



Energy, Mines and
Resources Canada
Geological Survey of Canada
100 West Pender, Vancouver
V6B 1R8

Énergie, Mines et
Ressources Canada
Commission géologique du Canada
100, ouest, rue Pender, Vancouver
V6B 1R8

675930
midway
1040/16

6 June, 1983

Your file Votre référence

Our file Notre référence

Mr. R. Somerville
AJM Explorations Ltd.
203 - 1209 East 4th Street
North Vancouver, B.C.
V7J 1G8

*EE study 20-1
22-4*

Dear Rick:

Following up on our telephone discussion last week, here are the Pb isotope analyses I received over the telephone from Ralph Thorpe:

	²⁰⁶ Pb/ Pb	²⁰⁴ Pb/ Pb	²⁰⁷ Pb/ Pb	²⁰⁴ Pb/ Pb	²⁰⁸ Pb/ Pb	²⁰⁴ Pb/ Pb
DY 2551						
Small vein intermediate to Maura and Allison veins	19.133		15.694		38.950	
Ref: Thorpe memo Jan. 21/83	19.143		15.707		38.995	
DY 2544						
Cusac claims; Line #4 vein	19.171		15.649		39.042	
DY 2543						
Bad Bear or McDame Belle	19.348		15.742		39.833	

I have plotted these analyses with some selected from Colin Godwin's Pb isotope file for deposits in the Cassiar district, most of which were submitted by Andre Panteleyev.

You will note that the skarns (BB,S,LT) plot close to the gold veins (C,E), although the deposits show a broad scatter typical of Cretaceous pluton-related leads. We do not have a stratiform Pb analyses from the Sylvester Group to compare with these analyses, but the average of available Devono-Miss stratiform leads from Mac Pass and Gataga plot on the Shale Curve in the 'Miss-Penn.' age range, as shown on the accompanying figure.

If the Pb in the Au veins were remobilized from a Sylvester Gp. stratiform deposit, or derived from trace amounts of metals in the host rock, then the isotopic composition would correspond more closely with the Dev-Miss average figure. The data strongly support a relationship to Cretaceous and/or younger plutons, not to the host rock.

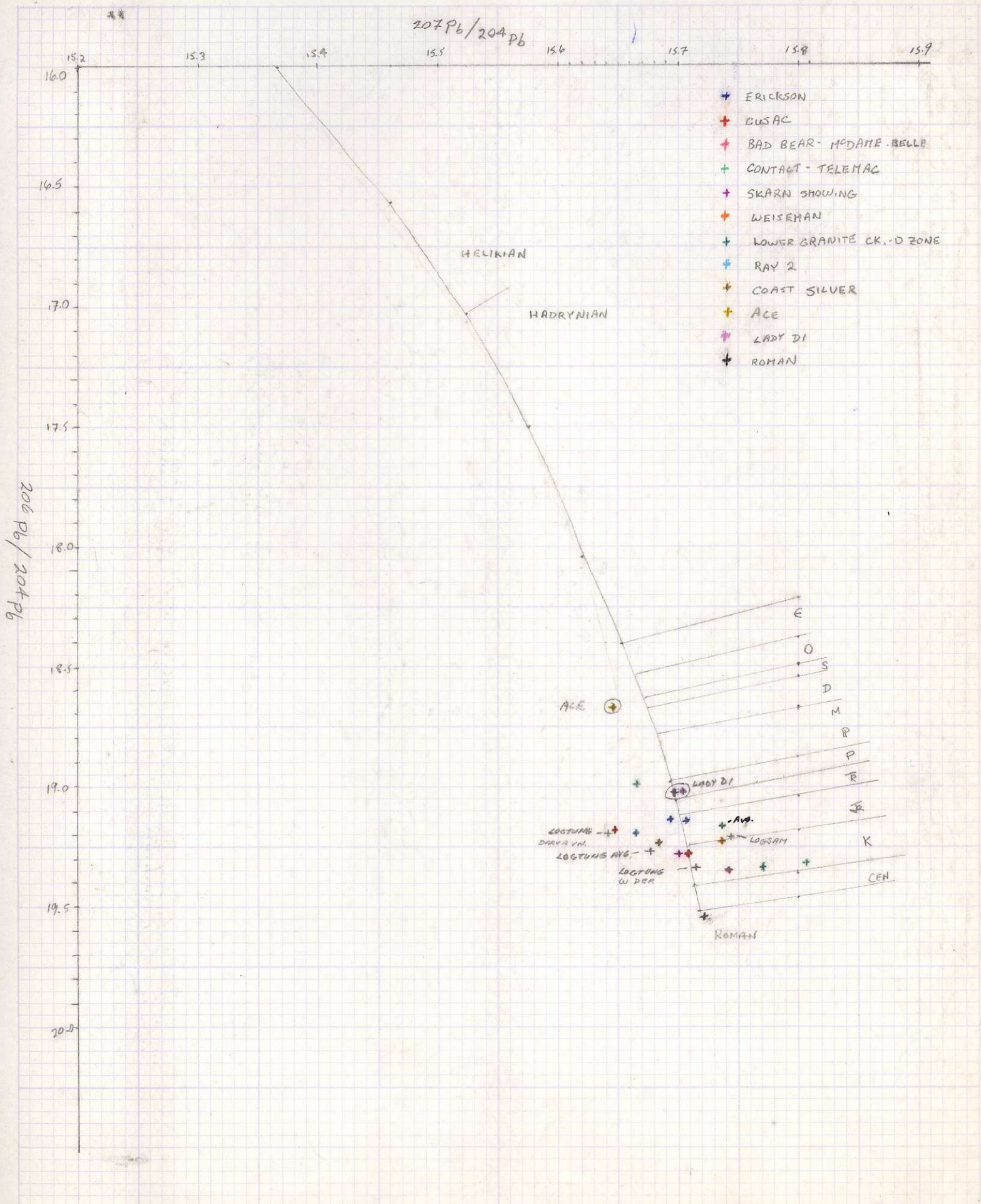
Doug and I will be collecting galenas this season from the Cassiar district to expand and hopefully, clarify this distribution of isotopic values.

Best regards,

Kenneth M. Dawson
Kenneth M. Dawson

KMD/bv Encl.
Canada

Pb ISOTOPE PLOT - #1-7 GODWIN'S Pb FILE, 1982 (Coast Silver → Cusac)
R. Thorpe - Results



$^{207}\text{Pb}/^{209}\text{Pb}$

15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9

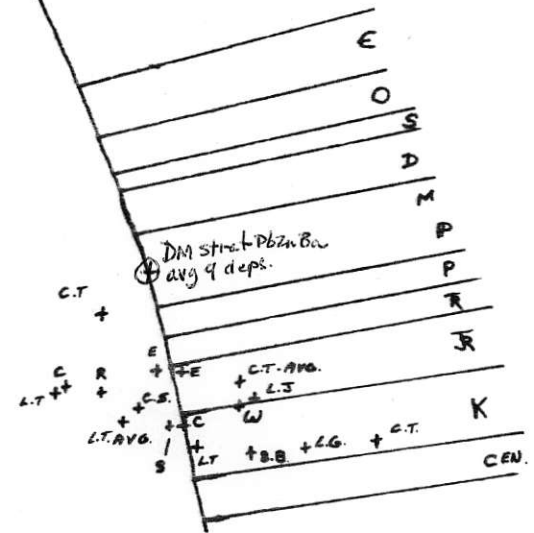
16.0
16.5
17.0
17.5
18.0
18.5
19.0
19.5
20.0

- + C.T. CONTACT-TELEMAC
- + L.G. LOWER GRANITE CR-D ZONE
- + L.T. LOGTUNG
- + L.J. LOGJAM
- + B.B. BABBEAR
- + W. WEISEMAN
- + C. CUSAC
- + R. RAY 2
- + E. ERIKSON
- + S. SKARN SHOWING
- + C.S. COAST SILVER
- AVG. AVERAGE

HELIKIAN

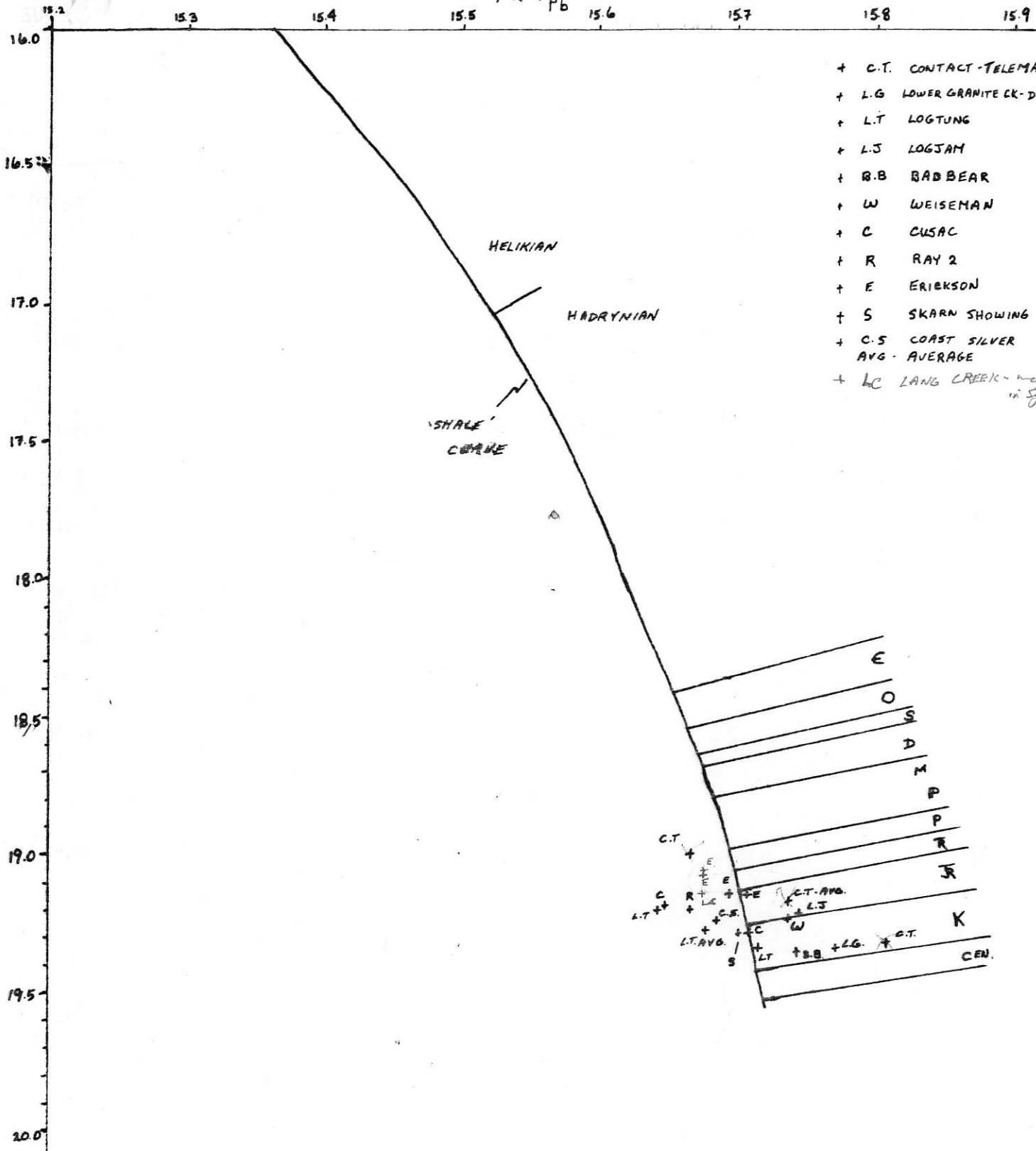
HADRYNIAN

'SHALE'
CORRE



206 Pb / 204 Pb

$^{207}\text{Pb}/^{204}\text{Pb}$



- + C.T. CONTACT-TELEMAG
- + L.G. LOWER GRANITE CK-D ZONE
- + L.T. LOGTUNG
- + L.J. LOGSAM
- + B.B. BABBEAR
- + W. WEISEMAN
- + C. CUSAC
- + R. RAY 2
- + E. ERIKSON
- + S. SKARN SHOWING
- + C.S. COAST SILVER
AVG. AVERAGE
- + LC LANG CREEK - massive SK.
in Sylvester

206 Pb / 204 Pb

Midway
1040/15

207/204 Pb

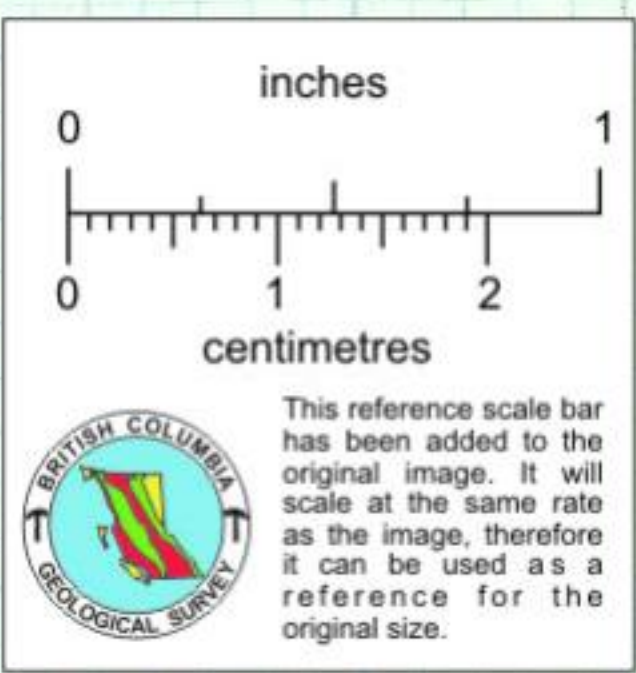
15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9

MIDWAY

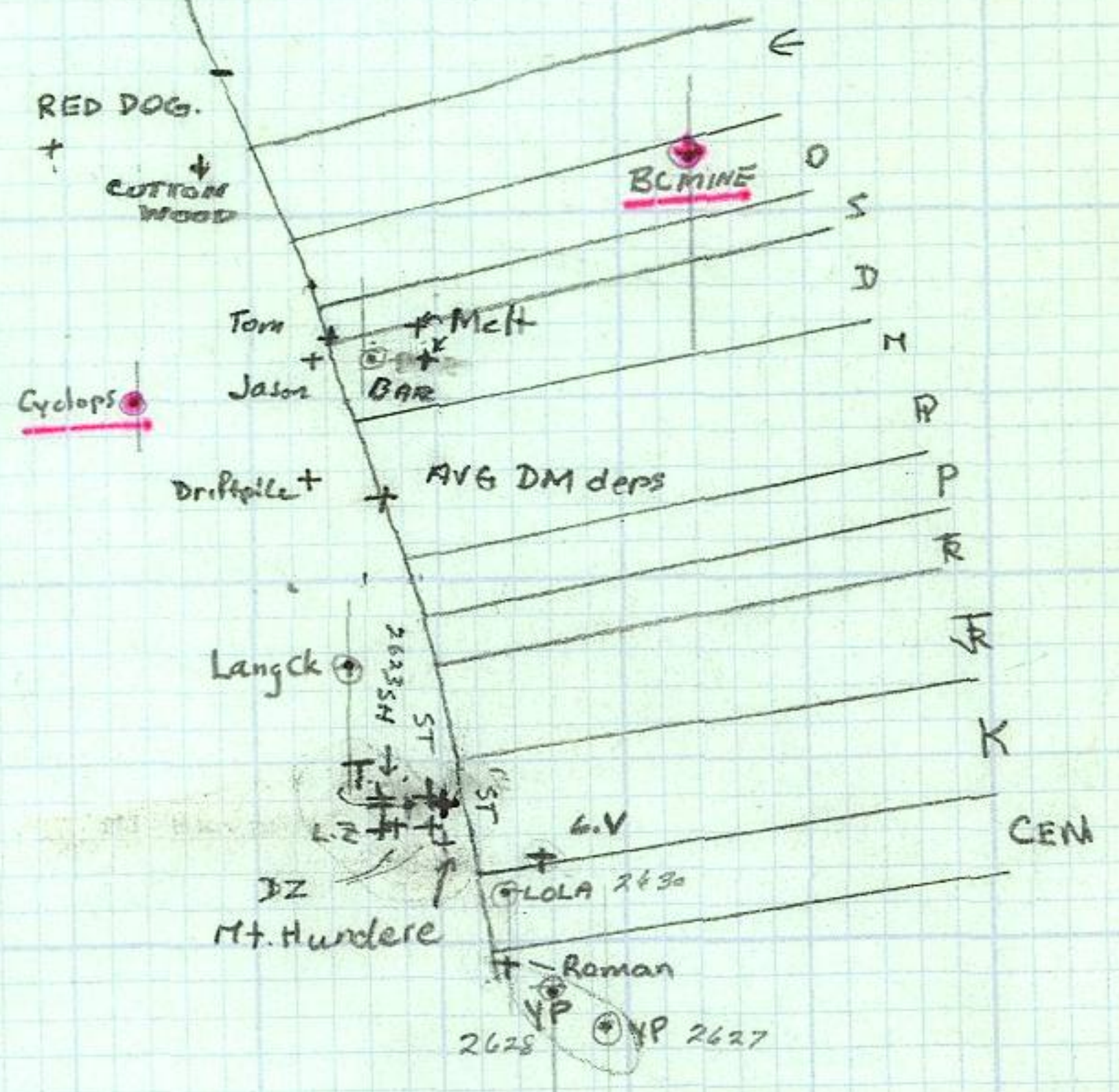
DISCOVERY

- + Mt. H. - Mount Hundere
- + L.V. late vein cuts Disc. Zone
- + T. Discov. Zone; trench
- + L.Z. Lower zone DDH 8
- + D.Z. 91-3 124.4m

Date from Ian Jonsson
June 14/83



HEL.
HAD.
SHALE
CURVE



+ August LH.

206/204 Pb

16.0
16.5
17.0
17.5
18.0
18.5
19.0
19.5
20.0
20.5
21.0
21.5
22.0
22.5

Prism n=8
Prism
Prism n=8

16.0 16.1

Mid-Jer Line