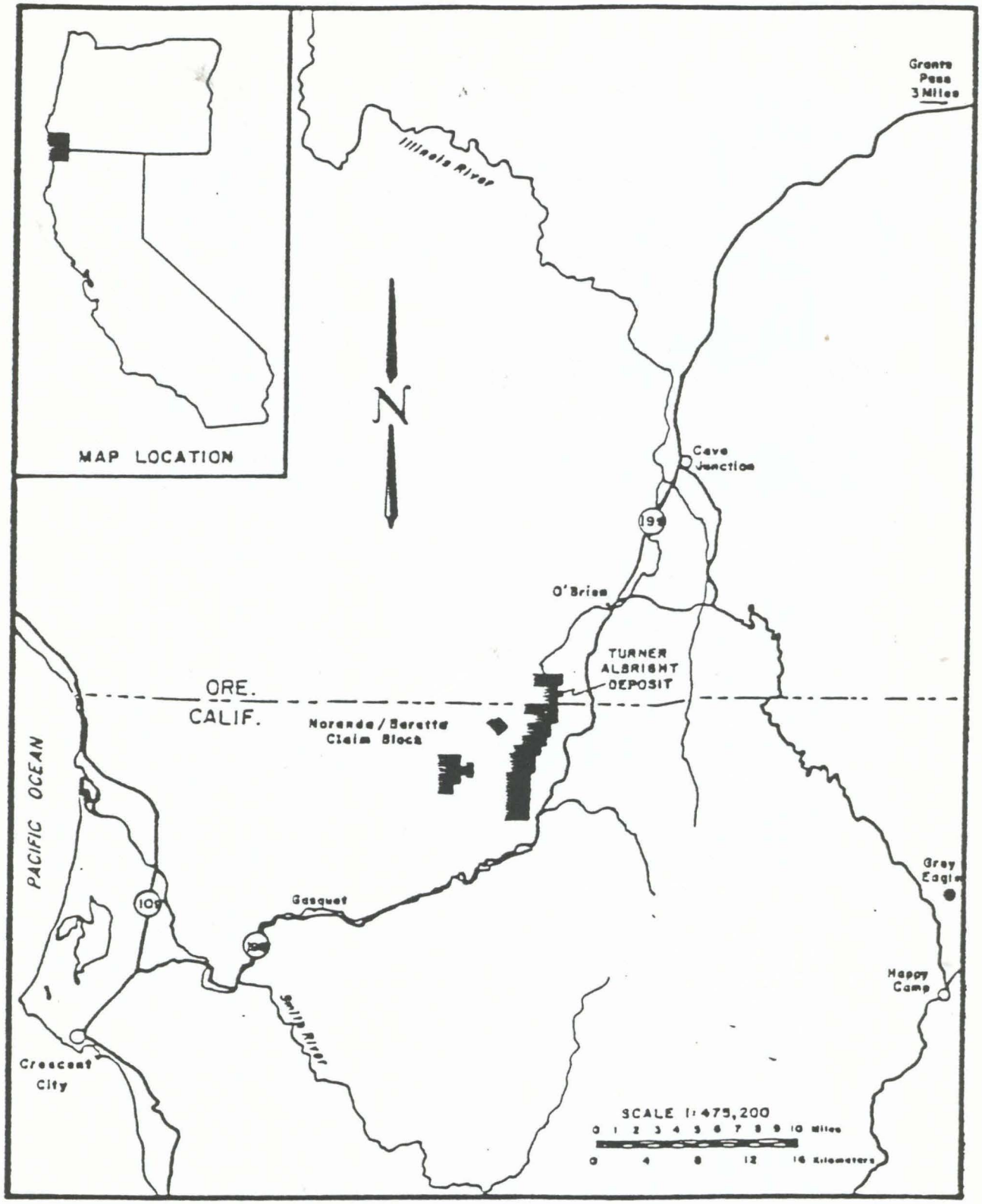


Figure 1. Location of the Turner Albright deposit and the Noranda/Baretta claim block.

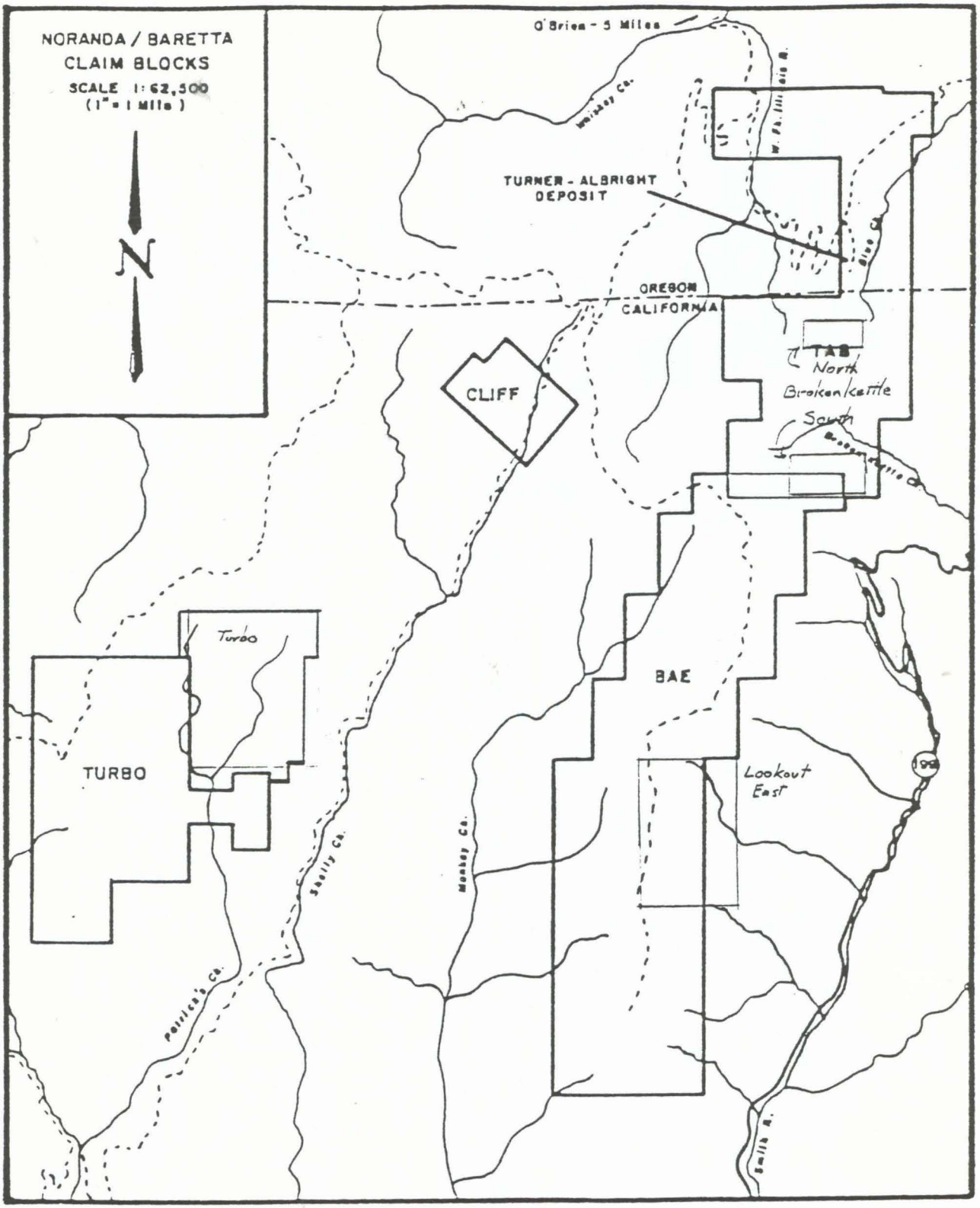


Figure 2. Specific location of the various Noranda/Baretta claim blocks, and the location of the Turner Albright deposit.

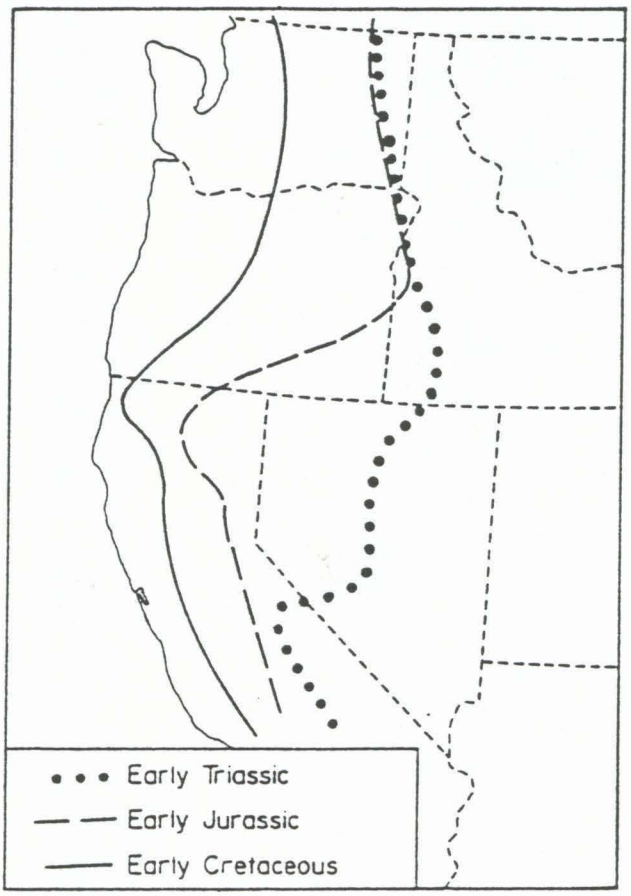


Figure 3. Generalized map illustrating the westward migration of the western continental margin during Mesozoic times (Brooks, 1979; Drake, 1982).

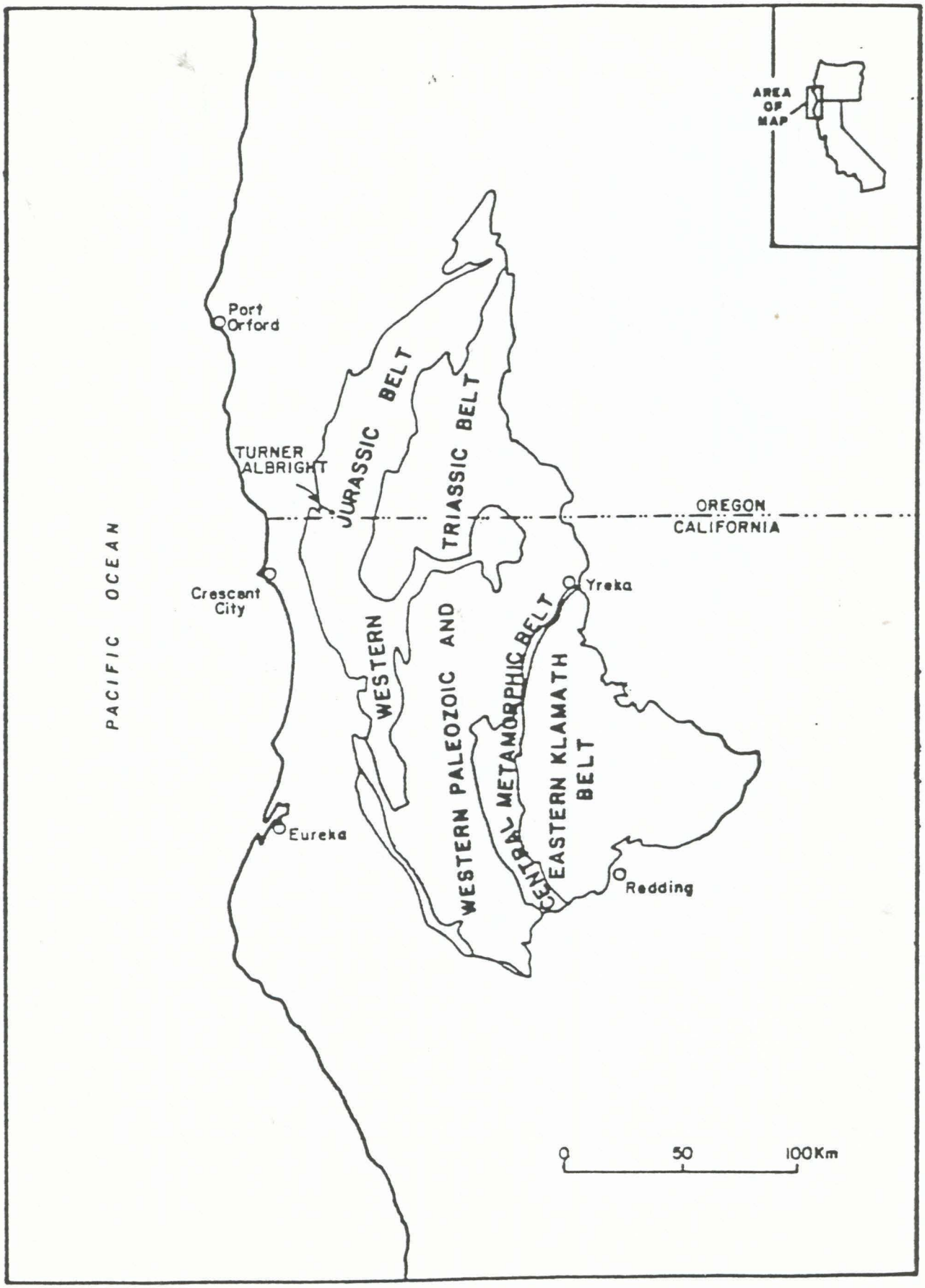


Figure 4. Lithotectonic belts within the Klamath Mountains Province of southern Oregon and northern California (Harper, 1980). The Eastern Klamath Belt is Ordovician to Jurass in age, and metamorphism of the Central Metamorphic Belt occurred during the Devonian.

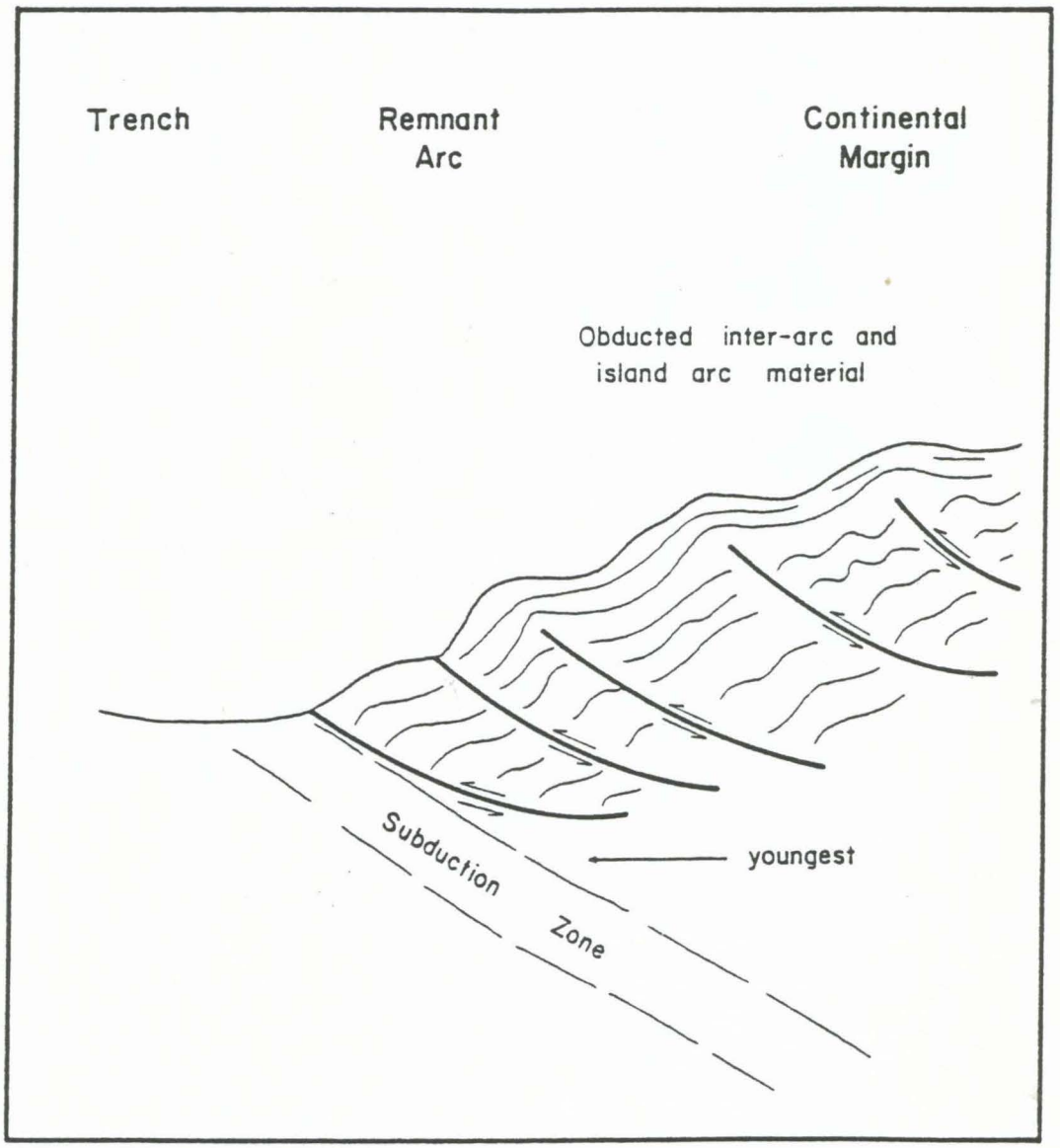


Figure 5. Idealized trench margin model picturing concave-upward under-thrust faults. This type of tectonics probably created the structural situation seen in the Klamath Mountains Province today.

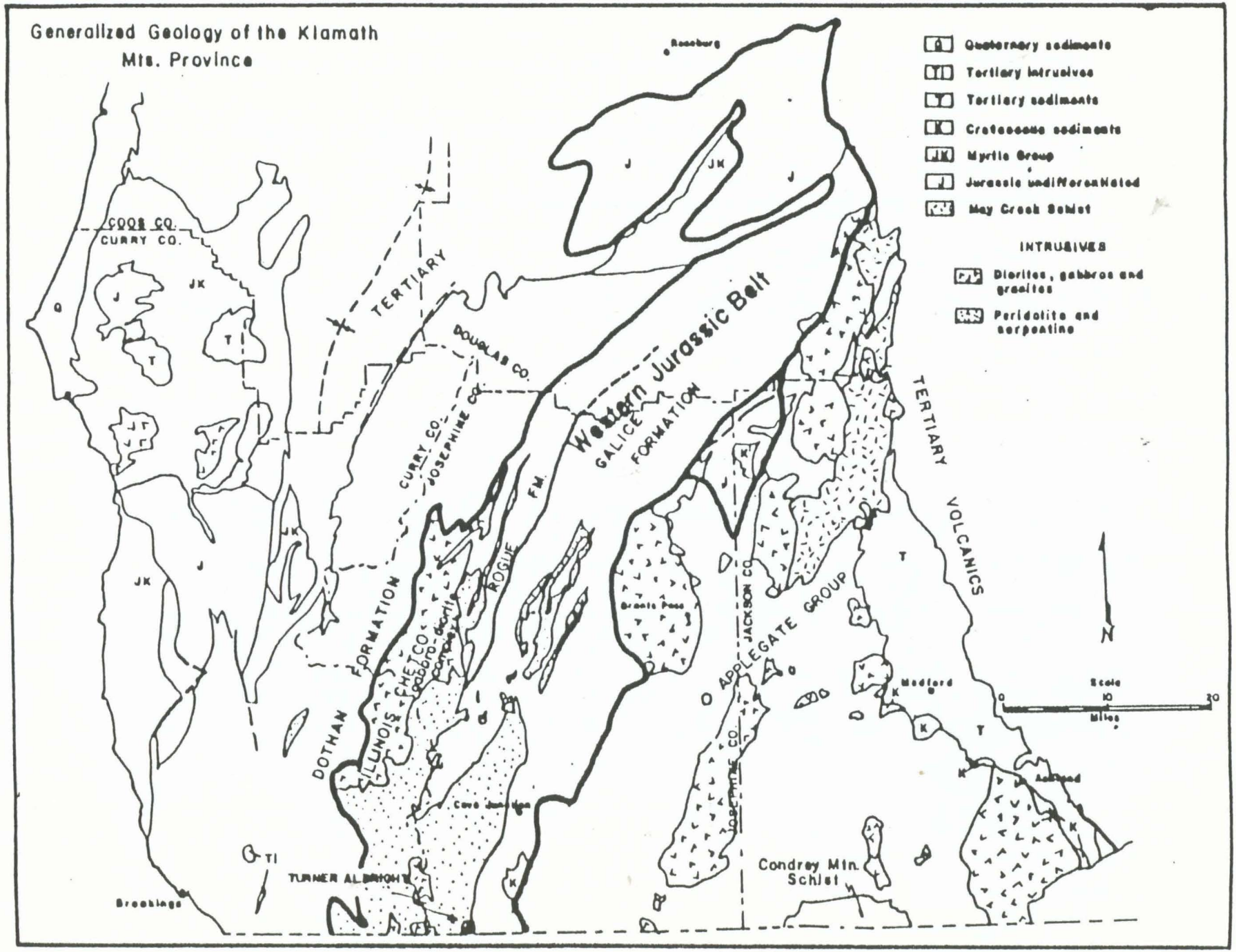


Figure 6. Generalized geologic map of the Northern Klamath Mountains Province. Turner Albright is located within the Western Jurassic belt on the Oregon-California border.

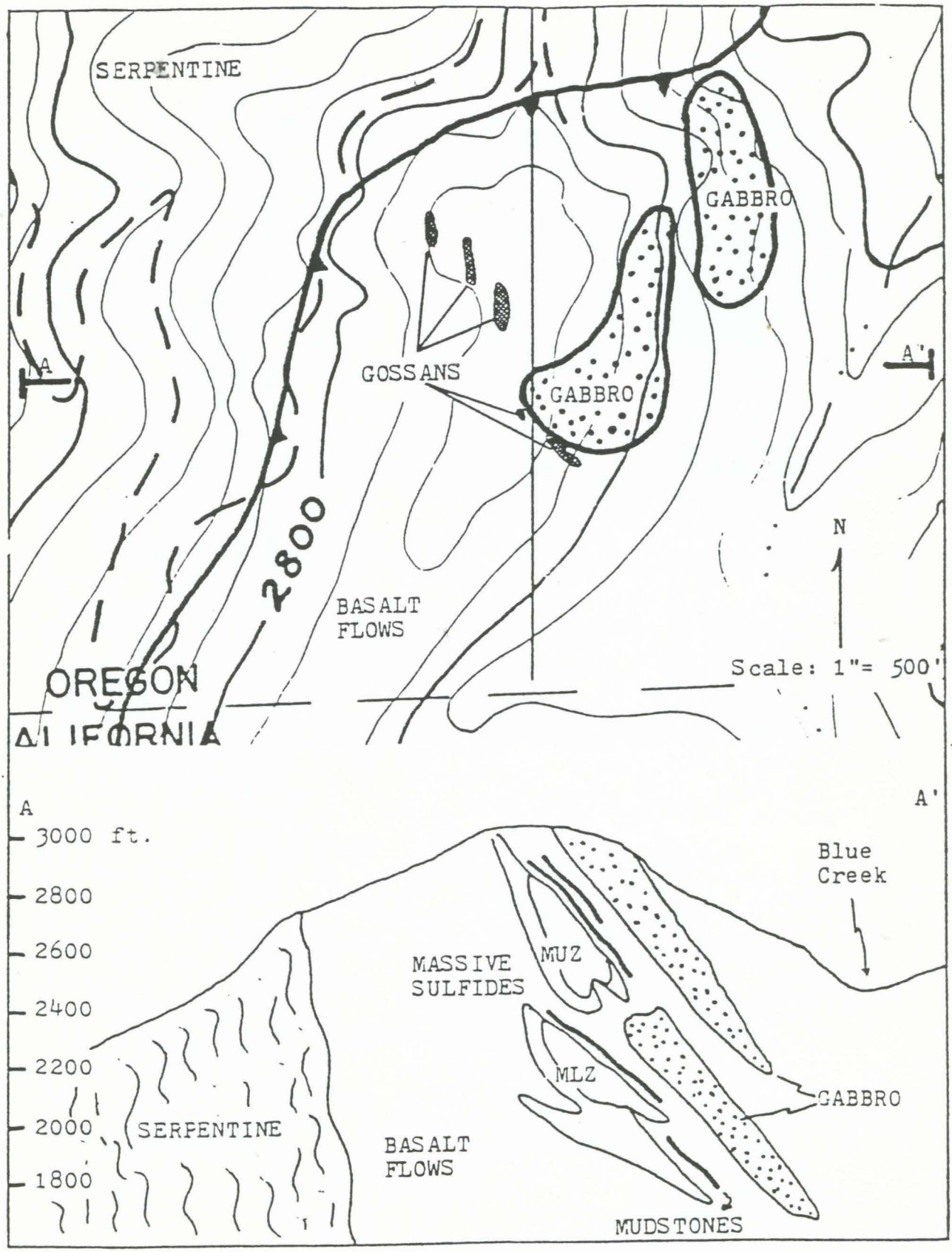


Figure 8. Generalized geologic map and east-west cross section of the Turner Albright deposit. The cross section depicts the upper and lower exhalative horizons.

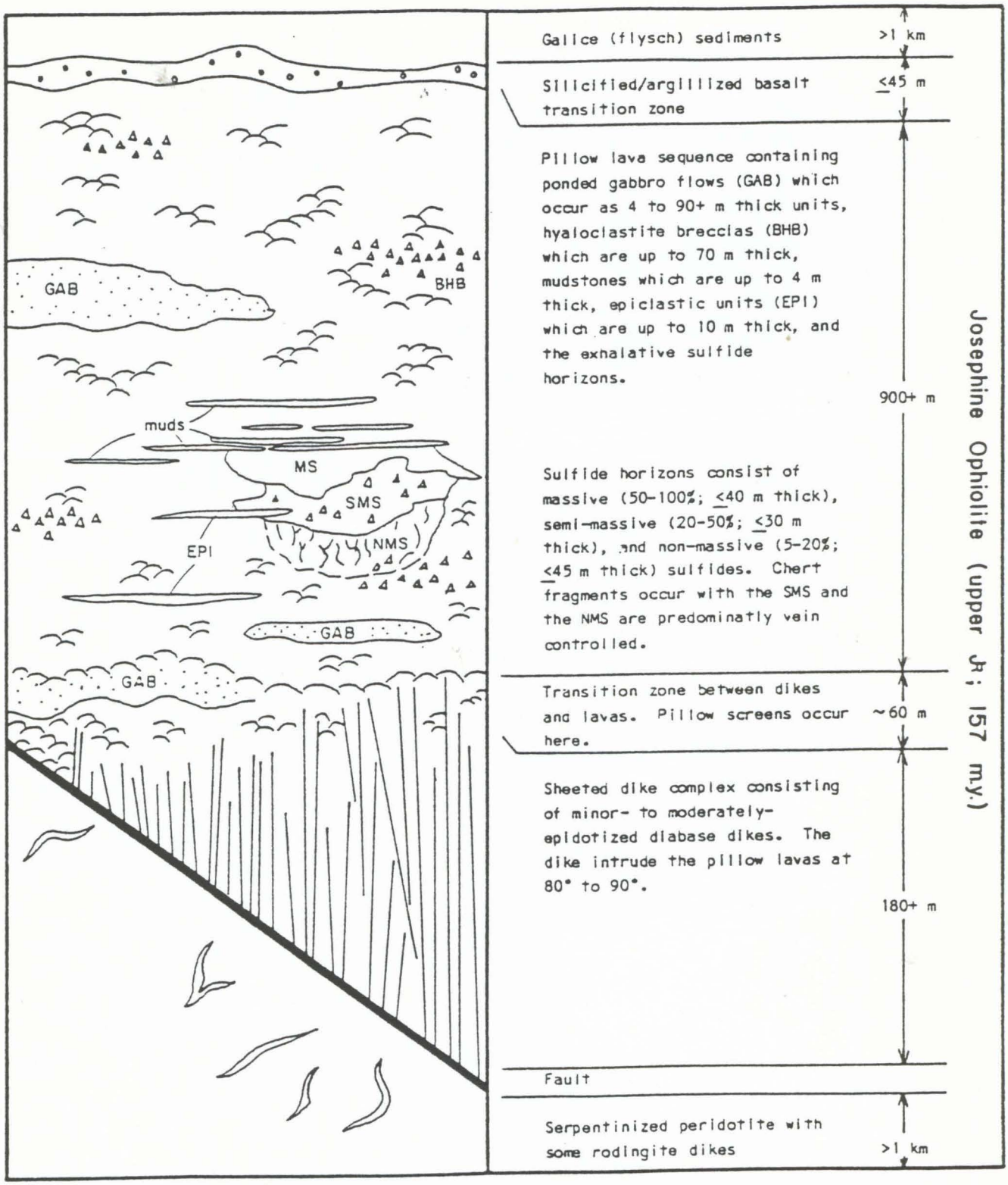


Figure 9. Schematic generalized geologic section of the Turner Albright-type mineralization and immeditate surrounding areas. An estimated 1.0 to 1.5 km of section have been removed by the fault between the dike complex and serpentinite.

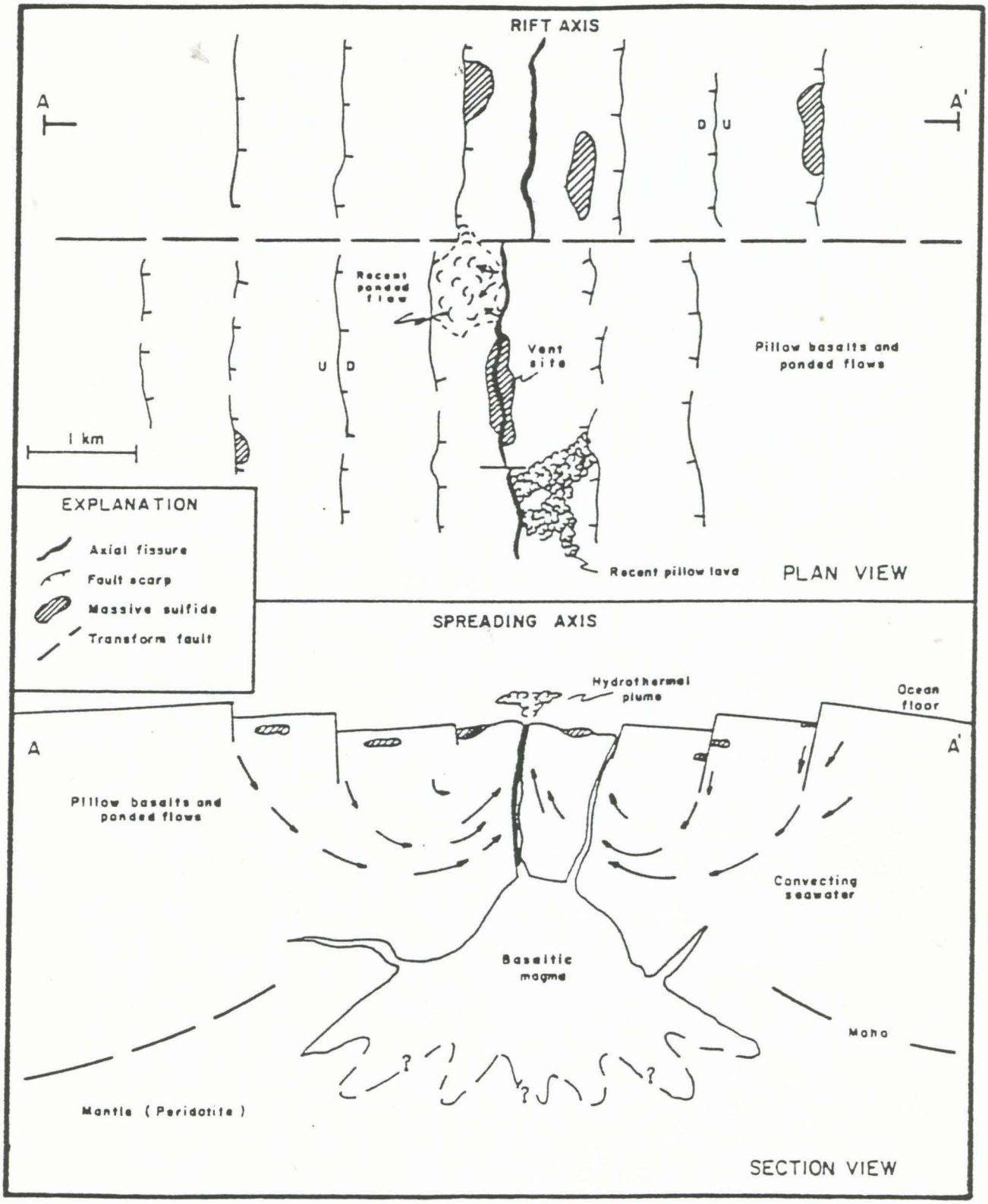


Figure 11. Idealized representation of a rift environment similar to that which produced the Turner Albright massive sulfide pods.

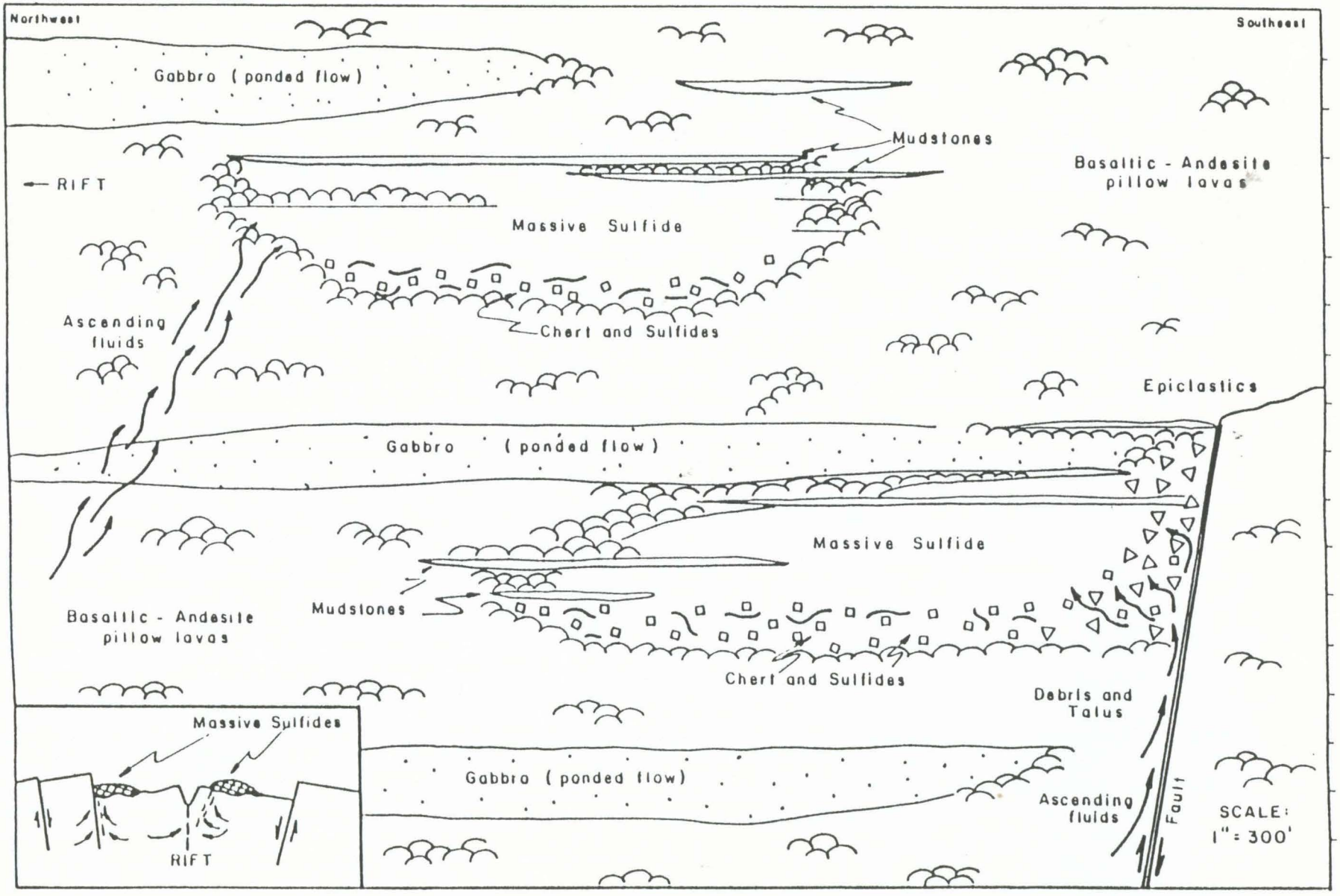


Figure 12. Generalized geologic model of the Turner Albright massive sulfide deposit. Note the two types of occurrences of the massive sulfides, the upper zone representing ponded sulfides in a local basin within the flow sequence, and the lower zone representing sulfides deposited against a fault block margin. This model represents a section through the long axis of the Turner Albright, with the rift being off to the left (northwest).

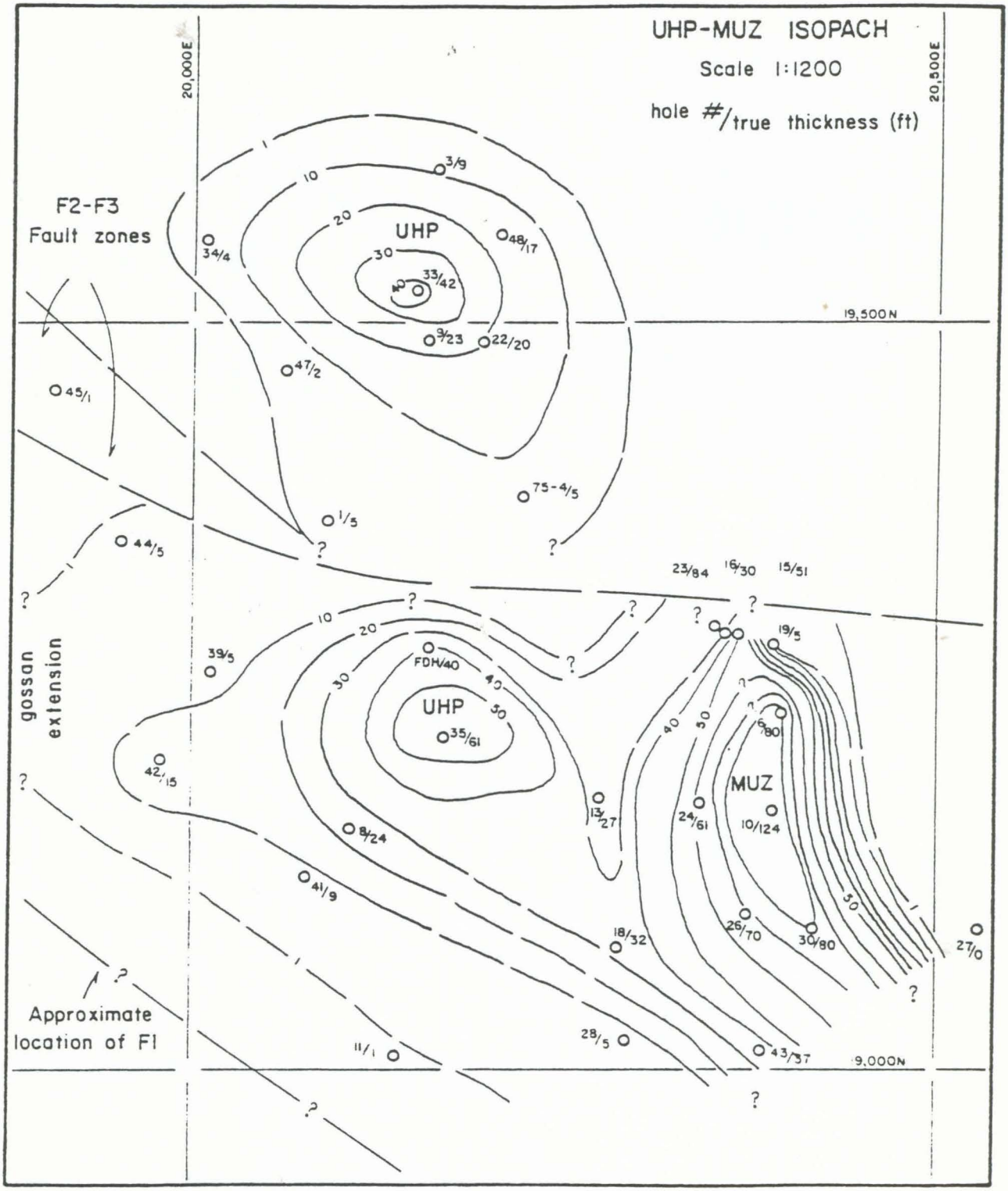


Figure 13. Isopach map of massive sulfides in the upper exhalative horizon. This horizon includes the two main upper high-grade pods (UHP) and main upper zone (MUZ). True thicknesses and drill intercept midpoints of the massive sulfides were used to construct the map.

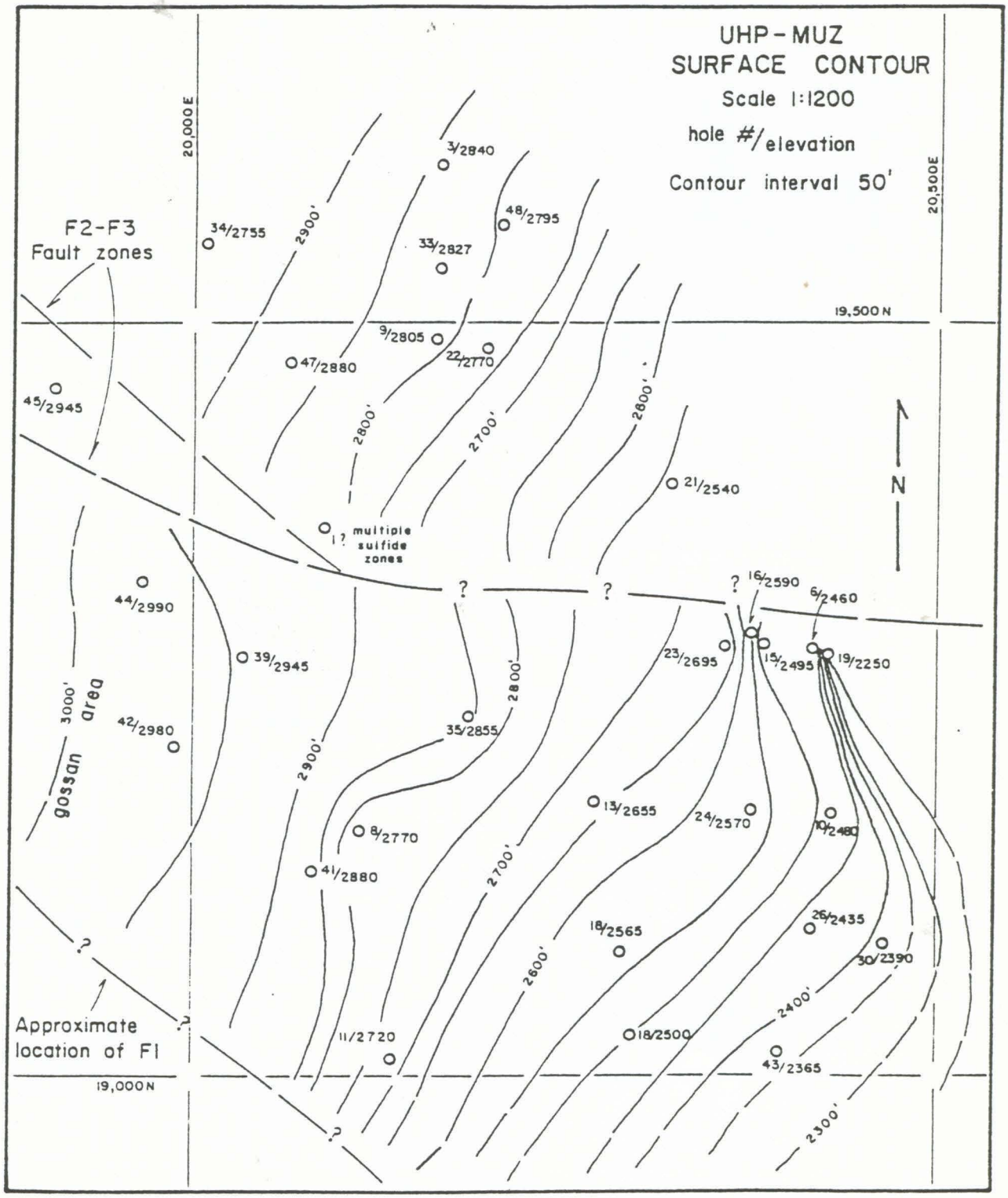


Figure 14. Contour map of the upper contact of the upper exhalative horizon. This horizon contains the two main upper high-grade pods (TAB-33, 35) and the main upper zone.

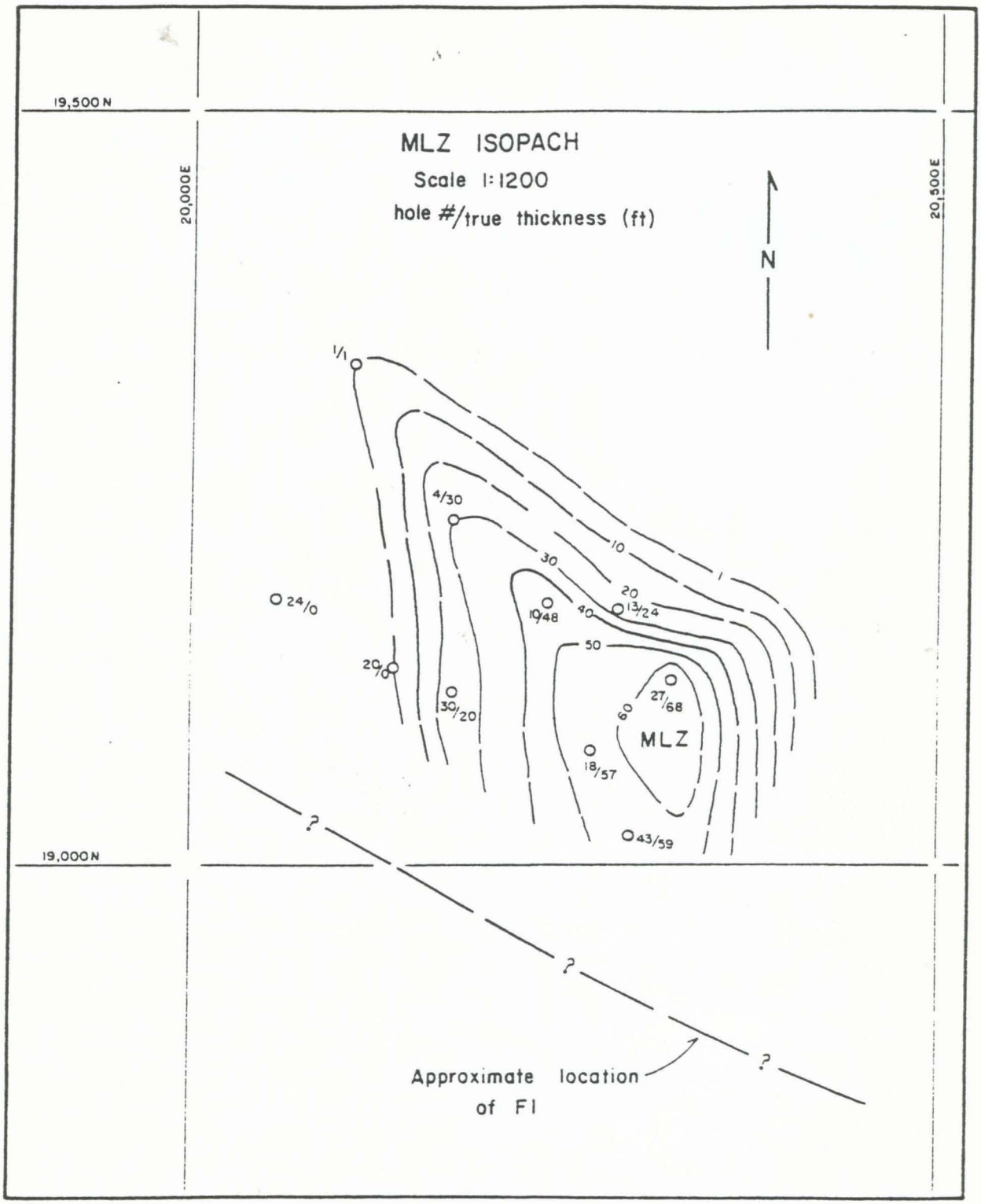


Figure 15. Isopach map of massive sulfides in the lower exhalative horizon (the main lower zone, MLZ). True thicknesses and drill intercept midpoints of the massive sulfides were used to construct the map.

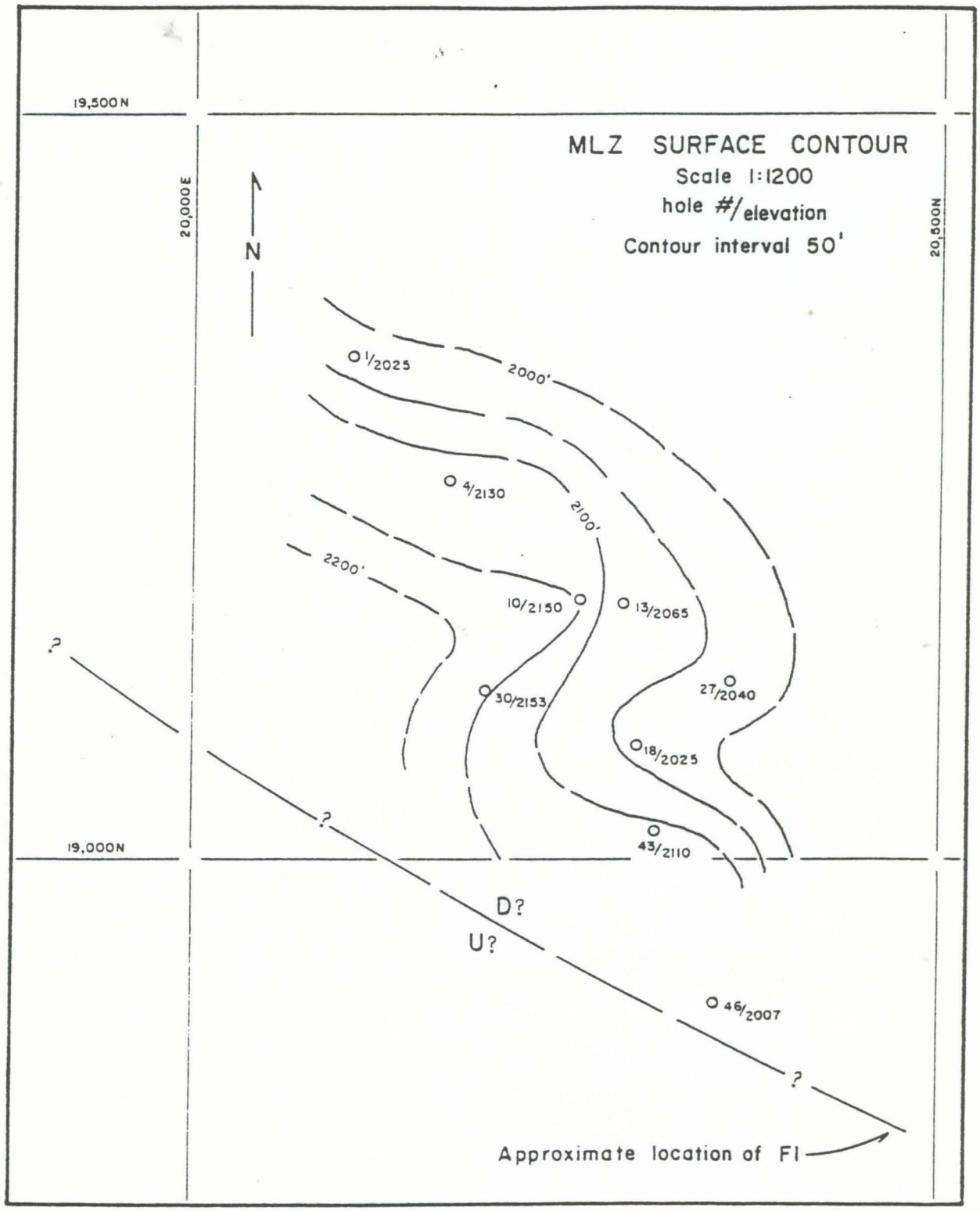


Figure 16. Contour map of the upper contact of the lower exhalative horizon (main lower zone).

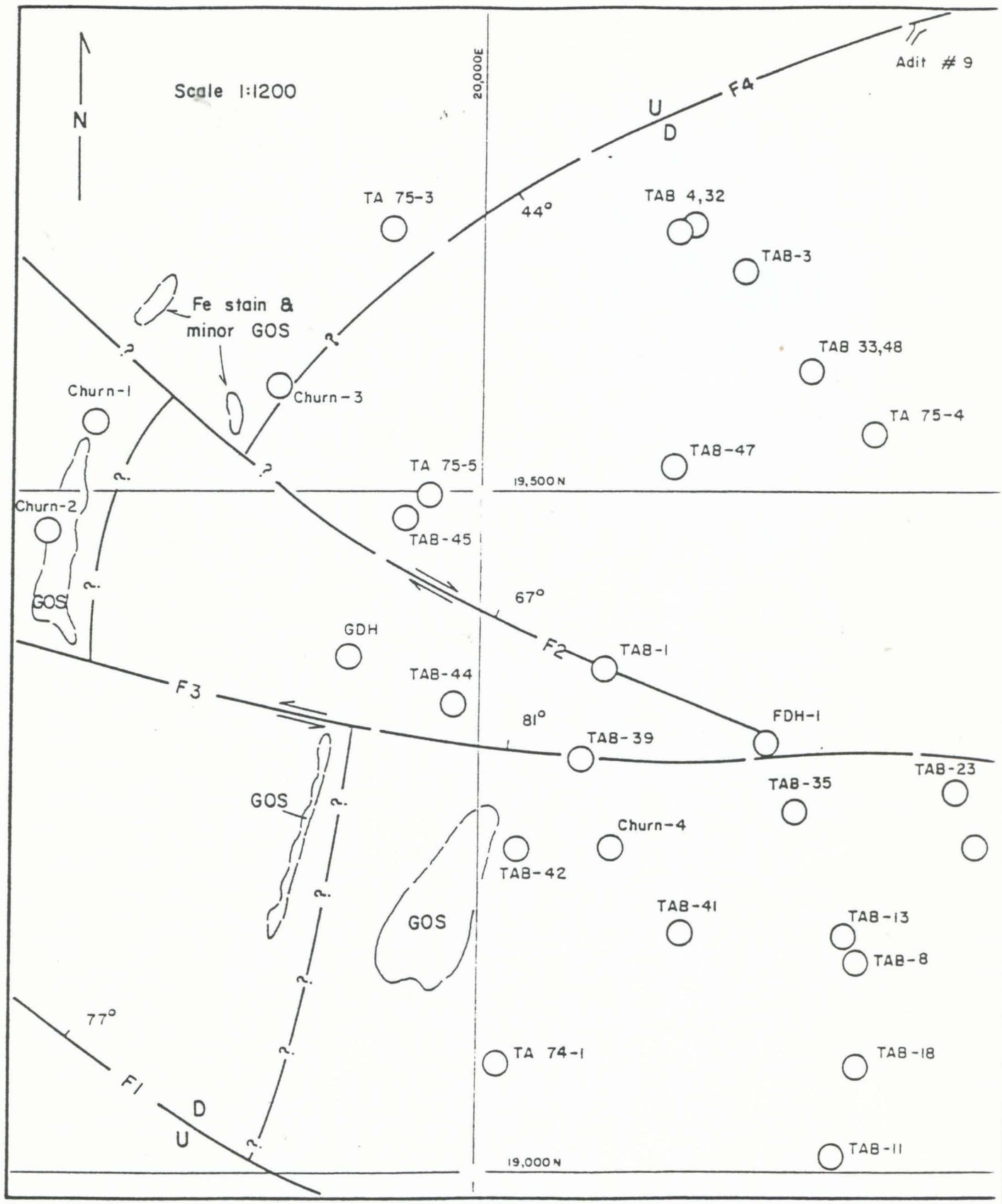


Figure 19. Structural geology in relationship to the gossans and drill holes at Turner Albright. Fault locations are based on drill hole intercepts and limited surface exposure. Proposed directions of displacement are based on correlations between the sulfide pods.

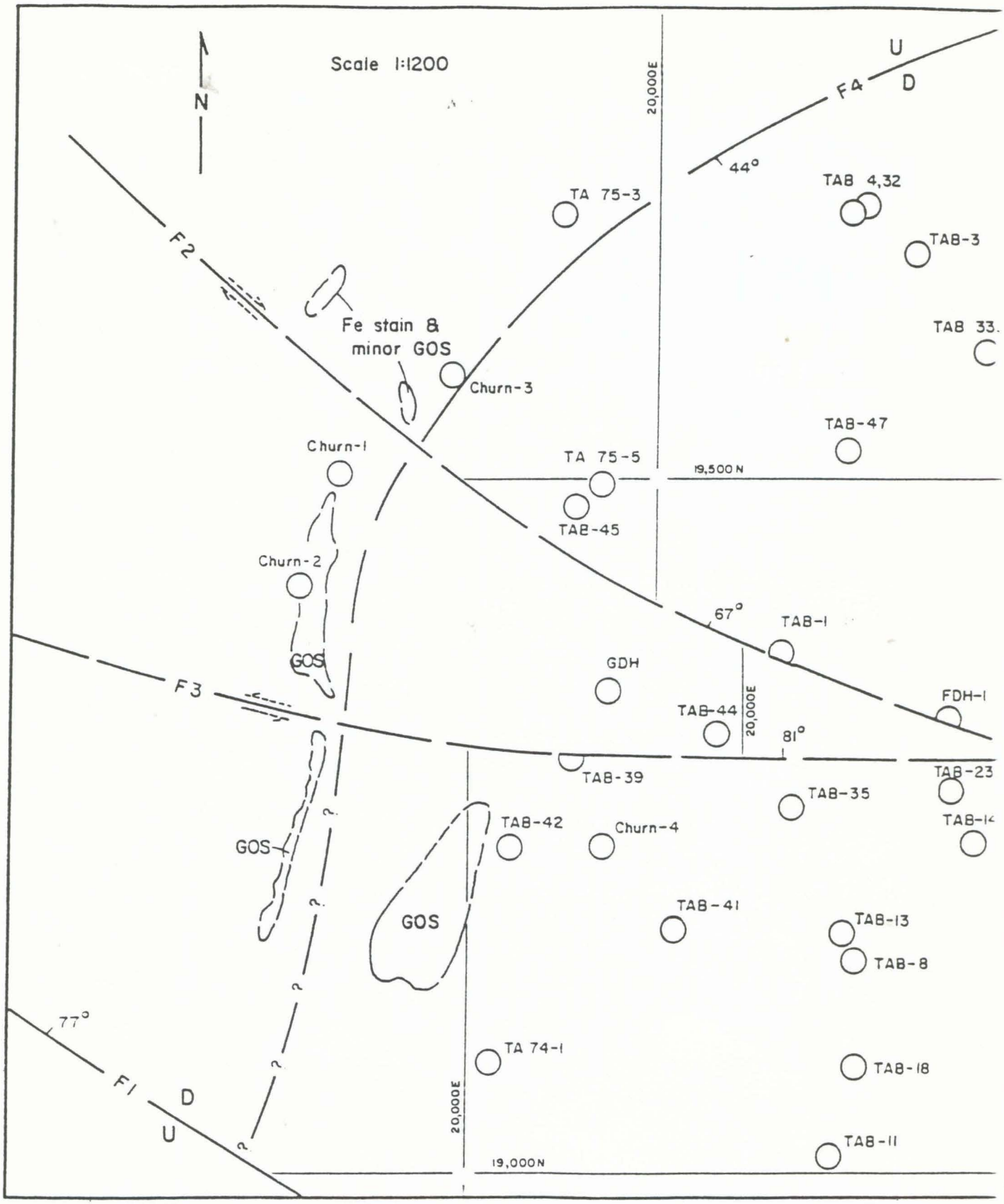


Figure 20. Interpretive structural geology depicting the possible gossan correlations prior to F2 and F3 displacements. Note the new positions of the drill holes and base line.

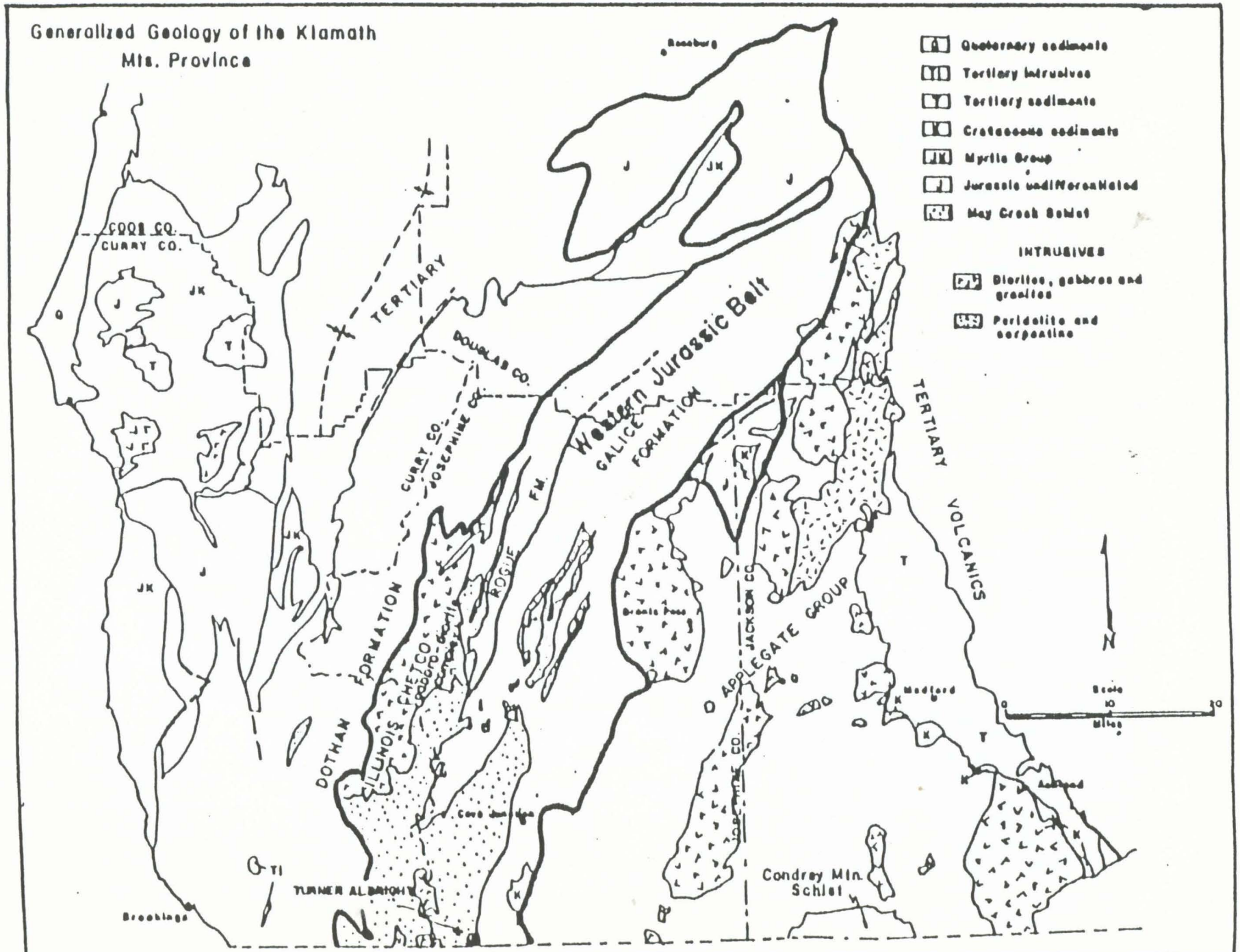


Figure 4.1 GENERAL GEOLOGY, Klamath Mts.

A

B

C

D

N. 19,500

E

F

G

H

I

J

K

L

M

N

N. 19,000

O

P

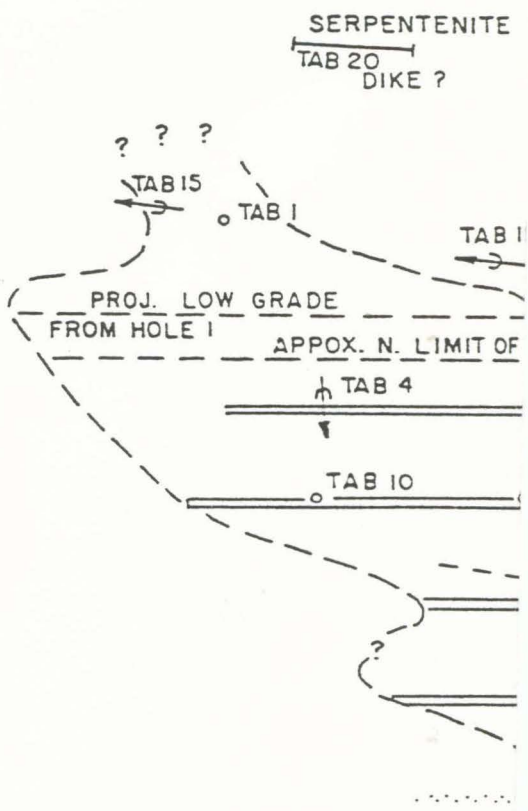
Q

S

T

TAB 24

E. 20,000



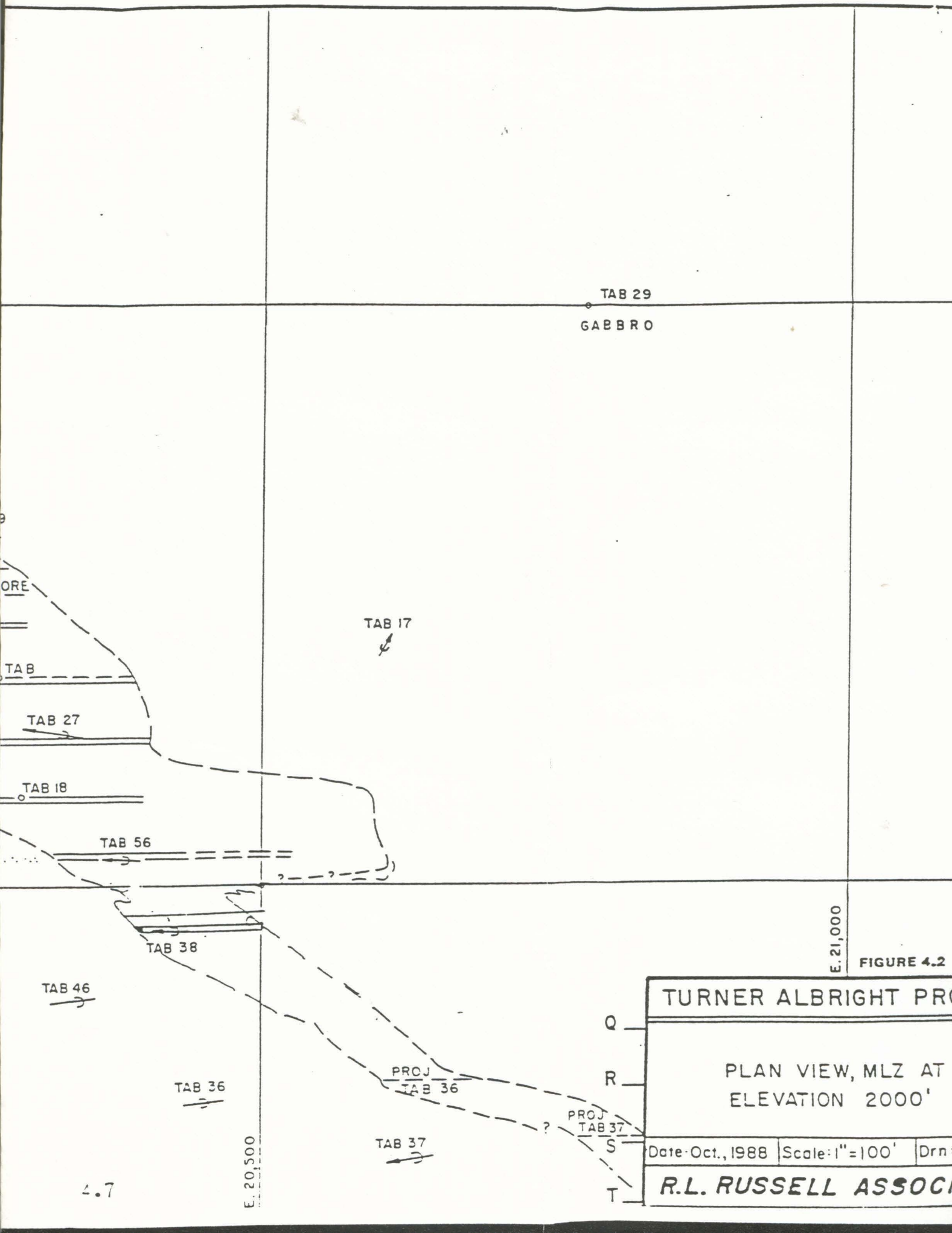
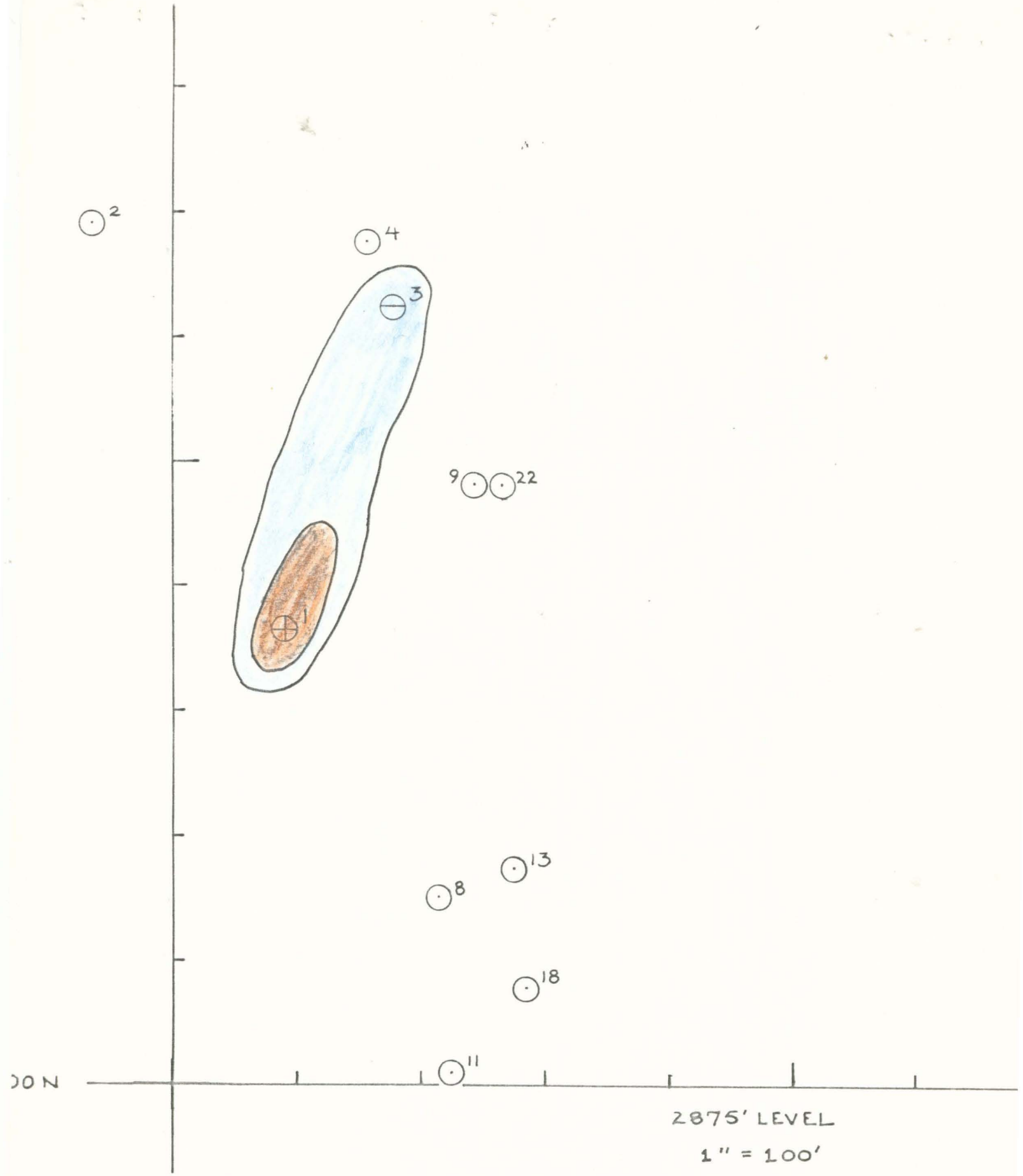

TAB 29
GABBRO
TAB 17
TAB 27
TAB 18
TAB 56
TAB 38
TAB 46
TAB 36
PROJ TAB 36
PROJ TAB 37
TAB 37
E. 21,000
E. 20,500
Q
R
S
T
TURNER ALBRIGHT PR
PLAN VIEW, MLZ AT
ELEVATION 2000'
Date-Oct., 1988
Scale: 1"=100'
R.L. RUSSELL ASSOC

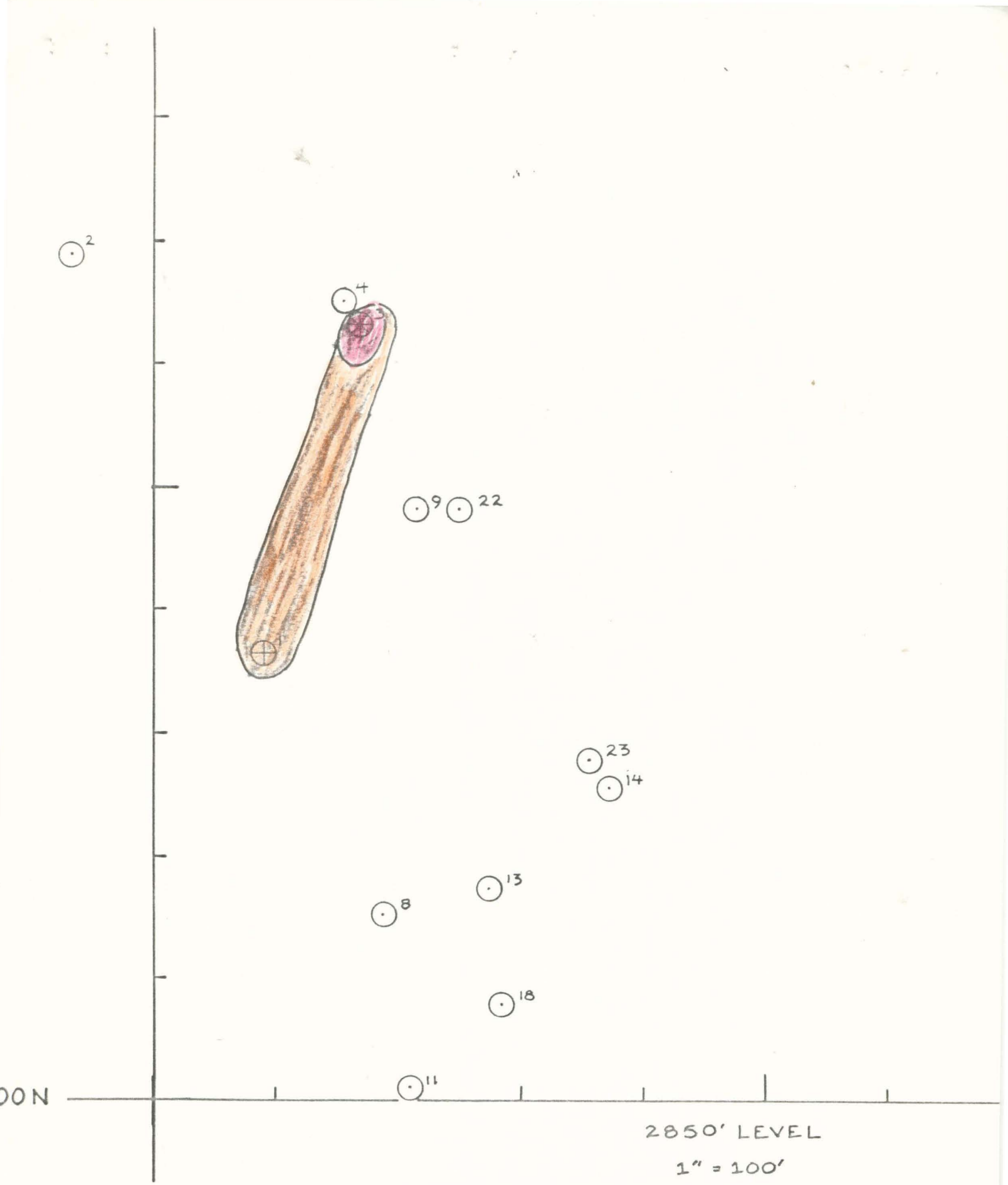
FIGURE 4.2



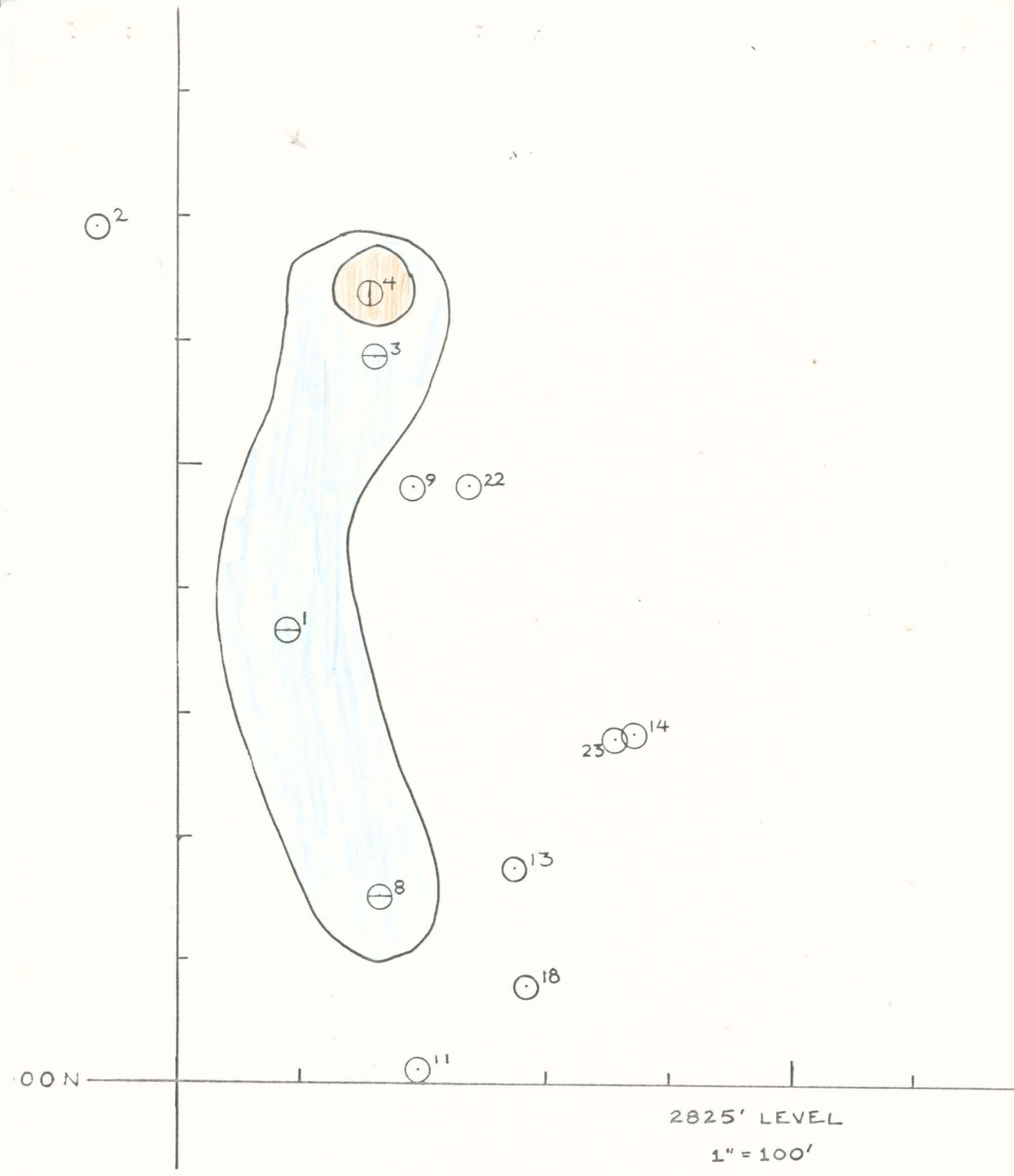
2875' LEVEL

1" = 100'

CUT-OFF	TONS	GRADE
1%	65,500	2.32
3%	12,250	5.78
5%	12,250	5.78
10%	0	0



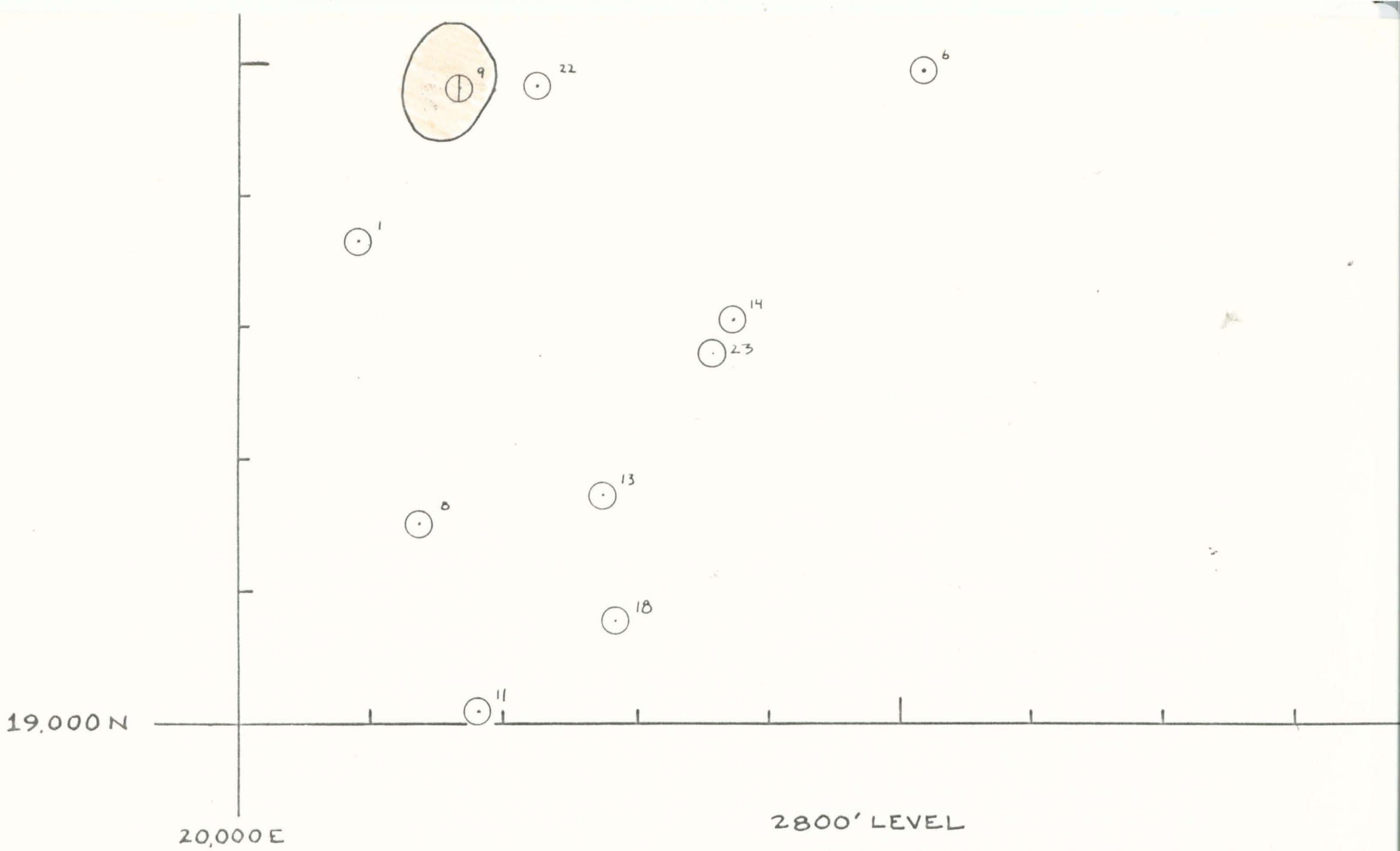
CUT-OFF	TONS	GRADE
1%	35,000	9.15%
3%	35,000	9.15%
5%	35,000	9.15%
10%	4,750	31.19%



2825' LEVEL

1" = 100'

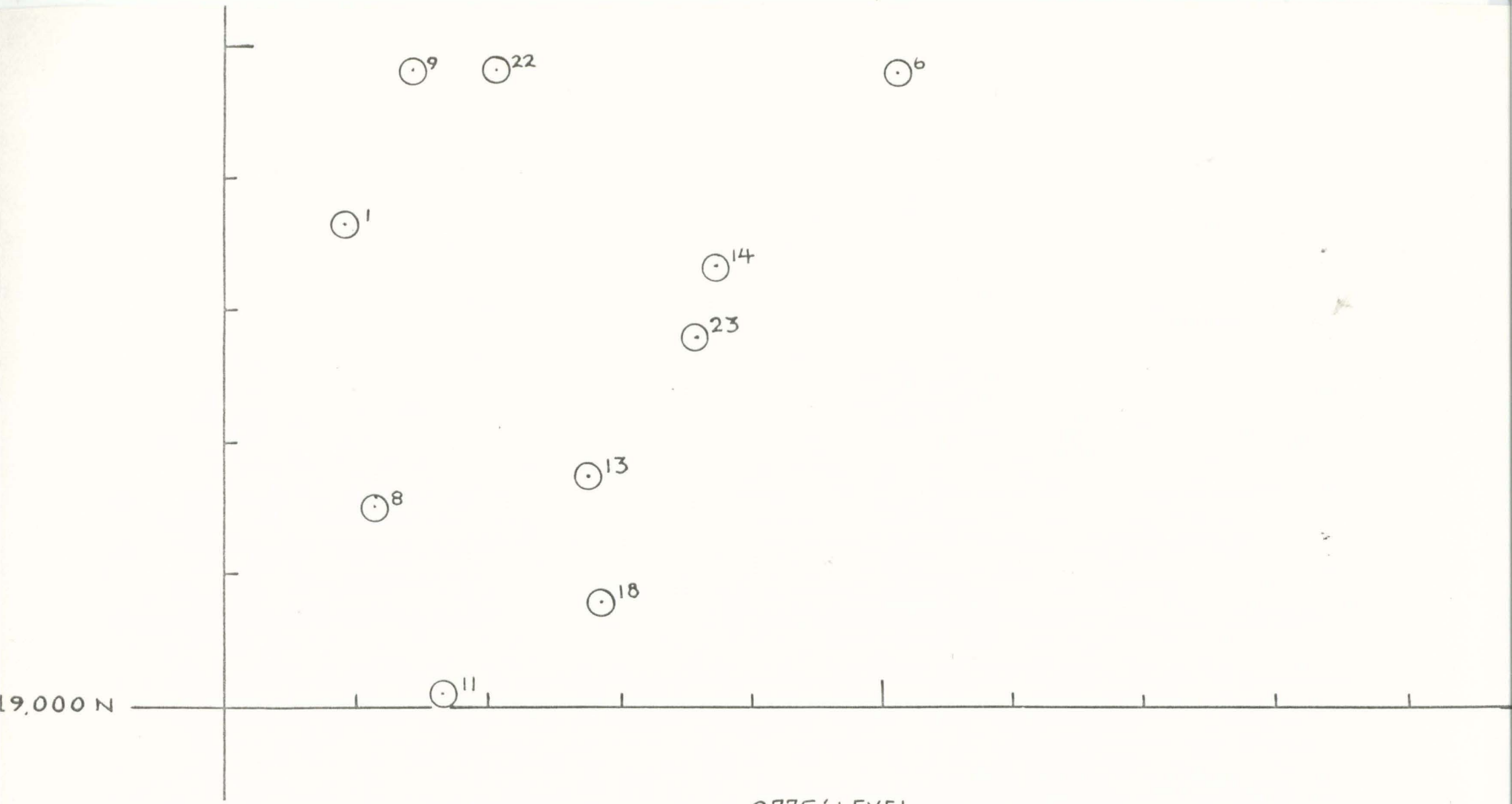
CUT-OFF	TONS	GRADE
1%	162,000	2.05%
3%	8,000	3.37%
5%	0	0
10%	0	0



2800' LEVEL

1" = 100'

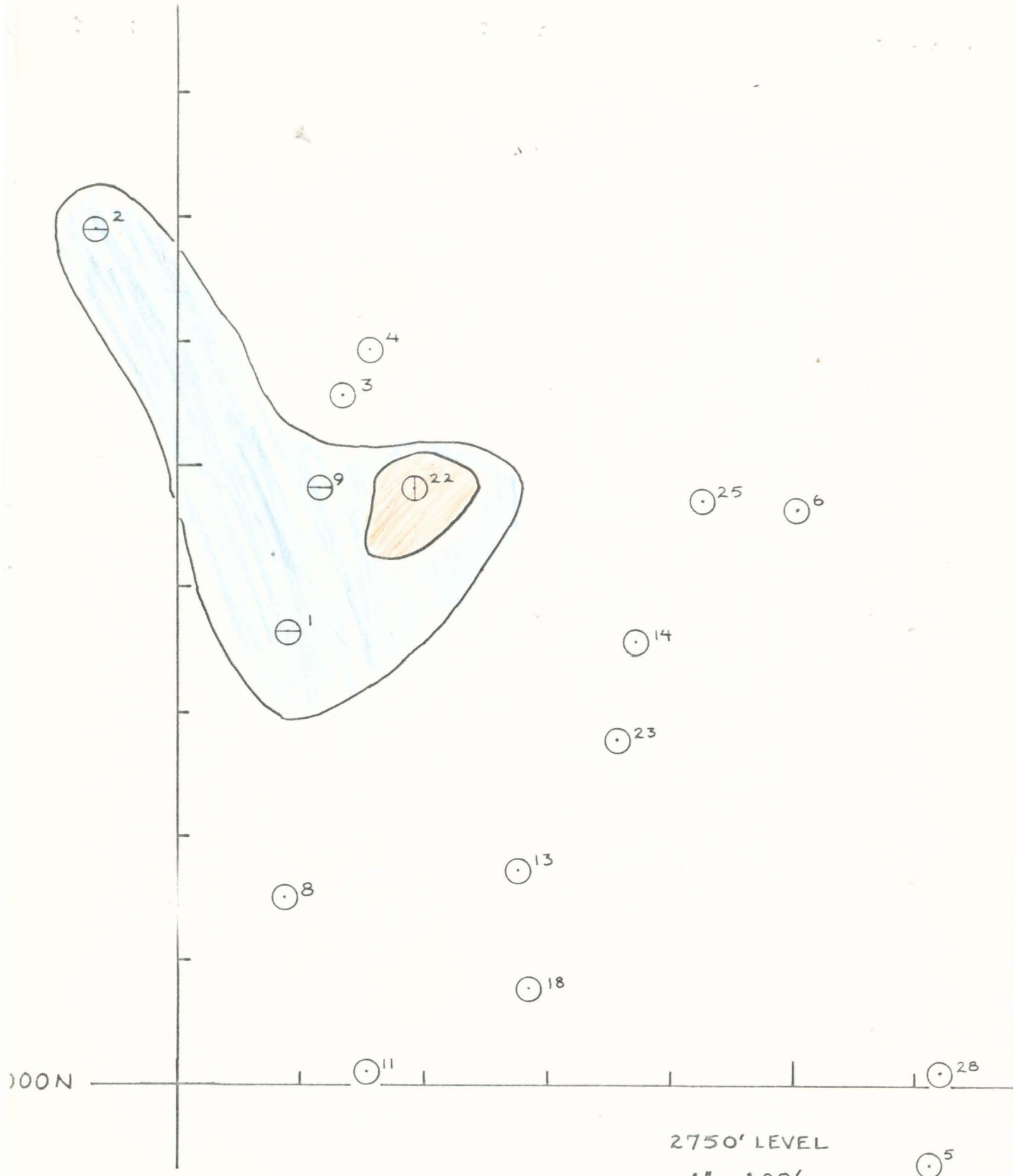
CUT-OFF	TONS	GRADE
1%	12,250	3.17%
3%	12,250	3.17%
5%	0	0
10%	0	0



2775' LEVEL

1" = 100'

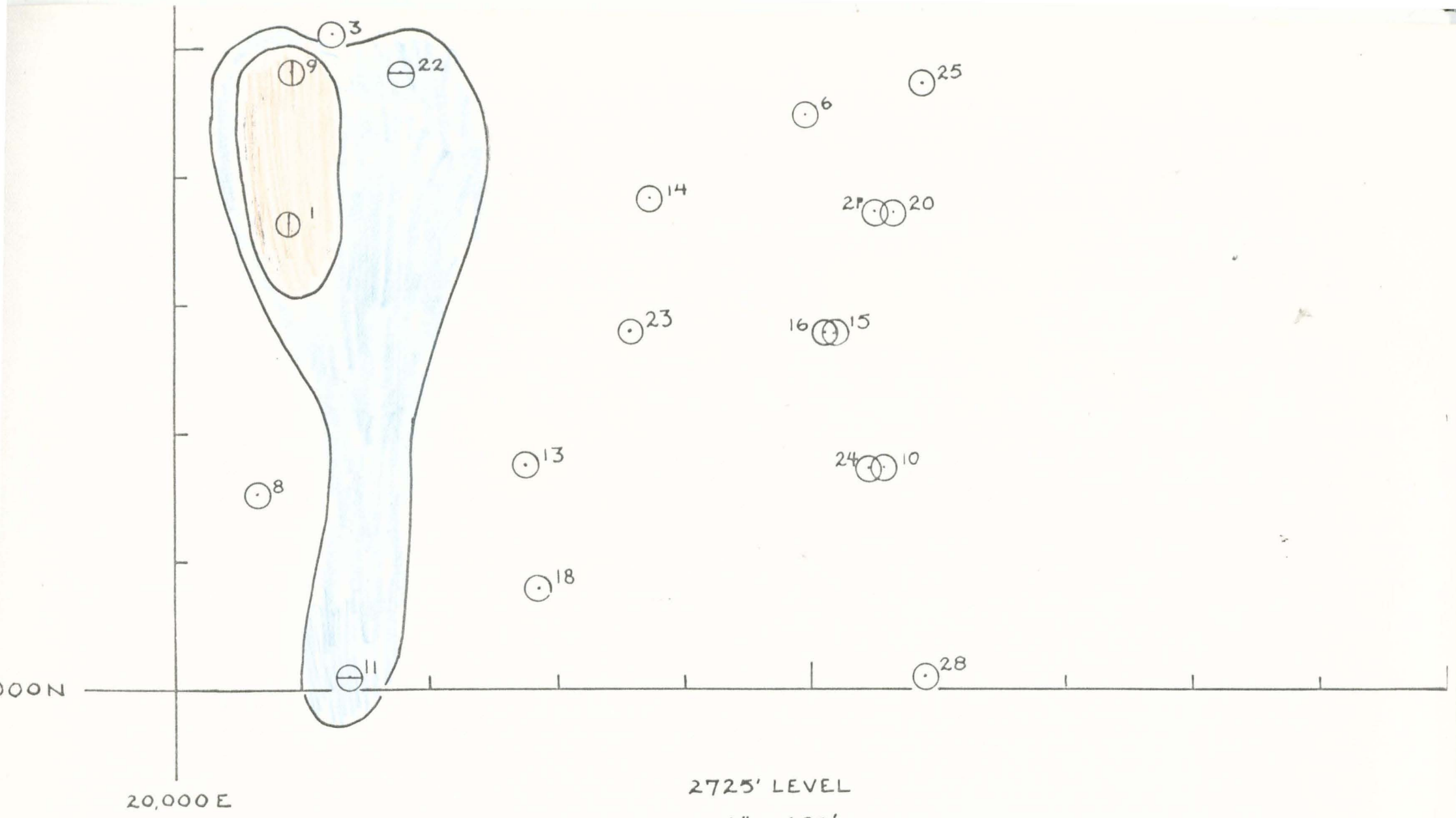
CUT-OFF	TONS	GRADE
1%	0	0
3%	0	0
5%	0	0
10%	0	0



2750' LEVEL

1" = 100'

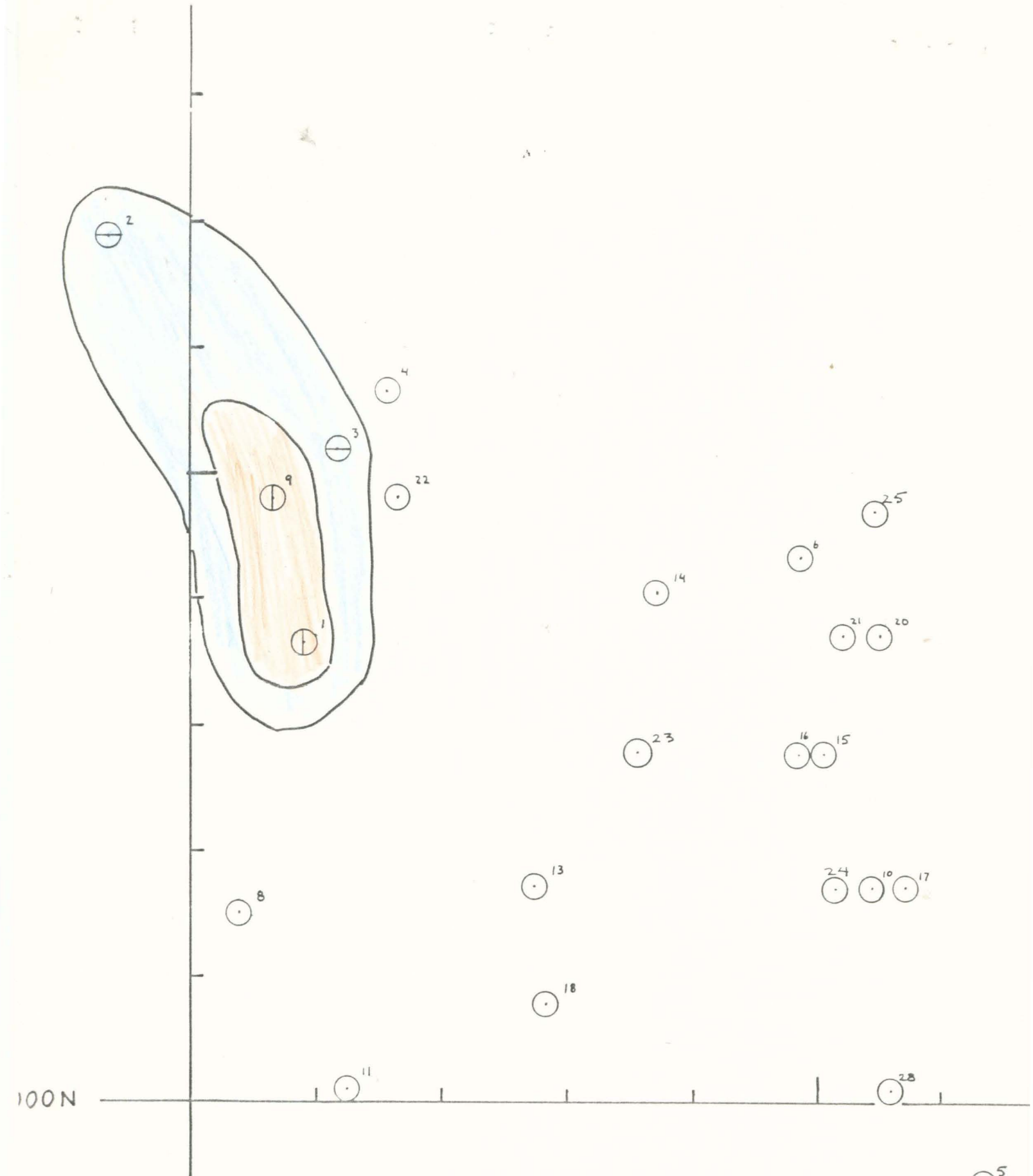
CUT-OFF	TONS	GRADE
1%	161,750	1.79
3%	13,750	3.99
5%	0	0
10%	0	0



2725' LEVEL

1" = 100'

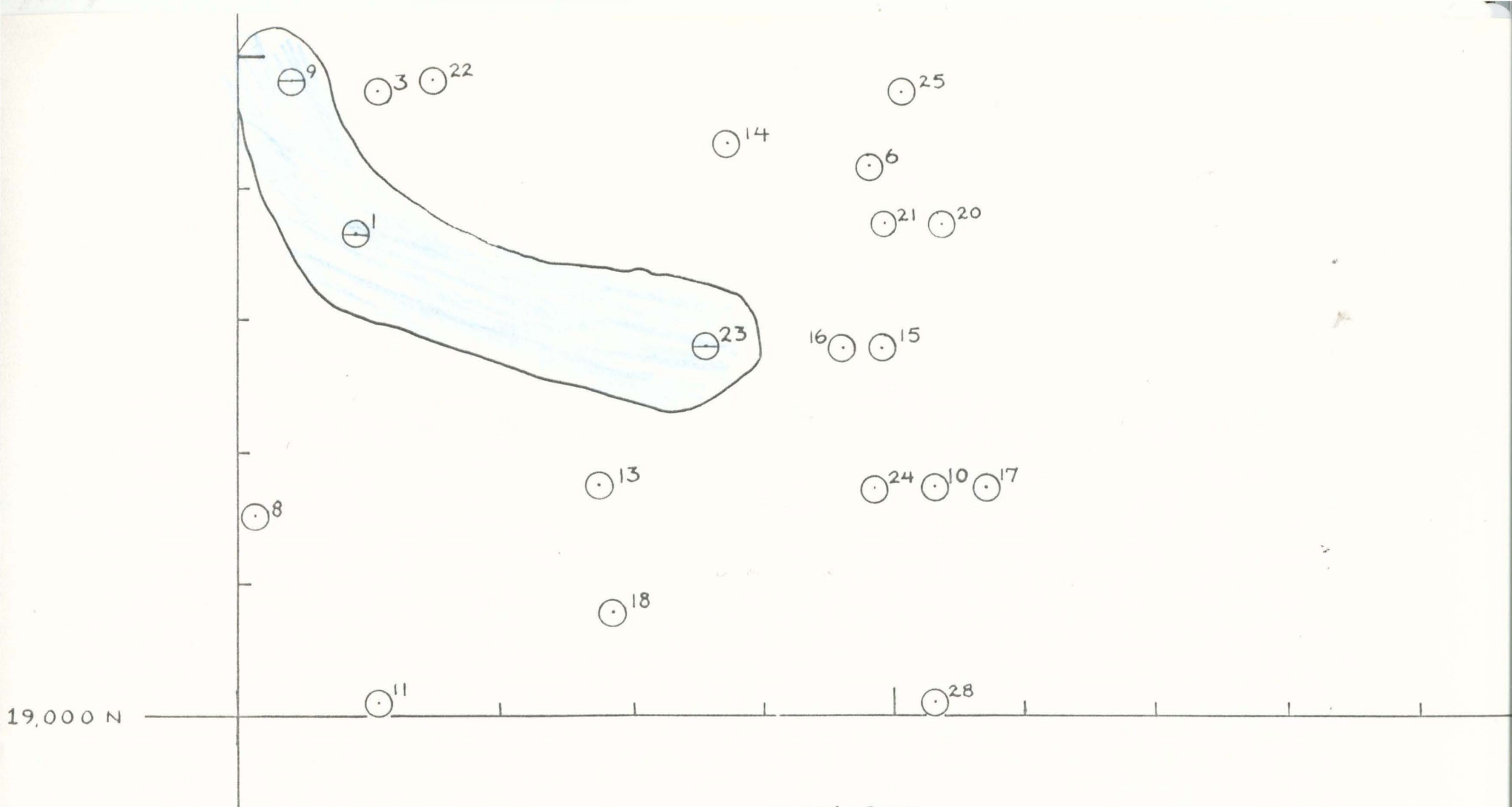
CUT-OFF	TONS	GRADE
1%	163,250	2.30%
3%	33,500	3.75%
5%	0	0
10%	0	0



2700' LEVEL

1" = 100'

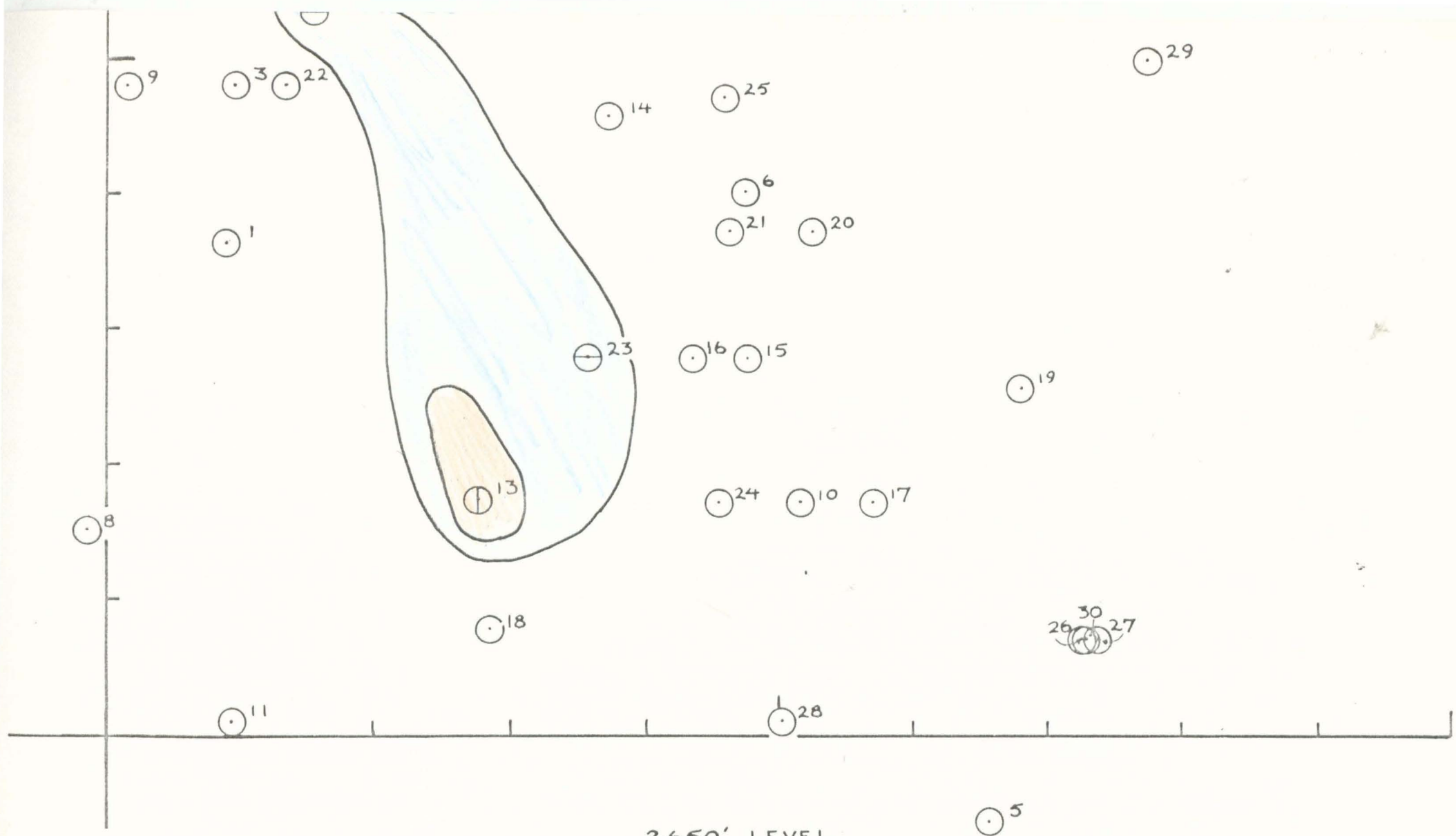
CUT-OFF	TONS	GRAD
1%	150,750	1.91
3%	38,000	3.8
5%	0	0



2675' LEVEL

1" = 100'

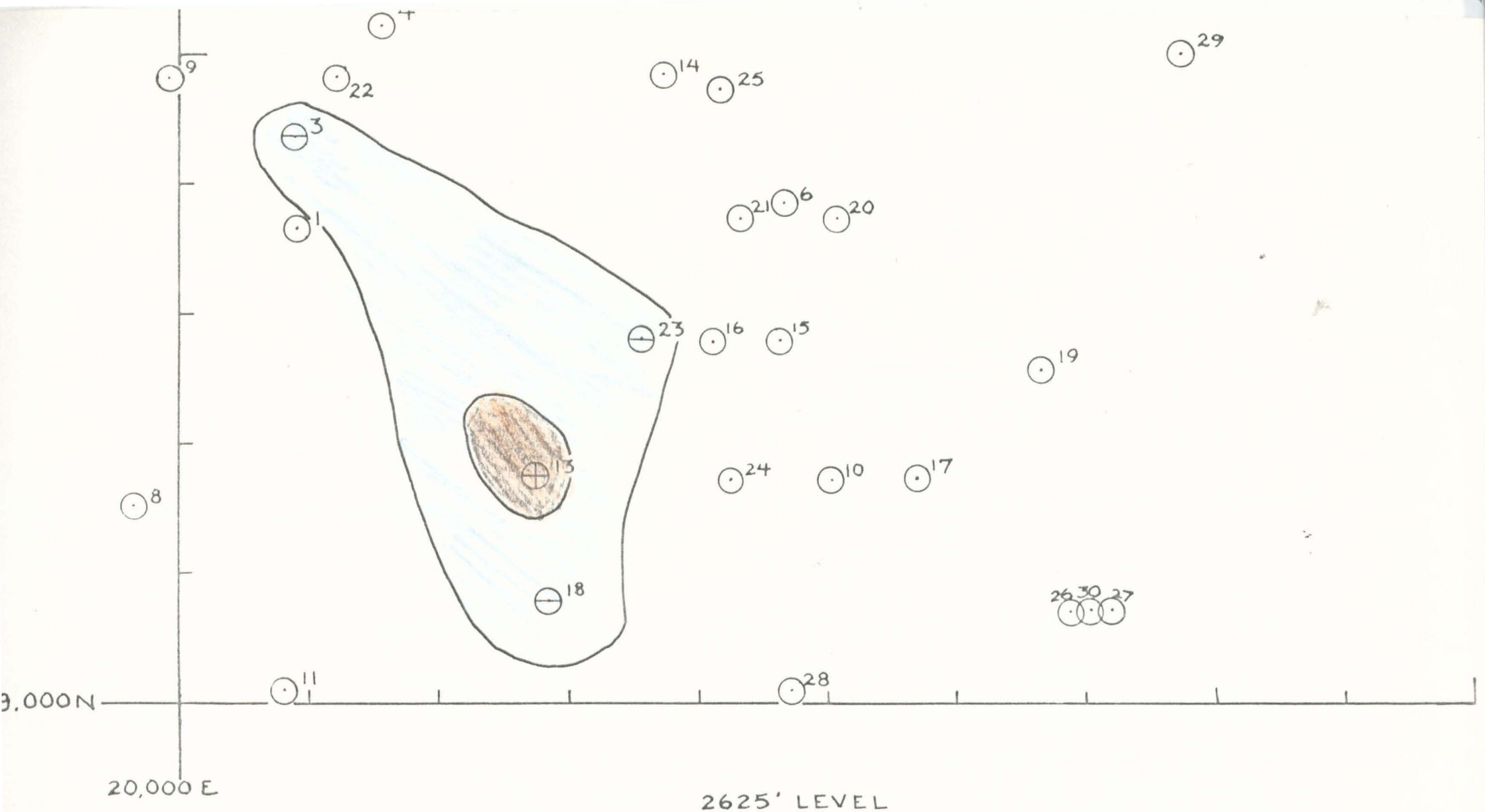
CUT-OFF	TONS	GRADE
1%	110,250	2.02%
3%	0	0
5%	0	0
10%	0	0



2650' LEVEL

1" = 100'

CUT-OFF	TONS	GRADE
1%	135,750	2.71%
3%	13,500	4.52%
5%	0	0
10%	0	0



2625' LEVEL

1" = 100'

CUT-OFF	TONS	GRADE
1%	169,500	2.37%
3%	14,000	6.96%
5%	14,000	6.96%
10%	0	0

2600' LEVEL

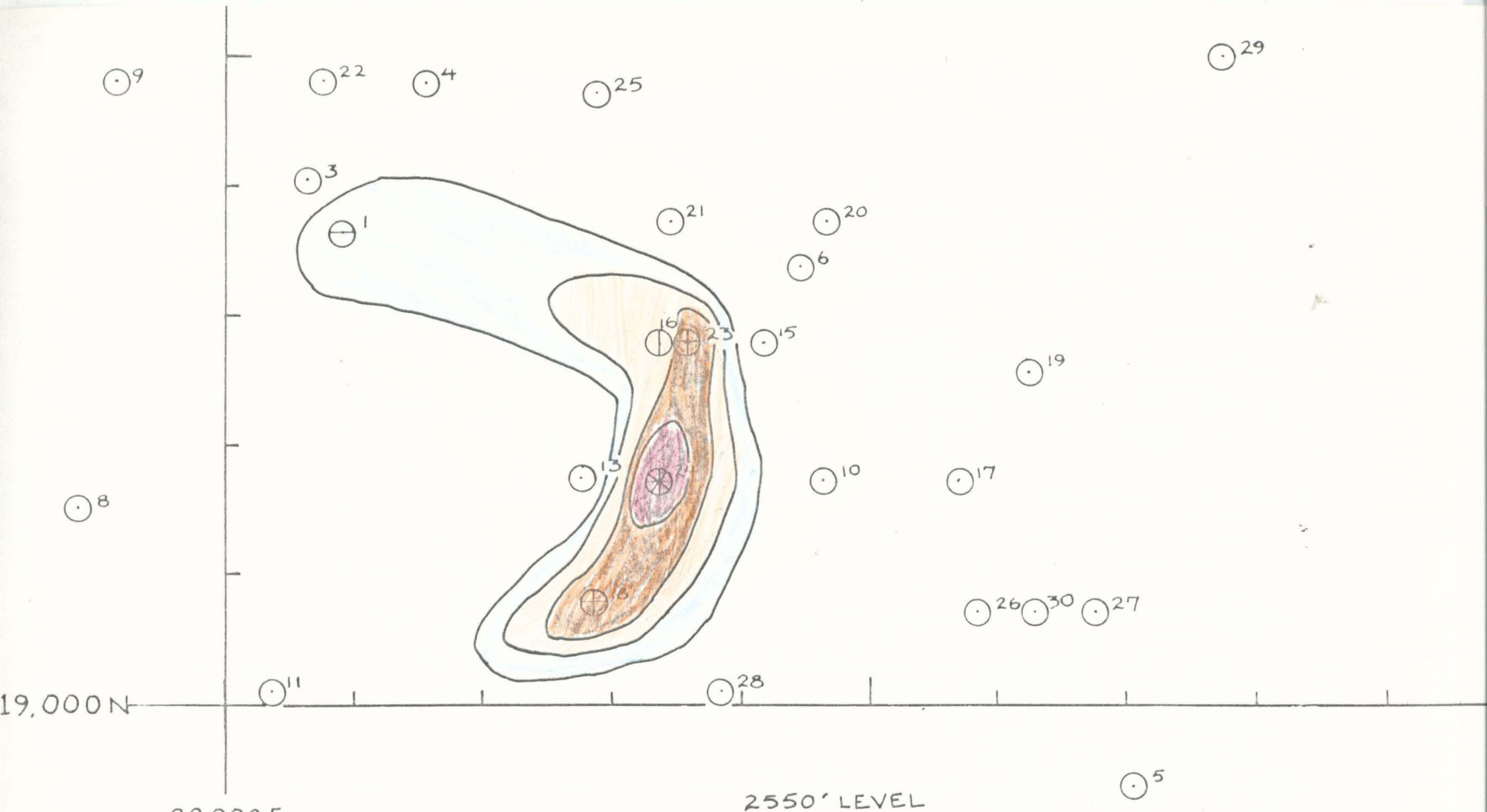
1" = 100'

CUT-OFF	TONS	GRADE
1%	76,000	2.36%
3%	0	0
5%	0	0
10%	0	0

2575' LEVEL

1" = 100'

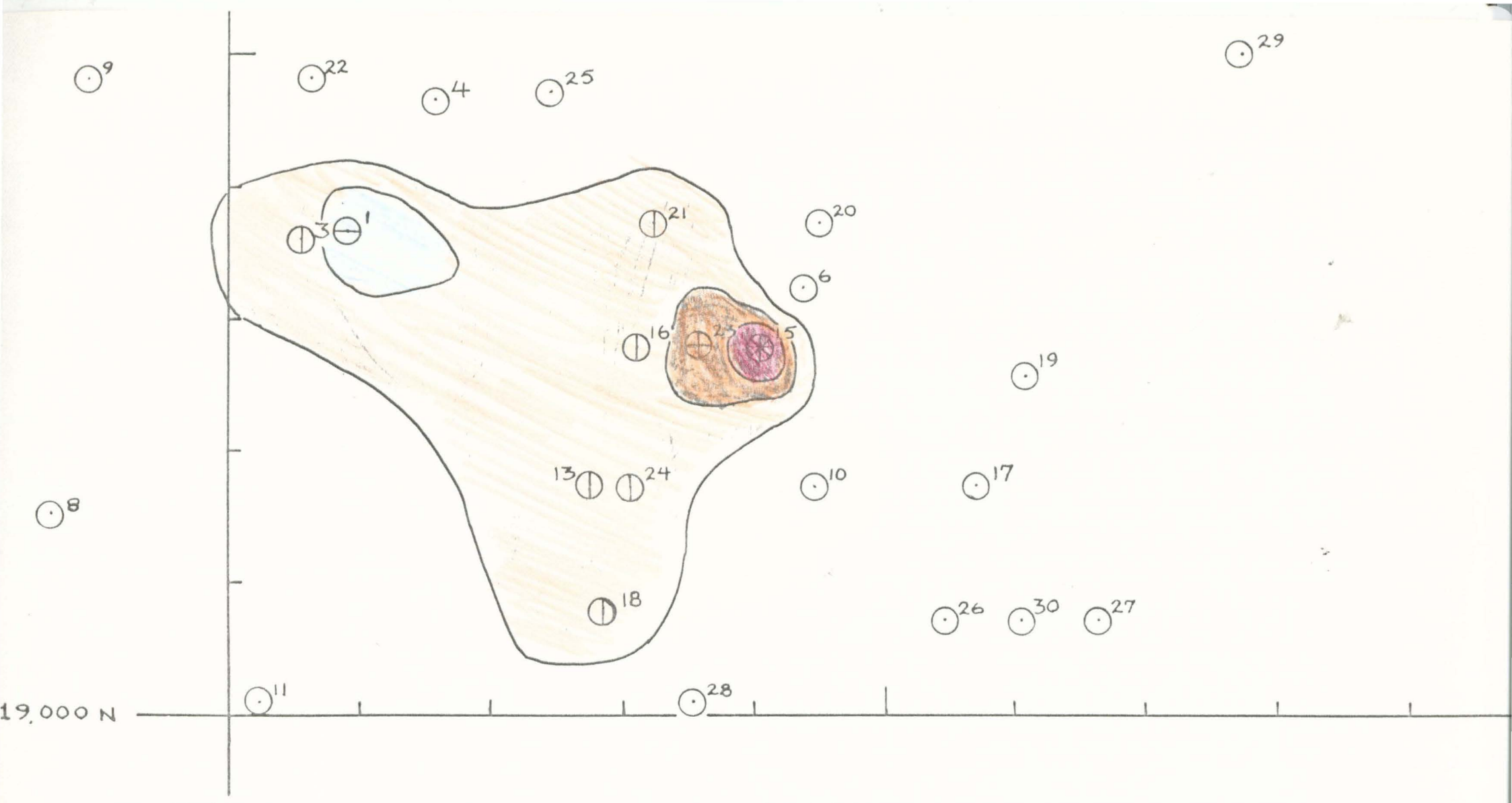
CUT-OFF	TONS	GRADE
1%	81,750	2.90%
3%	13,750	4.94%
5%	0	0
10%	0	0



2550' LEVEL

1" = 100'

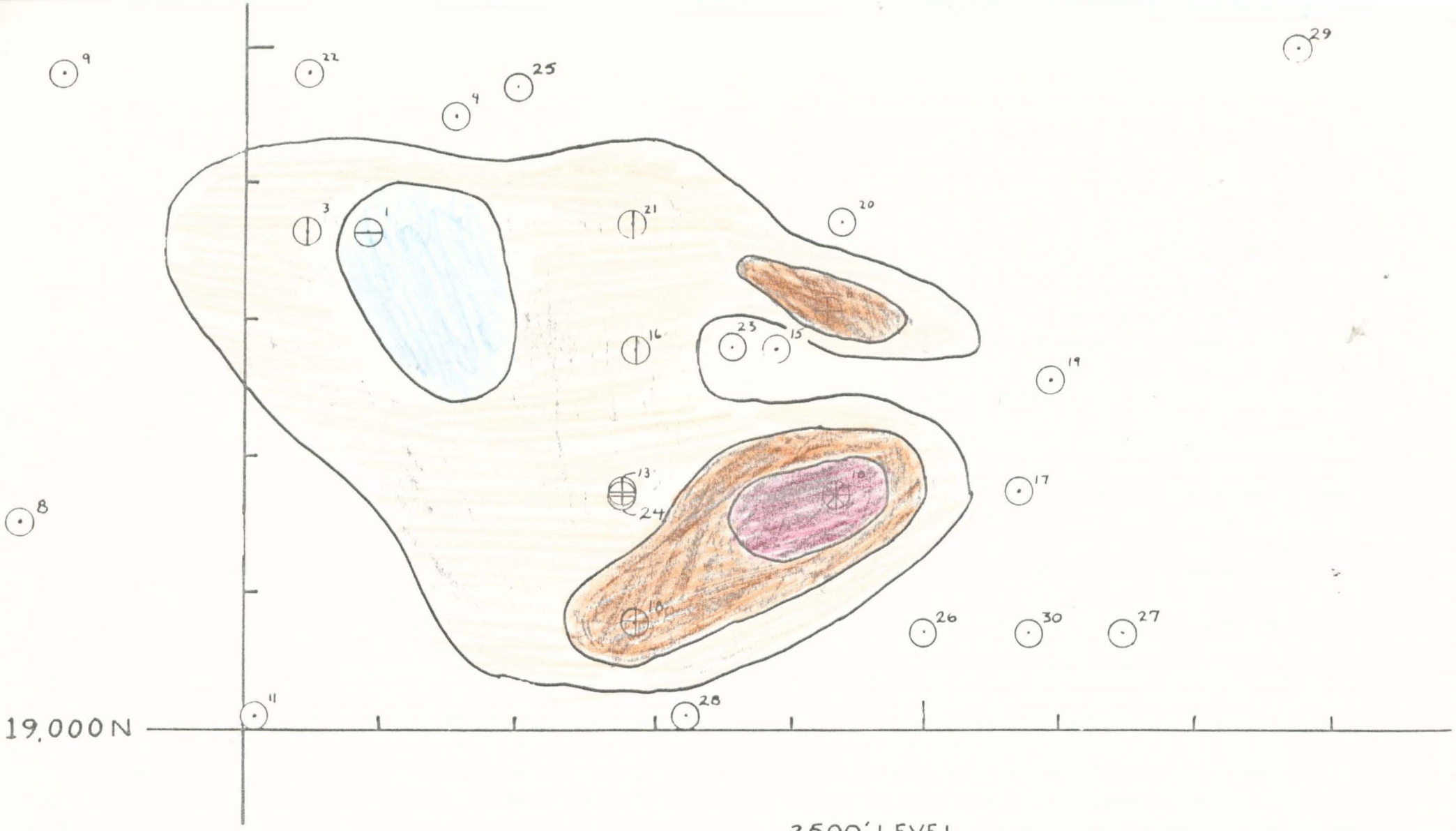
CUT-OFF	TONS	GRADE
1%	152,000	3.29%
3%	69,250	5.52%
5%	33,000	6.67%
10%	6,250	12.24%



2525' LEVEL

1" = 100'

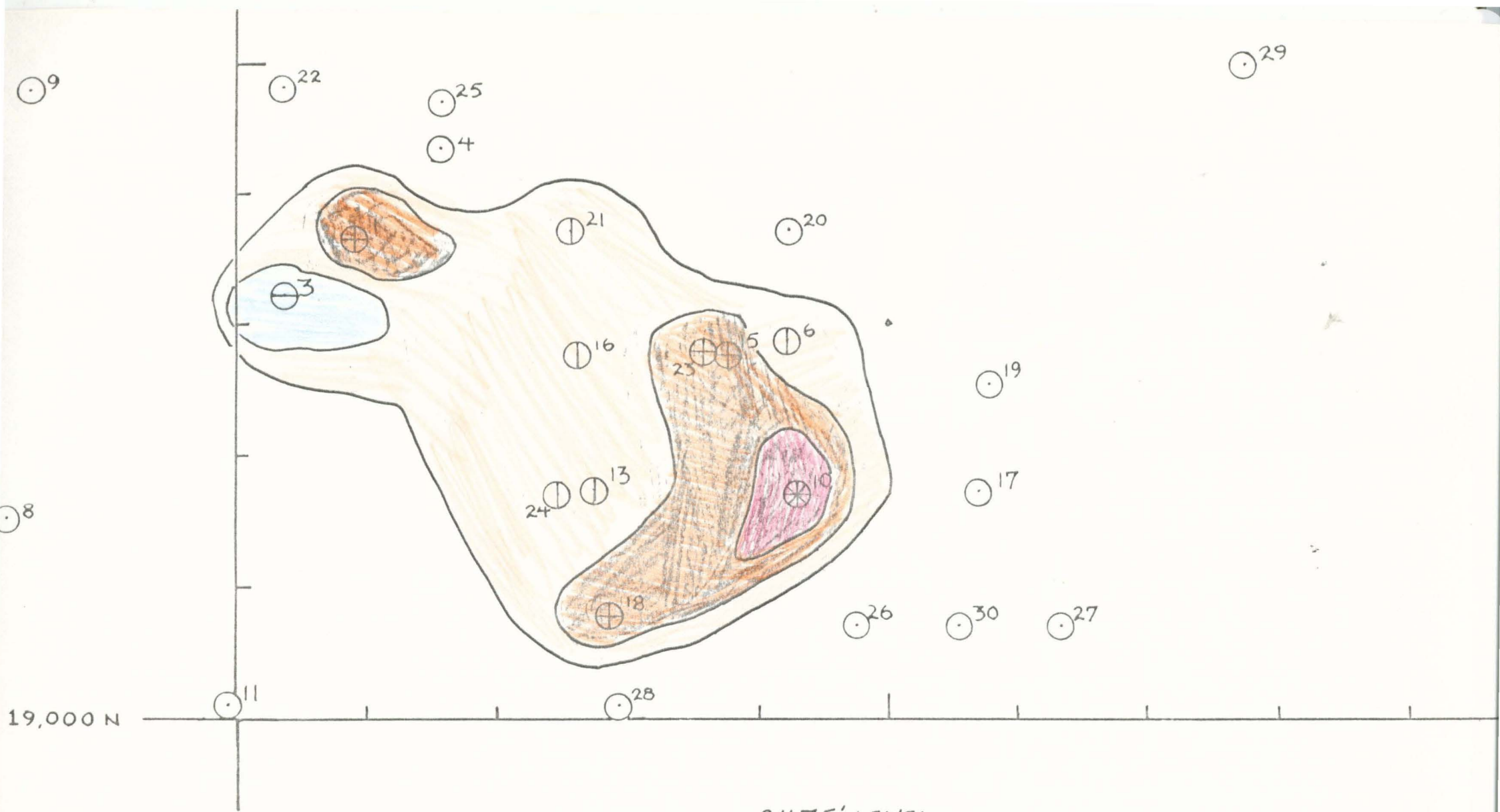
CUT-OFF	TONS	GRADE
1%	244,000	4.37%
3%	228,250	4.47%
5%	17,000	7.62%
10%	3,750	10.91%



2500' LEVEL

1" = 100'

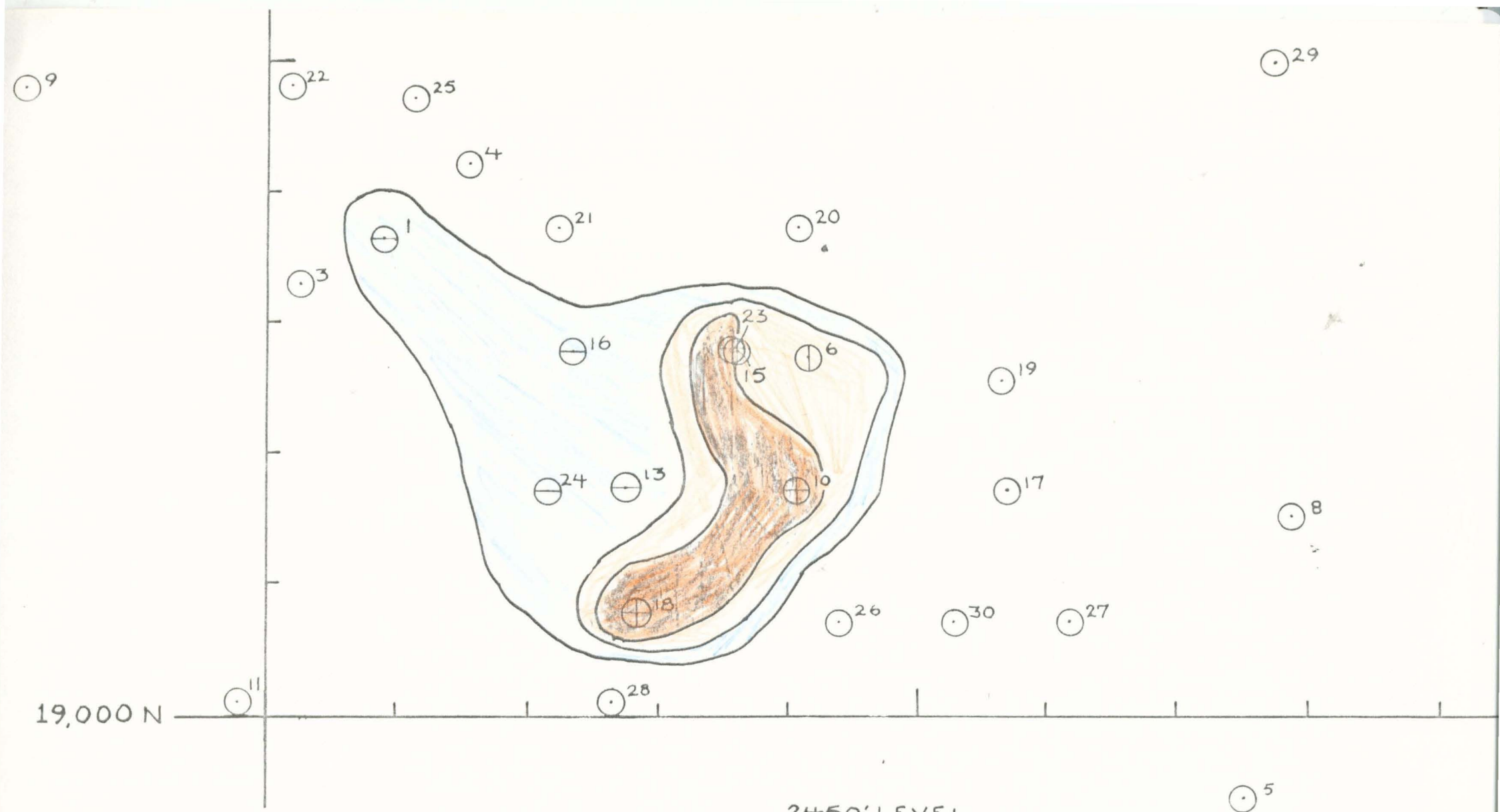
CUT-OFF	TONS	GRADE
1%	402,250	4.27%
3%	363,500	4.57%
5%	74,500	8.68%
10%	15,000	10.92%



2475' LEVEL

1" = 100'

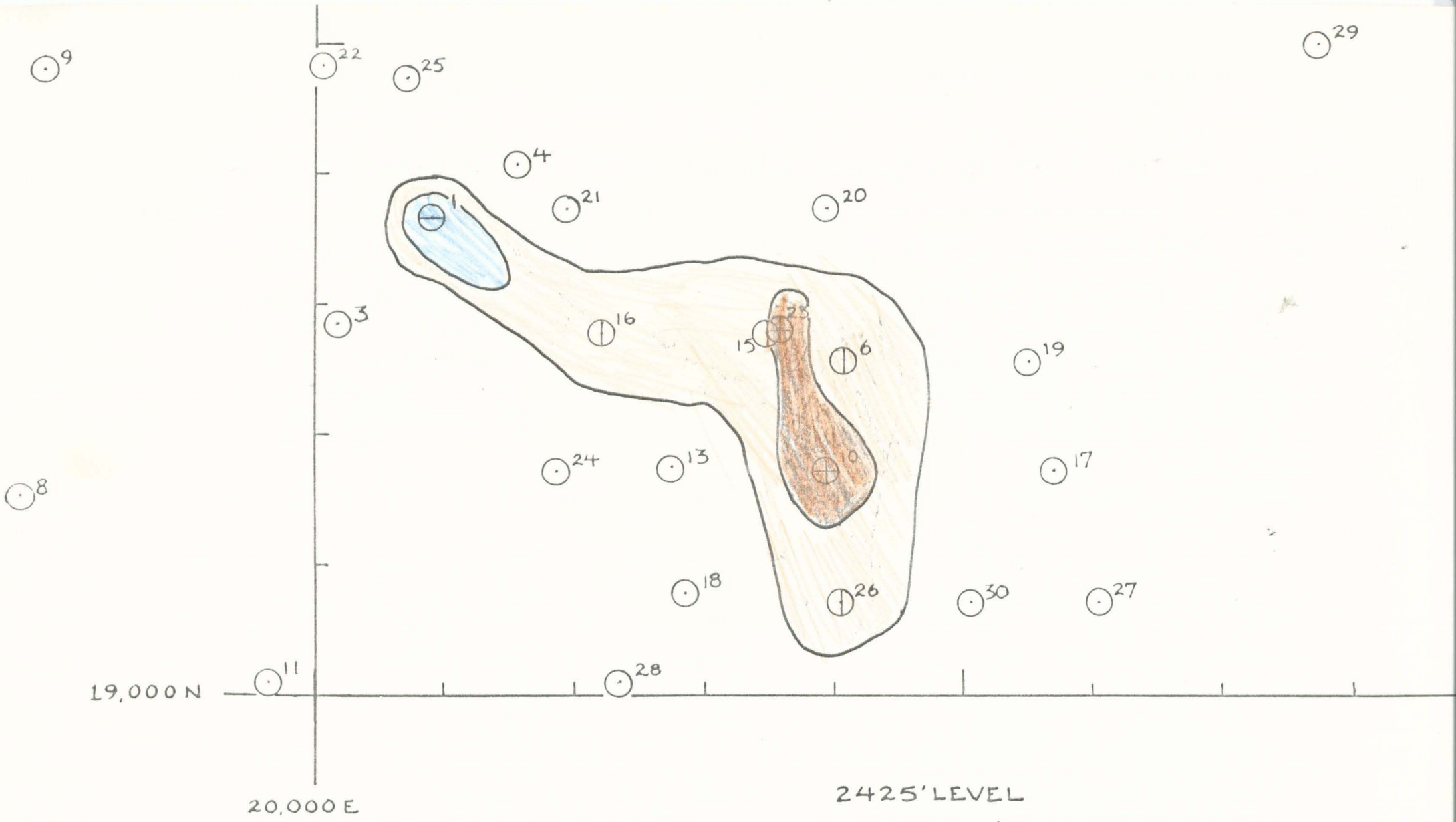
CUT-OFF	TONS	GRADE
1%	295,750	4.72%
3%	280,000	4.88%
5%	86,750	7.30%
10%	11,500	11.10%



2450' LEVEL

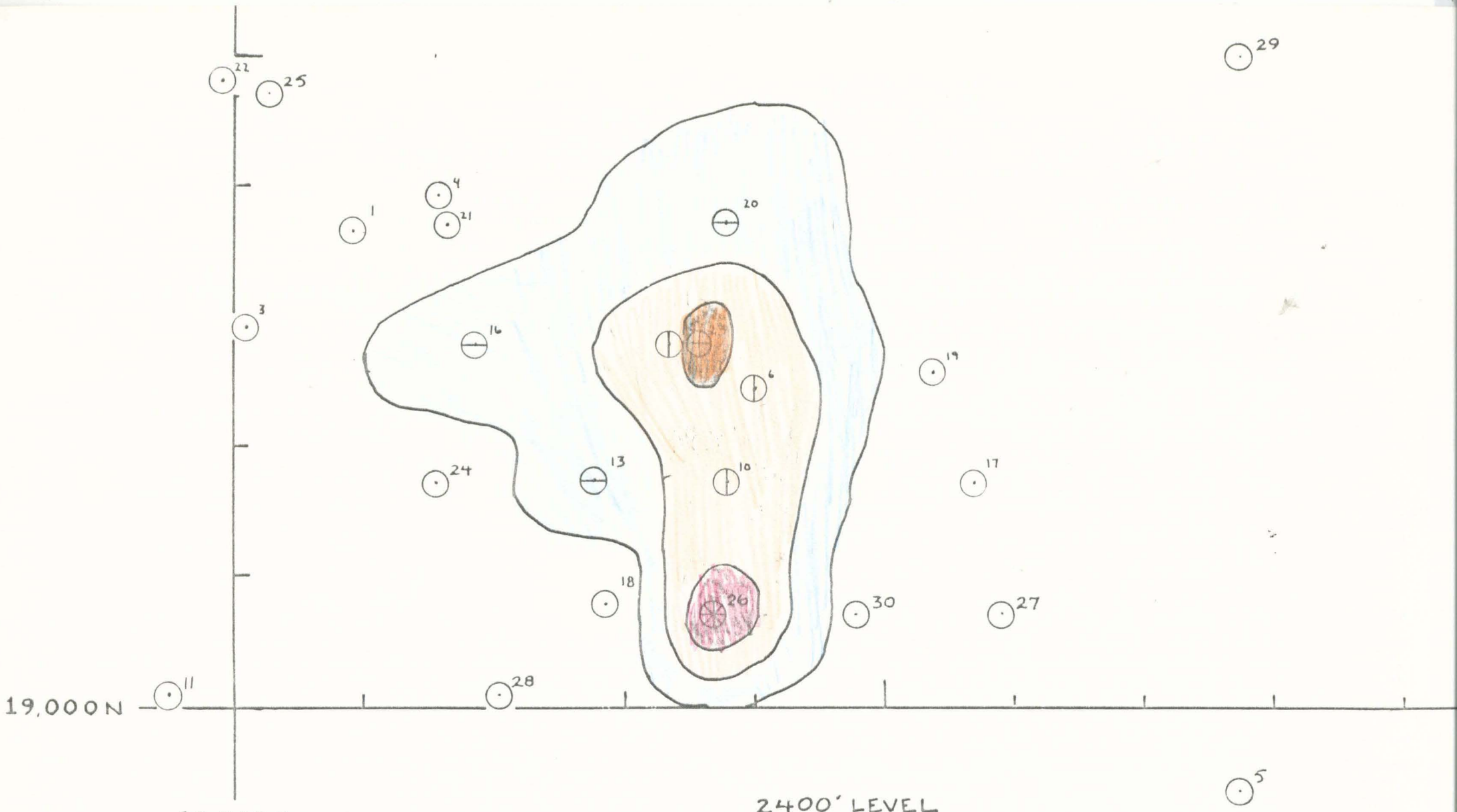
1" = 100'

CUT-OFF	TONS	GRADE
1%	219,250	3.43%
3%	90,250	5.48%
5%	39,500	7.51%
10%	0	0



2425' LEVEL
1" = 100'

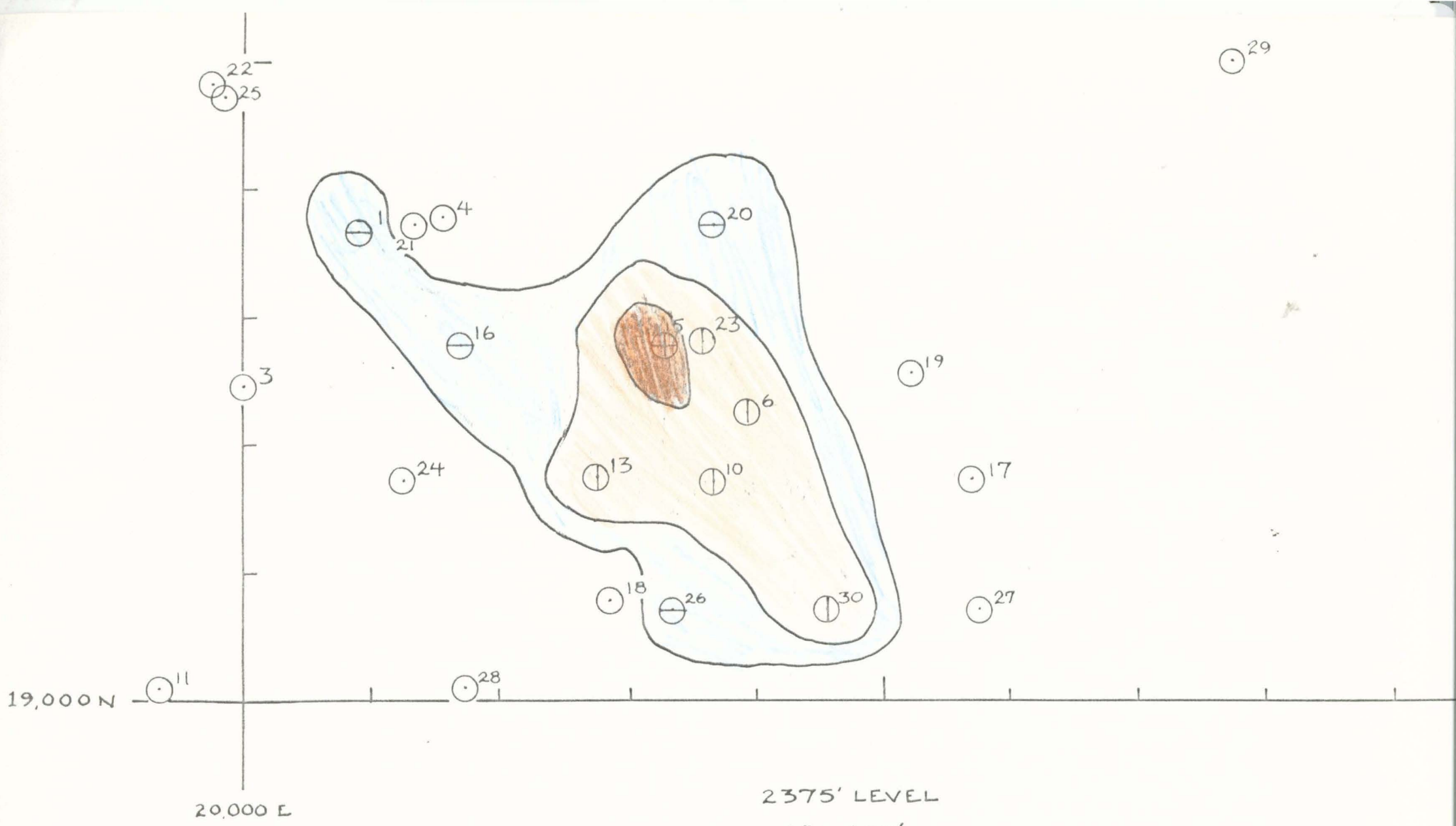
CUT-OFF	TONS	GRADE
1%	146,750	4.05%
3%	137,250	4.12%
5%	18,500	7.48%
10%	0	0



2400' LEVEL

1" = 100'

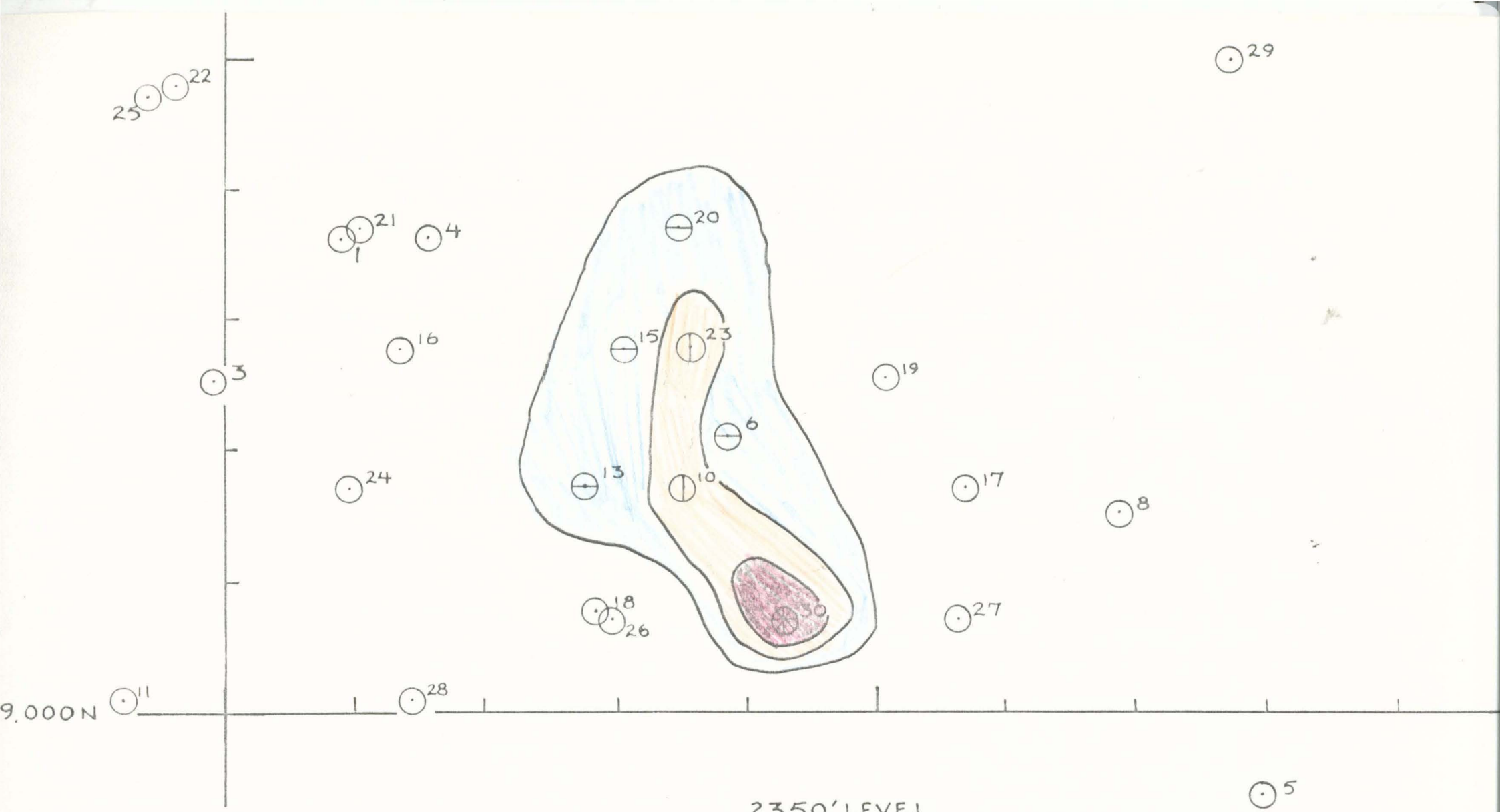
CUT-OFF	TONS	GRADE
1%	261,250	2.67%
3%	90,000	4.89%
5%	14,250	8.31%
10%	9,000	10.22%



2375' LEVEL

1" = 100'

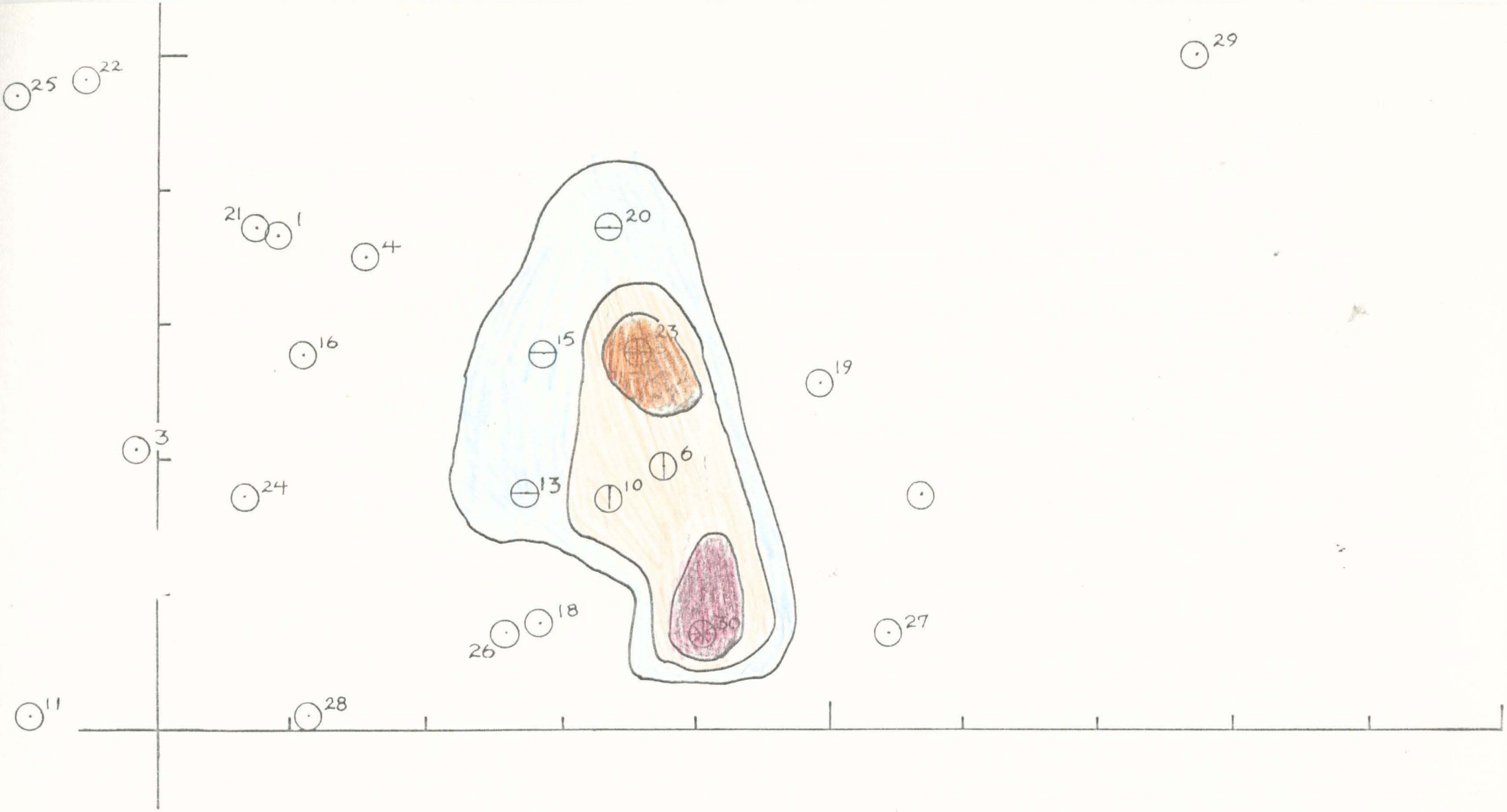
CUT-OFF	TONS	GRADE
1%	238,750	2.92%
3%	102,750	4.42%
5%	8,000	5.88%
10%	0	0



2350' LEVEL

1" = 100'

CUT-OFF	TONS	GRADE
1%	153,750	3.17%
3%	44,250	5.41%
5%	7,750	12.59%
10%	7,750	12.59%



2325' LEVEL

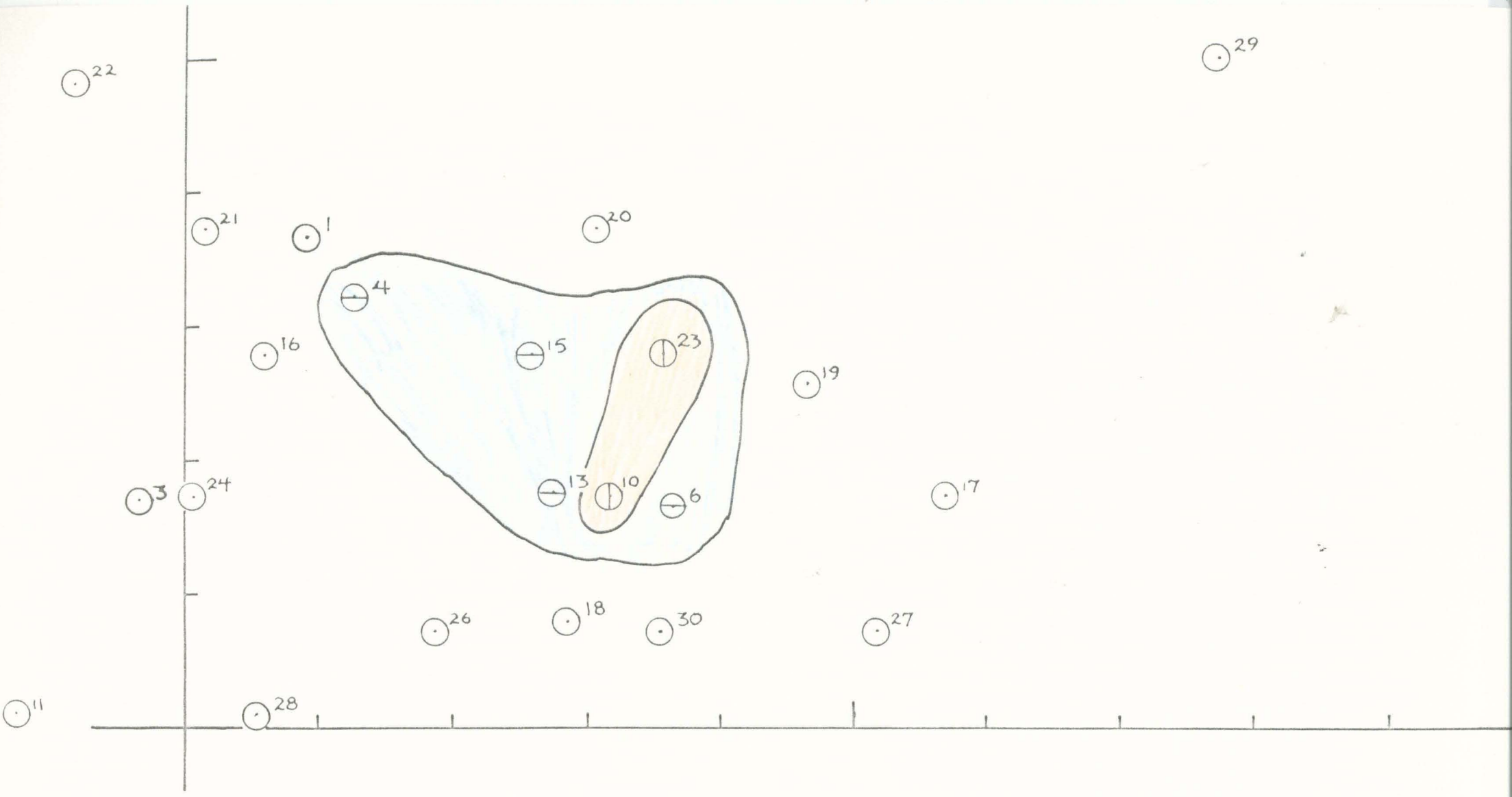
1" = 100'

CUT-OFF	TONS	GRADE
1%	151,000	3.68%
3%	69,000	5.55%
5%	19,250	8.26%
10%	9,250	11.38%

2300' LEVEL

1" = 100'

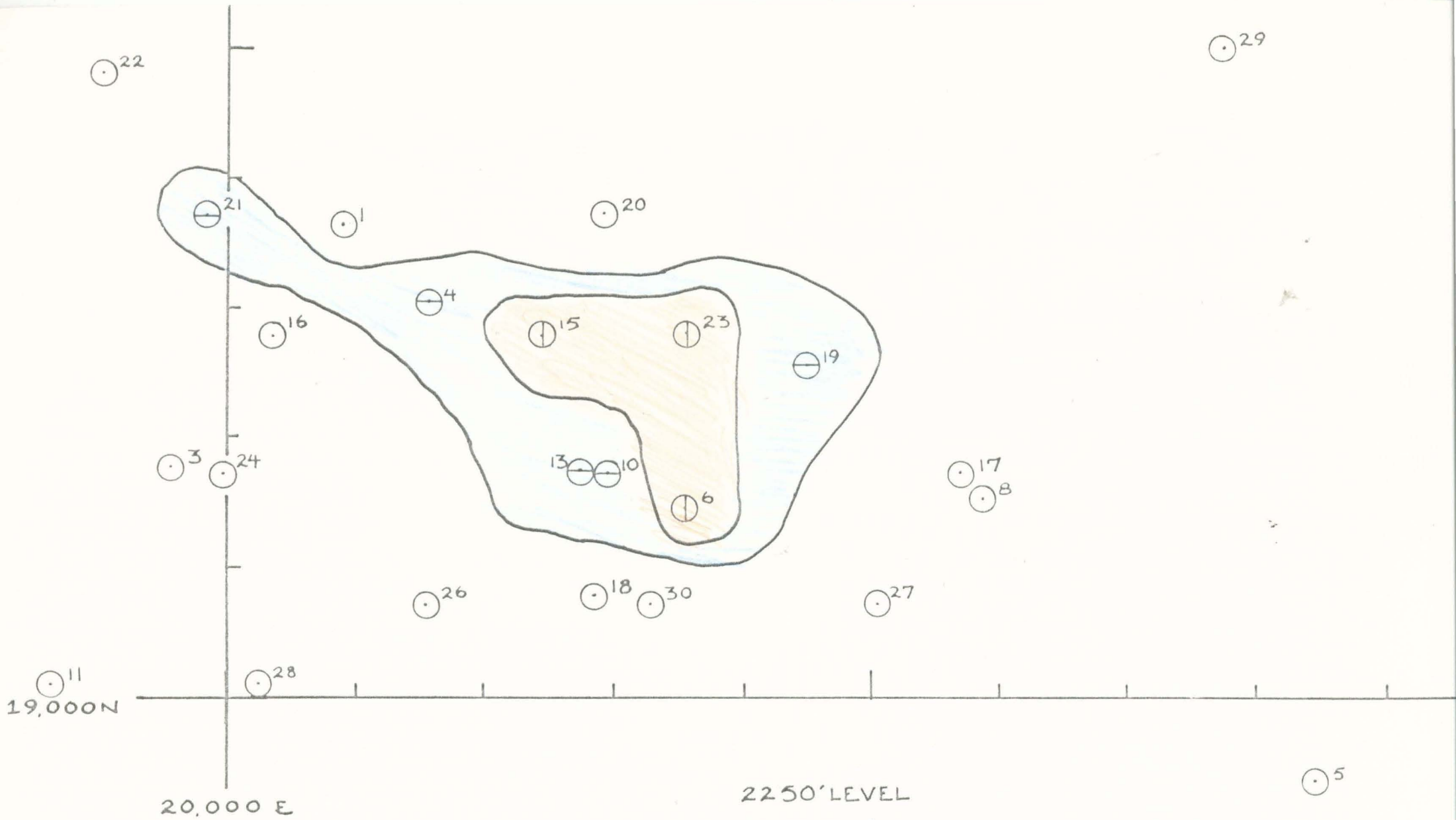
CUT-OFF	TONS	GRADE
1%	193,500	2.88%
3%	102,000	3.87%
5%	9,500	5.55%
10%	0	0



2275' LEVEL

1" = 100'

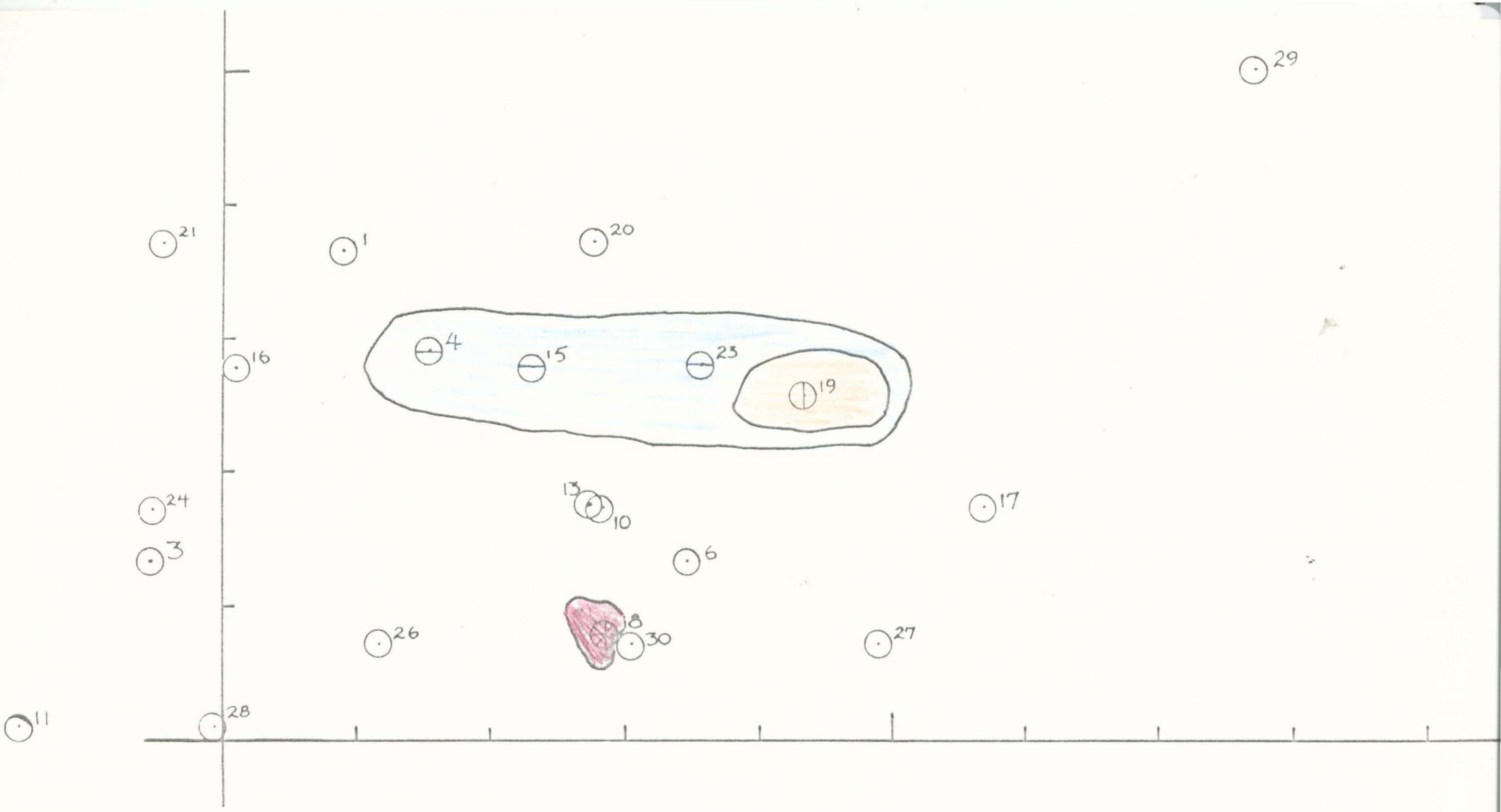
CUT-OFF	TONS	GRADE
1%	129,250	2.78%
3%	24,250	3.67%
5%	0	0
10%	0	0



2250' LEVEL

1" = 100'

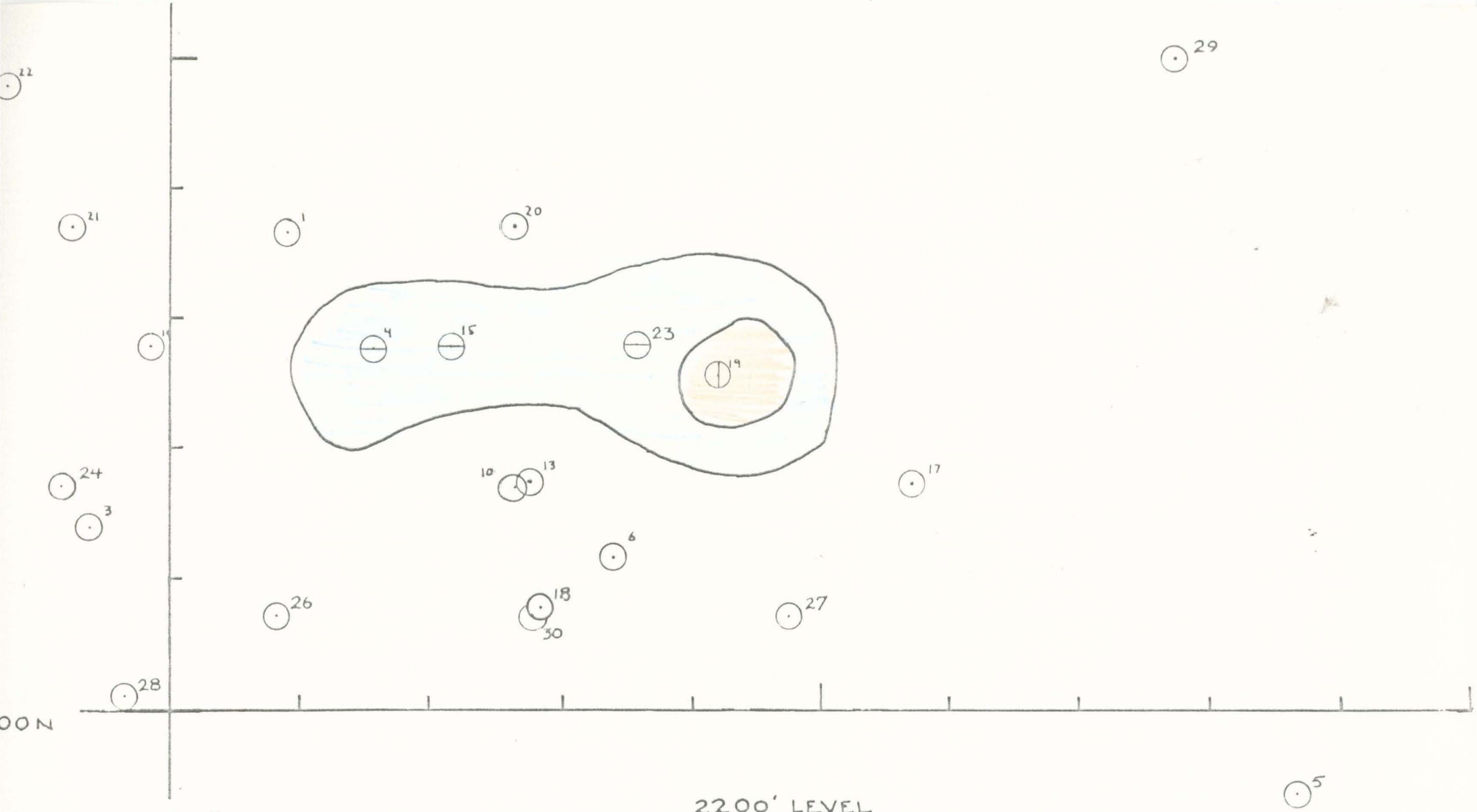
CUT-OFF	TONS	GRADE
1%	186,250	2.48%
3%	56,000	3.76%
5%	0	0
10%	0	0



2225' LEVEL

1" = 100'

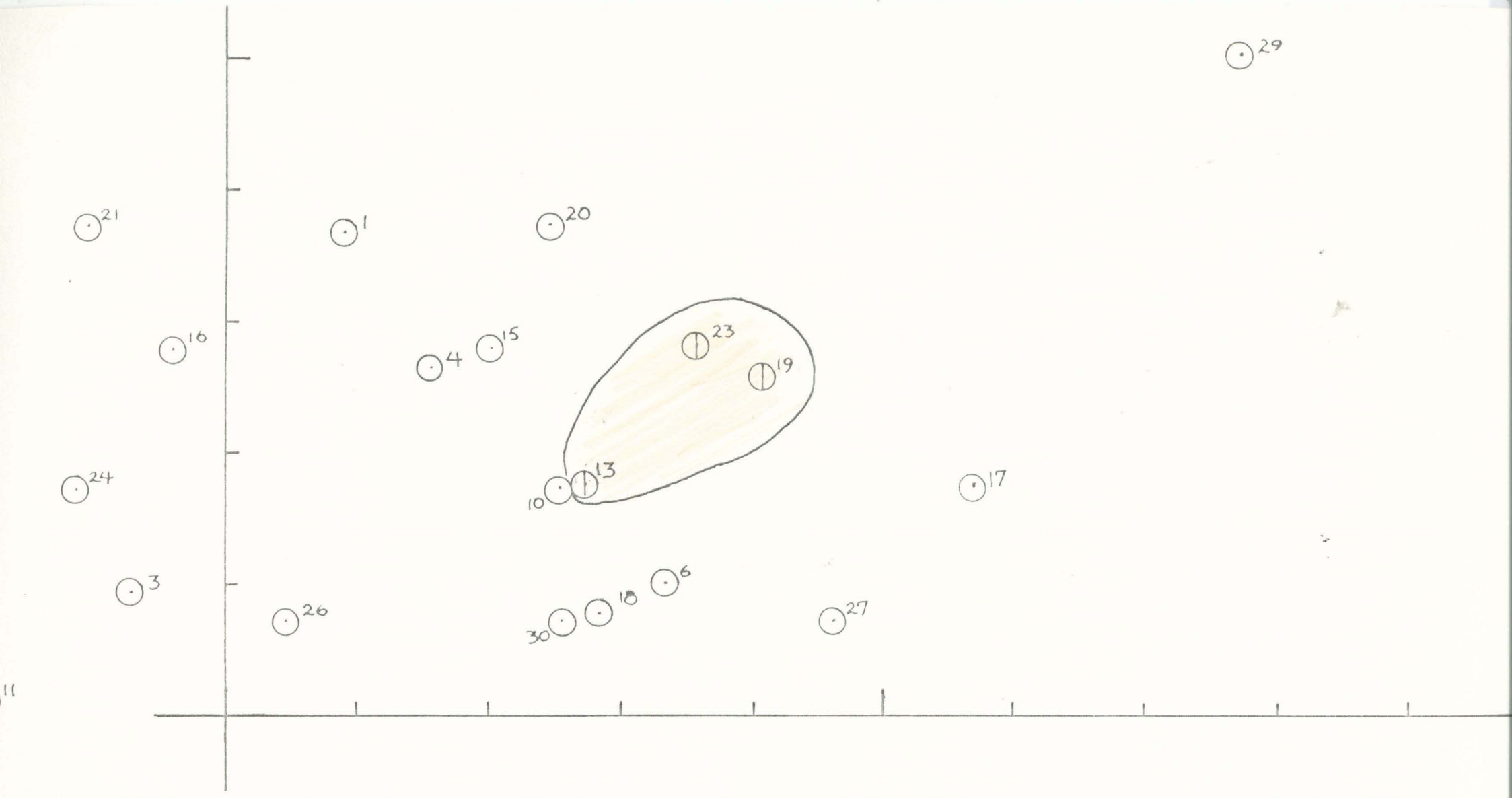
CUT-OFF	TONS	GRADE
1%	88,000	2.83%
3%	17,250	5.39%
5%	3,500	12.83%
10%	3,500	12.83%



2200' LEVEL

1" = 100'

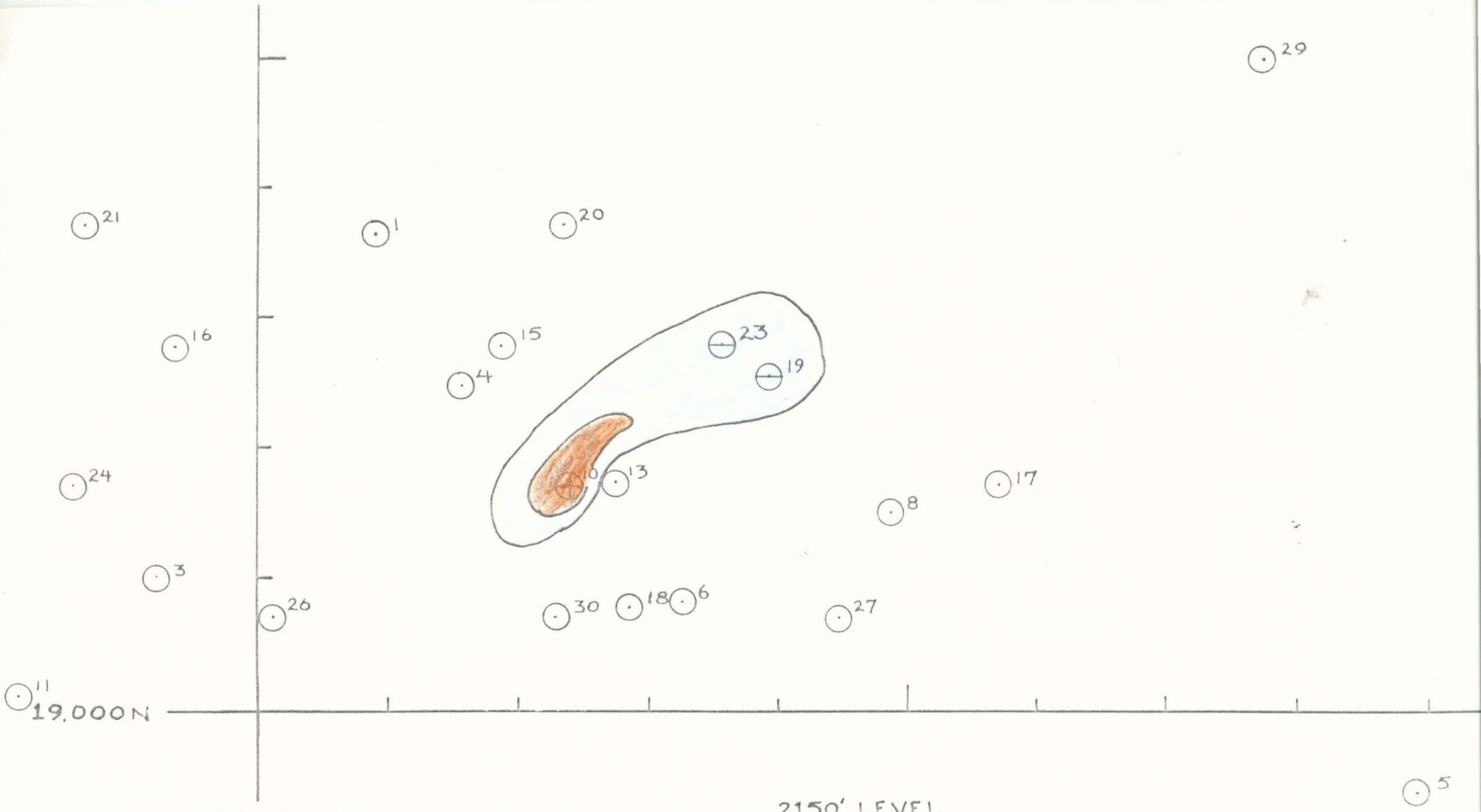
CUT-OFF	TONS	GRADE
1%	12,200	1.75%
3%	14,250	3.07%
5%	0	0
10%	0	0



2175' LEVEL

1" = 100'

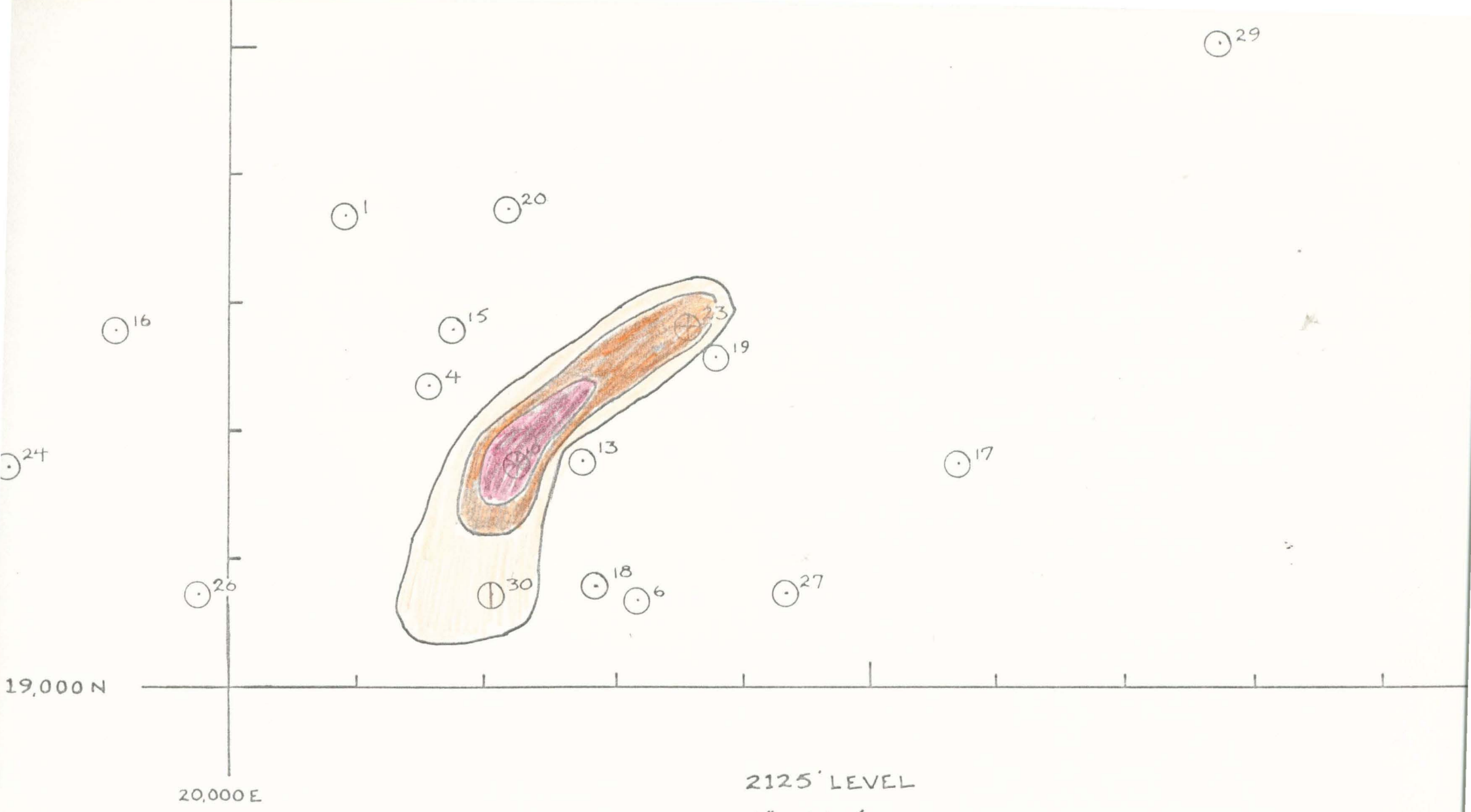
CUT-OFF	TONS	GRADE
1%	47,750	3.62%
3%	47,750	3.62%
5%	0	0
10%	0	0



2150' LEVEL

1" = 100'

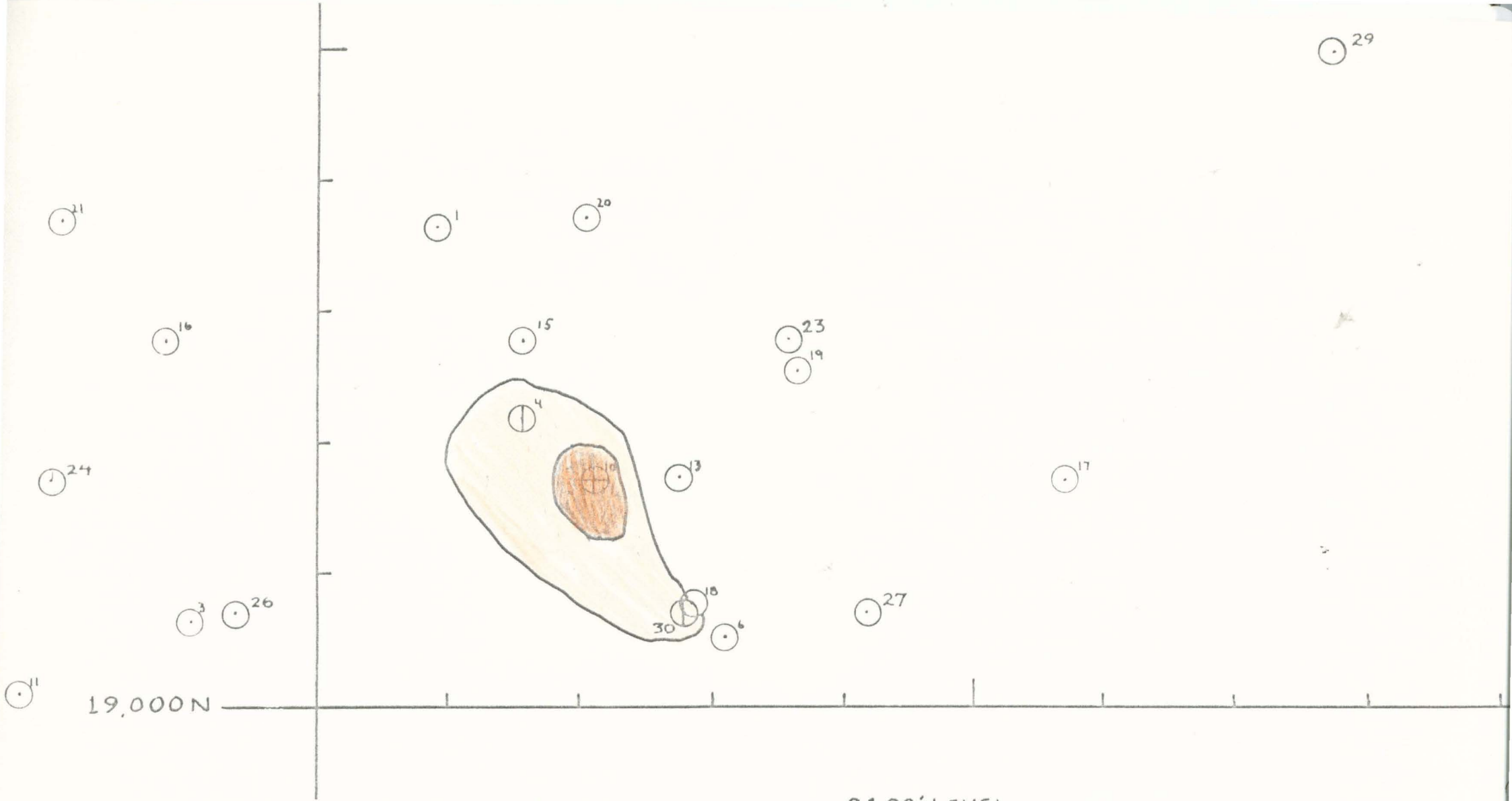
CUT-OFF	TONS	GRADE
1%	50,750	3.38%
3%	6,500	8.11%
5%	6,500	8.11%
10%	0	0



2125' LEVEL

1" = 100'

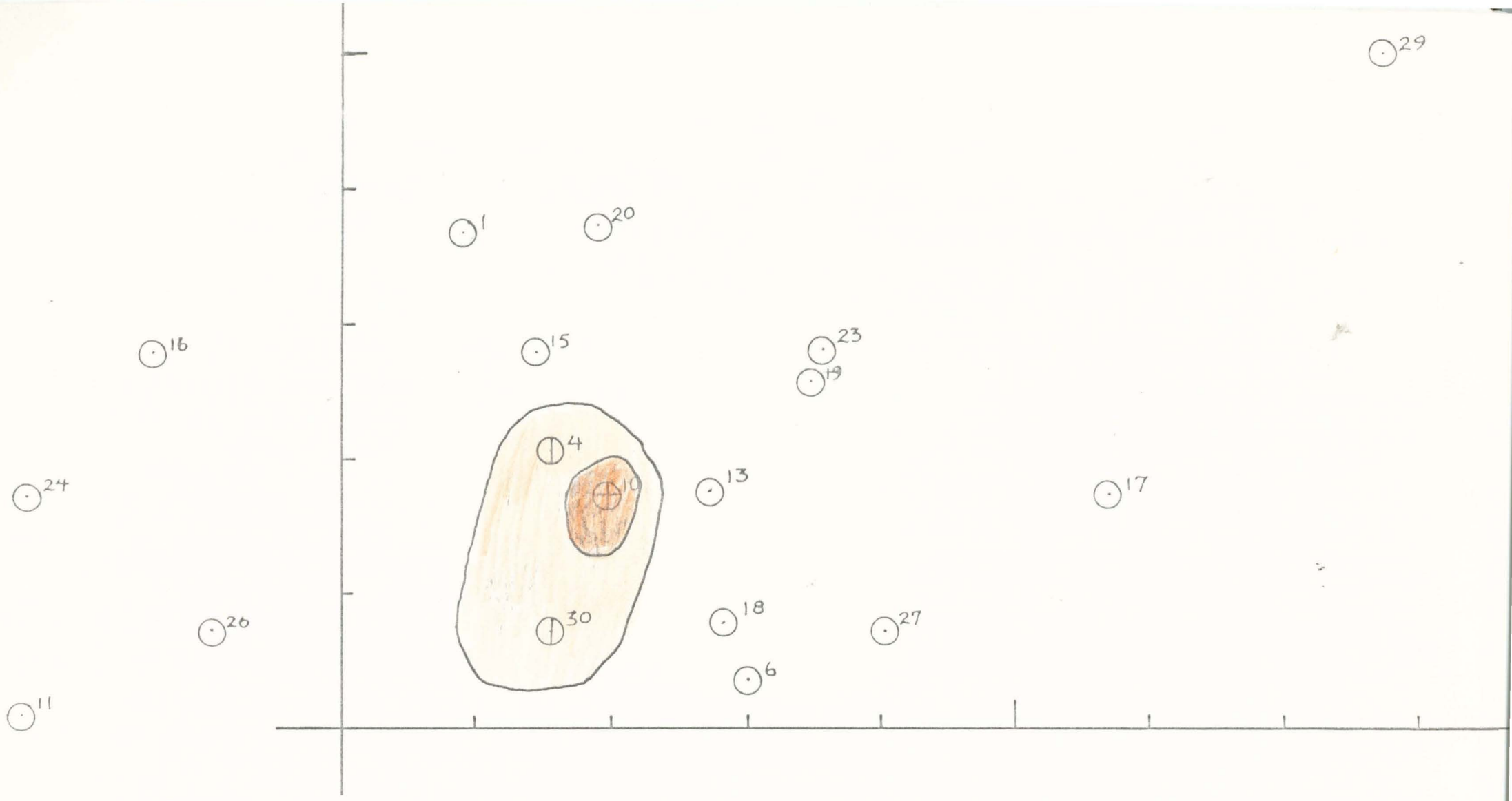
CUT-OFF	TONS	GRADE
1%	66,250	5.75%
3%	66,250	5.75%
5%	27,750	8.17%
10%	8,250	14.20%



2100' LEVEL

1" = 100'

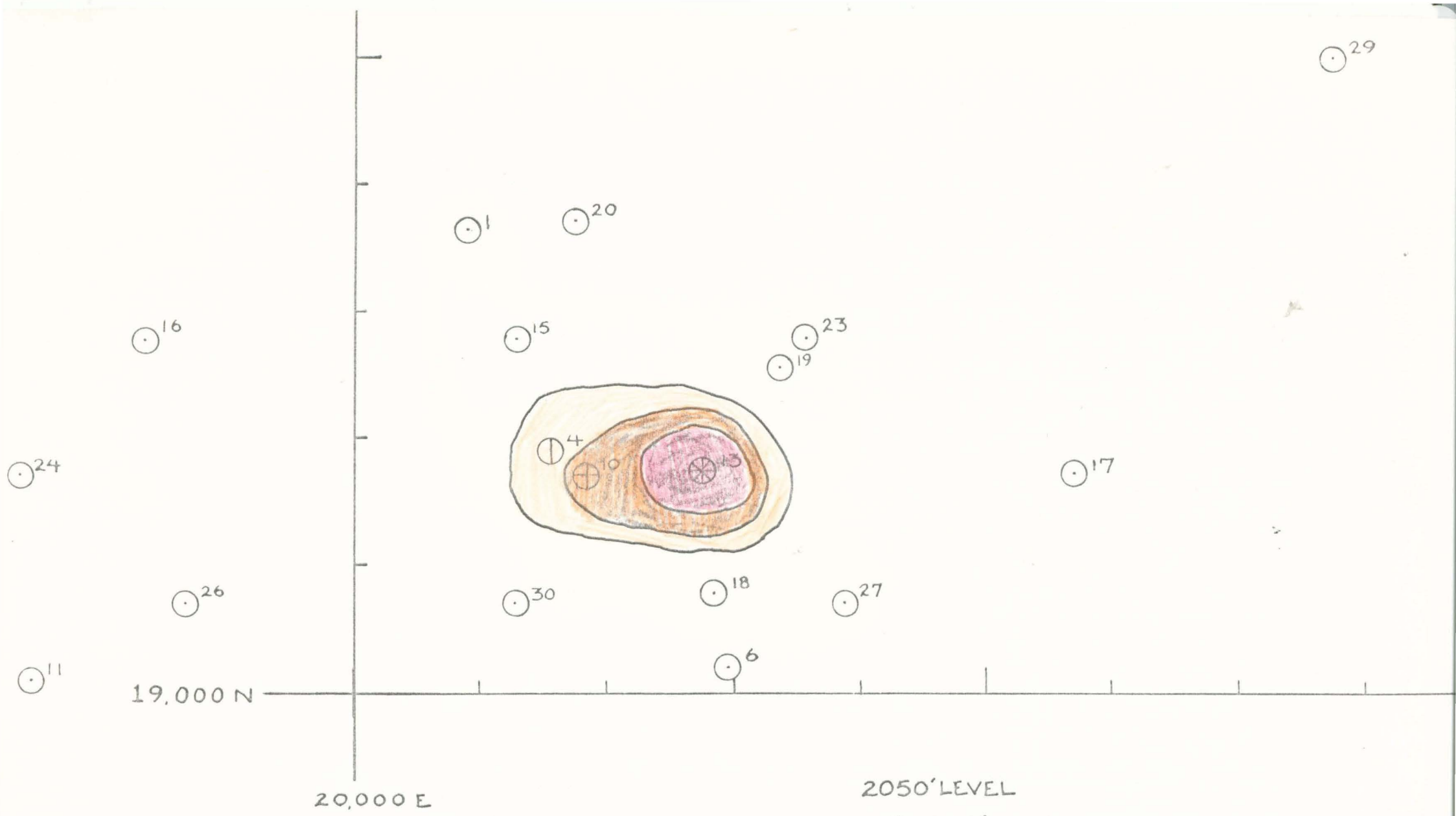
CUT-OFF	TONS	GRADE
1%	49,500	4.52%
3%	49,500	4.52%
5%	7,750	6.11%
10%	0	0



2075' LEVEL

1" = 100'

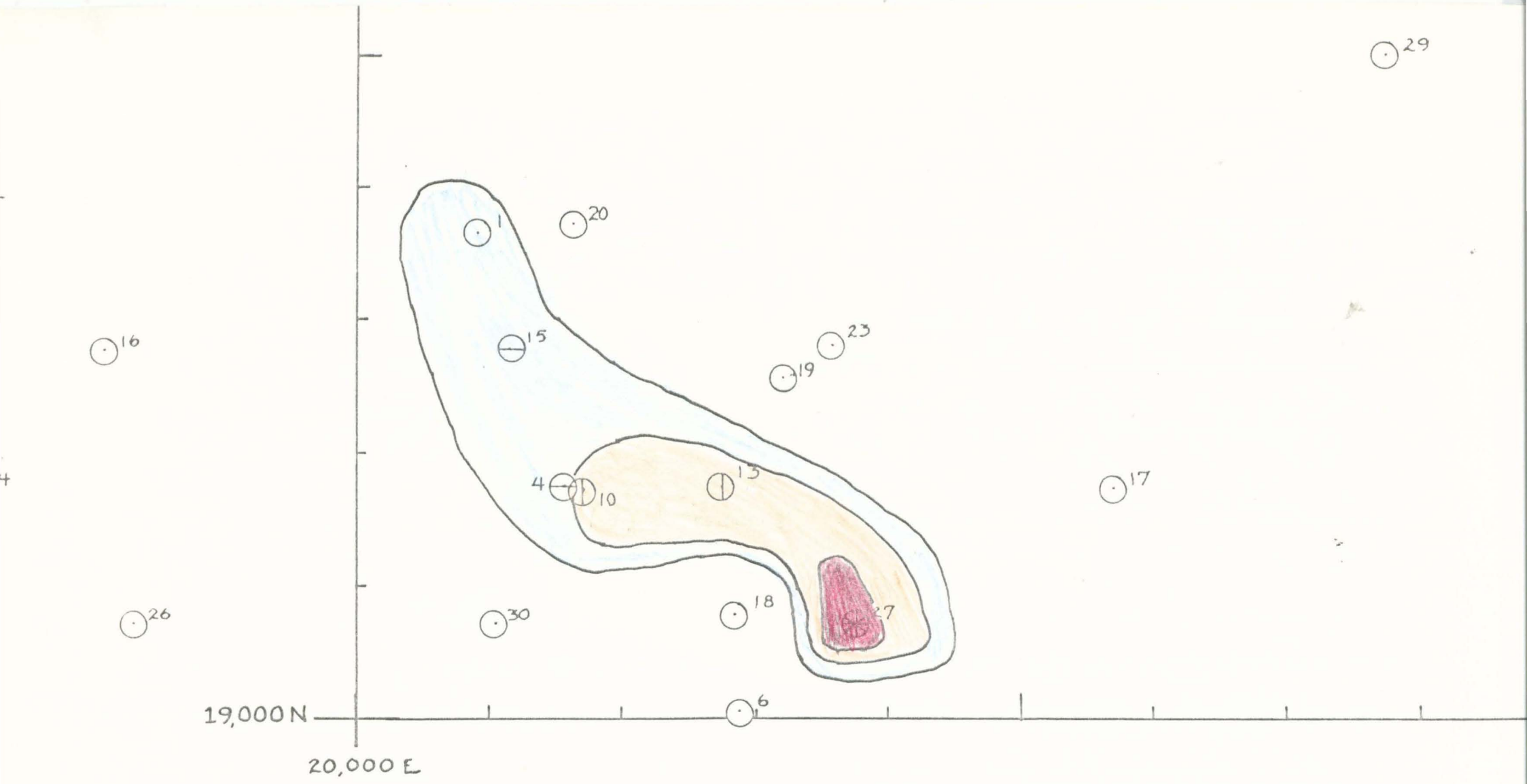
CUT-OFF	TONS	GRADE
1%	60,500	4.55%
3%	60,500	4.55%
5%	7,500	6.83%
10%	0	0



2050' LEVEL

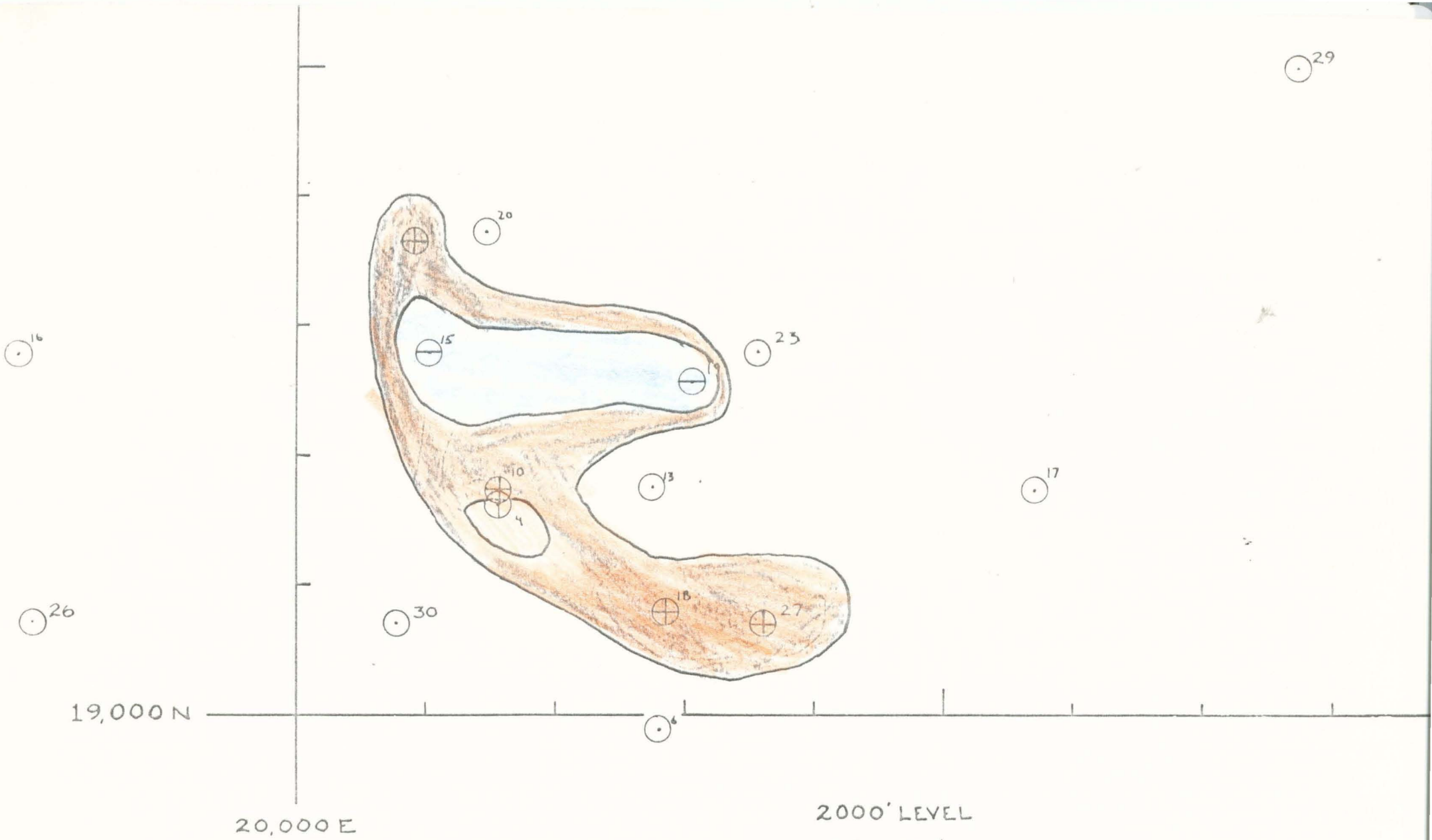
1" = 100'

CUT-OFF	TONS	GRADE
1%	58,500	5.93%
3%	58,500	5.93%
5%	30,000	7.93%
10%	11,500	10.36%



2025' LEVEL
1" = 100'

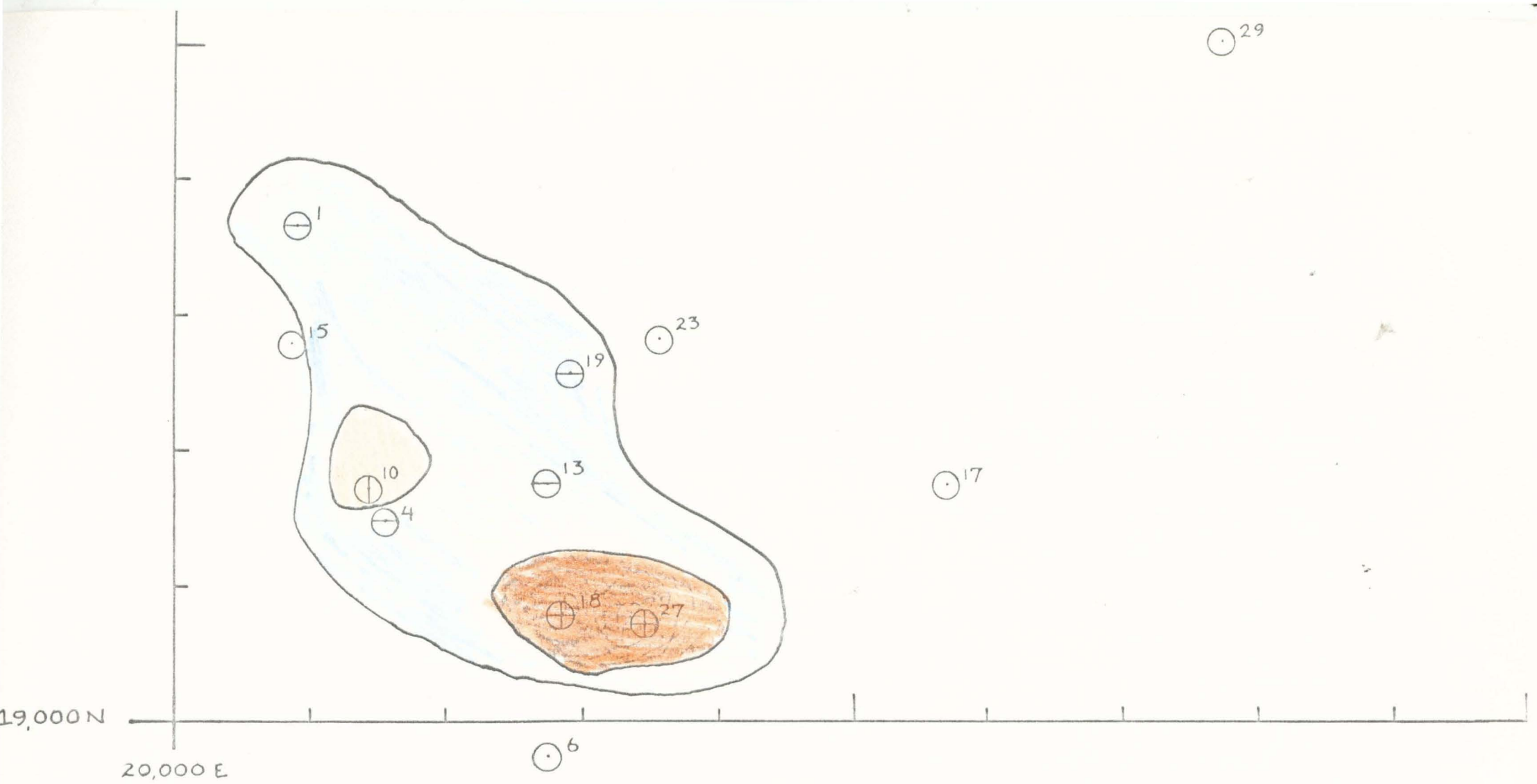
CUT-OFF	TONS	GRADE
1%	144,750	3.51%
3%	52,000	5.97%
5%	8,750	11.22%
10%	8,750	11.22%



2000' LEVEL

1" = 100'

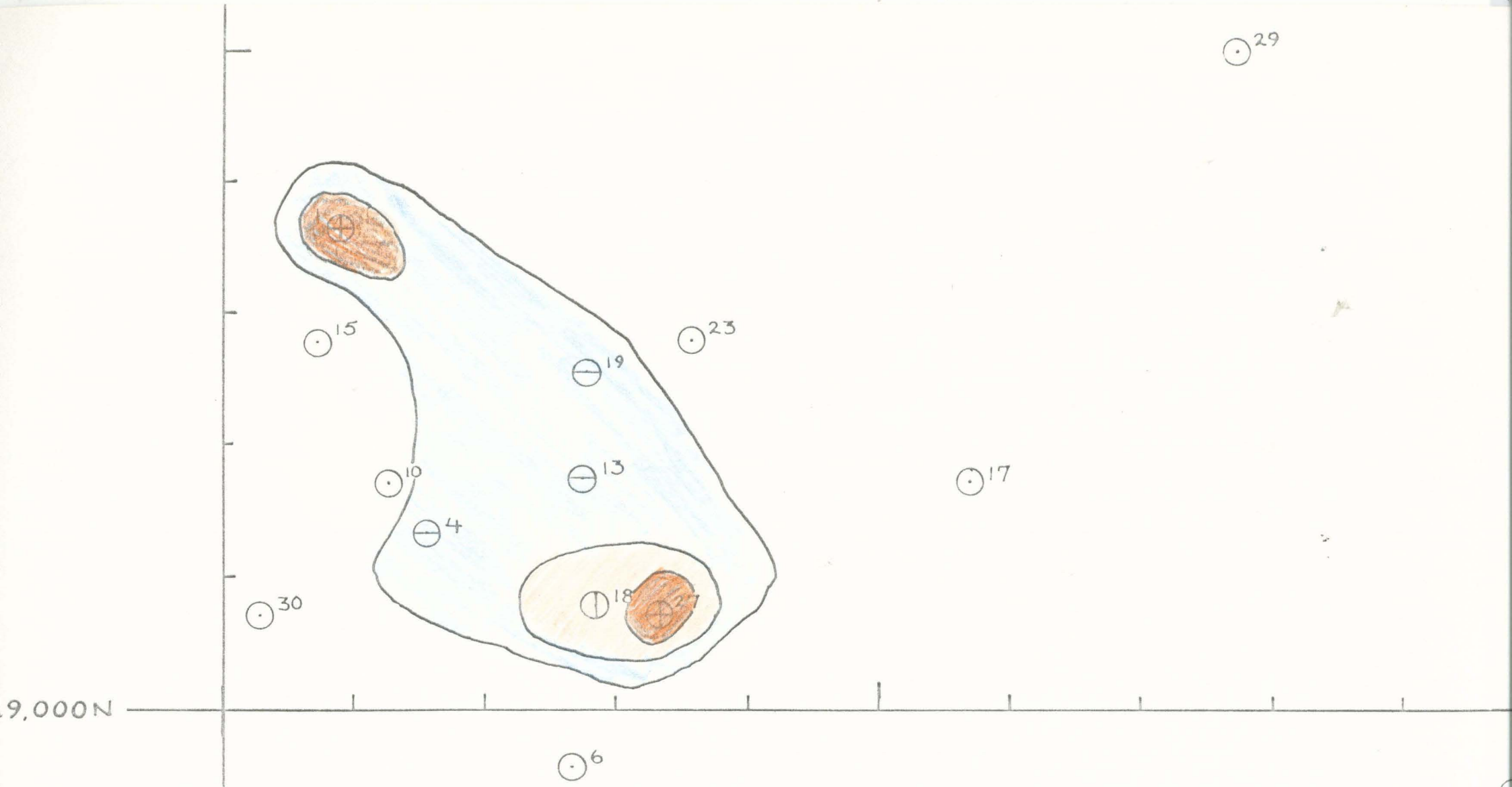
CUT-OFF	TONS	GRADE
1%	151,750	4.82%
3%	114,250	5.86%
5%	108,500	5.92%
10%	0	0



1975' LEVEL

1" = 100'

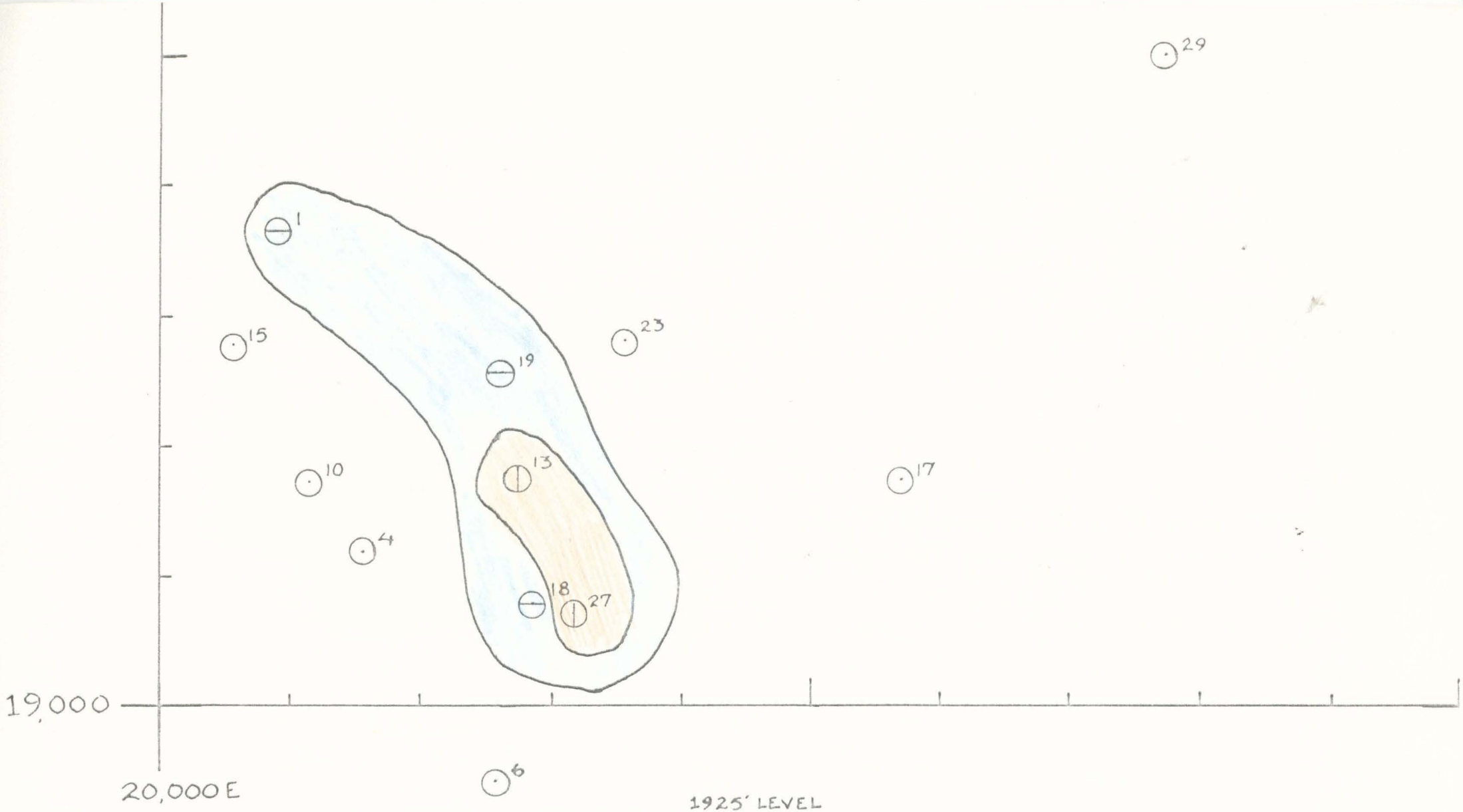
CUT-OFF	TONS	GRADE
1%	215,250	2.72%
3%	39,000	6.19%
5%	28,750	7.01%
10%	0	0



1950' LEVEL

1" = 100'

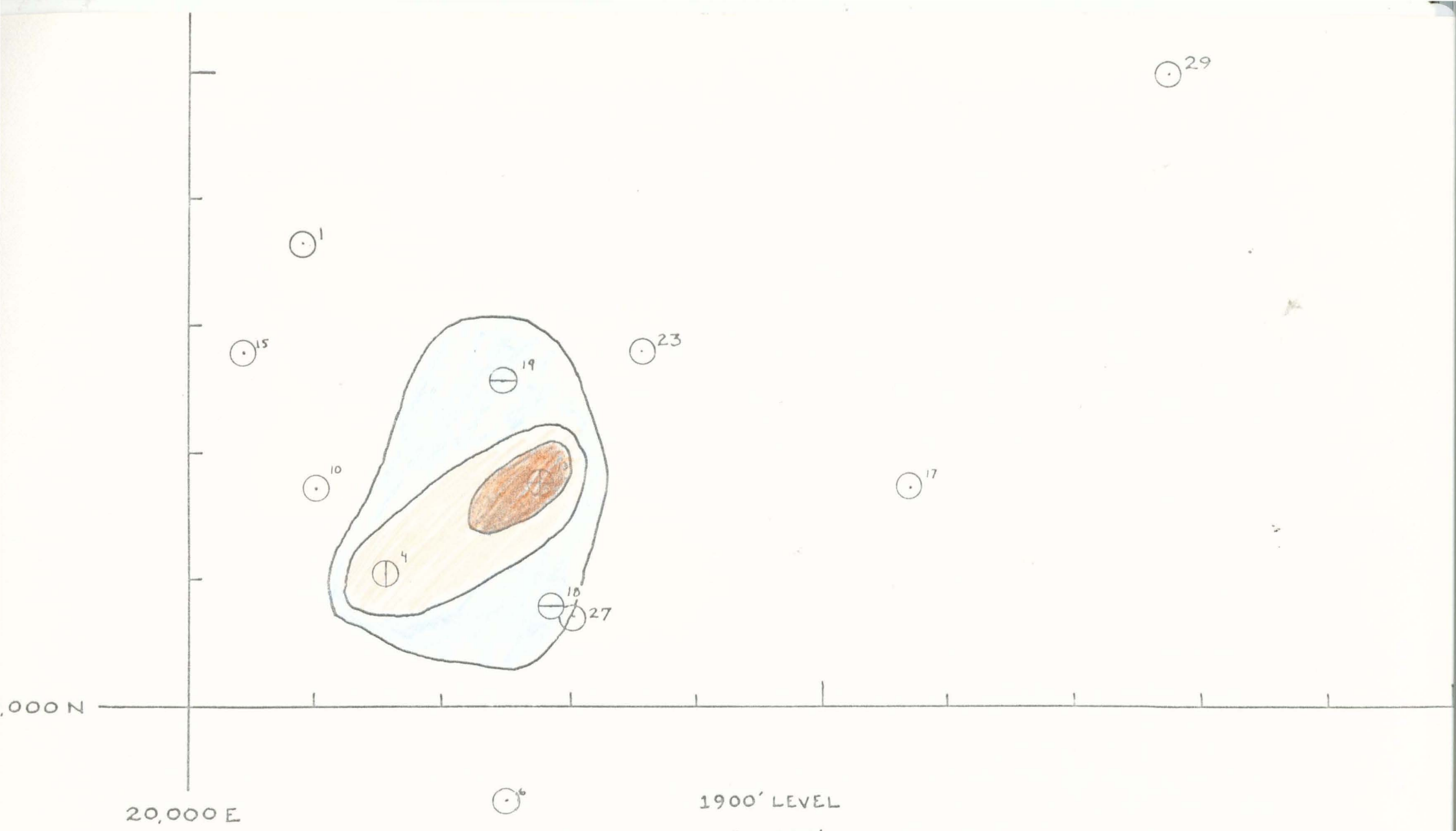
CUT-OFF	TONS	GRADE
1%	189,250	2.80%
3%	26,750	4.75%
5%	14,750	5.28%
10%	0	0



1925' LEVEL

1" = 100'

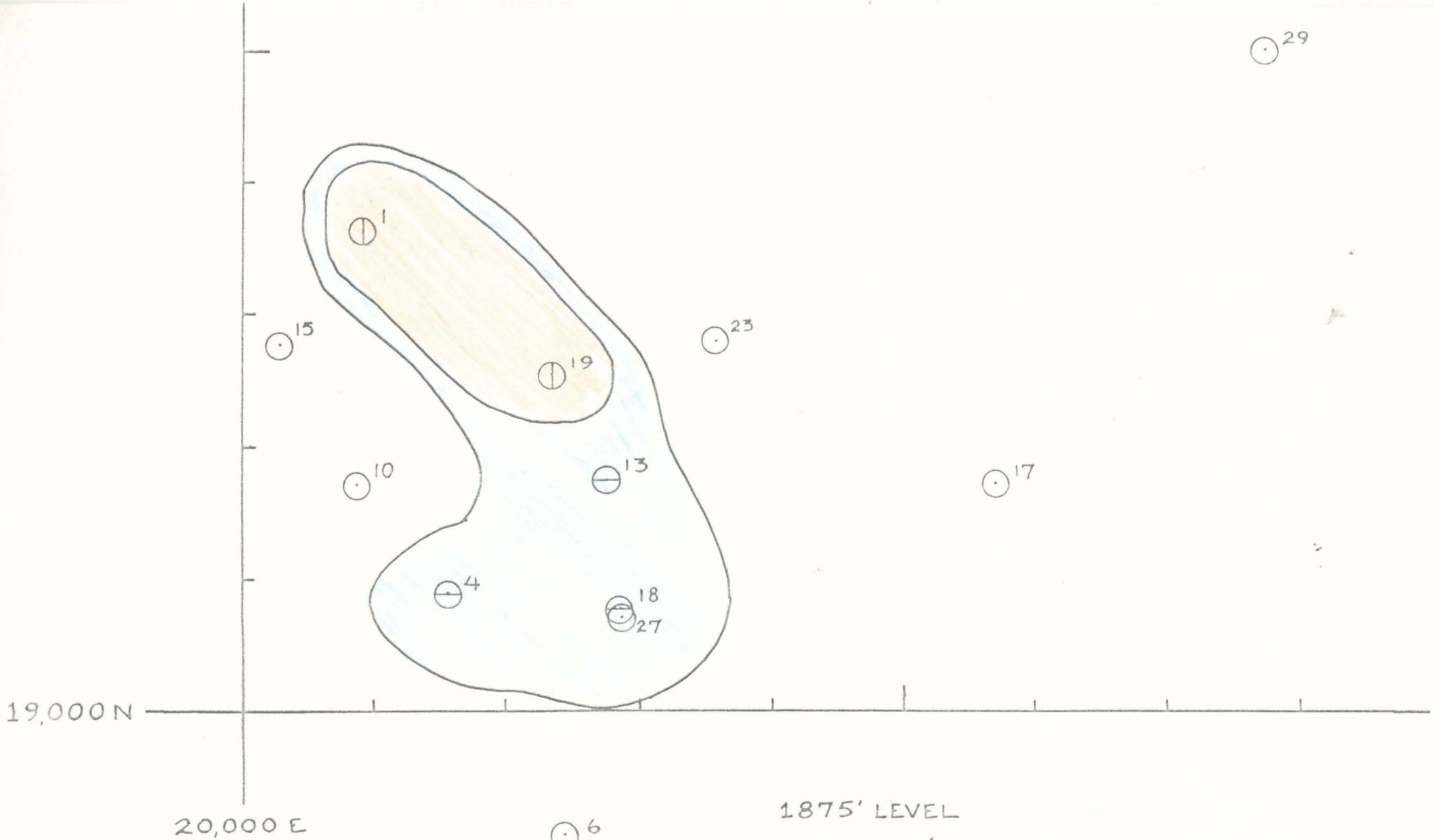
CUT-OFF	TONS	GRADE
1%	129, 250	2.27 %
3%	27,000	3.95 %
5%	0	0
10%	0	0



1900' LEVEL

1" = 100'

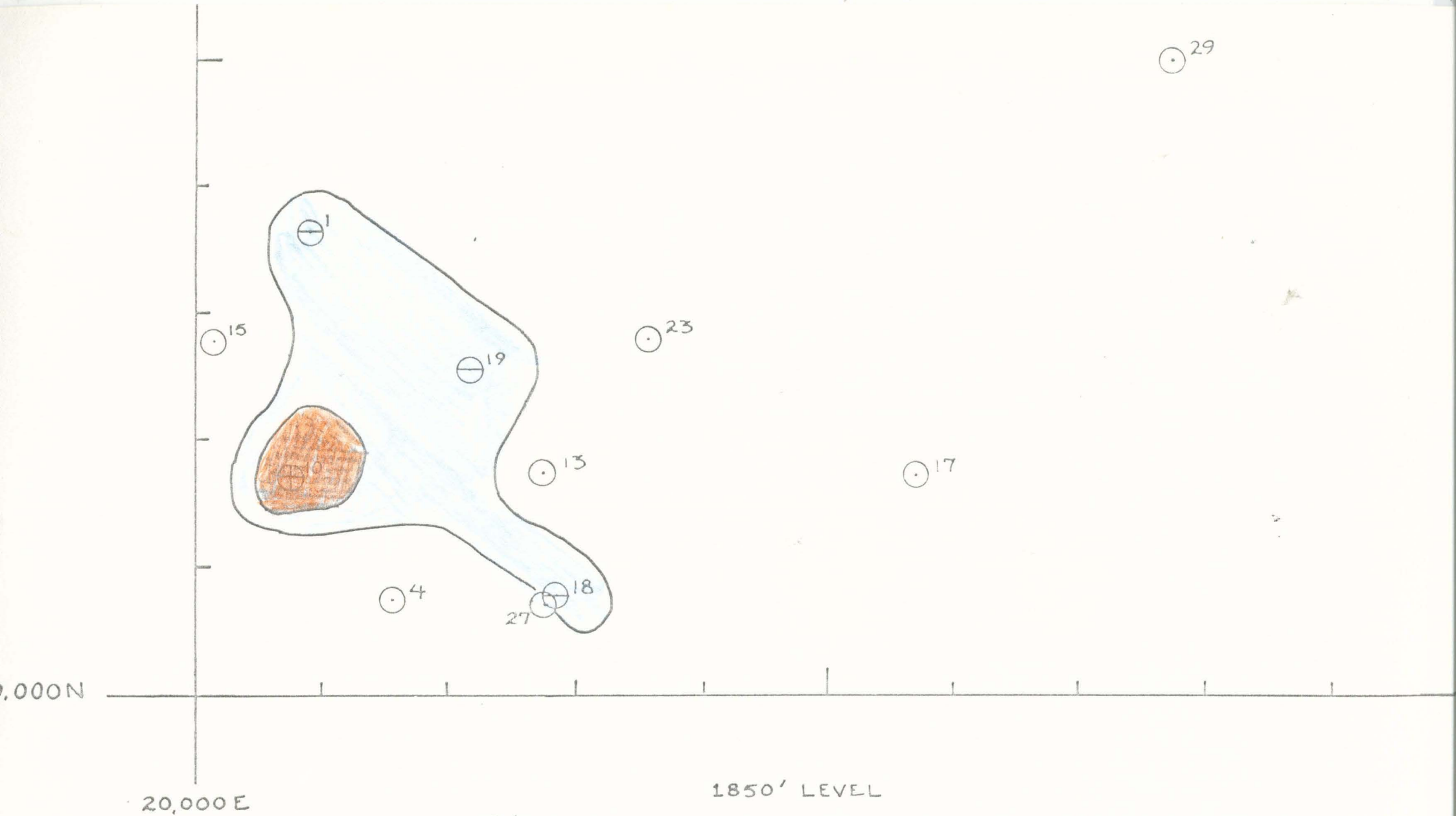
CUT-OFF	TONS	GRADE
1%	106,500	2.71%
3%	39,500	4.42%
5%	8,500	6.77%
10%	0	0



1875' LEVEL

1" = 100'

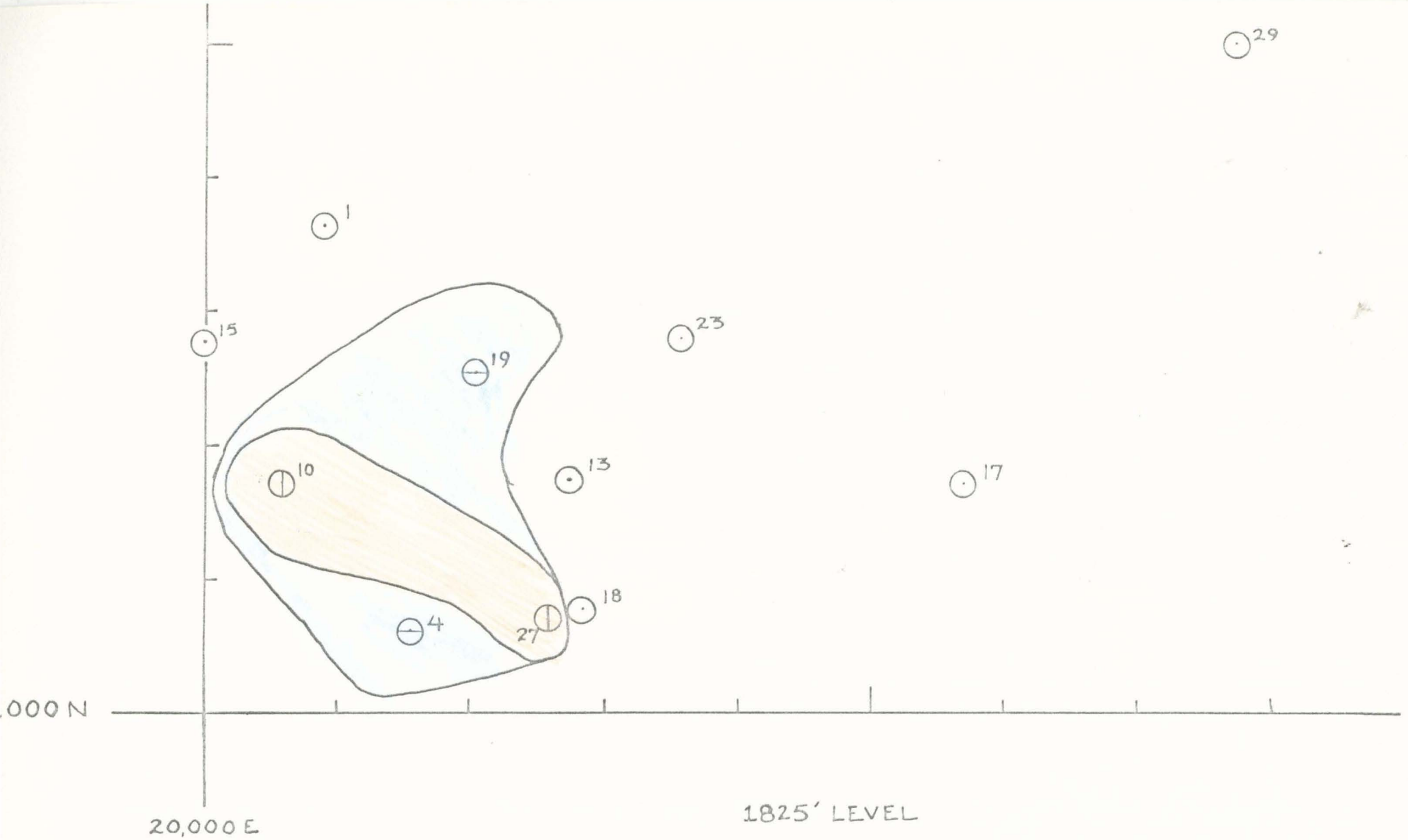
CUT-OFF	TONS	GRADE
1%	190,250	2.40%
3%	59,000	4.41%
5%	0	0
10%	0	0



1850' LEVEL

1" = 100'

CUT-OFF	TONS	GRADE
1%	122,250	1.96%
3%	14,000	5.14%
5%	14,000	5.14%
10%	0	0



1825' LEVEL

1" = 100

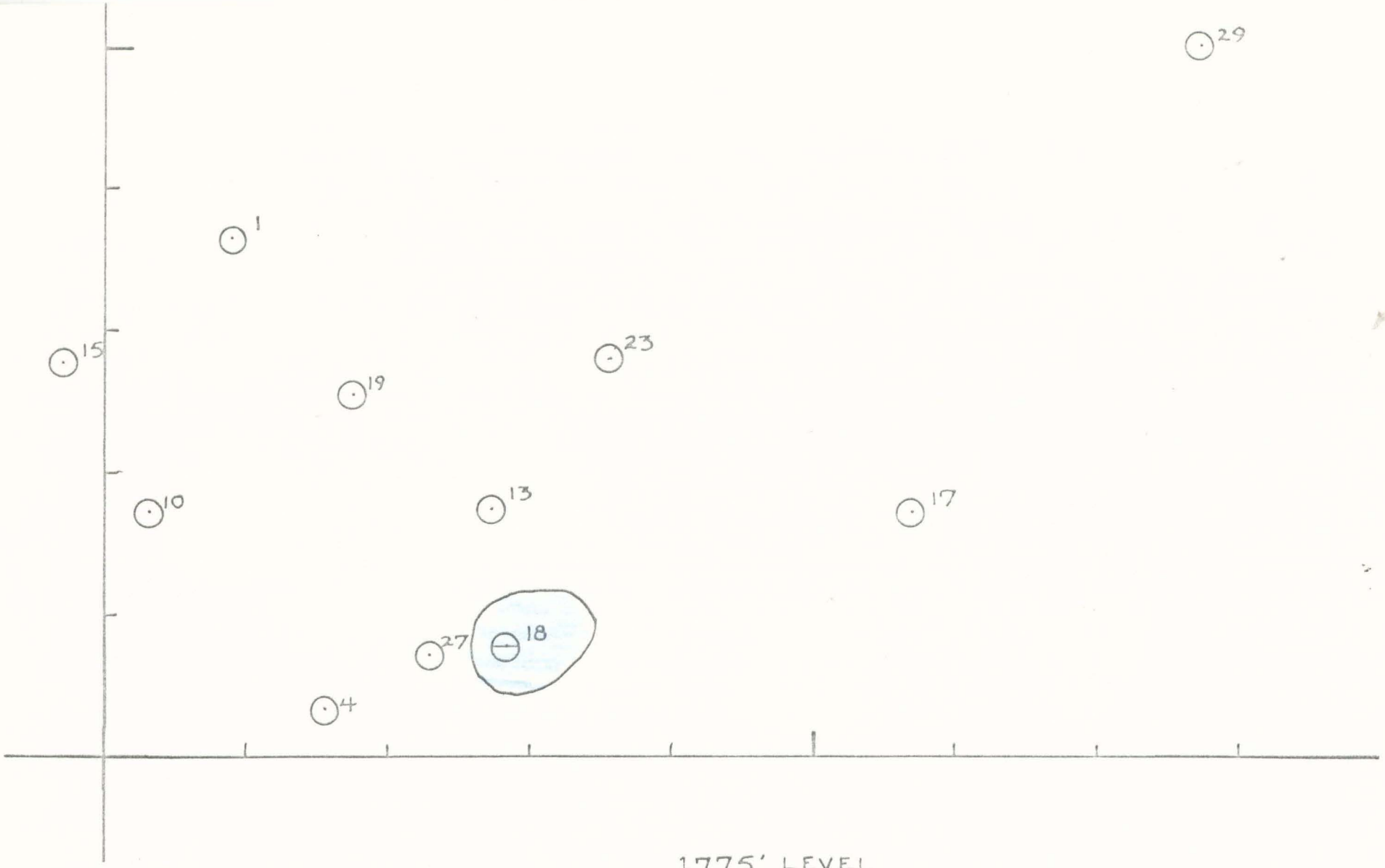
CUT-OFF	TONS	GRADE
1%	139,000	2.40%
3%	50,750	3.51%
5%	0	0
10%	0	0

1800' LEVEL

1" = 100'

6

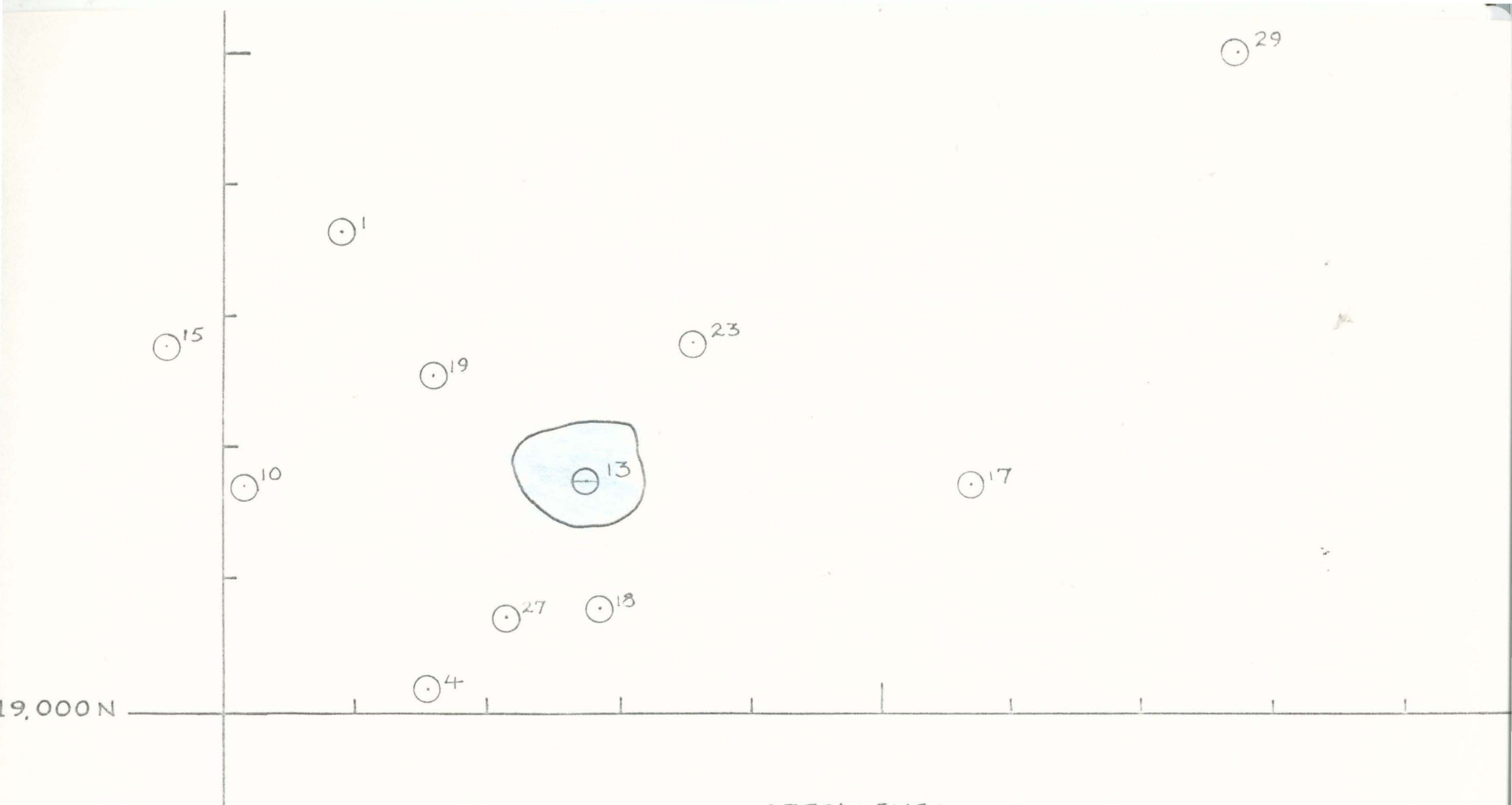
CUT-OFF	TONS	GRADE
1%	48,750	1.55
3%	0	0
5%	0	0



1775' LEVEL

1" = 100'

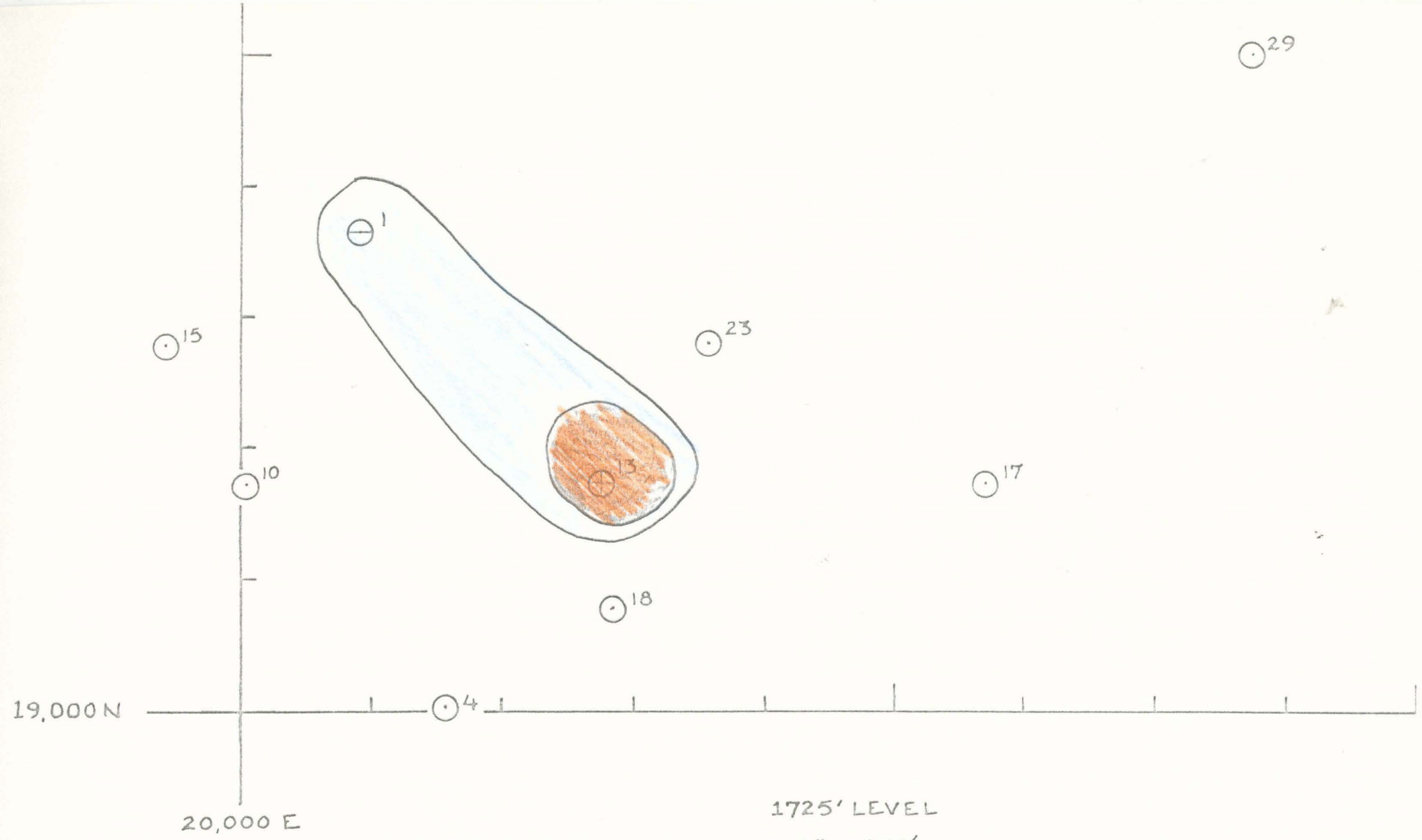
CUT-OFF	TONS	GRADE
1%	12,250	1.46
3%	0	0
5%	0	0
10%	0	0



1750' LEVEL

1" = 100'

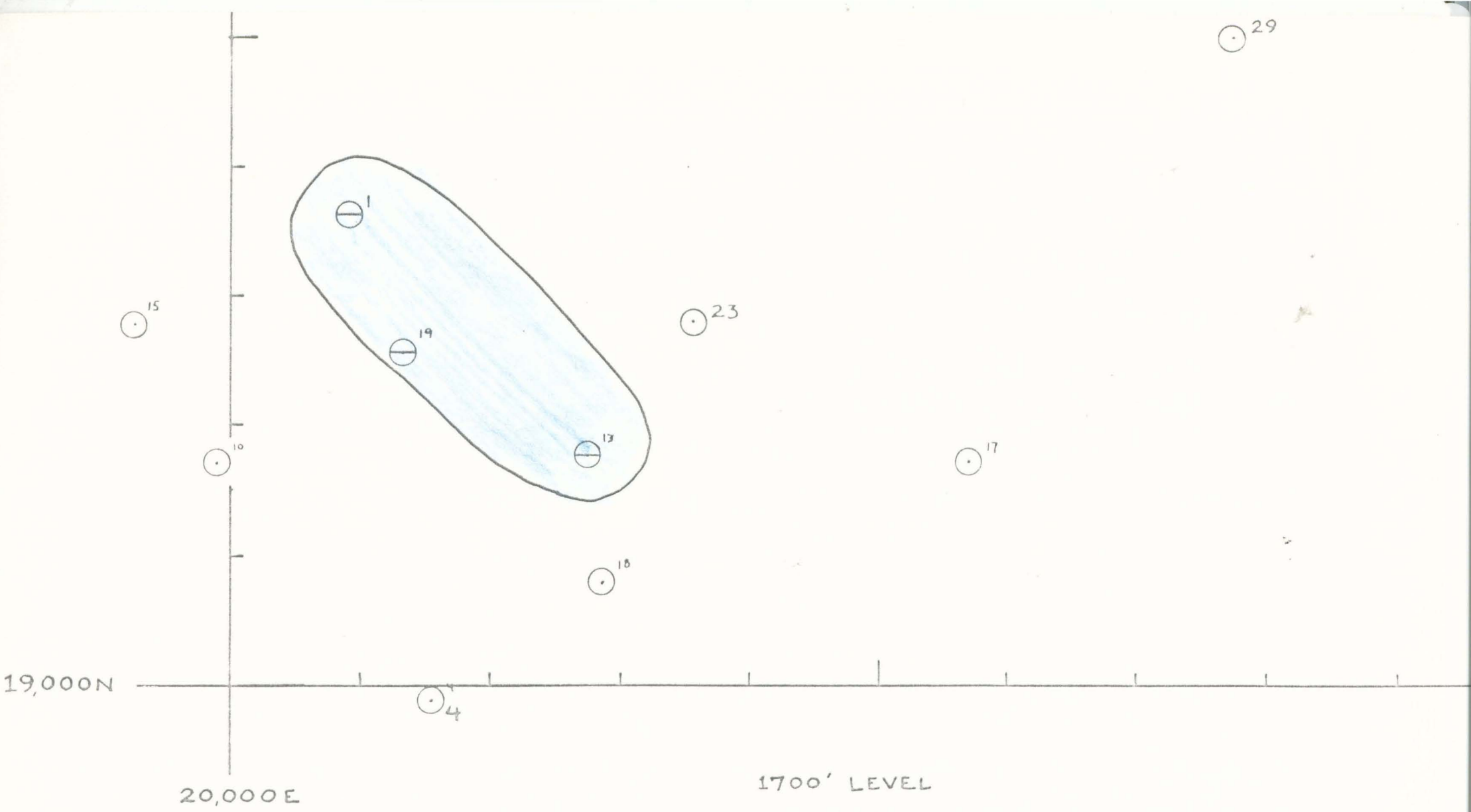
CUT-OFF	TONS	GRADE
1%	15,000	2.82%
3%	0	0
5%	0	0
10%	0	0



1725' LEVEL

1" = 100'

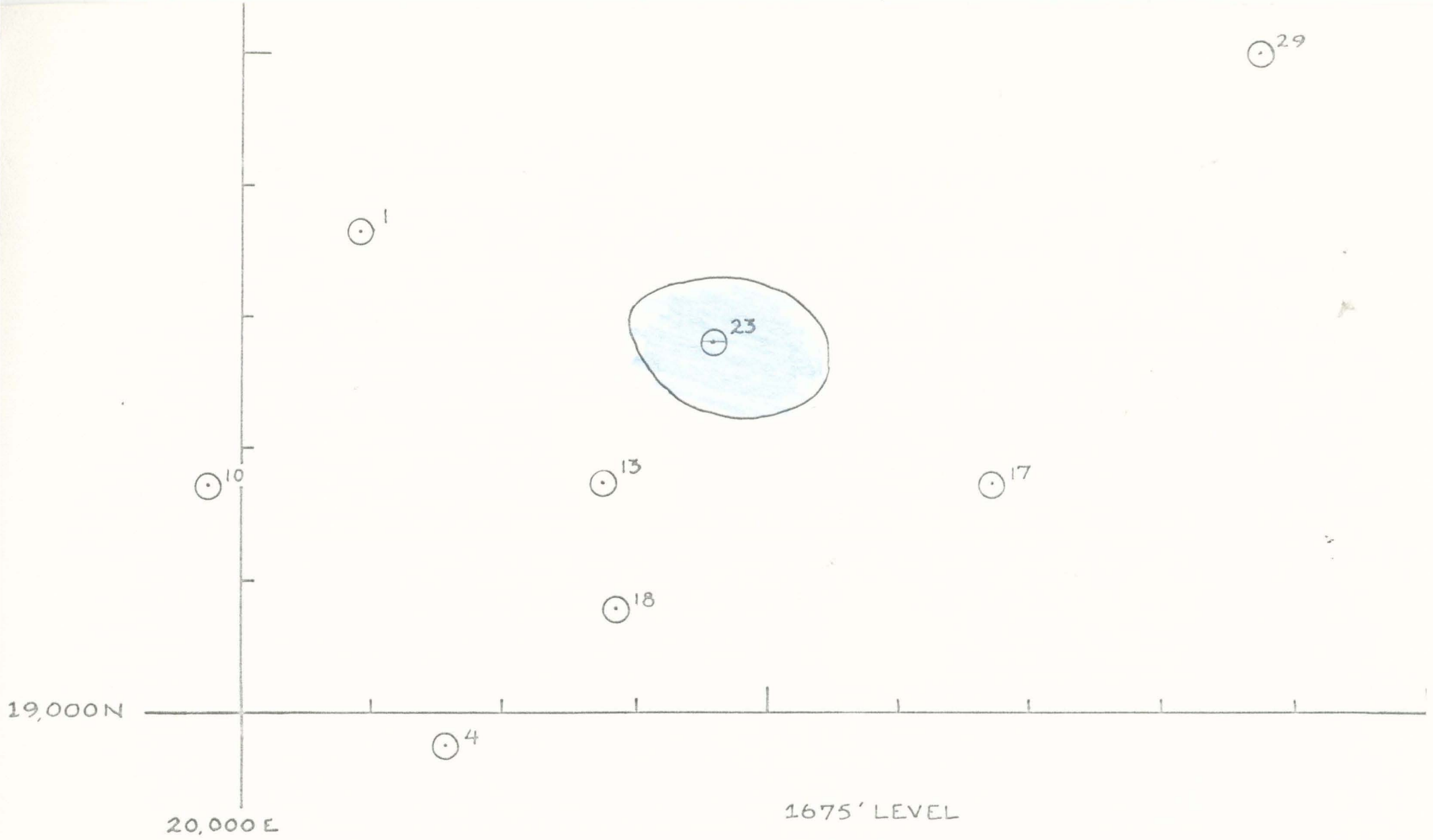
CUT-OFF	TONS	GRADE
1%	86,750	3.15%
3%	17,250	9.82%
5%	17,250	9.82%
10%	0	0



1700' LEVEL

1" = 100

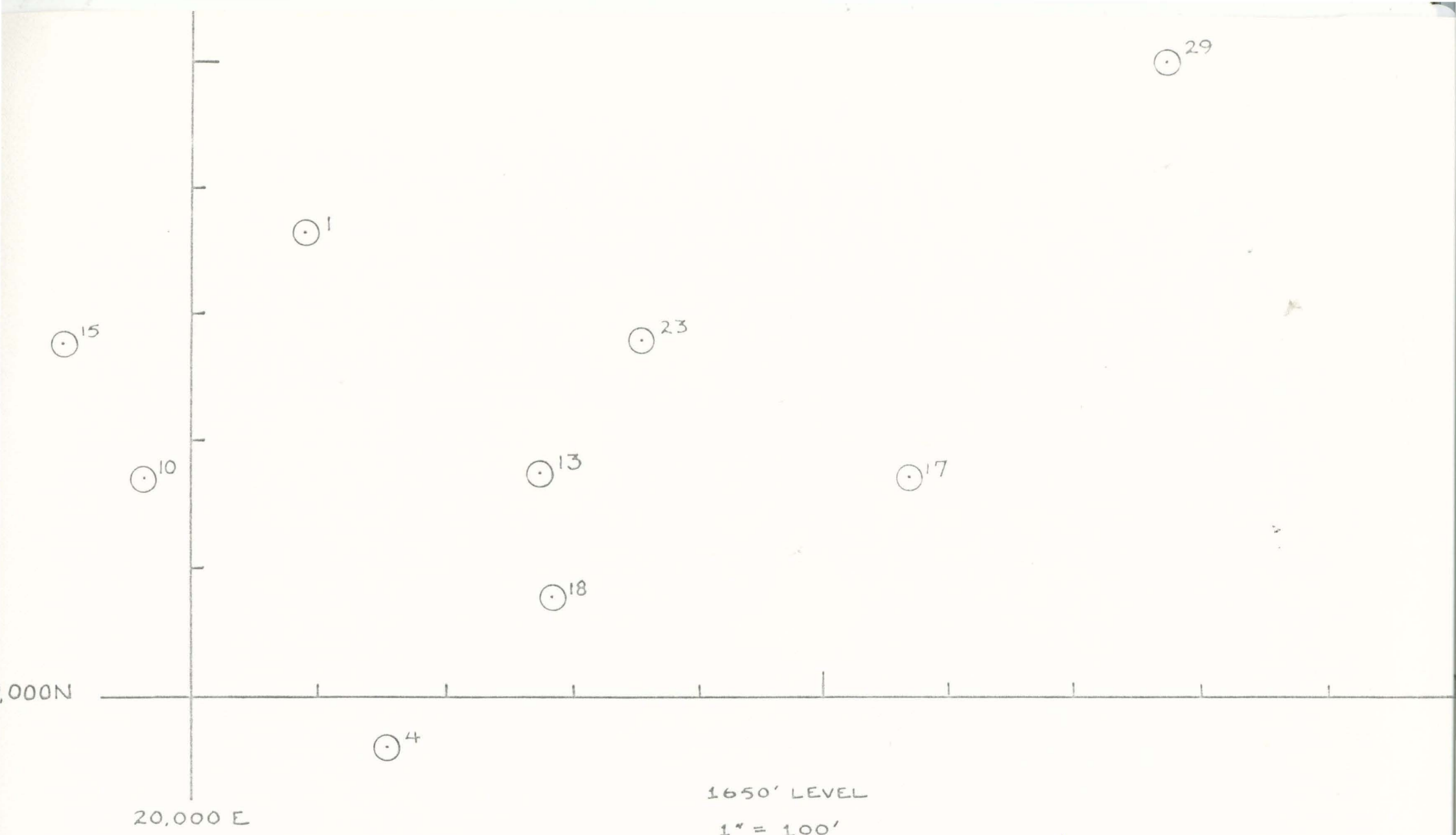
CUT-OFF	TONS	GRADE
1%	89,000	1.19%
3%	0	0
5%	0	0
10%	0	0



1675' LEVEL

1" = 100

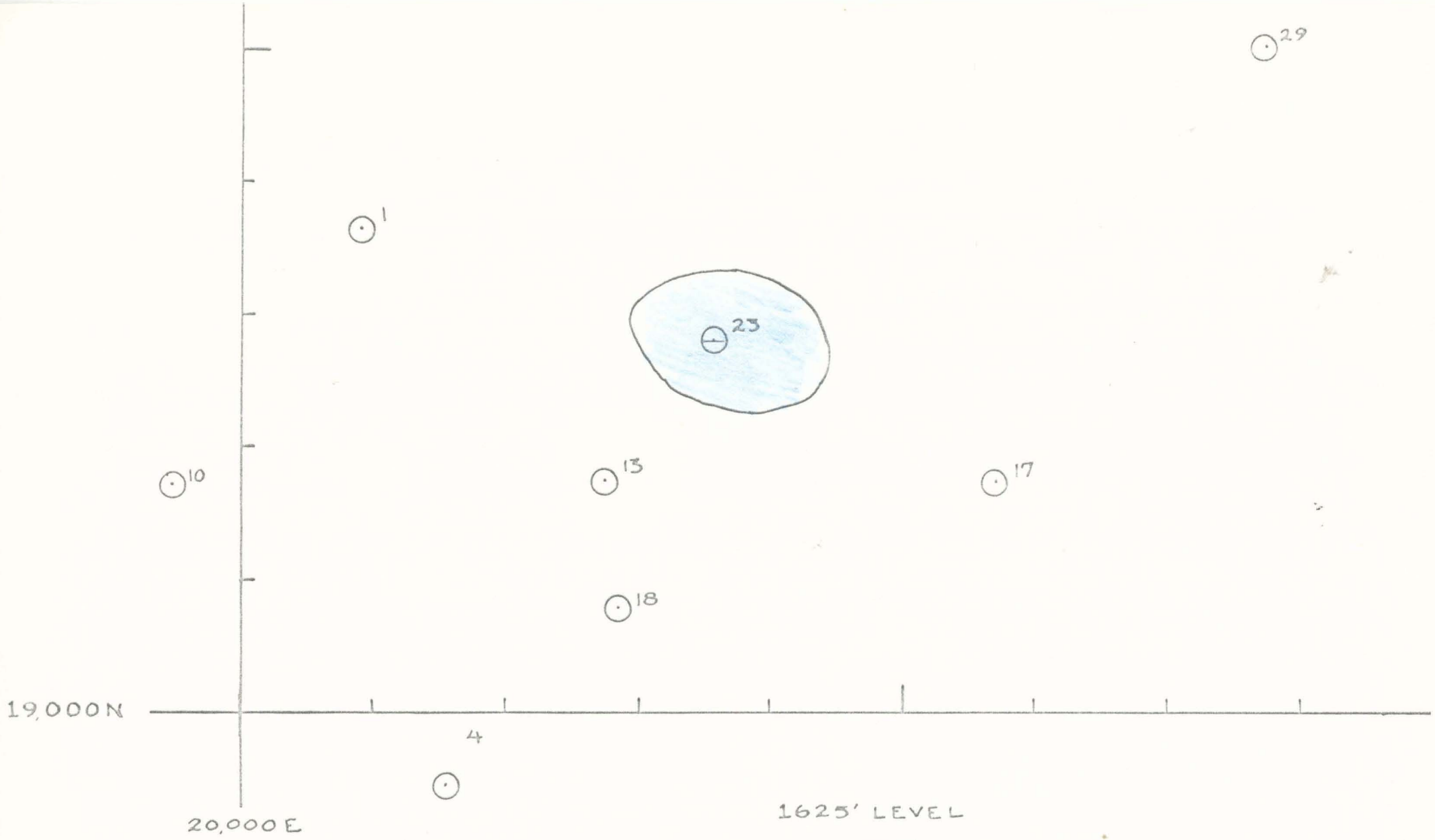
CUT-OFF	TONS	GRADE
1%	30,000	2.47%
3%	0	0
5%	0	0
10%	0	0



1650' LEVEL

1" = 100'

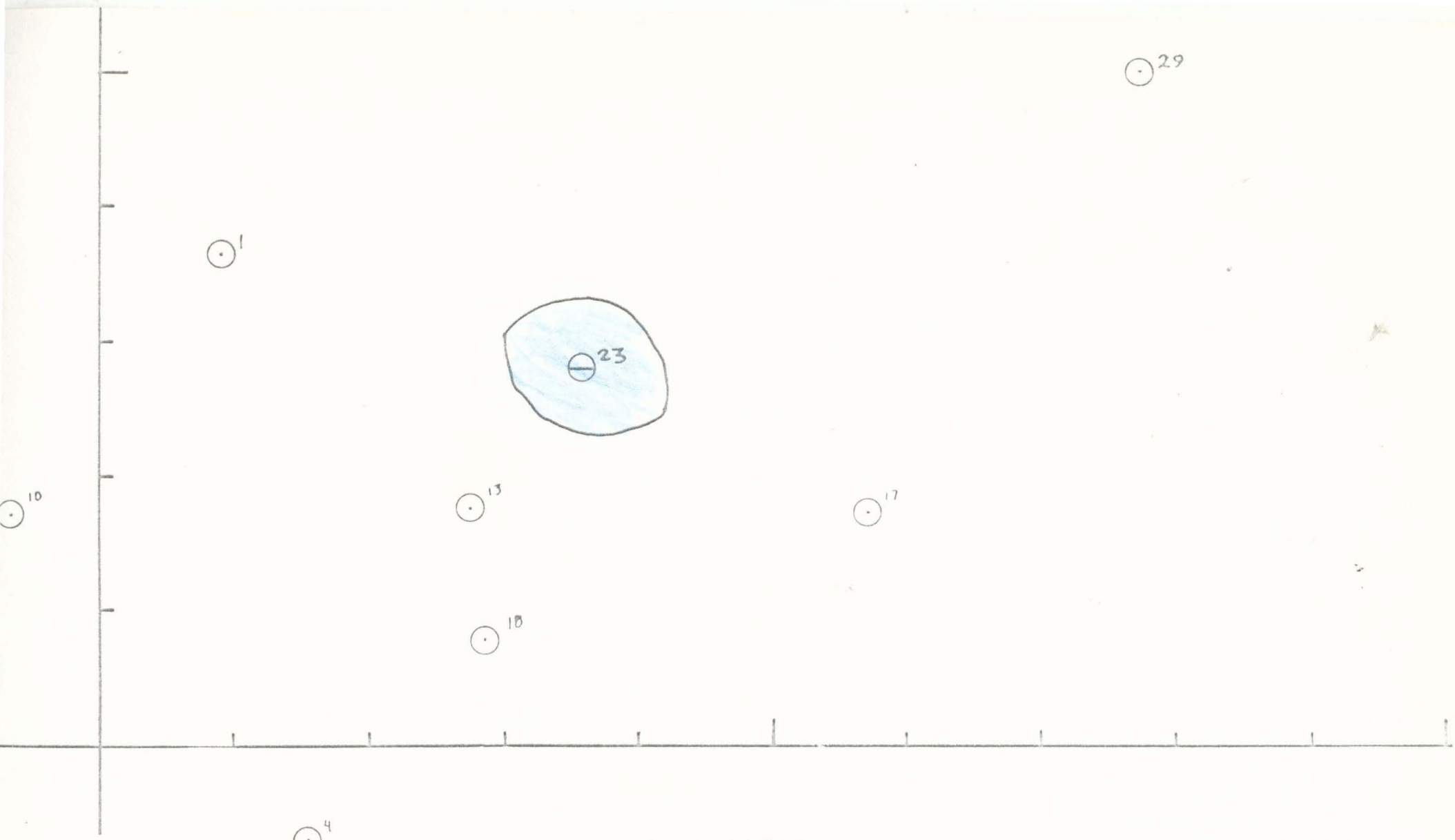
CUT-OFF	TONS	GRADE
1%	0	0
3%	0	0
5%	0	0
10%	0	0



1625' LEVEL

1" = 100'

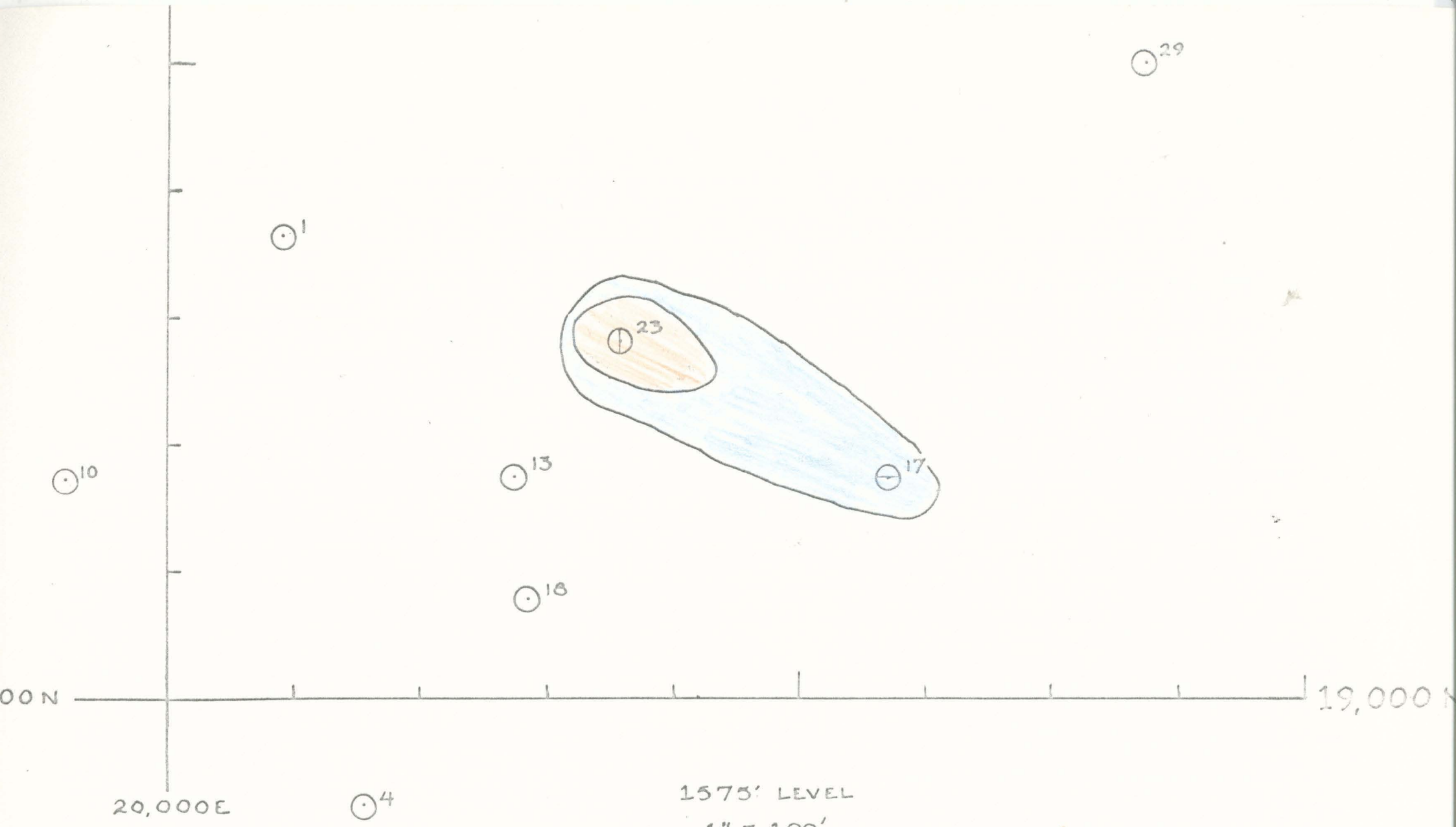
CUT-OFF	TONS	GRADE
1%	30,000	1.92%
3%	0	0
5%	0	0



1600' LEVEL

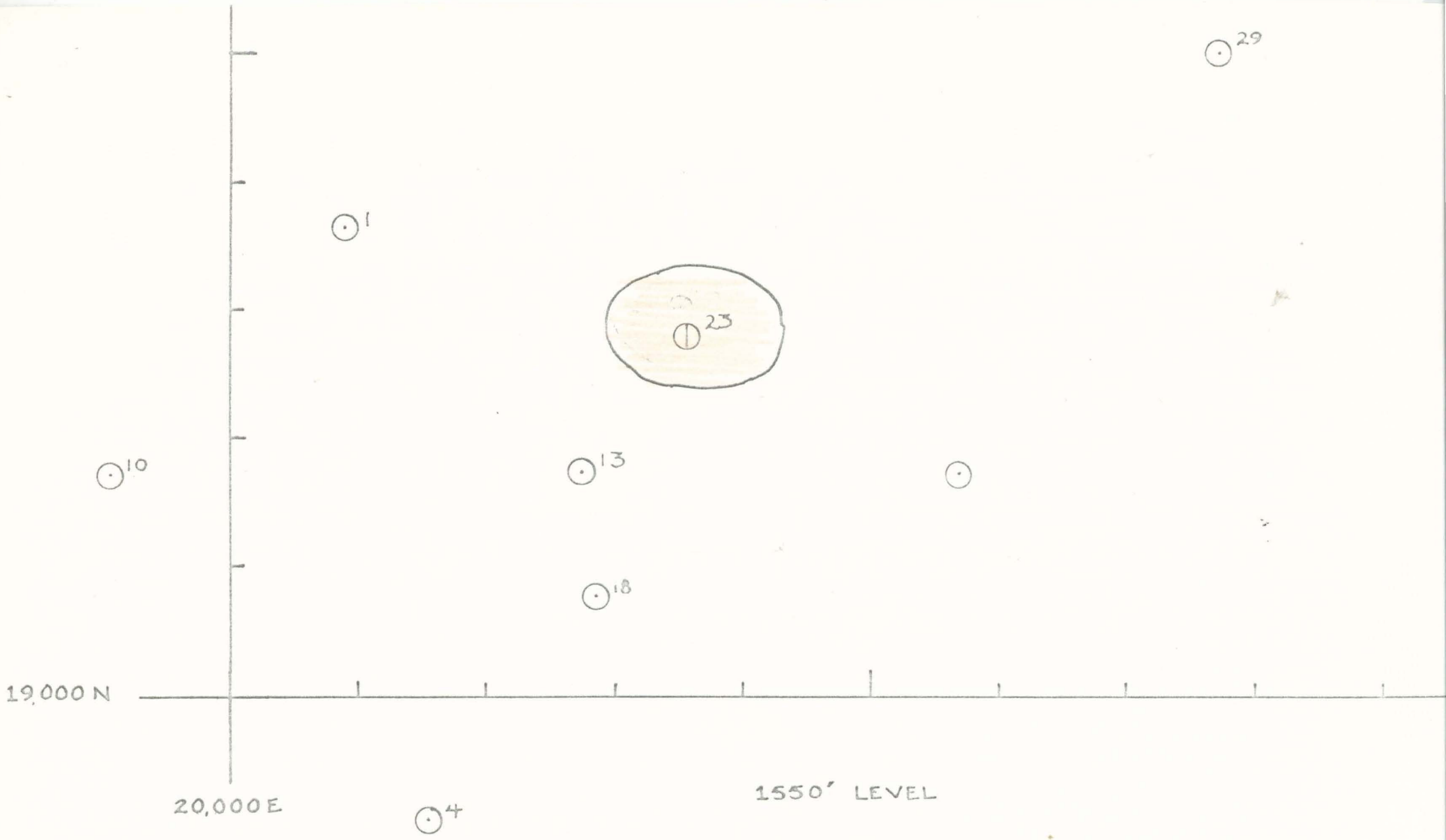
1" = 100'

CUT-OFF	TONS	GRADE
1%	24,250	2.46%
3%	0	0
5%	0	0
10%	0	0



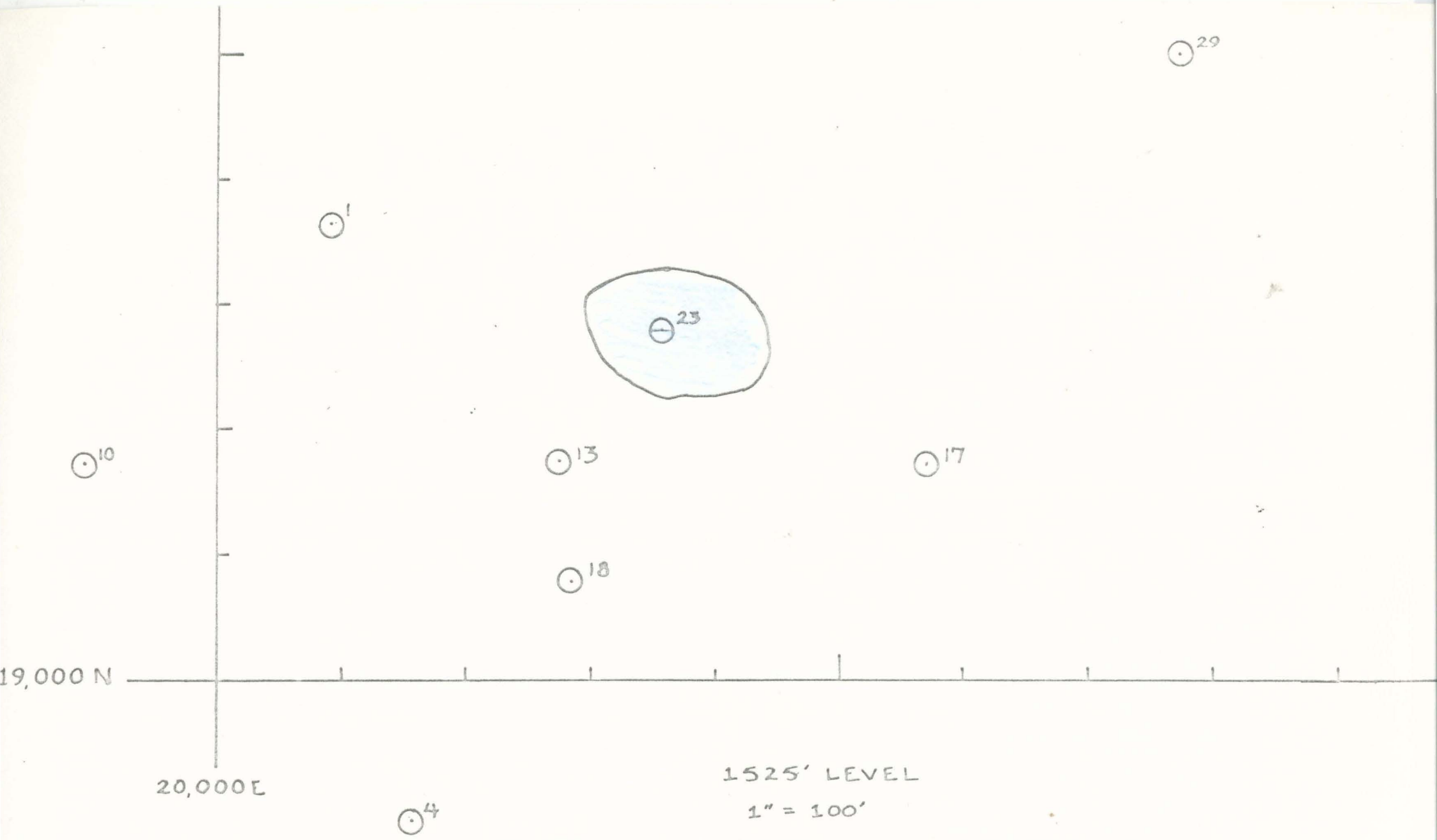
1575' LEVEL
1" = 100'

CUT-OFF	TONS	GRADE
1%	71,500	1.64%
3%	15,500	3.61%
5%	0	0
10%	0	0



1550' LEVEL

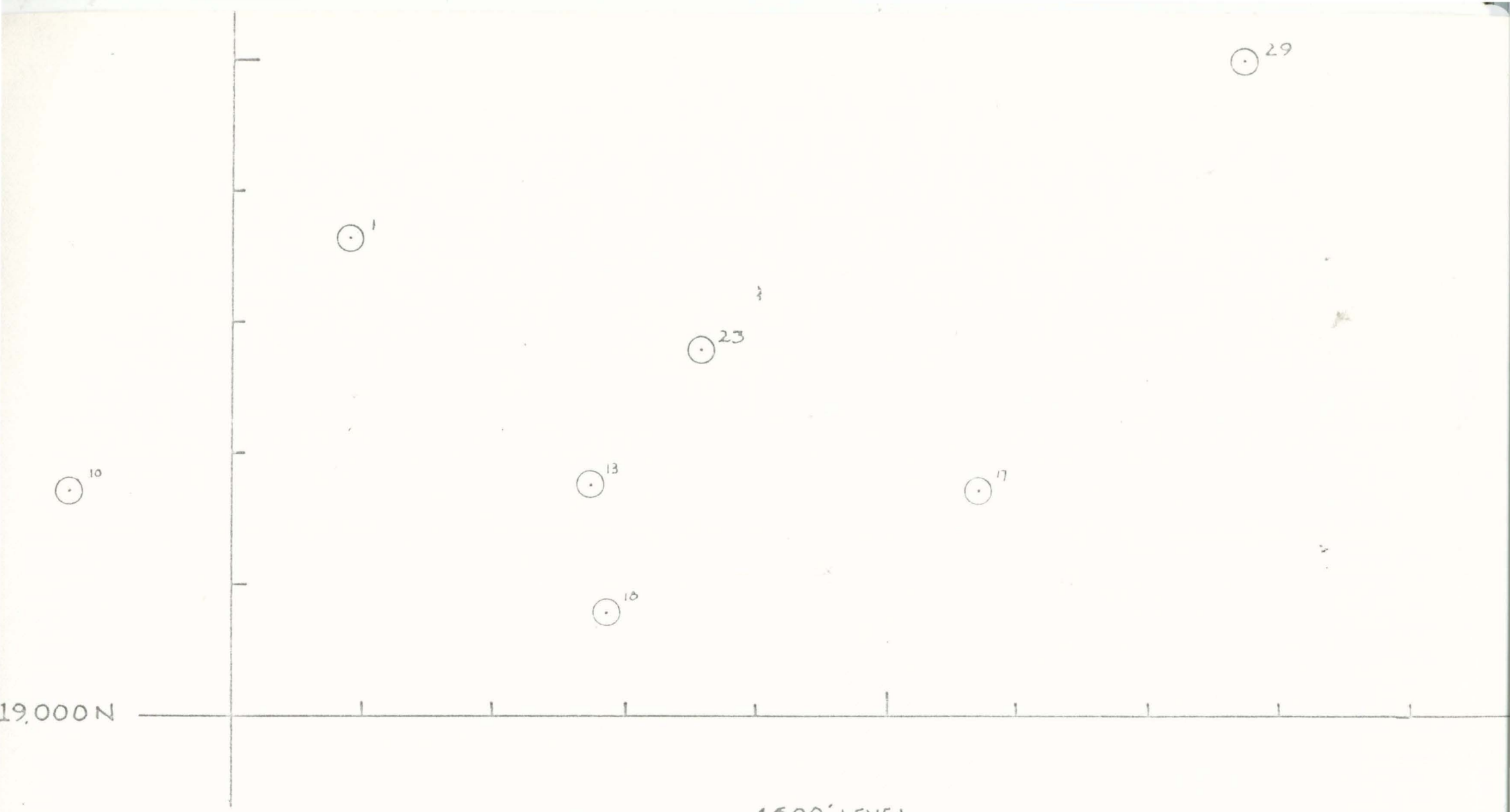
CUT-OFF	TONS	GRADE
1%	25,750	3.98%
3%	25,750	3.98%
5%	0	0
10%	0	0



1525' LEVEL

1" = 100'

CUT-OFF	TONS	GRADE
1%	30,000	1.65%
3%	0	0
5%	0	0
10%	0	0



1500' LEVEL
1" = 100'

CUT-OFF	TONS	GRADE
1%	0	0
3%	0	0
5%	0	0
10%	0	0

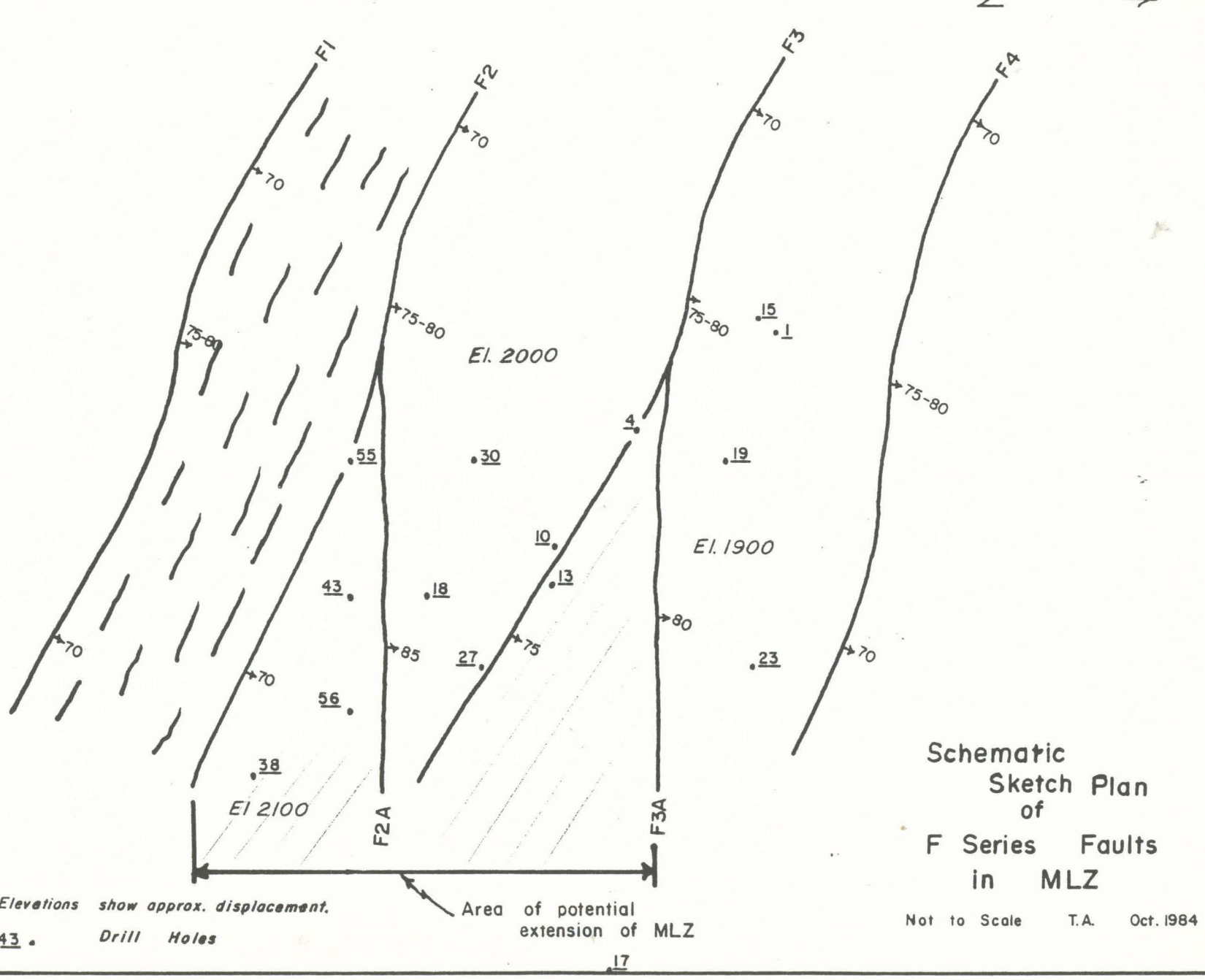

F1
F2
F3
F4
70
75-80
El. 2000
El. 1900
El 2100
55
30
4
19
15
1
10
13
43
18
27
23
56
38
85
80
75
F2A
F3A
Elevations show approx. displacement.
43 . Drill Holes
Area of potential extension of MLZ
17
Schematic Sketch Plan of F Series Faults in MLZ
Not to Scale T.A. Oct. 1984

FIGURE 1