

6°30' S

7° S

8° S

9° S

10° S

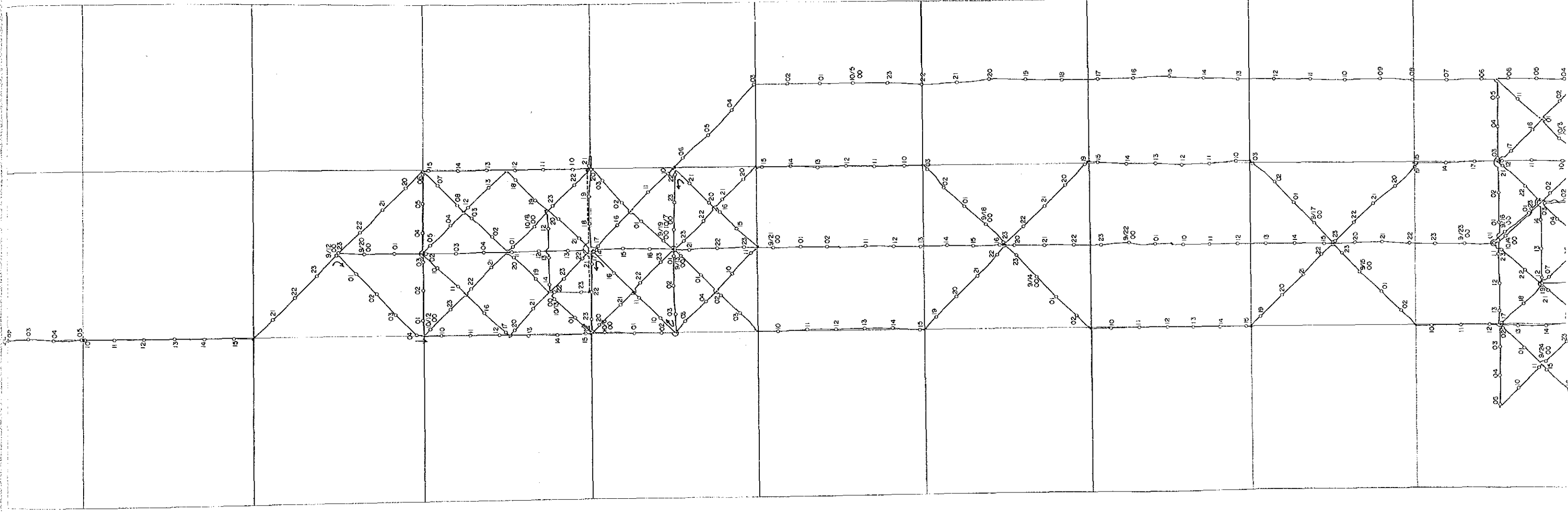
11° S

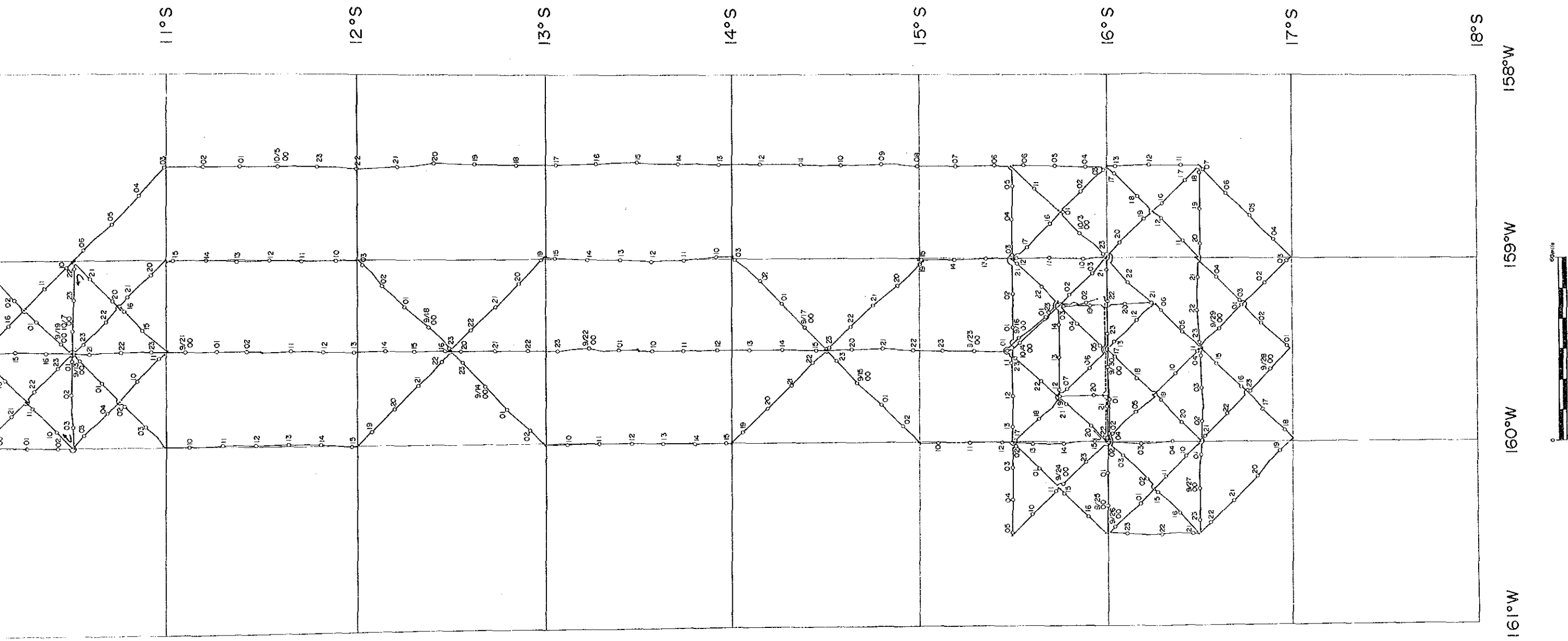
12° S

13° S

14° S

15° S





Annexed Figure 1 Tracklines Map

6°30'S

7°S

8°S

9°S

10°S

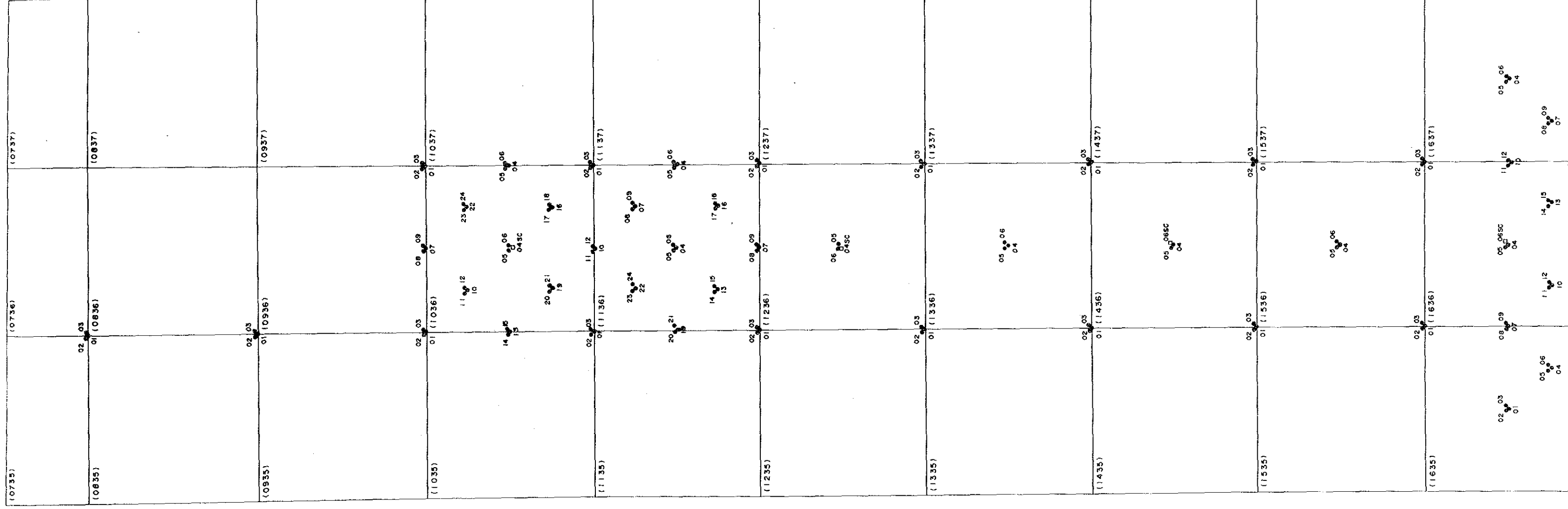
11°S

12°S

13°S

14°S

15°S

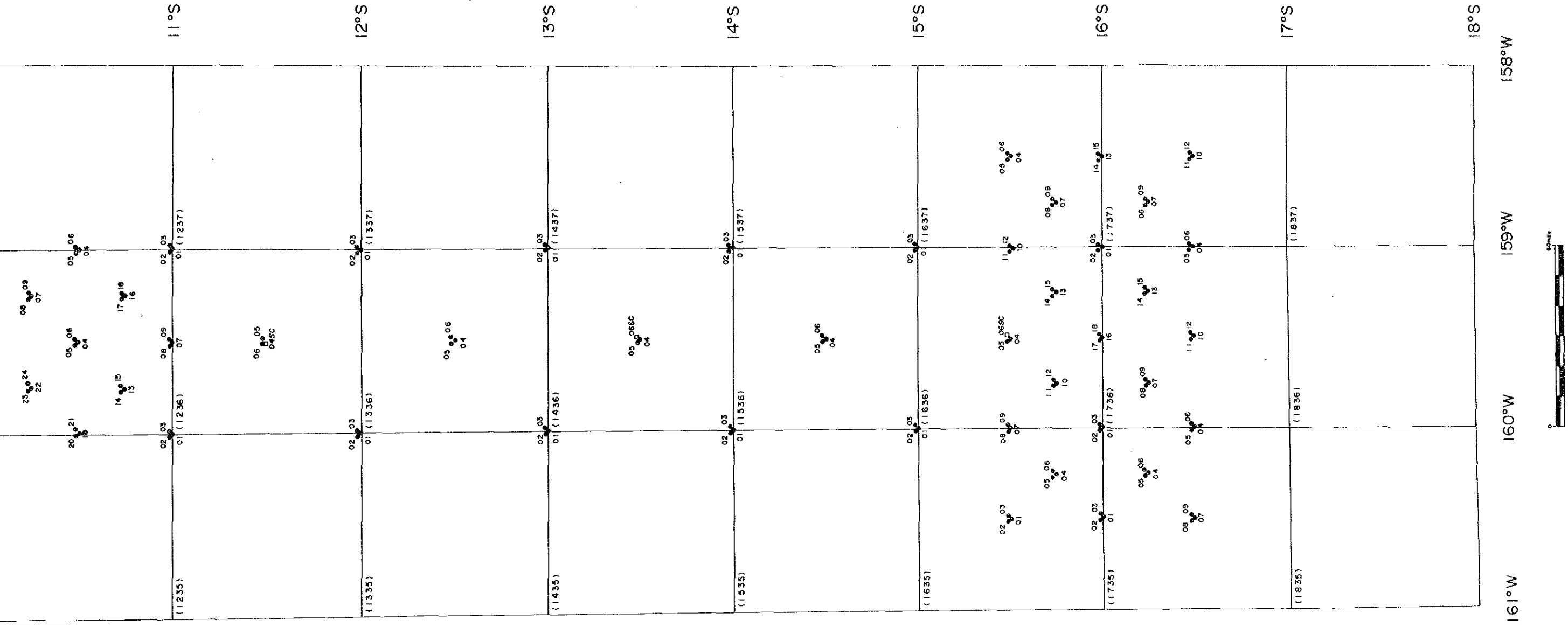


Legend

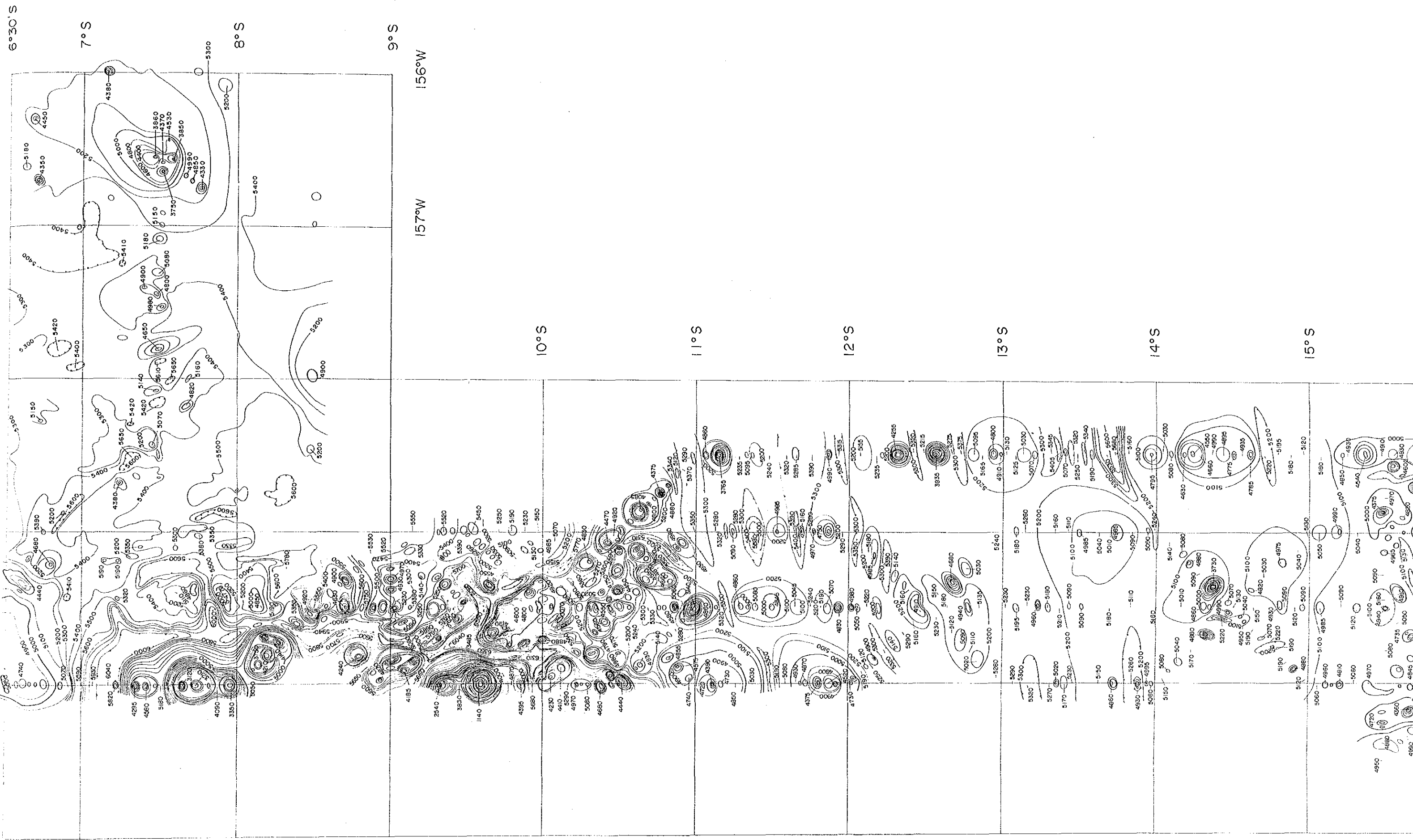
•• Sampling sites

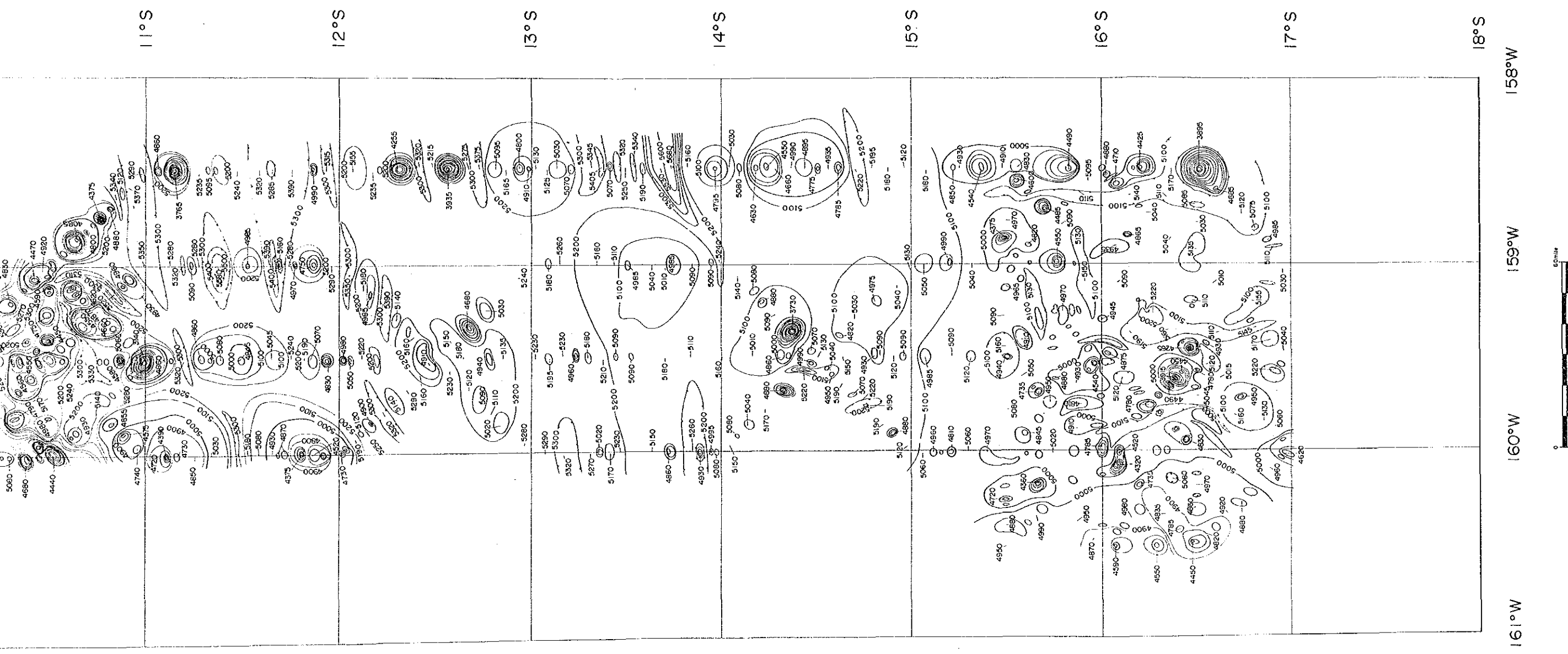
• FG

□ SC



Annexed Figure 2 Positions of Sampling Points





Annexed Figure 3 Sea Floor Topography

6° 30' S

7° S

8° S

9° S

10° S

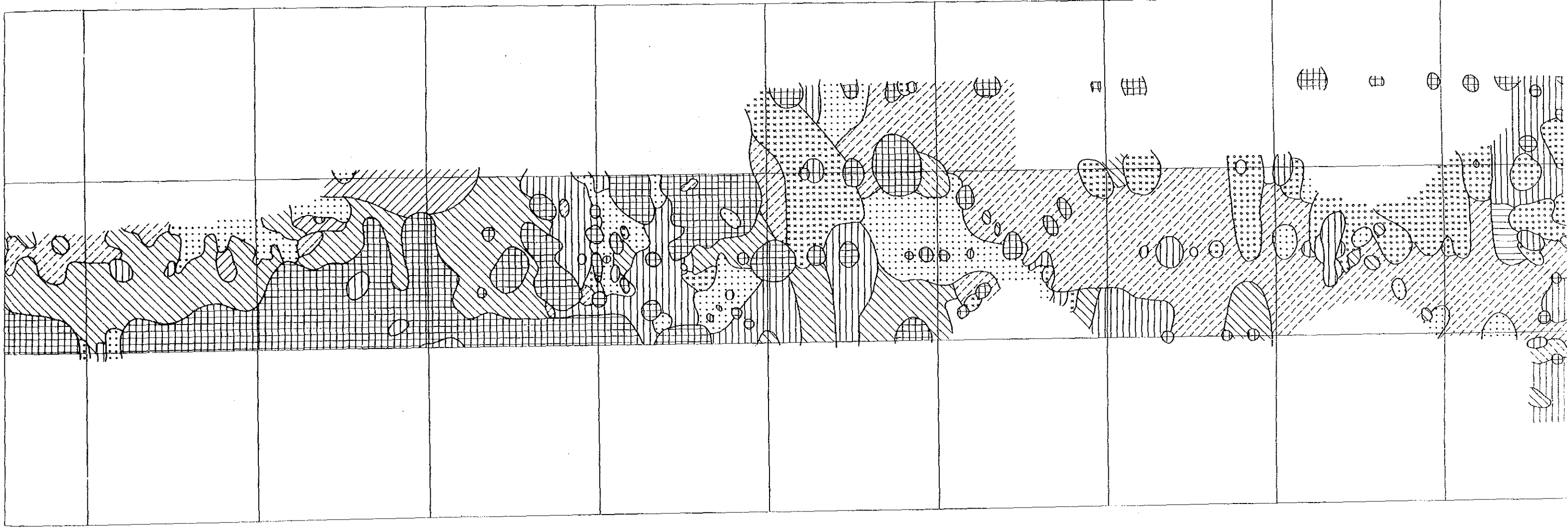
11° S

12° S

13° S

14° S

15° S



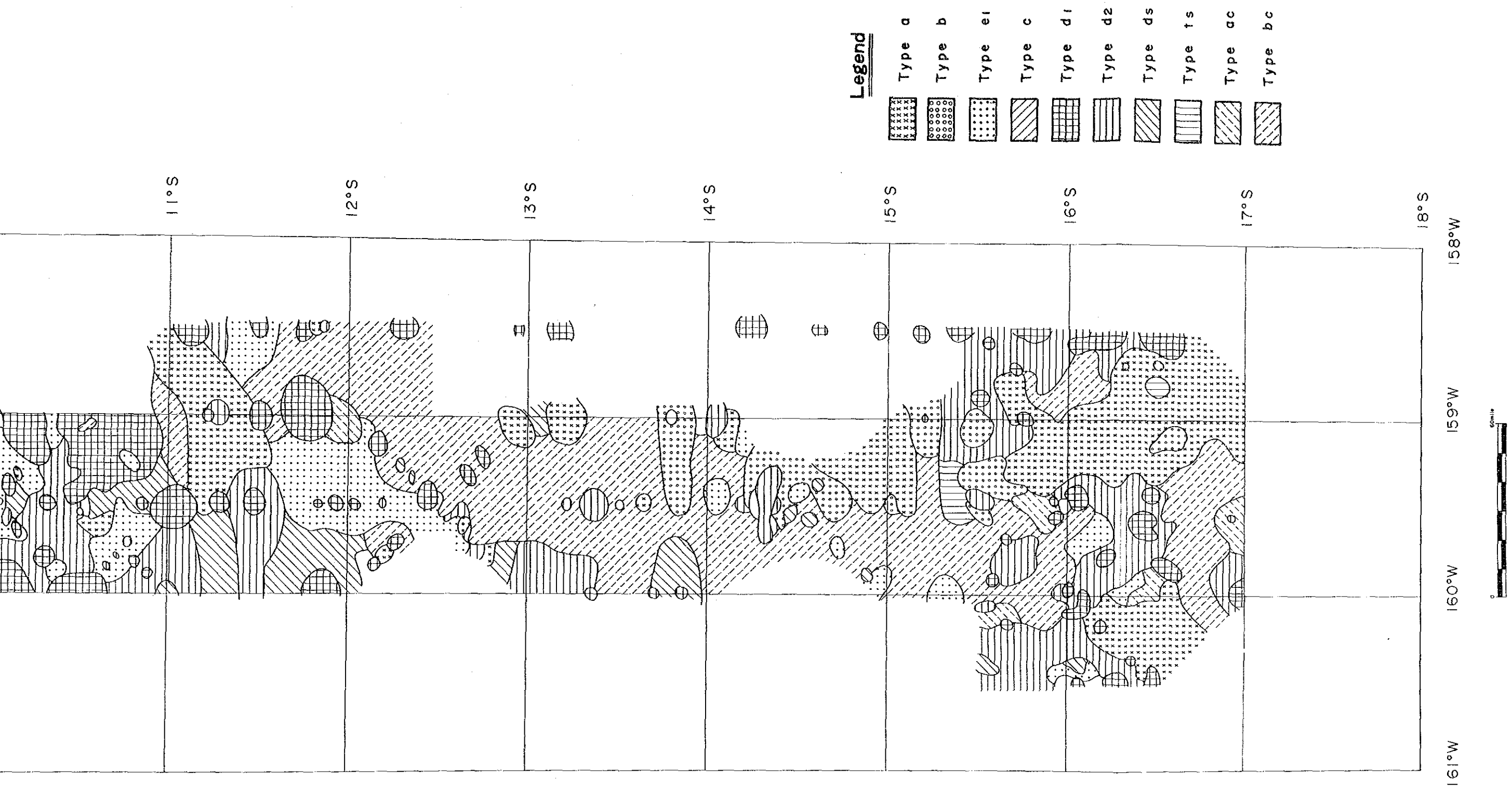
**Legend**

Type a

Type b

Type e1





Annexed Figure 4 Distribution of SBP Types



6° 30' S

7° S

8° S

9° S

10° S

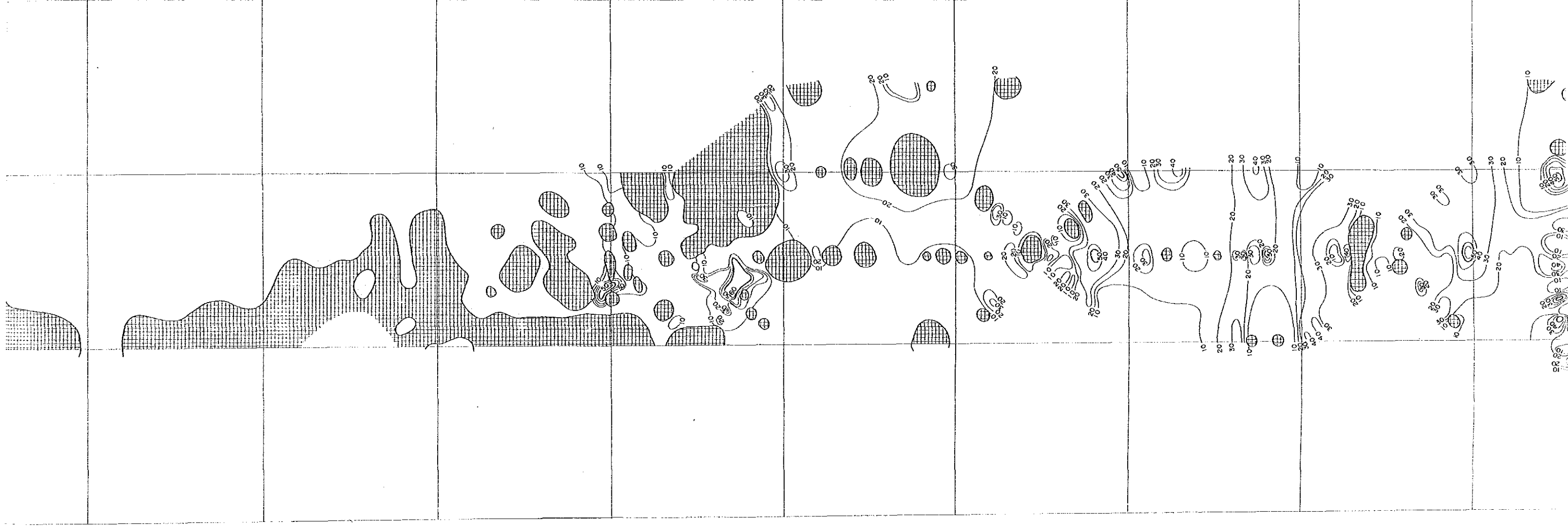
11° S

12° S

13° S

14° S

15° S



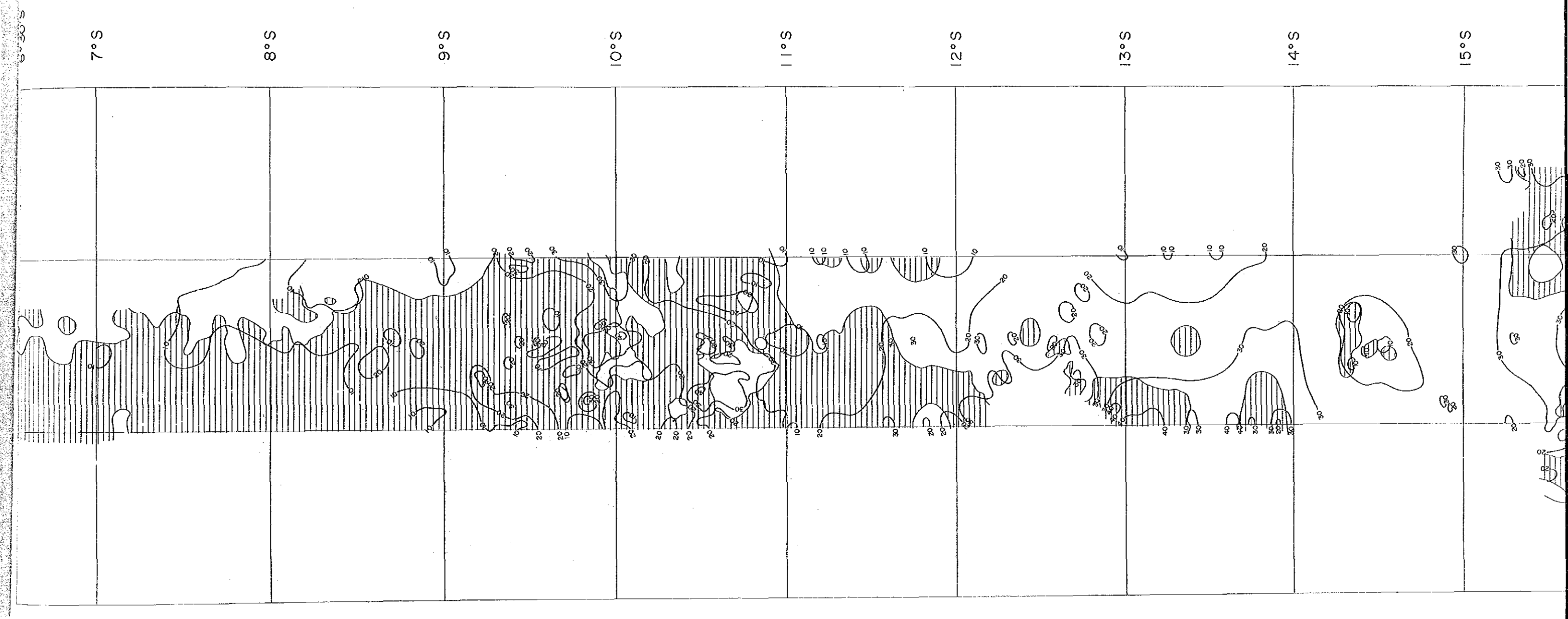
Legend






Sea-mounts  
Sea-knolls



Annexed Figure 5 Acoustic Thickness of Upper Transparent Layers by SBP



Legend

-  Area of SBP
-  types : d<sub>1</sub>, d<sub>2</sub>, d<sub>s</sub>
-  —20— Abundance (kg/m<sup>2</sup>)

7°S

8°S

9°S

10°S

11°S

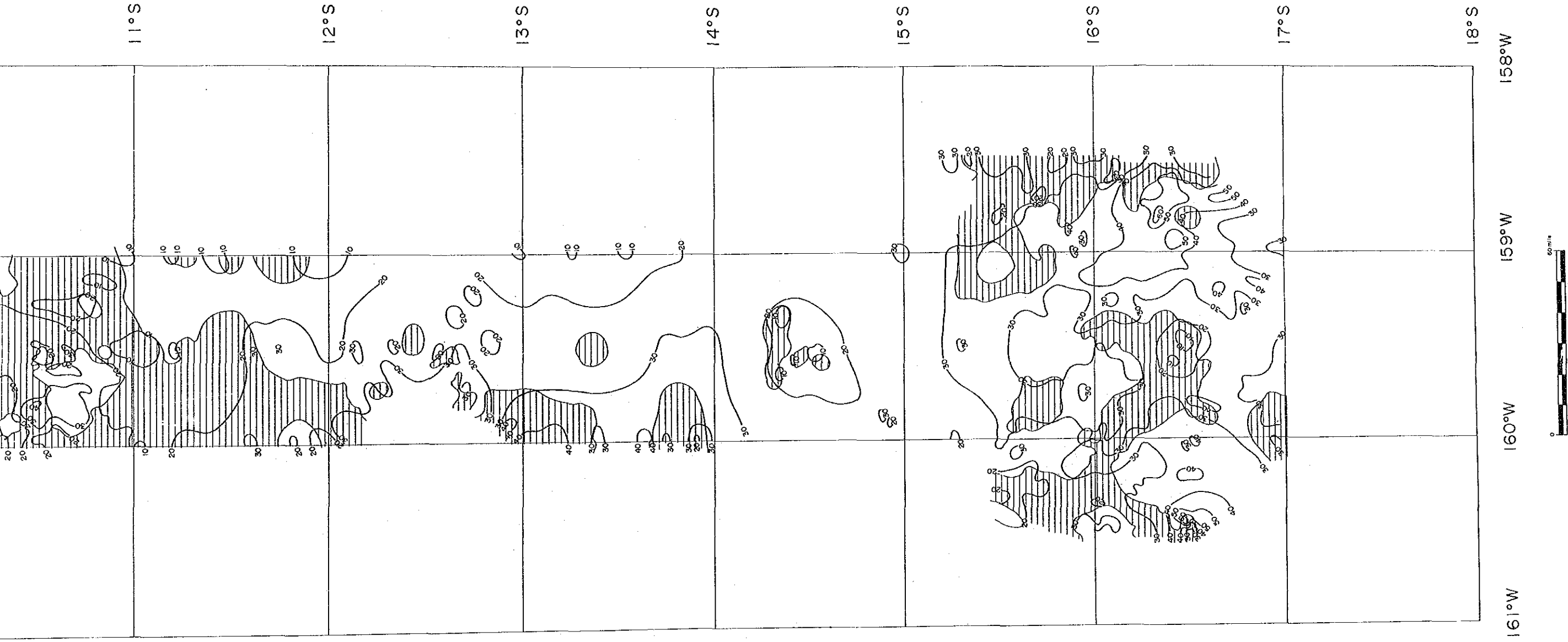
12°S

13°S

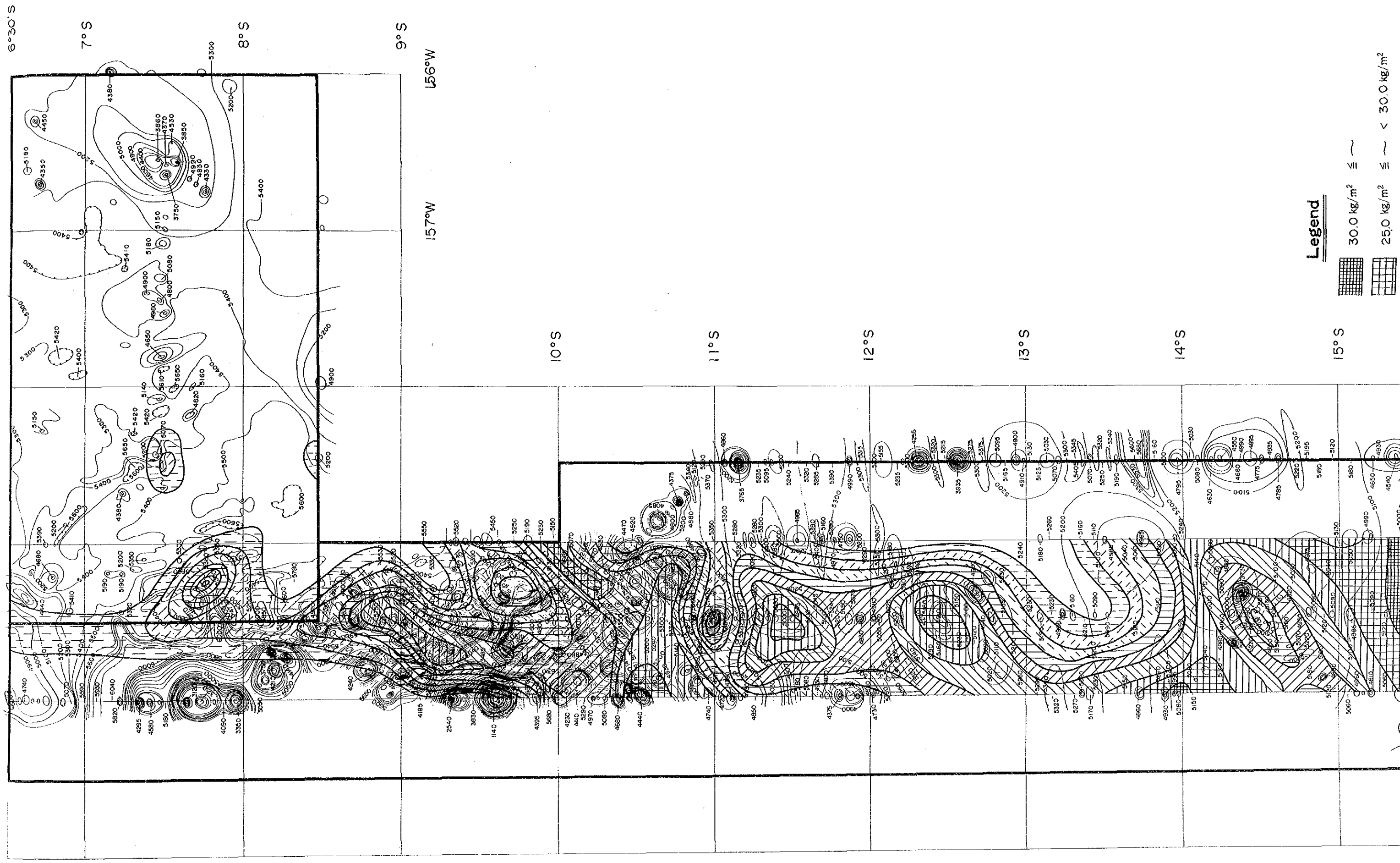
14°S

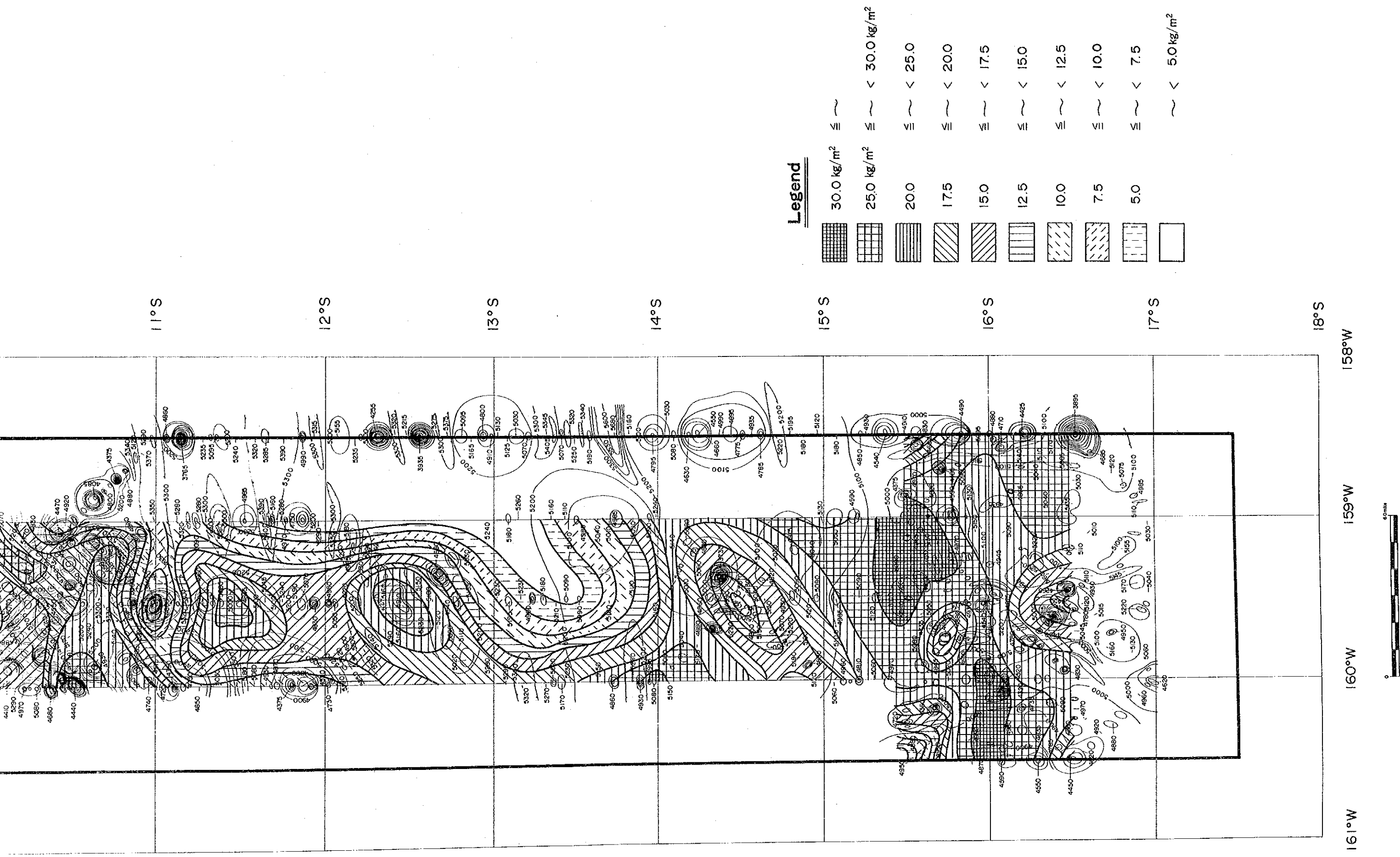
15°S

80°30'S

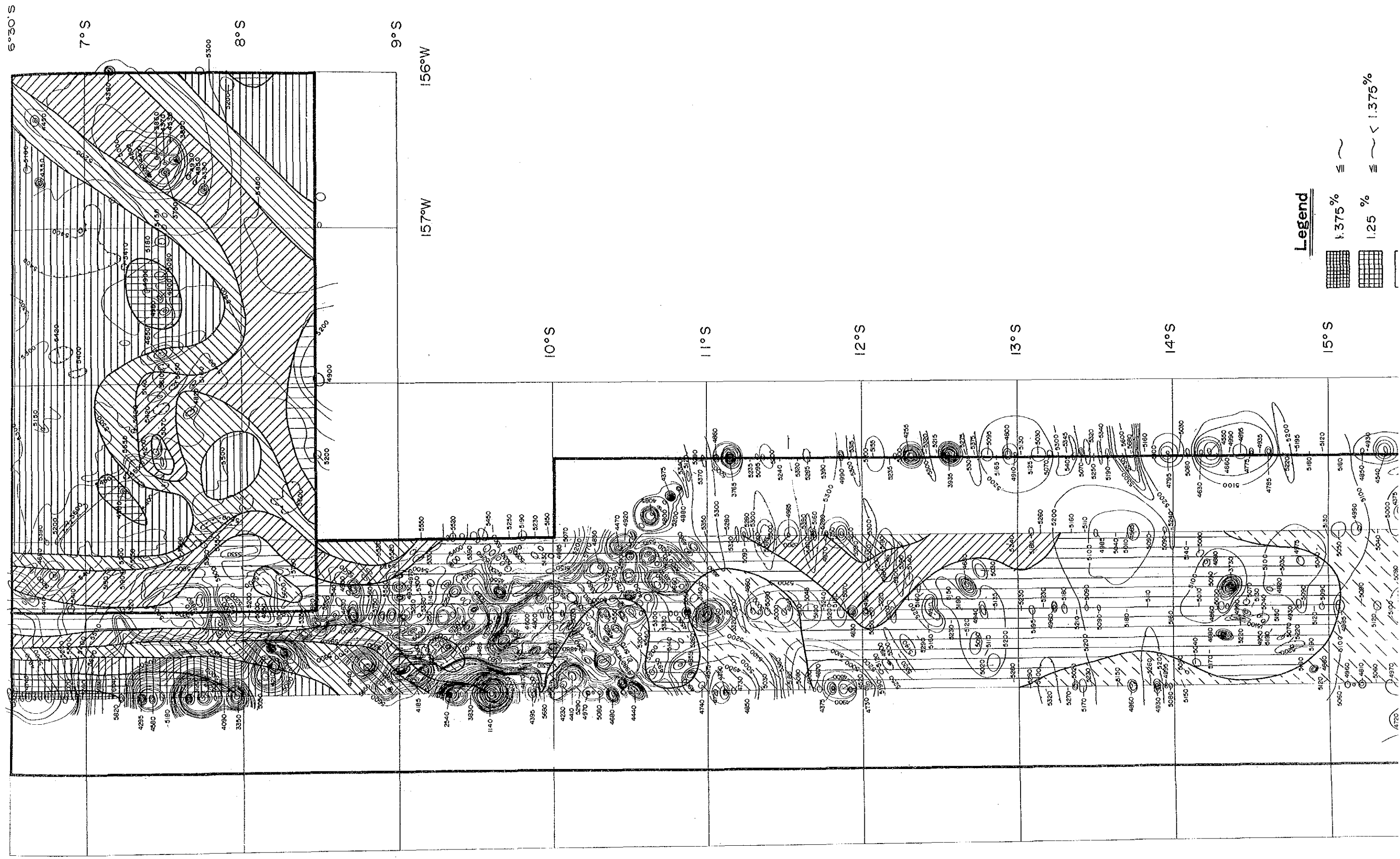


Annexed Figure 6 Estimated Abundance Map of Manganese Nodules by MFES

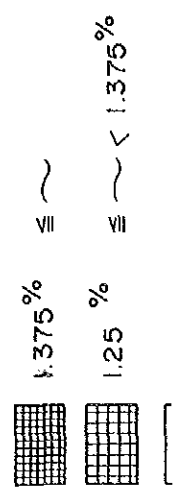


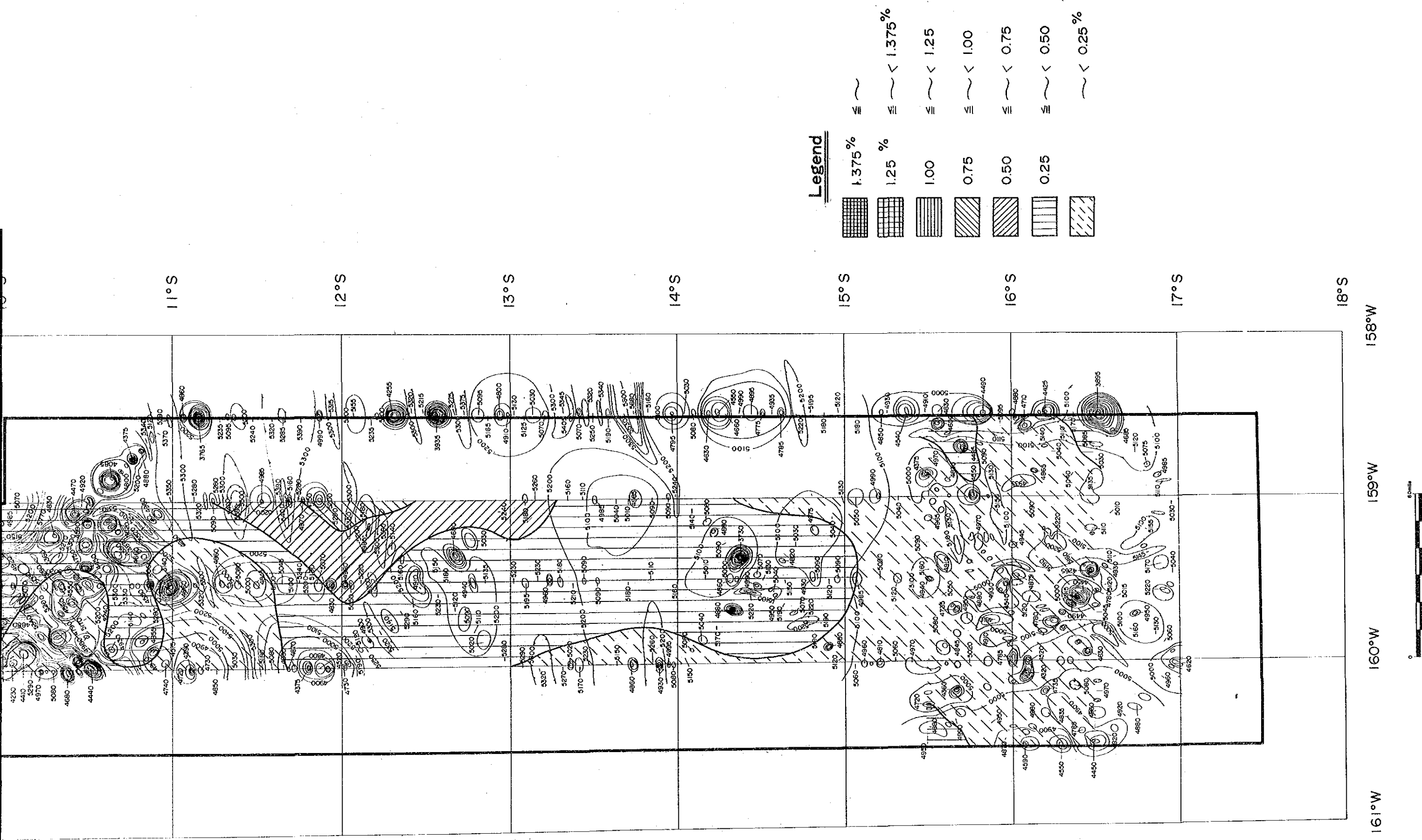


Annexed Figure 7 Abundance Map of Manganese Nodules



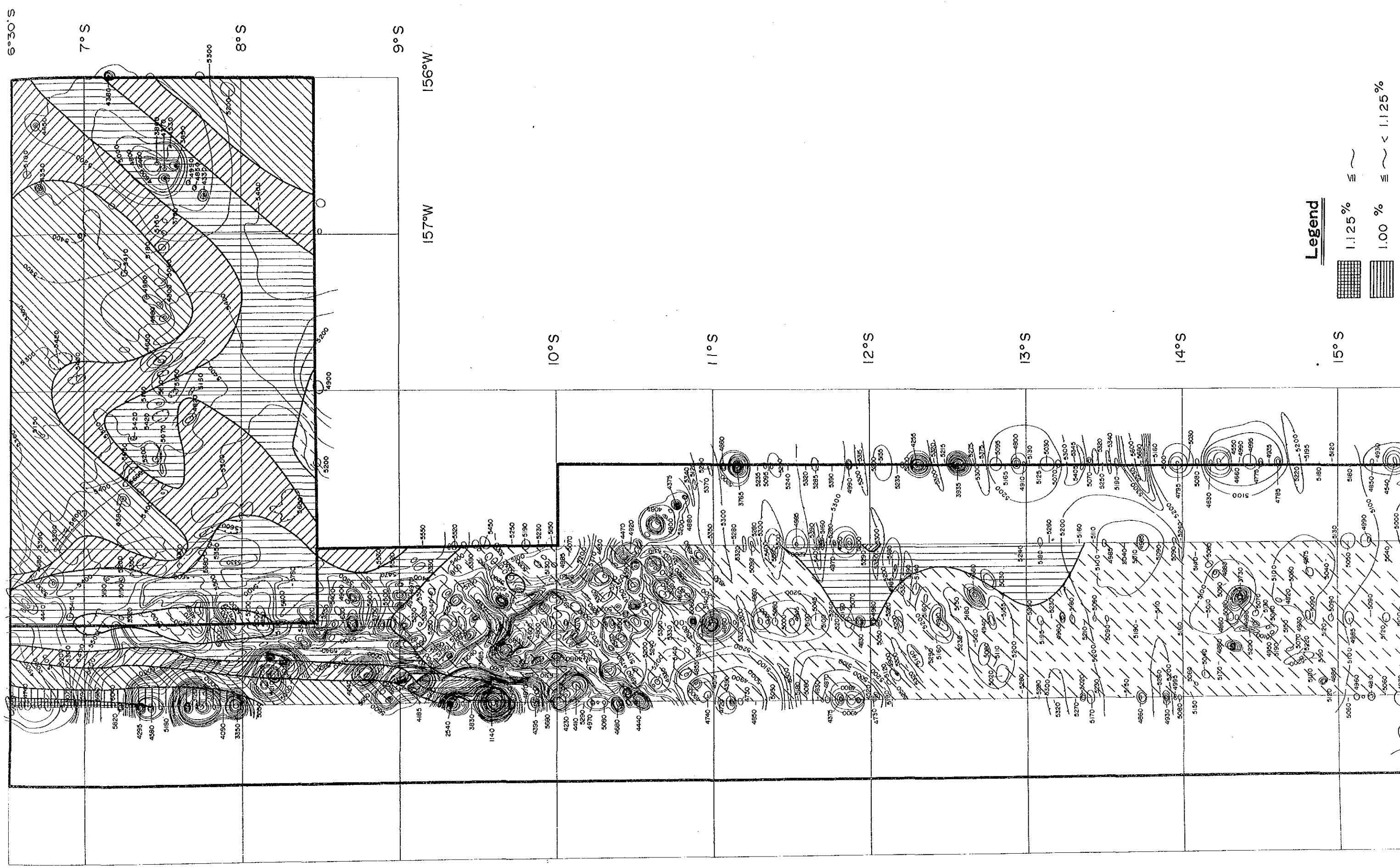
**Legend**







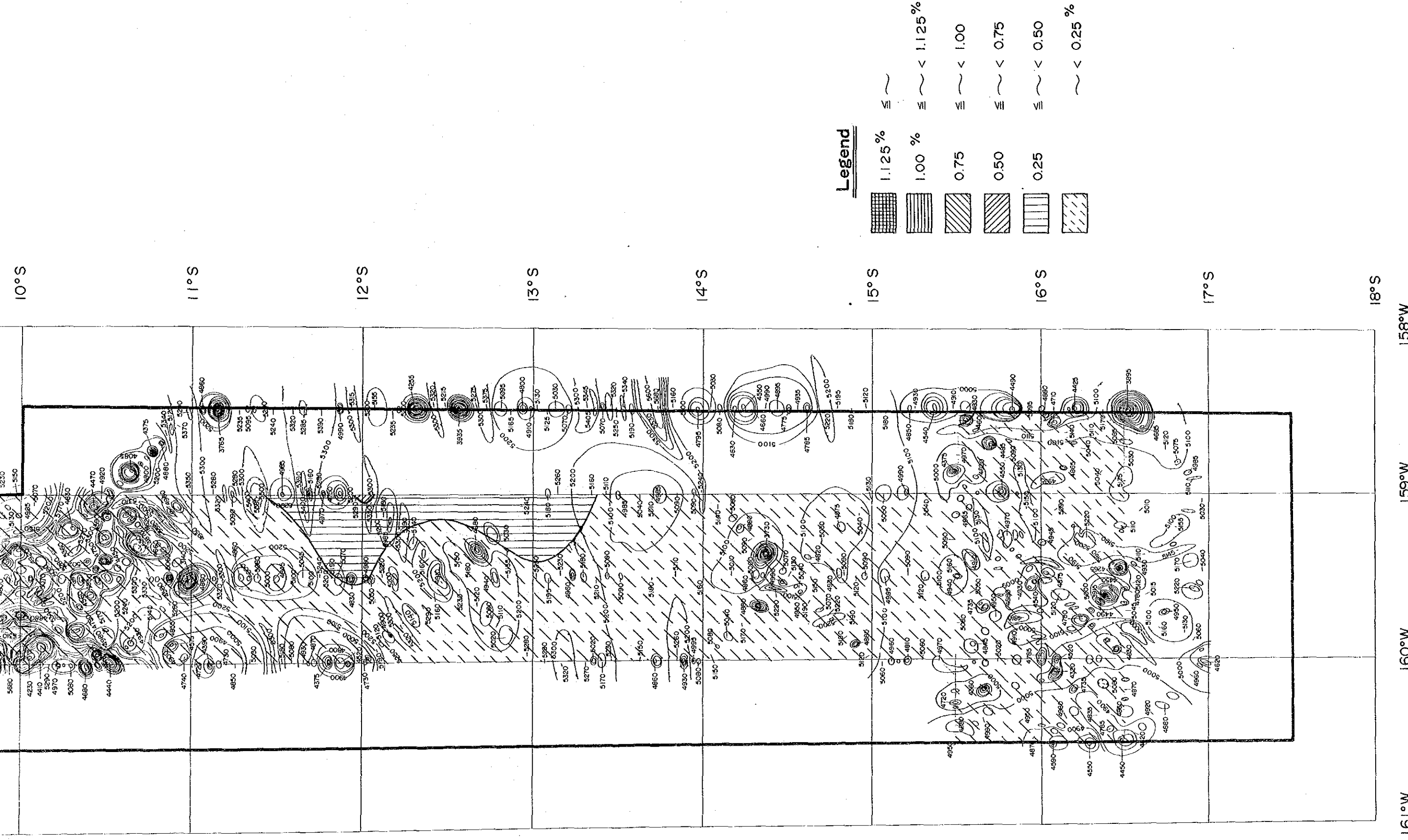
Annexed Figure 8 Ni Grade Map of Manganese Nodules



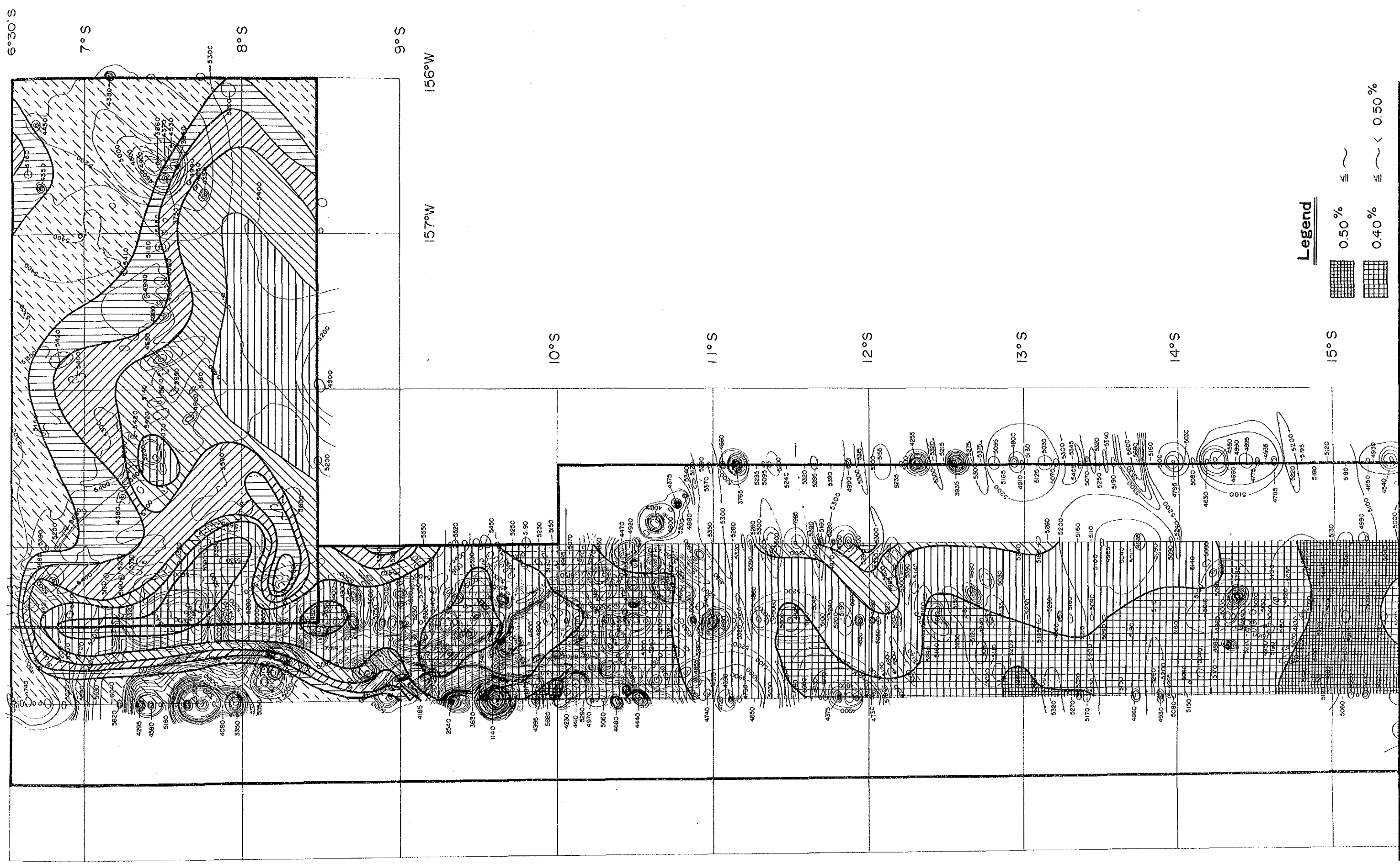


**Legend**

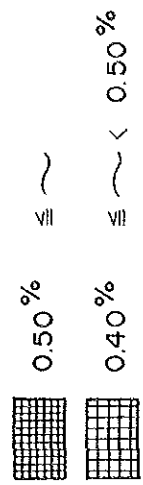
-  1.125%  $\leq$   $\sim$
-  1.00%  $\leq$   $\sim$  < 1.125%

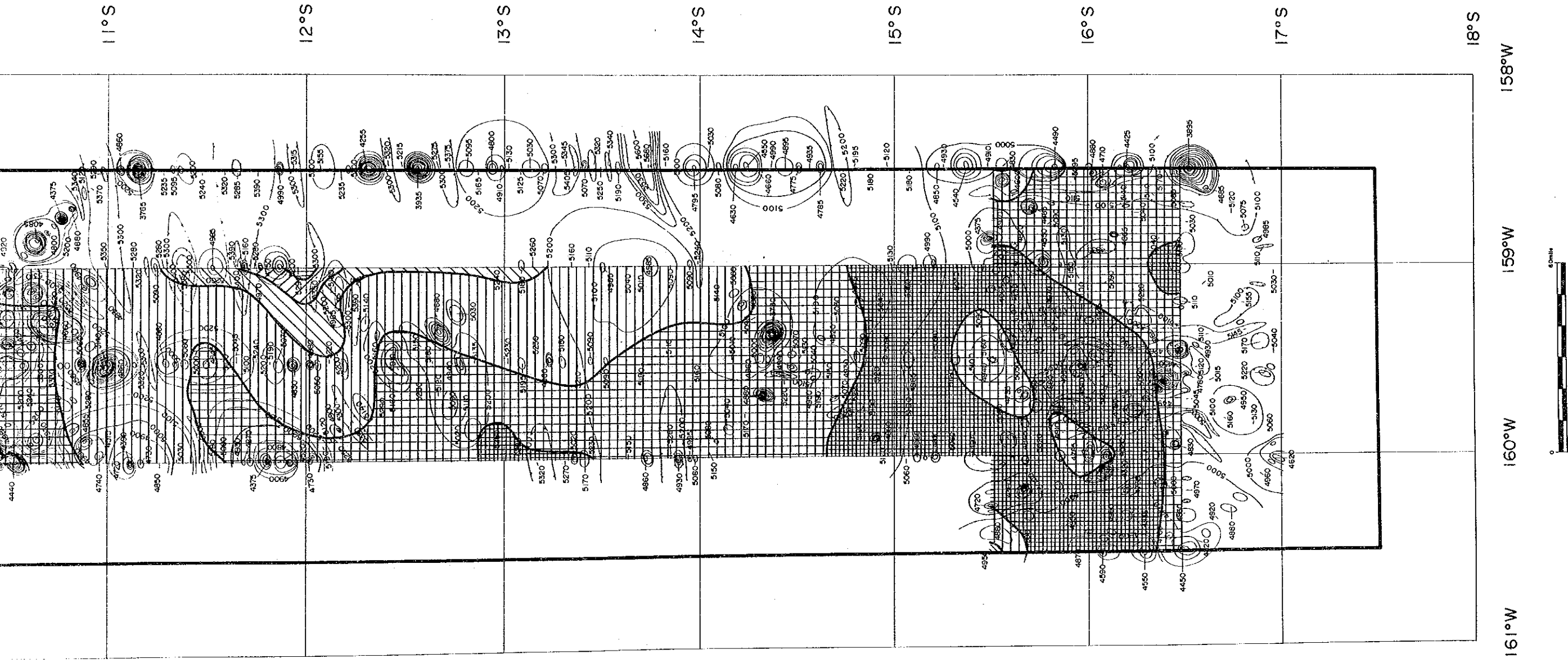


Annexed Figure 9 Cu Grade Map of Manganese Nodules



**Legend**





**Legend**

- 0.50% [Cross-hatched pattern]
- 0.40% [Grid pattern]
- 0.30 [Horizontal lines]
- 0.25 [Diagonal lines (top-left to bottom-right)]
- 0.225 [Diagonal lines (top-right to bottom-left)]
- 0.20 [Vertical lines]
- < 0.20% [Diagonal lines (bottom-left to top-right)]

161°W

160°W

159°W

158°W

11°S

12°S

13°S

14°S

15°S

16°S

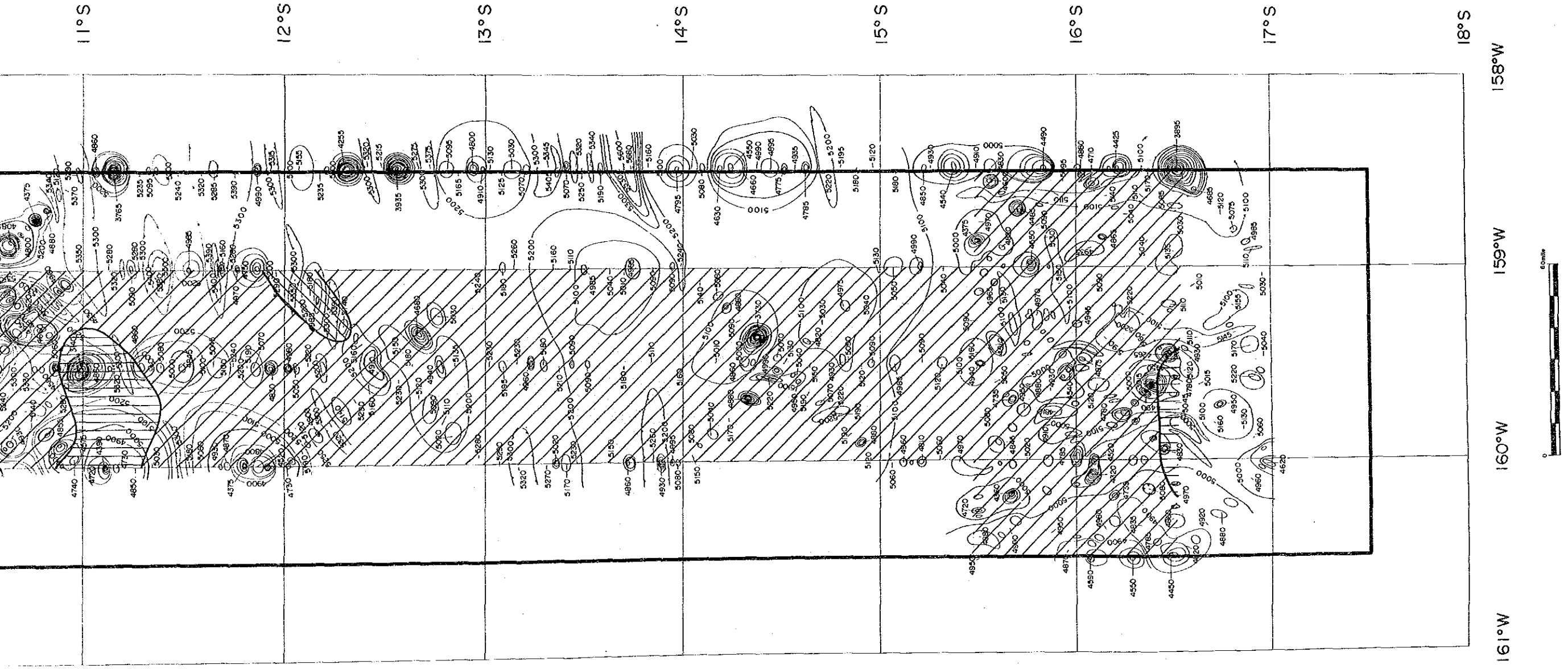
17°S

18°S

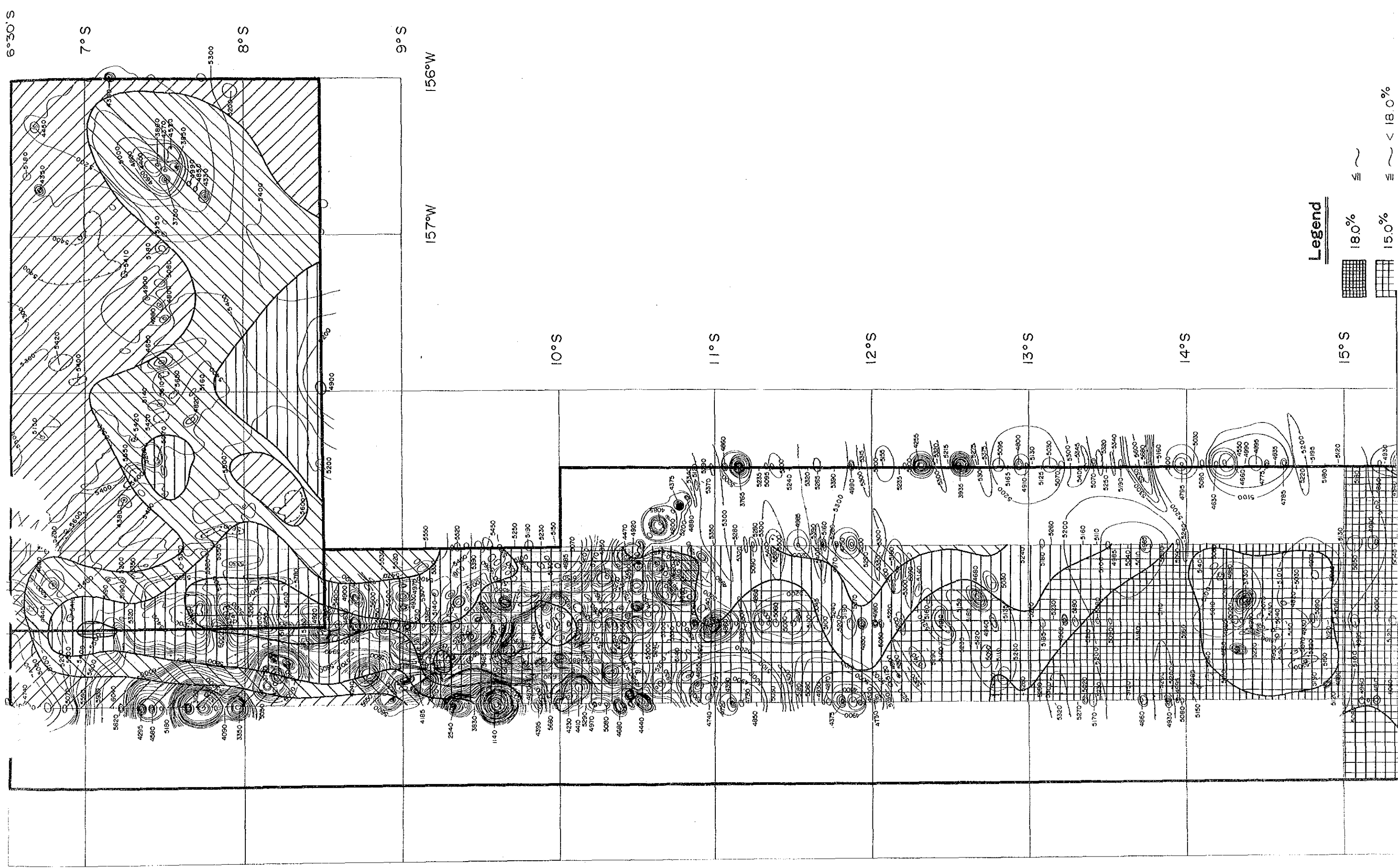


Annexed Figure 10 Co Grade Map of Manganese Nodules

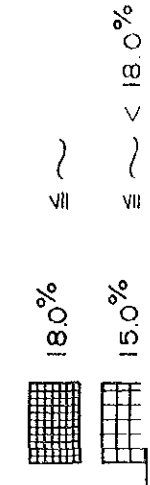




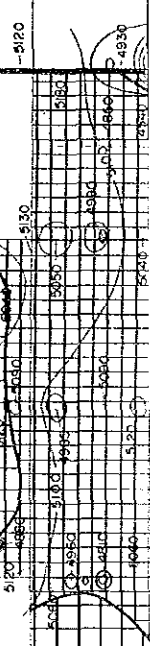
Annexed Figure 11 Mn Grade Map of Manganese Nodules

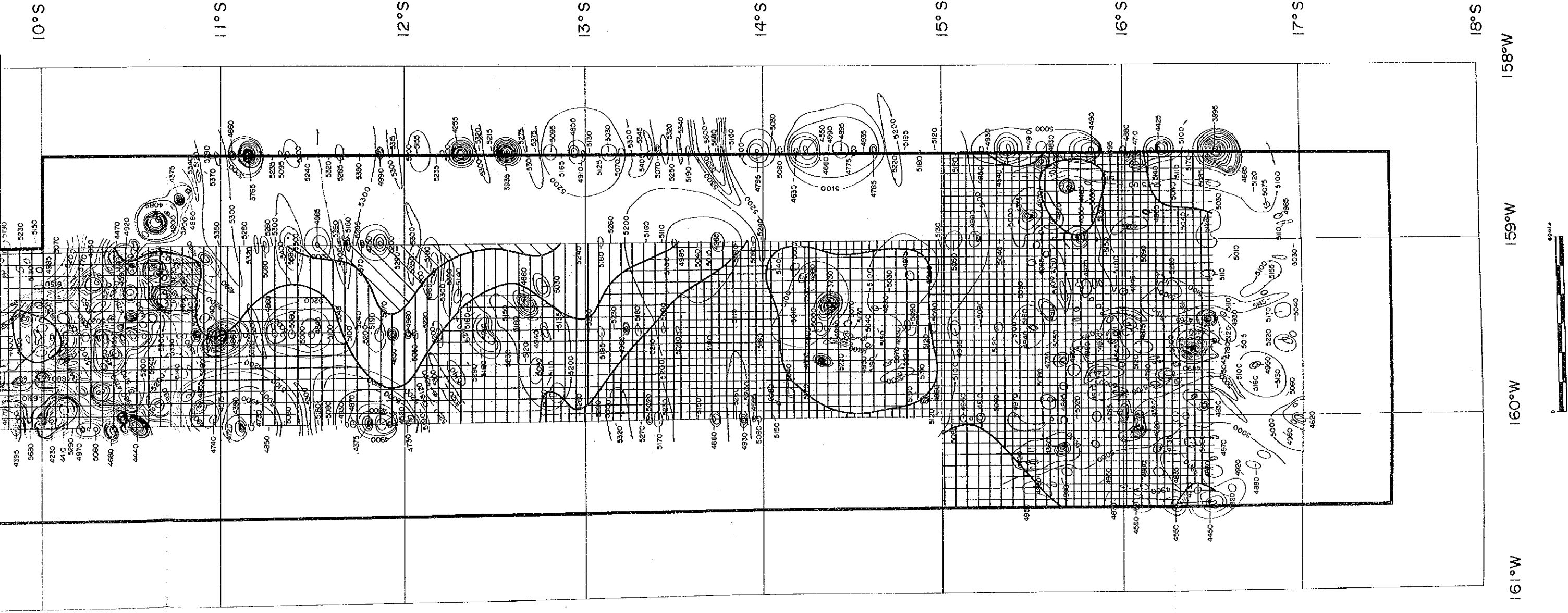


**Legend**



**Legend**



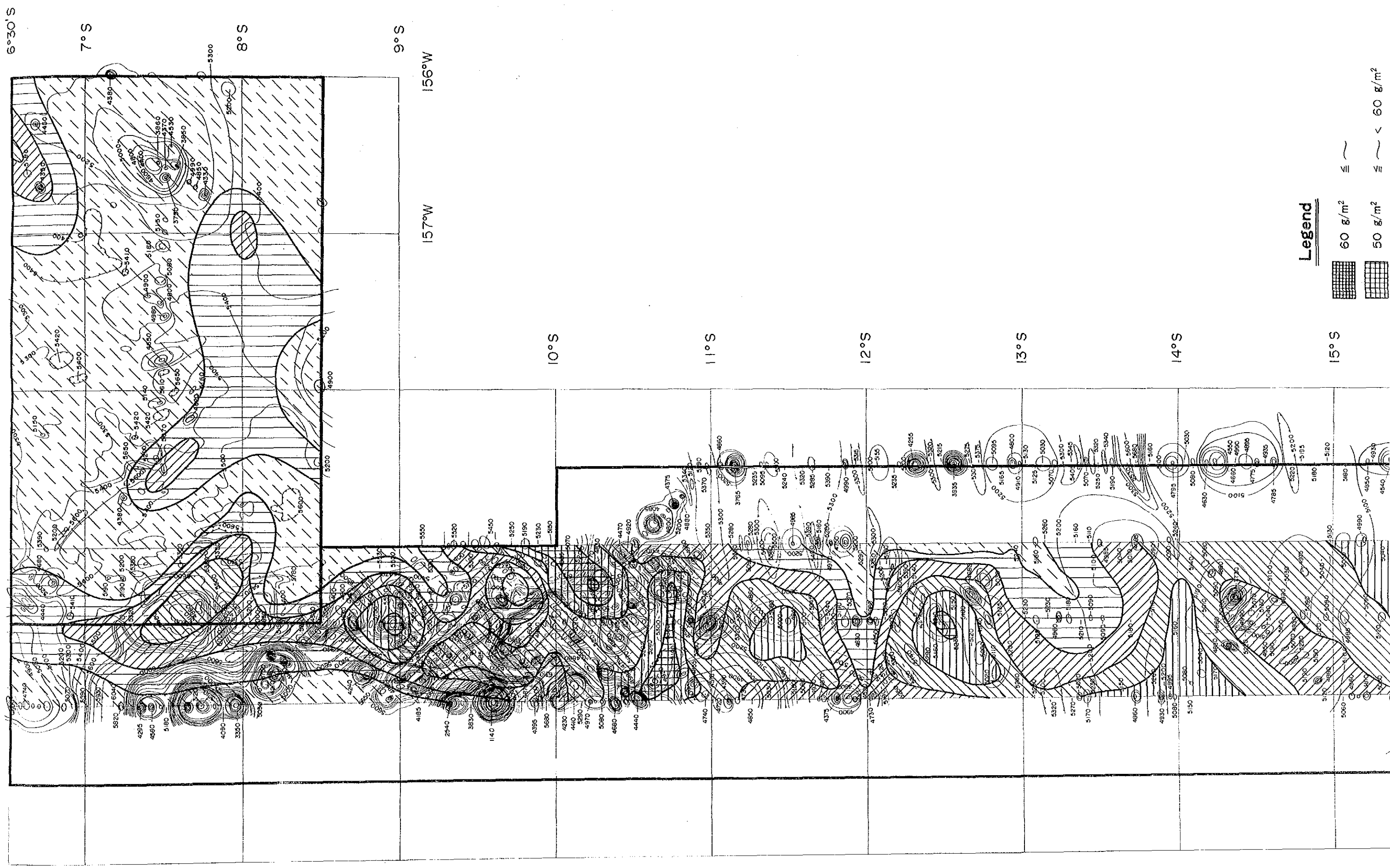


**Legend**



- 18.0% ≅
- 15.0% ≅ < 18.0%
- 12.0 ≅ < 15.0
- 9.0 ≅ < 12.0
- < 9.0%

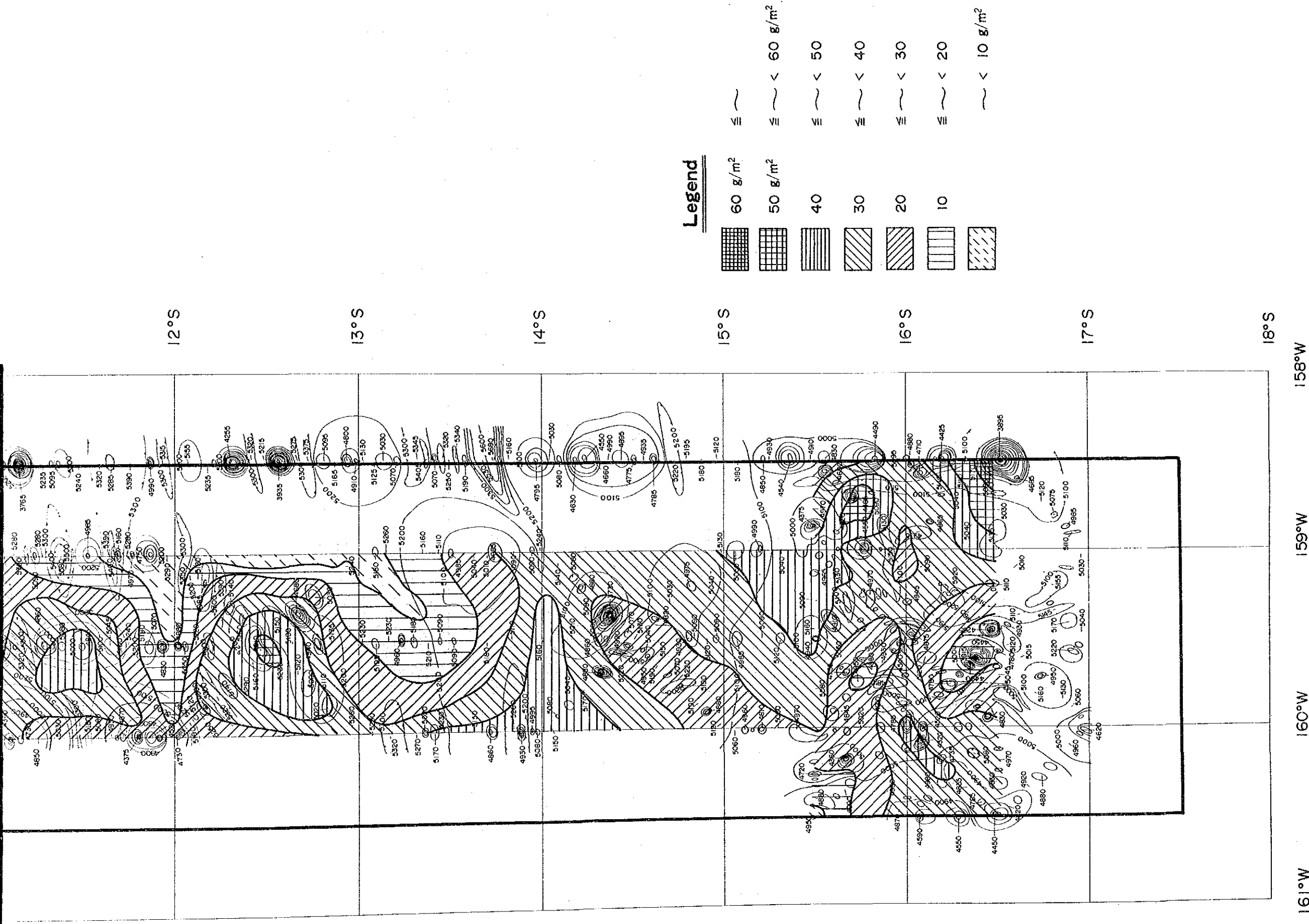
Annexed Figure 12 Fe Grade Map of Manganese Nodules





**Legend**

-  60 g/m<sup>2</sup>
-  50 g/m<sup>2</sup>



12°S

13°S

14°S

15°S

16°S

17°S

18°S

158°W








159°W

160°W

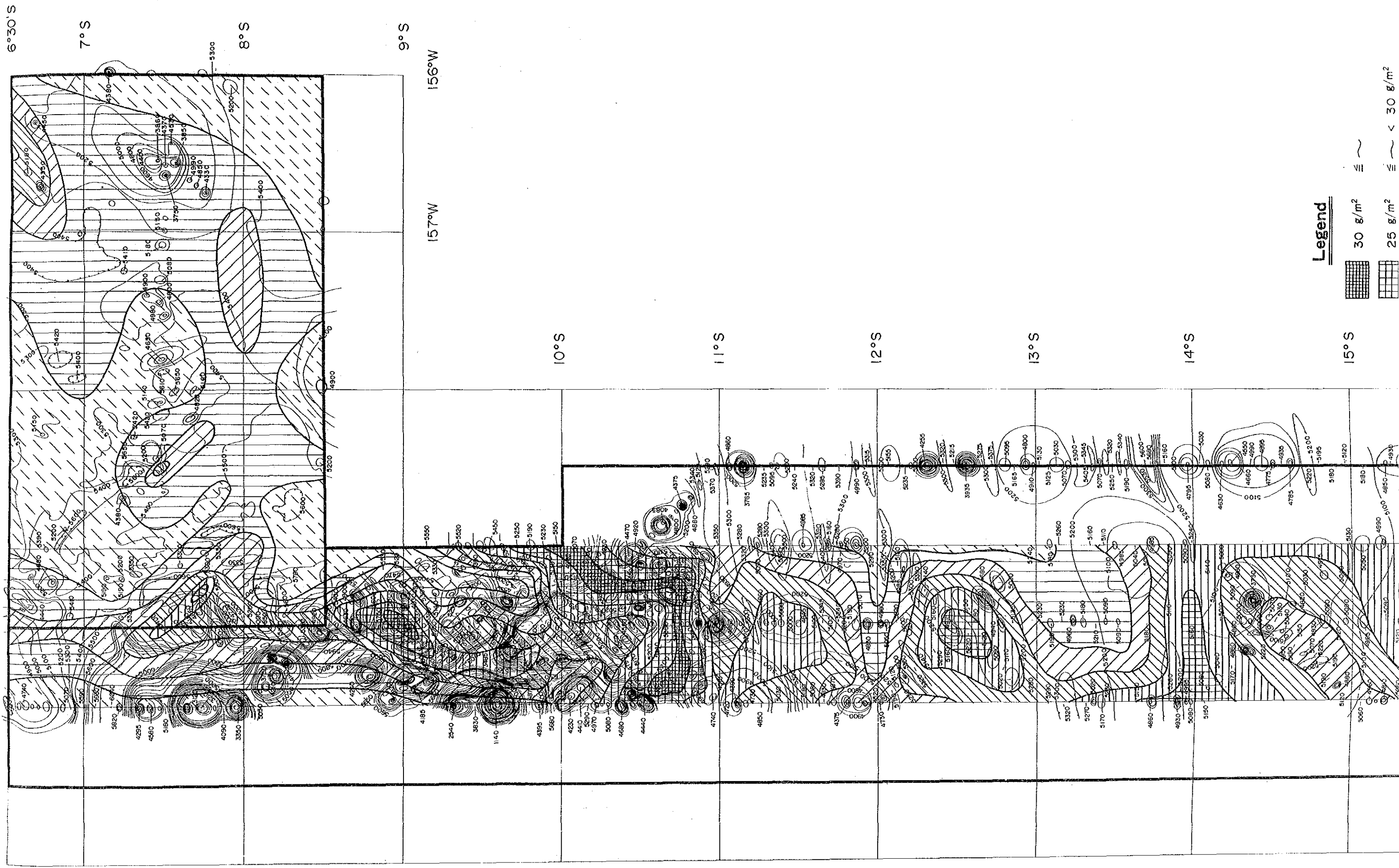
161°W









**Legend**

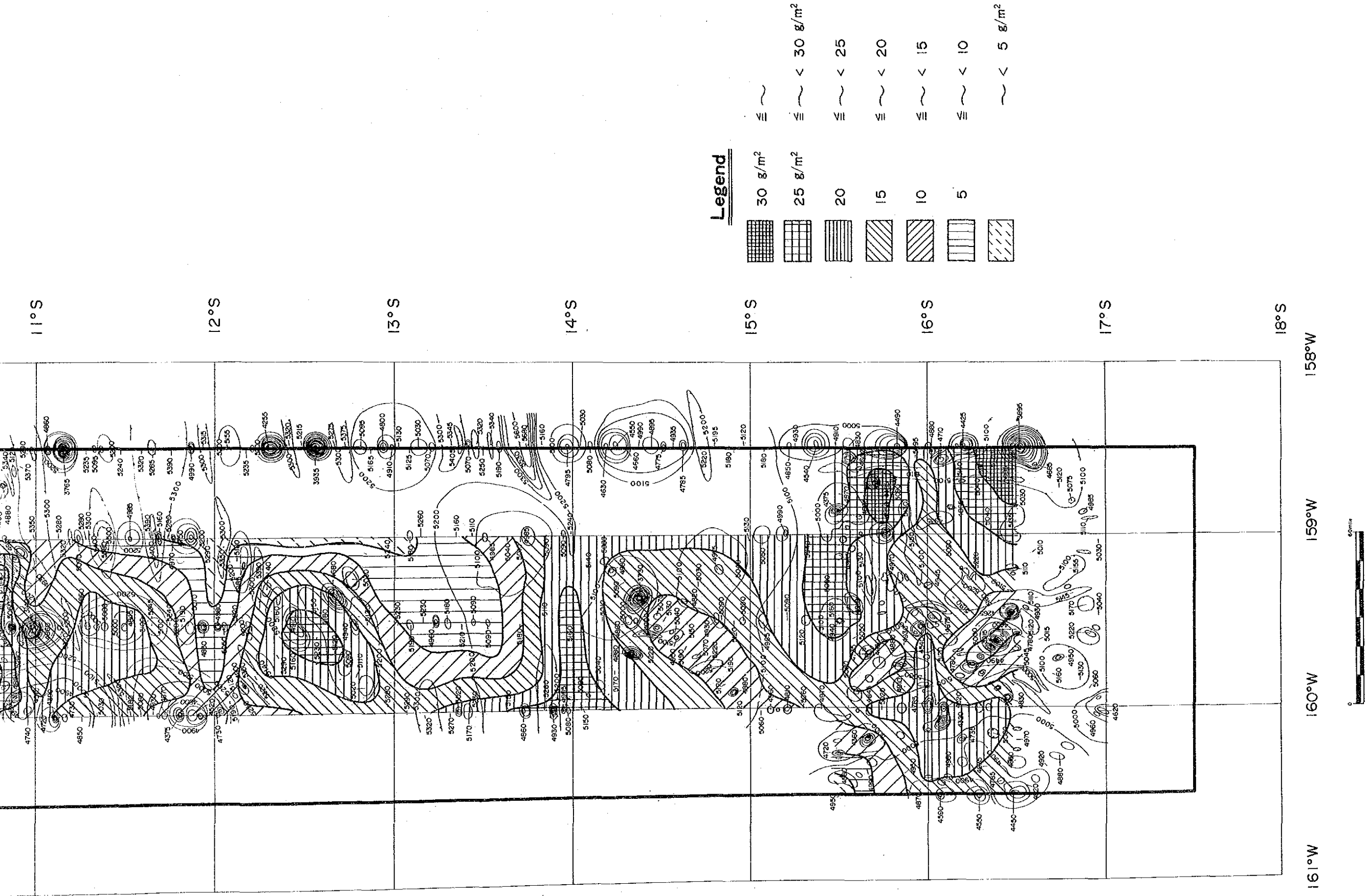
-  60 g/m<sup>2</sup>
-  50 g/m<sup>2</sup>
-  40
-  30
-  20
-  10
-  < 10 g/m<sup>2</sup>

Annexed Figure 13 Ni Metal Quantity Map



**Legend**

-  30 g/m<sup>2</sup>
-  25 g/m<sup>2</sup>
-  ≧
-  ≦
-  ≧
-  < 30 g/m<sup>2</sup>



Annexed Figure 14 Cu Metal Quantity Map

6°30'S

7° S

8° S

9° S

156°W

157°W

10° S

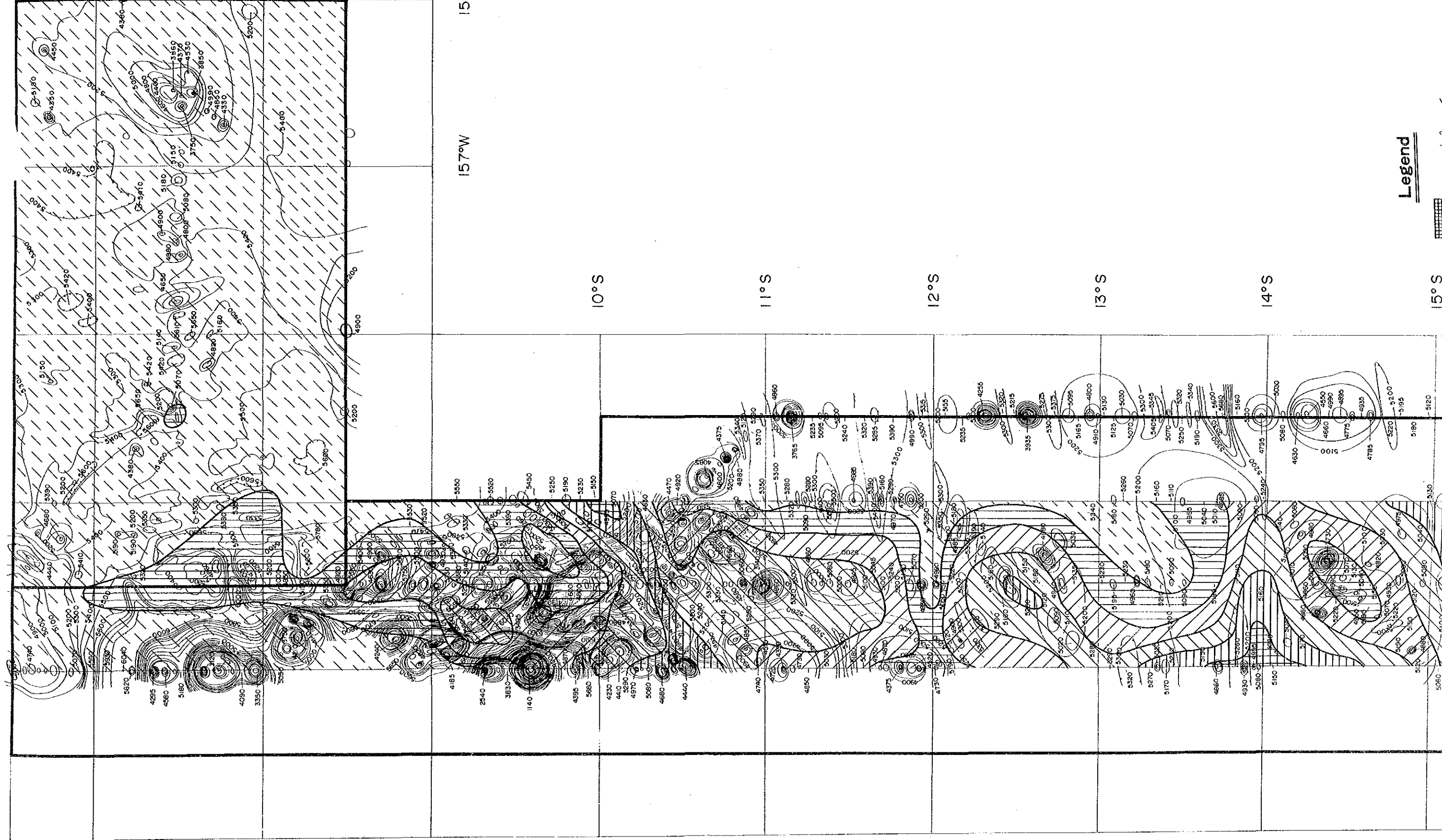
11° S

12° S

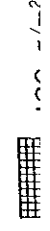
13° S

14° S

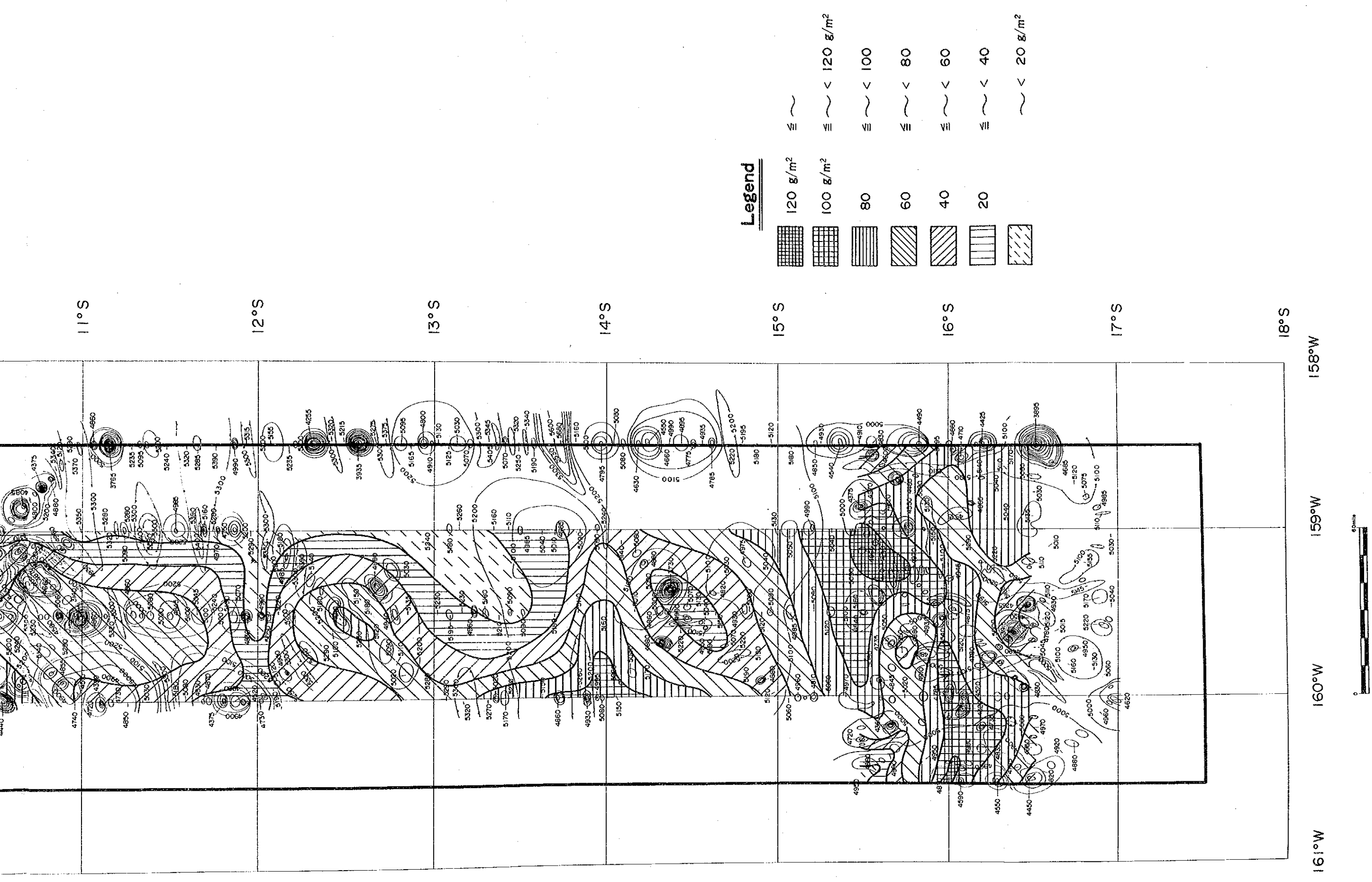
15° S










**Legend**



5060



**Legend**

-  120 g/m<sup>2</sup> ≧
-  100 g/m<sup>2</sup> ≧
-  80 ≧
-  60 ≧
-  40 ≧
-  20 ≧
-  < 20 g/m<sup>2</sup>

Annexed Figure 15 Co Metal Quantity Map







