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ABERFOYLE TIN DEVELOPMENT PARTNERSHIP

CLEVELAND DEVELOPMENT PROJECT

MICROFILMED

REPORT OF THE RESIDENT GEOLOGIST UPON COMPLETION OF DIAMOND DRILLING PROGRAMME, CLEVELAND MINE, TASMANIA

R. Cox, 1-3-66

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TABLE OF CONTENTS

		Page No.
1.	INTRODUCTION	3
2.	EXPLORATION TO DATE	4
3.	GEOLOGY (a) Introduction (b) Stratigraphy (c) Structural Interpretation, March 1966	5
4.	SAMPLING	8
5.	GRADE CALCULATIONS	9
6.	MINERAL AND ASSAY DISTRIBUTION PATTERNS	10
7.	CONCLUSIONS (a) Geology (b) Sampling (c) Limits of Ore	11
8.	RECOMMENDATIONS (a) Mapping (b) Drilling	12
9.	TABLES	13
10.	REFERENCES	23
11.	APPENDIX "A" (2 sheets)	24

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1. INTRODUCTION

The results of all geological mapping, diamond drilling, sampling and grade calculations have been combined in this report to arrive at a structural interpretation, dated March 1966, which forms the basis for:-

1. Ore-reserve calculations currently being undertaken
2. Recommendations for a further programme of diamond drilling
3. Detailed mine-planning.

Most important is the fact that this interpretation provides a three-dimensional picture of the ore-bodies over a strike length of 1500 ft. (between cross-sections "F" and "W"), and over a vertical range of 800 ft. (between RL.800 and RL.1600 ft. horizons).

2. EXPLORATION TO DATE

Following upon the initial geological mapping of Mr. K.R. Glasson and his party in the summer of 1961-2 (see Reference 1. for results), recommendations were presented for a programme of further investigation by diamond drilling. This programme, consisting of 46 holes (nos. C1-C46 inclusive) having a total footage of 12,106'6" was completed in July 1963.

This initial drilling was confined mainly to what are now called Lenses "A", "B" and "C" Hall's Lode, together with the old workings at Lucks, Henry's and the Battery. The results were encouraging, a structural interpretation was made and ore-reserves were calculated.

A programme of underground development for geological and comparative purposes was drawn up by Mr. A.A.C. Mason in Nov. 1963 (see Reference 2.) The 1300'RL. "Qa" Adit level was commenced in April 1964. The geological structure was investigated by cross-cutting from the surface on section-line "Qa", followed by contour driving on the N.W. wall of Lens "A" both N.E. and S.W. from the main "Qa" cross-cut adit between cross-sections "J" and "V". At intervals of approximately 120 ft. along strike, seven cross-cuts (on lines K, L, N, P, R, T and V) were driven S.E. from this contour drive, so as to expose the full width of Lens "A" for detailed geological mapping and sampling. The intermediate cross-sections were diamond drilled, using AX equipment, to further investigate and sample Lens "A". In addition, the "R" cross-cut was driven N.W. to intersect Henry's Lode and further contour driving both N.E. and S.W. was undertaken on this lode.

The geological/sampling results of this programme to Jan. 1965, combined with additional surface mapping, allowed a new structural interpretation to be made. These data are presented in the writer's report of January 1965 (see Reference 3 .) Further detailed information is presented in References 4, 8 and 9.

On the basis of the January 1965 interpretation, further diamond drilling and underground investigations were recommended (see References 5 and 3 respectively), and these commenced in February 1965. The purpose of the recommendations was to investigate structures and grade:-

1. Along strike to the N.E. and S.W. of the existing 1300'RL. "Qa" adit workings and,
2. In depth, particularly to close up any gaps in the information on the RL.900 ft. horizon.

The January 1965 interpretation was also used as the basis for ore-reserve calculations by K.R. Glasson and the writer, dated April 1965 (see Reference 6).

The additional development and diamond drilling on the 1300'RL. "Qa" adit level were completed in October 1965. The main contour drive was extended to cross-section "G" in the S.W. and to cross-section "W" in the N.E. Lenses "B" and "C" were investigated by diamond drilling from the main eight cross-section lines (K, L, N, P, R, T, V and W), and in addition sample diamond drill holes were bored alongside the eight cross-cuts (K, L, N, P, Qa, R, T and V) for the total width of Lens "A". The results of these additional underground investigations were summarised by the writer in November 1965 (see References 10 and 11.)

The surface diamond drilling exploration programme re-commenced in February 1965 (see Reference 5) and was completed in March 1966. A total of 98 holes have been drilled to date (nos. C1-C98 inclusive), having a total footage of 25,207'3".

With the completion of all surface and underground mapping and sampling, together with diamond drilling, these data have been consolidated in this report, and a modified interpretation arrived at. This interpretation of March 1966 is basically unaltered from that presented in January 1965. With the availability of more data it is necessarily more detailed, and these data may be reliably projected over greater horizontal and vertical distances. Ore Reserve calculations and recommendations for further diamond drilling, based upon this interpretation, will again be presented as separate reports.

For ease of reference, all diamond drilling and sampling (DDH split core and channel only) data have been consolidated in Tables 1 and 2 respectively.

3. GEOLOGY

(a) Introduction

The initial surface mapping, and mapping of old workings, was undertaken in the summer of 1961-2 by Mr. K.R. Glasson and his party (see Reference 1.)

The writer joined the Cleveland Development Project in April 1964 and has been responsible for all underground mapping on the 1300'RL. "Qa" adit level, drill core logging (nos. C47-C98), and relogging of the earlier cores (C1-C46), and additional surface mapping, together with all groove, channel and DDH split core sampling, grade calculations and draughting of results.

The geological facts presented on the plans and sections in Appendices 1 and 2 are the results of all this work to date.

Detailed diamond drill core logs, sample and assay files, and grade calculation sheets are kept by the Resident Geologist at Cleveland, with copies held at the Melbourne office.

(b) Stratigraphy

The stratigraphic units recognised by K.R. Glasson (Reference 1.) in February 1962 have formed the basis for all subsequent geological work.

The stratigraphic column is presented as Table 3 in section 9 of this report. The Crescent Spur Group is classified as part of the Dundas Series of Cambrian age by the Mines Department of Tasmania. For petrological details the reader is referred to Reference 3, pp.3-6.

The Crescent Spur Group is divided into three formations - the oldest being the Mica Sandstone Formation, overlain by the Lode Formation, which in turn is overlain by the Basic Volcanics Formation. The Lode Formation is subdivided into shale, chert, banded sulphide lode, chert, shale, felspathic sandstone and shale units, from base to top. This Formation may be up to 100 ft. thick in the mine area.

The time period covered by the deposition of the rocks of the Crescent Spur Group was characterised by volcanic activity and shallow-water basins. Transgressions are common throughout the sequence, and major transgressions are noted at the base and top of the Lode Formation. Where this formation lenses out, the Basic Volcanics Formation may be observed to directly overlie the Mica Sandstone Formation. Within the Lode Formation, the felspathic sandstone unit is particularly lenticular.

(c) Structural Interpretation, March 1966

The structural interpretation of January 1965 (Reference 3, pp.6-9), covering "K" to "V" cross-sections, from RL.1100 ft. to surface, has been extended to cover "F" to "W" cross-sections, from RL.800 ft. to surface, in light of additional drilling and U/G driving. This interpretation is presented in this report as Appendices 3, 4 and 5. The geological legend for the interpretation plans and sections is presented in Table 4.

The interpretation of March 1966 is basically the same as that presented in January 1965. Within this area the major structure is the overturned S.E. limb of a N.E. striking anticline. Minor folding, with plunges at varying amounts to the N.E. and S.W., occurs within this overturned limb. Dips vary from steep and overturned to the N.W., to steep to the S.E. The axial plane cleavage is well developed locally, striking N.E. and dipping approximately 75°N.W.

Faulting is well developed along the axial plane direction. The movement is essentially thrusting with the N.W. side moving down and towards the S.W. relative to the S.E. side. The major faults are up to 6 inches wide, but generally less than $\frac{1}{2}$ inch, with an infill of clay gouge, quartz and carbonate, with minor sulphides. Within the mine area seven major faults have been recognised, designated Faults F_A, F_B, F_C, F_D, F_E, F_F and F_G. Movements on these major faults are up to 800 ft., giving displacements of up to 600 ft. measured in a vertical plane.

Within the mine area the stratigraphic units of the Crescent Spur Group have been repeated by movements on these seven major faults. The lode bed is conformable with the stratigraphy, and has been faulted into a number of "lenses" which are arranged "en echelon", increasing in depth from N.W. to S.E. Thus Lens "A" is located between the two major axial plane faults F_A and F_B.

The overall structure is complicated in detail by minor, complementary movements along minor axial plane faults, and by minor folding. For these reasons, all ore-lenses are found to consist of a varying number of sulphide lode beds, with interbanded chert horizons, at different locations. In this respect the latest figures available (Reference 9) indicate that Lens "A" has a chert* content of 32.1% (volume).

A detailed analysis of the March 1966 structural interpretation presented in this report provides valuable data for

* chert here refers to interbanded chert and shale.

ore-reserve calculations, recommendations for further diamond drilling investigations and detailed mine planning and layout, prior to the commencement of mining operations.

4. SAMPLING

The results of the sampling programmes at Cleveland have already been adequately described (References 3, 4, 8, 10 and 11). The conclusions of the 1300 ft. RL. "Qa" adit level comparative sampling programme on Lens "A" are relevant here, however, and are briefly summarised as follows:-

Lens "A" was systematically sampled on eight cross-section lines (K, L, N, P, Qa, R, T and V) on the 1300 ft. RL. horizon, using 4 sample sizes (groove, channel, AXT DDH split core and bulk), to determine:-

(1) The overall weighted average grade for tin and copper.
(2) The distribution of these values within the lode and chert bands.
(3) The bulk % chert within the overall lode.
(4) The reliability of the 4 sample sizes.

The results obtained (see Reference 11) show conclusively that:-

(1) The tin and copper values occur almost entirely within the lode bands; negligable values occurring within the interbanded chert horizons.
(2) The small groove or AXT split core samples provide as reliable an estimate, within reasonable limits, of the grade at each cross-section as the larger channel and bulk samples.

This latter point is important regarding ore-reserve calculations, as the major proportion of these is based upon diamond drilling results only.

5. GRADE CALCULATIONS

Grade calculations for all sampling results obtained to date have been completed by the writer. These are contained in grade calculations files held by the Resident Geologist at Cleveland, and by the Melbourne office. The results have been included in various reports (see References 3, 4, 10, 11 and 12). The channel and AXT split core sample results obtained have been consolidated in Table 2 of this report for easy reference, and to facilitate ore-reserve calculations.

6. MINERAL AND ASSAY DISTRIBUTION PATTERNS

The mineralisation at Cleveland consists of sulphide-cassiterite replacement lode beds containing massive and disseminated Pyrrhotite Pyrite, Chalcopyrite, Sphalerite and Arsenopyrite in a gangue of Quartz, Carbonate, Fluorite, Tourmaline and Chlorite. Tin occurs as minute crystals of cassiterite intimately associated with the sulphides. Distribution patterns of these various minerals, together with those of the tin, copper and zinc grades, are currently being analysed. It is intended to submit these distribution results in a separate report in the near future.

The latest figures available (see Reference 9) indicate that sulphides constitute 36% $\pm$ 10% (volume) of the lode bands in Lens "A".

7. CONCLUSIONS

(a) Geology

The sulphide-cassiterite ore-bodies at Cleveland are conformable with the bedding. They occur in the Lode Formation, between the underwall Mica Sandstone Formation and overwall Basic Volcanics Formation. The ore-bodies are located on the overturned S.E. limb of a major N.E. striking anticline. Their attitude is steeply inclined, controlled by sets of N.W.-dipping major axial plane faults. These major faults move the stratigraphical sequence several hundreds of feet (with the N.W. sides moving down and to the S.W. relative to the S.E. sides), causing a repetition of the lode beds into a series of "lenses" which are arranged "en echelon", increasing in depth to the S.E.

(b) Sampling

An intensive sampling programme has provided a wealth of data concerning:-

(1) The grade of the lodes investigated.
(2) The distribution of tin, copper and zinc values within the lode beds of the overall lode.
(3) The bulk % chert within the ore-bodies.
(4) The reliability of the 4 sample sizes, showing the small groove and AXT split core samples to be as reliable; within reasonable limits, as the channel and bulk samples.
(5) The variations of tin, copper and zinc grade within the aggregate sulphide bands.

We may conclude that,for the ground investigated to date, AXT split core samples provide, at reasonable cost, a reliable value for the tin, copper and zinc grade, in addition to furnishing sufficient material for geological purposes.

(c) Limits of Ore

The ore-bodies at Cleveland are still "open" at both ends (i.e. N.E. and S.W. along strike) and in depth.

Mapping and geophysical traversing have been completed recently (September 1965 - March 1966) covering the N.E. and S.W. continuations along strike. Further drilling to investigate the ore-bodies along strike, as well as in depth, is currently being planned.

8. RECOMMENDATIONS

(a) Mapping

The mine area has been intensely mapped by the writer, and the results draughted onto maps at 1" = 40' scale. During the period September 1965 to March 1966 the continuations along strike, both N.E. and S.W., were mapped on cross-section lines at 200 ft. centres, and also traversed with the magnetometer and S.P. equipment.

Further mapping along strike on closer line spacing is recommended in the areas immediately to the N.E. and S.W. of cross-sections "W" and "AD" respectively. In addition, costeaning will have to be carried out as surface outcrop is scarce.

This additional mapping, and possible geophysical traversing, will enable drilling targets to be more accurately pin-pointed.

(b) Drilling

Additional drilling is recommended to locate ore-bodies and structures:-

(1) Along strike N.E. and S.W. of cross-sections "W" and "AD" respectively.

(2) In depth between cross-sections "W" and "AD" where there are gaps in our drilling pattern (as shown upon longitudinal projections).

Details of this additional drilling will be recommended in a separate report in the near future.

R. Cox, 1-3-66.

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CLEVELAND DEVELOPMENT PROJECT

TABLE 1

SUMMARY OF DIAMOND DRILLING PROGRAMME

D.D.H. NO	COLLAR COORDS N.	E.	COLLAR R.L.(ft.)	FINAL DEPTH	BEARING	INCLIN-ATION	CROSS-SECTION
C. 1	990	2619	1123	130'6"	114°46'	-60°	B
C. 2	930	2662	1120	72'0"	263°54'	-20°	
C. 3	935	2670	1120	139'0"	328°20'	-20°	
C. 4	931	2663	1122	97'0"	276°20'	-45°	
C. 5	944	2654	1122	139'0"	268°	-64°	
C. 6	1445	2446	1410	142'0"	310°	-45°	
C. 7	1446	2445	1410	106'0"	310°	-20°	
C. 8	1447	2447	1410	108'0"	355°	-20°	
C. 9	1912	3003	1412	118'0"	325°	-30°	
C.10	1908	3002	1410	121'0"	275°	-20°	
C.11	1907	2886	1405	126'6"	208°	-12°	
C.12	1938	2934	1403	118'0"	206°20'	-60°	
C.13	2214	3174	1488	151'0"	98°	-45°	
C.14	2214	3166	1488	219'0"	275°30'	-20°	
C.15	2265	3082	1543	38'6"	180°	-35°	
C.16	2268	3080	1543	147'0"	204°	-65°	
C.17	2220	3175	1485	166'0"	160°	-45°	
C.18	1838	2937	1458	319'0"	265°34'	-50°	
C.19	2101	2858		100'0"	323°	-45°	
C.20	2246	3120	1487	193'0"	276°	-45°	
C.21	1966	2961	1415	61'0"	322°	H	
C.22	1931	2917	1406	51'0"	312°	H	O
C.23	1912	3004	1410	185'0"	10°20'	-20°	
C.24	1539	2764	1438	325'0"	336°21'	-60°	
C.25	1912	3004	1412	188'0"	08°	-45°	
C.26	2296	3055	1488	188'0"	250°	-75°	
C.27	1537	2765	1438	749'0"	336°21'	-75°	
C.28	2215	3169	1487	509'0"	277°	-50°	
C.29	2249	2843	1681	449'0"	93°22'	-82°	
C.30	1532	2771	1440	202'6"	335°	-30°	
C.31	1489	3026	1321	613'0"	318°40'	-37°	
C.32	2274	3078	1543	83'0"	296°	-30°	
C.33	2239	3454	1339	237'0"	312°	-40°	V

D.D.H. NO	COLLAR COORDS N.	E.	COLLAR R.L.(ft.)	FINAL DEPTH	BEARING	INCLIN-ATION	CROSS-SECTION
C.34	2234	3460	1339	233'0"	132°	-65°	V
C.35	1735	3013	1410	438'0"	312°	-60°	N
C.36	2034	3078	1467	353'0"	312°	-45°	Qa
C.37	1936	3184	1365	461'0"	312°	-40°	Qa
C.38	2030	3259	1371	471'0"	312°	-40°	R
C.39	1932	3187	1365	456'6"	312°	-65°	Qa
C.40	2238	3455	1337	365'0"	312°	-65°	V
C.41	1571	3192	1204	1024'0"	312°	-60°	N
C.42	2084	3375	1289	423'0"	312°	-45°	T
C.43	2085	3371	1291	354'0"	312°	-15°	T
C.44	2294	3621	1291	357'0"	312°	-45°	W
C.45	2296	3619	1295	201'0"	312°	-05°	W
C.46	2384	3758	1290	375'0"	312°	-46°	X
C.47	2096	3096	1306	35'7"	132°	H	Qb
C.48	2017	3007	1306	34'0"	132°	H	Q
C.49	2095	3001	1306	97'0"	312°	H	Qa
C.50	1928	2900	1309	36'0"	132°	H	O
C.51	1838	2796	1311	34'9"	132°	H	M
C.52	2182	3174	1307	176'0"	312°	H	S
C.53	2172	3183	1307	61'0"	132°	H	S
C.54	1709	2719	1311	61'0"	132°	H	Ka
C.55	2271	3291	1312	93'0"	132°	H	U
C.56	2279	3282	1312	101'0"	312°	H	U
C.57	1573	2663	1312	89'0"	132°	H	J
C.58	1757	2776	1306	70'0"	312°	-55°	L
C.59	1896	2819	1310	103'0"	312°	H	N
C.60	873	2769	1107	503'9"	290°	-50°	A
C.61	1231	3165	1146	958'6"	312°	-40°	K
C.62	1952	2969	1308	144'0"	132°	H	P
C.63	874	2765	1107	354'6"	290°	-38°	A
C.64	1855	2871	1310	111'0"	132°	H	N
C.65	1708	2831	1310	58'0"	132°	H	L
C.66	1570	2760	1313	60'0"	132°	H	K
C.67	2098	3190	1310	117'5"	132°	H	R
C.68	1151	2975	1123	612'0"	290°	-45°	F
C.69	1032	2823	1122	604'3"	290°	-50°	D
C.70	1229	3167	1146	813'0"	312°	-60°	K
C.71	1986	2931	1308	143'3"	312°	H	P
C.72	2328	3458	1311	123'0"	132°	H	Va
C.73	2336	3448	1311	40'0"	312°	H	Va
C.74	2381	3513	1312	114'0"	132°	H	W

D.D.H. NO	COLLAR COORDS N.	COLLAR COORDS E.	COLLAR R.L.(ft.)	FINAL DEPTH	BEARING	INCLIN-ATION	CROSS-SECTION
C.75	2391	3501	1312	20'0"	312°	H	W
C.76	2180	3264	1310	133'0"	132°	H	T
C.77	1031	2820	1122	567'4"	290°	-38°	D
C.78	1152	2972	1123	602'0"	290°	-35°	F
C.79	1364	3023	1268	679'0"	312°	-45°	K
C.80	2154	3118	1309	75'0"	132°	H	R
C.81	2225	3211	1310	60'0"	134°	H	T
C.82	1757	2765	1310	12'0"	132°	H	L
C.83	1886	2822	1310	55'0"	132°	H	N
C.84	1975	2933	1308	35'0"	132°	H	P
C.85	1148	2976	1123	568'8"	312°	-45°	H
C.86	1641	2693	1312	60'0"	132°	H	K
C.87	1493	2601	1314	177'0"	132°	H	H
C.88	1788	3340	1204	506'0"	312°	-40°	Qa
C.89	1150	2976	1123	828'0"	312°	-65°	H
C.90	1786	3342	1204	557'0"	312°	-65°	Qa
C.91	1501	2592	1314	199'10"	312°	H	H
C.92	1530	2636	1313	145'0"	132°	H	I
C.93	1441	2568	1317	153'4"	132°	H	G
C.94	2314	3354	1311	67'0"	132°	H	V
C.95	2044	3040	1307	24'4"	132°	H	Qa
C.96	2162	3526	1269	388'0"	312°	-60°	V
C.97	680	2740	1108	646'1"	290°	-40°	AD
C.98*	680	2741	1108	799'2"	290°	-60°	AD

TOTALS

(1) C1-C46 inclusive = 12,606'6"

(2) C1-C98 inclusive = 25,207'3"

R. Cox, 1-3-66

* DDH. no. C98 completed on 26-3-66.

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TABLE 2

SUMMARY OF GRADE CALCULATIONS + SAMPLE DATA ANALYSES

CROSS-SECTION	LENS	LOCATION	R.L.OF INTER-SECTION	OVERALL LODE				
				Length	True Width	%Sn.	%Cu.	%Zn.
W	B	DDH,C44,131'0"-155'0"	1190'	24'0"	24'	0.26	0.23	1.36
W	B	DDH,C45,117'0"-139'0"	1282'	22'0"	22'	0.29	0.10	1.47
W	B	DDH,C74,groove+S/C	1312'	26'7"	26'	0.13	0.08	1.98
W	C	DDH,C44,Zero-14'0"*	1290'	14'0"	13'	0.32	0.08	3.75
W	C	DDH,C45,Zero- 7'0"*	1295'	7'0"	13'	0.25	0.12	5.98
Va	B	DDH,C73,groove+S/C	1311'	21'5"	21'	0.44	0.25	0.04
Va	C	DDH,C72,97'3"-112'0"	1311'	14'9"	14'	0.60	0.24	0.05
V	A+B	x-cut,channel,both walls	1312'	48'0"	48'	0.33	0.17	--
V	A+B	DDH,C94,groove+S/C	1311'	41'11"	42'	0.54	0.21	--
V	A+B	DDH,C33,111'0"-151'6"	1255'	40'6"	27'	0.47	0.29	0.29
V	A	DDH,C40,295'0"-301'0"	1070'	6'0"	6'	1.27	0.71	0.20
V	B	DDH,C40,199'0"-266'0"	1125'	67'0"	33'	1.21	0.37	0.07
V	B	DDH,C96,307'11"-328'7"	997'	20'8"	17'	0.84	0.21	0.04
V	C	DDH,C34,47'0"-65'0"	1289'	18'0"	9'	1.24	0.32	0.05
V	C	DDH,C96,205'5"-214'11"	1089'	9'6"	5'	0.61	0.20	0.08
V	C	x-cut,channel,NE wall	1312'	13'10"	14'	1.39	0.37	0.17
U	A	DDH,C55,groove+S/C	1312'	21'3"	21'	1.31	0.16	--
U	B	DDH,C55,61'0"-66'11"	1312'	5'11"	6'	1.17	0.11	--
T	A	x-cut,channel,SW wall	1311'	40'5"	40'	0.71	0.23	--
T	A	DDH,C42,239'0"-251'0"	1115'	12'0"	6'	1.23	--	--
T	A	DDH,C43,175'0"-211'0"	1242'	36'0"	33'	0.81	--	--
T	A	DDH,C81,groove+S/C	1310'	42'7"	40'	0.59	0.30	--
T	A	DDH,C13,58'0"-135'0"	1418'	77'0"	40'	0.59	--	--
T	B	DDH,C42,200'0"-212'0"	1142'	12'0"	8'	0.89	--	--
T	B	DDH,C43,133'6"-142'6"	1255'	9'0"	9'	0.60	--	--
T	B	DDH,C76, 12'3"- 18'8"	1310'	6'5"	6'	0.99	0.15	--
T	Henry's	DDH,C43,305'6"-311'6"	1211'	6'0"	6'	4.84	--	--

* Full width NOT exposed in drill.

CROSS-SECTION	LENS	LOCATION	R.L. OF INTER-SECTION	OVERALL LODE				
				Length	True Width	%Sn.	%Cu.	%Zn.
S	A	DDH,C53,groove+S/C	1307'	33'0"	33'	0.81	0.21	--
S*	A	DDH,C17,60'0"-115'0"	1422'	55'0"	27'	0.69	--	--
S	Henry's	DDH,C52,83'3"-94'2"	1307'	10'11"	10'	1.47	0.37	--
R	A	x-cut,channel,both walls	1307'	46'5"	46'	0.88	0.26	--
R	A	DDH,C80,11'10"-60'6"	1309'	48'8"	48'	0.78	0.24	--
R	A	DDH,C38,180'6"-248'0"	1230'	67'6"	45'	0.67	--	--
R	B	DDH,C38, 90'6"-91'6"	1310'	1'0"	1'	0.63	--	--
R	B	DDH,C67,28'3"-31'11"	1310'	3'8"	4'	1.11	0.25	--
R	C	DDH,C38, 4'0"- 7'0"	1365'	3'0"	3'	0.69	--	--
R	C	DDH,C67,71'9"-83'9"	1310'	12'0"	11'	0.18	0.23	--
R	Henry's	x-cut,channel,both walls	1307'	6'11"	7'	1.52	0.64	--
R	Henry's	DDH,C38,297'0"-309'0"	1172'	12'0"	12'	1.40	--	--
Qb	A	DDH,C47,groove+S/C	1306'	44'6"	44'	1.05	0.43	--
Qa	A	x-cut,NE wall only,channel	1306'	25'1"	25'	0.95	0.60	--
Qa	A	DDH,C95,groove+S/C	1307'	15'0"	15'	1.39	0.72	--
Qa	A	DDH,C36,16'0"-34'0"	1450'	18'0"	12'	0.67	--	--
Qa	A	DDH,C37,180'0"-232'0"	1235'	52'0"	42'	1.23	--	--
Qa	A	DDH,C39,387'0"-399'0"	1010'	12'0"	10'	1.65	--	--
Qa	B	x-cut,both walls, channel	1304'	4'8"	5'	0.34	0.41	--
Qa	B	DDH,C39,207'0"-280'0"	1144'	73'0"	30'	1.94	--	--
Qa	B	DDH,C88,421'5"-478'0"	925'	56'7"	39'	1.37	1.09	--
Qa	C	x-cut,SW wall,channel	1303'	1'2"	1'	0.22	0.18	--
Qa	C	DDH,C39,100'0"-113'6"	1268'	13'6"	10'	1.60	--	--
Qa	C	DDH,C88,316'4"-343'4"	997'	27'0"	22'	1.40	0.88	--
Qa	C	DDH,C90,494'0"-506'11"	866'	12'11"	8'	1.40	0.55	--
Qa	D	DDH,C88,250'2"-258'1"	1043'	7'11"	6'	1.05	0.44	--
Qa	D	DDH,C90,449'2"-461'6"	804'	12'4"	10'	0.34	0.55	--
Qa	E	DDH,C90,287'11"-344'0"	925'	56'1"	29'	0.31	0.21	--
Qa	Henry's	DDH,C49, 78'0"- 80'4"	1306'	2'4"	2'	3.84	1.57	--
Qa	Henry's	DDH,C36,246'9"-249'8"	1290'	2'11"	3'	0.76	0.20	--
Qa	Henry's	DDH,C37,340'0"-358'0"	1146'	18'0"	18'	1.96	--	--
Q	A	DDH,C23, 68'0"-128'0"	1375'	60'0"	29'	0.67	--	--
Q	A	DDH,C25,132'0"-177'0"	1300'	45'0"	34'	0.96	--	--
Q	A	DDH,C48,groove+S/C	1306'	20'1"	34'	0.76	0.43	--
P	A*	x-cut,Lwr.Halls, channel	1415'	10'5"	10'	0.43	0.22	--
P	A	x-cut,channel,both walls	1307'	34'0"	34'	1.01	0.44	--
P	A	DDH,C 9, 69'3"- 81'9"	1373'	12'6"	12'	0.68	--	--
P	A	DDH,C84, groove + S/C	1308'	33'10"	34'	0.98	0.45	--

* Just off this cross-section.

CROSS-SECTION	LENS	LOCATION	R.L. OF INTER-SECTION	OVERALL LODE				
				Length	True Width	%Sn.	%Cu.	%Zn.
P	B*	DDH,C23, 29'0"- 35'0"	1394'	6'0"	6'	0.39	--	--
P	B*	DDH,C25, 33'0"- 37'0"	1387'	4'0"	4'	0.95	--	--
P	B	DDH,C62, 20'0"- 25'1"	1308'	5'1"	5'	1.02	0.35	--
P	C	DDH,C62,114'6"-139'8"	1308'	25'2"	25'	0.41	0.63	--
P	Henry's	DDH,C71, 66'8"-112'10"	1308'	46'2"	46'	0.78	0.30	--
O	A	DDH,C50, groove + S/C	1309'	17'6"	15'	0.53	0.25	--
O	A	DDH,C10, 70'0"-106'0"	1380'	36'0"	24'	1.22	--	--
O	B*	DDH,C10, 53'0"- 58'9"	1390'	5'9"	5'	2.01	--	--
N	A	x-cut,channel,both walls	1310'	36'0"	33'	1.21	0.34	--
N	A	DDH,C83, 11'8"- 46'9"	1310'	35'1"	33'	1.20	0.38	--
N	B	DDH,C35,315'0"-346'0"	1114'	31'0"	16'	1.74	--	--
N	B	DDH,C64, 14'0"- 19'0"	1310'	5'0"	5'	1.03	0.32	--
N	D	DDH,C41,595'0"-610'0"	685'	15'0"	9'	0.11	--	--
N	E	DDH,C41,387'0"-437'4"	850'	50'4"	26'	0.67	--	--
M	A	DDH,C51, groove + S/C	1311'	30'7"	28'	1.32	0.35	--
M	A*	DDH,C18,187'0"-238'0"	1295'	51'0"	28'	1.13	--	--
L	A	x-cut,channel,both walls	1310'	11'10"	12'	0.60	0.36	--
L	A	DDH,C31,506'0"-524'0"	1010'	18'0"	15'	1.44	--	--
L	A	DDH,C82, groove + S/C	1310'	11'1"	11'	1.03	0.35	--
L	B	x-cut,channel,both walls	1311'	6'5"	6'	0.33	0.29	--
L	B	DDH,C31,413'0"-430'0"	1065'	17'0"	13'	0.73	--	--
L	C	DDH,C31,366'0"-372'0"	1098'	6'0"	5'	0.31	--	--
L	C	DDH,C65, 12'7"- 17'8"	1310'	5'1"	5'	0.96	0.55	--
Ka	A	DDH,C54, groove + S/C	1311'	34'6"	32'	0.84	0.26	--
Ka	B	DDH,C54, 53'2"- 59'1"	1311'	5'11"	5'	0.46	0.35	--
K	A	x-cut,channel,both walls	1311'	31'4"	29'	1.17	0.41	--
K	A*	DDH,C24,217'0"-246'0"	1235'	29'0"	20'	0.96	--	--
K	A	DDH,C86, groove + S/C	1312'	28'3"	28'	1.13	0.38	--
K	A*	DDH,C30,111'0"-150'0"	1375'	39'0"	30'	0.80	--	--
K	B	x-cut,channel,both walls	1312'	13'2"	12'	0.41	0.13	--
K	B	DDH,C24, 95'0"-194'0"	1312'	99'0"	12'	0.33	--	--
K	B*	DDH,C27,377'0"-480'0"	1025'	103'0"	26'	0.38	--	--
K	B*	DDH,C30, 62'8"- 63'8"	1409'	1'0"	1'	Tr	0.45	--
K	B	DDH,C86, 32'6"- 47'7"	1312'	15'1"	14'	0.59	0.17	--
K	B	DDH,C79,611'5"-649'0"	835'	37'7"	25'	0.02	0.17	--
K	C	DDH,C27,271'0"-301'0"	1158'	30'0"	27'	0.69	--	--
K	C	DDH,C79,432'1"-509'6"	943'	77'7"	53'	0.13	0.25	--
K	C	DDH,C61,722'3"-725'6"	687'	3'3"	3'	Tr	Tr	--

* Just off cross-section line.

CROSS-SECTION	LENS	LOCATION	R.L. OF INTER-SECTION	OVERALL LODE				
				Lenght	True Width	%Sn.	%Cu.	%Zn.
K	D	DDH,C79,318'2"-333'6"	1040'	15'4"	11'	1.01	0.52	--
K	D	DDH,C61,549'6"-601'0"	778'	51'6"	32'	0.22	0.09	--
K	E	DDH,C61,513'10"-549'6"	803'	35'8"	25'	0.09	0.28	--
K	F	DDH,C70,648'6"-656'2"	576'	7'8"	6'	Tr	0.11	--
K	G	DDH,C70,550'2"-609'11"	645'	59'9"	29'	0.25	0.19	--
J	A	DDH,C57,groove + S/C	1312'	34'6"	27'	0.77	0.14	--
J	C	DDH,C57, 61'6"- 63'4"	1312'	1'10"	2'	0.44	Tr	--
I	A	DDH,C92,groove + S/C	1313'	10'4"	10'	0.49	0.22	--
I	C	DDH,C92, 85'3"- 89'8"	1313'	4'5"	4'	1.75	0.68	--
H	Lucks	DDH,C91,105'9"-137'3"	1314'	31'6"	31'	0.43	0.41	--
H	A	DDH,C87,groove + S/C	1314'	19'8"	18'	0.87	0.49	--
H	C	DDH,C85,528'3"-538'9"	755'	10'6"	10'	0.01	0.02	--
H	D	DDH,C85,430'9"-451'6"	817'	20'9"	16'	Tr	0.22	--
H	D	DDH,C89,733'2"-740'7"	465'	7'5"	6'	0.22	0.15	--
H	E	DDH,C89,623'3"-639'4"	555'	16'1"	9'	0.07	Tr	--
G	A	DDH,C93,groove + S/C	1317'	21'4"	20'	0.60	0.24	--
F	B	DDH,C78,514'0"-568'10"	832	54'10"	53'	0.05	0.13	--
F	C	DDH,C68,546'3"-589'2"	730'	43'10"	31'	Tr	Tr	--
F	D	DDH,C68,464'4"-484'7"	791'	20'3"	16'	0.05	0.01	--
D	A	DDH,C77,521'0"-529'10"	826'	8'10"	9'	0.08	0.16	--
D	B	DDH,C69,499'0"-513'7"	753'	14'7"	14'	0.10	0.03	--
C		DDH,C 3, 85'9"-126'0"	1083'	40'3"		0.87	--	--
B	B(?)	Battey adit x-cut,channel, SW wall	1126'	19'0"		1.13	0.18	--
A		DDH,C 2, 43'9"- 69'3"	1100'	25'6"		0.55	--	--
A		DDH,C 4, 58'6"- 89'6"	1070'	31'0"		0.65	--	--
A		DDH,C 5, 60'6"-138'6"	1033'	78'0"		0.94	--	--
AD		DDH,C97,551'5"-599'1"	776'	47'8"		0.60	0.66	--
AD		DDH,C97,218'2"-285'2"	955'	67'0"		0.23	0.06	1.26
AD		DDH,C98,148'0"-158'1"	982'	10'1"		0.13	0.07	2.14
AD		DDH,C98,199'7"-227'2"	933'	27'7"		0.15	0.02	2.94
AD		DDH,C98,275'6"-286'3"	880'	10'9"		0.27	0.22	0.08
AD		DDH,C98,384'2"-415'0"	785'	30'10"		0.53	0.11	0.97

R. Cox, 1-3-66

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ABERFOYLE TIN DEVELOPMENT PARTNERSHIP

CLEVELAND DEVELOPMENT PROJECT

TABLE 3

CLEVELAND LEASES - STRATIGRAPHIC COLUMN

			Swan Stabilo No.
	BASIC VOLCANICS FORMATION	dgg.m.bv. with interbanded dgg.b.tuff	8732 | 8731
	Transgression		
CRESCENT SPUR GROUP	LODE FORMATION	mg.ff.shale	8739
		mg.felspathic sandstone	8753
		mg.ff.shale	8739
		choc.b.-mg.b.chert	8754 | 8744
		banded sulphide lode beds	8748
		choc.b.-mg.b.chert	8754 | 8744
		mg.b.shale	8739
	Transgression		
	MICA SANDSTONE FORMATION	mg.m.ss±minor shale partings	8753
		mg.m.ss±blue-white banded chert horizons	8753
	Serpentine, possibly intrusive		8737

R. Cox, March 1966.

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220022

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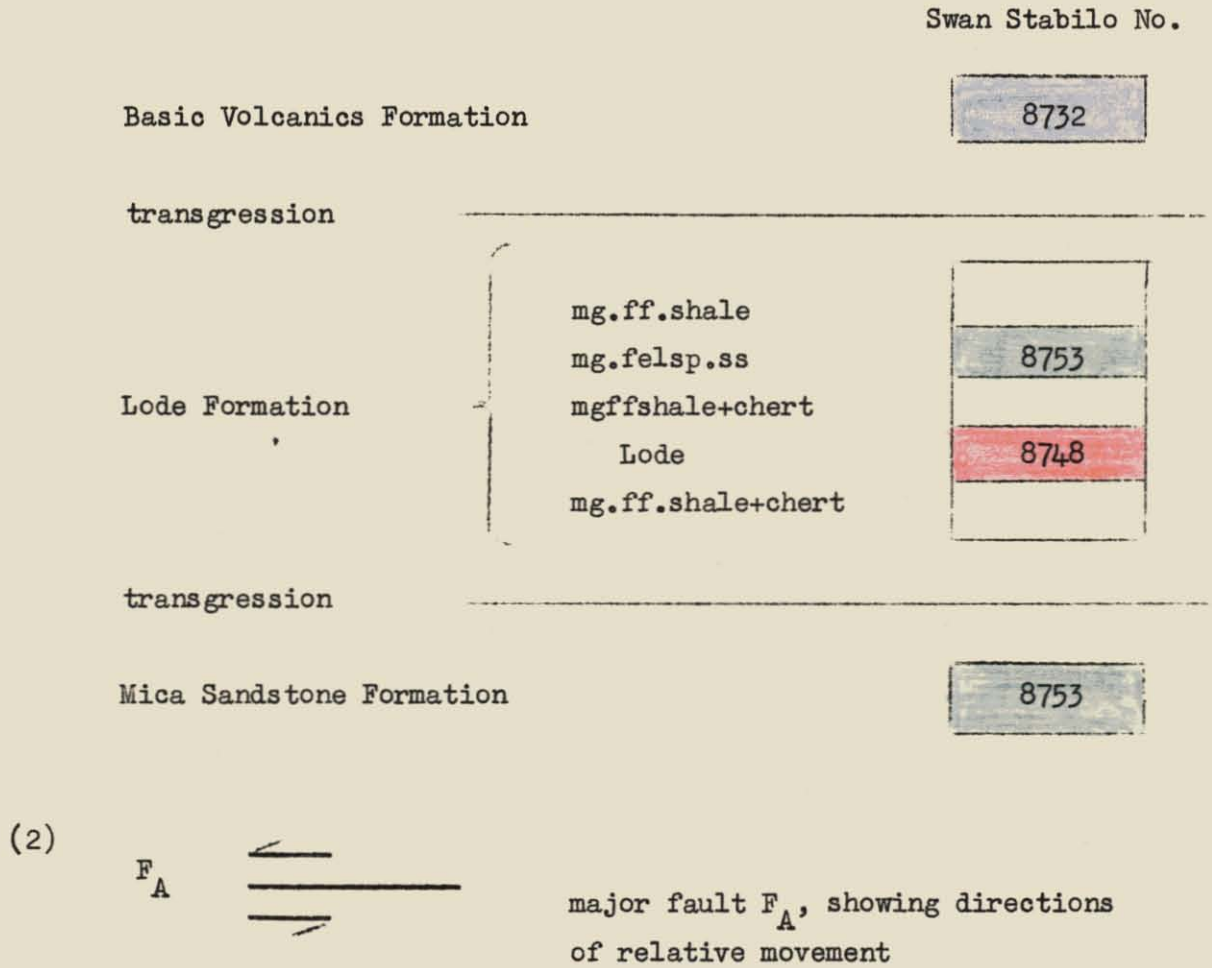
CLEVELAND DEVELOPMENT PROJECT

TABLE 4

GEOLOGICAL LEGEND FOR INTERPRETATION PLANS AND SECTIONS

(1) Simplified stratigraphic column:-



(2) F_A major fault F_A, showing directions of relative movement

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ABERFOYLE TIN DEVELOPMENT PARTNERSHIP

CLEVELAND DEVELOPMENT PROJECT

TABLE 5

DISTANCES BETWEEN CROSS-SECTIONS MEASURED ON HALL'S LONGITUDINAL REFERENCE PLANE

From	To	Distance	Distance from Line "G"
G	H	61 ft.	61 ft.
H	I	50 ft.	111 ft.
I	J	50 ft.	161 ft.
J	K	76 ft.	237 ft.
K	Ka	76 ft.	313 ft.
Ka	L	76 ft.	389 ft.
L	M	70 ft.	459 ft.
M	N	64 ft.	523 ft.
N	O	72 ft.	595 ft.
O	P	62 ft.	657 ft.
P	Q	73 ft.	730 ft.
Q	Qa	61 ft.	791 ft.
Qa	Qb	60 ft.	851 ft.
Qb	R	60 ft.	911 ft.
R	S	50 ft.	961 ft.
S	T	60 ft.	1021 ft.
T	U	84 ft.	1105 ft.
U	V	83 ft.	1188 ft.
V	Va	75 ft.	1263 ft.
Va	W	75 ft.	1338 ft.

R. Cox, March 1966

REFERENCES

1. "Geological Report, Mt. Cleveland Prospect", February 1962 by K.R. Glasson
2. "Outline of Proposed Exploratory Development and Ore Testing Programme", November 1963, by A.A.C. Mason
3. "Report of the Resident Geologist upon Completion of Exploratory Underground Development, RL.1300 ft. Level", January 1965 by R. Cox
4. "Progress Report on Sample Data Analyses, 1300 ft. RL. "Qa" Adit, Cross-sections, Halls Lode", 21-1-65 by R. Cox
5. "Drilling Programme, Cleveland Project, 1965", 2-2-65 by K.R. Glasson and R. Cox
6. "Report on Ore Reserves", 22-4-65 by K.R. Glasson and R. Cox
7. "Report on the Engineering Geology of the Whyte River Area, Cleveland Mine, Tasmania", 28-6-65 by R. Cox
8. "Report on the Bulk Sampling Operation, Exploratory Underground Development, RL.1300 ft. Level", July 1965 by N.A. Gilberthorpe
9. "Report on the Geological Nature of Halls Lode, Lens "A" at Cleveland Mine, Tasmania", 13-9-65 by R. Cox
10. "Report Upon Completion of the 1300 ft. RL. "Qa" Adit Level Exploration Programme, Cleveland Mine, Tasmania", 30-11-65 by R. Cox
11. "Report on Sample Data Analysis for Halls Lode, Lens "A", Upon Completion of 1300 ft. RL. "Qa" Adit Level Exploration Programme, Cleveland Mine, Tasmania", 30-11-65 by R. Cox
12. "Progress Report on Zinc Mineralisation, Cleveland Mine, Tasmania", 11-1-66 by R. Cox

APPENDIX "A"

1. Geology Fact Cross-Sections, 1"=40'
(available separately if required)*

	(a)	Cross-section "AD"	, drawing no. C-071-G *
	(b)	Cross-section "A"	, drawing no. C-050-G *
	(c)	Cross-section "D"	, drawing no. C-051-G*
	(d)	Cross-section "F"	, drawing no. C-052-G *
	(e)	Cross-section "H"	, drawing no. C-070-G*
	(f)	Cross-section "H", second sheet	, drawing no. C-073-G*
	(g)	Cross-section "K"	, drawing no. C-001-G*
	(h)	Cross-section "K", second sheet	, drawing no. C-053-G*
	(i)	Cross-section "L"	, drawing no. C-002-G *
	(j)	Cross-section "N"	, drawing no. C-003-G*
	(k)	Cross-section "N", second sheet	, drawing no. C-105-G *
	(l)	Cross-section "P"	, drawing no. C-005-G*
**	(m)	Cross-section "Q"	, drawing no. C-006-G*
	(n)	Cross-section "Qa"	, drawing no. C-072-G*
	(o)	Cross-section "R"	, drawing no. C-008-G *
**	(p)	Cross-section "S"	, drawing no. C-009-G *
	(q)	Cross-section "T"	, drawing no. C-010-G*
**	(r)	Cross-section "U"	, drawing no. C-011-G*
	(s)	Cross-section "V"	, drawing no. C-012-G *
	(t)	Cross-section "W"	, drawing no. C-068-G*
	(u)	Cross-section "X"	, drawing no. C-069-G *
**	(v)	Cross-section Halls Adits	, drawing no. C-004-G*
**	(w)	Cross-section thro' DDH, C31	, drawing no. C-013-G*
**	(x)	Cross-section thro' DDH, C30,C24+C27	, drawing no. C-014-G*
**	(y)	Cross-section thro' DDH, C23 + C25	, drawing no. C-015-G*
**	(z)	Cross-section thro' DDH, C10	, drawing no. C-016-G*
**	(aa)	Cross-section thro' DDH, C13	, drawing no. C-017-G*
**	(ab)	Cross-section thro' DDH, C17	, drawing no. C-018-G*
**	(ac)	Cross-section thro' DDH, C18	, drawing no. C-019-G*

2. Geology Fact Plans
(available separately if required)*

	(a)	1300'RL. "Qa" adit level, 1"=40'	, drawing no. C-113-G*
	(b)	Surface Geology Fact Plan, sheet 2N4E	, drawing no. C-084-G
	(c)	Surface Geology Fact Plan, sheet 2N3E	, drawing no. C-085-G
	(d)	1300'RL. "Qa" adit level, 1"=20'	, drawing no. C-020-G*
	(e)	1300'RL. "Qa" adit level, 1"=20'	, drawing no. C-021-G*
	(f)	1300'RL. "Qa" adit level, 1"=20'	, drawing no. C-022-G*

* Part of normal mine records.
** These drawings same as at January 1965 - no additional data added.

* MISSING PLANS.

APPENDIX "A" (Cont'd)

3. Geological Interpretation (March 1966) Cross-Sections, 1"=40'

(a)	Cross-section F	, drawing no. C-104-G
(b)	Cross-section H	, drawing no. C-102-G
(c)	Cross-section H, second sheet	, drawing no. C-103-G
(d)	Cross-section K	, drawing no. C-100-G
(e)	Cross-section K, second sheet	, drawing no. C-101-G
(f)	Cross-section L	, drawing no. C-099-G
(g)	Cross-section N	, drawing no. C-097-G
(h)	Cross-section N, second sheet	, drawing no. C-098-G
(i)	Cross-section P	, drawing no. C-096-G
(j)	Cross-section Qa	, drawing no. C-095-G
(k)	Cross-section R	, drawing no. C-094-G
(l)	Cross-section T	, drawing no. C-093-G
(m)	Cross-section V	, drawing no. C-092-G
(n)	Cross-section W	, drawing no. C-091-G

4. Geological Interpretation (March 1966) Horizon Plans, 1"=40'

(a)	RL. 1400 ft. horizon plan,	drawing no. C-106-G
(b)	RL. 1300 ft. horizon plan,	drawing no. C-107-G
(c)	RL. 1200 ft. horizon plan,	drawing no. C-108-G
(d)	RL. 1100 ft. horizon plan,	drawing no. C-109-G
(e)	RL. 1000 ft. horizon plan,	drawing no. C-110-G
(f)	RL. 900 ft. horizon plan,	drawing no. C-111-G
(g)	RL. 800 ft. horizon plan,	drawing no. C-112-G

5. Geological Interpretation (March 1966) Longitudinal Projections, 1"=40', on Halls Reference Plane.

(a)	Composite Projection	, drawing no. C-114-G
(b)	Lens "A"	, drawing no. C-115-G
(c)	Lens "B"	, drawing no. C-116-G
(d)	Lens "C"	, drawing no. C-117-G
(e)	Lens "D"	, drawing no. C-118-G
(f)	Lens "E"	, drawing no. C-119-G
(g)	Lens - Henrys	, drawing no. C-120-G

R. Cox, March 1966.

CLEVELAND MINE, TASMANIA
SURFACE GEOLOGY FACT PLAN
SHEET 2N 4E

40 0 40 80
SCALE OF FEET

5 cm

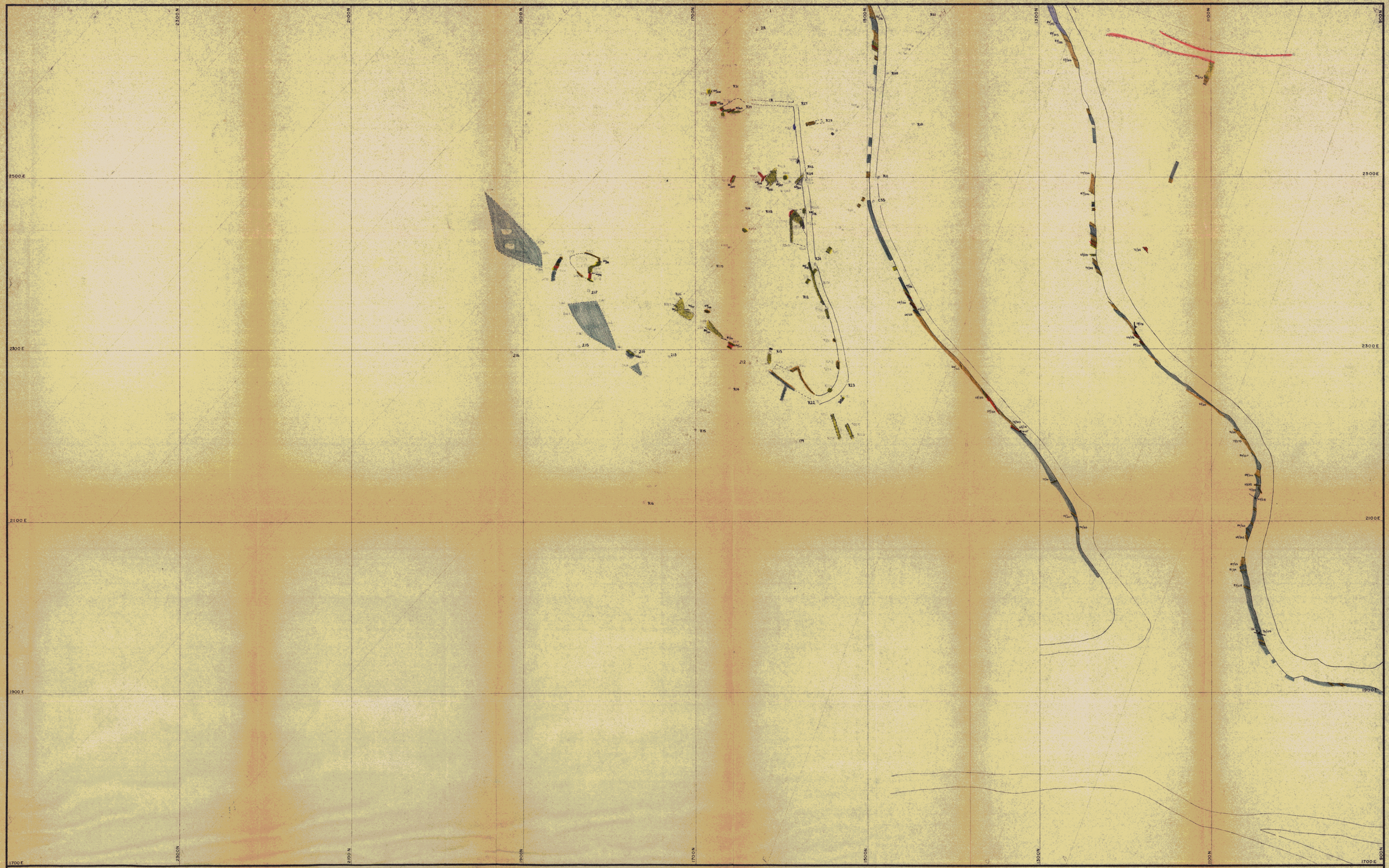
SURVEY	–		– / /
GEOLOGY	–	R. COX	– / /
ENGINEERING	–		– / /
DRAWN	–	R. COX	– / /
TRACED	–		– / /
REFERENCE	–		
PRINT No.	–		

1 MAR 1966

DRAWING No.- C – 084 – G

DRAWER: 220027 3492

66-41942



40 0 40 80
SCALE OF FEET

5 cm

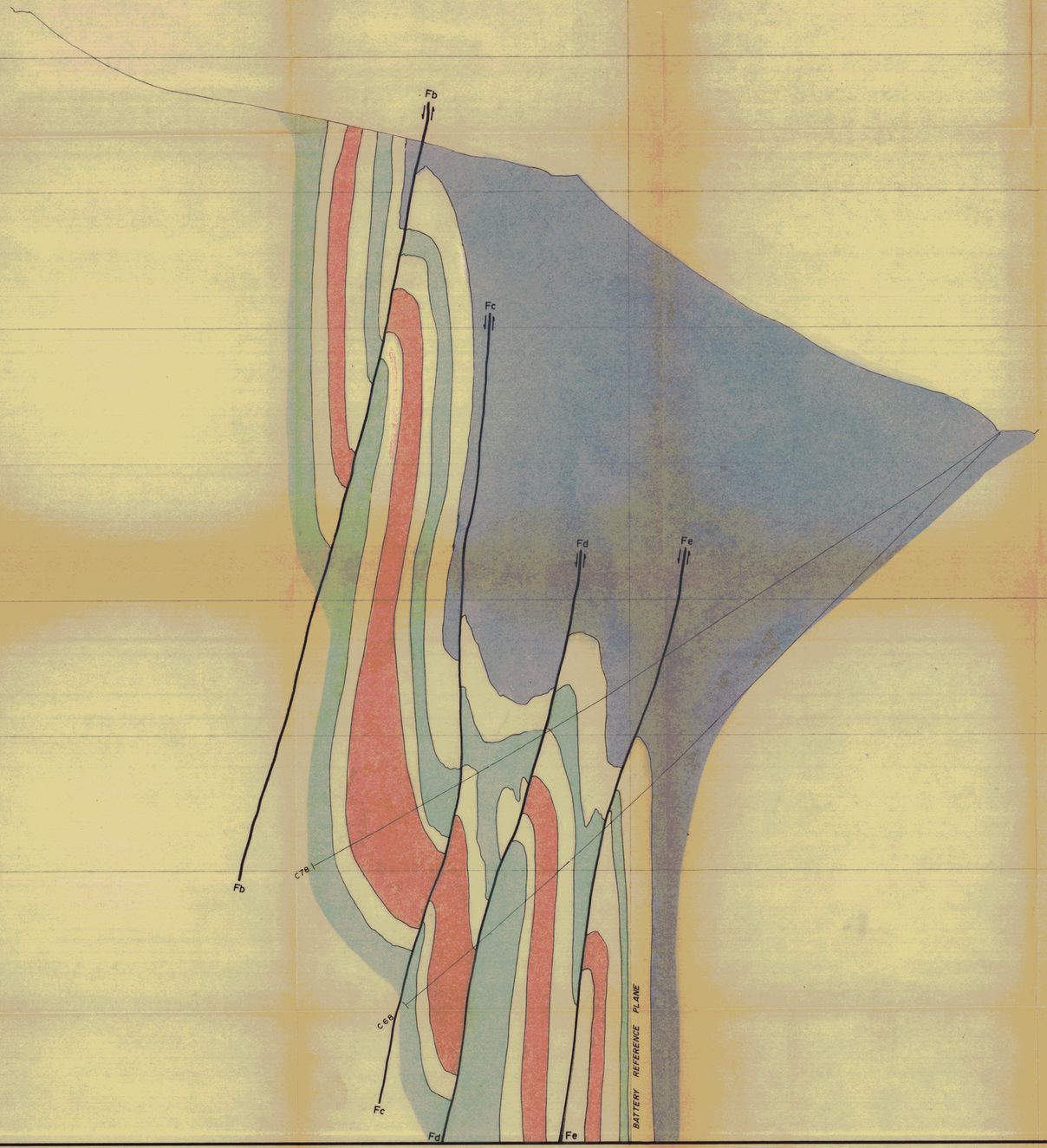
CLEVELAND MINE, TASMANIA
SURFACE GEOLOGY FACT PLAN
SHEET 2N 3E

SURVEY	–		– / / /
GEOLOGY	–	R. COX	– 7 MAR 1966
ENGINEERING	–		– / / /
DRAWN	–	R. COX	– / / /
TRACED	–		– / / /
REFERENCE	–		
PRINT No.	–		220628

DRAWING No.- C-085-G

DRAWER: 66-419 2½ 3493

RL. 1400'
RL. 1300'
RL. 1200'
RL. 1100'
RL. 1000'
RL. 900'
RL. 800'
RL. 600'



40 0 40 80
SCALE OF FEET

5 cm

CLEVELAND MINE, TASMANIA.
CROSS SECTION "F" - INTERPRETATION
LOOKING N.N.E.

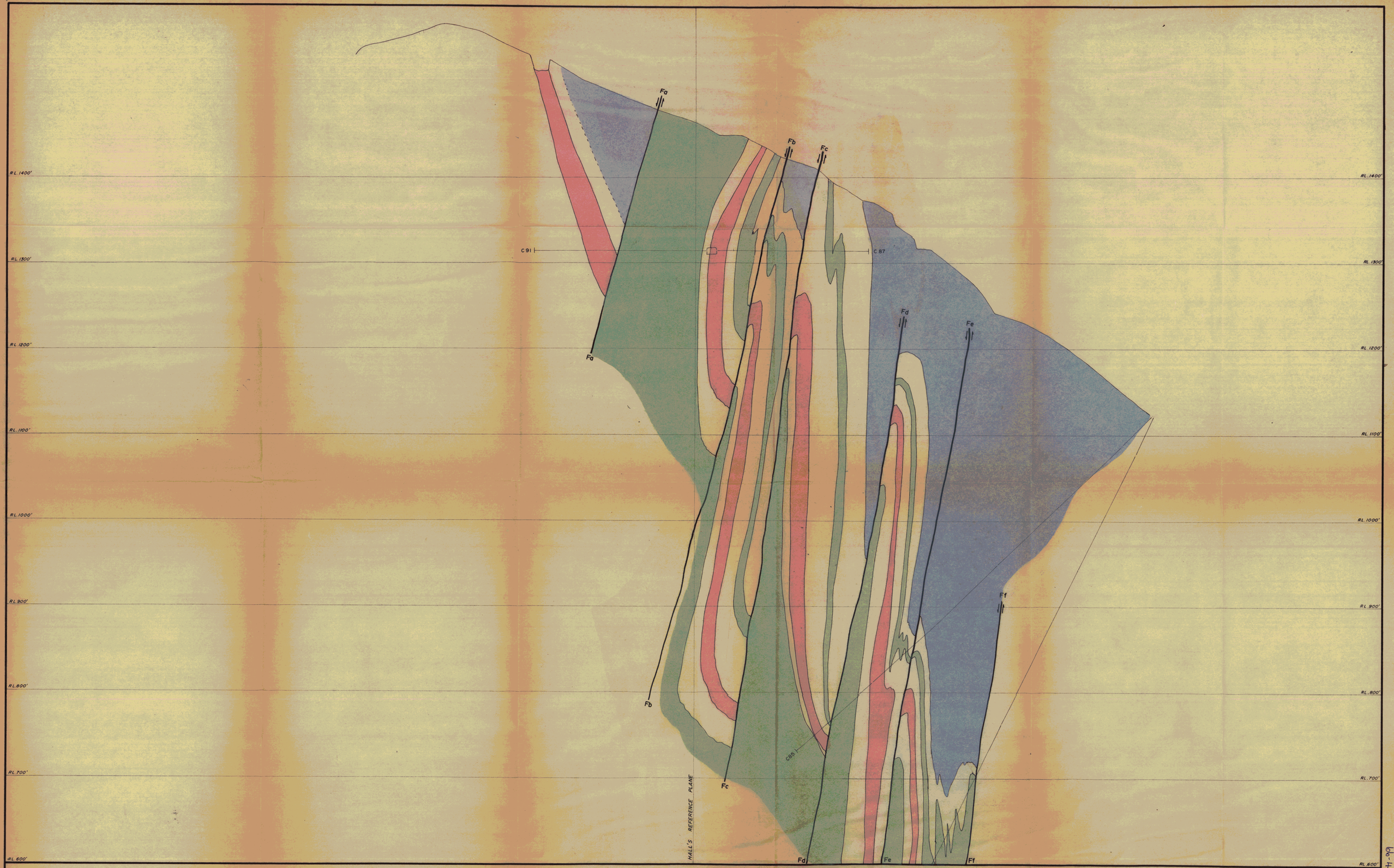
220029

Drg. No. C-104-G

R.COX. March 1st 1966

3494

66-1174



40 0 40 80
SCALE OF FEET

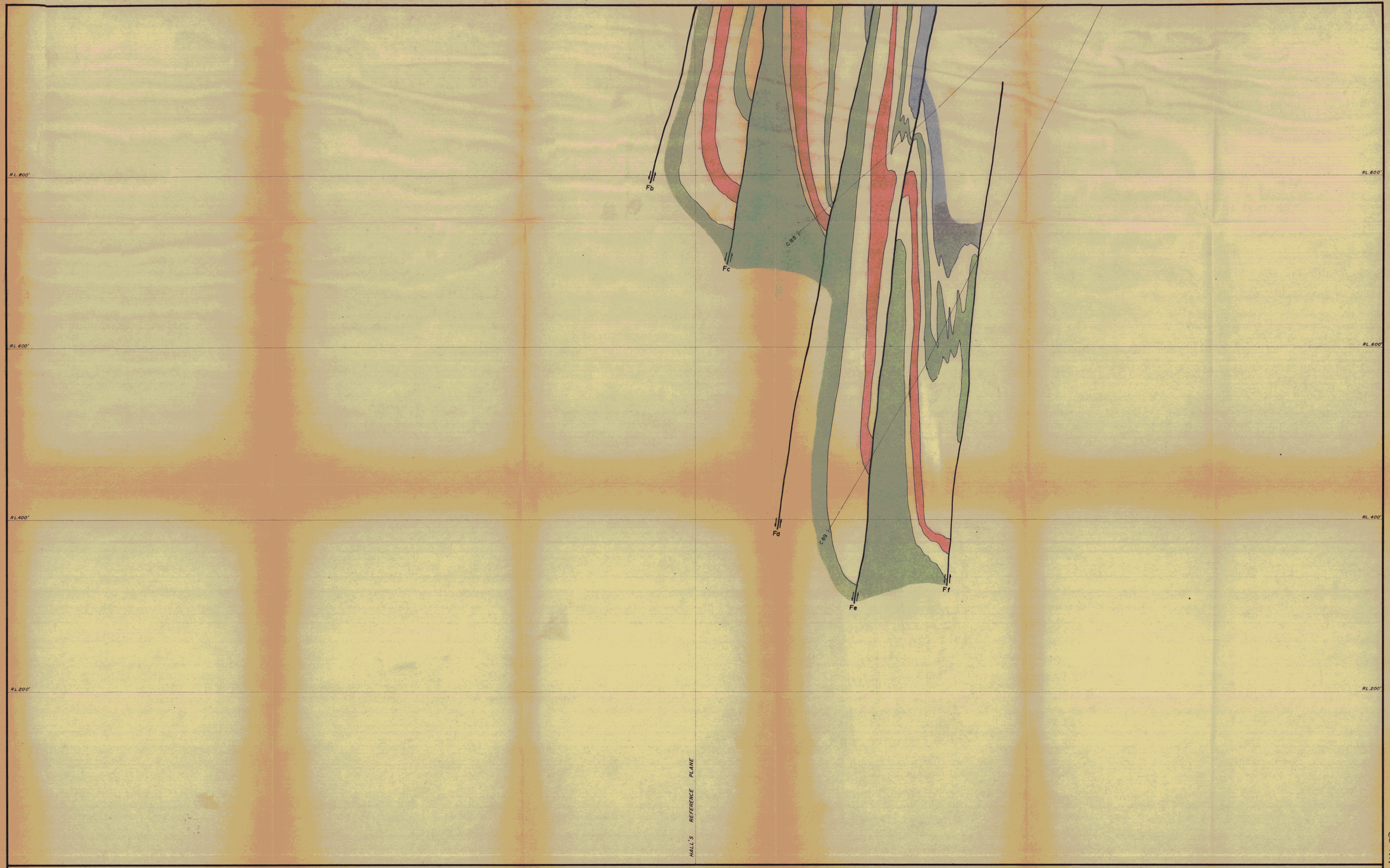
5 cm

CLEVELAND MINE, TASMANIA.
CROSS SECTION "H" – INTERPRETATION
LOOKING N.E.

Drg. No. C-102-G
R COX March 1st 1966

74-4-69

220030 3495



40 0 40 80
SCALE OF FEET
5 cm

CLEVELAND MINE, TASMANIA.
CROSS SECTION "H"- INTERPRETATION
(SHEET 2.)
LOOKING N.E.

Drg. No. C-103-G
R.COX March 1966

220031 3496

RL.1600'
RL.1400'
RL.1300'
RL.1200'
RL.1100'
RL.1000'
RL.900'
RL.800'

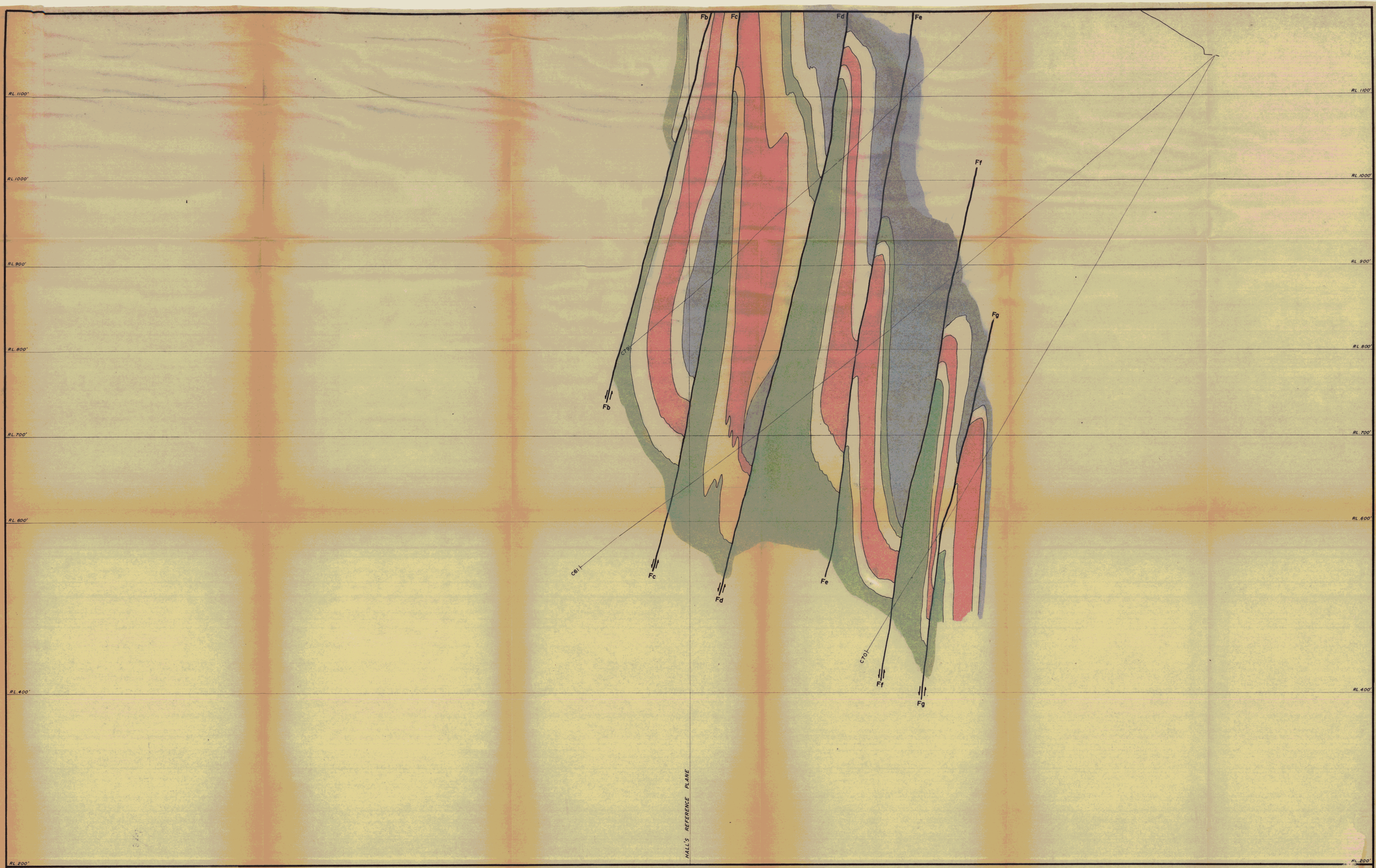
Fa
Fb
Fc
Fd
Fe
Ff
C66
C79
C69
HALL'S REFERENCE PLANE

40 0 40 80
SCALE OF FEET
5 cm

CLEVELAND MINE, TASMANIA.
CROSS SECTION "K" – INTERPRETATION
LOOKING N.E.

Drg No C-100-G
R.COX March 1st 1966

220032 3497



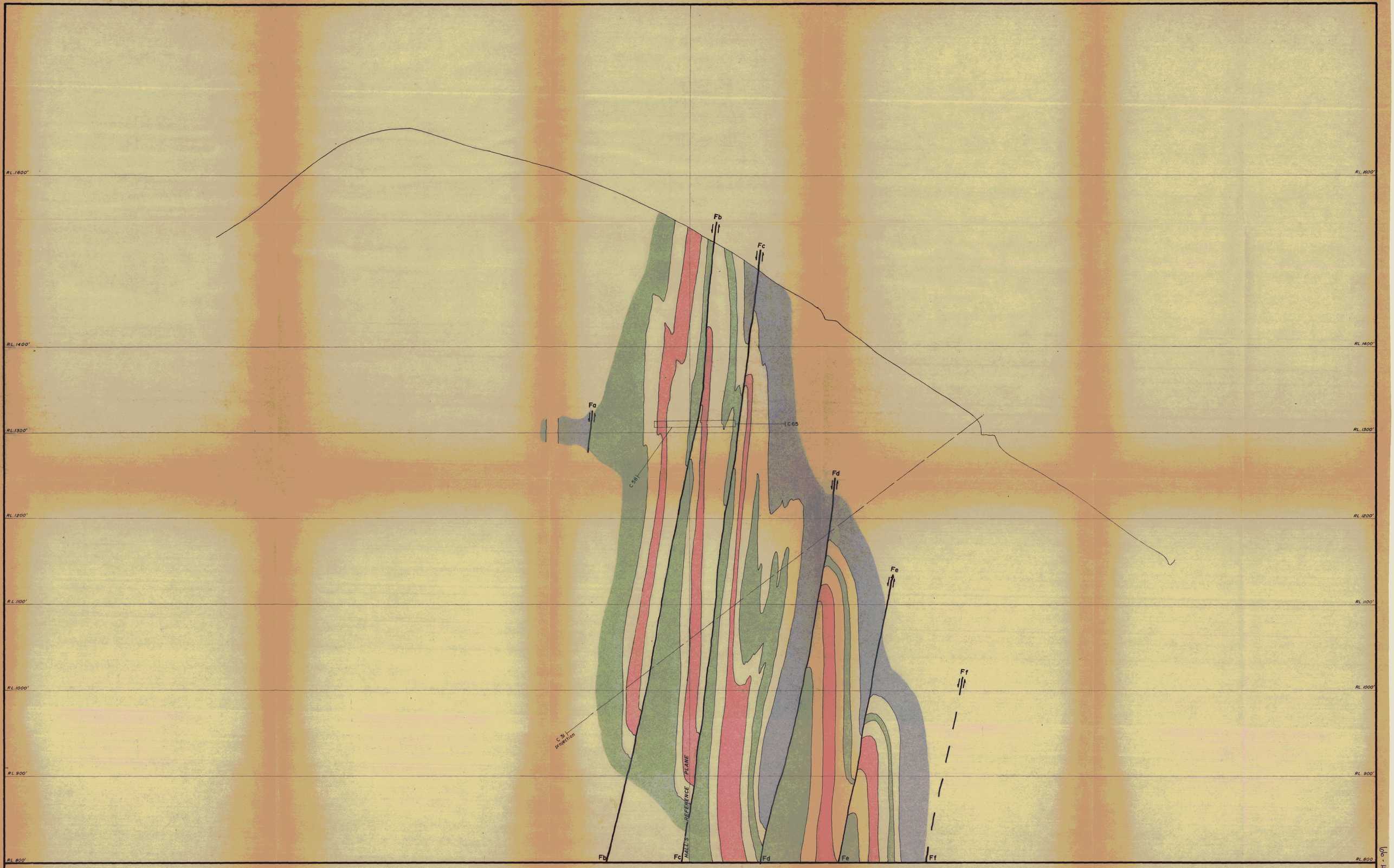
CLEVELAND MINE, TASMANIA.
CROSS SECTION "K"— INTERPRETATION
(SHEET 2)
LOOKING N.E.

Drg. No. C-101-G

R COX March 1st 1966

220033 3498

66-4192



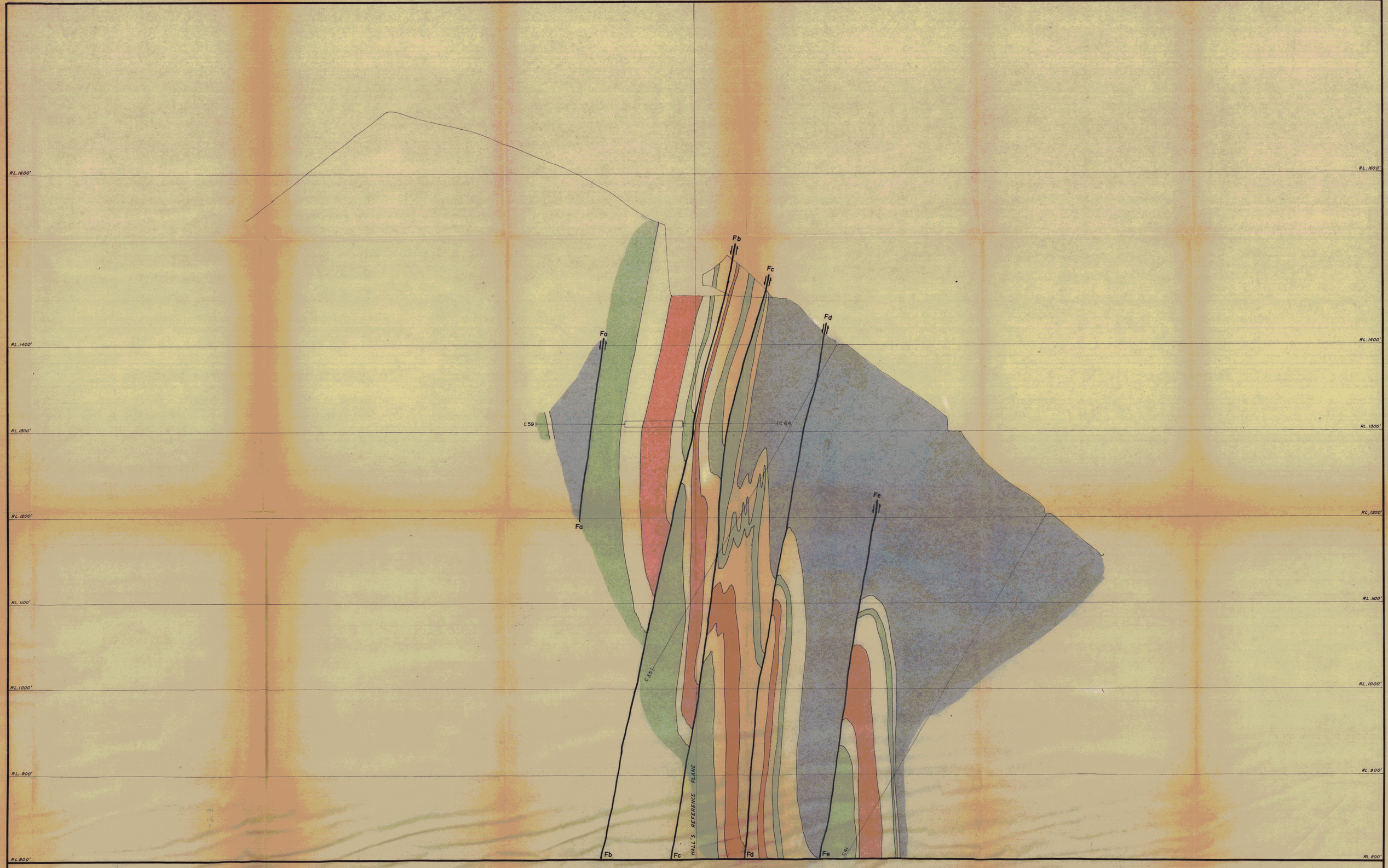
CLEVELAND MINE, TASMANIA.
CROSS SECTION "L" - INTERPRETATION
LOOKING N.E.

Drg. No. C - 099 - G

R.COX March 1st 1966

66-419 2L

220034 3499

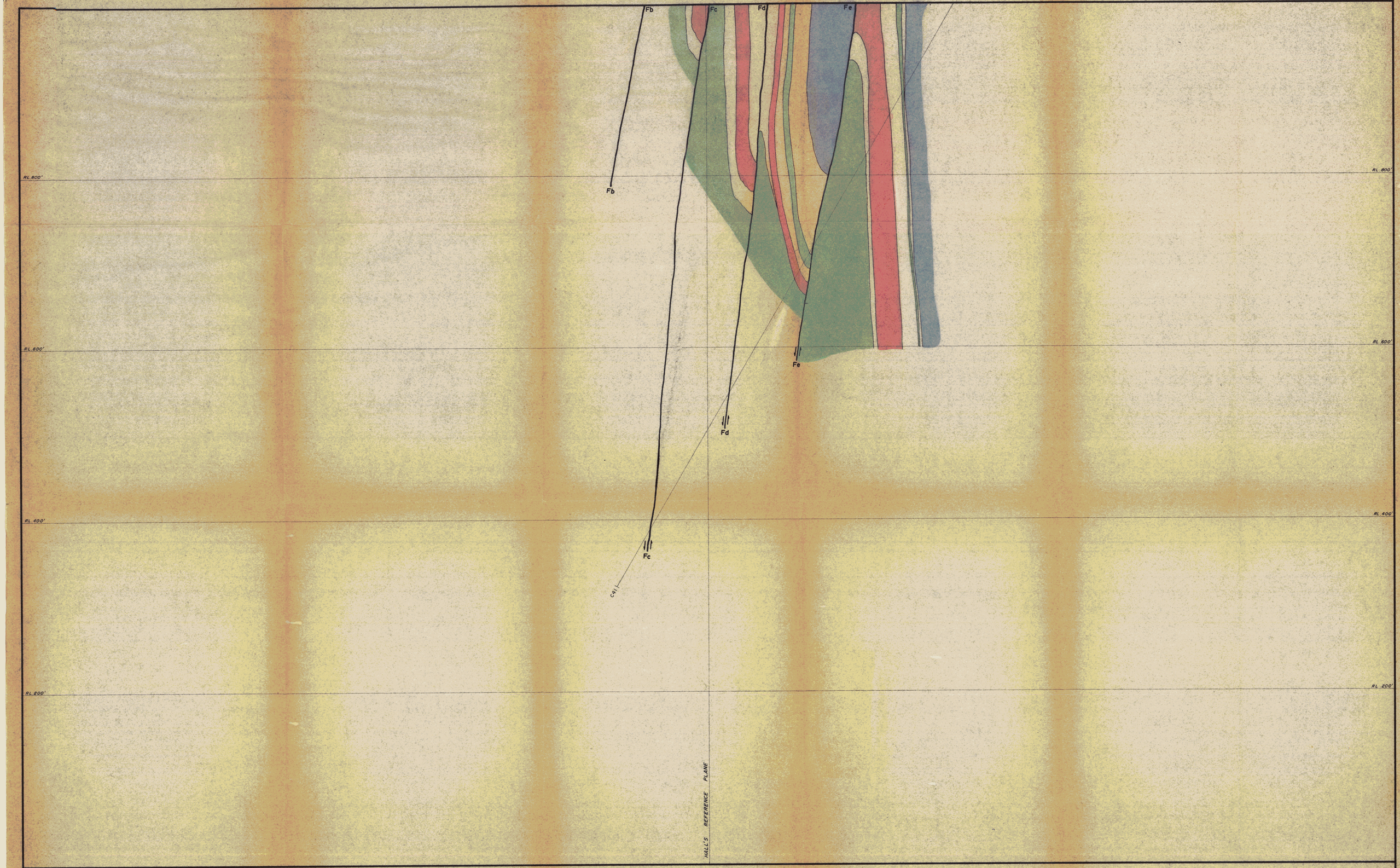


CLEVELAND MINE, TASMANIA.
CROSS SECTION "N" - INTERPRETATION
LOOKING N.E.

Drg. No: C-097-G

R. COX March 1st 1966

220035 3501



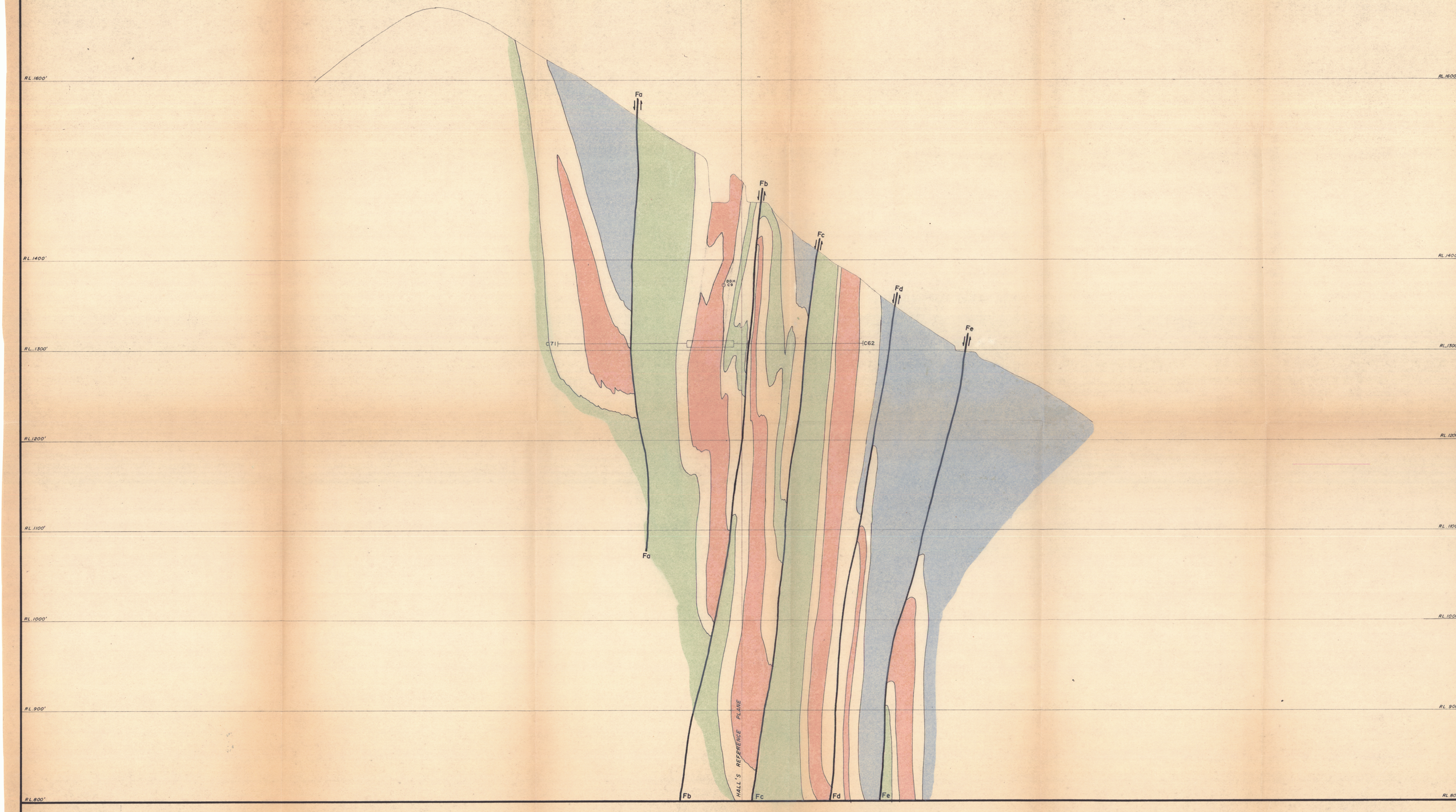
40 0 40 80
SCALE OF FEET
5 cm

CLEVELAND MINE, TASMANIA.
CROSS SECTION "N" – INTERPRETATION
(SHEET 2)
LOOKING N.E.

Drg. No. C-098-G
R.COX March 1st 1966

220636 3500

Lab-4194



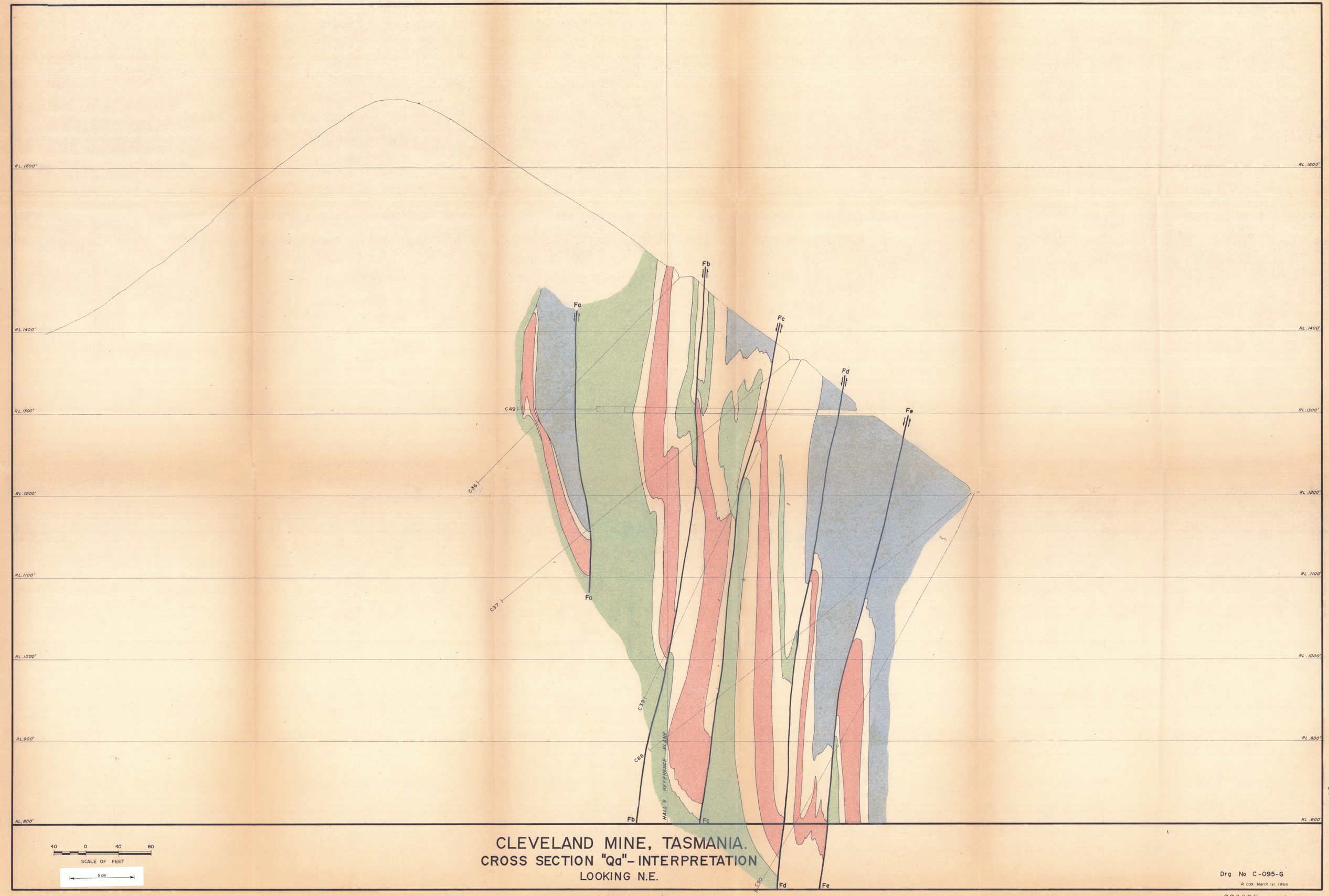
40 0 40 80
SCALE OF FEET

5 cm

CLEVELAND MINE, TASMANIA.
CROSS SECTION "P" – INTERPRETATION
LOOKING N.E.

Drg. No. C - 096- G
R.COX, March 1st 1966

220637 3502

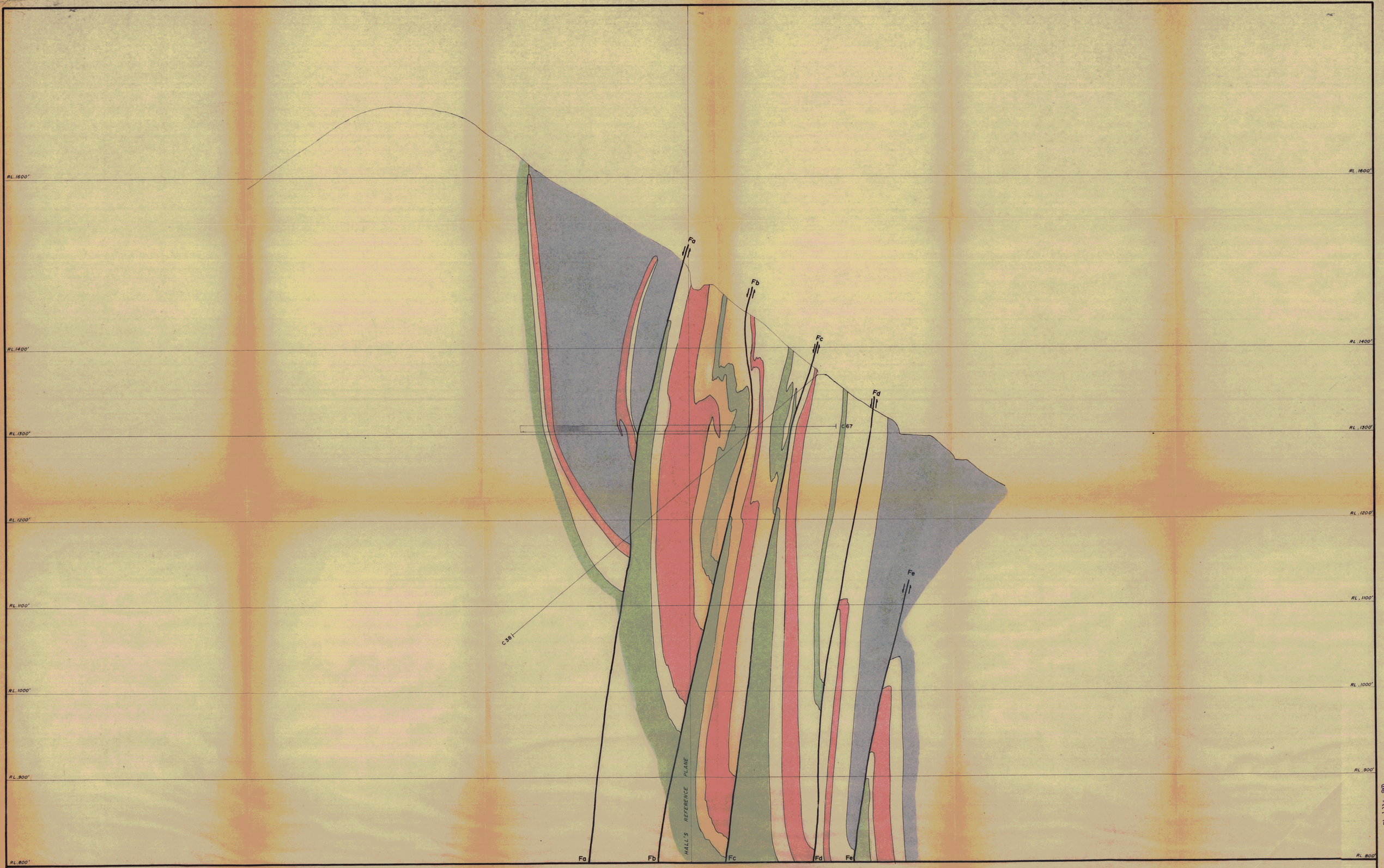


CLEVELAND MINE, TASMANIA.
CROSS SECTION "Qa"- INTERPRETATION
LOOKING N.E.

Drg No C-095-G

R COX March 1st 1966

220038 3503



CLEVELAND MINE, TASMANIA.

CROSS SECTION "R" - INTERPRETATION

LOOKING N.E.

40 0 40 80

SCALE OF FEET

5 cm

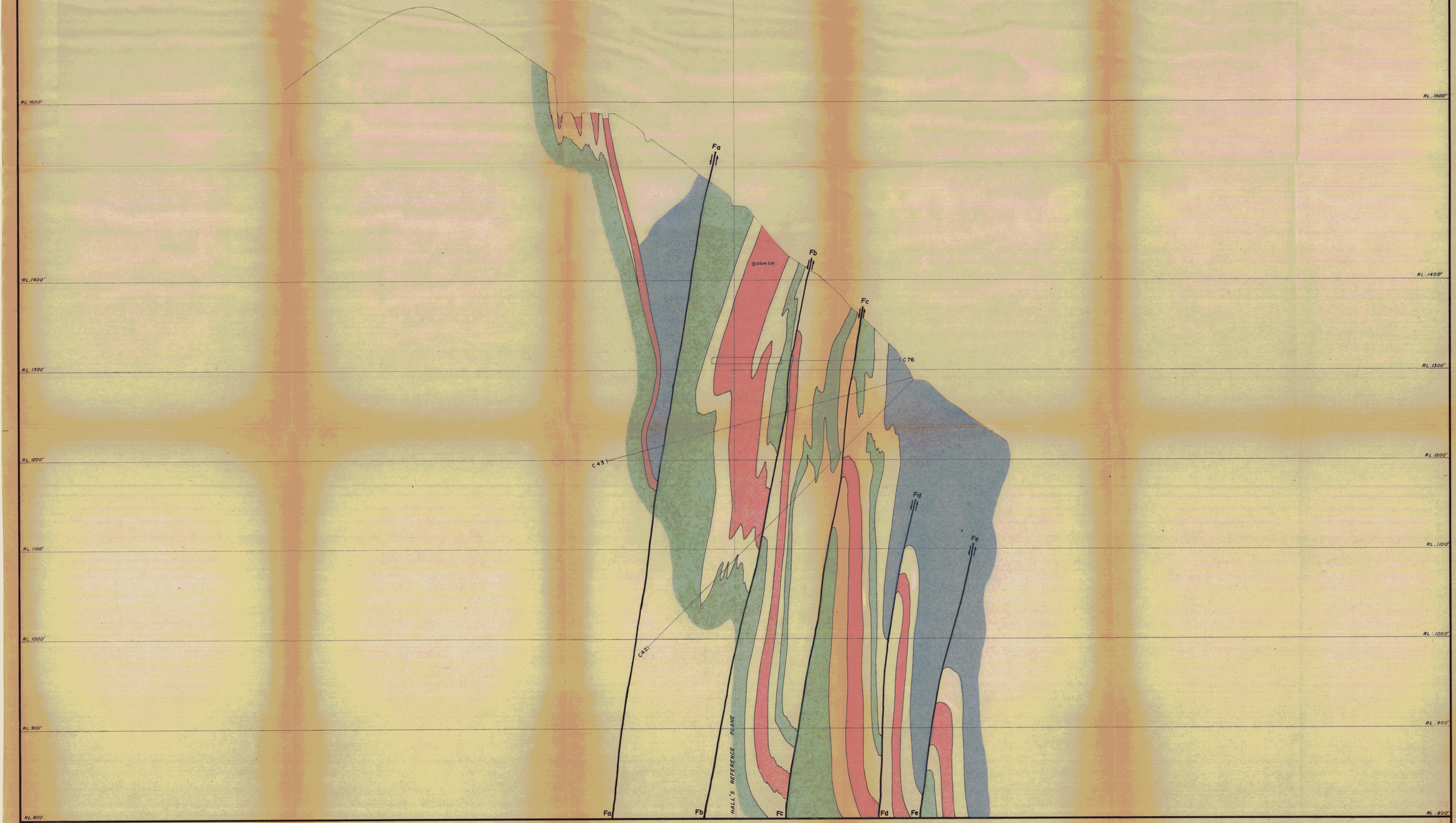
Drg. No. C-094-G

R COX March 1st 1966

66-4494

220039

504

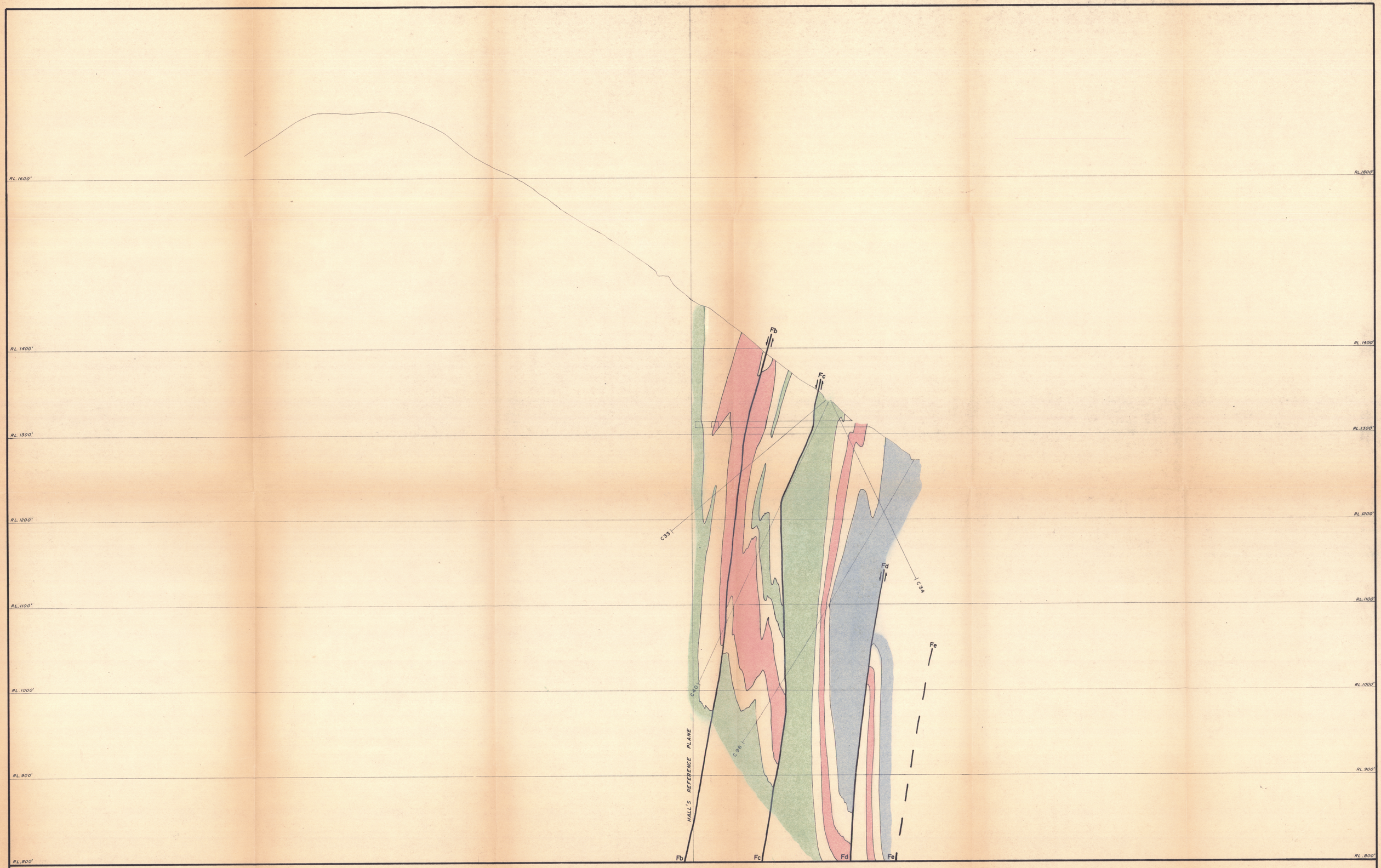


CLEVELAND MINE, TASMANIA.
CROSS SECTION "T" - INTERPRETATION
LOOKING N.E.

Drg. No. C -093-G
R. COX, March 1st 1966

66-419 2/2

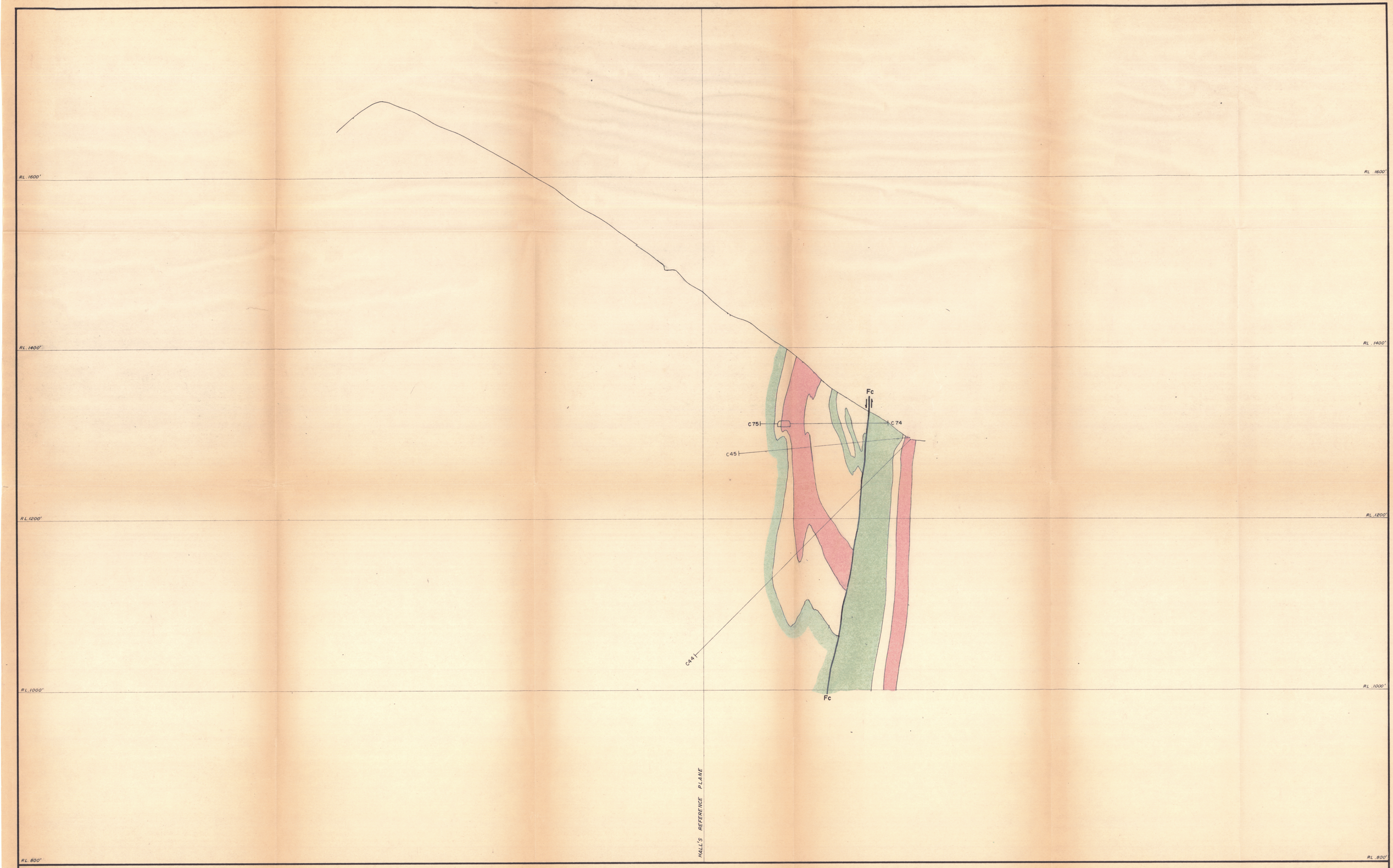
220040 3505



CLEVELAND MINE, TASMANIA.
CROSS SECTION "V"–INTERPRETATION
LOOKING N.E.

Drg. No. C-092-G
R COX March 1st. 1966

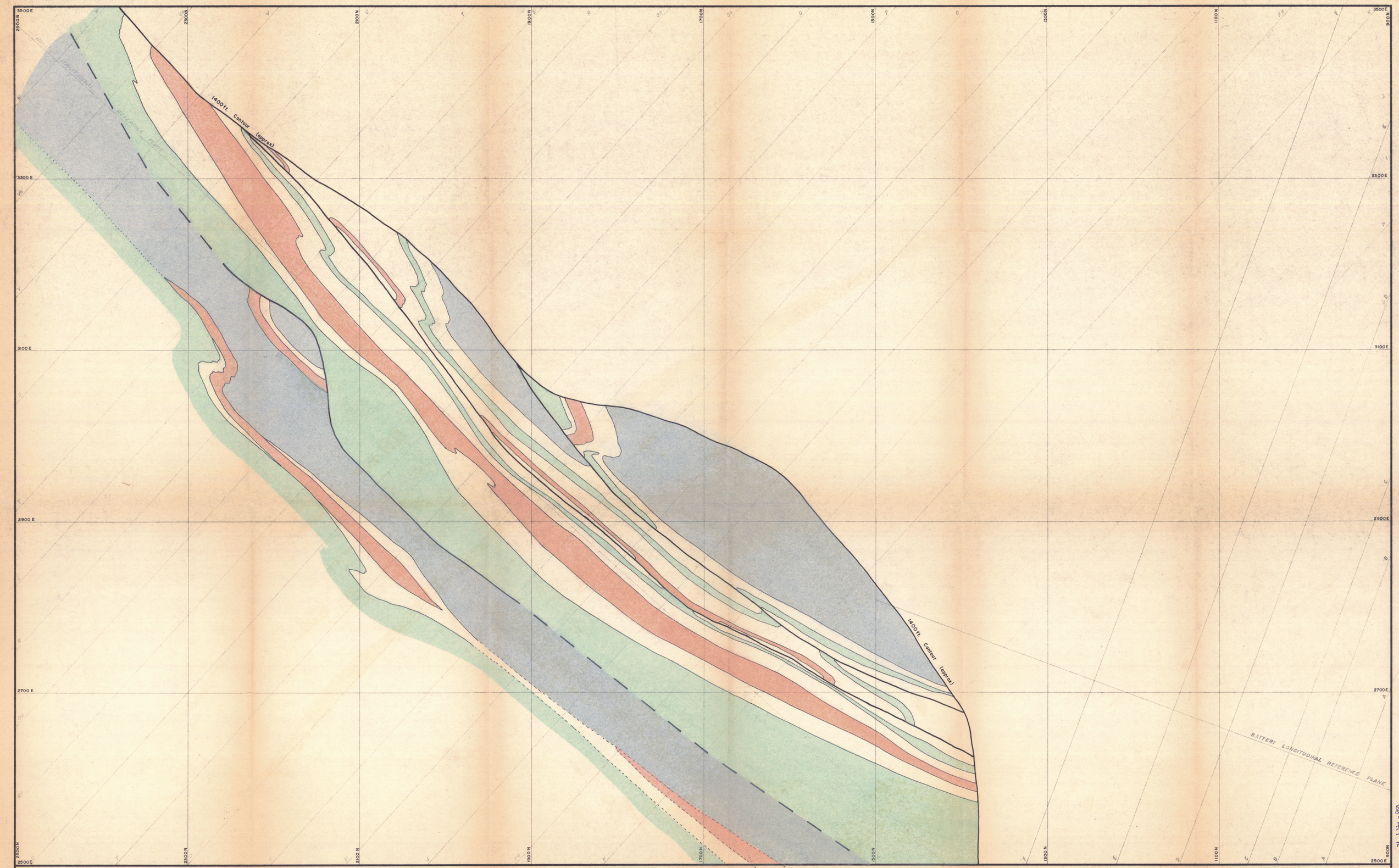
220041 3506



CLEVELAND MINE, TASMANIA.
CROSS SECTION "W" - INTERPRETATION
LOOKING N.E.

Drg No. C-091-G
R COX March 1st 1966

220042 3507



40 0 40 80
SCALE OF FEET

5 cm

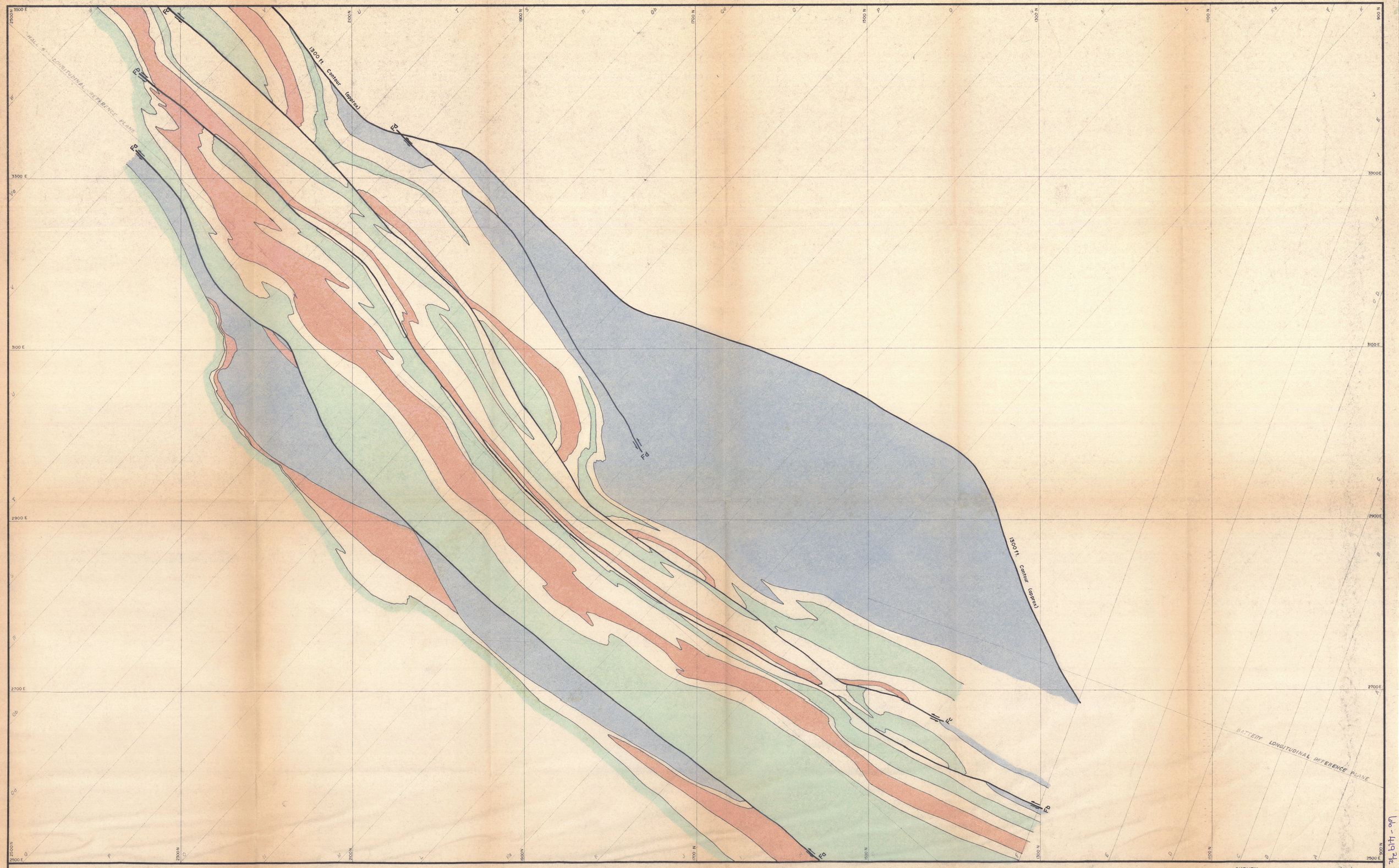
CLEVELAND MINE, TASMANIA.
R.L. 1400' LEVEL HORIZON
GEOLOGICAL INTERPRETATION PLAN

SURVEY	–		– / /
GEOLOGY	–	R. COX	– 1 / 3 / 66
ENGINEERING	–		– / /
DRAWN	–	R. COX	– 1 / 3 / 66
TRACED	–		– / /
REFERENCE	–		
PRINT No.	–		

DRAWING No.– C – 106 – G

DRAWER: 220043 3508

66-419 2/2



40 0 40 80
SCALE OF FEET

5 cm

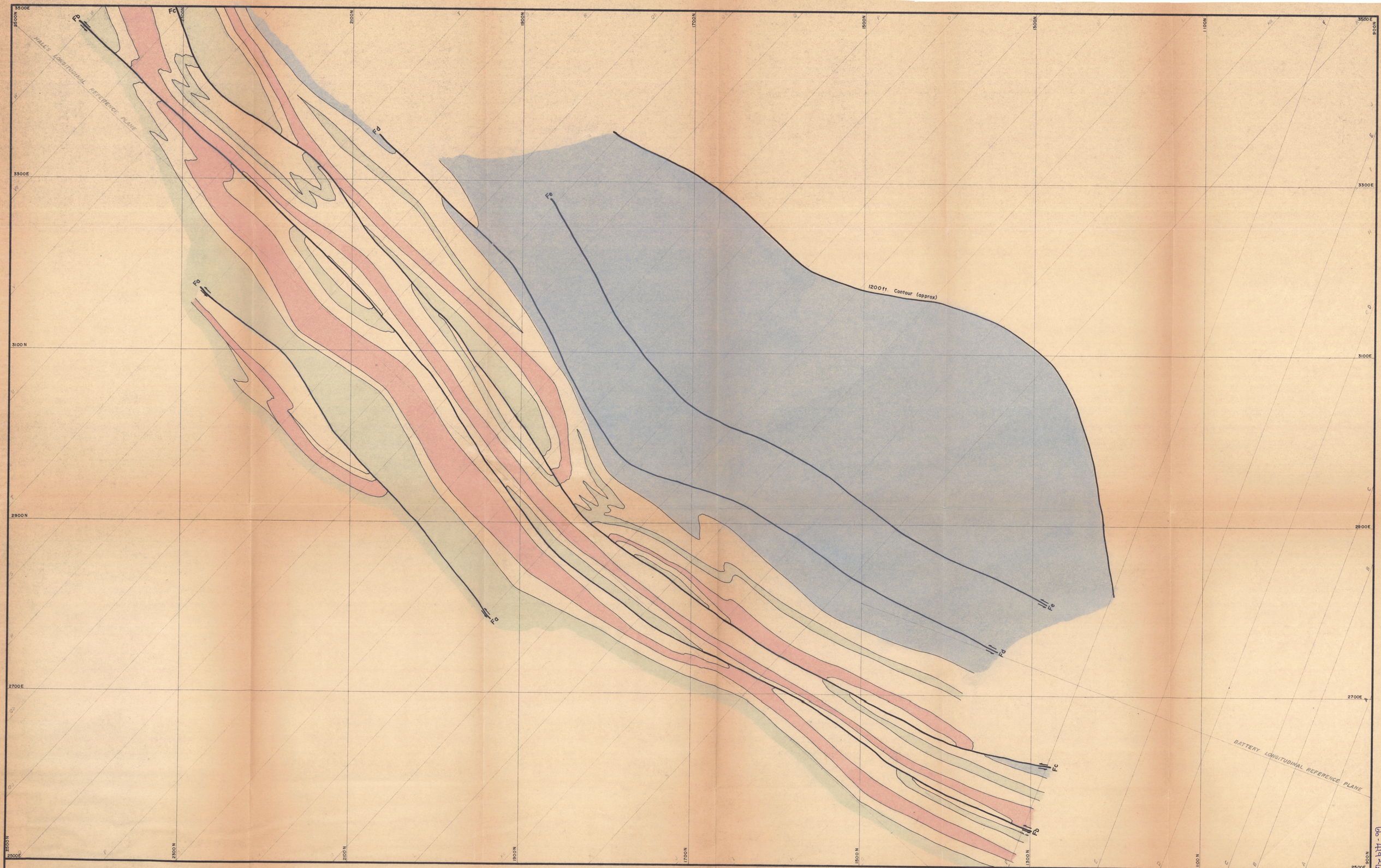
CLEVELAND MINE, TASMANIA.
R.L. 1300' LEVEL HORIZON
GEOLOGICAL INTERPRETATION PLAN

SURVEY	–		– / /
GEOLOGY	–	R COX	– 1 / 3 / 66
ENGINEERING	–		– / /
DRAWN	–	R. COX	– 1 / 3 / 66
TRACED	–		– / /
REFERENCE	–		
PRINT No.	–		

DRAWING No.– C–107–G

DRAWER: 3509 220044

66-419 2/2



40 0 40 80
SCALE OF FEET

5 cm

CLEVELAND MINE, TASMANIA.
R.L. 1200' LEVEL HORIZON
GEOLOGICAL INTERPRETATION PLAN

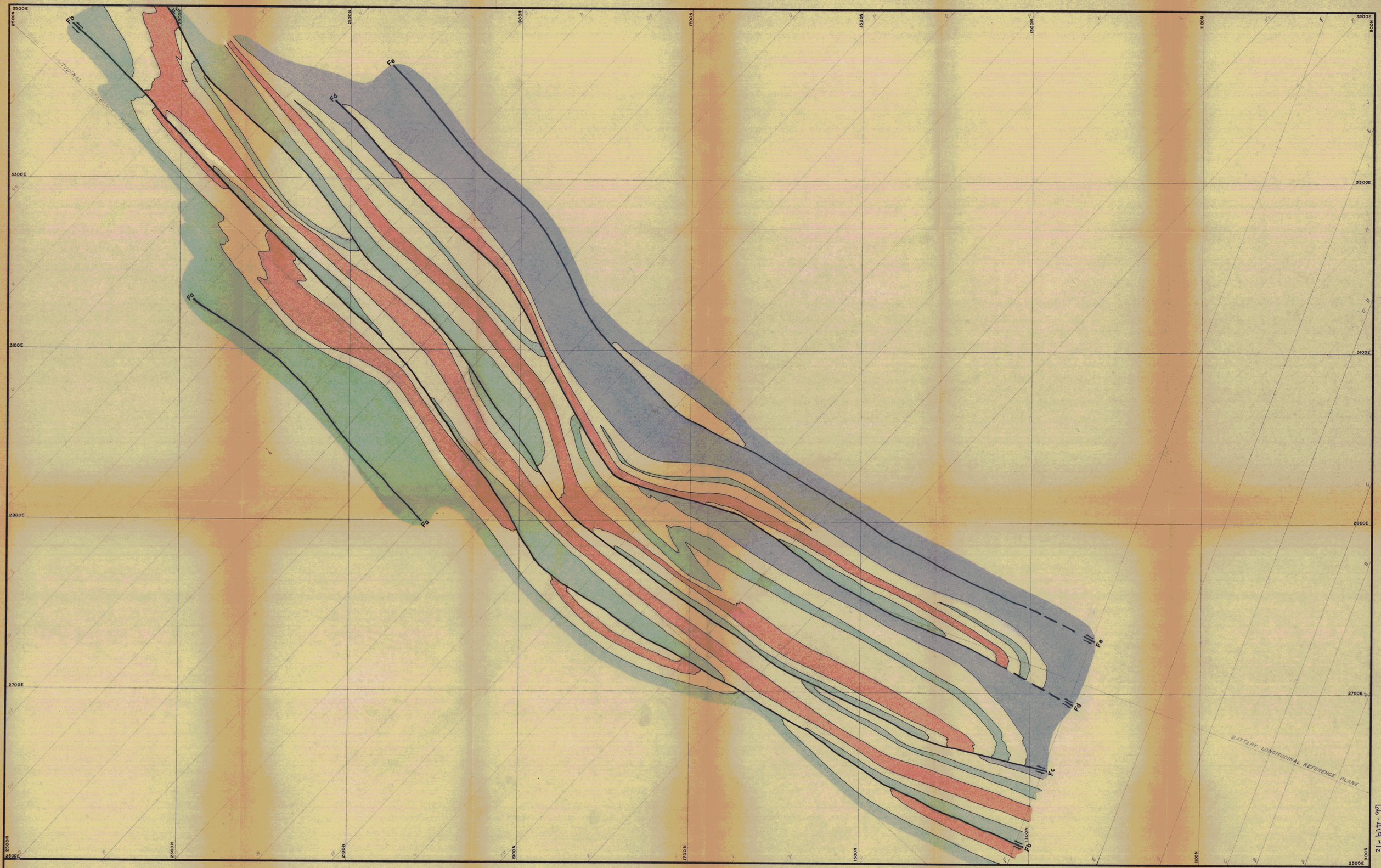
SURVEY	–		– / /
GEOLOGY	–	R. COX	– 1 / 3 / 66
ENGINEERING	–		– / /
DRAWN	–	R COX	– 1 / 3 / 66
TRACED	–		– / /
REFERENCE	–		
PRINT No.	–		

DRAWING No.– C – 108 – G

DRAWER: 3510

220615

66-HA-24



40 0 40 80
SCALE OF FEET

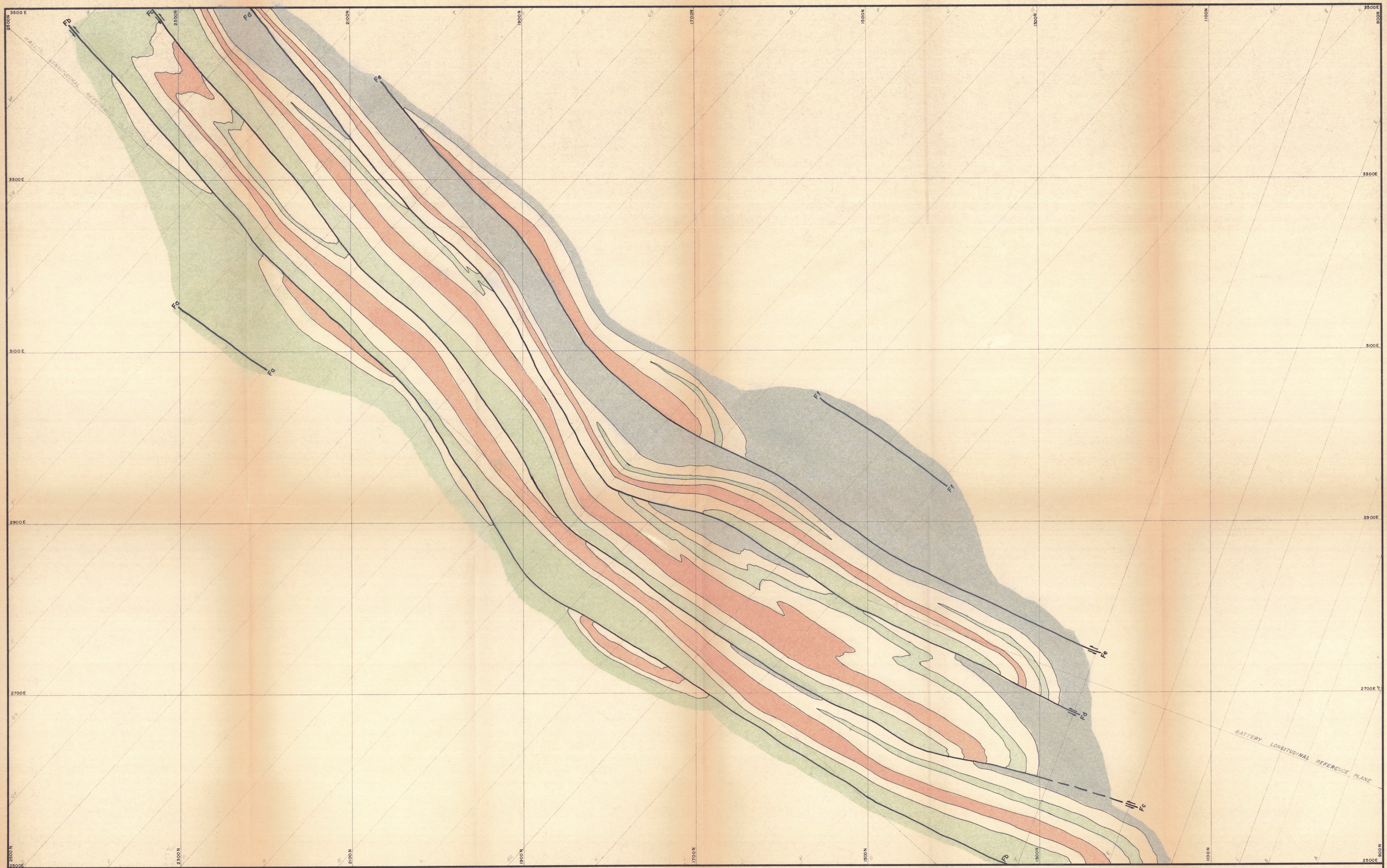
CLEVELAND MINE, TASMANIA.
R.L. 1100' LEVEL HORIZON
GEOLOGICAL INTERPRETATION PLAN

SURVEY	–		– / /
GEOLOGY	–	R. COX	– 1 / 3 / 66
ENGINEERING	–		– / /
DRAWN	–	R. COX	– 1 / 3 / 66
TRACED	–		– / /
REFERENCE	–		
PRINT No.	–		

DRAWING No.– C – 109 – G

DRAWER: 3511 220046

60-449-212



40 0 40 80
SCALE OF FEET

5 cm

CLEVELAND MINE, TASMANIA.
R.L. 1000' LEVEL HORIZON
GEOLOGICAL INTERPRETATION PLAN

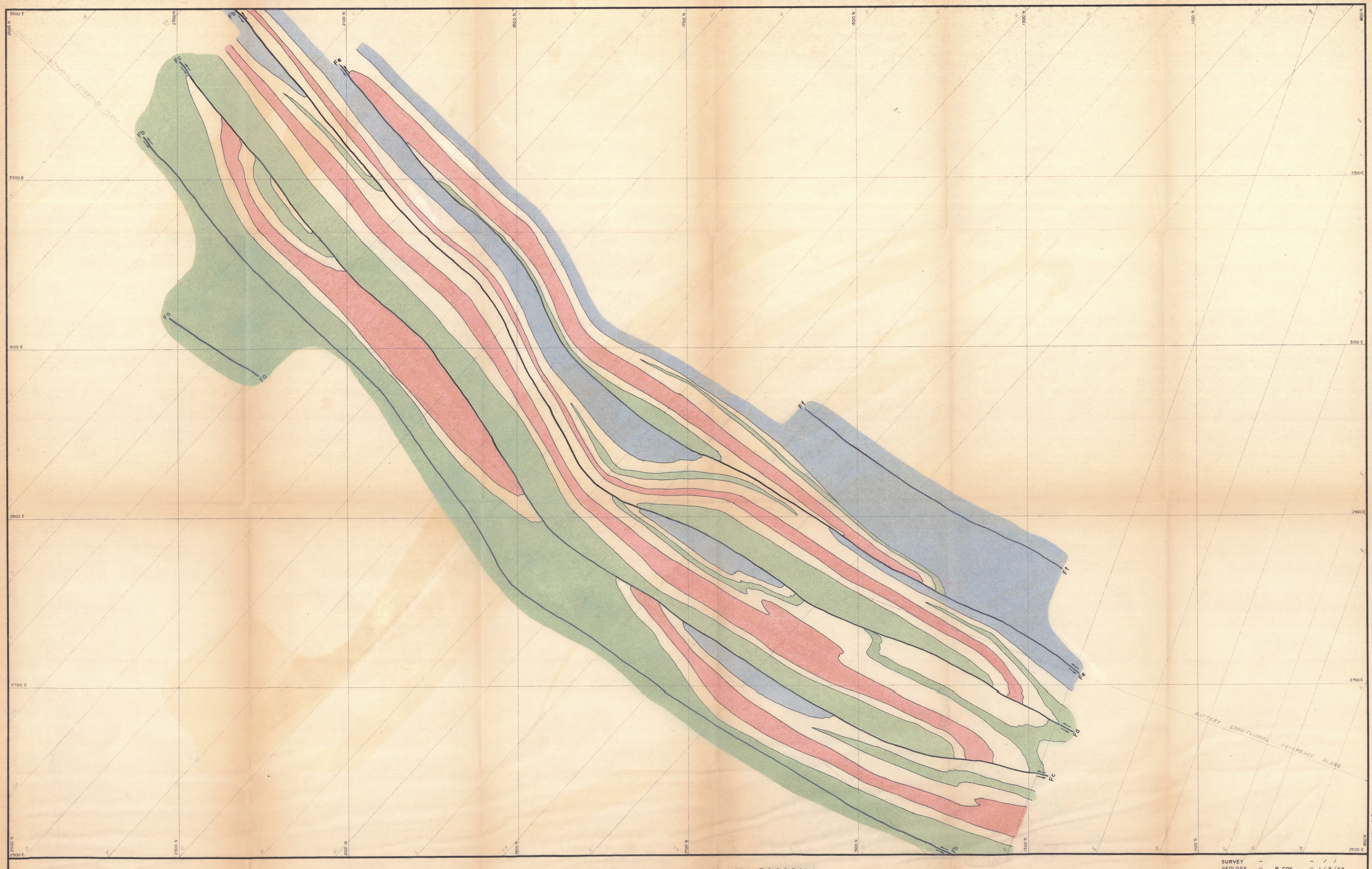
SURVEY	–		– / /
GEOLOGY	–	R.COX	– 1 / 3 / 66
ENGINEERING	–		– / /
DRAWN	–	R. COX	– 1 / 3 / 66
TRACED	–		– / /
REFERENCE	–		
PRINT No.	–		

DRAWING No.– C–110–G

DRAWER: 3512

220647

66-449-212



40 0 40 80
SCALE OF FEET

5 cm

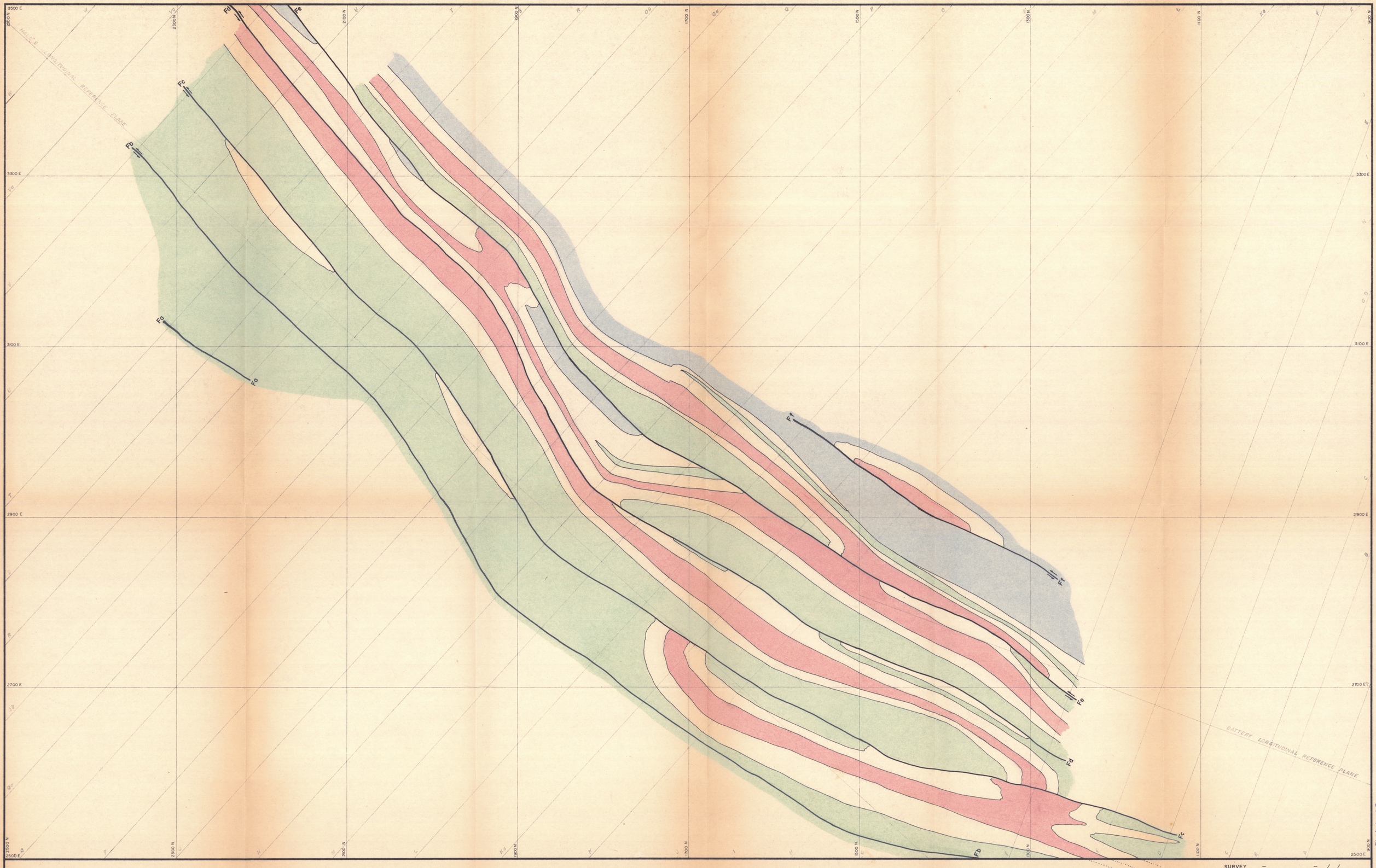
CLEVELAND MINE, TASMANIA.
R.L. 900' LEVEL HORIZON
GEOLOGICAL INTERPRETATION PLAN

SURVEY	–		– / /
GEOLOGY	–	R. COX	– 1 / 3 / 66
ENGINEERING	–		– / /
DRAWN	–	R. COX	– 1 / 3 / 66
TRACED	–		– / /
REFERENCE	–		
PRINT No.	–		

DRAWING No.– C – III – G

DRAWER: 3513 220048

66-1419 2/2



40 0 40 80
SCALE OF FEET

5 cm

CLEVELAND MINE, TASMANIA.

R.L. 800' LEVEL HORIZON

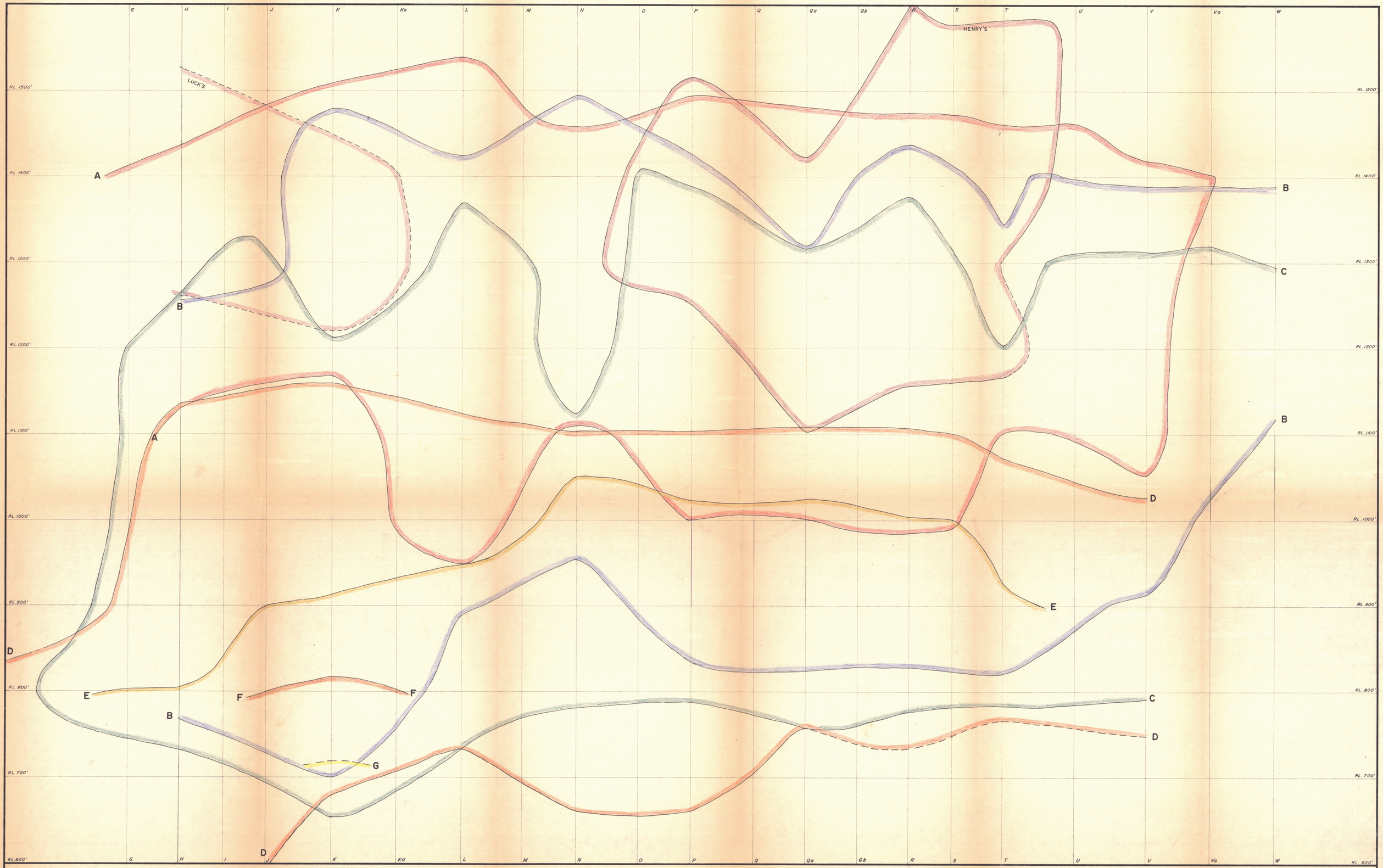
GEOLOGICAL INTERPRETATION PLAN

SURVEY	–		– / /
GEOLOGY	–	R. COX	– 1 / 3 / 66
ENGINEERING	–		– / /
DRAWN	–	R. COX	– 1 / 3 / 66
TRACED	–		– / /
REFERENCE	–		
PRINT No.	–		

DRAWING No.- C – 112–G

DRAWER: 3514 220649

66-HR 212



40 0 40 80
SCALE OF FEET
5 cm

CLEVELAND MINE, TASMANIA

COMPOSITE LONGITUDINAL PROJECTION OF "ORE BODIES". onto HALL'S REFERENCE PLANE

LOOKING N.W.

LEGEND

- HENRY'S – LUCK'S (Farthest)
- LENS A
- " B
- " C
- " D
- " E
- " F
- " G (Nearest)

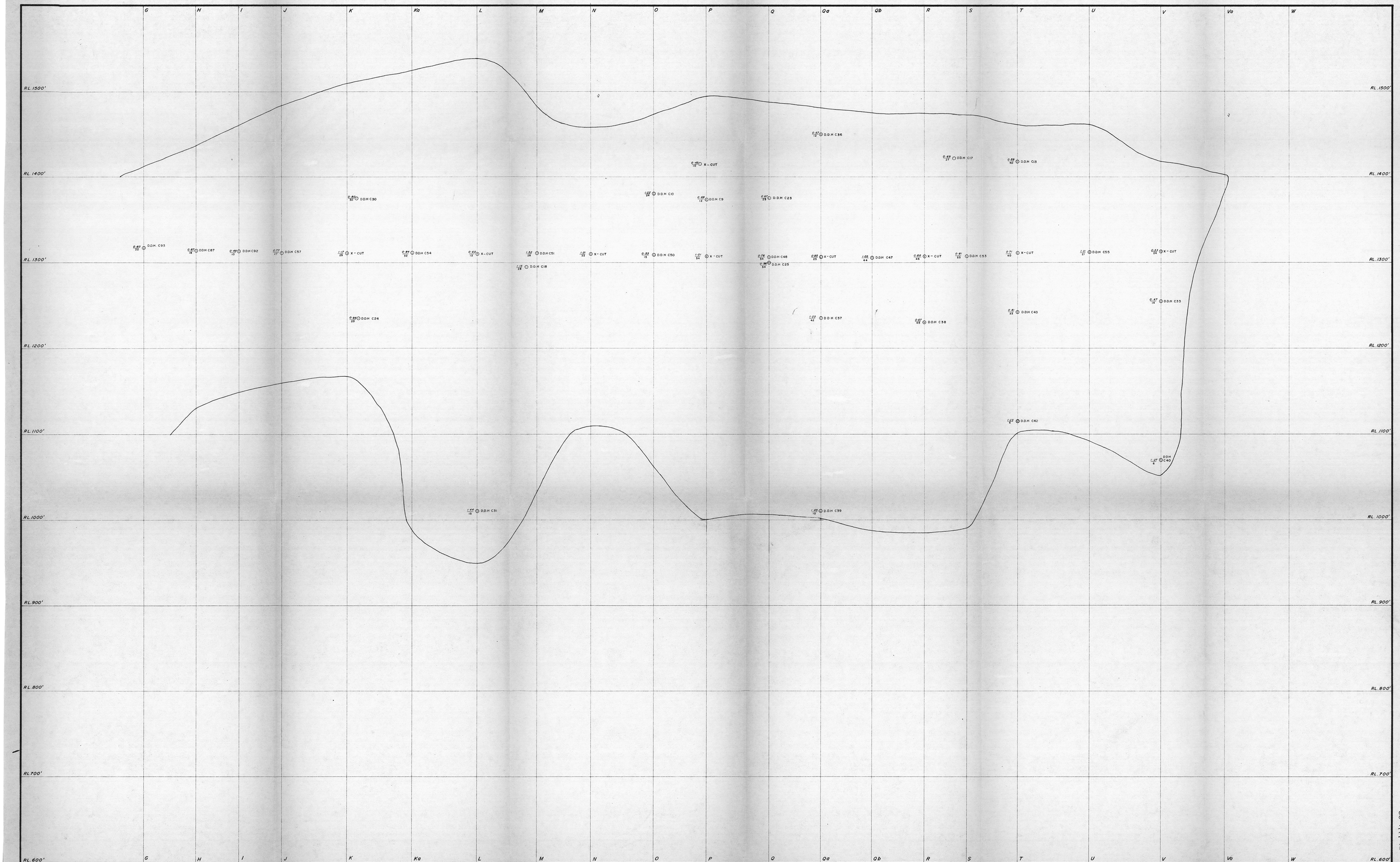
Drg. No. C - 114 - G

R. COX, March 1st 1966

220050

3515

66-419 2/2



40 0 40 80
SCALE OF FEET

5 cm

CLEVELAND MINE, TASMANIA

LONGITUDINAL PROJECTION of, "LENS A'" onto HALL'S REFERENCE PLANE

LOOKING N.W.

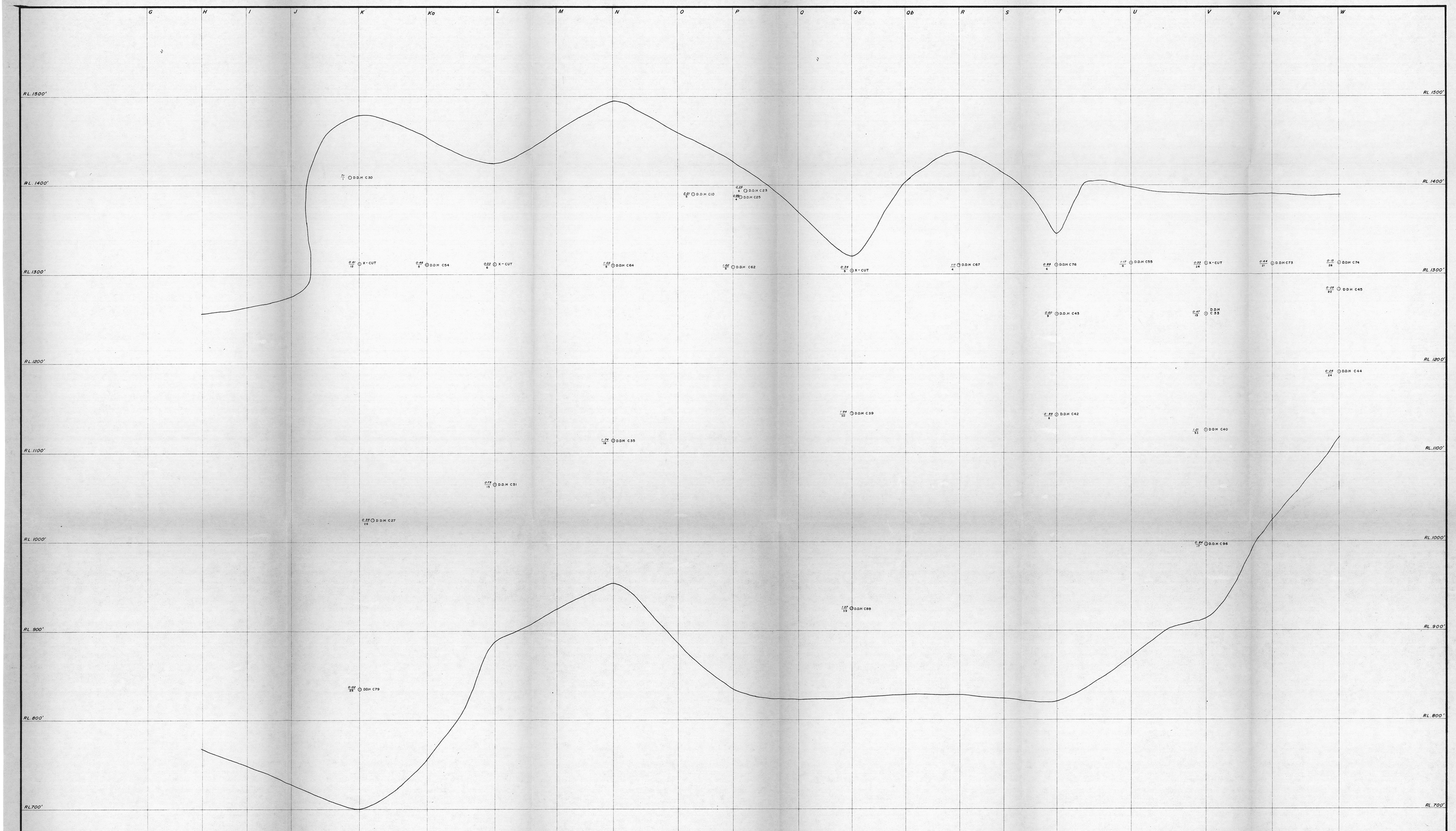
Drg. No. C - 115 - G

R. COX, March 1st 1966

3516

220051

66-419 2/2



40 0 40 80
SCALE OF FEET
5 cm

CLEVELAND MINE, TASMANIA

LONGITUDINAL PROJECTION of "LENS B" onto HALLS REFERENCE PLANE

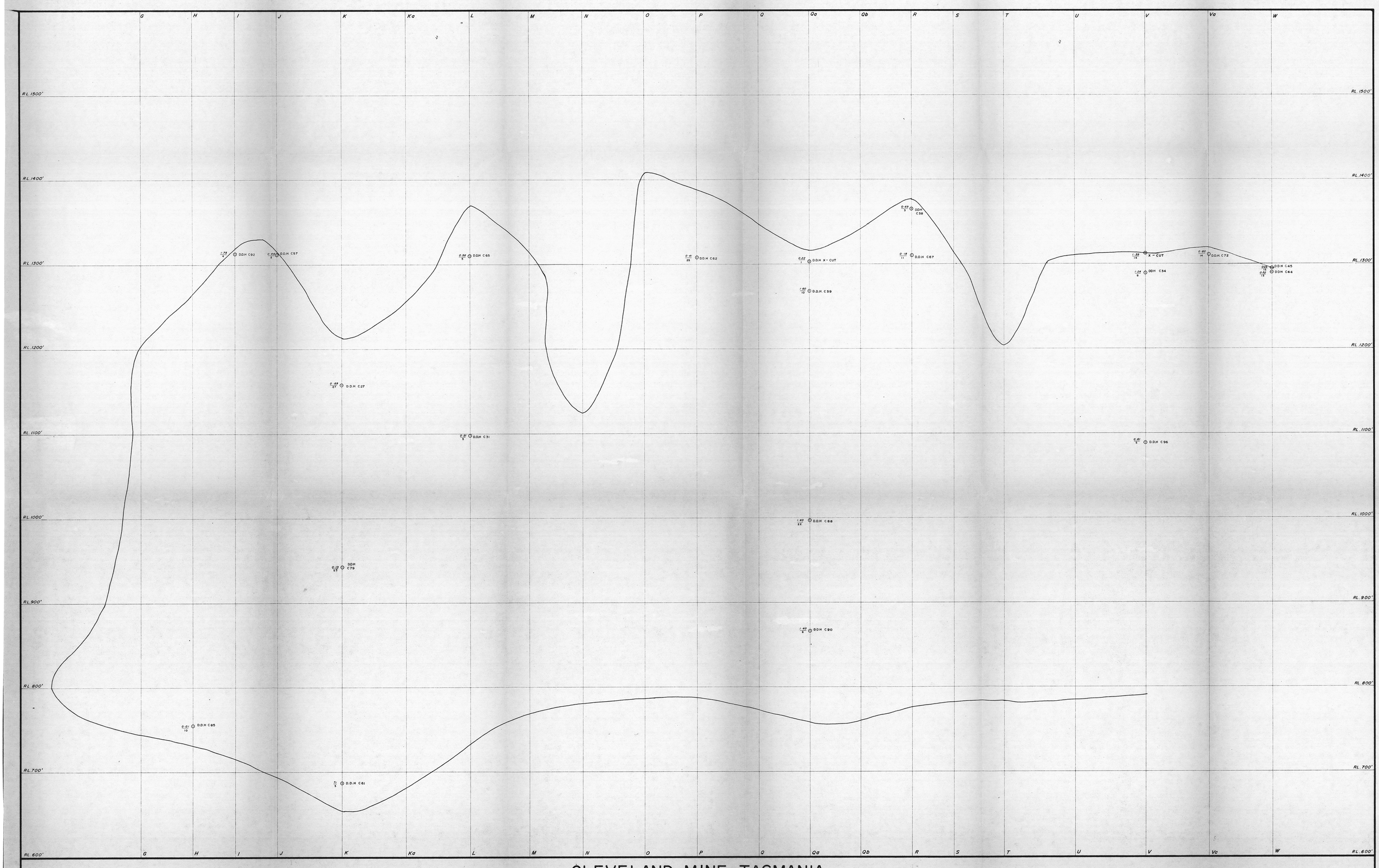
LOOKING N.W.

Drg. No. C - 116 - G
R. COX, March 1st 1966

66-4192/2

3517

220052



CLEVELAND MINE, TASMANIA

LONGITUDINAL PROJECTION of "LENS C" onto HALL'S REFERENCE PLANE

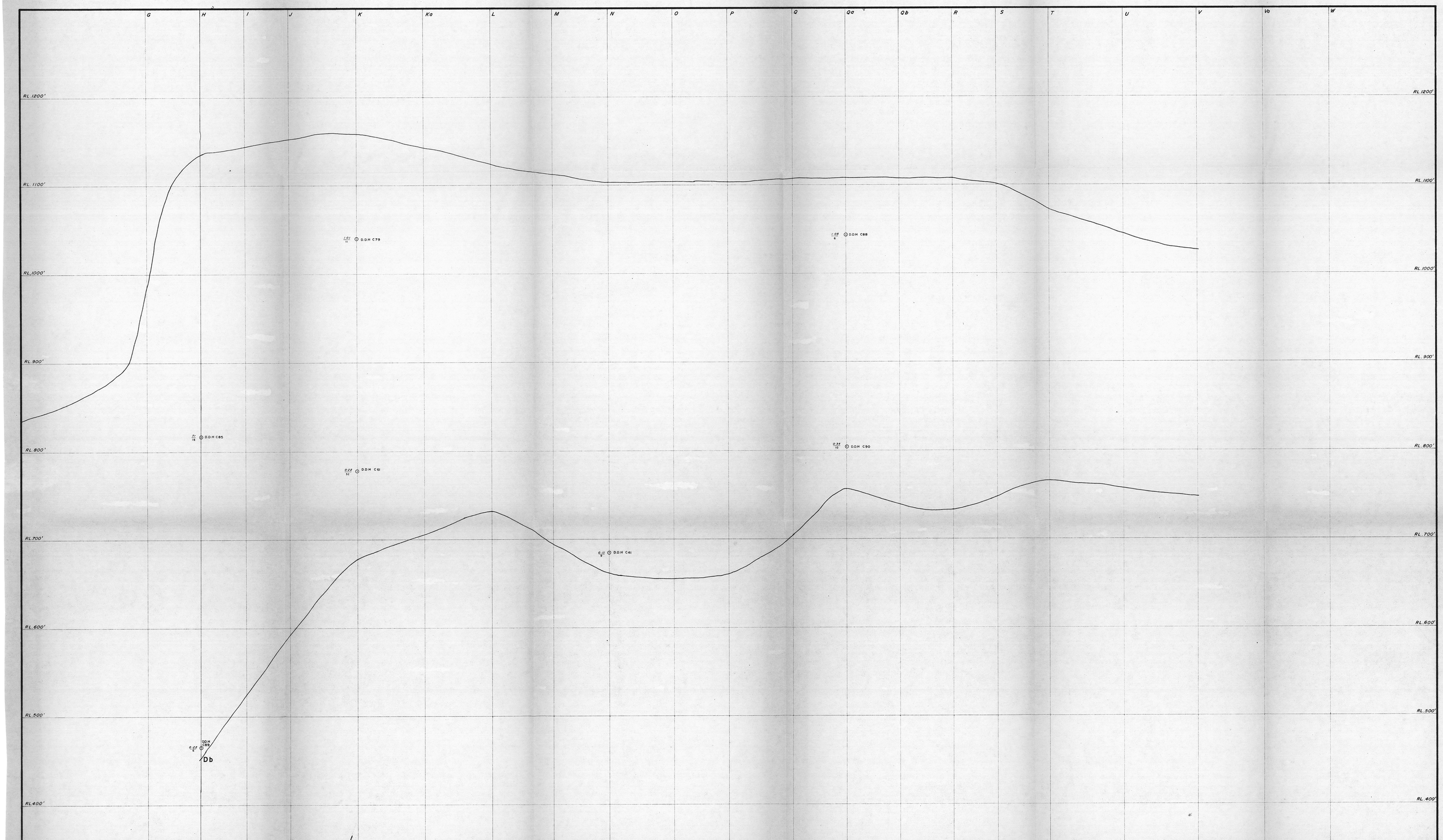
LOOKING N.W.

40 0 40 80
SCALE OF FEET
5 cm

Drg. No. C-117-G

R. COX, March 1st 1966

3518 220053



40 0 40 80
SCALE OF FEET
5 cm

CLEVELAND MINE, TASMANIA

LONGITUDINAL PROJECTION of "LENS D" onto HALLS REFERENCE PLANE

LOOKING N.W.

Drg. No. C - 118 - G

R. COX, March 1st 1966

3519 220054

66-A19 2/2

G H I J K Ka L M N O P Q Qa Qb R S T U V Va W

RL. 1200'
RL. 1100'
RL. 1000'
RL. 900'
RL. 800'
RL. 700'
RL. 600'
RL. 500'
RL. 400'
RL. 300'

0.09 / 25 D.D.H C61

0.67 / 26 D.D.H C41

0.21 / 29 D.D.H C80

0.07 / 9 D.D.H C89

Eb

Eb

40 0 40 80
SCALE OF FEET

5 cm

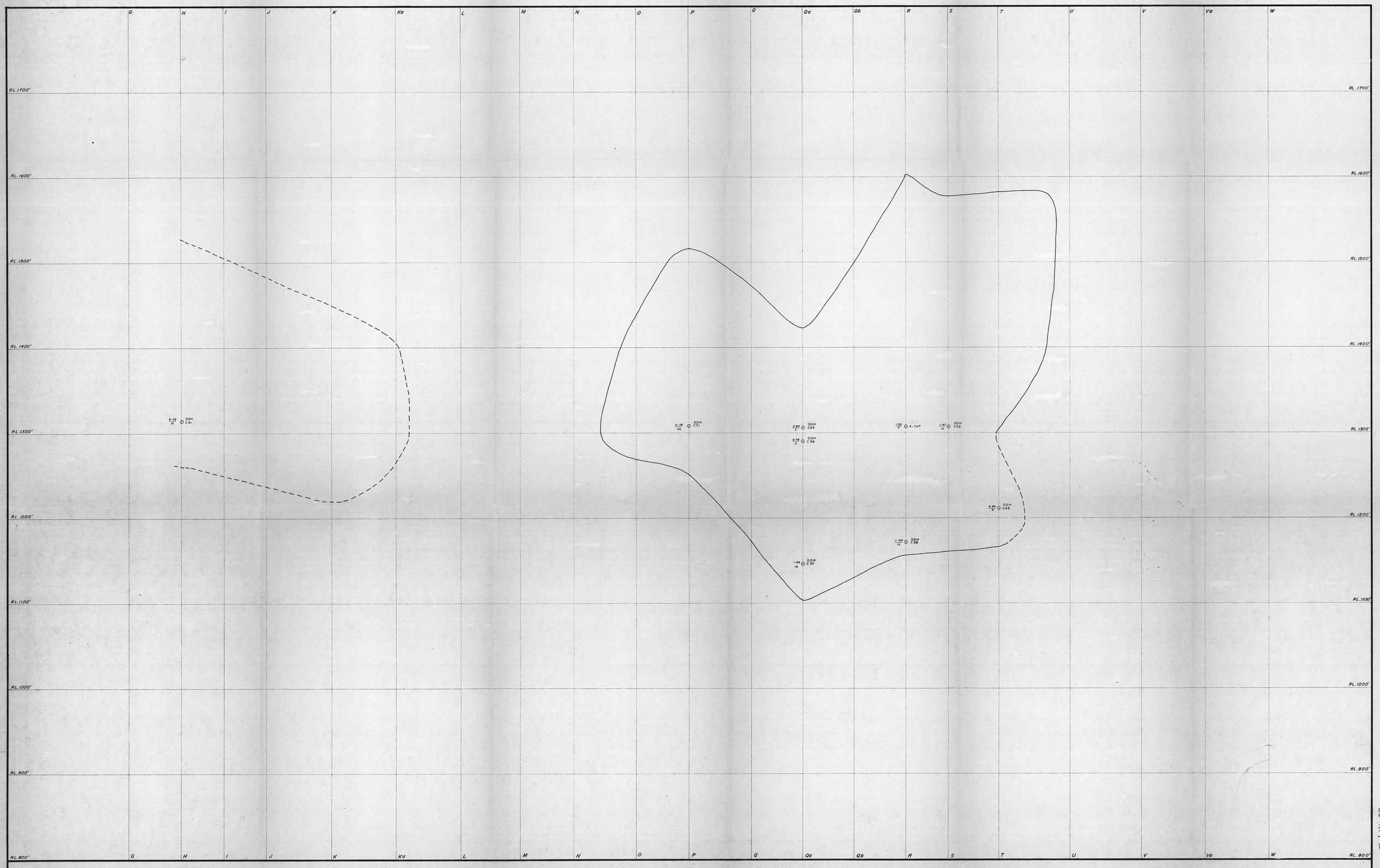
CLEVELAND MINE, TASMANIA
LONGITUDINAL PROJECTION of "LENS E"
onto HALL'S REFERENCE PLANE
LOOKING N.W.

Drg. No. C - 119 - G
R. COX, March 1st 1966

3520

220055

66-119-212



40 0 40 80
SCALE OF FEET
5 cm

CLEVELAND MINE, TASMANIA

LONGITUDINAL PROJECTION of LUCK'S & HENRY'S ORE BODIES onto HALL'S REFERENCE PLANE

LOOKING N.W.

Drg. No. C - 120 - G

R. COX, March 1st 1966

3521 220056

66-H19 2/2