

0123-65260
TN27. Y8
e4 A57
e1

REPORT ON GEOLOGICAL,
GEOCHEMICAL AND GEOPHYSICAL SURVEYS
ON MINERAL CLAIM GROUPS

- Group C-2: C15-22, C29-36
- Group C-3: C23-26, C37-44, C59,61-63
- Group C-4: C45-55, C57, C64-68
- Group C-5: C56, C58, C60, C69

Claim Sheet 116-B-8

Latitude 64°17'
Longitude 138°13'

July 29 to August 13

for

STANDARD OIL COMPANY OF BRITISH COLUMBIA LIMITED

by

Helmut H. Wober, P.Eng.

of

CHEVRON STANDARD LIMITED

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1) Claims:

This report covers work performed on the C-1 Group of Claims, all held in the name of Standard Oil Company of British Columbia Limited.

Group 2	- C15 - 22	YA 2692 - 2699
	C29 - 36	YA 2706 - 2713
Group 3	- C23 - 26	YA 2700 - 2703
	C37 - 44	YA 2714 - 2721
	C59	YA 2736
	C61 - 63	YA 2738 - 2740
Group 4	- C45 - 55	YA 2722 - 2732
	C57	YA 2734
	C64 - 68	YA 2741 - 2745
Group 5	- C56, 58, 60	YA 2733, 2735, 2737
	C69	YA 2746

2) Introduction:

The claims were staked in 1975 based on reconnaissance airborne radiometry and reconnaissance stream silt sampling. The work program in 1976 was carried out by staff of Chevron Standard Limited, Minerals Staff, Suite 901, 355 Burrard Street, Vancouver on behalf of Standard Oil Company of British Columbia Limited, the registered owner of the claims.

The work was aimed at the discovery of uranium mineralization.

3) General Geology and Economic Geology:

Reference is made to G.S.C. Memoir 364, by C.H. Green which contains maps and descriptions of the general geology of the area.

The claim group is underlain by unit 21b of L. H. Green which consists of hornblende and hornblende/biotite syenite belonging to an east-west trending chain of cretaceous intrusive stocks of varying composition. The stock at hand which is also referred to as the Antimony Stock is the eastern most of three syenite stocks. The two other stocks are the Deadman Stock and the Tombstone-Brenner Stock. A number of discrete smaller plugs fringe the main intrusives.

The cretaceous syenites and their varying phases intrude into Precambrian sediments (unit 3 of L. H. Green).

The stocks have been worked on in the past in the search for gold and/or copper mineralization. An Antimony showing is located at the southwest contact of the Antimony Mountain Stock.

Airborne radiometric surveys and streamsilt sampling have indicated the presence of uranium in the intrusive in geochemically anomalous quantities. It has not been determined as yet if this mineralization is characteristic of certain phases or lithologic units of the intrusive or if it has been remobilized into any structural traps.

4) Work Performed:

a) General

A crew of 4 was employed to carry out the work, consisting of the establishment of a linegrid, prospecting and radiometry on grid lines as well as along elevation contours at regular intervals. Control on elevation contours was provided by the use of Thommen Altimeters and Topofil chains. The crew was mobilized from an other area in the district and supplied from Dawson City both by T.N.T.A. Helicopter (Jet Ranger 206B). The writer spent 3 days for the preparation of this report and maps.

b) Geophysical Survey

Ground radiometric surveys were carried out using 5 Scintrex BGS-1SL total count scintillometers (Serial Nos. 602315 to 602319 incl.). The instruments feature a 1.5" x 1.5" Thallium activated Sodium Iodide crystal detector coupled to a photomultiplier tube and give radiation readouts in counts per second.

The instruments also have a variable threshold audio alarm signal.

All station readings were taken at waist level. The instruments were kept in the "switched on" position and monitored while traversing between picket stations.

Changes in radioactivity were found to reflect mainly different lithologies. It will be subject to further rock geochemical studies to determine, whether the changes are due to varying contents in radioactive minerals such as uranium and thorium or whether they are due to changes in the potassium content of the rocks.

c) Geological Mapping and Sampling

Geological mapping was carried out by traversing on foot using 9" x 9" airphotos as a base. Samples of the different rock types were collected both for analysis and for later study of thin sections. The present mapping and interpretation is based on field observations and the study of handspecimen.

An attempt was made to map phase boundaries of the various phases, however, outcrop is confined mainly to the ridges and large portions of the claims are covered by talus and glacial debris which obscure the relationships in those areas. The accompanying map covers not only the claim groups described in this report but also adjoining claim groups of the same owners. Part of the time and work spent on geological mapping will also be applied to these groups. G. Walton and G. Dales, the two geologists employed in the survey give the following account of their field observations:

"Petrology"

The rocks of the Antimony Stock and surrounding area consist of:

- 1) Black and white quartz monzonite to monzonite
- 2) Dyke rocks - feldspar porphyries
- 3) Contact rocks - Quartzite
Siltstone
Shale

The monzonite is the major intrusive phase on Antimony Mountain. Locally the quartz content increases enough to have the rock called a quartz monzonite, however, the change is very gradual and not mappable. The intrusive is porphyritic with feldspar phenocrysts ranging from $\frac{1}{4}$ " to 1" in length surrounded by a medium to coarse grained matrix. Hornblende is the major mafic mineral varying from 10% to 25% of the total rock.

The dykes are highly weathered with feldspar phenocrysts surrounded by a fine grained matrix.

The country rocks are thinly bedded sediments and around the intrusive they are metamorphosed but no grade was established.

Structure

The structure is represented by

- 1) small offset faults
- 2) joints
- 3) locally a poor foliation

The rocks are generally massive, poor jointed although the vertical north trending joints are sometimes most obvious."

5) Conclusions and Recommendations:

As a result of the survey it can be concluded that as far as observed to date, the airborne anomalies and streamsilt values are due to unusually high background in certain phases of the intrusive. No structurally controlled mineralization has been found to date. It is recommended that systematic geological mapping, rock and soil/silt geochemical surveys be carried out in order to determine the content of radioactive minerals.

6) Personnel and Qualifications:

Graeme Dales, Geologist, B.A. University of Alberta, 1974.
Graduate Work in Precambrian Geology,
Geochemical Exploration Methods, Structural
Geology and Metamorphic Petrology,
University of Toronto 1975/76.
Five summers' exploration experience with
Western Warner Oils and Modesto Exploration
May - September, 1975, Mines Branch,
Energy, Mines and Resources, Calgary.

Godrey Walton, Geologist, B.Sc. Honours 1974
M.Sc. Queen's University, 1976
Alberta Research - Summers of 1971, 72, 73.
International Nickel Co. - Summers 1974, 1975.

John Gajda, Field Assistant, 3rd year Geology Major, U.B.C.
Six summers of field experience in mineral
exploration.

Warren Pritchard, Field Assistant, experience with Rio Tinto,
summer 1974.

8) Author's Statement of Qualifications:

Helmut H. Wober, P. Eng. Yukon and B. C.
Mining Engineer and Geologist
Mining University of Leoben, Austria, 1963.

Member: Canadian Institute of Mining & Metallurgy
Australasian Institute of Mining & Metallurgy
Society of Economic Geologists

1975 - Present - Senior Geologist,
Chevron Standard Limited, Minerals Staff

1973 - 75 - Technical and Administration Manager,
Uranerz Australia Pty Ltd.,
Perth, Western Australia

1966 - 73 - Consulting Engineer,
MacDonald Consultants Ltd., Vancouver, B. C.

1964 - 66 - Mine Geologist to Chief Mine Geologist
United Keno Hill Mines, Y.T.

STATEMENT OF COSTS

GROUPS 2 & 3

G. Walton	4 days at \$70.	\$ 280.00
G. Dales	4 days at \$66.	264.00
J. Gajda	8 days at \$57.	456.00
W. Pritchard	8 days at \$44.	352.00
H. Wober	2 days at \$152.	304.00
Camp and Food	\$15/man day; 28 days	420.00
Helicopter	\$1,188.25	1,188.25
Geochemical Analysis	1/3 of \$511.70	170.56
Vancouver Petrographics	½ of \$45.75	22.87
Geophysical Instruments	Rentals ½ month at \$668.75/mo	<u>334.37</u>
	Total	3,792.05
Office Expenses	5% of Total	<u>189.60</u>
		<u><u>\$3,981.65</u></u>

STATEMENT OF COSTS

GROUPS 4 & 5

G. Walton	3 days at \$70.	\$ 210.00
G. Dales	3 days at \$66.	198.00
J. Gajda	8 days at \$57.	456.00
W. Pritchard	8 days at \$44.	252.00
H. Wober	1 day at \$152.	152.00
Camp & Food	23 day at \$15/man day	345.00
Helicopter	418.86 plus $\frac{1}{2}$ (804.11 - 104.11)	768.86
Geochemical Analysis	2/3 of \$511.70	341.12
Vancouver Petrographics		217.50
Geophysical Instrument Rental - $\frac{1}{4}$ month at \$668.75/mo		<u>167.19</u>
	Total	\$3,007.67
	Office Expense - 5% of total	<u>150.38</u>
		<u><u>\$3,158.05</u></u>

TRANS NORTH TURBO AIR (6371) LTD.
 BOX 4338, WHITEHORSE, YUKON

TELEPHONE (403) 668-5111 • TELEX 036-8-290

ACCOUNT NUMBER

652

18853

INVOICE DATE

17/08/76

AREA
 B.C.
 YUKON
 NWT
 ALTA.

A/C TYPE

206B

AIRCRAFT REGISTRATION C

FXFF

FLIGHT DATE

13/08/76

PURCHASE ORDER NO.

CHEURON STANDARD

ARTERER **MINERAL STAFF**

901 355 BURRARD ST.

LING ADDRESS

VANCOUVER

RECEIVED

EL & OIL-X
 TA / CUST.

TNTA FUEL USED

DA.

HRS. - GALT AUG 20 1976

Minerals Staff

OM **DAWSON**

STANDARD LIMITED
 MILES HOURS ZONE

REMARKS - NO. OF PASS - FREIGHT LBS.

30 MILES NORTH.

ANTIMONY MT.

DAWSON.

(MOVE BOTH CAMPS)

3-4/3

APPROVED	DATE
<i>[Signature]</i>	8/25
RECEIPT	AMOUNT
135	1188.25

SUB	G.L.	AMOUNT
105502		1105.00
105511		83.25

34 @ 325 ⁰⁰	1105.00 ✓
@	
@	
@	

TERMS: EIGHTEEN PERCENT INTEREST PER ANNUM WILL BE CHARGED ON ALL INVOICES NOT PAID WITHIN 30 DAYS OF DATE ISSUED.

WAITING TIME	@	/HR.	
FUEL:	75	@ 1.11 /GAL.	83.25 ✓
FUEL:	@	/GAL.	
MEALS & LODGING			
OTHER			
OTHER			

[Signature]
 CHARTERER'S SIGNATURE

[Signature]
 PILOT'S SIGNATURE

[Signature]
 ENGINEER'S NAME

TOTAL \$ 1188.25 ✓

INVOICE

18837

CHEVRON STANDARD
MINERAL STAFF
 355 BURRARD ST.
 VANCOUVER, B.C. 208

INVOICE DATE		AREA	
17 08 76		B.C. <input type="checkbox"/>	
A/C TYPE		YUKON <input type="checkbox"/>	
206 B		NWT <input type="checkbox"/>	
AIRCRAFT REGISTRATION C		ALTA. <input type="checkbox"/>	
FXFF			
FLIGHT DATE	DAY	MONTH	YEAR
02	08	76	
PURCHASE ORDER NO.			

TNTA FUEL USED **DA.** HRS. **1.2** FROM

DAWSON	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.										
ANTIMONY MT. AREA.														
DAWSON.		1.2	B.											
10. RUN. & CAMP SET OUT.														
<table border="1"> <tr> <th>QVED</th> <th>DATE</th> </tr> <tr> <td>SP</td> <td>8/25</td> </tr> <tr> <th>ECT</th> <th>EXP. CODE</th> <th>AMOUNT</th> </tr> <tr> <td>5</td> <td></td> <td>41886</td> </tr> </table>	QVED	DATE	SP	8/25	ECT	EXP. CODE	AMOUNT	5		41886				
QVED	DATE													
SP	8/25													
ECT	EXP. CODE	AMOUNT												
5		41886												
<table border="1"> <tr> <th>AMOUNT</th> </tr> <tr> <td>502 390 00</td> </tr> <tr> <td>511 28 86</td> </tr> </table>	AMOUNT	502 390 00	511 28 86				1.2 @ 325 ⁰⁰ 390 00 ✓							
AMOUNT														
502 390 00														
511 28 86														

EIGHTEEN PERCENT INTER-ANNUUM WILL BE CHARGED INVOICES NOT PAID WITHIN OF DATE ISSUED.

WAITING TIME	@	/HR.	
FUEL: 26	@	1.11 /GAL.	2886 ✓
FUEL:	@	/GAL.	
MEALS & LODGING			
OTHER			
OTHER			

Grey Walton
 CHARTERER'S SIGNATURE

[Signature]
 PILOT'S SIGNATURE

RUTHERFORD
 ENGINEER'S NAME

TOTAL \$ 418 86

INVOICE

TRANS NORTH TURBO AIR (1971) LTD.
 BOX 4338, WHITEHORSE, YUKON
 TELEPHONE (403) 668-5111 • TELEX 036-8-290

ACCOUNT NUMBER	652
18846	
INVOICE DATE	17 08 76
AREA	B.C. <input type="checkbox"/> YUKON <input type="checkbox"/> NWT <input type="checkbox"/> ALTA. <input type="checkbox"/>
TYPE	206 B
AIRCRAFT REGISTRATION	EXFF
FLIGHT DATE	08 08 76
PURCHASE ORDER NO.	

CHEVRON STANDARD
 CHARTERER: MINERAR STAFF
 901 355 BARRARD ST.
 VANCOUVER, B.C.

EL & OIL-X TANTA FUEL USED HRS.-CALC. FROM

DA

FROM	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
DAWSON				
ANTIMONY MT.				
30 NORTH OF DAWSON.				
2 CAMP MOVES (STAKING)				
DAWSON.		2.3	B	

APPROVED	DATE	
<i>[Signature]</i>	8/25	
PROJECT	EXP. CODE	AMOUNT
C435		80411

SUB	QTY	AMOUNT
05502		747.50
05511		56.61

TERMS: EIGHTEEN PERCENT INTEREST PER ANNUM WILL BE CHARGED ON ALL INVOICES NOT PAID WITHIN 30 DAYS OF DATE ISSUED.	WAITING TIME	@	/HR.	
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	FUEL:	@	/ GAL.	
	MEALS & LODGING			
	OTHER			
	OTHER			

Godfrey Walker
 CHARTERER'S SIGNATURE

[Signature]
 PILOT'S SIGNATURE

P. RUTHERFORD
 ENGINEER'S NAME

TOTAL \$ 804.11

INVOICE

790

D.C.W. TRADING POST LTD.

BOX 190, DAWSON CITY, YUKON YOB 1G0

KIND OF SALE (circle)
 CASH C.O.D. CHG.
 Sales Person 77
 P.O. No.

Date 8 Aug 1976

Sold to Thomas Starnes
Camp # 2

37.54

CUSTOMER COPY

QUAN.	ARTICLE	UNIT PRICE	AMOUNT
1	hose		89
1	oil		45
2	W. soap	1.45	290
5	5 lbs. soap	1.20	6
2	W. soap		159
4	rubber	80	320
2	bleach	79	158
1	the power brush		142
1	hand brush		109
1	brush		72
	brush		
1	the brush		760
			95
Signature <u>Edith J. Thomas</u>			TOTAL <u>6593</u>

Handwritten notes: All Sales Aug 9/76
65.93
92.60

789

D.C.W. TRADING POST LTD.

BOX 190, DAWSON CITY, YUKON YOB 1G0

KIND OF SALE (circle)
 CASH C.O.D. CHG.
 Sales Person B
 P.O. No. 23470

Date 9 Aug 1976

Sold to Thomas Starnes
Camp # 2

RECEIVED
AUG 23 1976

CHEVRON STANDARD LIMITED
VANCOUVER OFFICE

CUSTOMER COPY

QUAN.	ARTICLE	UNIT PRICE	AMOUNT
1	hose	2.29	458
1	oil		169
1	del. hand brush		162
1	W. soap		1190
2	W. soap		392
2	bleach		540
1	brush		210
1	brush		92
2	brush		56
	brush		98
	brush		48
1	brush		89
1	brush		95
1	brush		155
Signature <u>Edith J. Thomas</u>			TOTAL <u>3754</u>

Handwritten notes: All Sales Aug 9/76
65.93
92.60

Chevron Standard Limited
Minerals Staff
901 - 355 Burrard Street
Vancouver, B.C.
V6C 2G8

RECEIVED
AUG 23 1976
Minerals Staff
CHEVRON STANDARD LIMITED
VANCOUVER OFFICE

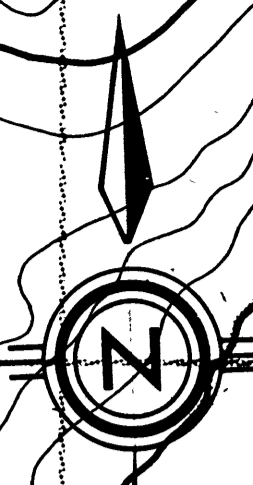
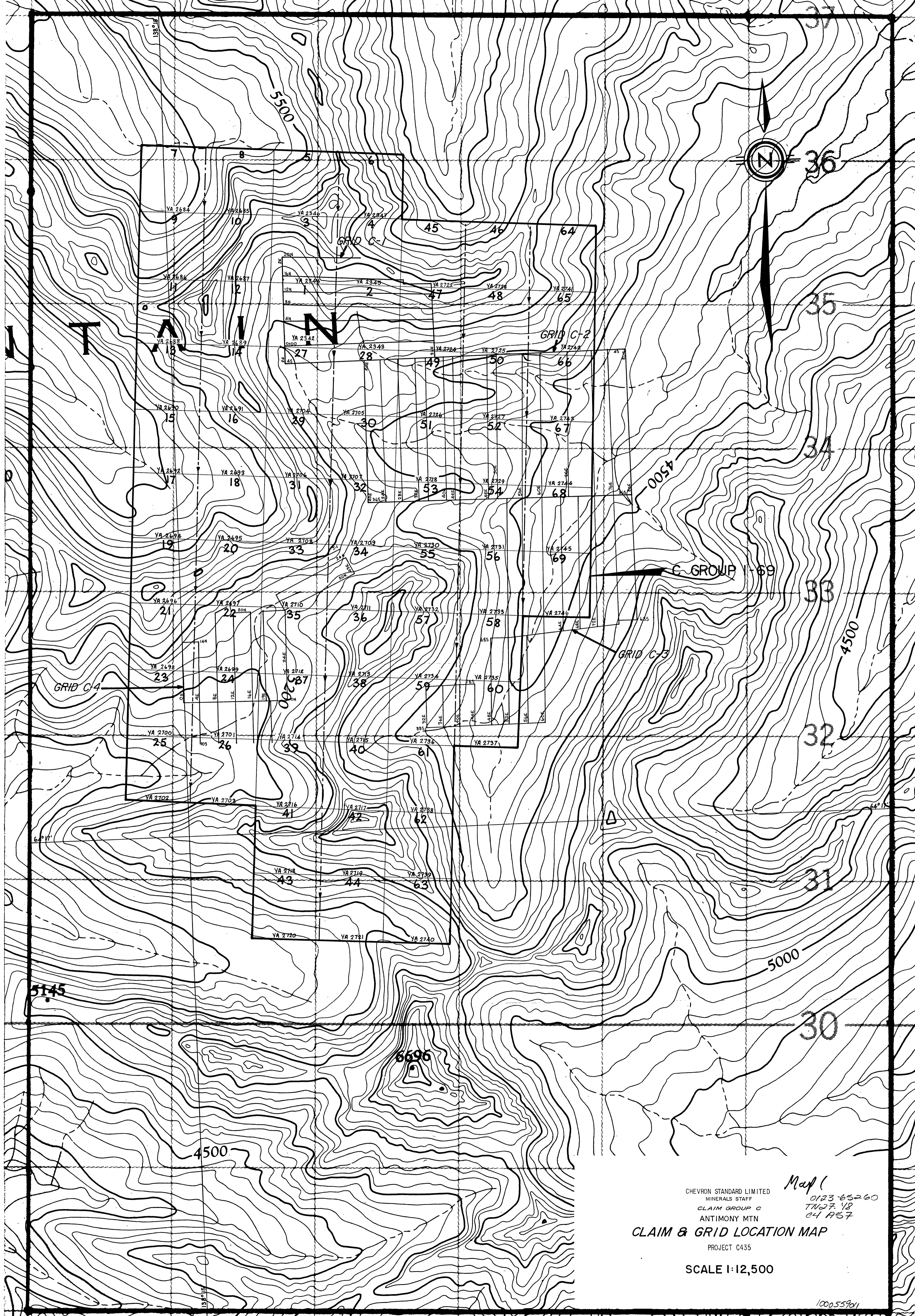
8382
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DATE: **August 19, 1976**
REPORT NO: **26 - 611**
PROJECT: **C 435**

W. O. No. A 5690

86	Uranium	Analyses	@ \$ 2.50	\$ 215.00
86	Thorium	Analyses	@ \$ 3.00	258.00
86	Sample Preparations		@ \$ 0.35	30.10
86	Retention of Rejects		@ \$ 0.10	<u>8.60</u>
				<u>\$ 511.70</u>

APPROVED: <i>[Signature]</i>	DATE: <i>8/25</i>
PROJECT: <i>C435</i>	AMOUNT: <i>511.70</i>

YCM



36

35

34

33

32

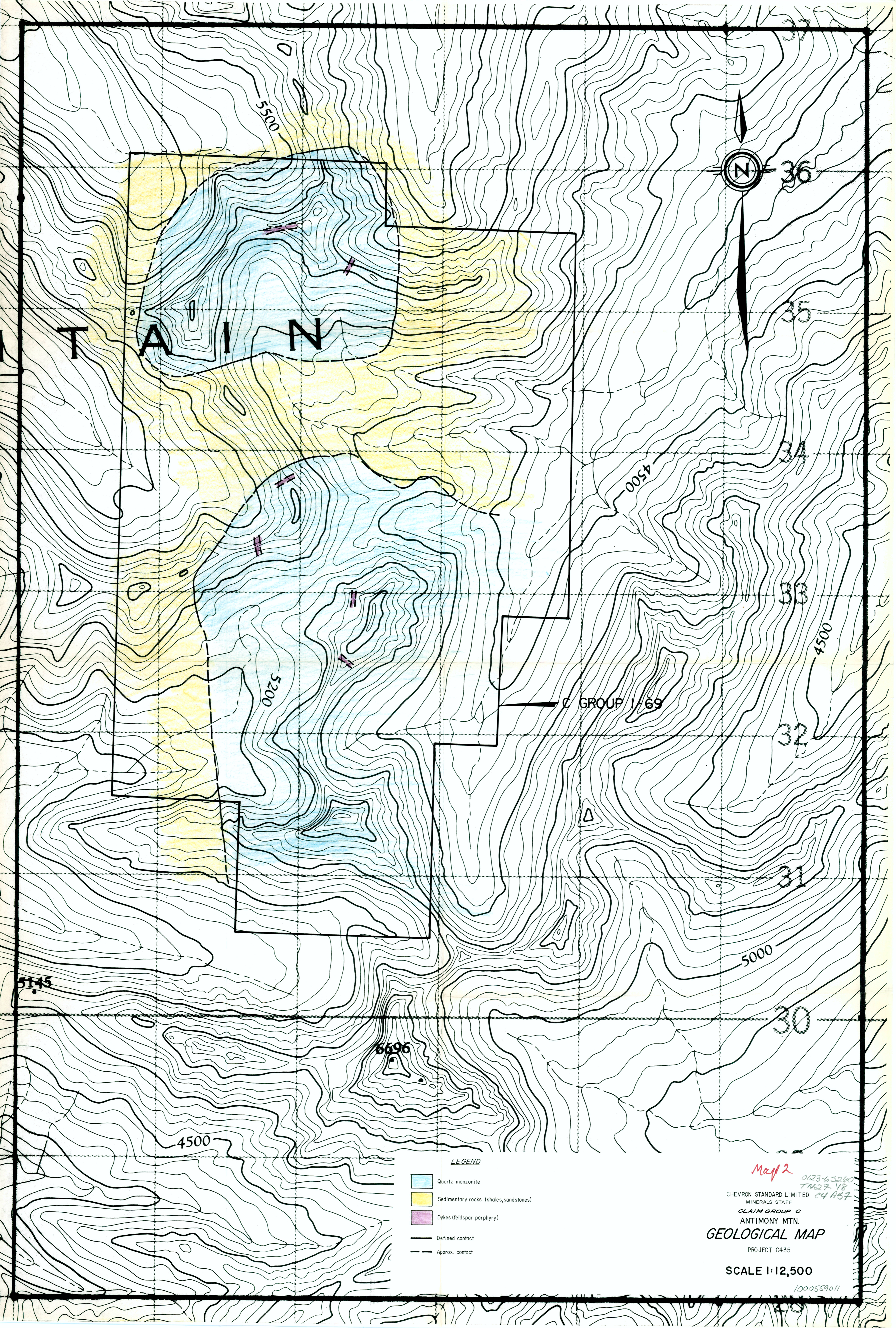
31

30

CHEVRON STANDARD LIMITED
MINERALS STAFF
CLAIM GROUP C
ANTIMONY MTN
PROJECT C435
SCALE 1:12,500

Map 1
0123-63260
TN/27 '18
04 A57

100055901



LEGEND

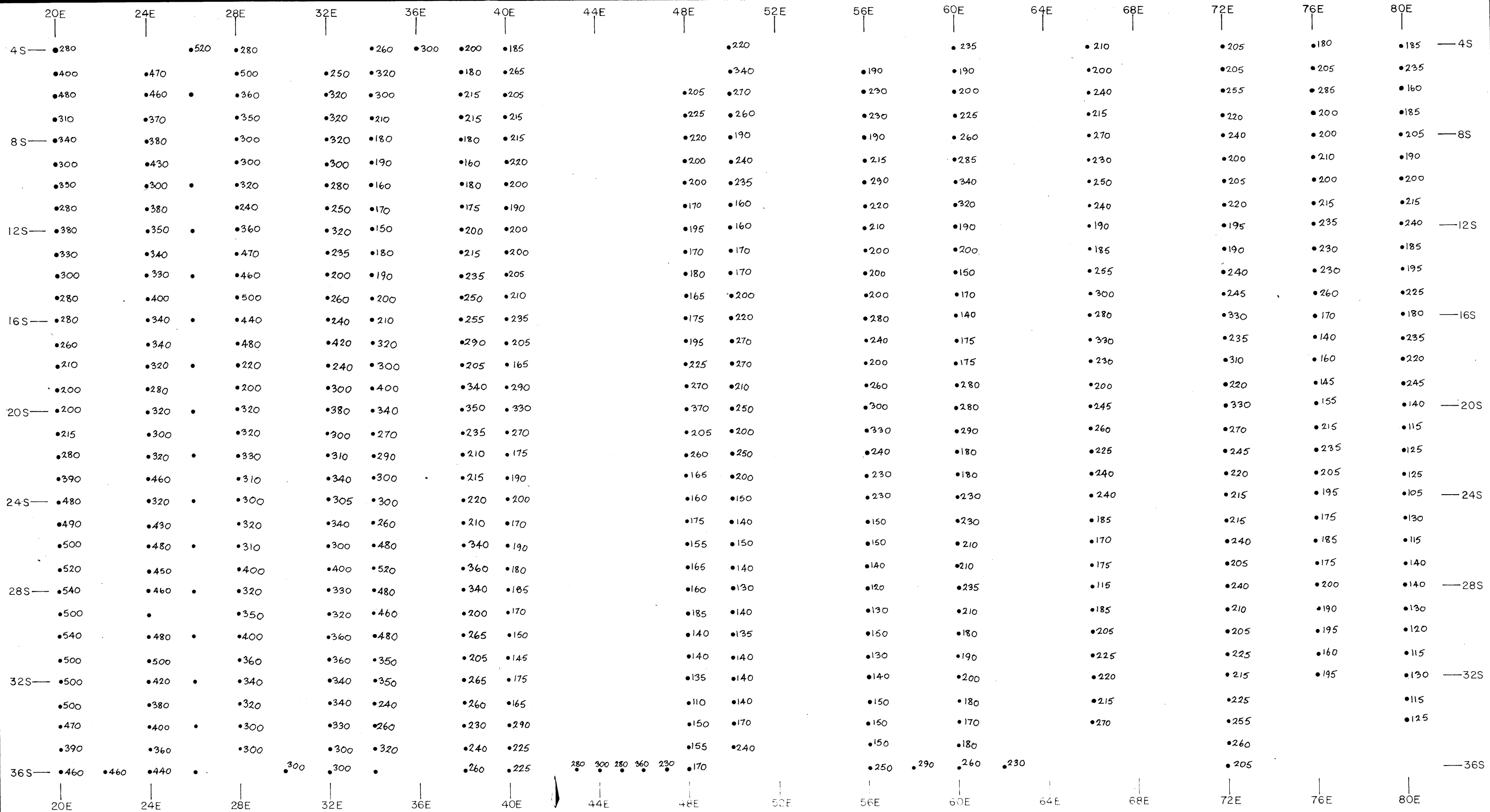
- Quartz monzonite
- Sedimentary rocks (shales, sandstones)
- Dykes (feldspar porphyry)
- Defined contact
- Approx. contact

Map 2
0123-65560
TMS 7. V8
04 A57

CHEVRON STANDARD LIMITED
MINERALS STAFF
CLAIM GROUP C
ANTIMONY MTN
GEOLOGICAL MAP
PROJECT C435

SCALE 1:12,500

1000559011

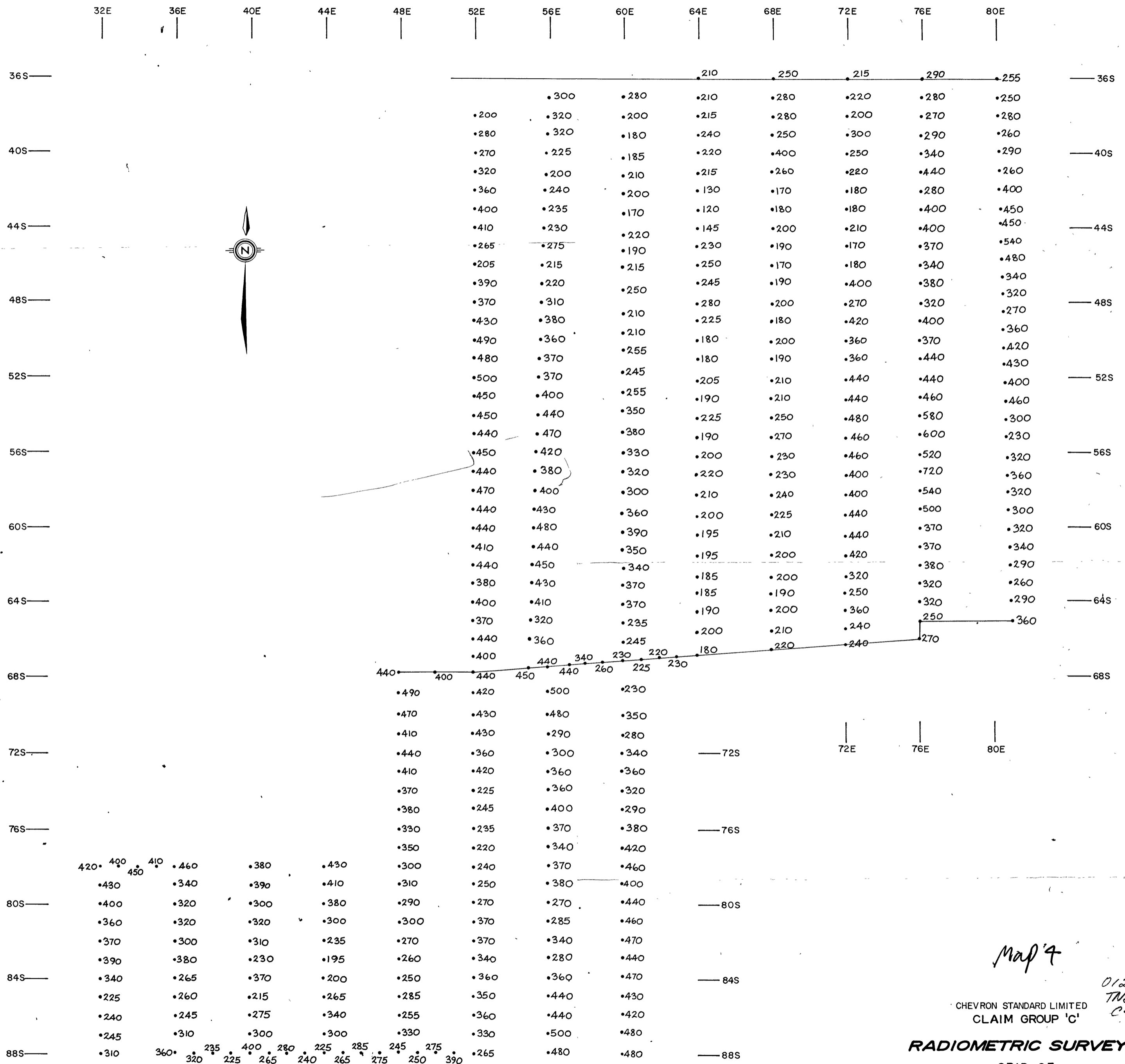


LEGEND

•510 Scintillometer value in counts per second
Instrument: Scintrex BGS ISL

Map 3
0123-65260
TN27.47
C4 A57

CHEVRON STANDARD LIMITED
MINERALS STAFF
CLAIM GROUP
RADIOMETRIC SURVEY
GRID C-2
PROJECT C435
SCALE IN FEET
0 400 800



LEGEND

•480 Scintillometer value in counts per second
Instrument:- Scintrex BGS ISL

RADIOMETRIC SURVEY

GRID C3
ANTIMONY AREA
PROJECT C435

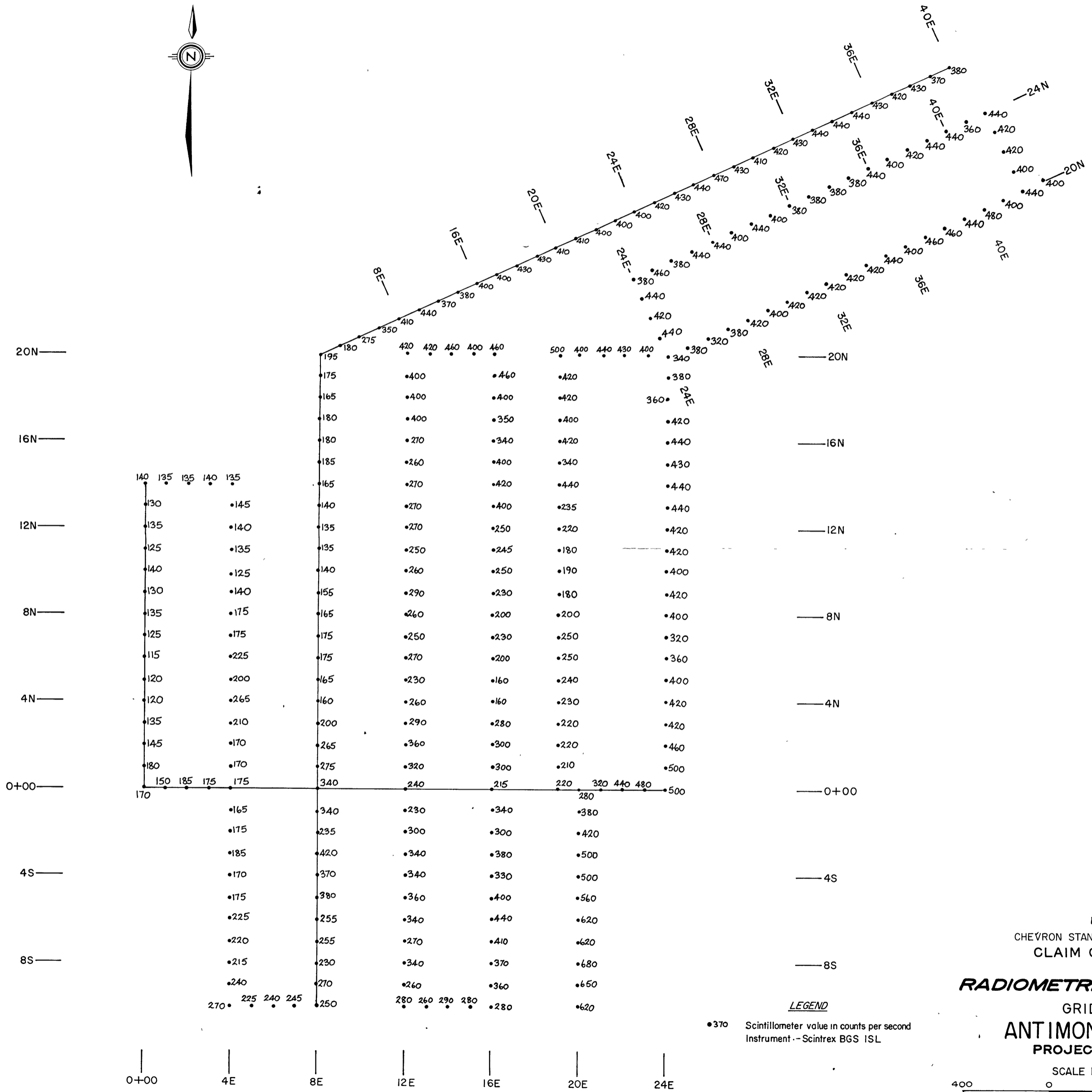
SCALE IN FEET
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Map 4

CHEVRON STANDARD LIMITED
CLAIM GROUP 'C'

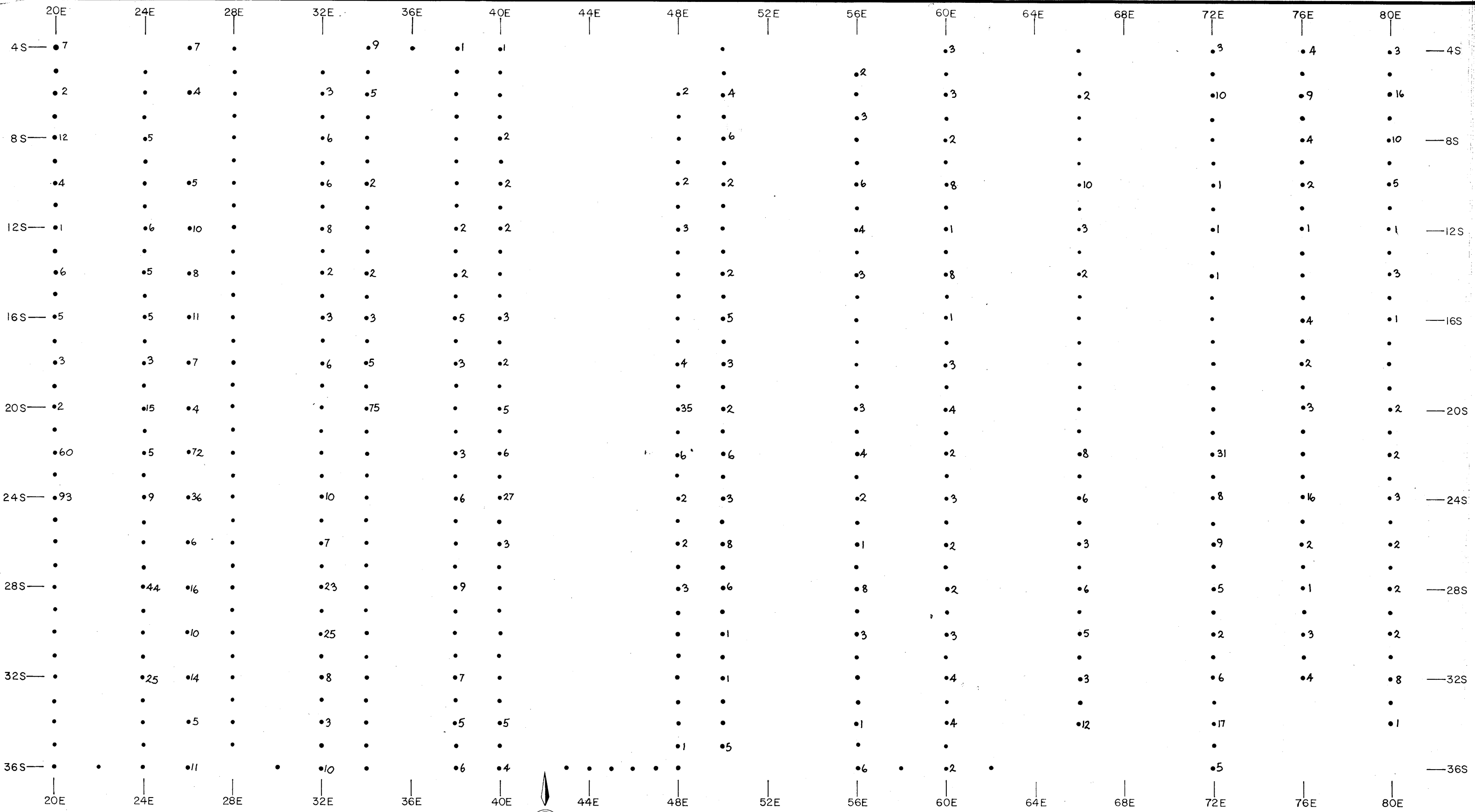
0123-65200
TN27.48
C4A57

1000559011



Map 5 0123-65260
 TN 27.48
 CLAIM GROUP 'C' C4 A57

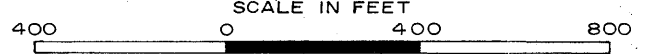
RADIOMETRIC SURVEY
 GRID C4
ANTIMONY AREA
 PROJECT C435
 SCALE IN FEET
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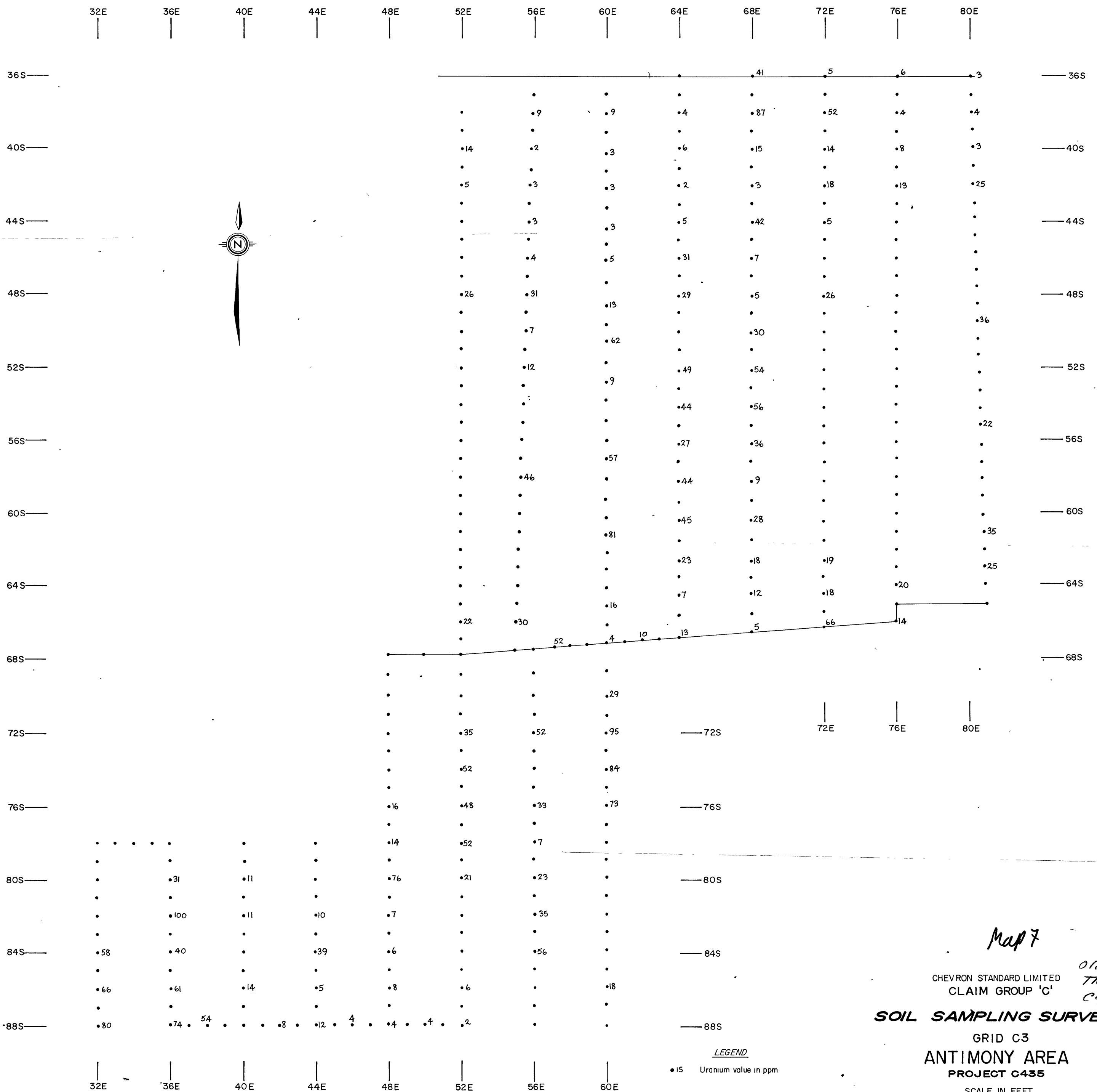


LEGEND
 •12 Uranium value in ppm

Map 6
 0123-65260
 TN27.48
 C4 A57

CHEVRON STANDARD LIMITED
 MINERALS STAFF
 CLAIM GROUP
GEOCHEMISTRY
 GRID C-2
 PROJECT C435



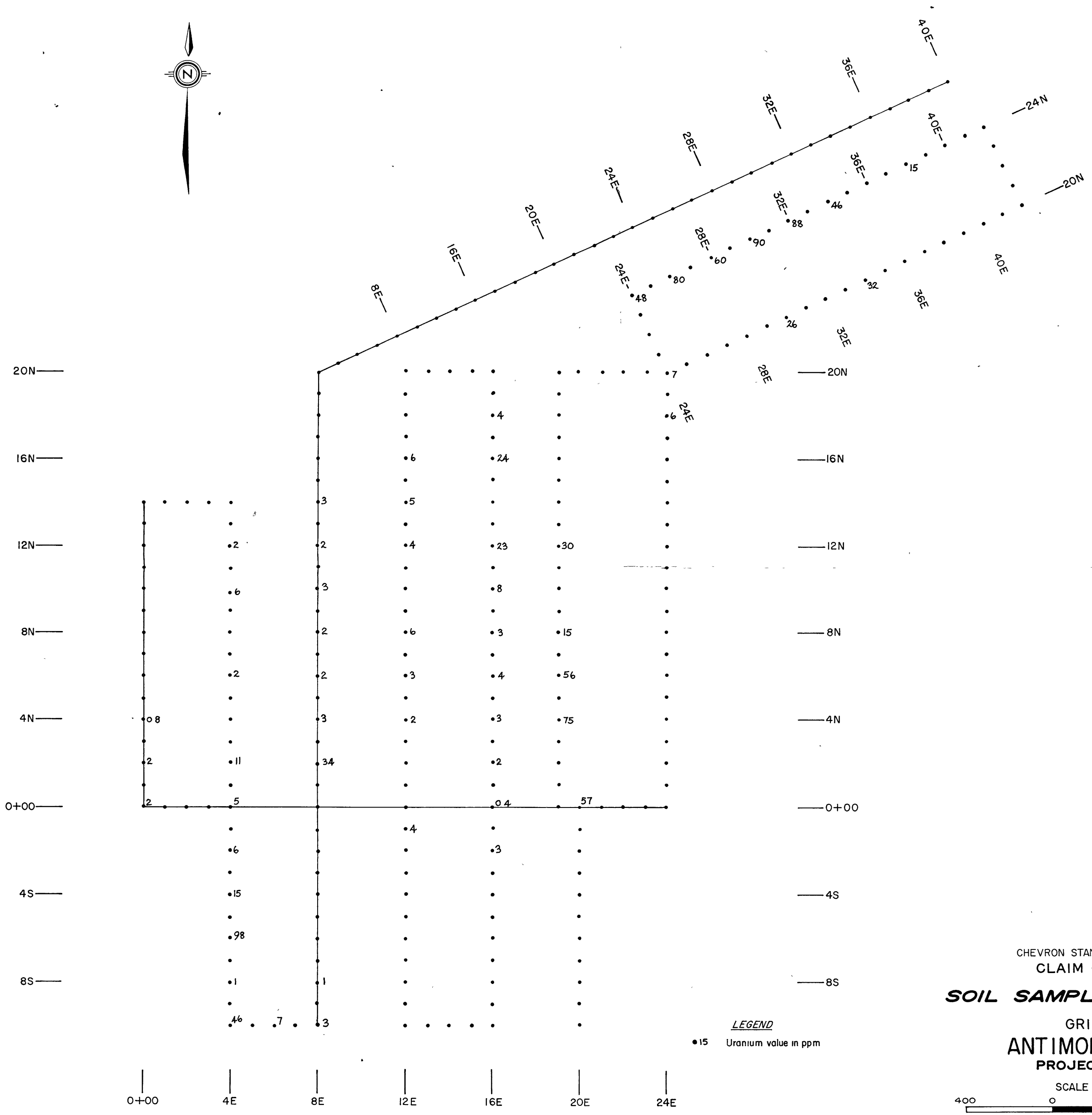


Map 7
 CHEVRON STANDARD LIMITED
 CLAIM GROUP 'C'
SOIL SAMPLING SURVEY
 GRID C3
ANTIMONY AREA
 PROJECT C435
 SCALE IN FEET
 400 0 400 800

012365210
 TN27.48
 C4A57

LEGEND
 •15 Uranium value in ppm

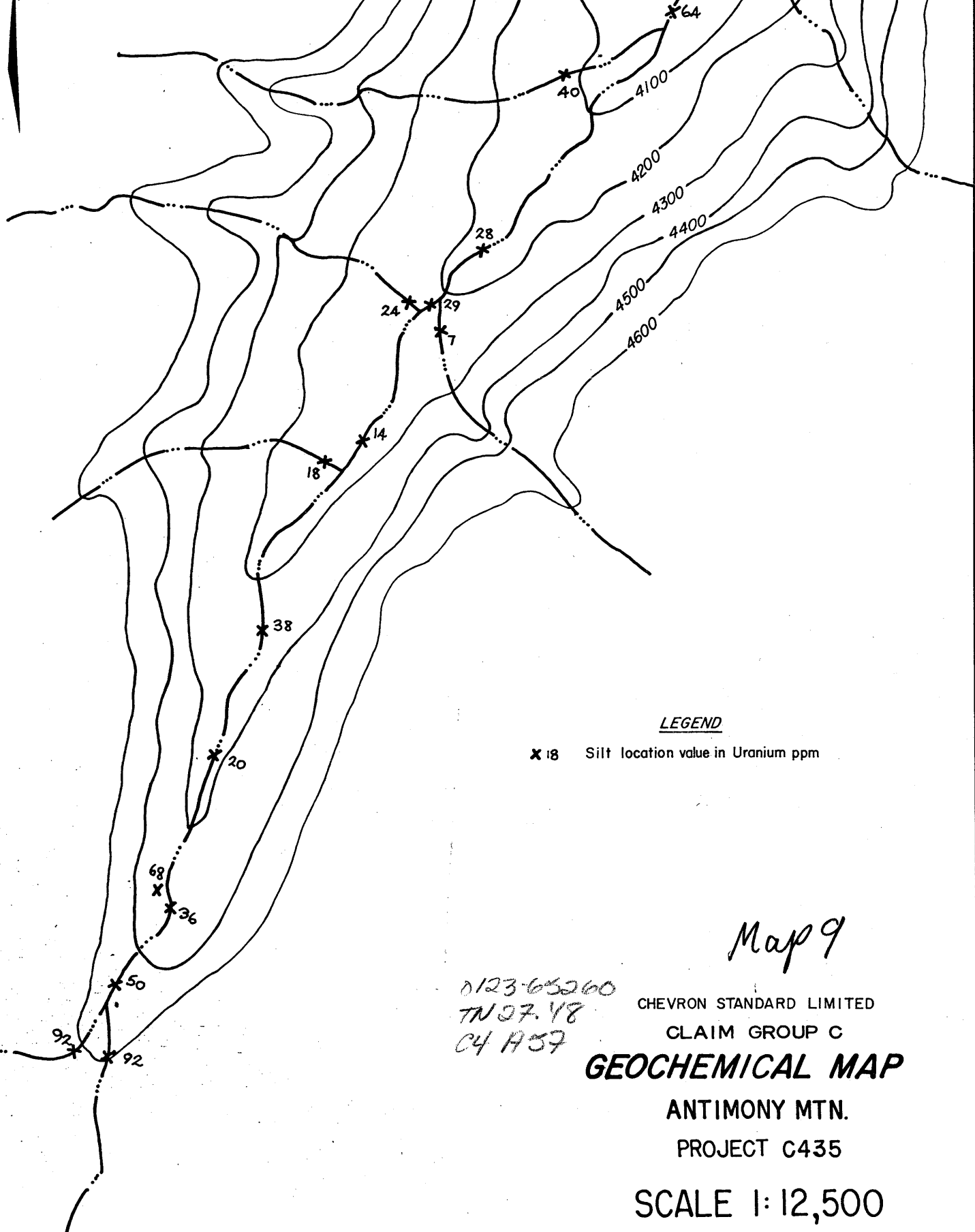
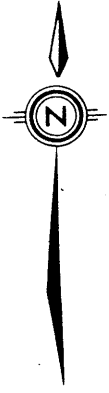
1000559011



LEGEND
●15 Uranium value in ppm

Map B
CHEVRON STANDARD LIMITED 0123-65200
CLAIM GROUP 'C' TND7.48
C4 A57
SOIL SAMPLING SURVEY
GRID C4
ANTIMONY AREA
PROJECT C435
SCALE IN FEET
400 0 400 800

1000559011



LEGEND

* 18 Silt location value in Uranium ppm

Map 9

0123-65260
TN 07.18
C4 A57

CHEVRON STANDARD LIMITED
CLAIM GROUP C

GEOCHEMICAL MAP

ANTIMONY MTN.

PROJECT C435

SCALE 1:12,500