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August 13, 1959.

Mr. O.G. MacDonald
President
Nadira Mines Ltd.
Vancouver, B.C.

Dear Sir:

Attached is a report on the Nadira Mine.

I was instructed to make an accurate survey of this property and to leave a permanent set of survey hubs.

Based on the information of this survey it is possible to say that there is at least 45,000 Tons of ilvaite-scarn available on the surface to open pit mining. The grade of this material is around 1% copper but the values are uneven so that it may be possible to selectively mine trucking grade ore (3% copper). This would involve breaking three times as much rock as is trucked.

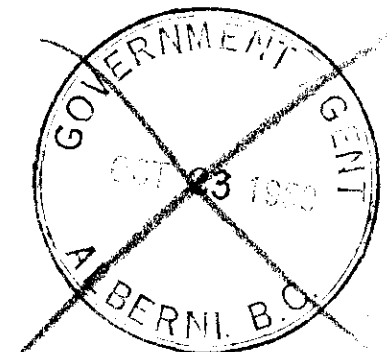
I do not think that any further purpose would be served in further diamond drilling this property. Actual open pitting operations on a small scale would be the most logical way to test the shipping possibilities and the distribution and the extent of the ore. The capital cost of this program would be small.

Yours very truly,

David A. Sloan

David A. Sloan

DAS:SSS



R E P O R T

O N T H E

PROPERTY OF NADIRA MINES LTD.

DAVID A. SLOAN.

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MAPS

- ~~#1~~ #1. Index Map.
- ~~#2~~ ⁴#2, 3, & 4 - - - Surface survey.
- ~~#5~~ #5. Plan & Cross section zone #1.
- ~~#6~~ #6. Plan & Cross section zone #2.
- ~~#7~~ #7. Plan & Cross section zone #3.
- ~~#8~~ #8. Plan & Cross section zone #4.
- ~~#9~~ #9. Plan & Cross section zone #5 & #6.

REPORT

ON THE

PROPERTY OF NADIRA MINES LTD.

SCOPE:

This report is the summation of two months field work during which a permanent and accurate series of survey hubs were established (see index map), and details of the scarn zones and rock outcrops were plotted. A 40 scale plan was made of the whole areas. A limited amount of drilling and blasting was done and 10 bulk samples collected to test the commercial possibilities of the property.

SUMMARY:

Ilvaite-scarn outcrops occur in zones which have a general north-south strike. The continuity of the scarn between outcrops in any particular zone has not been proved. Six zones have been designated on the map but several more occur. Only zones Nos. 1, 3 and 6 have been explored by diamond drilling.

The average grade of the scarn is between 1% and 1.25% copper with the values unevenly distributed.

Tonnage, exposed on surface and at depth, where indicated by diamond drill holes, is 45,000 tons plus. This tonnage could be greatly increased if lateral extensions are proved. The possibilities of depth extension are not good.

CONCLUSIONS:

Considering the location of this property in relation to the Cowichan mill and the excellent access roads, and the fact that at least 45,000 tons of scarn material with low but uneven copper values are readily available to open pit mining; it is recommended that consideration be given to an open pit mining operation. The objective would be to provide a limited tonnage, say 50 tons per day, of trucking grade material (3% Cu.).

Providing that suitable access terms can be arranged, this project could be started with a small capital outlay.

ACCESS:

The property is situated in the Nitinat River valley 27 miles from the Cowichan mill. An excellent series of private logging roads are

available for access and suitable terms would have to be agreed upon before proceeding further with the development of this property. One small and two large bridges on these roads would have to be checked by a competent authority as to their safe condition.

The mine road will have to be relocated at the switch-back and 700 feet of new road built before the showings are accessible to truck haulage. All of which could be accomplished by the expenditure of a small amount of money.

GEOLOGY:

In brief, the area is underlain by volcanics, largely recrystallized, and by small, irregular, discontinuous interbedded limestone bands and a few tuff horizons. The limestone and tuff horizons have been largely, but not completely, converted to ilvaite-scarn by contact metamorphism, probably by the same agency which caused the extensive recrystallization of the volcanics. Later dyke intrusions replaced the older rocks and cut the scarn zones. The southern continuation of the scarn zones has been terminated by a mass of this intrusive material.

The scarn contacts are very irregular, swelling and embaying in an unpredictable manner so it does not seem possible to make any projections that are not proven or to formulate any structural theories based on observation of these contacts.

The diamond drilling done on this property proved that the scarn zones cannot be projected to depth. The only holes that cut scarn were those drilled in close proximity to the surface outcrops.

SCARN-ZONES:

The ilvaite-scarn zones occur chiefly in the north-eastern part of the map area, south of the adit and mainly below the prospect road. They occupy a narrow, north-easterly trending rectangle roughly 300 feet wide and 1700 feet long.

The scarn outcrops trend north-south and can be divided into several parallel zones in an en-echelon pattern. Six of the larger zones have been numbered on the maps and at least six smaller or less well exposed zones are known to exist.

The scarn outlines are very irregular and are further complicated by dyke intrusions and by inclusions of unreplaced limestone. The north end of the No. 2 zone may extend 100 feet below the outcrop, while other outcrops appear to be only erosional remnants.

An attempt has been made to arrive at a reasonable figure for grade and tonnages in the zones. The tonnage given is for open pit material and undoubtedly the total tonnage of scarn is much larger than that given. On the other hand the tonnage of material of shipping grade (3%) would be much smaller.

ZONE NO. 1: (See 20 scale plan and section)

This zone is in a limestone horizon in an area of volcanics. Spectacular high grade was found in a road cut but the present road bank is very low grade.

Two diamond drill holes were drilled. No. 44, vertical, cut no scarn; No 45. at minus 45 degrees, cut 6 feet of brecciated scarn and epidotized tuff.

An adit was started 80 feet below the road cut and was advanced 100 feet through volcanics to a point directly below the road cut.

The contorted contacts and negative diamond drill holes indicate that this occurrence is a small lense. Similar occurrences may be found along the strike of the limestone zone although none are now in evidence.

ZONE NO. 2:

This zone is on the west contact of a large dyke. The north end of the zone is marked by a series of long, narrow scarn exposures parallel to the strike and by the scarn intersection (10 feet @ 2.1%) in hole No. 1 (Bralorne). The south end of the zone is a complicated series of exposures south of the road. In the bank of the road a fault contact of scarn is seen above a narrow band of mineralized tuff. A scarn bank can be seen rising 30 feet above this contact. These occurrences are south of the dyke.

<u>Grade:</u>	Japanese	1.2%	across 11 feet	south end
	Japanese	1.6%	across 15 feet	south end
	Fyles	1.5%	along 20 feet	south end
	D.D Hole #1	2.1%	over 10 feet	north end

Tonnage:

South end - 4000 tons plus
North end - not well enough exposed by drill hole intersection is 100 feet below projection of zone on surface. Could be several thousand tons of scarn here.

ZONE NO. 3:

This zone is a large scarn ridge exposed east of the main dyke. The southern end of the zone appears in the road cut but continuation southerly from this point is limited by dyke exposures. A small adit and Bralorne hole No. 3 cut the zone. This hole is about 80 feet below the crest of the ridge and cut 50 feet of 0.68% Cu.

<u>Grade:</u>	Fyles	1.8%	along 23 feet
		1.5%	along 12 feet
		1.5%	along 10 feet
	Slaon	1.62%	across 18 feet
		0.75%	across 14 feet
		0.97%	across 12 feet
		1.25%	across 15 feet.

It can be seen that the average tenor of the material is about 1.25% and it is also evident, particularly by visual inspection, that the values are unevenly distributed.

Tonnage:

20,000 Tons plus.

ZONE NO. 4:

This zone is in an area of intrusive rocks so that a projection of the scarn exposures any distance would be unwise. Four elongated exposures along the strike occur at the north end. South 130 feet a possible continuation of the zone is exposed just below the road. Another exposure at the road junction 240 feet south of the north end and slightly east could also be of the same zone. This exposure is mineralized and was sampled. An exposure which appears to pinch out at its south end occurs 75 feet due west of the north end. This occurrence would provide a small tonnage of better than average grade.

<u>Grade:</u>	Sloan	0.63%	across 13 feet north end
		1.37%	along 16 feet north end
		1.69%	along 20.5 feet north end
		2.19%	across 27 feet south end
	Japanese	2.47%	across 10 feet south end
		1.27%	across 16 feet south end

Tonnage:

North end	4000 Tons plus
South end	1500 Tons plus

ZONE NO. 5:

This zone is in a limestone horizon and is adjacent to Zone No. 6. A number of drill holes which cut Zone No. 6 did not cut Zone No. 5 or even limestone with the exception of hole No 32 which cut 8 feet of 1.01% Cu 100 feet below the projection of Zone No. 5 on the surface. Hole No. S35 which crossed Zone No. 5 at a depth of 100 feet to the east of hole S32 did not intersect scarn.

The outcrops of this zone are poorly mineralized except in a few isolated areas and not well enough exposed to permit a tonnage calculation.

<u>Grade:</u>	Sloan	0.61%	along 25 feet north end
		0.54%	along 24 feet north end

ZONE NO. 6:

This zone is also closely associated with limestone and is exposed along the lower road but not along the main or upper road except for a narrow section 100 feet north of hub N. 30 which may be a southern continuation. This zone is cut by three series of

drill holes, namely; 41 and 42- S27, 32 and 33- S35 and 36.

These sections show that the zone is a 30 foot wide band which changes from a steep westerly dip at the surface to a flatter easterly dip 40 feet below the surface. The extension to the east is shown to be limited by holes S35 and S36 and the southerly extension does not go as far south as hole S 34 except for a possible extension on the surface as previously noted. Thus the limits of this scarn zone are fairly well defined, however some of this material is unreplaced limestone and some is dyke intrusive.

Grade: D.D. Hole S35 55 feet at 2.21%
D.D. Hole S36 35 feet at 1.92%
D.D. Hole S33 37.6 feet at 1.51%
Assays from holes S27, 32, 41 and 42 are missing.
Hole S 40 was not sampled.
Japanese 0.22% across 20 feet
0.79% across 17 feet

Tonnage:

16,000 Tons plus

OTHER ZONES:

Several scarn exposures occur immediately south and east of Zone No.6. However the picture is complicated by dyke intrusion and possibly faults so that lateral continuation is very limited.

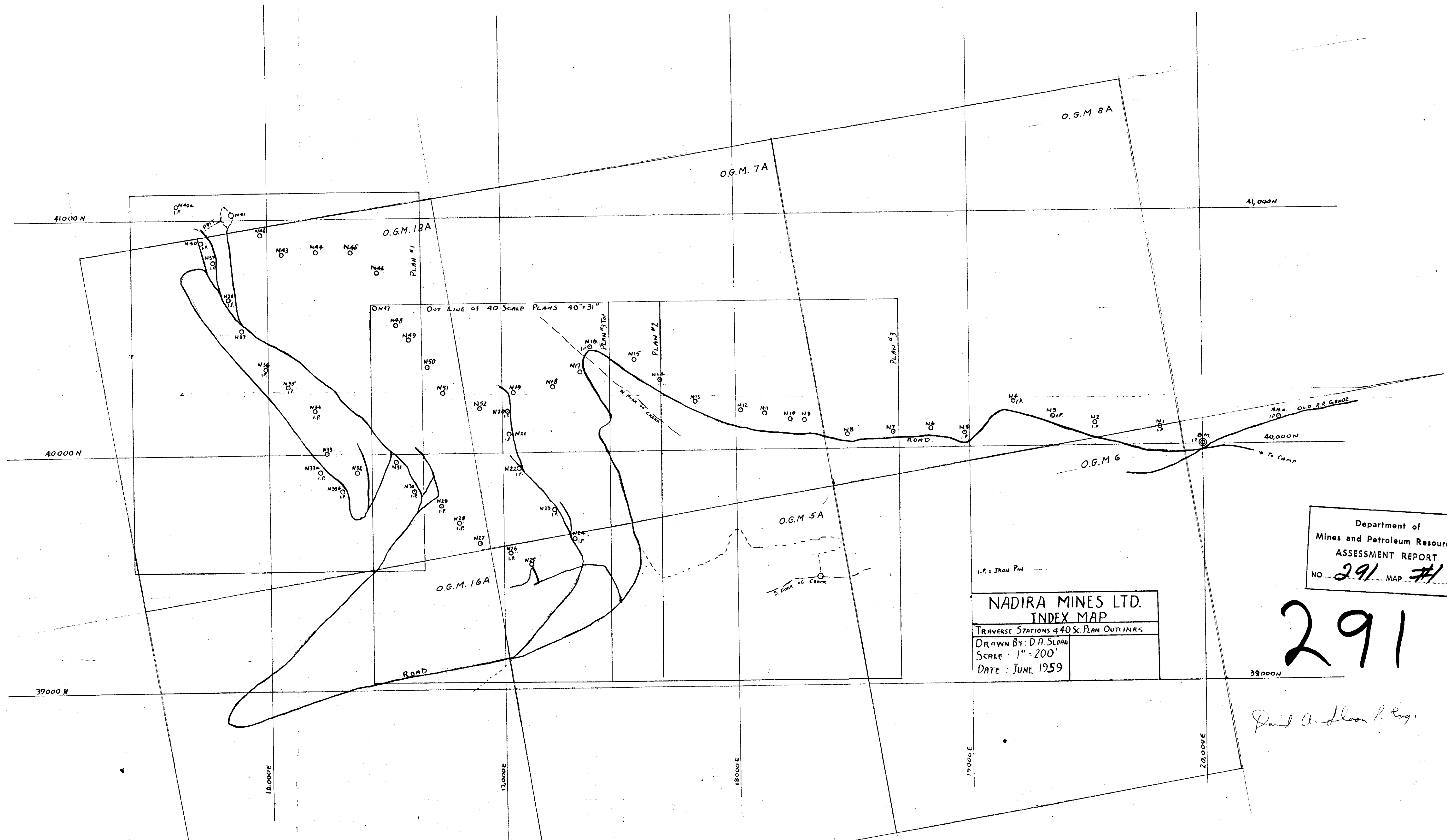
An occurrence worth noting is found a few hundred feet easterly from the main area. A well mineralized tuffaceous horizon has been traced for about 300 feet by a series of cuts. However the horizon is narrow and faulted and no depth continuation was found in the holes drilled across the strike from stations below the outcrop.

An occurrence in the south fork of Horse Creek was surveyed in. The possibilities of developing a suitable tonnage of one here seem limited.

Respectfully submitted,

David A. Sloan

David A. Sloan.



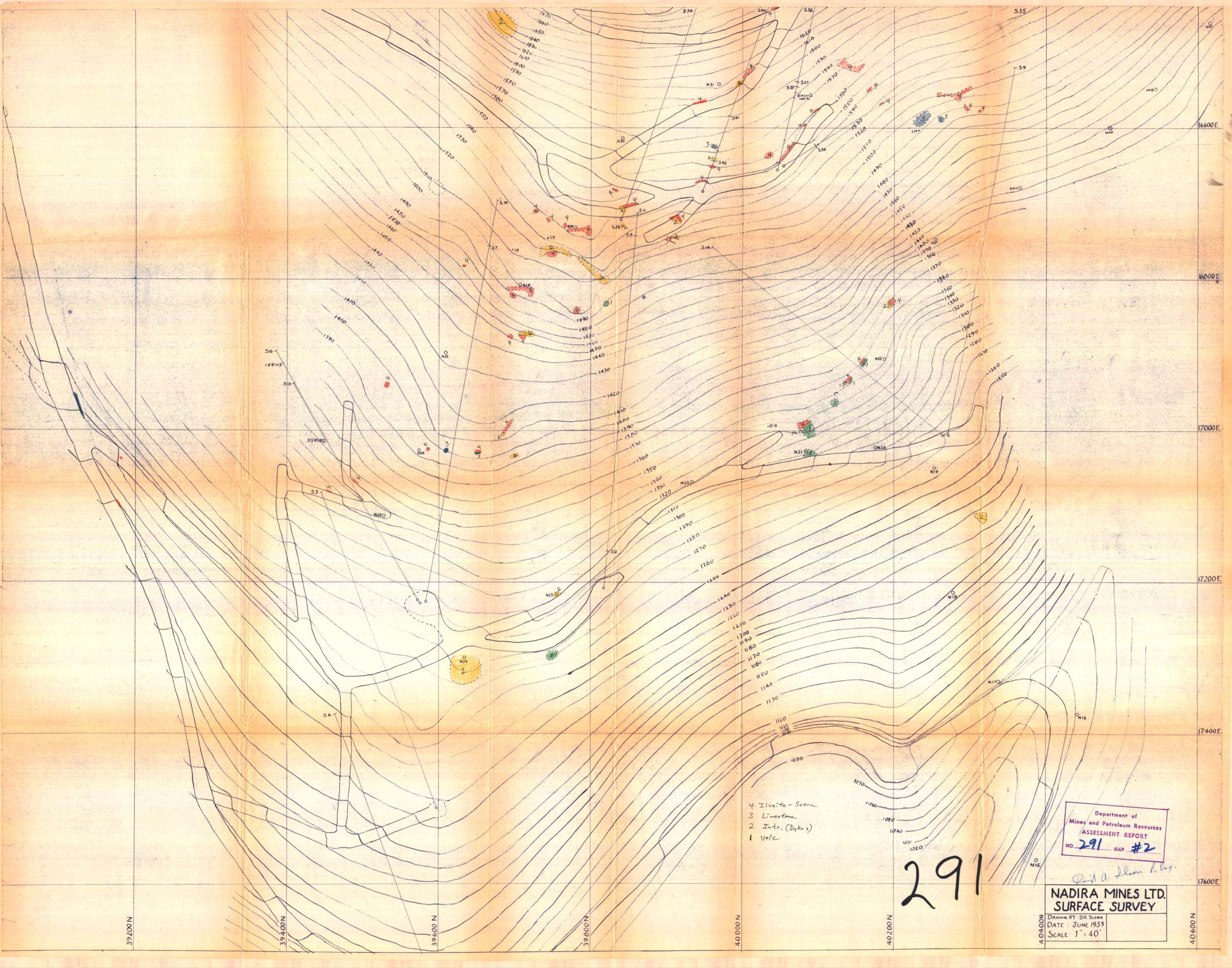
I.P. = IRON PIN

NADIRA MINES LTD.
INDEX MAP
 TRAVERSE STATIONS & 40 X PLAN OUTLINES
 DRAWN BY: D.A. SLOAN
 SCALE: 1" = 200'
 DATE: JUNE 1959

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 291 MAP #1

291

D.A. Sloan, Eng.



- 4 Ilvaite - Scarn
- 3 Limestone
- 2 Intr. (Dykes)
- 1 Volc

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ASSESSMENT REPORT
NO. 291 MAP #2

Paul A. Sloan P. Eng.
**NADIRA MINES LTD.
SURFACE SURVEY**

Drawn by: DA Sloan
DATE: JUNE 1959
SCALE: 1" = 40'

39200N

39400N

39600N

39800N

40000N

40200N

40400N

40600N

16600E

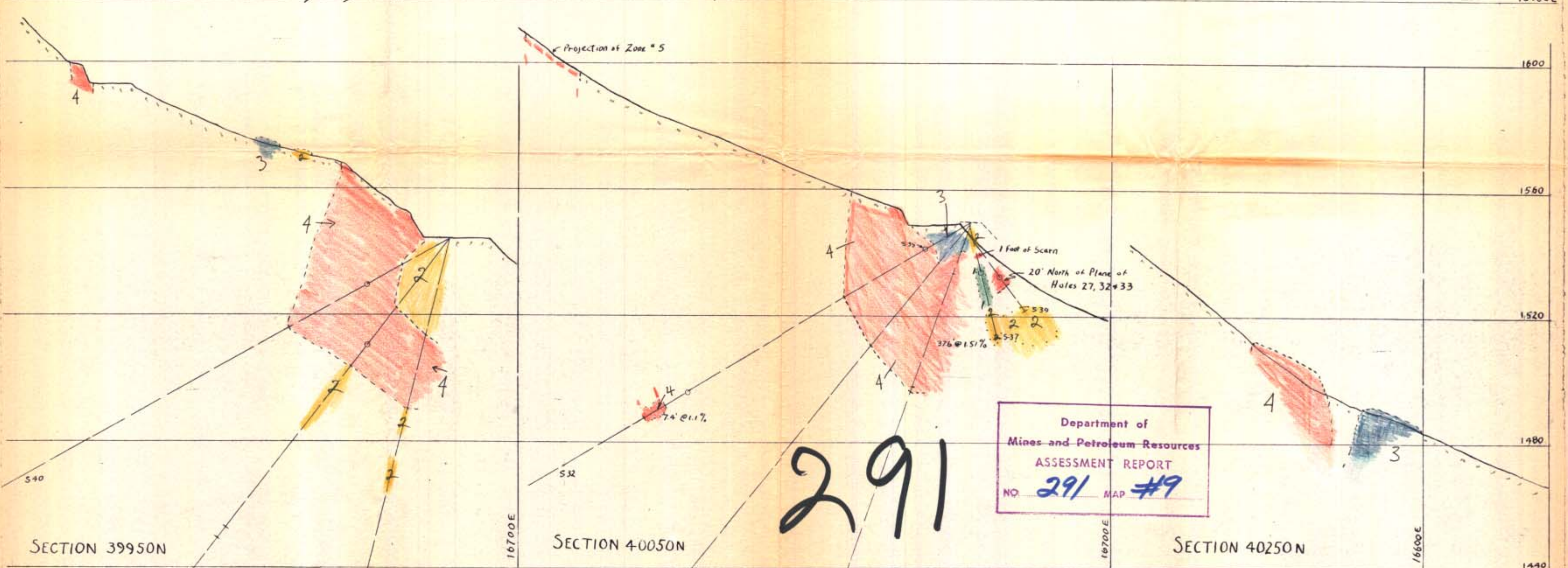
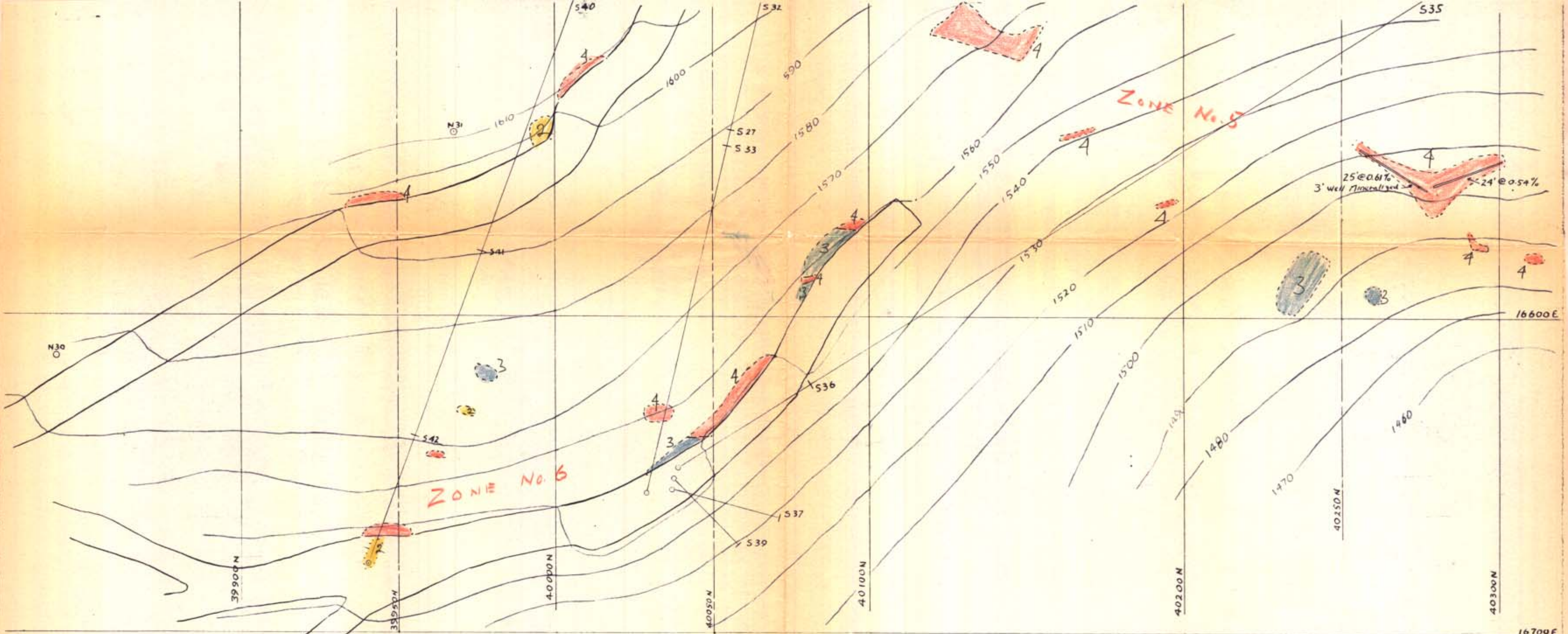
16800E

17000E

17200E

17400E

17600E

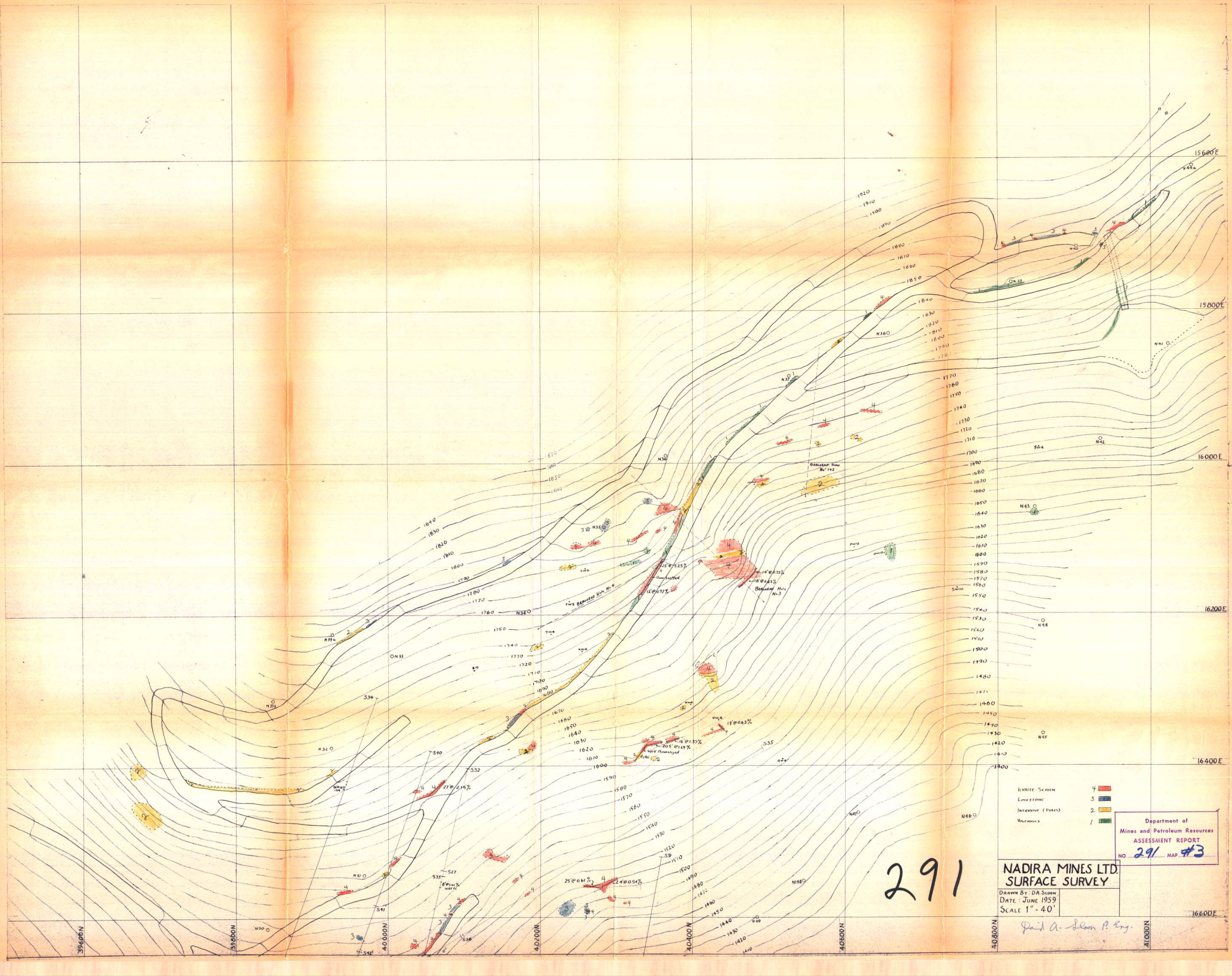


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NO. 291 MAP #9

NADIRA MINES LTD.
PLAN + CROSS-SECTIONS
ZONES No. 5+6

DRAWN BY: D.A. SLOAN
DATE: JULY, 1959
SCALE: 1" = 20'

D.A. Sloan



4 ■ WHITE SCUM
 3 ■ LIMESTONE
 2 ■ INTRUSIVE (DIKES)
 1 ■ VOLCANICS

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 ASSESSMENT REPORT
 NO. 291 MAP #3

**NADIRA MINES LTD.
SURFACE SURVEY**

DRAWN BY: D.A. SLOAN
 DATE: JUNE 1959
 SCALE 1" = 40'

291

Paul A. Sloan P. Eng.



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ASSESSMENT REPORT
NO. 291 MAP #4

NADIRA MINES LTD.
SURFACE SURVEY

Drawn by: DA SLOW
DATE: JUNE 1959
SCALE: 1" = 40'

39400N

39600N

39800N

40000N

40200N

17600E

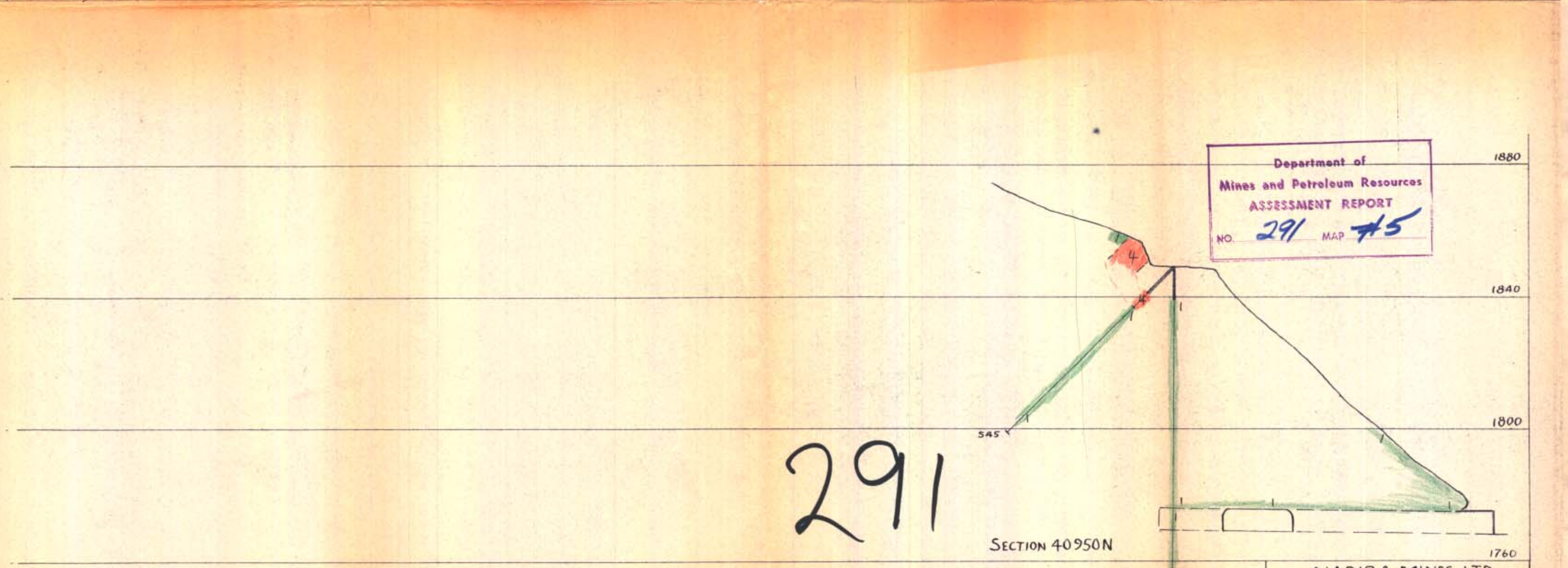
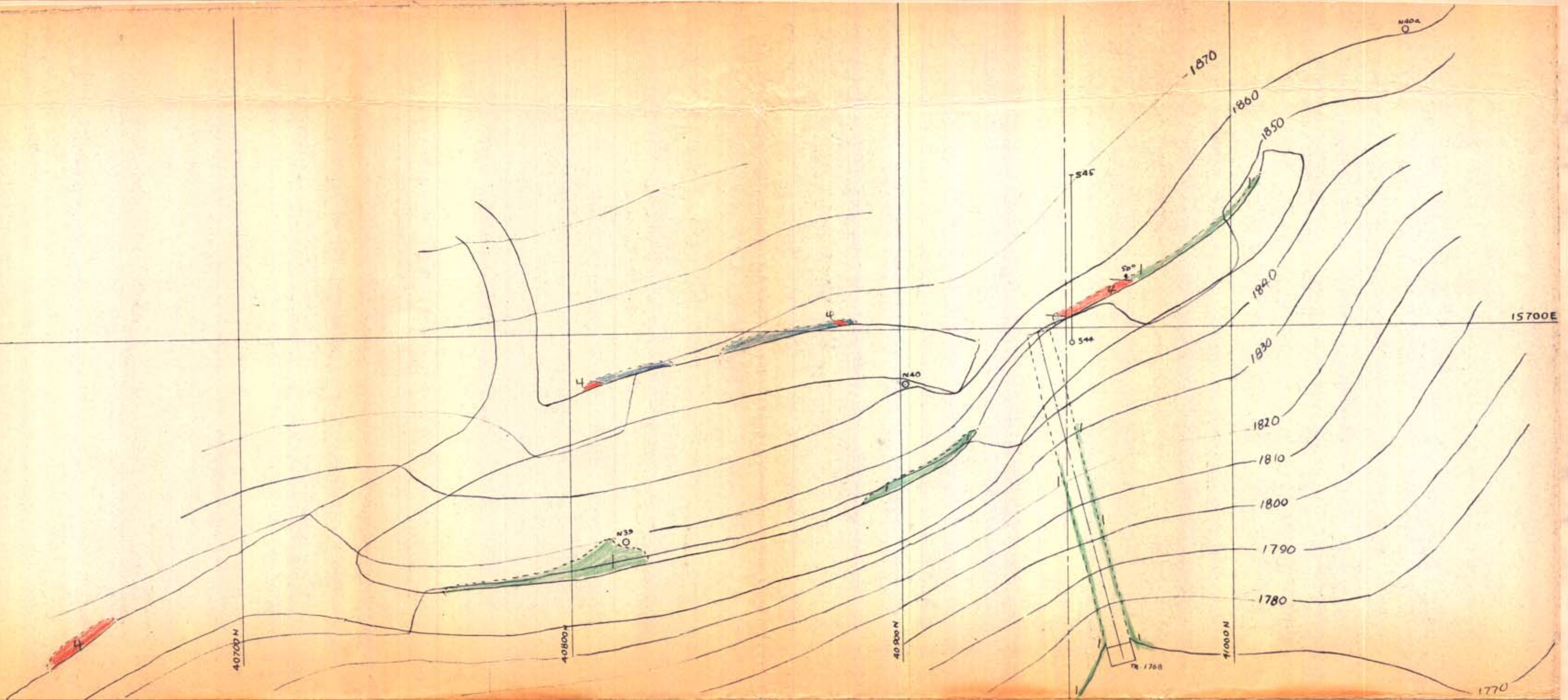
17800E

18000E

18200E

18400E

18600E



291

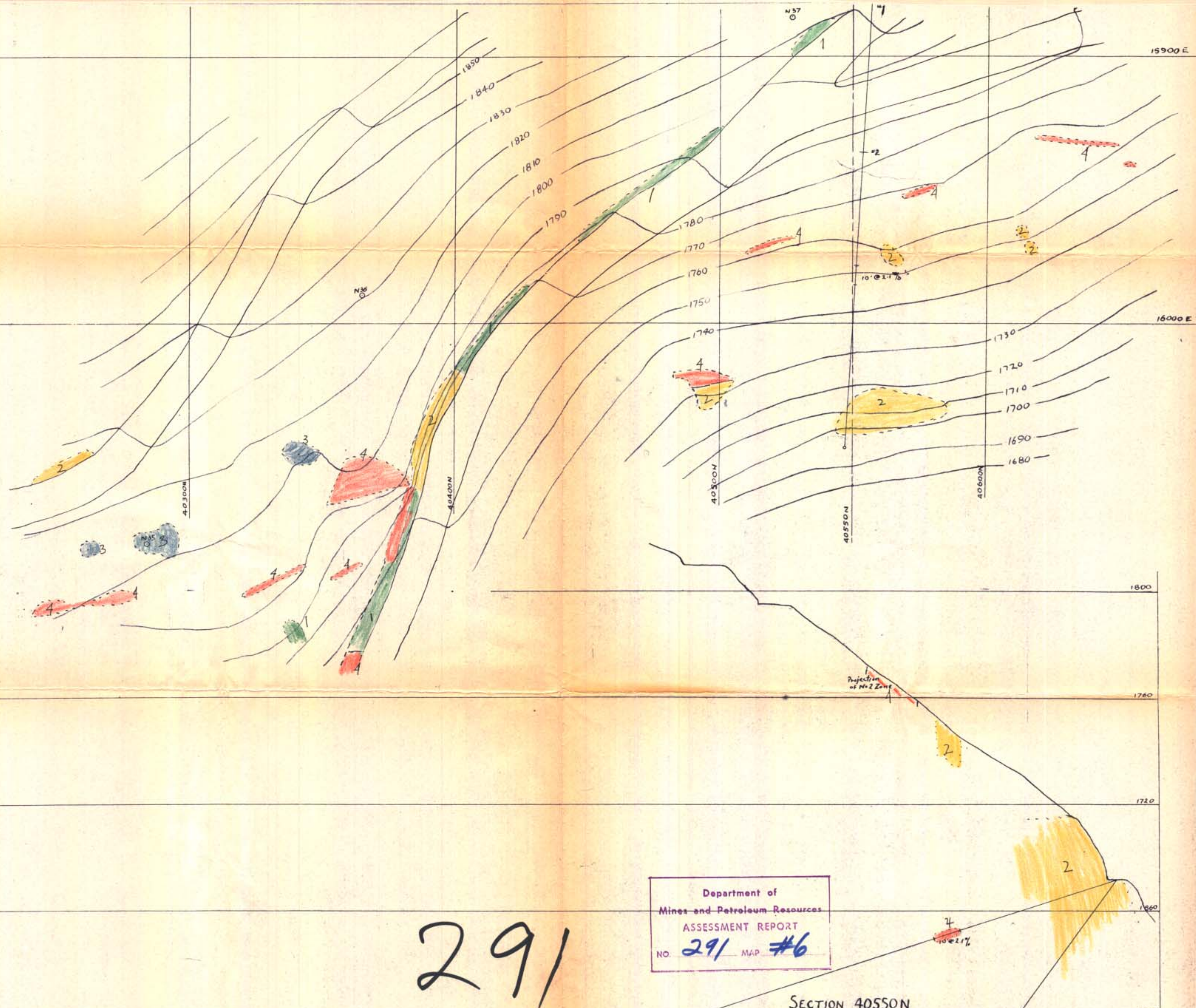
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Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 291 MAP #5

SECTION 40950N

*Paul A. Sloan
M. Eng.*

NADIRA MINES LTD.
PLAN & CROSS-SECTIONS
ZONE NO. 1

DRAWN BY: DASLOAN
DATE: JULY 1959
SCALE: 1" = 20'



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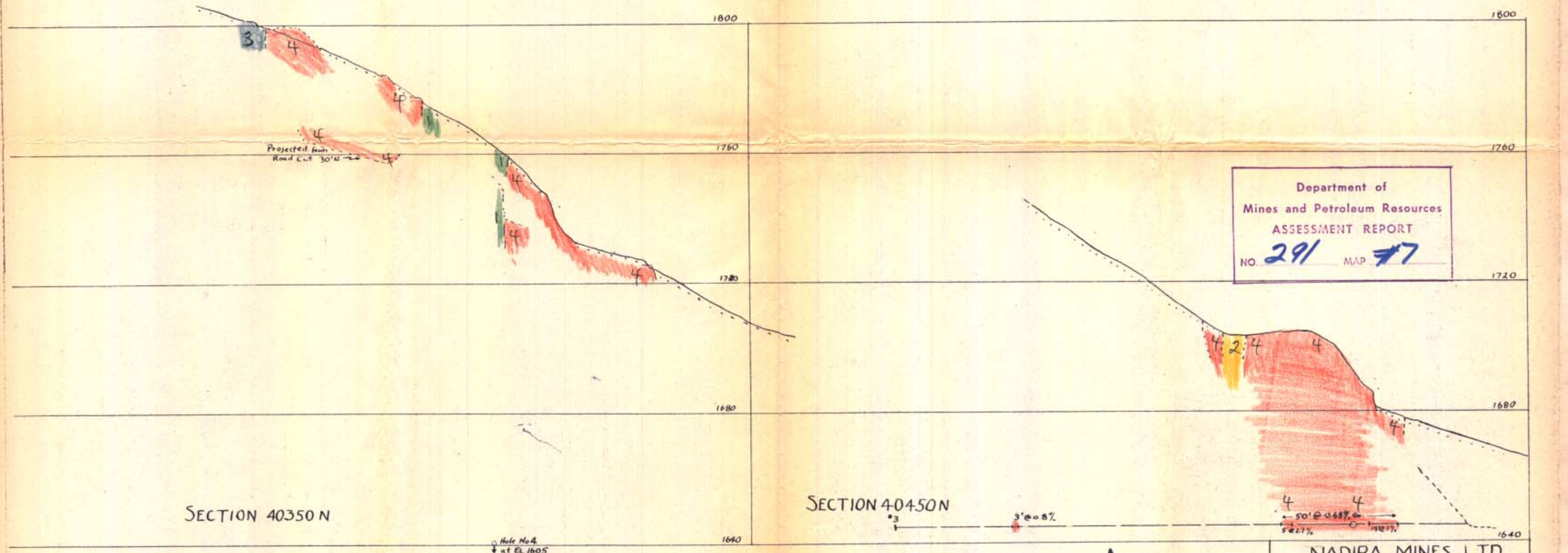
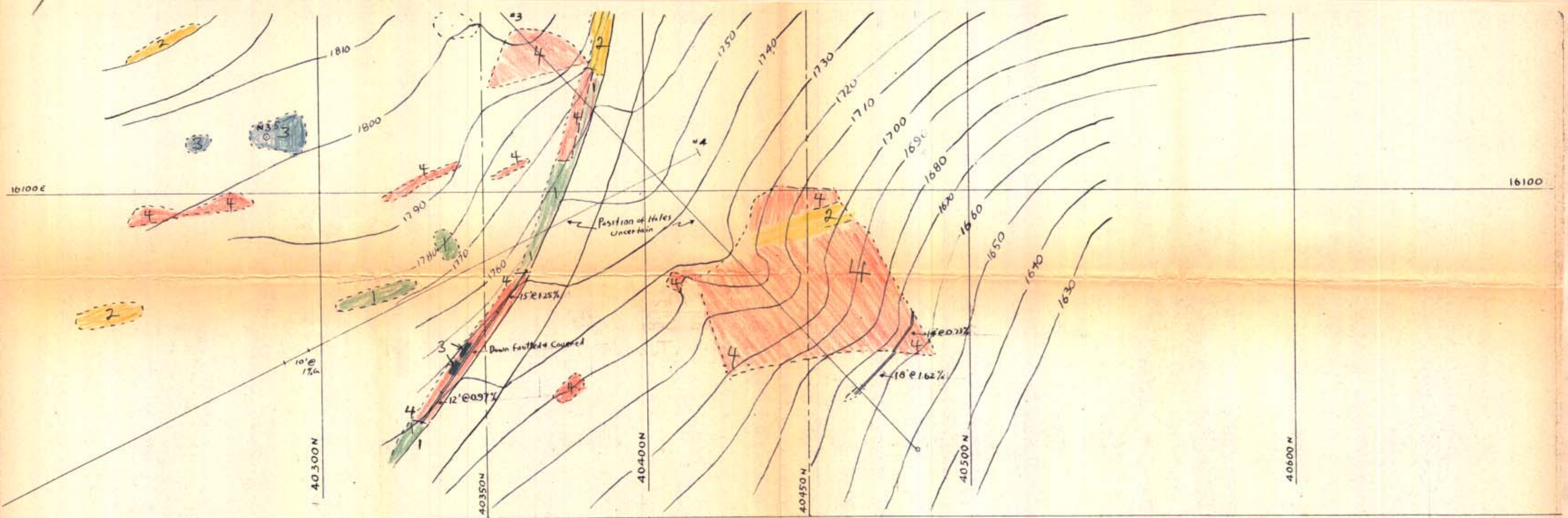
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 ASSESSMENT REPORT
 NO. 291 MAP #6

SECTION 40550N

NADIRA MINES LTD
 PLAN + CROSS-SECTIONS
 ZONE NO. 2

David A. Sloan
 P. Eng.

DRAWN BY: DA SLOAN
 DATE: JULY 1959
 SCALE: 1" = 20'



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ASSESSMENT REPORT
NO. 291 MAP #7

SECTION 40350 N

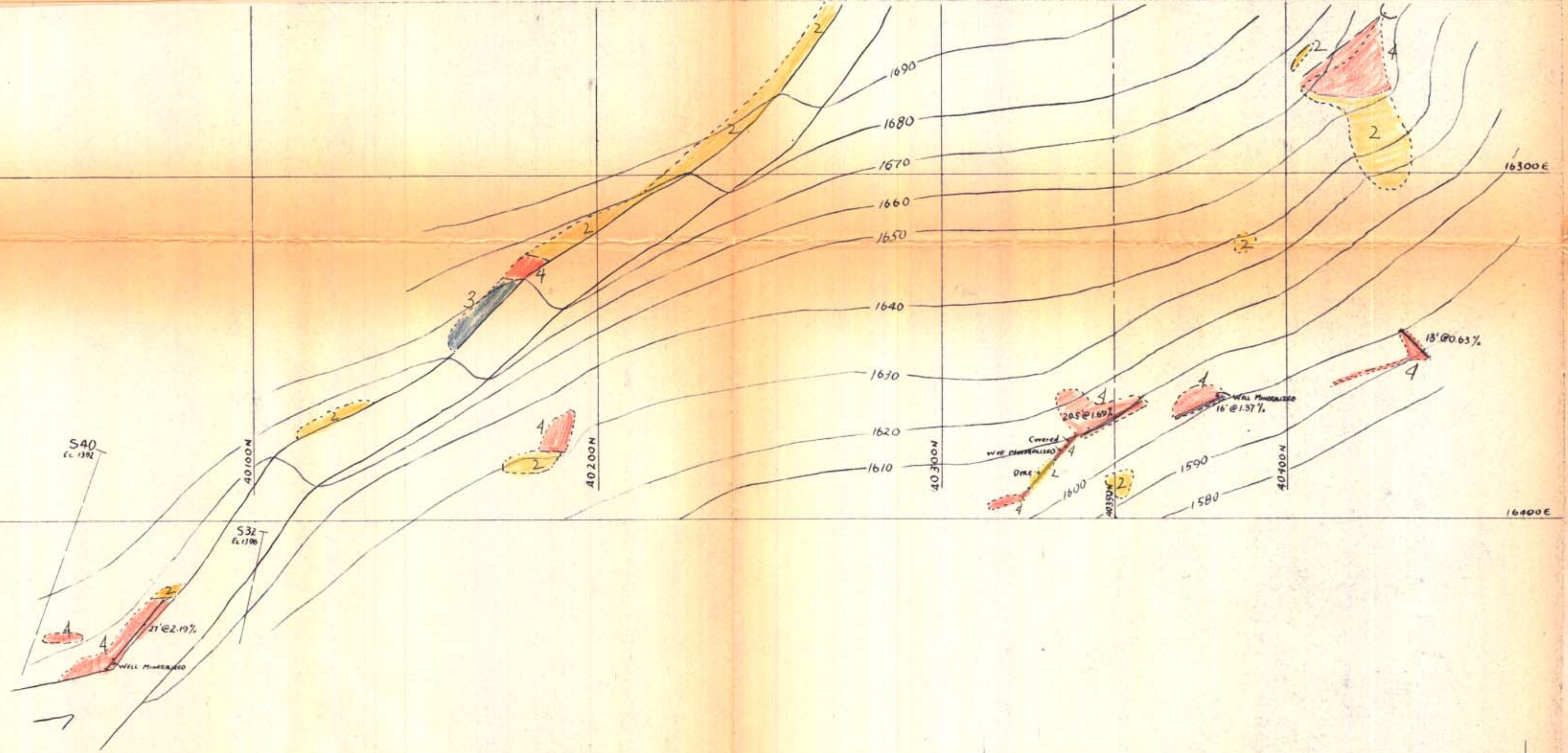
SECTION 40450 N

Hole No 4
at EL. 1605

291

*Paul A. Sloan
P. Eng.*

NADIRA MINES LTD.
PLAN + CROSS-SECTIONS
ZONE NO. 3
DRAWN BY: D.A. SLOAN
DATE: JULY 1959
SCALE: 1" = 20'



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ASSESSMENT REPORT
NO. 291 MAP #8

SECTION 40350 N

Paul A. Sloan P. Eng.

NADIRA MINES LTD.
PLAN & CROSS-SECTIONS
ZONE NO. 4
DRAWN BY: DASLOAN
DATE: July 1959
SCALE 1" = 20'