

LW06-034

FM/S	.1
FM/CS	.1
-/C	.0
FM/CS	.0
	.0
FM/S	.0
	.0
	.0
	.0

LW06-036

FM/S	.0
	.0
FM/SC	.1
	.0
-/C	.0
FM/SC	.0
	.0
FM/S	.0
	.0

LW06-038

	.1
	.1
FM/S	.1
	.1
	.1
-/C	.0

LW06-040

	.1
FM/S	.1
	.0
-/C	.0
FM/SC	.0
FM/CS	.0
	.0
FM/S	.0
	.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 06
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR

107500E 97600N 97800N 98000N 98200N 98400N 98600N 98800N 99000N 107500E 99200N

90R
80R
70R
60R
50R
40R

LW06-042
.1
FM/S
.1
.1
FM/SC
.0
.0
-/C
.0
FM/SC .0
.0
FM/S
.0

LW06-044
.1
FM/S
.1
.1
FM/SC .0
-/C .0
FM/SC .0
-/C .0
FM/SC .0
FM/CS .0
FM/S .0

LW06-046
-/CA .0
.0
-/C .0
.0
FM/SC .0
.0
.0
FM/S
.0
.0

LW06-048
FM/CS .0
FM/SC .0
-/C .0
.0
.0
.0
FM/S .0
.0
.0
.0
.0

LW06-050
FM/S .0
FM/SC .0
.0
FM/CS
.0
.0
.0
FM/S .0
.0
.0
.0

LW06-052
.0
.1
FM/CS .0
.0
.0
.0
.0
FM/S
.0
.0

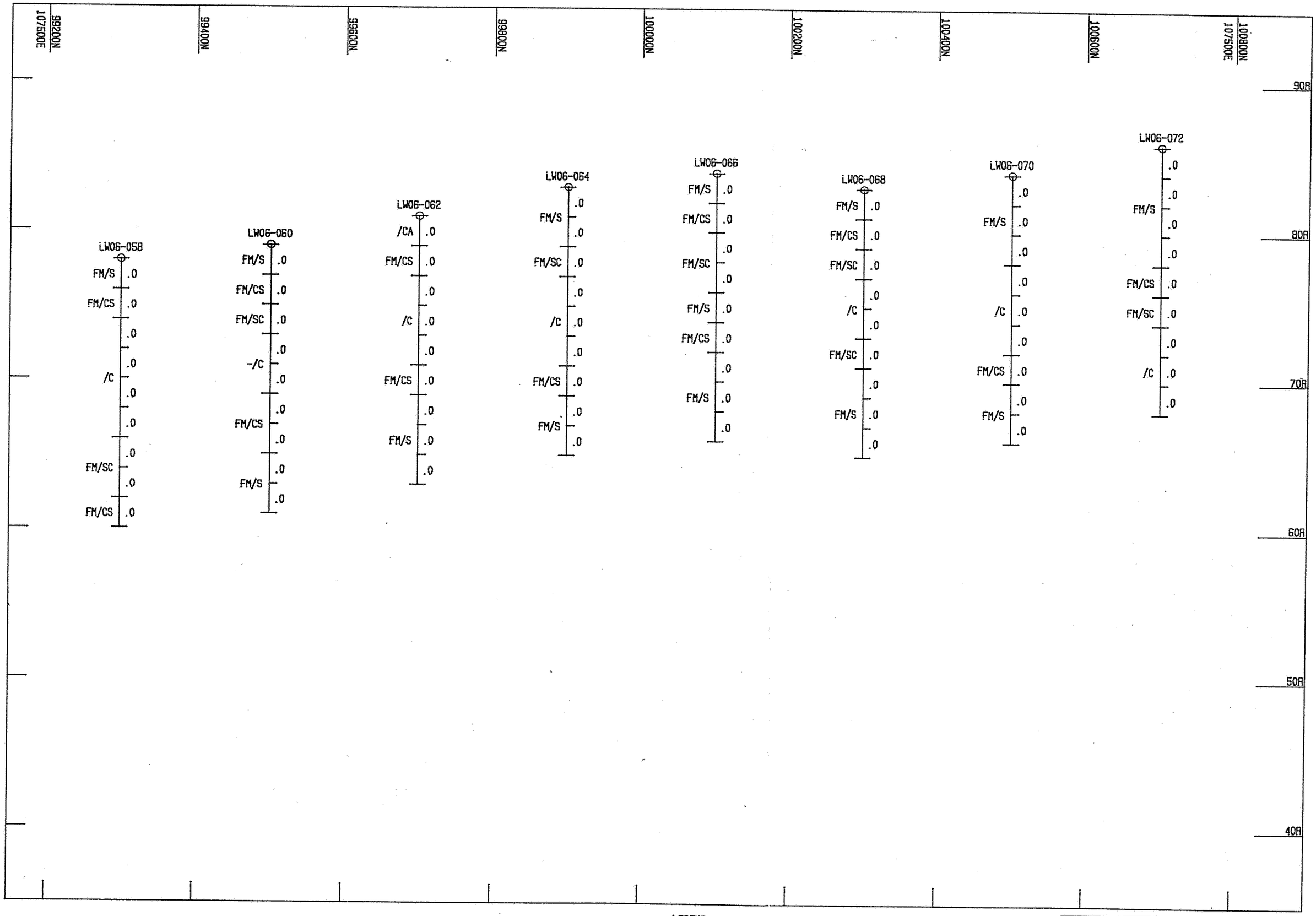
LW06-054
.0
FM/S .0
.1
FM/CS .0
FM/SC .0
FM/S .0
.0
FM/CS
.0
FM/S .0

LW06-056
FM/S .0
FM/CS .0
.0
-/C
.0
.0
.0
.0
FM/SC .0
.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 06
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 06
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR

100800N
107500E
101000N
101200N
101400N
101600N
101800N
102000N
102200N
102400N
107500E

90R
80R
70R
60R
50R
40R

LW06-074
.0
FM/S .0
.0
.0
FM/CS .0
.0
.0
/C .0
.0

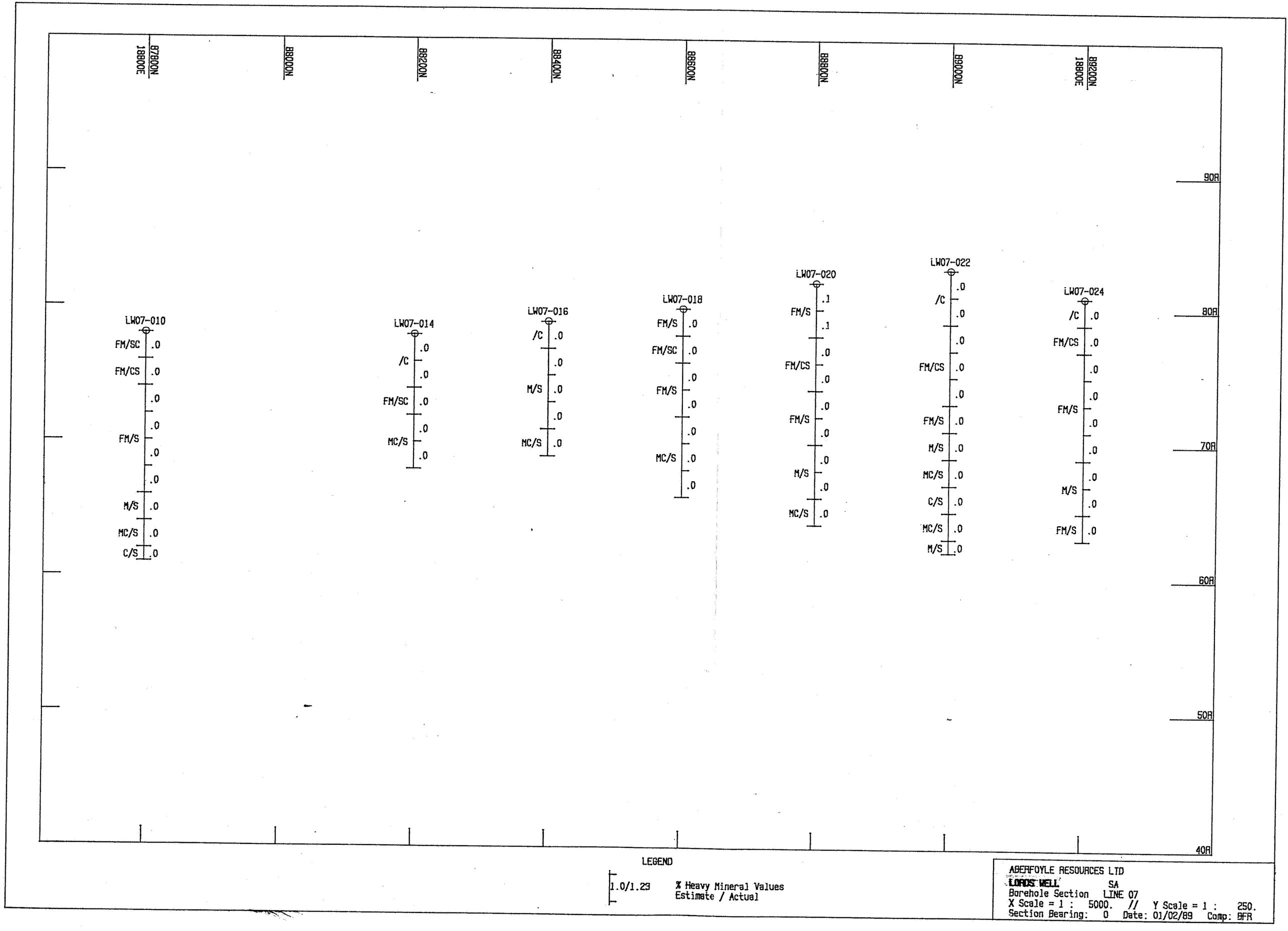
LW06-076
FM/S .0
FM/CS .0
.0
.0
/C .0
.0
.0
FM/SC .0
.0
FM/S .0
.0

LW06-078
FM/CS .0
.0
.0
/C .0
.0
FM/CS .0
.0
FM/S .0
.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

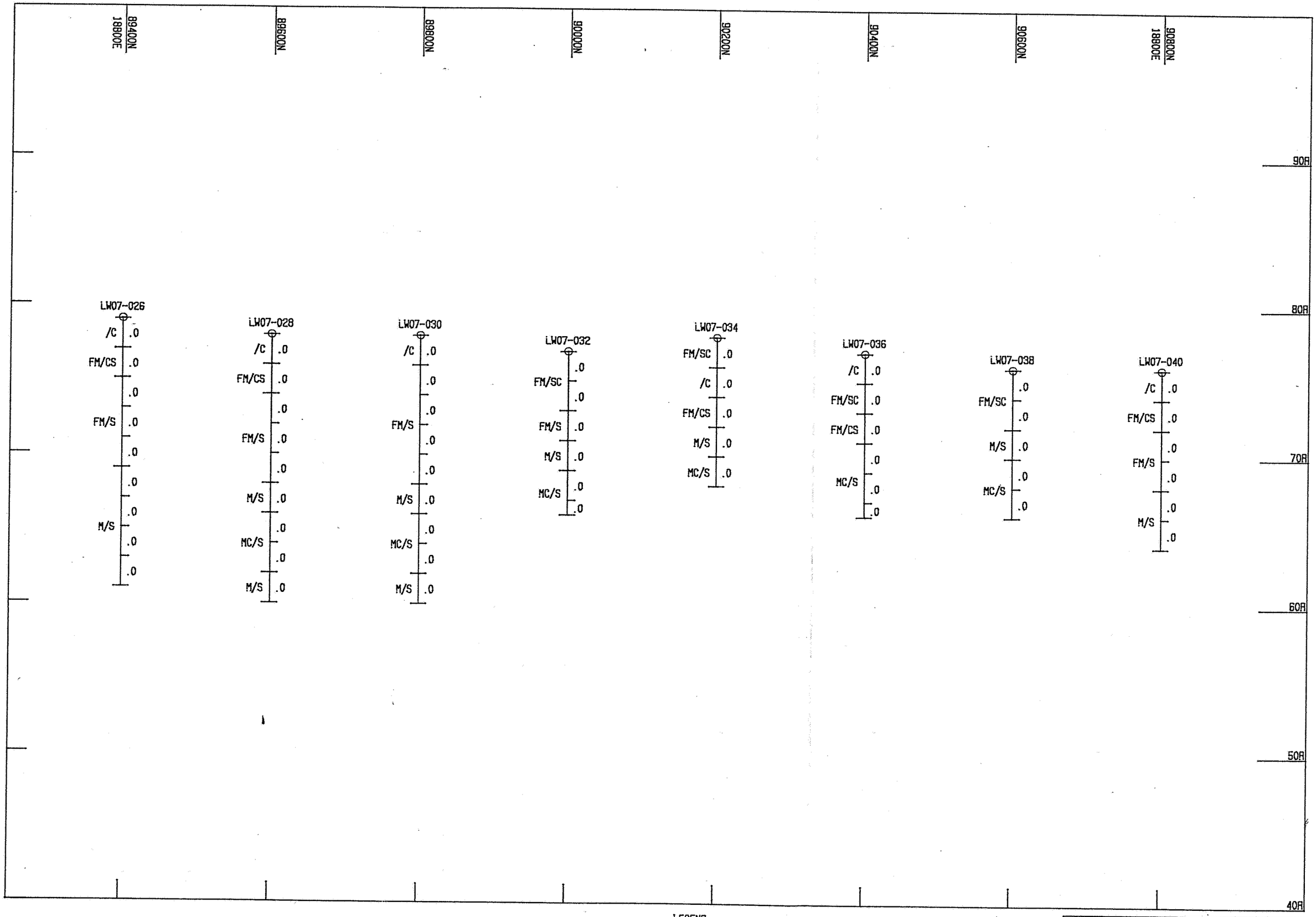
ABERFOYLE RESOURCES LTD
LORDS WELL SA.
Borehole Section LINE 06
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

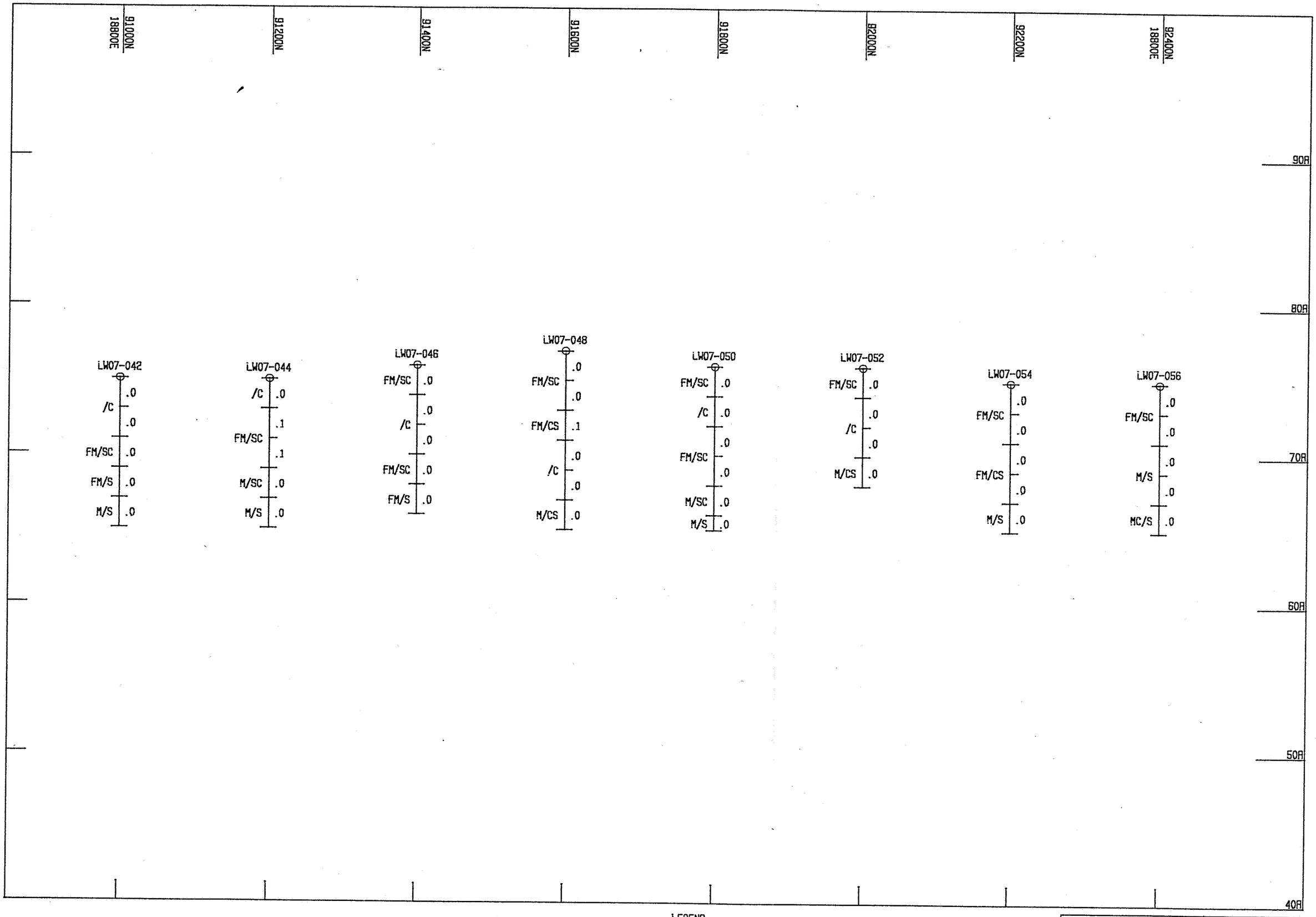
ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 07
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 07
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 07
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR

92600N 18800E

92800N

93000N

93200N

93400N

93600N

93800N

94000N 18800E

90R

80R

70R

60R

50R

40R

LW07-058

	.0
FM/SC	.0
	.0
M/S	.0
	.0
MC/S	.0
	.0

LW07-060

FM/SC	.0
FM/CS	.1
M/S	.0
	.0
MC/S	.0
	.0

LW07-062

FM/S	.1
/C	.0
	.1
FM/SC	.0
	.0
M/S	.0

LW07-064

	.0
/C	.0
FM/CS	.1
M/CS	.0
	.0
M/S	.0
	.0
	.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 07
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 01/02/89 Comp: BFR

Aberfoyle Resources Limited
Incorporated in Victoria
EXPLORATION DIVISION

Lords Well 61

ADELAIDE OFFICE:
91 BEULAH ROAD
NORWOOD S.A. 5067
Phone: (08) 363 1636
Facsimile: (08) 363 1409

1st Floor
123 Camberwell Road
Hawthorn East
Victoria 3123
Australia
Telephone: (03) 882 2226
Facsimile: (03) 813 1086
Telex: AA38646

The Director General
Department of Mines and Energy
PO Box 151
EASTWOOD SA 5063

17th May 1989

Dear Sir

RE: Exploration Licence 1502 "Lords Well"

REPORT ON EXPLORATION FOR THE THIRD QUARTER
ended 10th April, 1989.

Analytical results have been received for thirty samples referred to in the previous report, and are given in Table I (attached). These results confirm the presence of a heavy mineral lens on Line LW04 previously indicated by visual estimates of heavy mineral content. However preliminary mineralogical examination indicates a low-value assemblage dominated by goethite.

Further RAB drilling, to evaluate the occurrence and to test the northern portion of the licence area, is planned to be carried out during the Fourth Quarter.

A statement of expenditure is attached.

Yours faithfully
ABERFOYLE RESOURCES LIMITED
Exploration Division

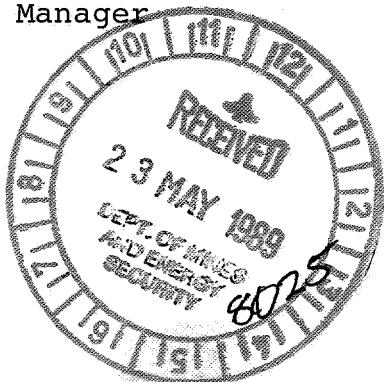
M.G. Teakle

MG Teakle
Senior Geologist

J.A. Anderson

JA Anderson
Regional Manager

MGT/maf
Att 3 (pgs)
cc KERD



EXPLORATION LICENCE 1502 "LORDS WELL"

SUMMARY OF EXPENDITURE FOR THE THIRD QUARTER ended 11th April, 1989.

GEOLOGY	320.00
RAB DRILLING	535.04
OTHER SERVICES	391.18
INDIRECT COSTS	124.61
TOTAL COSTS	$1,370.83

Table 1 : SIZE AND SPECIFIC GRAVITY DISTRIBUTION OF SAND SAMPLES

Sample no	SIZE DISTRIBUTION +38um wt%	SIZE DISTRIBUTION -38um wt%	-1mm+38um >2.96 sp.gr as a % of -1mm+38um size fr.	-1mm+38um >2.96 sp.gr as a % of total sample	HOLE No.	DEPTH m
511 039	80.8	19.2	0.62	0.50	LW03 -030	0-2
511 040	45.4	54.6	0.77	0.35		2-4
511 041	52.3	47.7	0.96	0.50		4-6
511 062	77.6	22.4	0.83	0.65	LW03 -036	0-2
511 063	64.1	35.9	1.14	0.73		2-4
511 386	88.1	11.9	0.35	0.31	LW06 -026	6-8
511 387	88.2	11.8	1.31	1.15		8-10
511 388	85.8	14.2	0.86	0.74		10-12
511 389	87.7	12.3	0.11	0.10		12-14
497 615	31.2	68.8	2.77	0.87	LW04 -022	6-8
497 616	36.4	63.6	2.92	1.06		8-10
497 617	21.3	78.7	1.82	0.39		10-12
497 618	15.8	84.2	1.33	0.21		12-14
497 621	70.9	29.1	1.41	1.00	LW04 -024	0-2
497 622	34.7	65.3	3.39	1.17		2-4
497 623	56.5	43.5	1.74	0.98		4-6
497 624	54.4	45.6	1.58	0.86		6-8
497 625	59.4	40.6	4.02	2.39		8-10
497 626	66.9	33.1	2.66	1.78		10-12
497 645	72.9	27.1	2.10	1.53	LW04 -030	0-2
497 646	63.5	36.5	5.69	3.61		2-4
497 647	24.4	75.6	9.37	2.29		4-6

Table 1 : SIZE AND SPECIFIC GRAVITY DISTRIBUTION OF SAND SAMPLES

Sample no	SIZE DISTRIBUTION +38um wt%	SIZE DISTRIBUTION -38um wt%	-1mm+38um >2.96 sp.gr as a % of -1mm+38um size fr.	-1mm+38um >2.96 sp.gr as a % of total sample	HOLE No.	DEPTH m
497 656	67.5	32.5	0.64	0.43	LW04 -032	0-2
497 657	54.7	45.3	1.85	1.01		2-4
497 658	57.7	42.3	4.93	2.84		4-6
497 659	14.8	85.2	1.50	0.22		6-8
497 665	85.0	15.0	0.27	0.23	LW04 -034	2-4
497 666	62.1	37.9	3.50	2.17		4-6
497 667	36.5	63.5	2.42	0.88		6-8
497 668	24.6	75.4	1.73	0.43		8-10

Aberfoyle Resources Limited
Incorporated in Victoria
EXPLORATION DIVISION

Lord's Well 61

ADELAIDE OFFICE:
91 BEULAH ROAD
NORWOOD S.A. 5067
Phone: (08) 363 1636
Facsimile: (08) 363 1409

1st Floor
123 Camberwell Road
Hawthorn East
Victoria 3123
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Telephone: (03) 882 2226
Facsimile: (03) 813 1086
Telex: AA38646

The Director General
Department of Mines and Energy
PO Box 151
EASTWOOD SA 5063

10th July 1989

Dear Sir

Exploration Licence 1502 "Lord's Well"

PROGRESS REPORT ON EXPLORATION
FOR THE FOURTH QUARTER
ended 10th July 1989

No field work was undertaken during the fourth Quarter.

A review of exploration completed to date indicated the need to follow-up a lens of heavy mineral accumulation encountered on Line LW-04, and to explore the northern, untested portion of the Licence area.

An application for an extension of term of the Licence has been submitted.

A statement of expenditure is attached.

Yours faithfully
ABERFOYLE RESOURCES LIMITED
Exploration Division

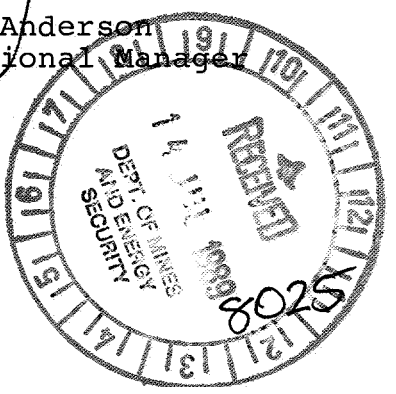
M.G. Teakle

MG Teakle
Senior Geologist

John A Anderson

JA Anderson
Regional Manager

MGT/maf
Att 1
cc KERD



EXPLORATION LICENCE 1502 "LORD'S WELL"

SUMMARY OF EXPENDITURE
FOR THE QUARTER
ended 11th July, 1989.

GEOLOGY	879.95
RAB DRILLING	450.00
OTHER SERVICES	365.76
INDIRECT COSTS	171.35
TOTAL COSTS	$1,885.06

Aberfoyle Resources Limited

Incorporated in Victoria

EXPLORATION DIVISION

1st Floor
123 Camberwell Road
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Victoria 3123
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Telephone: (03) 882 2226
Facsimile: (03) 813 1086
Telex: AA38646

Lords Well 61

October 27, 1989

The Director-General
Department of Mines and Energy
PO Box 151
EASTWOOD SA 5063

Dear Sir,

Re: Exploration Licence 1502 "Lords Well"

PROGRESS REPORT ON EXPLORATION
FOR THE FIFTH QUARTER
ended 10th October, 1989

A second programme of reconnaissance RAB drilling was completed during the quarter, in the northern part of the licence area. The drilling comprised 206 holes along four traverse lines for a total of 3551m.

The drilling shows that much of the area is underlain by a thick clay sequence extending to depths greater than 18m. However, potentially significant concentrations of heavy minerals were encountered in a number of holes, in places estimated at more than 1% heavy minerals. Samples have been sent for analysis but results are not yet available. A technical report will be prepared and submitted for the next quarter.

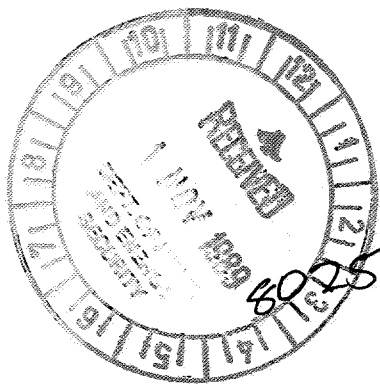
A statement of expenditure is attached.

Yours faithfully
ABERFOYLE RESOURCES LIMITED
Exploration Division

M.G. Teakle

M.G. Teakle
Senior Geologist

MGT/cj
Att 1
cc KERD



EXPLORATION LICENCE 1502 "LORD'S WELL"

SUMMARY OF EXPENDITURE FOR THE FIFTH QUARTER ended 10th October, 1989

GEOLOGY	$ 2,215.77
RAB DRILLING	36,719.50
TENURE	6,103.80
OTHER SERVICES	1,100.75
INDIRECT COSTS	4,613.91
TOTAL COSTS	$50,753.73

ABERFOYLE RESOURCES LIMITED
EXPLORATION DIVISION

EXPLORATION LICENCE 1502 "LORDS WELL"

REPORT ON EXPLORATION
FOR THE TWELVE MONTHS
ended 10th January 1990
(including the Sixth Quarter to 10/1/90)

Distribution:

SADME Adelaide (1)
ARL Hawthorn (1)
ARL Adelaide (1)

Prepared By:

JAC Painter
Geologist

Issued By:

MG Teakle
Geologist

January 1990

ARL Report No: Lords Well 2

S U M M A R Y

Exploration was carried out on Exploration Licence 1502 "Lords Well" with the objective of locating economic concentrations of heavy minerals in Pliocene sand.

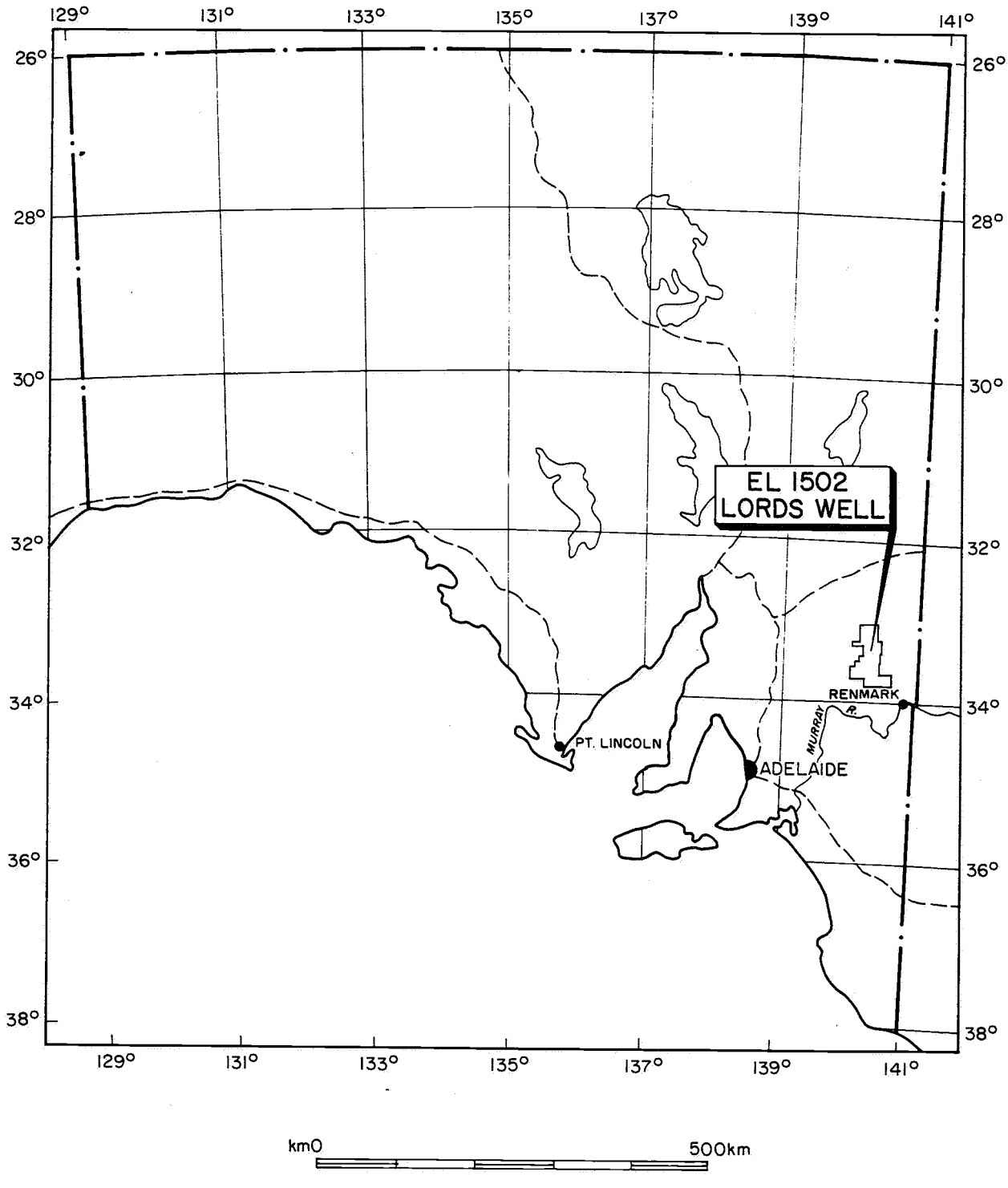
A RAB drilling programme was completed consisting of 206 holes along 49km of traverse in 5 lines for a total of 3551m. The drilling intersected numerous zones where heavy mineral concentrations exceed 1%, including two lenses 600m and 800m long. However the mineral assemblages are of very low value, being dominated by ilmenite and goethite. Resultant rutile-equivalent grades are less than 0.5%.

LORDS WELL TO 10/1/90

C O N T E N T S

F I G U R E S

A P P E N D I C E S



Aberfoyle Resources Limited

EXPLORATION DIVISION

FIGURE 1

REVISIONS			
Init.	Date	Init.	Date

SOUTH AUSTRALIA

E.L. 1502 – LORDS WELL

LOCALITY PLAN

Compiled : JACP

Drawn :

Traced : EAC

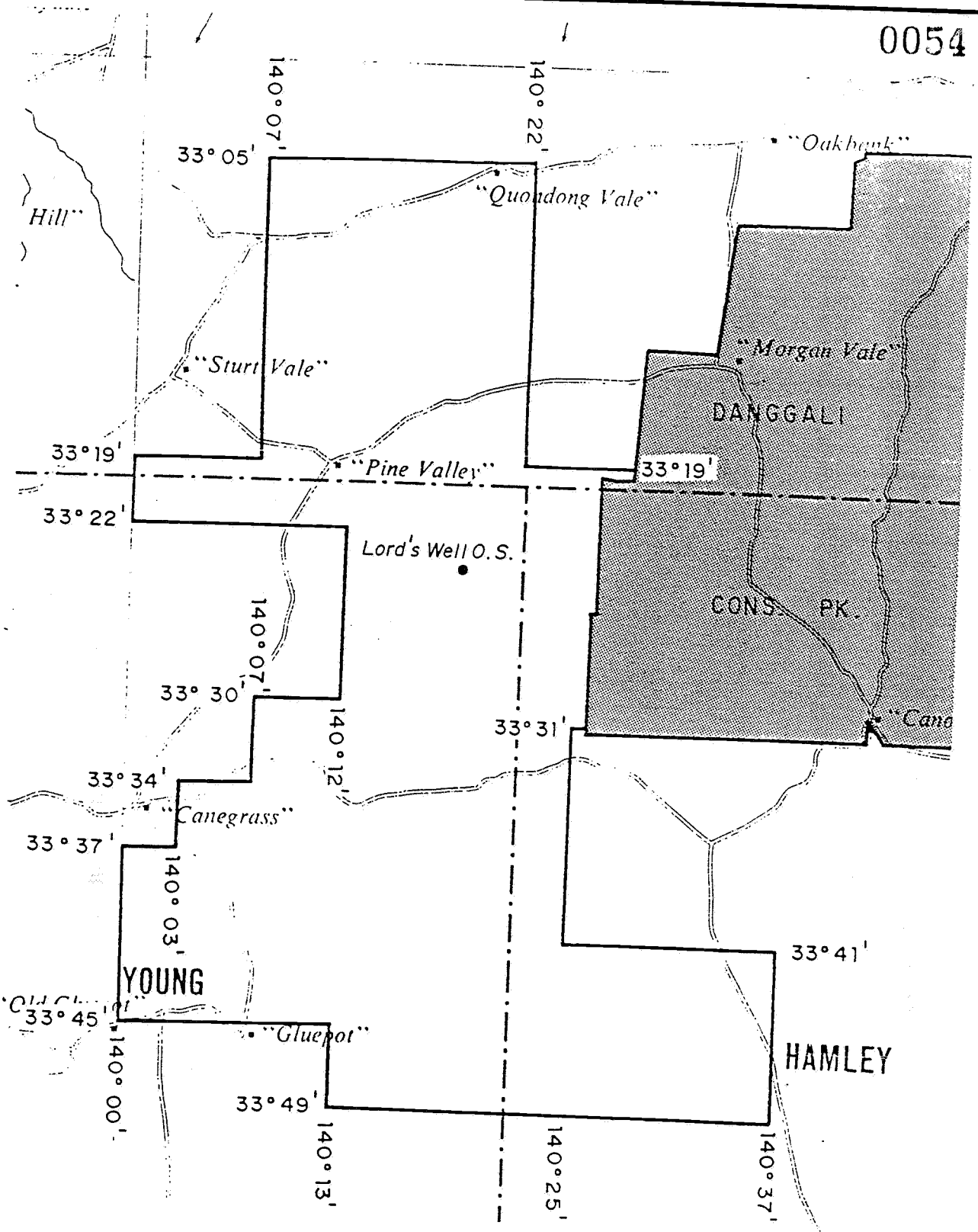
Checked :

Location Code : SI54-6

Scale : AS SHOWN

Date : DECEMBER 1988

Plate No. : LW – 2



Aberfoyle Resources Limited

EXPLORATION DIVISION

FIGURE 2

REVISIONS			
Init.	Date	Init.	Date

Location Code : SI54-6

SOUTH AUSTRALIA

E.L. 1502 — LORDS WELL

DETAILS OF LICENCE AREA

Scale : 1:500 000

Date : APRIL 1989

Compiled :

Drawn :

Traced :

Checked :

Plate No. : LW-3

8025-2.

8085-2

Aberfoyle Resources Limited EXPLORATION DIVISION		FIGURE 3
REVISIONS: Init. EAC, Date '89	SOUTH AUSTRALIA LORDS WELL E.L. 1502 DRILL LINE LOCATIONS	Compiled : JB Drawn : Traced : Checked :
Location Code 154 6	Scale : 1:100,000 — Date : JUNE 1988	Plate No : LW-1

1. INTRODUCTION:

This report describes exploration carried out by Aberfoyle Resources Limited on Exploration Licence 1502 "Lords Well" during the twelve months 11th January 1989 to 10th January 1990.

The licence was secured by Aberfoyle to explore for heavy minerals in Upper Tertiary Parilla Sand, which occur at shallow depth over much of the south-western half of the Murray Basin. Exploration has consisted of RAB drilling along five traverse lines located in the northern portion of the licence area.

2. TENURE AND LOCATION:

Exploration Licence 1502 "Lords Well" was granted to Aberfoyle on 11th July 1988 for a term of 12 months. The licence covers approximately 2532 square kilometres and is centered 80km NNW of Renmark (Figs.1&2).

On 3rd July 1989 the Minister of Mines and Energy granted an extension of term of the licence for a further 12 months, to 10th July 1990.

3 GEOLOGICAL SETTING:

The Exploration Licence is located in the western portion of the Murray Basin. The geology of the area was described in the first progress report and will not be repeated here.

4. PAST WORK:

Initial reconnaissance consisted of RAB drilling along 5 traverse lines located in the south and central portions of the area. One hundred and sixty nine holes were completed for a total of 2596m.

This work located two zones of heavy mineral concentration on Line LW04;

1) 400m wide from hole 022 to hole 024, 2 to 12 m thick, averaging 1.32% heavy minerals
2) 600m wide from hole 030 to hole 034, 2 to 6 m thick, averaging 2.25% heavy minerals

Most other holes encountered only trace amounts of heavy minerals. A few samples estimated at up to 0.5% were submitted for analysis, but the best result was 1.15% heavy minerals, with all other analyses returning less than 1%. These results are given in Appendix II.

Mineralogical examination of selected samples from the zones on Line LW04 showed very poor mineral assemblages consisting of 75-90% iron oxides with only 2-7% leucoxene as a valuable constituent. Rutile factors were less than 0.07 (see Appendix III). The resultant rutile equivalent grades were less than 0.2%, and rendered these zones not economically significant.

5 CURRENT EXPLORATION:

5.1 Drilling and Sampling

The current exploration programmes has consisted of a second phase of RAB drilling along five traverse lines located in the northern portion of the licence area. Traverse locations are shown on Figure 3.

The drilling was carried out during August and September 1989 by HA and JE Wilson of Cobar, NSW. The drill used was an Investigator Mk5 air rig rated at 250cfm and 120psi. Most holes were drilled vertically to an intended depth of 18m using a 100mm blade bit. On part of Line LW08 every second hole was stopped at 12m in a thick clay sequence. Similarly on part of Line LW10 every second hole was stopped at 15m in clay. A few holes were deepened to as much as 24m.

On Lines LW08, LW10 and LW12, holes were spaced at 200m intervals. On Lines LW09 and LW11 spacing was mainly 400m, with closure to 200m when sandy sediments were encountered. Lines were located according to available access along minor roads and farm tracks, and ranged in length from 6.4 to 12.4km.

Two hundred and six holes were drilled along 49km of traverse for a total of 3551m.

Grab samples of 100-150 grams were collected from 2m intervals. One sample from each interval was bagged and retained for subsequent heavy mineral determination. A second sample was panned on site and heavy mineral concentration was visually estimated. Back-up samples of 1-2kg were collected when visual examination indicated the presence of significant quantities of heavy minerals.

5.2 Heavy Liquid Separations

Experience gained in earlier work has resulted in the practice of submitting samples for heavy mineral determination when visual estimates of panned samples indicate more than 0.5% heavy minerals in the sample. In addition adjacent samples may also be submitted in order to clearly define the limits of mineral concentration. Heavy liquid separation was carried out by Amdel using static settling in TBE, as described in Appendix II.

5.3 Mineralogy

Mineralogical examination of heavy fractions was carried out by HW Fander of Central Mineralogical Services. Point counts of 600 grains per sample were undertaken. Percentage mineral species are quoted as volume percentages, adjusted for species size variations.

6. RESULTS:

The results of drilling are presented as cross sections along traverse lines and are included as Appendix I. Estimated heavy mineral contents are shown on the cross section, together with actual heavy mineral grades when determined. Details of heavy mineral grades are included as Appendix II. Rutile factors are also shown on the cross sections when heavy mineral assemblages have been determined. Details are given in Appendix III.

6.1 Geological sequence

The drilling shows that much of the northern part of the licence area is underlain by a thick sequence of clay and sandy clay extending to depths greater than 18 to 24m. On and within the clay occur discontinuous lenses of sandy sediments, most commonly fine to medium sand and clayey sand, but in places becoming coarse grained and gravelly, particularly towards the base of the sands. The sandy sediments invariably contain heavy minerals, most commonly in trace amounts, but in places in concentrations estimated at more than 0.5%.

This sequence is interpreted to represent Blanchetown Clay enclosing alluvial sediments of palaeo-drainage channels and outwash fans, derived from the higher ground of the basin margin adjacent to the north and north west.

6.2 Mineralisation

The drilling has intersected numerous zones where heavy mineral concentrations exceed 1%. The locations of the intersections are shown on Figure 3. Most were in a single hole and over only a 2m interval. The best intersection was 6m at 5.88% heavy minerals in hole LW12-048.

In two places, intersections in several adjacent holes indicate lenses of heavy minerals more than 200m long. They are:

1) Line LW08, holes 034-040, 800m long, 8m thick at 2.18% heavy minerals
2) Line LW12, holes 048-052, 600m long, 5.3m thick, at 4.09% heavy minerals

However the mineralogy of the heavy mineral assemblages is of very low value, being dominated by ilmenite and goethite with lesser leucoxene and minor zircon. Rutile factors range from 0.09 to a high of 0.26, with resultant rutile-equivalent grades less than 0.5%.

Details of intersections and mineralogy are summarised in Table 1, below.

Table 1: HEAVY MINERAL INTERSECTIONS

	Hole Numbers	Width (m)	Thick' (m)	Grade (%HM)	RF	RE (%)
	LW08-12		4	2.20		
*	LW08 034-040	800	8	2.18	0.16	0.36
	LW08-058		2	1.27		
	LW10-012		2	4.66	0.10	0.45
	LW10-026		2	3.17		
	LW10-058		2	2.88		
	LW10-064		6	3.31	0.15	0.50
	LW10-070		2	2.04		
	LW10-106		2	2.53		
	LW12-026		6	3.37	0.14	0.47
*	LW12 048-052	600	5.3	4.09	0.11	0.45
	LW12-074		4	2.09		
	LW11-060		4	4.12	0.10	0.41

* = averaged
RF = rutile factor
RE = rutile-equivalent grade

7. DISCUSSION:

The poor mineral assemblages shown by mineralogical examination tend to severely downgrade the economic potential of the area. However the relative abundance of heavy mineral concentrations exceeding 1%, with grades up to 5.99% over a 2m sampling interval and 7.47% over a 1m interval indicate that potential might yet exist for an economic deposit. The need for further work is therefore under consideration.

8. EXPENDITURE:

Total expenditure on Exploration Licence 1502 "Lords Well" to 10th January 1990 is $105,730.26, which includes expenditure during the Sixth Quarter (ending 10th January 1990) of $5,226.80. A statement of expenditure, for the Sixth Quarter, appears on the following page.

EXPLORATION LICENCE 1502 "LORDS WELL"

SUMMARY OF EXPENDITURE FOR THE SIXTH QUARTER ended 10th January, 1990

GEOLOGY	2,855.59
RAB DRILLING	1,547.05
OTHER SERVICES	887.06
INDIRECT COSTS	(62.90)
TOTAL COSTS	$5,226.80

Lords Well EL 1502, report on exploration for the twelve months to 10/1/90; including the sixth Quarter to 10/1/90:

APPENDIX I

DRILLHOLE CROSS-SECTIONS

LEGEND:

/ CA = calcrete
/ C = clay
/ CS = clayey sand
/ S = sand
/ SC = sandy clay

F / = fine
FM / = fine to medium
M / = medium
MC / = medium to coarse
C / = coarse
VC / = very coarse

14400N
26600E
14600N
14800N
15000N
15200N
15400N
15600N
15800N
26600E

110R
100R
90R
80R
70R
60R

LW08-010
FM/S .2
FM/CS .2
.1
VFF/SC .1
.2
.0
-/C .0
.0

LW08-012
FM/CS .1
VFF/SC .0
-/C .0
.1
VF/CS .3
.5
VF/S .5/1.43
VFF/S 1.0/2.96
.0
-/C .0

LW08-014
FM/CS .1
.0
-/C .0
.3
VF/CS .1
.1
.0
-/C .0

LW08-016
-/C

LW08-018
.0
.0
VF/SC .0
.1
.3
.0
-/C .0
.0

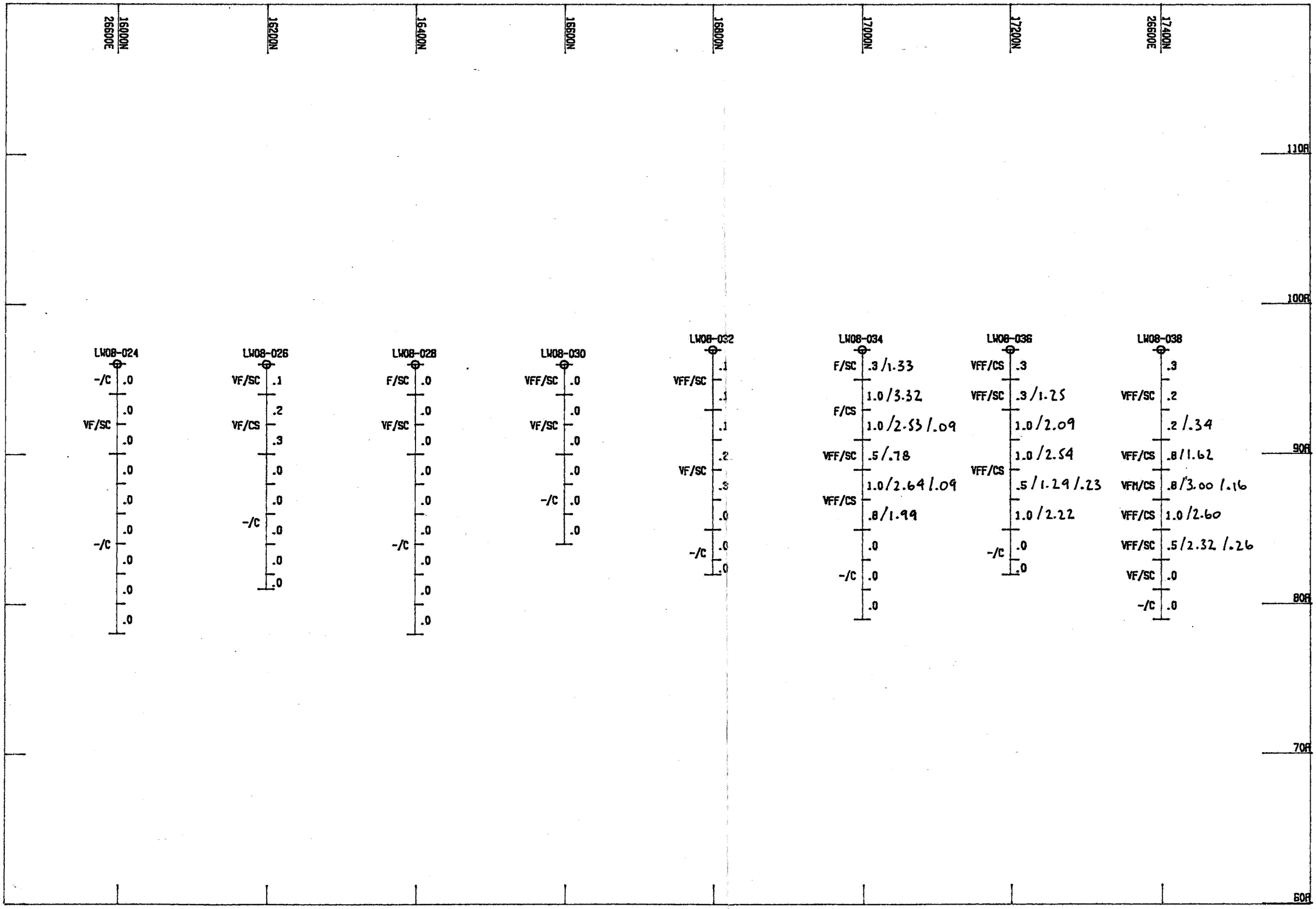
LW08-020
VFM/SC .0
.0
VF/SC .0
.1
.3
VF/CS .2
.0
-/C .0

LW08-022
.0
VF/SC .0
.2
VF/CS .4
VFF/CS .2
.0
-/C .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 08
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 29/09/89 Comp: DJN



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual / Rutile Factor

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 08
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 29/09/89 Comp: DJN

17600N 26500E | 17800N | 18000N | 18200N | 18400N | 18600N | 18800N | 19000N 26500E

110R
100R
90R
80R
70R
60R

LW08-040
F/SC .1
.2
VF/SC .2
.3
VF/CS .3 /.56
VFF/CS 1.5/3.22 /.15
-/C .0
.0

LW08-042
VF/SC .1
.1
VF/CS .3
VFM/S .2
MC/S .1

LW08-044
.1
F/SC .1
.1
VF/SC .1
.1
VFF/SC .1
.0
-/C .0
.0
.0

LW08-046
VFF/SC .2
.2
VFF/CS .1
.1
VF/CS .1
.0
-/C .0

LW08-048
F/SC .3
.1
VFF/SC .1
.1
.0
.0
-/C .0
.0
.0

LW08-050
.2
VFF/CS .2
.2
VFF/SC .1
.0
-/C .0

LW08-052
.1
VF/SC .1
.1
.0
.0
-/C .0
.0
.0
.0

LW08-054
.2
VF/SC .1
.1
VFF/SC .3
VF/SC .2
.0
-/C .0
.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual / Rutile Factor

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 08
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 29/09/89 Comp: DJN

19200N
26500E

19400N

19600N

19800N

20000N

20200N

20400N

20500N
26500E

110R

100R

90R

80R

70R

60R

LW08-056

	.2
VF/SC	.1
VFF/CS	.2
VF/SC	.2
	.0
	.0
-/C	.0
	.0
	.0

LW08-058

	.2
VF/SC	.1
	.3
VFF/CS	.4
VFM/CS	.5 / 1.27
-/C	.0

LW08-060

VFM/SC	.2
	.0
	.0
	.0
-/C	.0
	.0
	.0
	.0

LW08-062

VF/SC	.2
	.0
	.0
-/C	.0
	.0
	.0

LW08-064

	.2
VFF/SC	.3
	.2
	.0
	.0
-/C	.0
	.0
	.0
	.0

LW08-066

VFF/SC	.2
	.1
VF/SC	.1
	.1
-/C	.0
	.0

LW08-068

	.0
	.0
	.0
	.0
-/C	.0
	.0
	.0
	.0
	.0

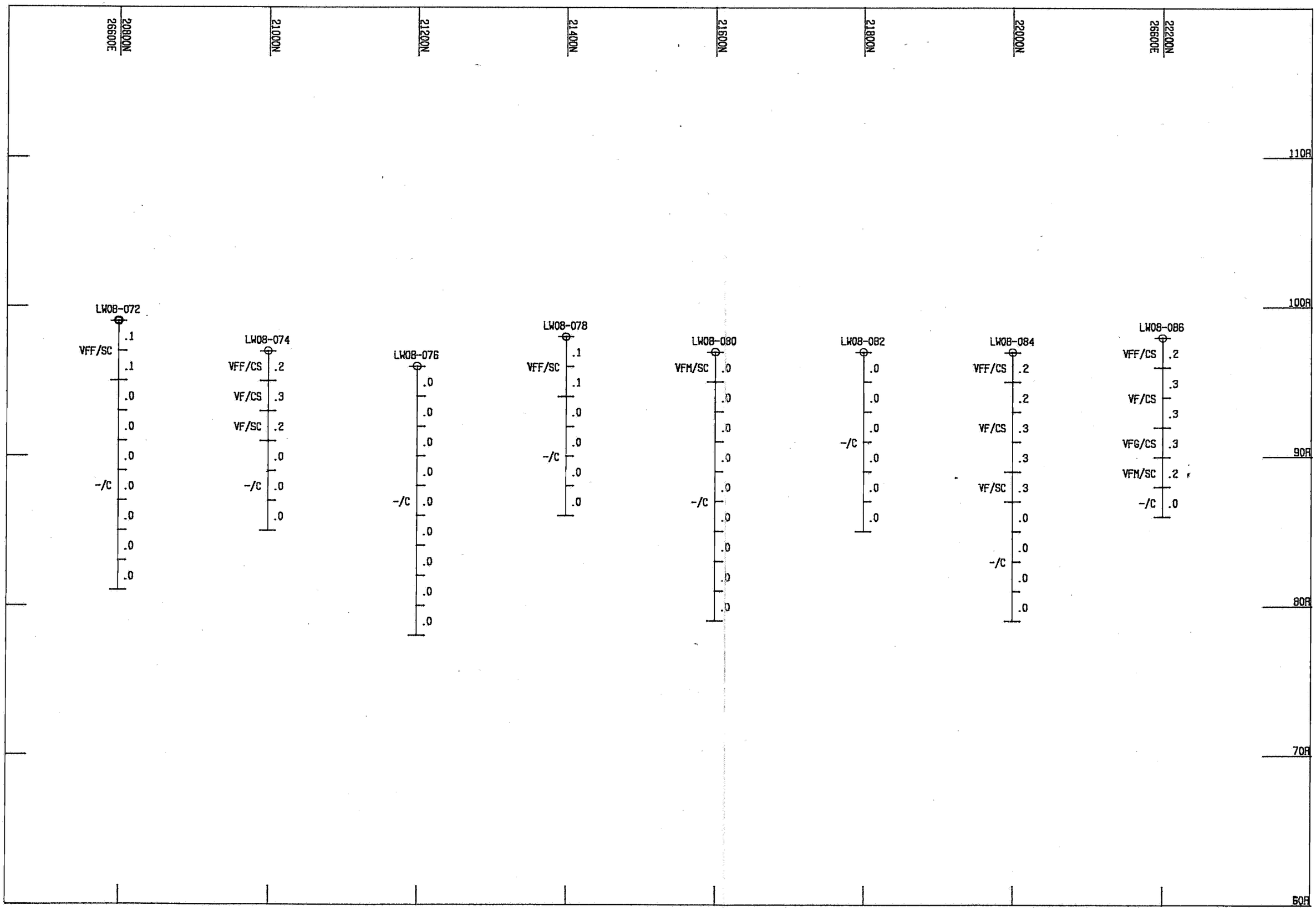
LW08-070

	.0
	.0
	.0
-/C	.0
	.0
	.0
	.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 08
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 29/09/89 Comp: DJN



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 08
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 04/10/89 Comp: DJN

22400N 22600N 22800N 23000N 23200N 23400N 23600N 23800N

26600E 26600E

110R

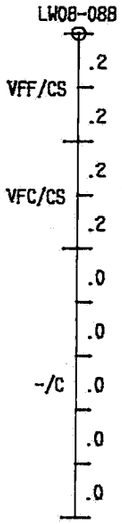
100R

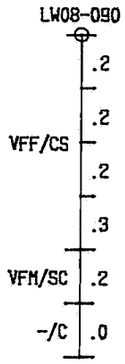
90R

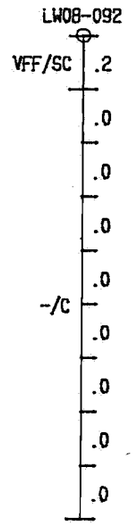
80R

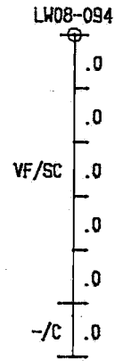
70R

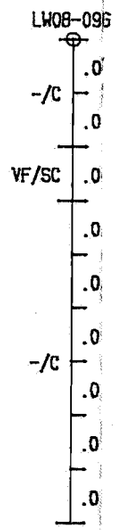
60R

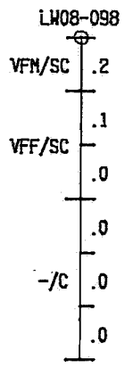


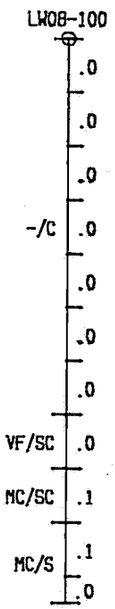












LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 08
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 04/10/89 Comp: DJN

14000N
32200E
14200N
14400N
14600N
14800N
15000N
15200N
15400N
32200E

90R
80R
70R
60R
50R
40R

LW09-010
VF/SC .1 .0 .0 -/C .0 .0 .0 MC/SC .0 -/C .0 MC/S .0

LW09-014
VFF/SC .1 .0 .0 -/C .0 .0 .0 MC/SC .0 .0 MC/CS .0

LW09-018
VFF/CS .2 .0 .0 -/C .0 .0 .0 FM/SC .0 .0

LW09-022
VFF/SC .1 .0 .0 -/C .0 .0 .0 MC/SC .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 9
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 14/9/89 Comp: KON

15600N
32200E
15800N
16000N
16200N
16400N
16600N
16800N
17000N
32200E

90R
80R
70R
60R
50R
40R

LW09-026
.0
.0
.0
-/C .0
.0
.0
.0

LW09-030
.0
.0
.0
-/C .0
.0
.0
.0
MC/SC .0

LW09-034
VFF/SC .1
.0
.0
.0
-/C .0
.0
.0
.0

LW09-038
VFF/SC .2
.0
.0
.0
-/C .0
.0
.0
.0
FMC/CS .0
FMC/S .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 9
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 14/9/89 Comp: KON

17200N
32200E
17400N
17600N
17800N
18000N
18200N
18400N
18600N
32200E

LW09-042
VFM/SC .1
.0
.0
.0
-/C .0
.0
.0
-/ .0

LW09-046
.0
.0
.0
.0
-/C .0
.0
.0
.0
MC/SC .0

LW09-050
VFF/SC .0
.0
.0
.0
-/C .0
.0
.0
.0

LW09-054
.0
.0
.0
.0
-/C .0
.0
.0
.0
.0

90R
80R
70R
60R
50R
40R

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 9
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 14/9/89 Comp: KON

18800N
322200E
19000N
19200N
19400N
19600N
19800N
20000N
20200N
322200E

90R
80R
70R
60R
50R
40R

LW09-058
-/C
.0
.0
.0
.0
.0
.0
.0
.0

LW09-062
-/C
.0
.0
.0
.0
.0
.0
MC/SC .0
M/CS .0
FM/S .0

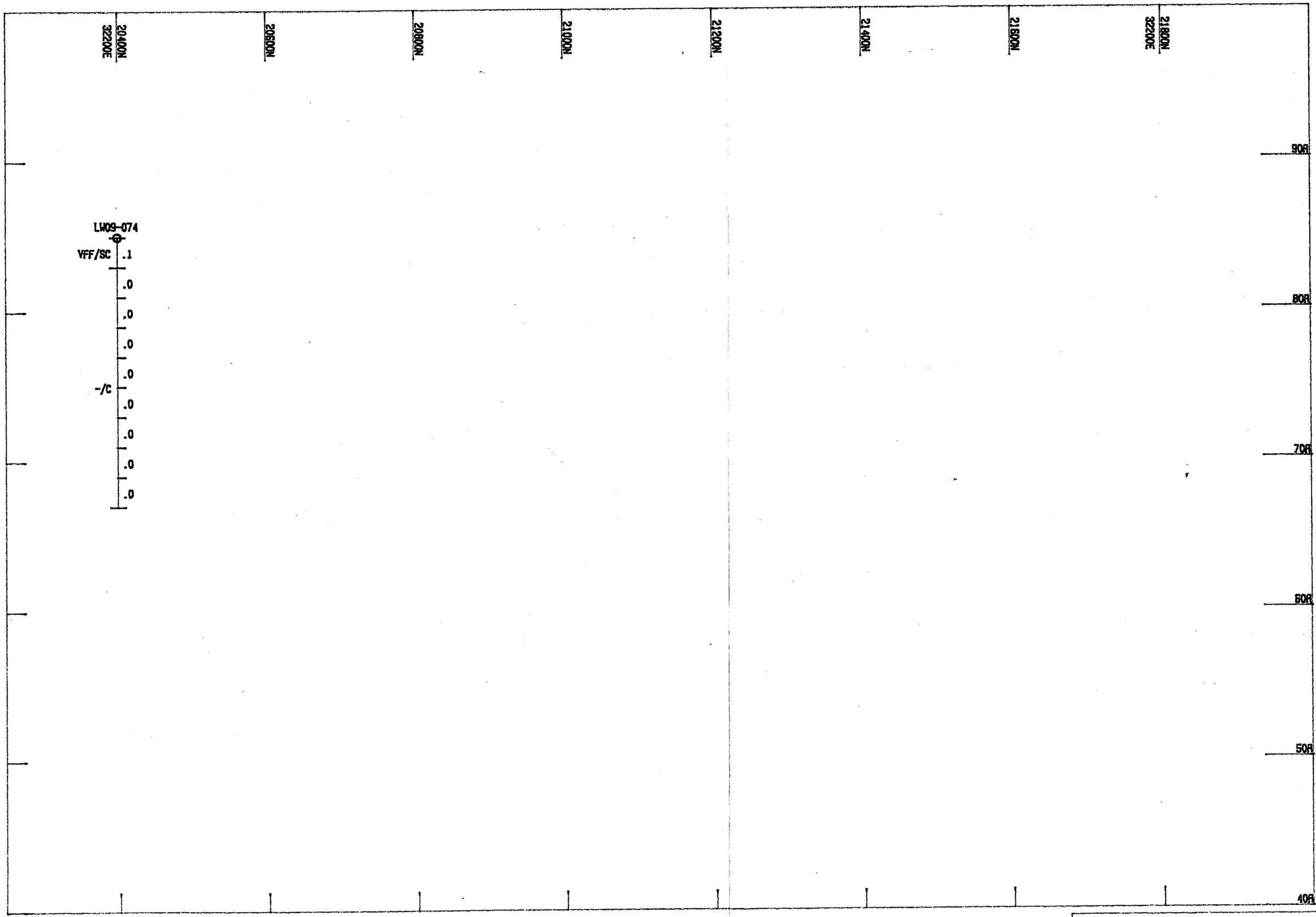
LW09-066
-/C
.0
.0
.0
.0
.0
.0
.0
.0

LW09-070
-/C
.0
.0
.0
.0
.0
.0
.0
.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 9
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 14/9/89 Comp: KON



LEGEND

1.0/1.29 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 9
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 14/9/89 Comp: KON

15800N 18500E | 16000N | 16200N | 16400N | 16600N | 16800N | 17000N | 17200N 18500E

110R
100R
90R
80R
70R
60R

LW10-010
VFF/CS .3 .4 .0 .0 -/C .0 .0 .0 .0

LW10-012
VFF/SC .2 .3 VFF/CS .4 .3 .5/4.66 /.10 VFF/SC .2 .0 -/C .0 .0

LW10-014
VFF/SC .2 .2 VFF/CS .3 .5 VFF/S .7 VFM/S .5 VFF/SC .3 .0 -/C .0 .0

LW10-016
VFM/SC .1 .1 VFC/CS .2 VFM/S .2 VFM/SC .1 .0 -/C .0 .0 .0

LW10-018
VFM/SC .1 .1 .2 VFF/SC .2 .4 .3 .0 -/C .0 .0

LW10-020
VF/SC .1 -/C .0 .1 .1 VF/SC .1 .1 .0 .0

LW10-022
VF/SC .1 .1 -/C .0 VF/SC .0 .0 -/C .0 .0

LW10-024
VF/SC .1 .1 .2 VF/CS .3 .2 VF/SC .1 -/C .0

LEGEND

1.0/1.23 * Heavy Mineral Values
Estimate / Actual / Rutile Factor

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 10
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KO

17400N 18500E | 17600N | 17800N | 18000N | 18200N | 18400N | 18600N | 18800N 18500E

110R
100R
90R
80R
70R
60R

LW10-026
VF/SC .1
.3
VF/CS
.5/3.17
.3
VFF/S
.3
.0
.0
-/C
.0
.0

LW10-028
.1
.1
VF/SC
.1
.1
.0
.0
-/C .0
.0
.0

LW10-030
.1
.1
VF/SC
.1
.1
.I
.0
.0
-/C .0
.0
.0

LW10-032
.0
VF/SC
.0
.0
.0
-/C .0
.0
.0
.0

LW10-034
.0
.0
-/C .0/
.0,
.0
VF/SC .0
.0,
-/C .0
.0

LW10-036
.1
.2
VF/SC .1
.1
.1
.0
.0
-/C .0
.0
.0

LW10-038
VF/SC .0
.0
.0
-/C .0
.0
.0
VF/SC .0
.0
-/C .0
.0

LW10-040
.0
.0
.0
.0
-/C .0
.0
.0
.0
.0
.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 10
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KO

18500E 19000N | 19200N | 19400N | 19600N | 19800N | 20000N | 20200N | 18500E 20400N

110R
100R
90R
80R
70R
60R

LW10-042
VF/SC .0 .0 .0 .0 -/C .0 .0 .0 .0

LW10-044
.0 .0 .0 -/C .0 .0 .0 .0

LW10-046
.0 .0 -/C .0 .0 .0 .0

LW10-048
-/C .0
VF/SC .2
.2
-/C .2
VF/SC .1
.0
-/C .0 .0

LW10-050
VFF/SC .1
.1
VFG/S .3
VFG/CS .1
.0
-/C .0 .0 .0

LW10-052
.0 .0 -/C .0 .0 VF/SC .0 .0 .0 -/C .0 .0

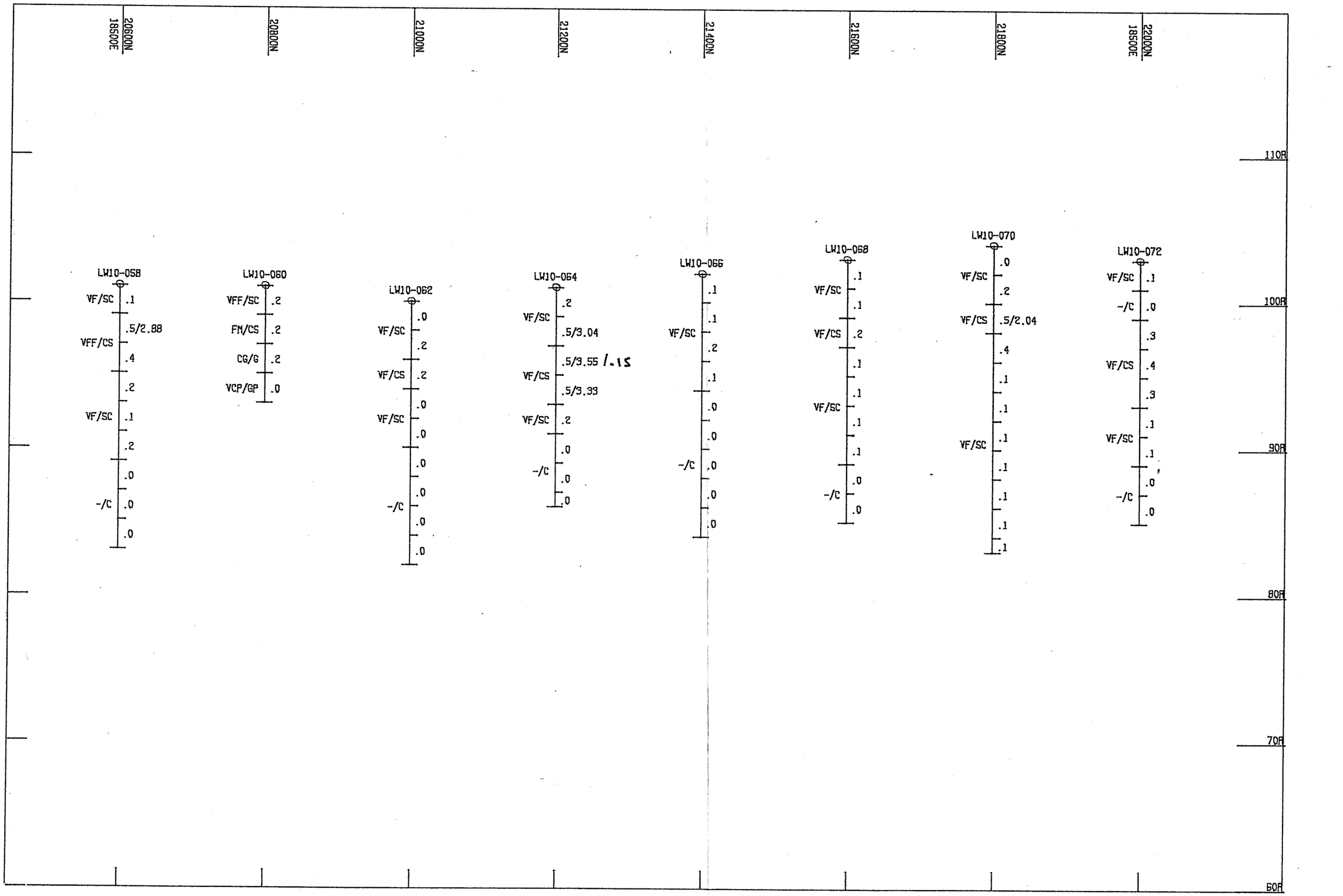
LW10-054
VFF/SC .1
VFG/CG .3
VFVC/SC .1
.1
.1
VF/SC .1
.1
-/C .0

LW10-056
.1
VF/SC .1
.3
VF/CS .3
.0
-/C .0
.1
VF/SC .1
.0 .0 .0 -/C .0 .0 .0 .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

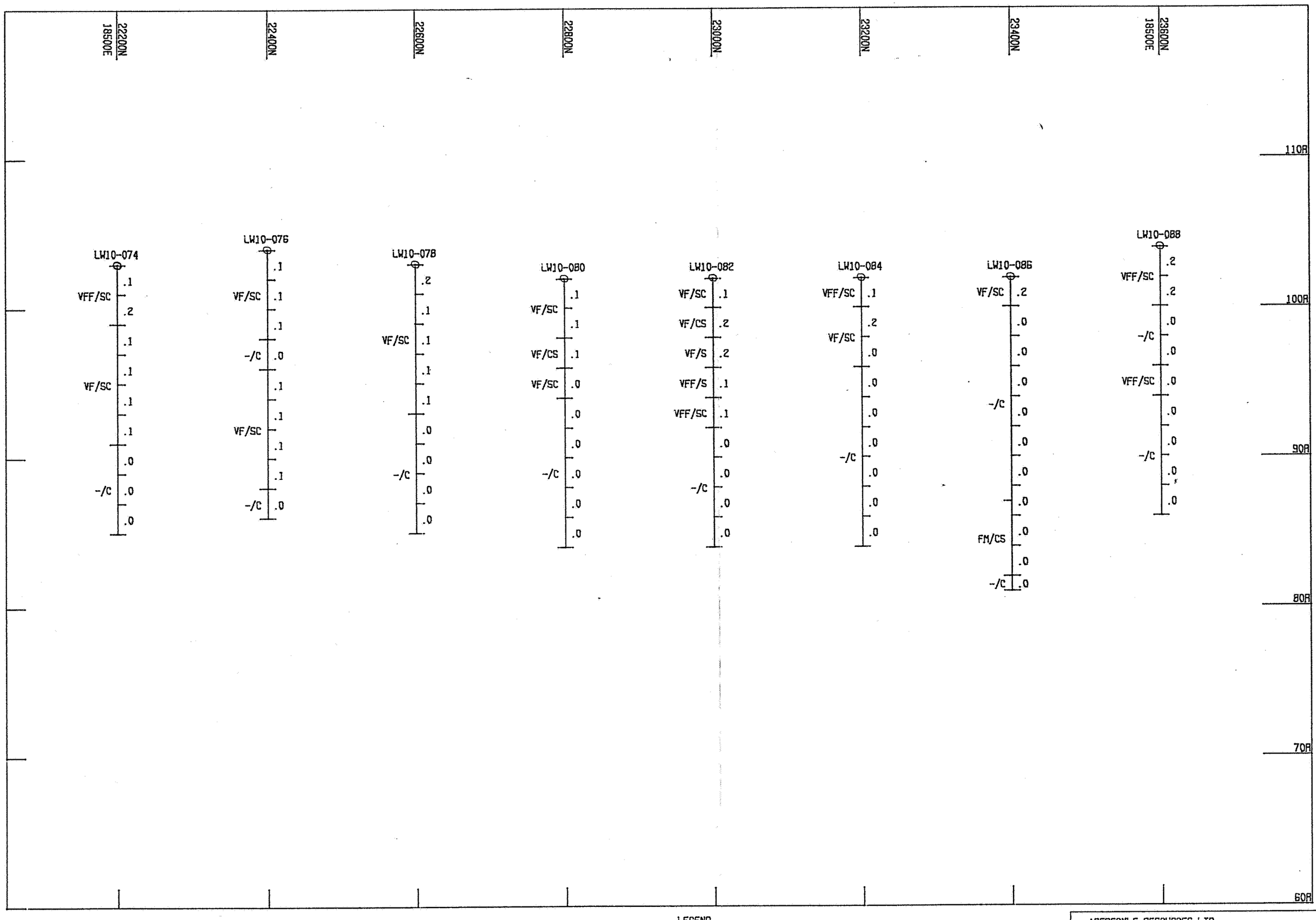
ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 10
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KD



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual / Rutile Factor

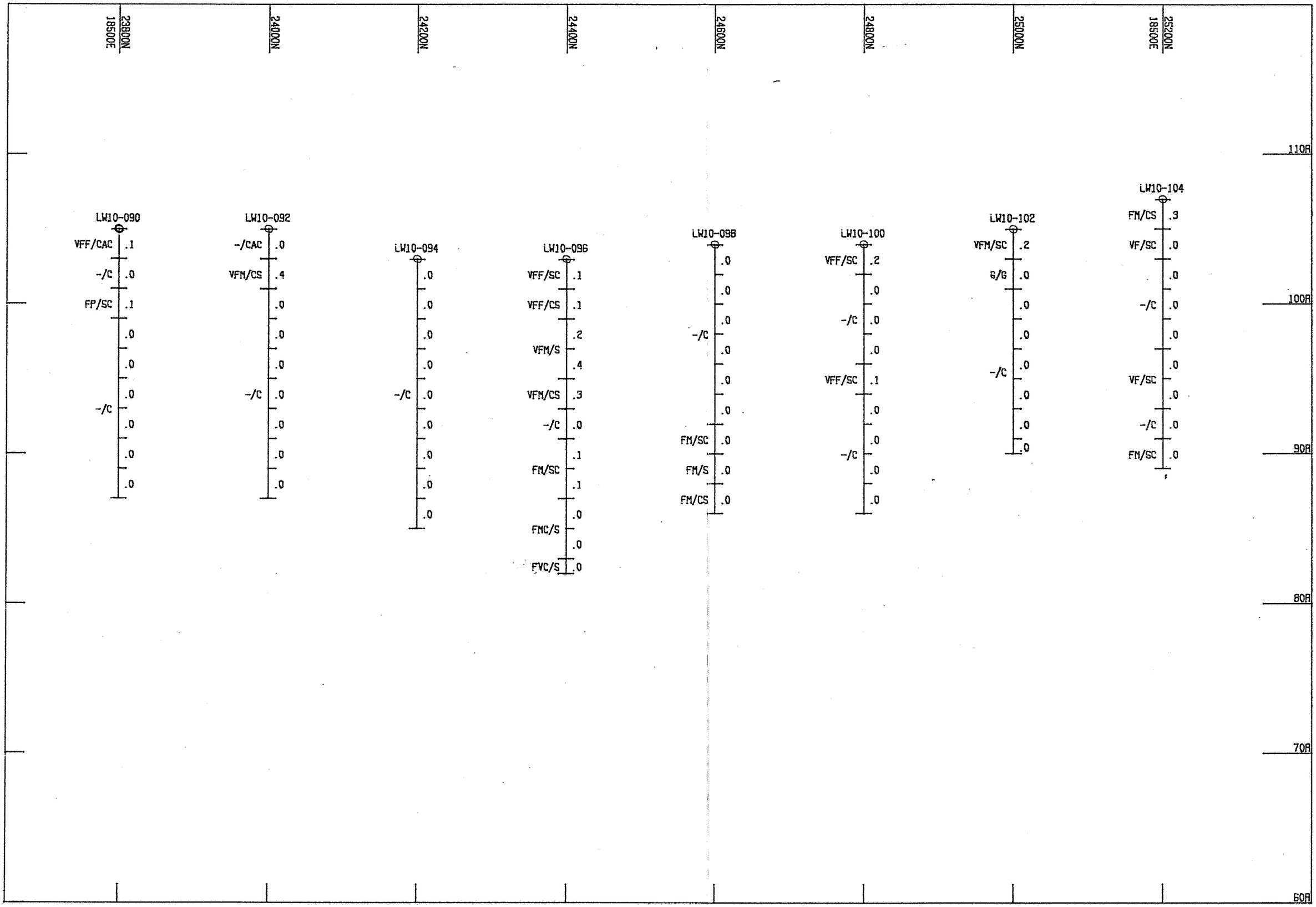
ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 10
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KO



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

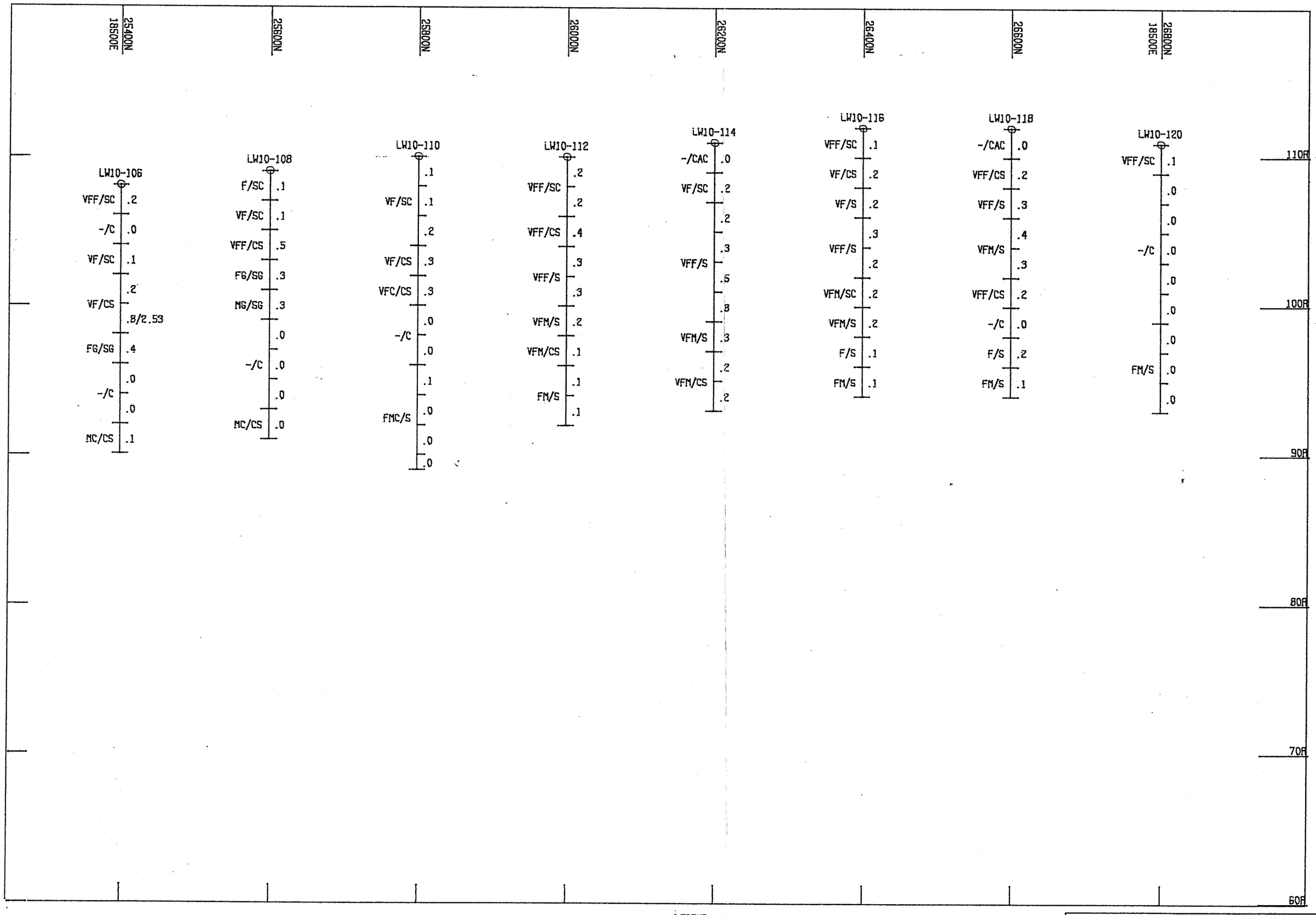
ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 10
X Scale = 1 : 5000. // Y Scale = I : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KO



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

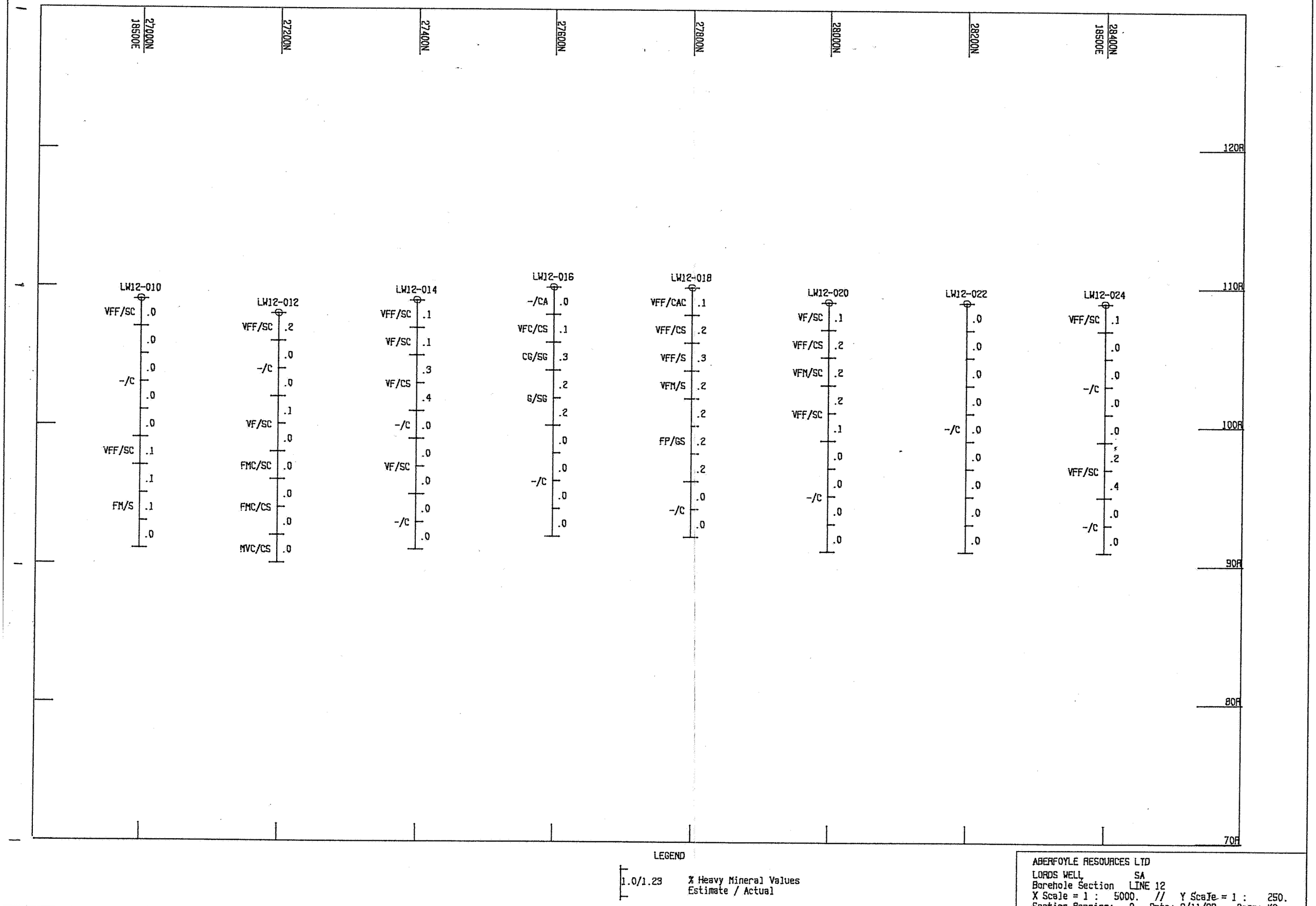
ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 10
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KO



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 10
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KO



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 12
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KO

18500E 28600N | 28800N | 29000N | 29200N | 29400N | 29600N | 29800N | 18500E 30000N

120R
110R
100R
90R
80R
70R

LW12-026
VFF/SC .1
VF/SC .1
.2
VF/CS .8/3.09
.5/2.91 1.14
FC/S .5/4.12
CG/SG .3
G/G .2
-/C .0

LW12-028
VFF/SC .1
VFF/CS .2
.2
VFF/S .2
.3
VFM/S .3
VFM/CS .2
VF/SC .2
.0
-/C .0

LW12-030
.0
-/C .0
.0
VF/CS .1
VF/S .1
.2
VFF/S .2
FM/SC .2
-/C .0

LW12-032
.1
VF/SC .1
.1
.4
VF/CS .3
.3
.0
.0
-/C .0
.0

LW12-034
VF/SC .1
.2
VF/CS .2
.2
VFF/CS .2
.5
VFF/S .2
.2
FMC/S .2
.2
FMC/SC .3

LW12-036
.1
VFF/SC .2
.2
VFF/CS .2
.2
.2
VFF/S .2
.2
.2
.2
FP/GS .1

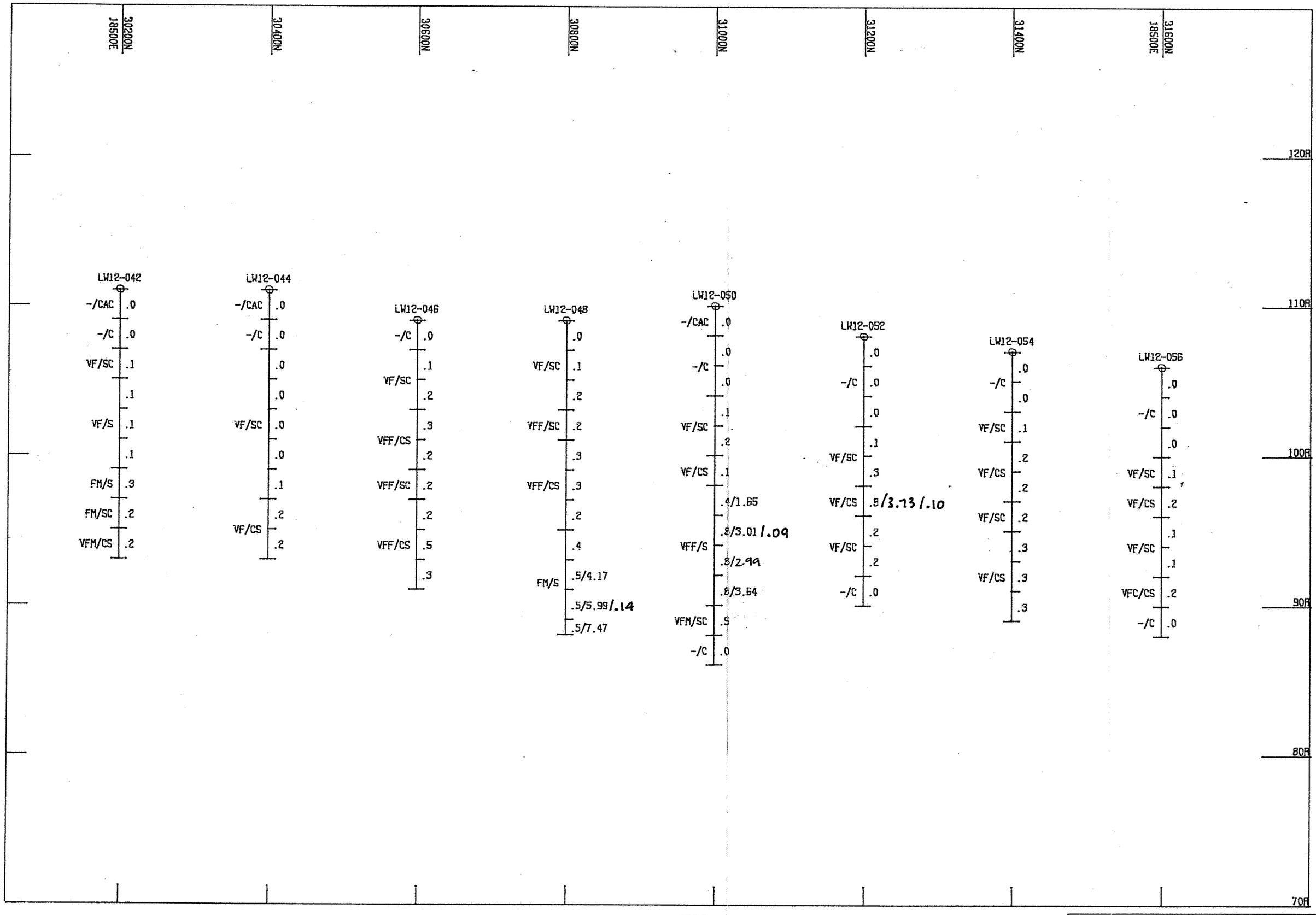
LW12-038
-/CAC .0
-/C .0
.2
FP/GS .2
.2
VF/SC .1
.1
VF/CS .1
.1
VF/SC .1
VF/CS .1

LW12-040
.0
.0
-/C .0
.0
.0
VF/SC .1
.1
.1
VF/S .1
.1
VF/CS .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual / Rutile Factor

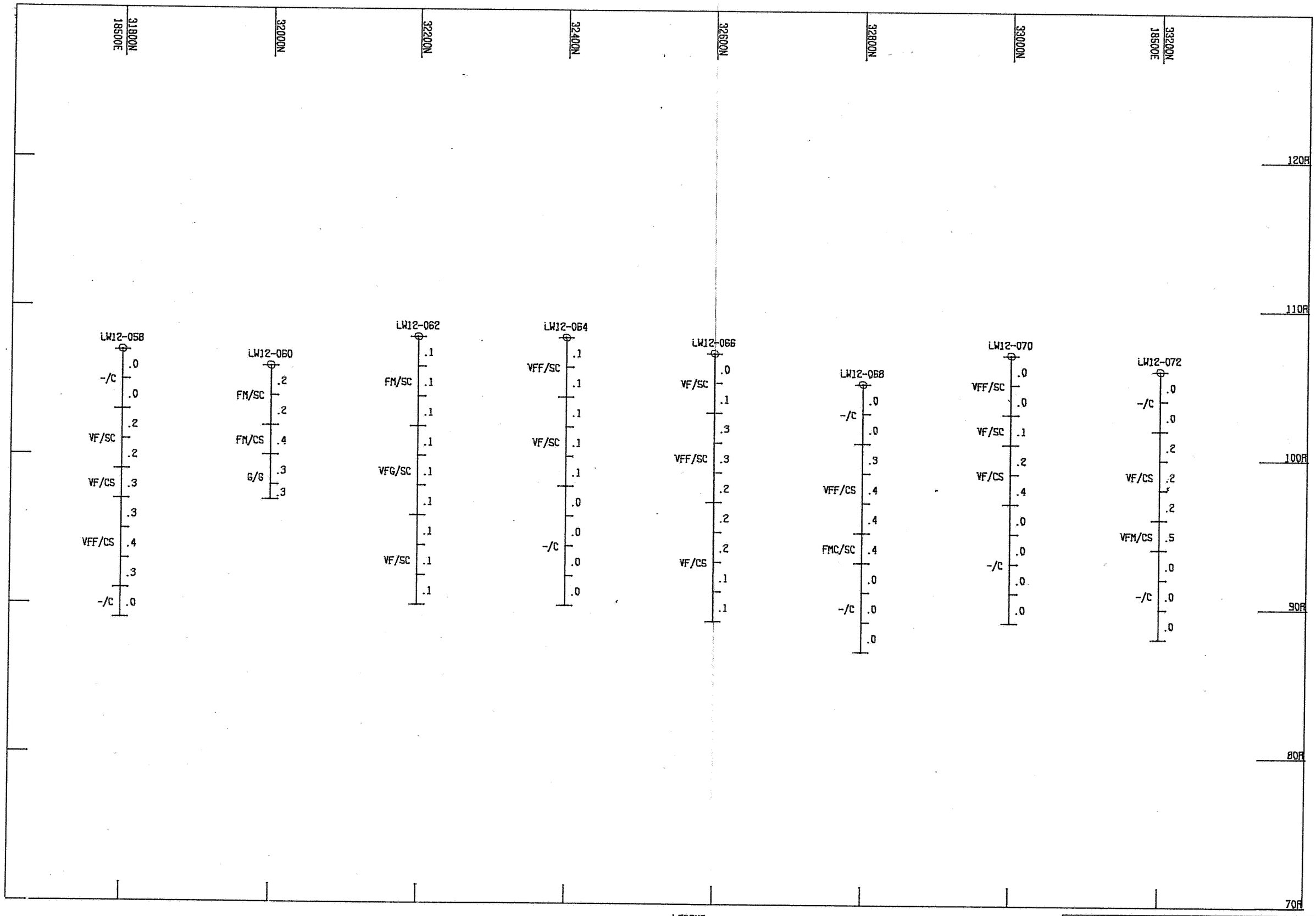
ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 12
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KO



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual / Rutile Factor

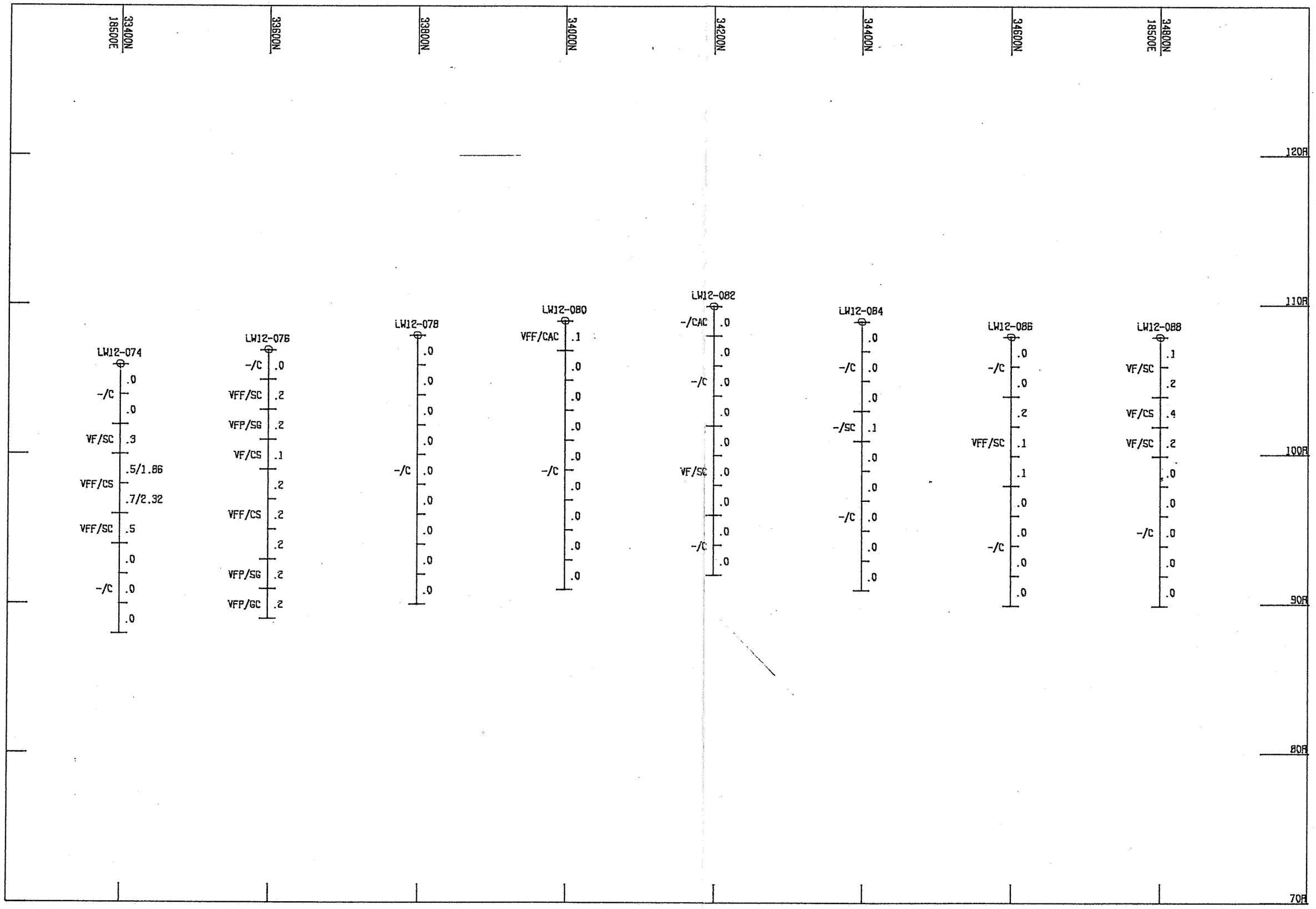
ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 12
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KD



LEGEND

1.0/1.29 % Heavy Mineral Values
Estimate / Actual

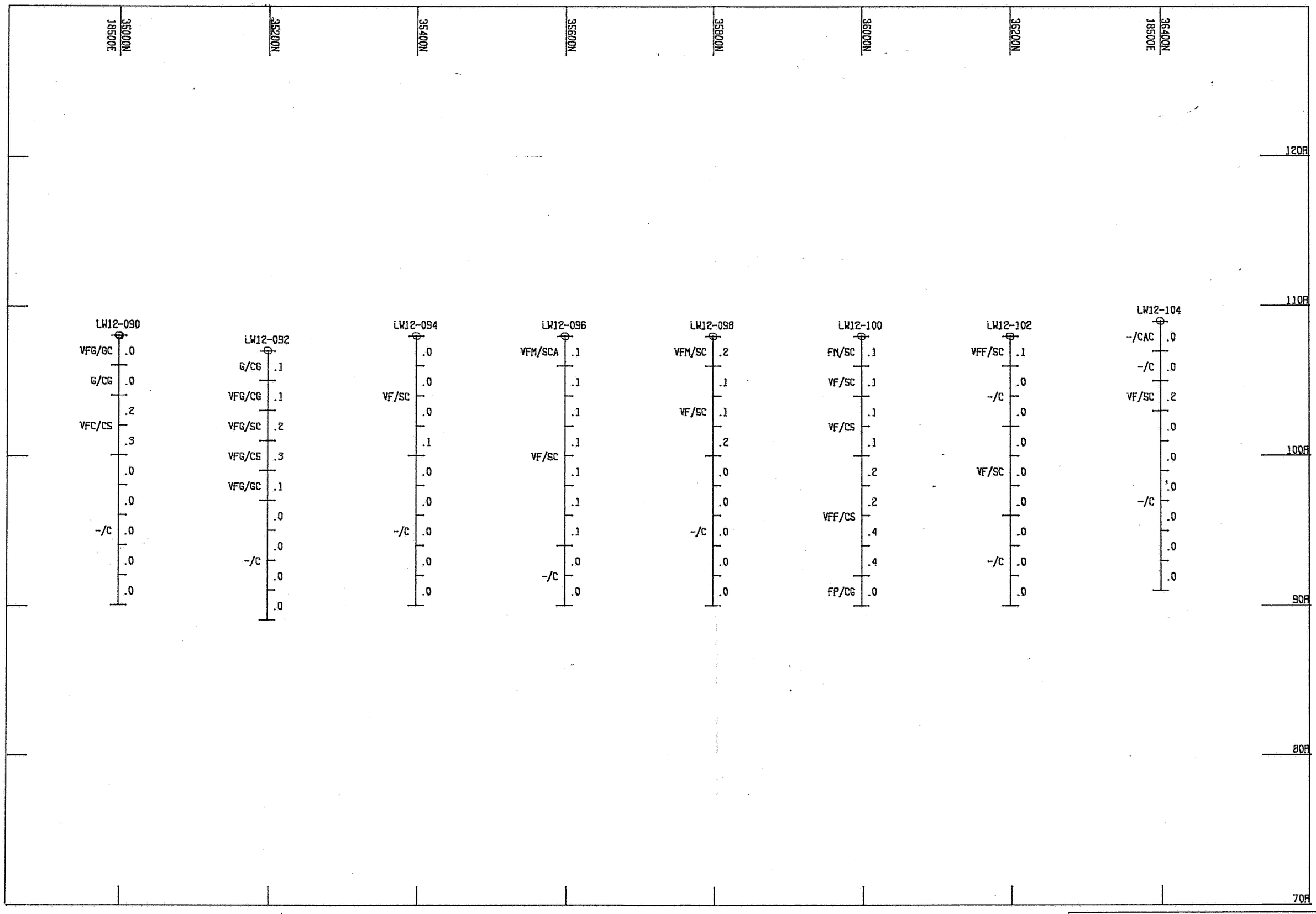
ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 12
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KO



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 12
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KO



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 12
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KD

18500E 36600N 36800N 37000N 37200N 37400N 37600N 37800N 38000N 18500E

120A

110A

100A

90A

80A

70A

LW12-106

VFF/SC	.1
-/C	.0
	.1
VF/SC	.1
	.0
	.0
-/C	.0
	.0
	.0

LW12-108

VFM/SC	.2
VFF/SC	.3
VFF/CS	.4
VF/CS	.2
	.0
-/C	.0
	.0
	.0
	.0

LW12-110

-/C	.0
VFF/SC	.2
FMC/S	.3
	.2
FP/G	.2
	.0
-/C	.0
	.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 12
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 9/11/89 Comp: KO

305000E
25600N
25800N
26000N
26200N
26400N
26600N
26800N
305000E
27000N

120R
110R
100R
90R
80R
70R

LW11-010
FM/CS .1
.1
FM/S .1
.1
FMC/S .1
.0
.0
FMCG/CS .0
.0

LW11-012
-/C .0
.0
FMC/CS .1
.1
FM/CS .0
.1
.0
FMC/CS .0
.0

LW11-014
FM/SC .2
.0
.0
.0
-/C .0
.0
.0
.0
FMC/S .0
.0
FM/S .0

LW11-016
FM/SC .2
.0
.0
.0
-/C .0
.0
.0
.0
FMC/CS .0
.0

LW11-018
.0
.0
.0
-/C .0
.0
.0
.0
FM/SC .0
.0
FMC/CS .0
.0

LW11-022
.0
.0
.0
-/C .0
.0
.0
.0
.0
FMC/CS .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 11
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 12/11/89 Comp: KD

27200N
30500E
27400N
27600N
27800N
28000N
28200N
28400N
28600N
30500E

120R
110R
100R
90R
80R
70R

LW11-026
.0
.0
.0
-/C .0
.0
.0
.0
.0

LW11-030
FMC/SC .1
-/C .0
FMC/SC .2
.0
.0
-/C .0
.0
.0
.0

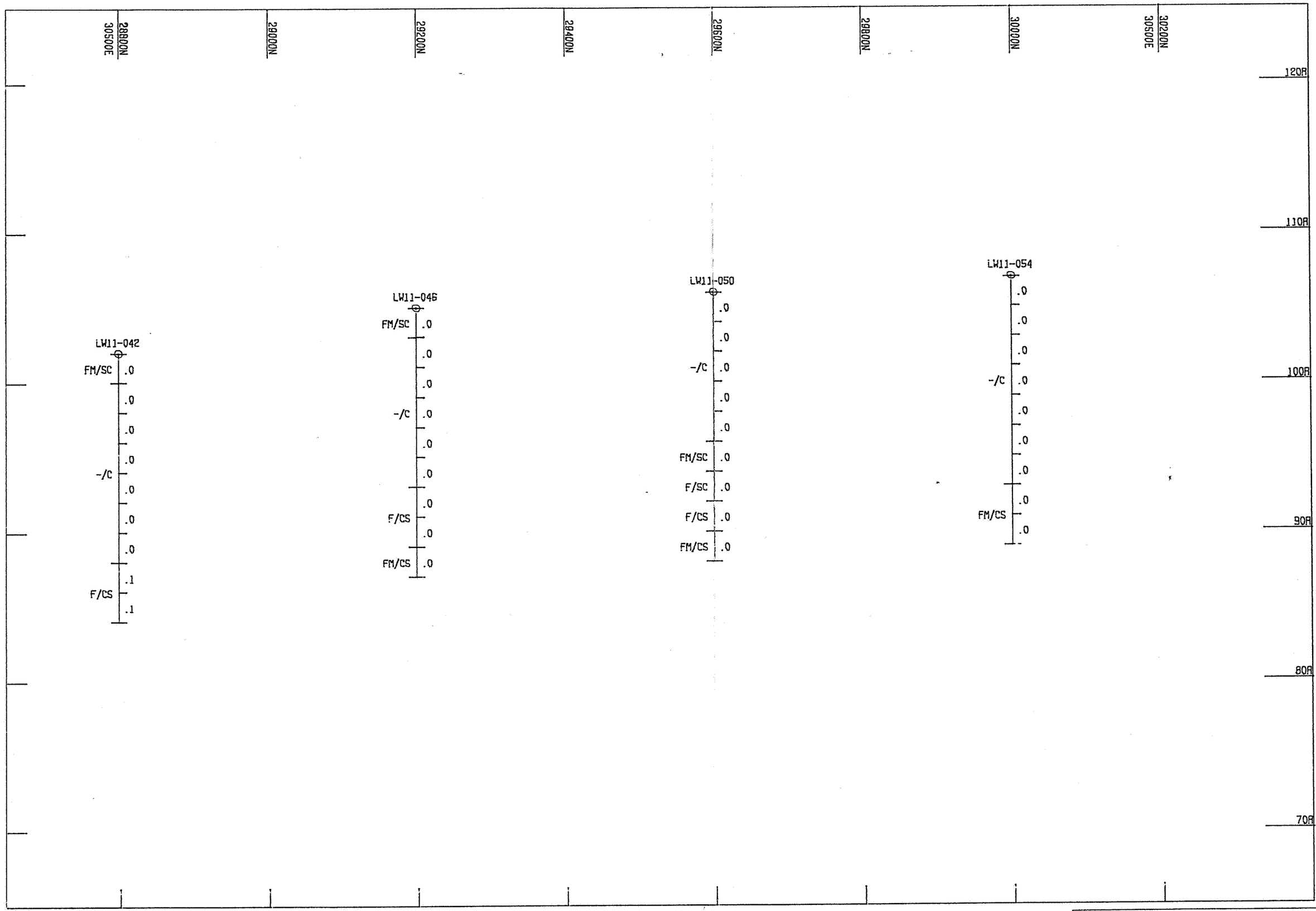
LW11-034
.0
.0
.0
-/C .0
.0
.0
.0

LW11-038
.0
.0
.0
-/C .0
.0
.0
.1
FM/CS .1
.1

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 11
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 10/11/89 Comp: KO



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 11
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 10/11/89 Comp: KD

305500E
304000N
305000N
308000N
310000N
312000N
314000N
316000N
305500E
318000N

120R
110R
100R
90R
80R
70R

LW11-058

	.0
VFF/SC	.0
	.0
VF/SC	.0
	.0
VF/CSD	.2
	.2
VF/CS	.3
	.1
VF/SC	.1

LW11-060

	.0
VFM/SC	.0
	.1
VF/SC	.1
	.1
VF/CS	.2
	.2
VFF/S	1.0/4.20 /.10
	.5/4.03

LW11-062

	.1
VF/SC	.1
	.1
	.0
	.0
-/C	.0
	.0
	.0
	.0

LW11-066

VFF/SC	.2
VF/CS	.3
CM/CS	.3
	.0
	.0
-/C	.0
	.0
	.0
FM/SC	.0

LW11-070

	.0
	.0
	.0
	.0
-/C	.0
	.0
	.0
	.0
FM/SC	.2

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual / Rutile Factor

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 11
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 10/11/89 Comp: KO

30500E 32000N 32200N 32400N 32600N 32800N 33000N 33200N 33400N 30500E

120R

110R

100R

90R

80R

70R

LW11-074

-/C

FM/SC

LW11-078

VFF/SC

-/C

LW11-082

VFF/SC

-/C

FM/SC

FM/CS

LW11-086

-/C

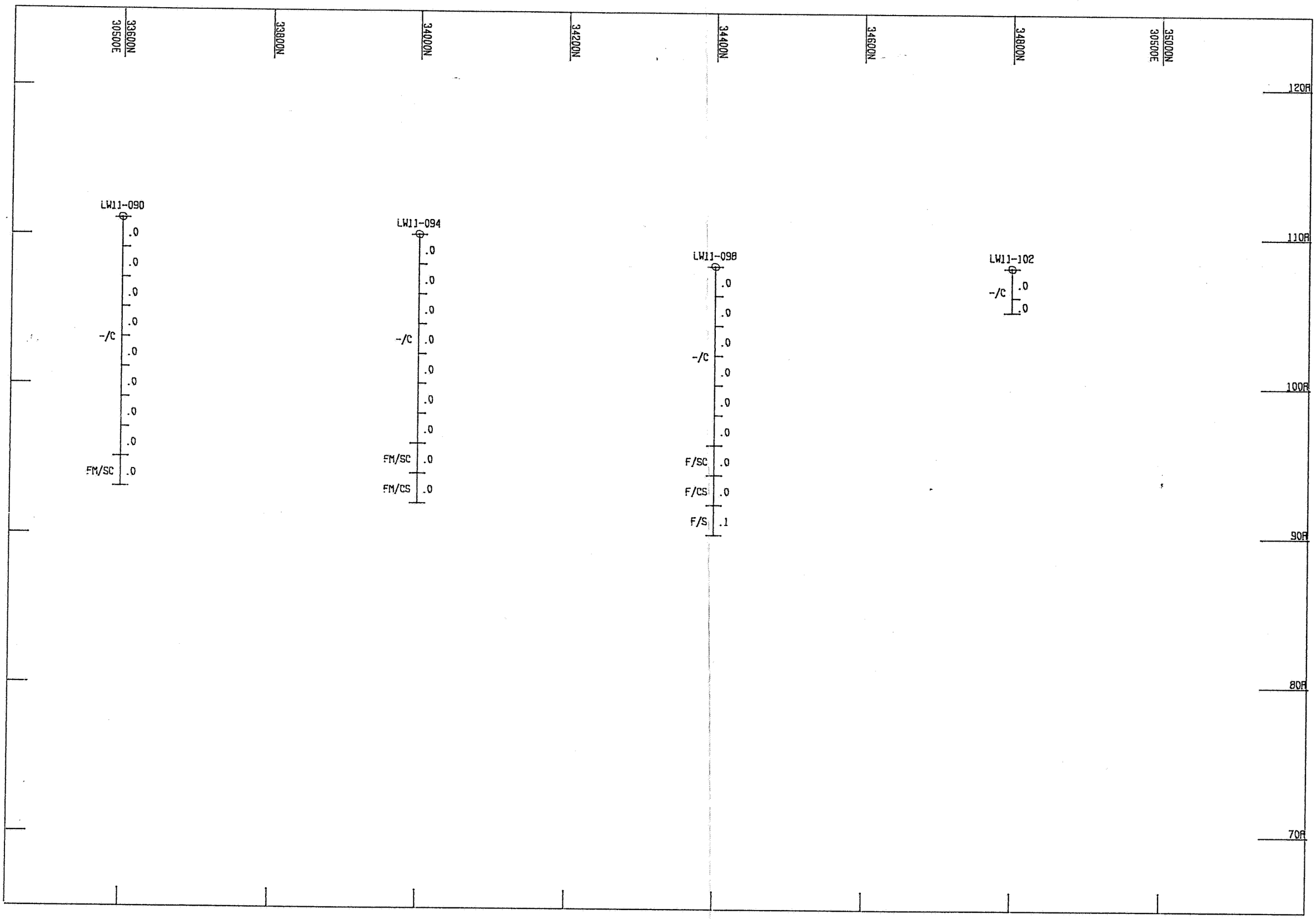
FM/SC

F/CS

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 11
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 10/11/89 Comp: KQ


336000N
30500E
338000N
340000N
342000N
344000N
346000N
348000N
350000N
30500E
120R
110R
100R
90R
80R
70R
LW11-090
.0
.0
.0
-/C .0
.0
.0
.0
.0
FM/SC .0
LW11-094
.0
.0
.0
-/C .0
.0
.0
.0
FM/SC .0
FM/CS .0
LW11-098
.0
.0
.0
-/C .0
.0
.0
.0
F/SC .0
F/CS .0
F/S .1
LW11-102
-/C .0
.0
LEGEND
1.0/1.23 % Heavy Mineral Values
Estimate / Actual
ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 11
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 10/11/89 Comp: KO

305600E 352400N 354400N 356000N 358000N 360000N 362000N 364000N 365600N 305600E

120R
110R
100R
90R
80R
70R

LW11-106
.0
.0
.0
.0
-/C .0
.0
.0
.0
.0

LW11-110
-/CA .0
GP/CACG .0
-/C .0
VF/CS .2
.3
VFF/S .2
.1
VFF/SC .1
-/C .0

LW11-112
-/CAC .0
-/C .0
VF/SC .0
VFF/S .1
VFF/CS .1
.0
.0
-/C
.0
.0
.0

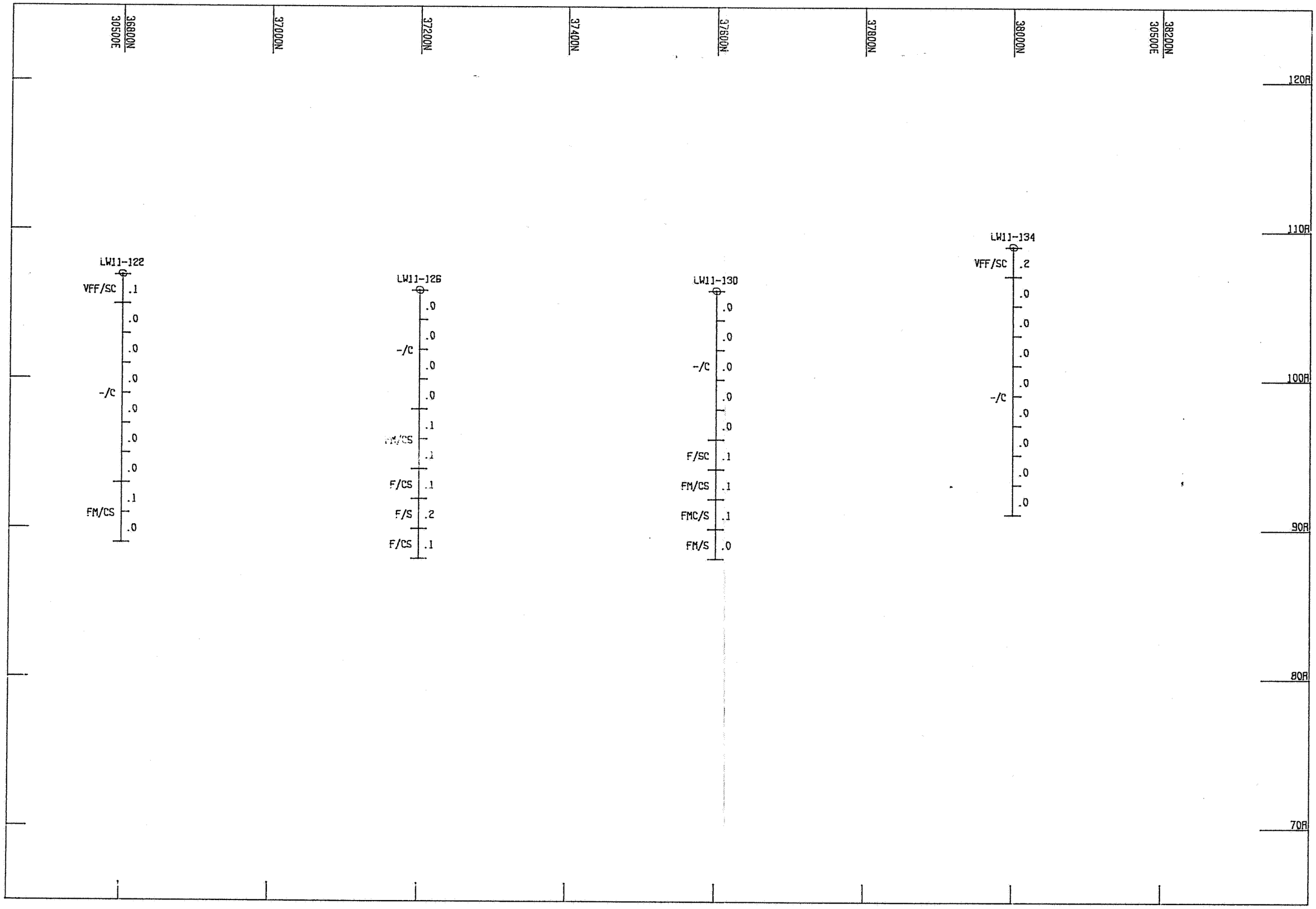
LW11-114
FM/SC .1
.0
.0
.0
-/C .0
.0
.0
.0
.0
F/SC .0

LW11-118
.0
.0
.0
-/C .0
.0
.0
.0
FM/SC .0
FM/CS .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 11
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 10/11/89 Comp: KD



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 11
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 10/11/89 Comp: KO

Lords Well EL 1502, report on exploration for the twelve months to 10/1/90; including the sixth Quarter to 10/1/90:

APPENDIX II

ANALYTICAL DETAILS

HEAVY LIQUID SEPARATION

PROCEDURE

The procedure is as follows :

(a) dry and crush (as necessary) and riffle in half.

(b) prepare a slurry of the riffled half and stir mechanically. Pre-soak for extended time if excessive clay present.

(c) wet sieve at 1 mm and 38 μm, with a lower 38 μm check sieve to ensure full retention of +38 μm material.

(d) weigh +1 mm and -1 mm÷38 μm fractions.

(e) separate -1 mm÷38 μm fraction statically in tetrabromoethane (TBE, 2.96 sp. gr.) with six stir/settle stages.

(f) remove <2.96 sp. gr. lights and discard.

(g) wash, dry and weigh the >2.96 sp. gr. product.

RESULTS

The results are given in Table 1 which gives the -1 mm+38 μm >2.96 sp. gr. product as a percentage of the -1 mm+38 μm fraction and of the total sample.

SIZE AND SPECIFIC GRAVITY DISTRIBUTION OF SAND SAMPLES

Sample no	SIZE DISTRIBUTION +38um wt%	SIZE DISTRIBUTION -38um wt%	-1mm+38um >2.96 sp.gr as a % of -1mm+38um size fr.	-1mm+38um >2.96 sp.gr as a % of total sample	HOLE No.	DEPTH m
511 039	80.8	19.2	0.62	0.50	LW03 -030	0-2
511 040	45.4	54.6	0.77	0.35		2-4
511 041	52.3	47.7	0.96	0.50		4-6
511 062	77.6	22.4	0.83	0.65	LW03 -036	0-2
511 063	64.1	35.9	1.14	0.73		2-4
511 386	88.1	11.9	0.35	0.31	LW06 -026	6-8
511 387	88.2	11.8	1.31	1.15		8-10
511 388	85.8	14.2	0.86	0.74		10-12
511 389	87.7	12.3	0.11	0.10		12-14
497 615	31.2	68.8	2.77	0.87	LW04 -022	6-8
497 616	36.4	63.6	2.92	1.06		8-10
497 617	21.3	78.7	1.82	0.39		10-12
497 618	15.8	84.2	1.33	0.21		12-14
497 621	70.9	29.1	1.41	1.00	LW04 -024	0-2
497 622	34.7	65.3	3.39	1.17		2-4
497 623	56.5	43.5	1.74	0.98		4-6
497 624	54.4	45.6	1.58	0.86		6-8
497 625	59.4	40.6	4.02	2.39		8-10
497 626	66.9	33.1	2.66	1.78		10-12
497 645	72.9	27.1	2.10	1.53	LW04 -030	0-2
497 646	63.5	36.5	5.69	3.61		2-4
497 647	24.4	75.6	9.37	2.29		4-6

SIZE AND SPECIFIC GRAVITY DISTRIBUTION OF SAND SAMPLES

Sample no	SIZE DISTRIBUTION +38um wt%	SIZE DISTRIBUTION -38um wt%	-1mm+38um >2.96 sp.gr as a % of -1mm+38um size fr.	-1mm+38um >2.96 sp.gr as a % of total sample	HOLE No.	DEPTH m
497 656	67.5	32.5	0.64	0.43	LW04 -032	0-2
497 657	54.7	45.3	1.85	1.01		2-4
497 658	57.7	42.3	4.93	2.84		4-6
497 659	14.8	85.2	1.50	0.22		6-8
497 665	85.0	15.0	0.27	0.23	LW04 -034	2-4
497 666	62.1	37.9	3.50	2.17		4-6
497 667	36.5	63.5	2.42	0.88		6-8
497 668	24.6	75.4	1.73	0.43		8-10

SIZE AND SPECIFIC GRAVITY DISTRIBUTION
OF SAND SAMPLES

Sample No.	Size Distribution			-1mm+38um >2.96 sp.gr as a % of			
	+1mm Wt%	-1mm+38um Wt%	-38um Wt%	-1mm+38um Size Fr.	Total Sample	HOLE No.	DEPTH m
589 601	0.0	50.8	49.2	2.83	1.43	LW08-012	10-12
589 602	0.1	66.5	33.4	4.46	2.96		12-14
589 690	6.6	36.9	56.4	3.61	1.33	LW08-034	0-2
589 691	0.2	73.2	26.7	4.53	3.32		2-4
589 692	0.0	68.8	31.2	3.68	2.53		4-6
589 693	0.0	22.6	77.4	3.47	0.78		6-8
589 694	0.0	64.9	35.1	4.06	2.64		8-10
589 695	0.0	53.5	46.5	3.72	1.99		10-12
589 700	0.7	32.5	66.8	3.84	1.25	LW08-036	2-4
589 701	0.0	46.0	54.0	4.55	2.09		4-6
589 702	0.0	57.4	42.6	4.43	2.54		6-8
589 703	0.0	38.7	61.3	3.34	1.29		8-10
589 704	0.3	52.2	47.5	4.25	2.22		10-12
589 709	0.0	12.2	87.8	2.80	0.34	LW08-038	4-6
589 710	0.0	43.0	57.0	3.78	1.62		6-8
589 711	0.0	67.1	32.9	4.48	3.00		8-10
589 712	0.2	51.3	48.5	5.07	2.60		10-12
589 713	0.0	46.6	53.4	4.98	2.32		12-14
589 720	0.0	18.2	81.8	3.11	0.56	LW08-040	8-10
589 721	0.0	58.3	41.7	5.70	3.32		10-12
589 788	0.5	43.3	56.3	2.93	1.27	LW08-058	8-10
592 113	0.1	85.0	14.9	5.48	4.66	LW10-012	8-10
592 174	0.0	51.4	48.6	6.18	3.17	LW10-026	4-6

SIZE AND SPECIFIC GRAVITY DISTRIBUTION
OF SAND SAMPLES

Sample No.	Size Distribution			-1mm+38um >2.96 sp.gr as a % of		HOLE No.	DEPTH m
	+1mm Wt%	-1mm+38um Wt%	-38um Wt%	-1mm+38um Size Fr.	Total Sample		
592 317	3.2	59.0	37.8	4.87	2.88	LW10-058	2-4
592 339	1.0	58.7	40.3	5.18	3.04	LW10-064	2-4
592 340	0.1	64.6	35.2	5.49	3.55		4-6
592 341	0.1	55.1	44.9	6.05	3.33		6-8
592 366	0.1	49.7	50.2	4.11	2.04	LW10-070	4-6
592 535	0.6	50.4	49.0	5.01	2.53	LW10-106	8-10
592 680	0.0	58.6	41.4	5.28	3.09	LW12-026	6-8
592 681	0.0	56.1	43.8	5.19	2.91		8-10
592 682	0.2	73.7	26.1	5.60	4.12		10-12
592 784	0.1	81.3	18.5	5.12	4.17	LW12-048	16-18
592 785	0.2	87.9	11.8	6.81	5.99		18-20
592 786	0.3	91.9	7.8	8.13	7.47		20-21
592 793	0.0	42.0	57.9	3.92	1.65	LW12-050	12-14
592 794	0.0	60.4	39.6	4.99	3.01		14-16
592 795	0.0	64.2	35.8	4.66	2.99		16-18
592 796	0.1	75.1	24.9	4.85	3.64		18-20
592 804	0.0	60.1	39.9	6.22	3.73	LW12-052	10-12
592 897	0.0	40.4	59.6	4.60	1.86	LW12-074	6-8
592 898	0.0	44.1	55.9	5.26	2.32		8-10
594 203	0.0	66.2	33.8	6.34	4.20	LW11-060	12-14
594 204	0.9	78.7	20.4	5.12	4.03		14-15

Lords Well EL 1502, report on exploration for the twelve months to 10/1/90; including the sixth Quarter to 10/1/90:

APPENDIX III

MINERALOGICAL DETERMINATION RESULTS

MINERALOGICAL RESULTS

In order to compare the values of differing mineral assemblages a "rutile-factor" has been devised from which is calculated a "rutile-equivalent grade". The factor is determined by applying a weight to the percentage of each economic mineral in the heavy mineral assemblage in proportion to the market value of that mineral compared to the market value of rutile. The factor is applied to the total heavy mineral grade to give the "rutile-equivalent grade" which expresses the mineral grade as though composed of rutile alone. The rutile factor will vary with variations in the relative market values of the mineral assemblage, and requires periodic review:

The formula in use at July 1989 is:

$$RF = R + 0.67\ L + 0.1\ I + 0.5\ Z + 1.5\ M$$

where:

RF = rutile factor expressed as decimal
R = % rutile in the heavy mineral fraction
L = % leucoxene in the heavy mineral fraction
I = % ilmenite in the heavy mineral fraction
Z = % zircon in the heavy mineral fraction
M = % monazite in the heavy mineral fraction

REPORT CMS 89/7/7

HEAVY MINERALS CONCENTRATES.

Comments.

Leucoxene is generally very pale cream to white, and is porous; it may therefore contain other components such as silica.

Grainsizes are mostly fine, and shapes tend to be angular/ euhedral.

The 497 series consists predominantly of Fe oxides/hydroxides, apparently of lateritic origin.

Rutile is uniformly sparse; zircon attains reasonable to good percentages and is mostly clean and colourless, with few inclusions, though some metamict zircon is also present.

Other silicates are dominantly tourmaline, with sporadic traces of andalusite, sillimanite, staurolite and garnet; fine quartz is present as a minor contaminant.

H.W. Fander, M.Sc.

Central Mineralogical Services

SAMPLE DETAILS		OPAQUES			NON-OPAQUES				COMMENTS	RUTILE FACTOR
SAMPLE No	HOLE No DEPTH	Ilmenite	Leucoxene	Others	Rutile	Zircon	Monazite	Others		
497616	LW04-022 8-10	--	5%	Hematite) Goethite) 80%	Small trace	1%	--	Quartz) Tourmaline) 13%	Goethite is lateritic. Hematite/ quartz composites.	.04
497624	LW04-024 6-8	--	3%	Hematite) Goethite) 80%	Small trace	Trace-1%	--	As above 16%	As above; qiartz is fine-grained.	.02
497625	8-10	--	2%	As above 88%	Small trace	Trace	--	As above	Some goethite represents oxidised pyrite crystals.	.01
497626	10-12	--	3%	As above 90%	Small trace	Trace	Small trace	Mainly quartz 6%	Goethite includes (magnetic) lepidocrocite/maghemite.	.02
497645	LW04-030 0-2	--	2%	As above 92%	Small trace	Small trace	--	As above 5%	As above. Quartz/goethite composites.	.01
497656	LW04-032 0-2	--	7%	As above 75%	Small trace	4%	Small trace	As above 13%	As above. Zircon generally iron-stained.	.07
497657	2-4	--	7%	As above 85%	Small trace	Trace	--	As above 7%	Goethite-quartz composites common.	.05

SAMPLE DETAILS HOLE No. DEPTH	OPAQUES			NON-OPAQUES				Central Mineralogical Services COMMENTS	RUTILE FACTOR
	Ilmenite	Leucoxene	Others	Rutile	Zircon	Monazite	Others		
589692 LW08-034 4-6	50%	5%	Goethite/Magnelite 43%	Small trace	Trace-1%	---	1%	Some ilmenite is magnetic. Most grains with SiO_2 overgrowths.	0.09
589694 8-10	50%	5%	As above 38%	Small trace	1-2%	---	5%	As above. Ilmenite appears etched. TiO_2 analysis needed.	0.09
589703 LW08-036 8-10	45%	25%	Goethite 17%	Small trace	3%	---	10%	As above. Much "goethite", some ilmenite, is magnetic.	0.23
589711 LW08-038 8-10	50%	15%	Goe thite 30%	Small trace	1-2%	---	3%	Etched ilmenite. Composite opaques. SiO_2 coatings, impregnations.	0.16
589713 12-14	40%	30%	Goethite 20%	Small trace	3%	---	7%	As above. Assay check for TiO_2 essential.	0.26
589721 LW08-040 10-12	60%	10%	Goethite 15%	Small trace	3-4%	Small trace	10%	Many leucoxene, goethite grains are SiO_2-coated, impregnated.	0.15
592113 LW10-012 8-10	45%	8%	Goethite 40%	Small trace	Trace-1%	Small trace	5%	Some "goethite" is magnetic. Ilmenite is etched, corroded.	0.10
529341 LW10-064 6-8	40%	15%	Goethite 35%	Small trace	2%	---	7%	As above. "Goethite" includes ferruginous rock fragments/grains.	0.15
592681 LW12-026 8-10	30%	15%	Goethite 45%	Small trace	1-2%	---	8%	As above. TiO_2 assays needed on all samples.	0.14
592785 LW12-048 18-20	55%	12%	Goethite 30%	Small trace	1%	---	2%	Coarse-grained. Magnetic "goethite". Rock grains.	0.14
592794 LW12-050 14-16	40%	8%	Goethite 50%	Small trace	Trace	---	2%	As above. Zircon is fine-grained.	0.09
592804 LW12-052 10-12	45%	5%	Goethite 41%	Small trace	3-4%	---	10%	"Goethite" includes magnemite, goethite-coated magnetite, others.	0.10
594203 * LW11-060 12-14	30%	10%	Goethite 55%	Small trace	Small trace	---	5%	Coarse goethite, Fe-rock grains. Some goethite is magnetiic.	0.10

Aberfoyle Resources Limited
Incorporated in Victoria
EXPLORATION DIVISION

ADELAIDE OFFICE:
91 BEULAH ROAD
NORWOOD S.A. 5067
Phone: (08) 363 1636
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1st Floor
123 Camberwell Road
Hawthorn East
Victoria 3123
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Lords Well 61

The Director-General
Department of Mines and Energy
191 Greenhill Road
PARKSIDE SA 5063

11th April 1990

Dear Sir

RE: Exploration Licence 1502 "Lords Well"

PROGRESS REPORT ON EXPLORATION
FOR THE SEVETH QUARTER ended 10 April 1990

No work has been undertaken during the seventh Quarter.

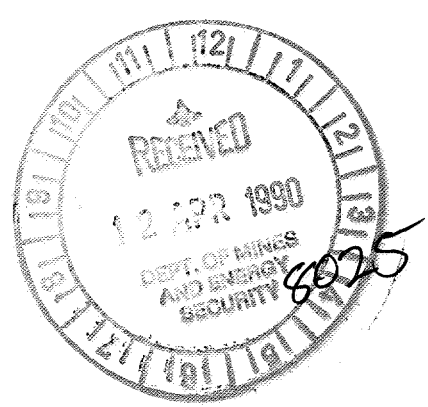
A statement of expenditure is attached.

Yours faithfully
ABERFOYLE RESOURCES LIMITED
Exploration Division

M. G. Teakle

MG Teakle
Senior Geologist

MGT/mafc
cc KERD
Att 1



EXPLORATION LICENCE 1502 "LORDS WELL"

SUMMARY OF EXPENDITURE FOR THE SEVENTH QUARTER ended 10th April 1990

GEOLOGY	1,227.24
RAB DRILLING	180.00
OTHER SERVICES	368.29
INDIRECT COSTS	177.53
TOTAL COSTS:	$1,953.06

ABERFOYLE RESOURCES LIMITED

EXPLORATION DIVISION

EXPLORATION LICENCE 1502 "LORDS WELL"

REPORT ON EXPLORATION
FOR THE EIGHTH QUARTER
ended 10th July 1990

FINAL REPORT

Distribution:

SADME Adelaide (1)
ARL Hawthorn (1)
ARL Adelaide (1)

Prepared By:

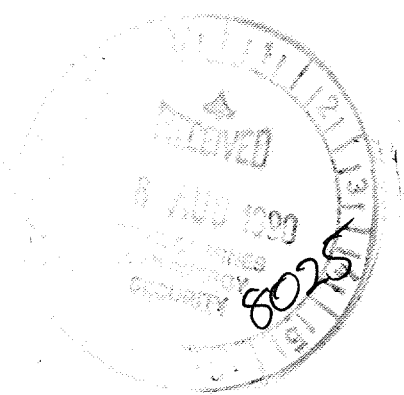
JAC Painter
Geologist

Issued By:

MG Teakle
Supervising
Geologist

July 1990

ARL Report No: Lords Well 2



S U M M A R Y

Exploration was carried out on Exploration Licence 1502 "Lords Well" with the objective of locting economic concentrations of heavy minerals in Pliocene sand.

In a third phase of reconnaissance a reverse circulation drilling programme was completed consisting of 39 holes along 18.2km of traverse in 5 lines for a total of 975m. The drilling intersected several zones where heavy mineral concentrations were estimated to exceed 1%, and indicates strike extension for one previously discovered lens. However the mineral assemblages are all dominated by ilmenite and iron oxides, and hence are of little or no commercial value.

It was concluded that no further work was warranted on this licence area, and the licence was allowed to expire.

C O N T E N T S

F I G U R E S

A P P E N D I C E S

1. INTRODUCTION:

This report describes exploration carried out by Aberfoyle Resources Limited on Exploration Licence 1502 "Lords Well" during the eighth quarter ended 10th July 1990.

The licence was secured by Aberfoyle to explore for heavy minerals in Upper Tertiary Parilla Sand, which occurs at shallow depth over much of the south-western half of the Murray Basin. Exploration has consisted of RC drilling along five traverse lines located in the central and northern portions of the licence areas.

2. TENURE AND LOCATION:

Exploration Licence 1502 "Lords Well" was granted to Abefoyle on 11th July 1988 for a term of 12 months. The licence covers approximately 2532 square kilometres and is centered 80km NNW of Renmark (Figs. 1 & 2).

On 3rd July 1989 the Minister of Mines and Energy granted an extension of term of the licence for a further 12 months, to 10th July 1990. At the end of this extended term the licence was allowed to expire.

3. GEOLOGICAL SETTING:

The Exploration Licence is located in the western portion of the Murray Basin. The geology of the area was described in the first progress report and is not repeated here.

4. PAST WORK:

Initial reconnaissance consisted of RAB drilling along ten traverse lines located in the southern and northern portions of the area. Three hundred and seventy five holes were completed for a total of 6147m.

This work located four zones of heavy mineral concentration in lenses 400 to 800m wide and 2 to 12m thick at up to 4% heavy minerals, and numerous single-hole intersections mainly only 2m thick but showing grades up to 5.9% heavy minerals.

However the mineralogy of the heavy mineral assemblages was of very low value, being dominated by ilmenite and goethite, thus severly downgrading the apparent economic potential of the mineralisation.

5. CURRENT EXPLORATION:

The current exploration programme has consisted of a third phase of reconnaissance drilling along three traverse lines located in the central portion of the licence area, (lines LW13, LW14, LW15), and follow-up drilling along two lines adjacent to a previously discovered lens of heavy minerals in the northern portion of the area (Lines LW16, LW17). Traverse locations are shown on Figure 3.

The drilling was by reverse circulation air core methods, and was carried out during May 1990 by RL & RM Budd of Cobar, NSW. The drill used was an Investigator Mk5 air rig rated at 250cfm and 120psi, and adapted to both RAB and RC methods. Holes of 100mm diameter were drilled to depths ranging from 14 to 30m along traverse lines which ranged in length from 0.4 to 6.5km. Holes were spaced mainly at 500m and 1000m intervals along the reconnaissance lines, and at 200m and 400m intervals along the follow-up lines.

Thirty nine holes were drilled for a total of 975m.

Grab samples of 100-150 grams were collected from 2m intervals. One sample from each interval was bagged and retained for subsequent heavy mineral determination. A second sample was panned on site and heavy mineral concentration was visually estimated. Back-up samples of 1-2kg were collected when visual examination indicated the presence of significant quantities of heavy minerals.

6. RESULTS:

The results of drilling are presented as cross sections along traverse lines and are included as Appendix I. Estimated heavy mineral contents are shown on the cross sections.

The reconnaissance drilling in the central part of the area shows a relatively consistent sequence of a few metres of silt to fine sand overlying a persistent but partly discontinuous clay horizon mainly about 6 to 10m thick, which in turn overlies coarse to very coarse and gravelly sand to the depth drilled. The sequence is interpreted to be Pleistocene sands and Blanchetown Clay overlying the target Parilla Sand.

Heavy minerals at concentrations estimated at 1.0 to 2.5% were encountered in 4-metre intersections in holes LW13-010 and LW13-027. However visual examination of the panned sample indicates that the mineral assemblage consists almost entirely of iron oxides, and has no commercial value. Samples were not submitted for analysis.

In all other holes on reconnaissance lines heavy minerals were not noted, or were noted only in trace amounts mainly estimated at 0.1%.

The follow-up drilling adjacent to the lens previously discovered on line LW12 shows a sequence of fine sandy silt to fine sand up to 16m thick overlying clay in which all holes bottomed. The sequence is similar to that shown by line LW12 and is interpreted to be mainly Blanchetown Clay.

Heavy minerals were encountered in concentrations estimated at up to 3% and in zones up to 8m thick in holes LW16-024,-026 and -032. It is thought that this mineralisation represents the strike extension of the lens on line LW12. However, again, visual examination shows the mineral assemblage to be domninated by ilmenite and iron oxides, thus having little commercial value. Samples were not submitted for analysis.

7. DISCUSSION:

RAB and reverse circulation drilling of 414 holes along 15 traverses for a total of 7122m has located numerous zones of heavy mineral concentration exceeding 1%, including four lenses 400 to 800m wide and up to 12m thick. However all intersections exhibit very low value mineral assemblages dominated by iron oxides and ilmenite and having no commercial value.

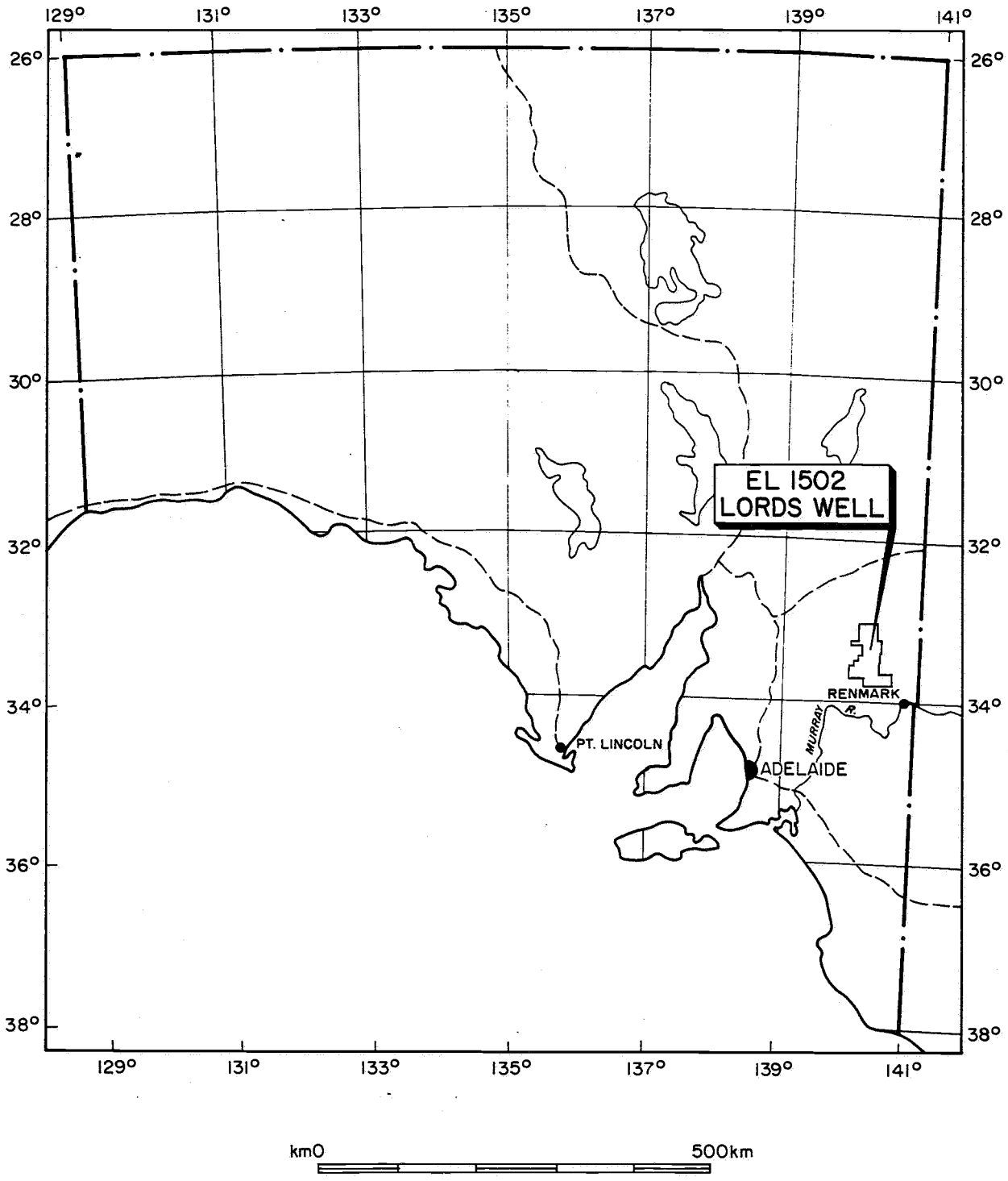
It was concluded that the density of drilling had adequately tested the entire licence area, and that an economic deposit of heavy minerals was unlikely to occur.

The licence was allowed to expire.

8. EXPENDITURE:

Expenditure on Exploration Licence 1502 "Lords Well" for the eighth quarter ended 10th July 1990 was $23,371.59. A statment of expenditure is attached.

Total expenditure over the term of the licence was $131,054.91.



Aberfoyle Resources Limited

EXPLORATION DIVISION

FIGURE 1

REVISIONS			
Init.	Date	Init.	Date

SOUTH AUSTRALIA

E.L. 1502 – LORDS WELL

LOCALITY PLAN

Compiled : JACP

Drawn :

Traced : EAC

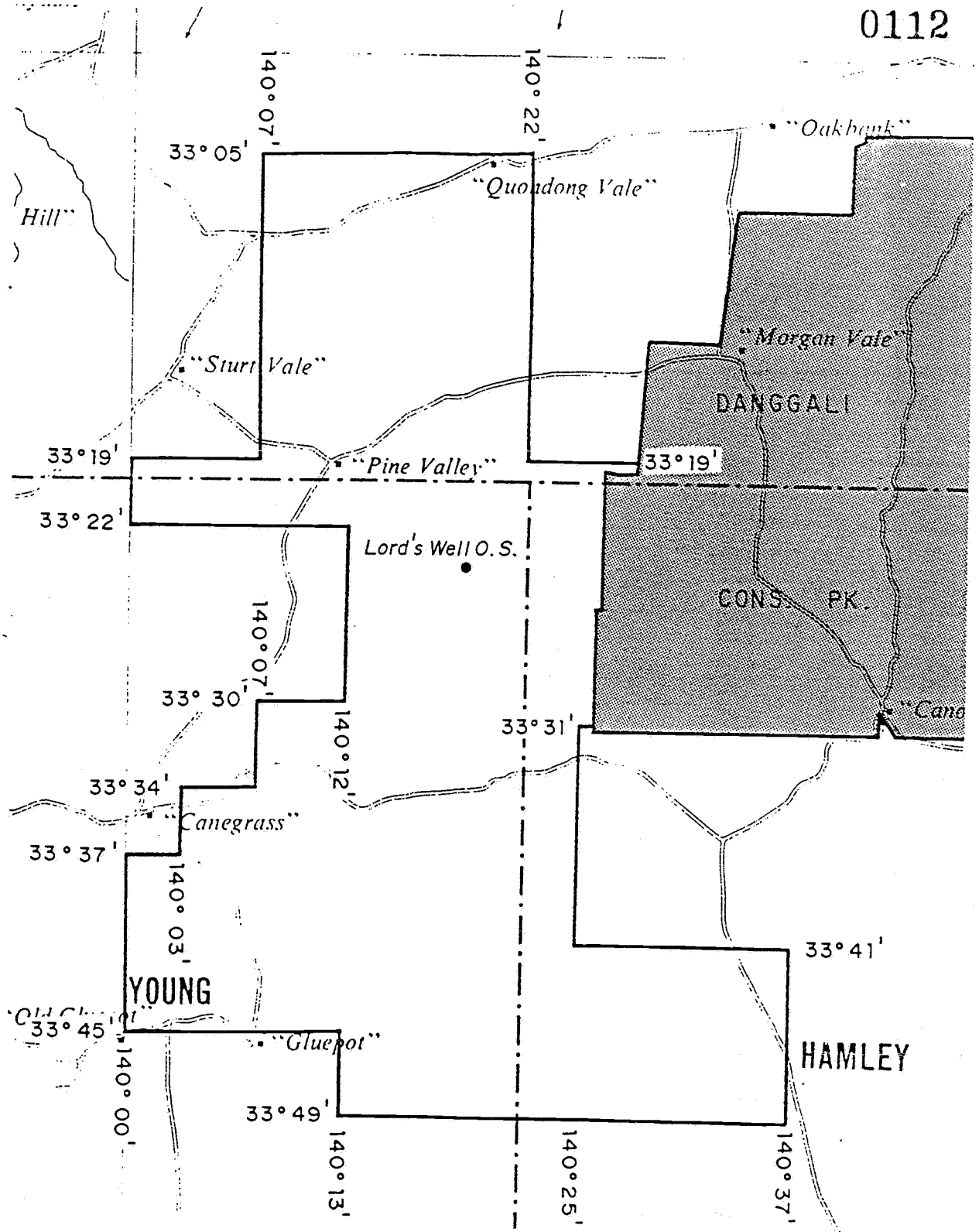
Checked :

Location Code : SI54-6

Scale : AS SHOWN

Date : DECEMBER 1988

Plate No. : LW-2



SCALE 1:500,000

KILOMETRES 10 0 10 20 30 40 50 KILOMETRES

Aberfoyle Resources Limited

EXPLORATION DIVISION

FIGURE 2

REVISIONS			
Init.	Date	Init.	Date

SOUTH AUSTRALIA

E.L. 1502 — LORDS WELL

DETAILS OF LICENCE AREA

Compiled :

Drawn :

Traced :

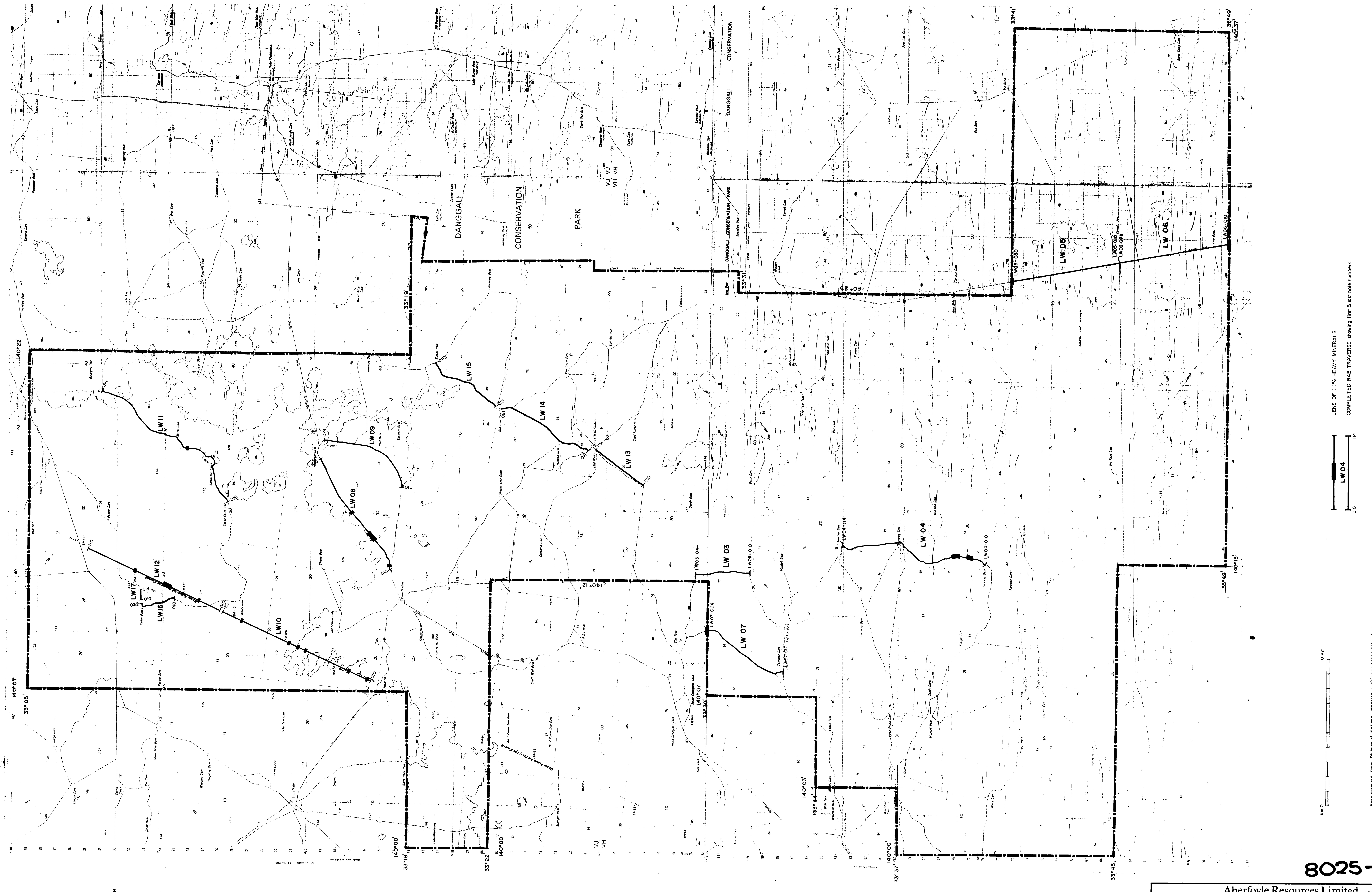
Checked :

Location Code : SI54-6

Scale : 1:500 000

Date : APRIL 1989

Plate No. : LW-3



8025-3

Aberfoyle Resources Limited
EXPLORATION DIVISION

FIGURE 3

REVISIONS			
Init.	Date	Init.	Date
EAC	11/89		
NB	6/90		

SOUTH AUSTRALIA
LORDS WELL E.L. 1502

DRILL LINE LOCATIONS

Compiled : JB
Drawn :
Traced :
Checked :

Location Code : 154/6
Scale : 1:100,000
Date : JUNE 1988
Plate No : LW-1

ABERFOYLE RESOURCES LIMITED
EXPLORATION DIVISION

EXPLORATION LICENCE 1502 "LORDS WELL"

SUMMARY OF EXPENDITURE
FOR EIGHTH QUARTER
ended 10th July 1990

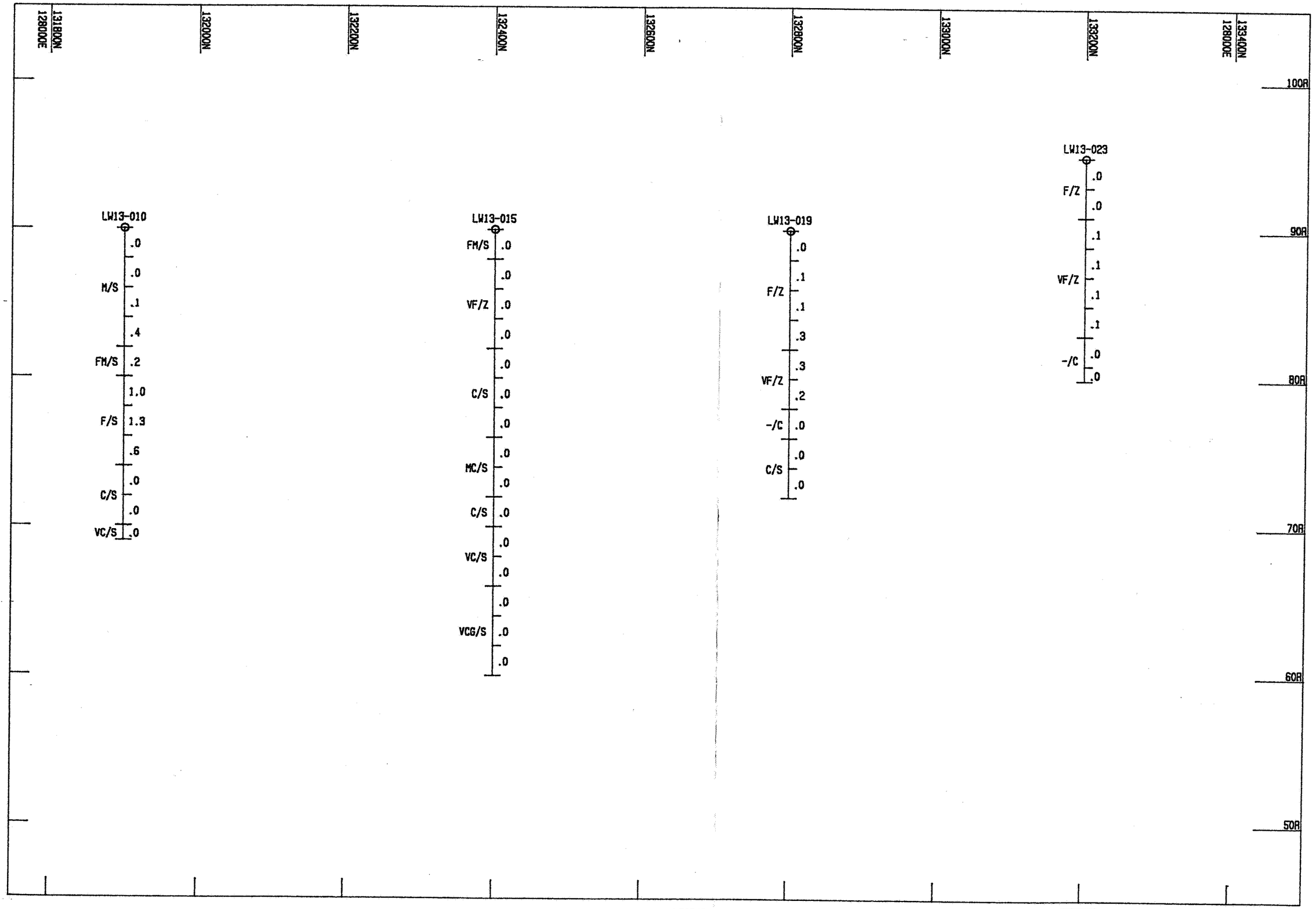
GEOLOGY	1,135.55
RAB DRILLING	2,963.14
PERCUSSION DRILLING	16,935.81
OTHER SERVICES	212.49
INDIRECT COSTS	2,124.60
TOTAL COSTS	23,371.59

APPENDIX I

DRILLHOLE CROSS SECTIONS

CA = calcrete
C = clay
S = sand
Z = silt
G = gravel

VF = very fine
F = fine
M = medium
C = coarse
VC = very coarse
G = granule
P = pebble



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL RC SA
Borehole Section LINE 13
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 09/05/90 Comp: RWRD

1334000N
1280000E
1336000N
1338000N
1340000N
1342000N
1344000N
1346000N
1348000N
1280000E
1350000N

100R
90R
80R
70R
60R
50R

LW13-027

M/S	.0
	.0
	.0
VF/Z	.0
	.0
	.2
F/Z	2.5
M/S	1.5
MC/S	.7
	.1
C/S	.1
CVC/S	.0
	.0
VC/S	.0
	.0

LW13-031

F/SCA	.0
M/SC	.2
	.2
F/Z	.1
	.0
MC/S	.0
	.0
C/S	.0
	.0

LW13-039

F/S	.0
	.0
-/C	.0
	.0
C/S	.0
	.0
MC/S	.0
	.0
	.0
C/S	.0
	.0
	.0
	.0
VC/S	.0
	.0
VCG/S	.0

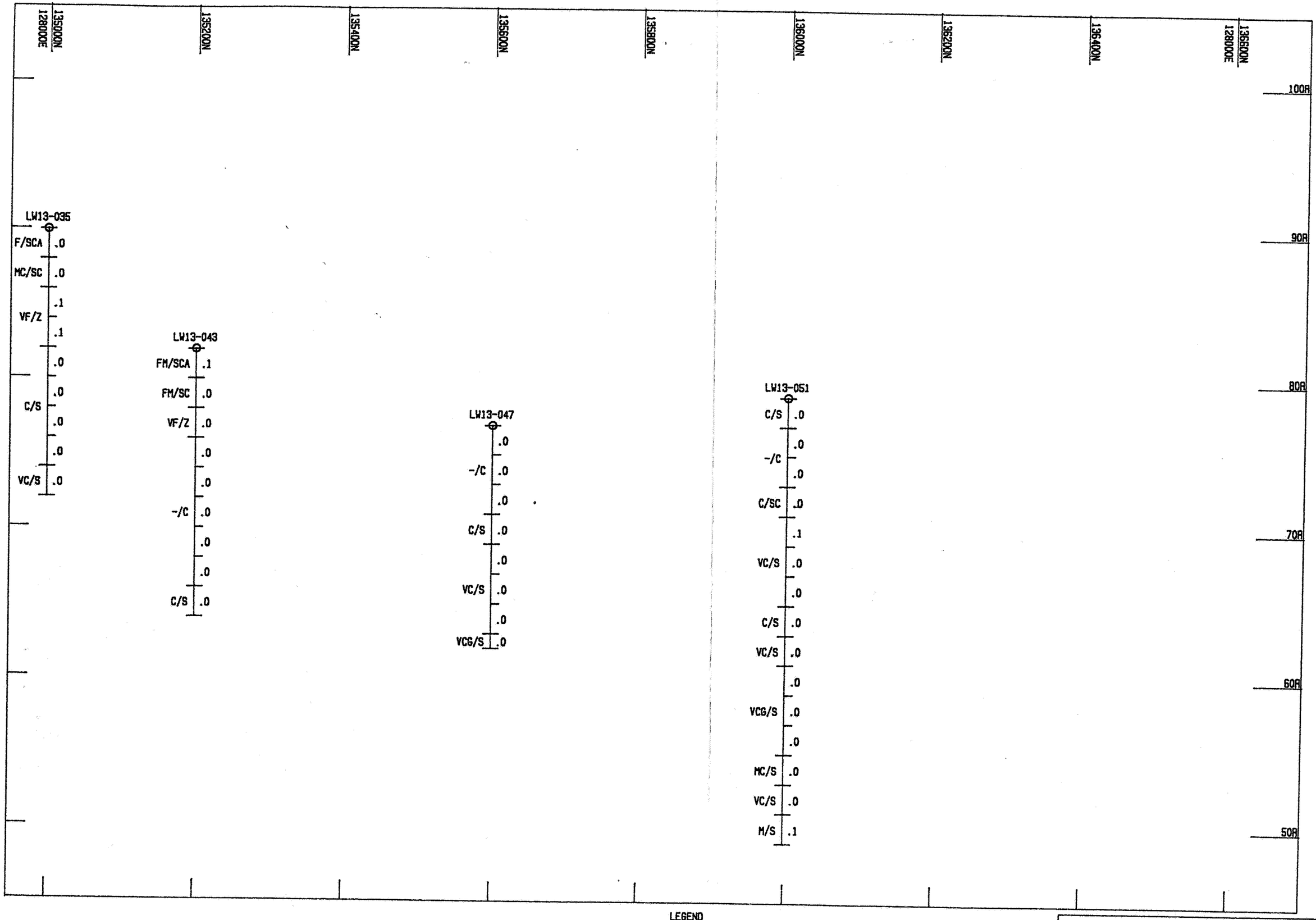
LW13-035

F/SCA	.0
MC/SC	.0
	.1
VF/Z	.1
	.0
	.0
C/S	.0
	.0
	.0
VC/S	.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL RC SA
Borehole Section LINE 13
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 09/05/90 Comp: RWRD



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL RC SA
Borehole Section LINE 13
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 09/05/90 Comp: RWRD

1370000N
128000E
1372000N
1374000N
1376000N
1378000N
1380000N
1382000N
1384000N
128000E

100R
90R
80R
70R
60R
50R

LW14-016

-/C .0
C/S .0
VC/S .0
VCG/S .0
VC/S .0
C/S .0

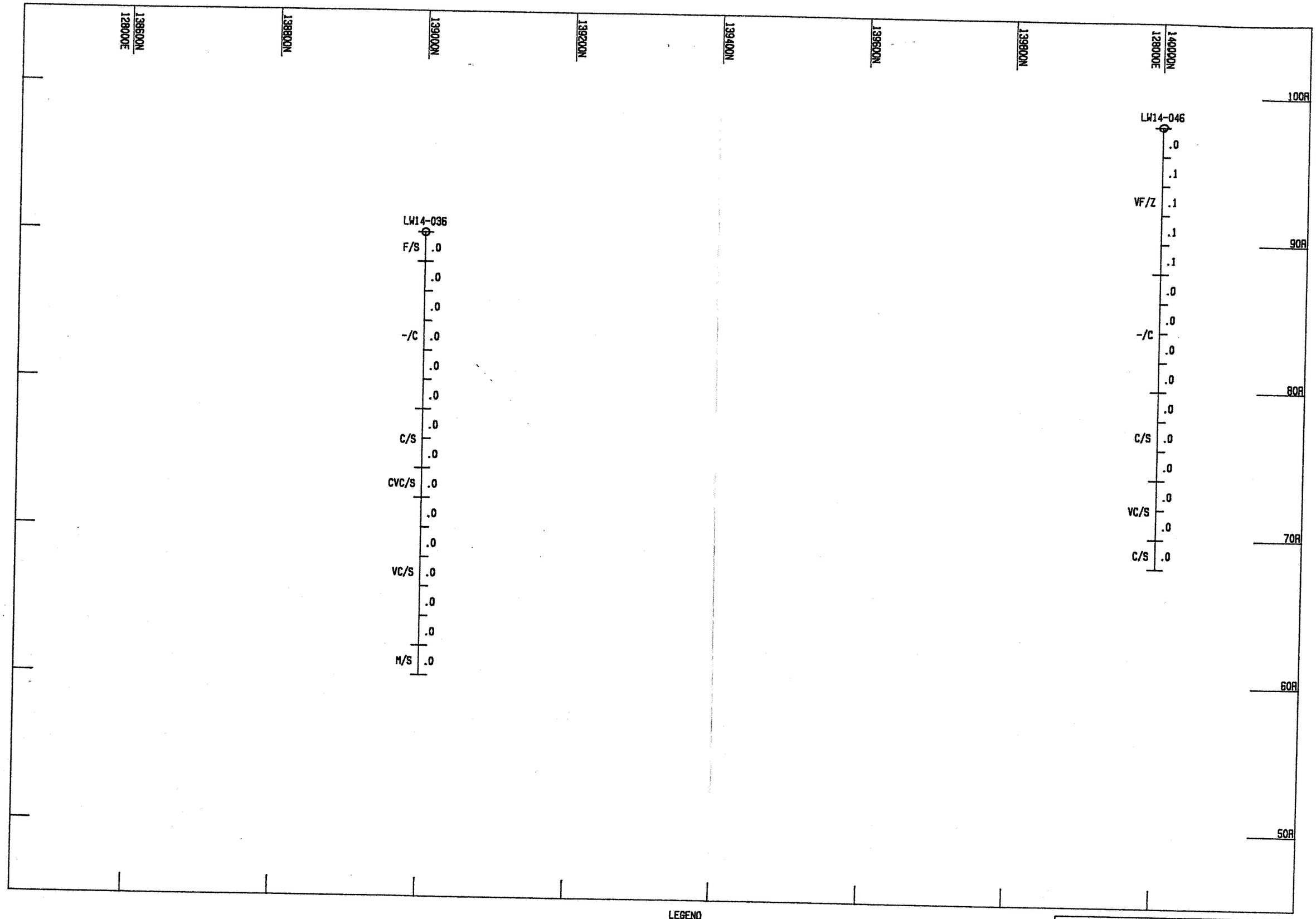
LW14-026

F/S .0
-/C .0
C/S .0
VC/S .0
VCG/S .0
VC/S .0
C/S .0
MC/S .0
C/S .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL RC SA
Borehole Section LINE 14
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 09/05/90 Comp: RWRD



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL RC SA
Borehole Section LINE 14
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 09/05/90 Comp: RWRD

140200N
128000E
140400N
140600N
140800N
141000N
141200N
141400N
141600N
128000E

100R
90R
80R
70R
60R
50R

LW14-056

F/Z
-/C
C/S
VC/S
C/S

.0

LEGEND

.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL RC SA
Borehole Section LINE 14
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 09/05/90 Comp: RWRD

141800N
128000E
142000N
142200N
142400N
142600N
142800N
143000N
143200N
128000E

100R
90R
80R
70R
60R
50R

LW14-066

.0
.0
VF/Z .0
.0
.0
-/C .0
.0
C/S .0
.0
VC/S .0
.0
.0
MC/S .0
.2

LW14-071

F/S .0
.0
VF/Z .0
.0
-/C .0
.0
C/S .0
.0
VC/S .0
.0
.0
MC/S .1
.1

LW14-076

.0
F/Z .0
.0
.0
-/C .0
.0
C/S .1
.1
MC/S .1
.0
VC/S .1
.0
MC/S .0
CVC/S .1
.3
M/S .1

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL RC SA
Borehole Section LINE 14
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 09/05/90 Comp: RWRD

0124

143400N
128000E
143800N
144000N
144200N
144400N
144600N
144800N
128000E

100R
90R
80R
70R
60R
50R

LW14-081

	.0
M/SC	.0
M/CS	.0
	.0
MC/S	.0
	.0
VC/S	.0
	.0
M-VC/S	.0
	.0
M/S	.0
FM/S	.1
F/S	.1
VC/S	.0
VCG/S	.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL RC SA
Borehole Section LINE 14
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 09/05/90 Comp: RWRD

128000E 144000N 144200N 144400N 144600N 144800N 145000N 145200N 128000E 145400N

100R
90R
80R
70R
60R
50R

LW15-013

VF/S	.0
FM/S	.0
	.0
MC/S	.0
	.0
C/S	.0
	.1
VC/S	.0
	.0
M-VC/S	.2
	.1
	.0
VC/S	.0
	.0
	.0

LW15-018

	.0
M/SC	.0
C/S	.1
	.1
VC/S	.1
M-VC/S	.1
	.2
M/S	.1
VC/S	.0
	.0
VCG/S	.0
G/S	.0
M-VC/S	.0
C-VC/S	.0
MC/S	.0

LW15-023

M/S	.0
M/CS	.0
C/S	.1
	.1
M/S	.1
	.3
	.1
C/S	.1
	.1
	.1
	.1
VC/S	.1
	.1
	.1
	.1

LW15-028

M/S	.1
FM/S	.1
CVC/S	.1
VCG/S	.1
VC/S	.1
MC/S	.1
	.0
M-VC/S	.0
	.0
	.0
C/S	.0
	.0
VC/S	.0
	.0
	.0
C/S	.0
	.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 15
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 14/5/90 Comp: RWRD

1280000E | 145600N | 145800N | 146000N | 146200N | 146400N | 146600N | 146800N | 1280000E | 147000N

LW15-028

M/S .1
FM/S .1
CVC/S .1
VCG/S .1
VC/S .1
MC/S .1
.0
M-VC/S .0
.0
C/S .0
.0
VC/S .0
.0
C/S .0
.0

LW15-033

C/S .0
VF/Z .0
.0
MC/S .0
.0
C/S .0
.0
.0
VC/S .0
.0
.0
C/S .0
.0
.0
.0

LW15-043

FM/S .0
.0
.0
-/C .0
.0
.0
C/S .0
.0
.0
VC/S .0
.0
.0
C/S .0
.0
.0
VC/S .0
.0
.0

100R
90R
80R
70R
60R
50R

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 15
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 14/5/90 Comp: AWRD

147200N
128000E

147400N

147600N

147800N

148000N

148200N

148400N

148600N
128000E

100R

90R

80R

70R

60R

50R

LW15-053

F/CS .0

.0

-/C .0

.0

MC/S .0

.0

.0

C/S .0

.0

.0

.0

.0

VC/S .0

.0

.0

MC/S .0

LW15-067

.2

C/S .3

.0

.1

VC/S .1

.0

.0

C/S .0

.0

.0

VC/S .0

.0

.0

C/S .0

.0

VC/S .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 15
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 14/5/90 Comp: AWRD

148800N
128000E

149000N

149200N

149400N

149600N

149800N

150000N

150200N
128000E

100R

90R

80R

70R

60R

50R

LW15-063

M/S .0

-/C .0

.0

.0

.1

C/S .0

.0

.0

.0

.0

.0

VC/S .0

.0

.0

.0

MC/S .0

.0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL SA
Borehole Section LINE 15
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 14/5/90 Comp: AWRD

165800N
11650OE
166000N
166200N
166400N
166600N
166800N
167000N
167200N
11650OE

120R
110R
100R
90R
80R
70R

LW16-026
.0
VF/Z .0
.1
FM/S 3.0
M/S 1.5
.0
-/C .0

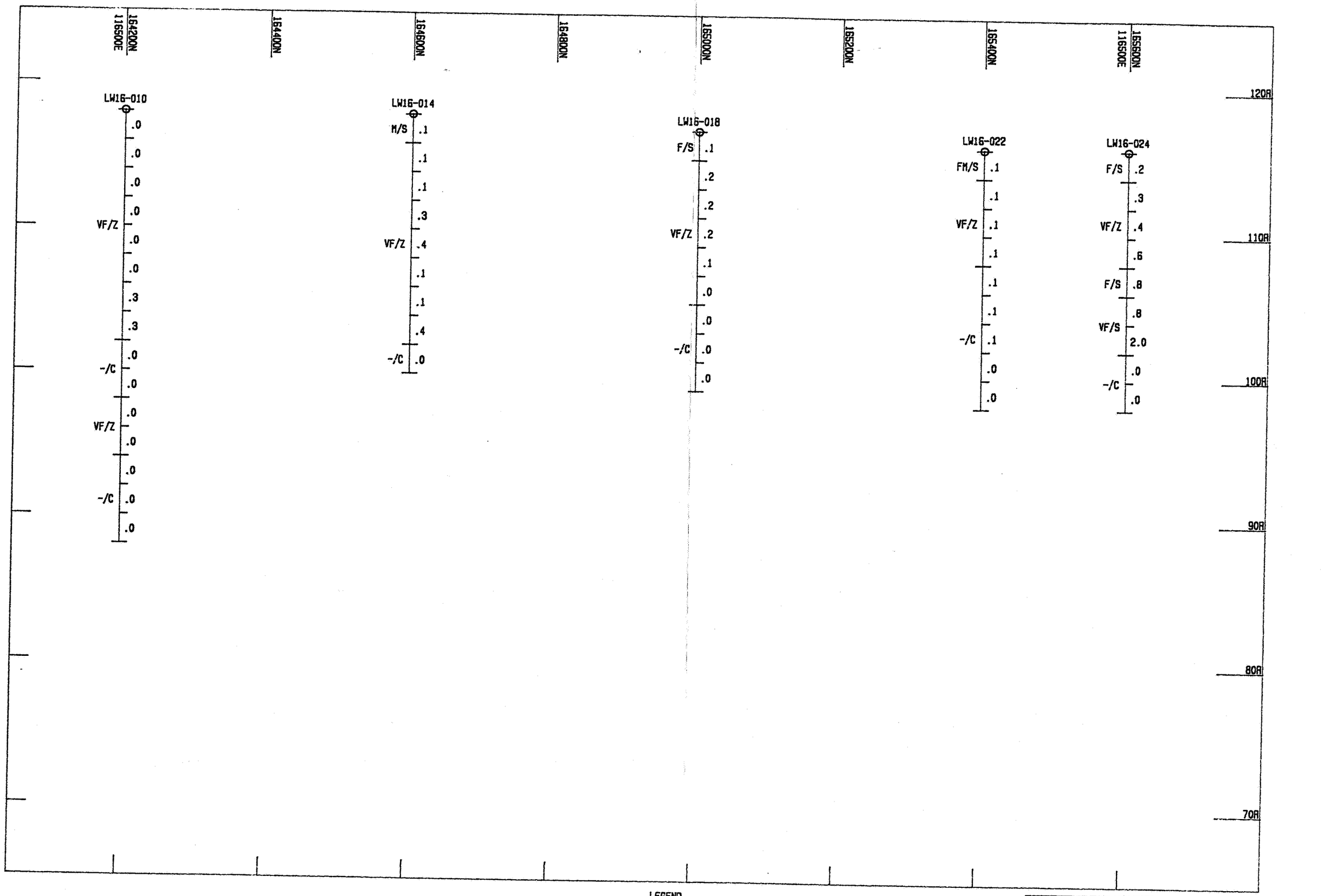
LW16-028
M/SC .0
.0
.0
-/C .0
.0
.0
.0
VF/Z .0
.0
-/C .0

LW16-032
.0
VF/Z .1
.2
2.0
F/S 2.0
1.5
MC/S 2.0
-/C .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL RC SA
Borehole Section LINE 16
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 09/0 /90 Comp: AWRD



LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL RC SA
Borehole Section LINE 16
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 0 Date: 09/05/90 Comp: AWRD

116400N

116600E

116800E

117000E

117200E

117400E

117600E

117800E

118000E

118200E

116399N

120R

110R

100R

90R

80R

70R

LW17-010

VF/Z .1 .1 .1 .1 .1 .1 .0

-/C .0 .0

LW17-014

VF/Z .1 .1 .1 .1 .1 .5 .4 .0 .0

-/C .0 .0

LEGEND

1.0/1.23 % Heavy Mineral Values
Estimate / Actual

ABERFOYLE RESOURCES LTD
LORDS WELL RC SA
Borehole Section LINE 17
X Scale = 1 : 5000. // Y Scale = 1 : 250.
Section Bearing: 90 Date: 09/05/90 Comp: RWRJ