North Star / Stemwinder

822653

Recommendations.

A- Explore drift covered area on which little if any work has been done. Use short diamond drill holes. Explore are below north star outcroppings in neighbourhood of brain line

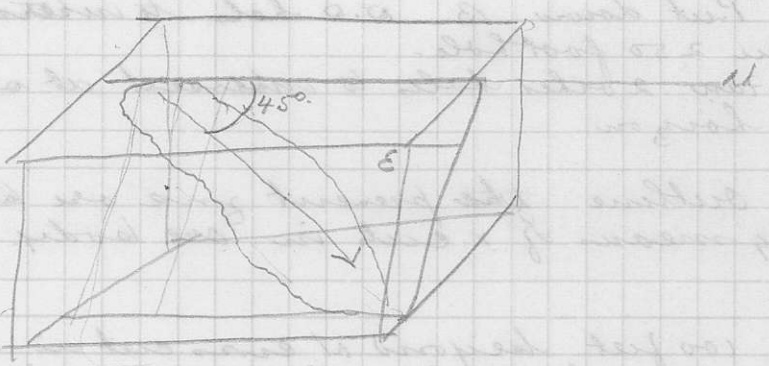
1. The eastern ore body in large measure is a blanket lead and there is a possibility that it may probably be present underneath the drift below the present north star workings because the dip of the strata is down hill at an angle which is assumed, from lack of exposure, to be greater than the slope of the hill which is nearly 15 degrees from the horizontal.

2. The strata in the vicinity of the mine are heavy bedded schists lower down the hill just above where the brow cross the North Star Road the quartzites are thin bedded & platy showing that it is a different horizon and from lack of evidence to the contrary is concluded to be higher in the series than those at the mine. This would make the north star and Stemwinder lodes to be separate and distinct zones of mineralization

3. The diamond drill holes put down ~~to prove the~~ below the North Star prove conclusively that the lodes are not true fissure veins but are closely resemble blanket leads similar to those of the Sullivan. If so the continuation of the North Star ore bodies are beneath the drift covered slope below the north star workings.

B. In the Sullivan mine and in the North Star mine the lead stopes are associated with close folding which is exhibited in anticlines, synclines and overturned folds. In the study of the area between the North Star and Stemwinder mines, the most pronounced folding occurs between the tower situated at the crossing of the tram and the North Star waggon road and the tower next higher up the hill in fact at the upper tower strong folding was seen. If the ore-bodies are associated above this folding should be explored by diamond drilling near the junction of the Greenbell and North Star Roads.

(c) No further exploration is recommended on the North Star mine as the exploration so far carried out proves the non existence of any ore bodies of commercial size. However suitable treatment of the surface material now present in the North Star mine might recover ~~some~~ most of the values there.


45°
ε
l1

Stemwinder

1. Put down B. D.D hole to intersect our 250 foot hole.
Fan 2 other holes to intersect at same horizon

2. Outline ~~the~~ present zone ore body by means of x cuts in ore body.

3. 100 feet beyond N cross cut in N drift drill to intersect possible continuation of ore body.

4 drive south in vein but x cut & drill every 50 feet. preferably drill

5. When the above work has been completed spot holes to determine the direction & relationship of the vein mass to the N & S of the present territory. Until the trend and size of the present ore body is determined ~~I ck~~ in my opinion it is impracticable to locate further diamond drilling.

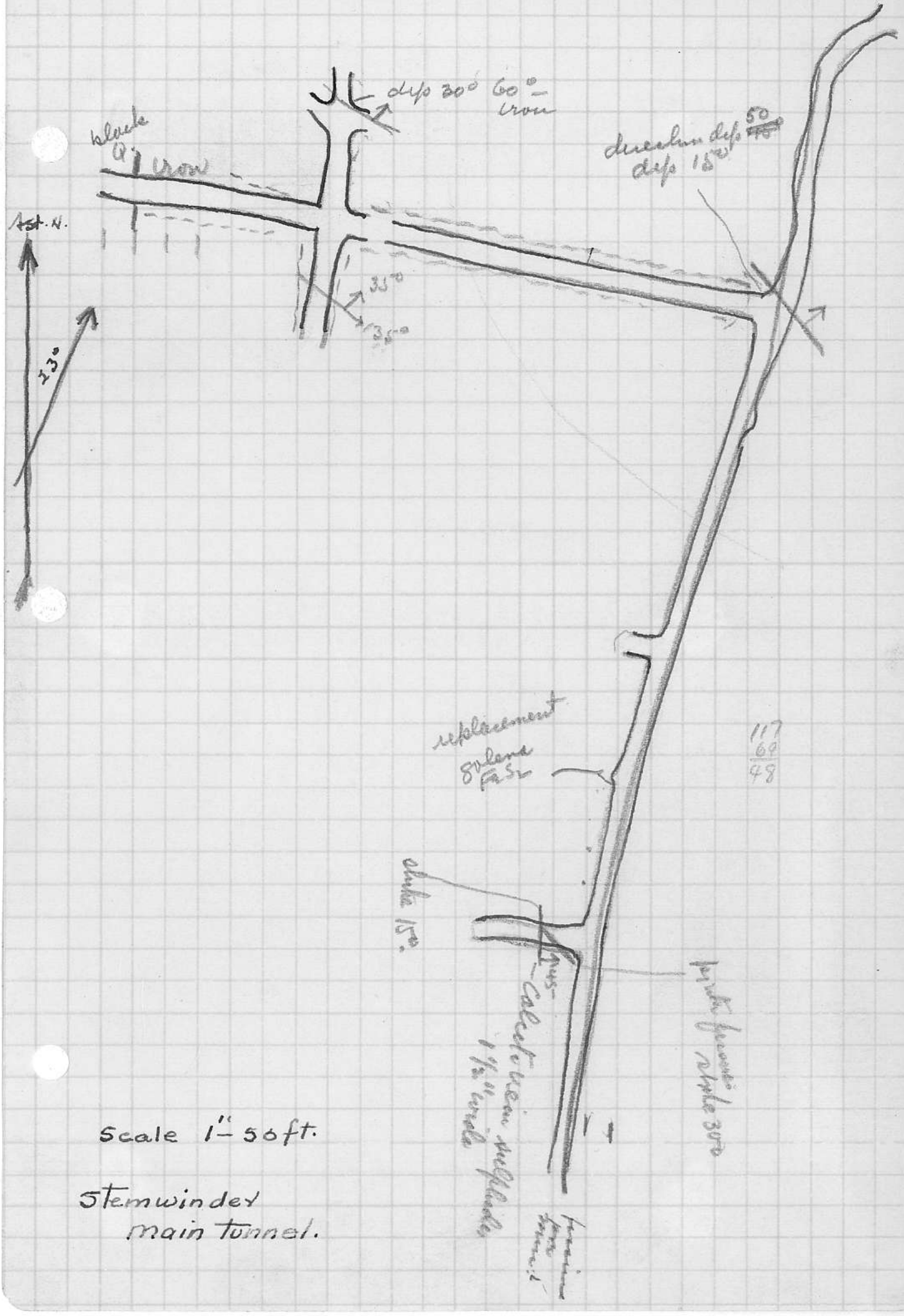
Relationship of Sullivan ore bodies.

1. Trend - N 2°58' E.
2. dip. average 23° to E
3. Ore-bodies. There are two main ore bodies the north ~~ore~~ ore body and the south ore body ~~which~~ contain zinc and lead values
sulphide
4. The ~~ore~~ occurs as a replacement ~~by sulphides~~ of a favorable bed of quartzite the sulphides following down the minor folds in the quartzite. The ore bodies are two in number enclosed entirely by ~~by~~ pyrite or pyrrhotite, the ore bodies occurring near the centre but more usually near the hanging wall of the lead. north ore body south ore body.

The rake of the ore bodies approximately 45° to the north.

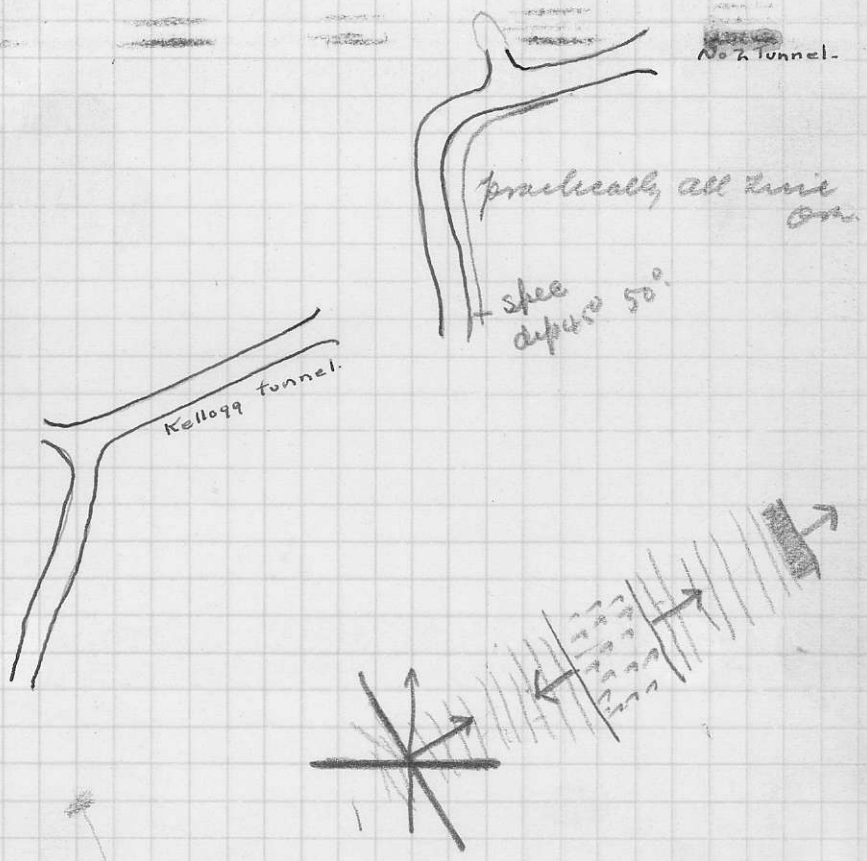
W

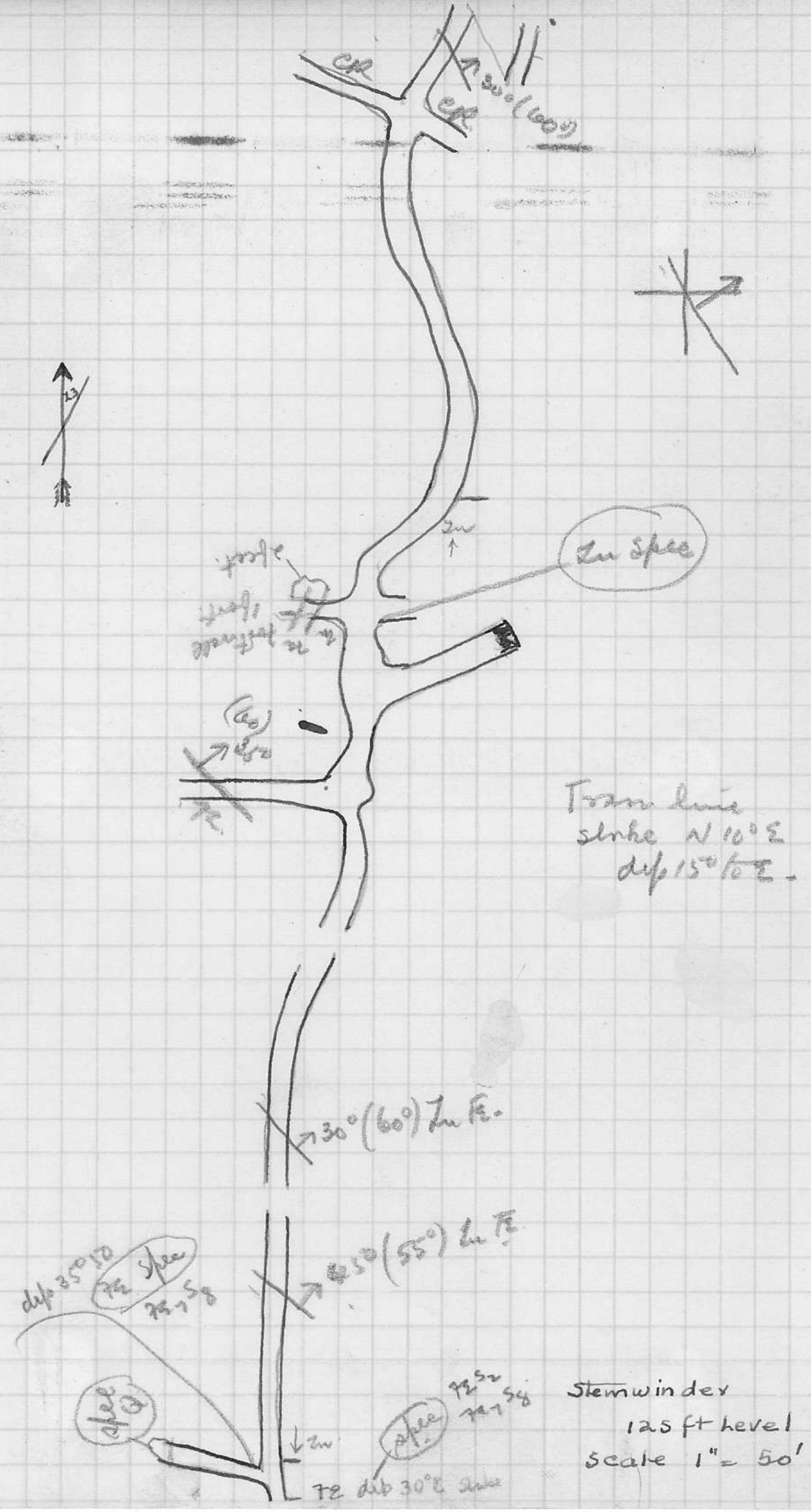
E



Scale 1" – 50 ft.

Stemwinder
main tunnel.


No 2 tunnel.
practically all rock
Kellogg tunnel.



Stemwinder
125 ft Level
Scale 1" = 50'