

MINNOVA

823998

approved
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MEMORANDUM

DATE: May 10, 1989
A TO: I. D. Pirie
COPIES A COPIES TO:
DE FROM: G. Evans
SUJET SUBJECT: Dusty Mac Drill Proposal

Will test 1988 targets in the grid area.

33000 m at \$70/m all in costs = \$231,000

<u>Hole #</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Line</u>	<u>Station</u>	<u>Depth</u>
P ₁	225°	-45°	0+40S	0+40E	150 m
P ₂	225°	-75°	0+50N	1+00E	400 m
P ₃	225°	-75°	1+50N	1+30E	400 m
P ₄	225°	-45°	3+00N	1+00E	200 m
P ₅	225°	-60°	5+50N	1+00E	300 m
P ₆	225°	-45°	10+00N	2+00W	180 m
P ₇	225°	-45°	11+00N	2+10W	170 m
P ₈	225°	-45°	8+50N	3+50W	200 m
P ₉	225°	-45°	7+00N	1+80W	200 m
P ₁₀	180°	-60°	4+50N	3+00W	200 m
P ₁₁	270°	-60°	0+20N	3+80W	200 m
P ₁₂	225°	-45°	1+50N	0+50W	300 m

200 m reserved for drilling A zone showing - contingent on results.

P ₁₃	225°	-45°	2+00S	1+70W	200 m ,
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DUSTY MAC TREND

- P₁ -will test the remaining ore to the south of the pit and its relationship with the major faults to the west of the pit area. This hole will also allow us to refine the location of P₂ and P₃.
- P₂ -is a deep hole that will test the Dusty Mac structure under the pit as well as the base of the Marama near the vertical structures, for Vault type mineralization.
- P₃ -is contingent on results of P₂ and is designed to test the same structures at the north end of the pit.
- P₄ -tests the Dusty Mac structure in an area of overburden to the north of the pit.
- P₅ -tests the Dusty Mac structures along strike from DM-2, 3 as well as PE 11, 18 which all had significant alteration and mineralization.

CHALCEDONY ZONE

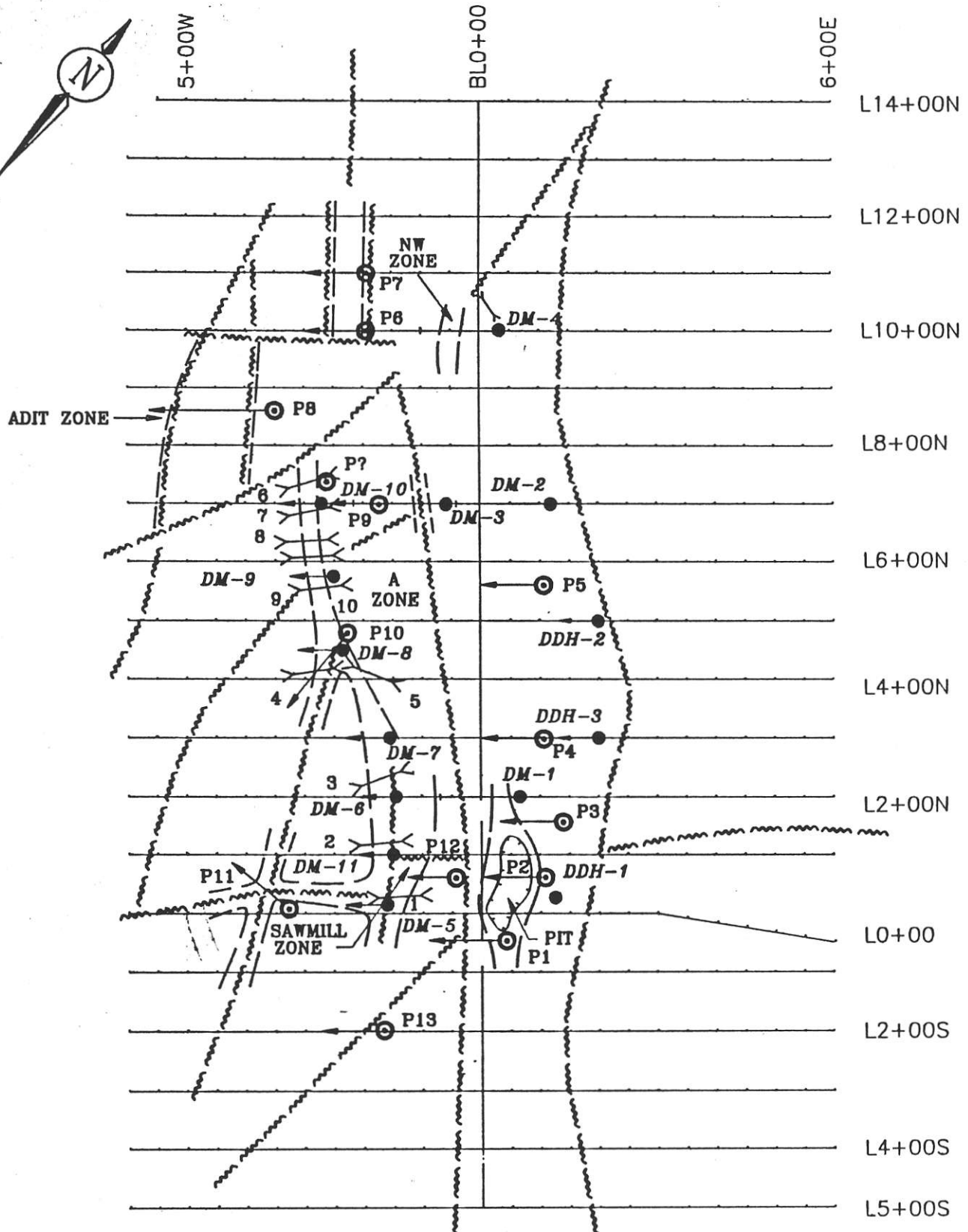
- P₆ & P₇ -provide cross sections through the chalcedony zone which has Au values of 1.1 g on the surface and values of up to 5+ g in previous drilling. If holes find limit of mineralization before anticipated, the extra footage will be used for infill drilling.

ADIT ZONE

- P₈ -this hole will test a quartz breccia zone with shallow dipping quartz veins and will test potential boiling traps below these.

A ZONE

- P₉ -will allow us a complete cross section along line 7N and will test under the A zone at depth within the Marama dacite.
- P₁₀ -set at 45° to the section, this hole will test two intersecting structures with mineralization and alteration as well as the base of the Marama near these structures.
- P₁₁ -another hole at 45° to the section, this hole will test the junction of two mineralized structures and the base of the Marama.
- P₁₂ -will complete our section west of the pit in an altered and mineralized zone known as the Sawmill Zone. The hole will also intersect the A Zone between DM-6 and DM-11 within the Marama dacite.
- P₇ -200 m of drilling will be allotted to drilling the A Zone showing but will be located after trenching and possibly blasting of the zone as well as results of P₉.
- P₁₃ -tests the junction of the A Zone and the Dusty Mac structure in an area anomalous Au and F anomalies. A strong coincident I.P. anomaly (chargeability high) makes this a promising buried structure.



- Mineralization
- Alteration Zone
- Fault
- 1988 Trench location
- DM (MINNOVA 1988)
- DDH (ESSO 1986)
- Proposed 1989 Drill Hole Location

DUSTY MAC PROPERTY STRUCTURE & MINERALIZATION WITH PROPOSED 1989 DRILL HOLES

MINNOVA

MEMORANDUM

DATE: 22 June 1988
A
TO: A.J. Davidson
COPIES A
COPIES TO: D.H. Watkins
DE
FROM: I.D. Pirie, G. Evans
SUJET
SUBJECT: Dusty Mac Drill Proposal

The following is a proposal to drill 1440m on the Dusty Mac Option at Okanagan Falls, BC. It is based on analysis of extensive past work, particularly geology and drilling, combined with our own IP and CSAMT results and property examination with a structural emphasis.

SUMMARY

	<u>Location</u>	<u>Angle</u>	<u>Azimuth</u>	<u>Depth (m)</u>	<u>Target</u>
P1	L2+00N 0+75E	-45°	225°	200	CSAMT high/low
P2	L7+00N 1+28E	-45°	225°	200	CSAMT high
P3	L7+00N 0+10W	-45°	225°	200	CSAMT low
P4	L10+00N 0+40E	-45°	225°	200	CSAMT high
P5	L0+10N 1+65W	-45°	225°	120	IP/ alteration
P6	L2+00N 1+90W	-45°	225°	100	IP
P7	L3+00N 2+10W	-45°	225°	120	IP/ structure
P8	L4+40N 2+80W	-45°	225°	100	IP/ alteration /structure
P9	L5+80N 3+00W	-45°	225°	100	IP/ alteration
P10	L7+00N 2+70W	-45°	225°	100	IP/known mineral- ization

TOTAL = 1440m

Holes P1 - P4 will test Controlled Source Audio-Magneto Telluric anomalies. Theory predicts that the high resistivity anomalies will be silicification associated with mineralization. The low resistivity anomalies are predicted to be the fault structures which provide a channelway for mineralizing fluids. A high-low pair, therefore, may indicate silicified (mineralized) zones adjacent to channelways.

P1 will intercept a high-low pair immediately north of the pit area. Previous drilling to shallow depths has indicated noisy gold values in this area. The hole will intersect below any known holes.

P2 and P3 will, together, intersect another high-low pair some 600m northwest of the pit. This is an area of 20m+ overburden cover with no known drilling other than a couple of shallow percussion holes.

P4 will test a high resistivity anomaly associated with known silicification at the 'Northwest Zone.' Anomalous gold values have been obtained in the past from this zone but it has never been tested to any depth.

Holes P5 - P10 will test what is known as the 'A Zone.' This structure has returned gold values for over 700m including grabs of 2opt+ (Minnova sampling) and drill holes of 0.46opt/5' and 0.36opt/17'; however, it has generally taken a back seat to the Pit area in terms of exploration. Specific drill targets are based on IP chargeability highs/resistivity lows along with an interpretation of cross structures which may play a part in focusing mineralization.

DUSTY MAC 1988 DIAMOND DRILL - SPECIFIC PROPOSALS

P1- L2+00N STN0+75E Brng 225 Dip -45

To test the NW extension of the DM pit area over a CSAMT anomaly with a strong resistivity high and resistivity low. Also an area with previous drilling e.g. DM 248-252 with high Au and Ag values.

Prop. Depth 200m

P2- L7+00N STN1+28E Brng 225 Dip -45

To test a strong CSAMT resistivity high in an area of overburden near Esso's PDH-13 which had alteration near the bottom of the hole.

Prop. Depth 200m

P3- L7+00N STN0+10W Brng 225 Dip -45

To test a strong CSAMT resistivity low in an area of overburden, and giving a complete cross section of the valley with P2. Esso's hole PH-12 encountered near surface alteration with Au and Ag values in this area.

Prop. Depth 200m

P4- L10+00N STN0+40E Brng 225 Dip -45

To test a strong CSAMT resistivity high near the Northwest Zone which is a Qtz.Vein Bx. with known Au. and Ag. values.

Prop. Depth 200m

P5- L0+10N STN1+65W Brng 225 Dip -45

To test an alteration zone near the junction of two structures near PDH-466 which ran 5.2m of .356 oz./ton Au.

Prop. Depth 120m

P6- L2+00N STN1+90W Brng 225 Dip -45

Test IP.

Prop. Depth 100m

P7- L3+00N STN2+10W Brng 225 Dip -45

To test an intersection of a N trending structure with the "A" Zone. The area has a wide zone of alteration which will be trenched before the drilling to confirm the structure.

Prop. Depth 120m

P8- L4+40N STN2+80W Brng 225 Dip -45

To test the intersection of a fault with the "A" Zone. Previous trenching has uncovered a large alteration zone in this recessive area.

Prop. Depth 100m

P9- L5+80N STN3+00W Brng 225 Dip -45

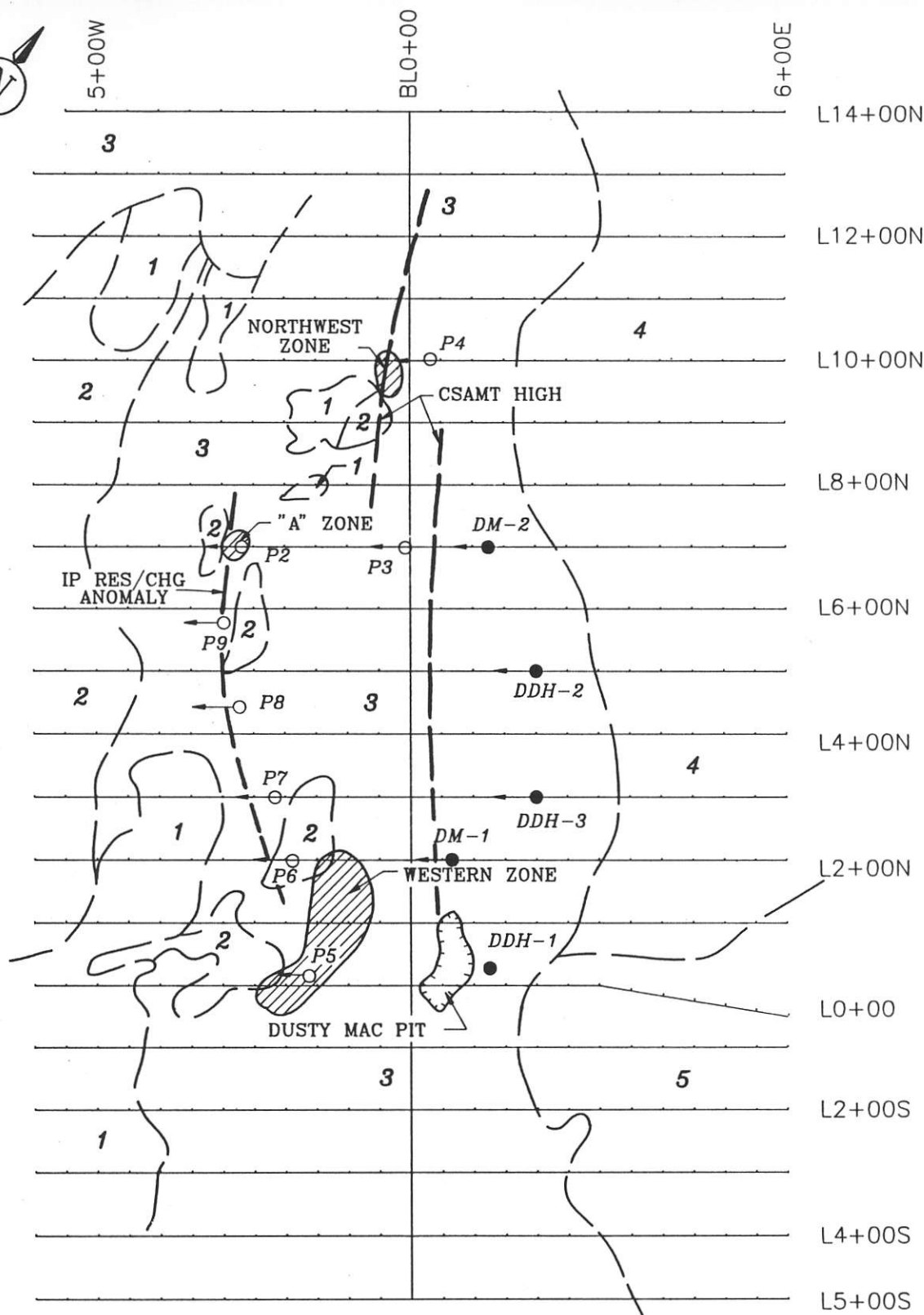
To test an alteration zone that is on strike with the main "A" Zone showing. This area will be trenched before being drilled.

Prop. Depth 100m

P10- L7+00N STN2+70W Brng225 Dip -45

To test the main "A" Zone showing where previous drilling e.g.DDH 473 hit 1.5m of .46oz./tAu and .62oz./t Ag.

Prop. Depth 100m



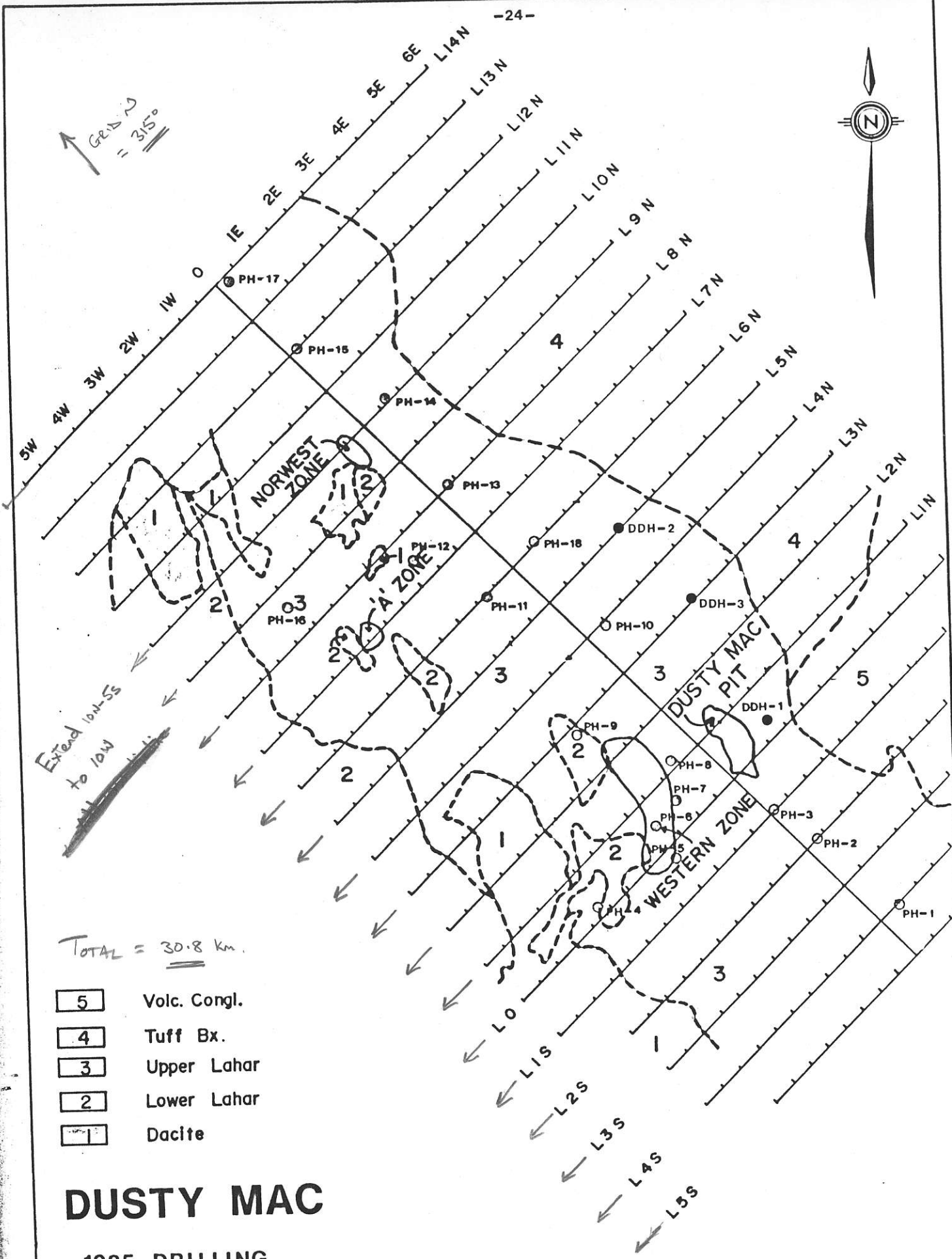
- 5 Volc. Congl.
- 4 Tuff Bx.
- 3 Upper Lahar
- 2 Lower Lahar
- 1 Dacite

- Diamond drill hole location
(DDH - ESSO Hole)
(DM - MINNOVA Hole)
(P - Proposed Hole)

DUSTY MAC PROPERTY



GRD 20
= 315°



TOTAL = 30.8 km.

- 5 Volc. Congl.
- 4 Tuff Bx.
- 3 Upper Lahar
- 2 Lower Lahar
- 1 Dacite

DUSTY MAC

1985 DRILLING

- Percussion Drill Hole
- Diamond Drill Hole

