

# Lovitt Resources Inc.

Project update: historical data compilation and 3D modelling of  
the Lovitt Mine, Wenatchee, Washington



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Long Point Geologic Ltd.

## Project Status and Deliverables:

1 – Catalogue of Historical Data: 268 maps scanned and integrated with existing digital files. Database now includes 391 digital maps (1949-1988; see table next slide).

2 – 3D model of underground infrastructure and stopes

3 – Digitized muck samples

4 – Conversion of historical data to UTM NAD83, Zone 10N and integrate topography provided by Norm Nelson, surveyor at Northwest Geodimensions of Wenatchee Washington

4 – Geologic data (lithology and structures) digitized in ArcGIS and integrated into 3D model

### *Next steps:*

- Compile geologic data into a 3D geologic model
- Digitize drill hole data

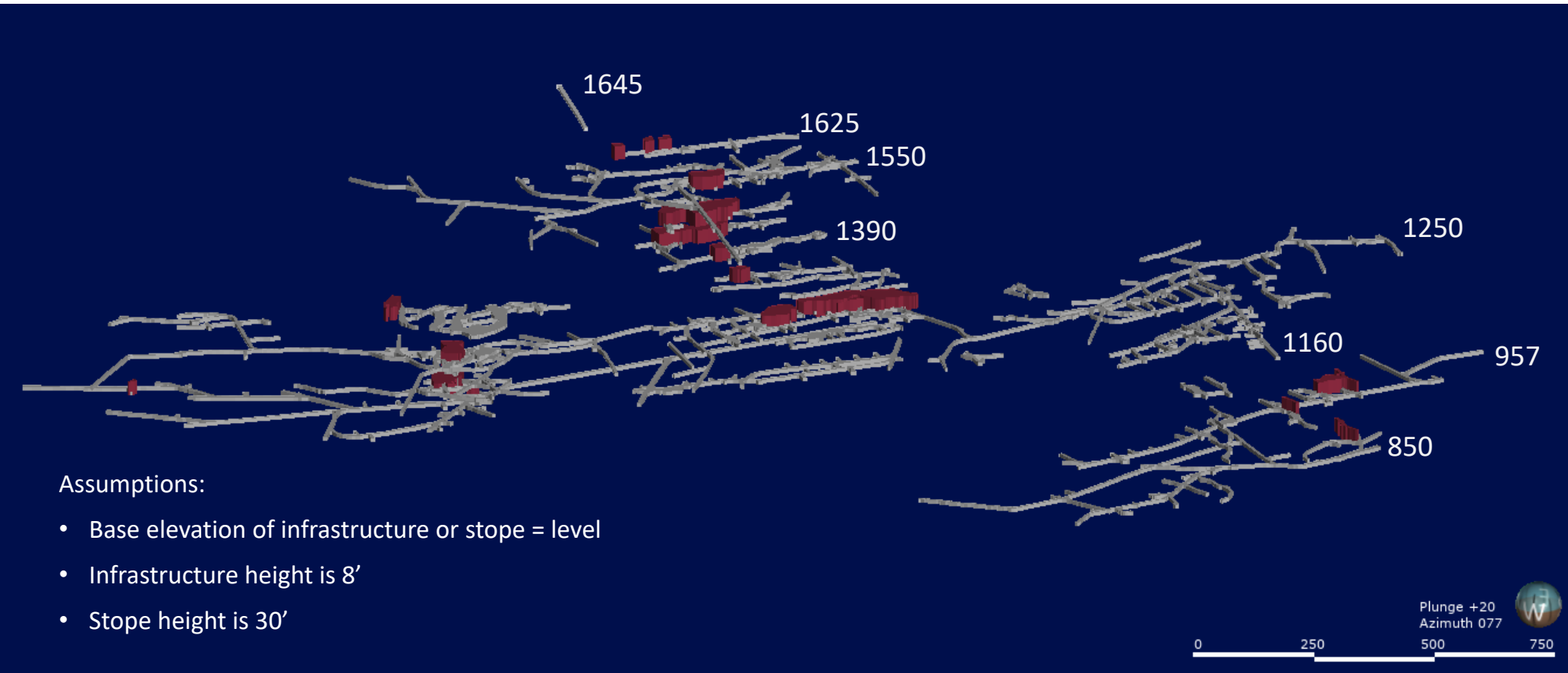
## HISTORICAL DATA CATEGORIES – LEVEL PLANS, LONG SECTIONS, AND CROSS SECTIONS

GROUP	YEAR	COMPANY	TYPE	HARD COPIES	DIGITAL FILES	UPDATED DIGITAL
OVERVIEW, SURFACE, AND MISCELLANEOUS MAPS				26 (16 scanned)	26	<b>42</b>
A	1949	Golden King Mine	Level Plan - Geology	1 (1 scanned)	1	<b>2</b>
B	1950	Golden King Mine	Level Plan – Geology & Assay Samples	7 (7 scanned)	3	<b>10</b>
C	1953	Lovitt Mining Co.	Cross Section - Overview	1 (1 scanned)	0	<b>1</b>
D	1954-1955	Lovitt Mining Co.	Level Plan – Overview, Drill Holes, Long Section & Cross Section – Drill Holes	12 (12 scanned)	3	<b>15</b>
E	1957-1964	Lovitt Mining Co.	Level Plan – Composite Plans & Sections, Cross Section – Drill Holes	11 (11 scanned)	3	<b>14</b>
F	1957	Lovitt Mining Co.	Level Plan – Assay Samples	2 (2 scanned)	42	<b>44</b>
G, H, I	1958-1961	Lovitt Mining Co.	Level Plan – Overview Long Section – Overview Cross Section – Overview	12 (10 scanned)	0	<b>10</b>
J	1958	Newmont Expl.	Level Plan – Geology, Cross Section – Geology	5 (5 scanned)	3	<b>8</b>
K	1960	Lovitt Mining Co.	Level Plan – Geology	4 (4 scanned)	17	<b>21</b>
L & M	1961-1966	Lovitt Mining Co.	Level Plan – Drill Holes	38 (24 scanned)	77	<b>101</b>
P, Q, R	1974-1975	Cyprus (Expl. or Mines Corp.)	Level Plan – Overview, Geology, & Assay Samples Cross Section – Geology	46 (33 scanned)	1	<b>34</b>
S	1983	United Mining Corp.	Level Plan – Drill Holes & Assay Samples	7 (5 scanned)	2	<b>7</b>
U, V, W, X	1986-1988	Asamera	Level Plan – Overview, Cross Section – Drill Holes	96 (81 scanned)	0	<b>81</b>
				<b>268</b>	<b>178</b>	<b>391</b>

3

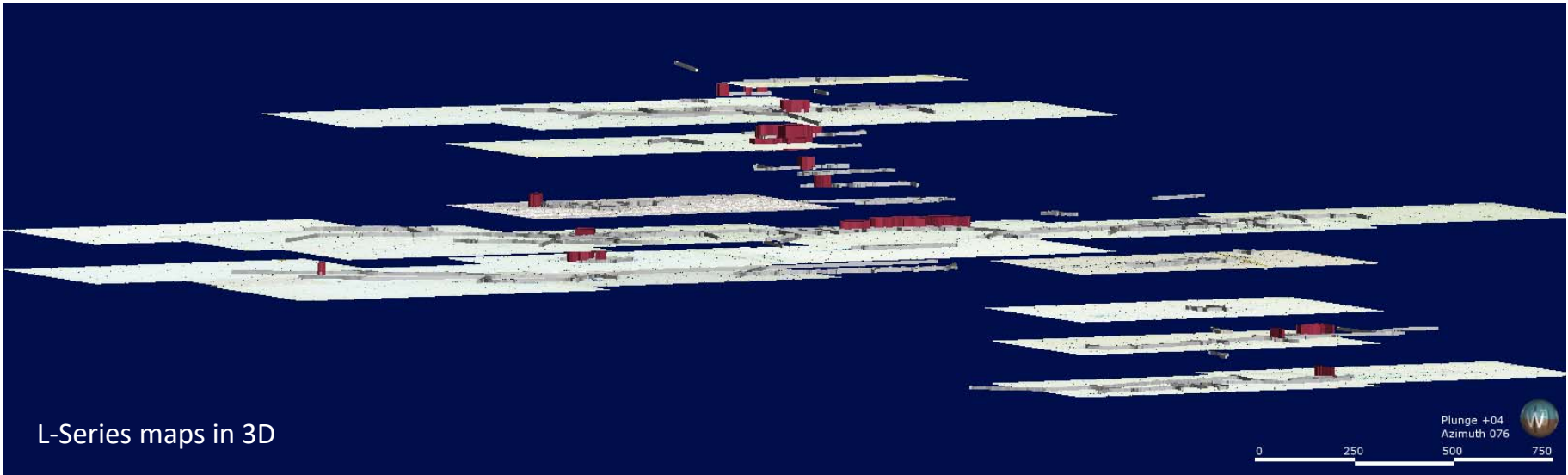
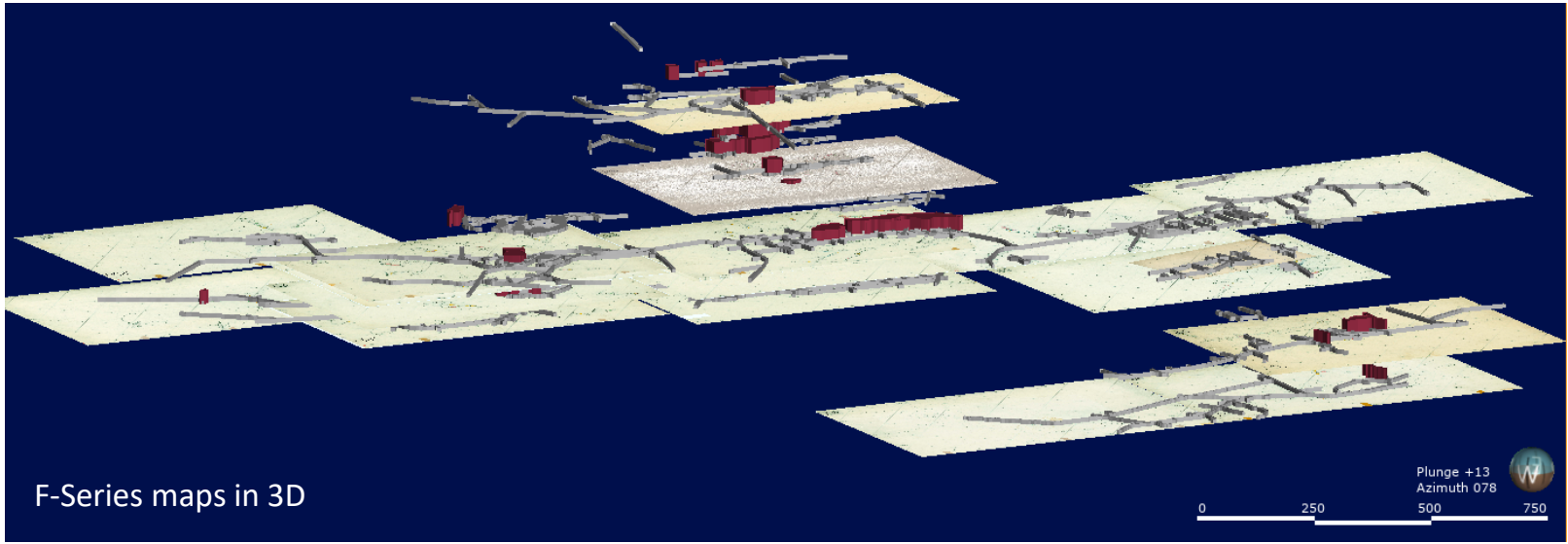
*\* Note: "N and O" series (8 maps) not included as these are rough drafts*

- Digitized underground workings and stopes from F, L, and M series maps



**Infrastructure from 30 levels:** 850, 927, 957, 985, 1040, 1150, 1160, 1185, 1190, 1205, 1223, 1240, 1245, 1250, 1285, 1315, 1320, 1325, 1365, 1390, 1410, 1460, 1480, 1490, 1550, 1570, 1585, 1595, 1625, 1645

**Stopes on 14 levels:** 850, 957, 1150, 1190, 1240, 1245, 1250, 1325, 1365, 1410, 1460, 1490, 1550, 1585



- Digitized muck samples from F-series maps into Arc GIS shapefiles
- Loaded into Leapfrog 3D



*3,037 samples entered  
from 13 levels*

Name	Type
MUCK_SAMPLES_1150LVL.shp	Shapefile
MUCK_SAMPLES_1160LVL.shp	Shapefile
MUCK_SAMPLES_1185LVL.shp	Shapefile
MUCK_SAMPLES_1190LVL.shp	Shapefile
MUCK_SAMPLES_1205LVL.shp	Shapefile
MUCK_SAMPLES_1240LVL.shp	Shapefile
MUCK_SAMPLES_1245LVL.shp	Shapefile
MUCK_SAMPLES_1250LVL.shp	Shapefile
MUCK_SAMPLES_1285LVL.shp	Shapefile
MUCK_SAMPLES_1390LVL.shp	Shapefile
MUCK_SAMPLES_1550LVL.shp	Shapefile
MUCK_SAMPLES_850LVL.shp	Shapefile
MUCK_SAMPLES_957LVL.shp	Shapefile

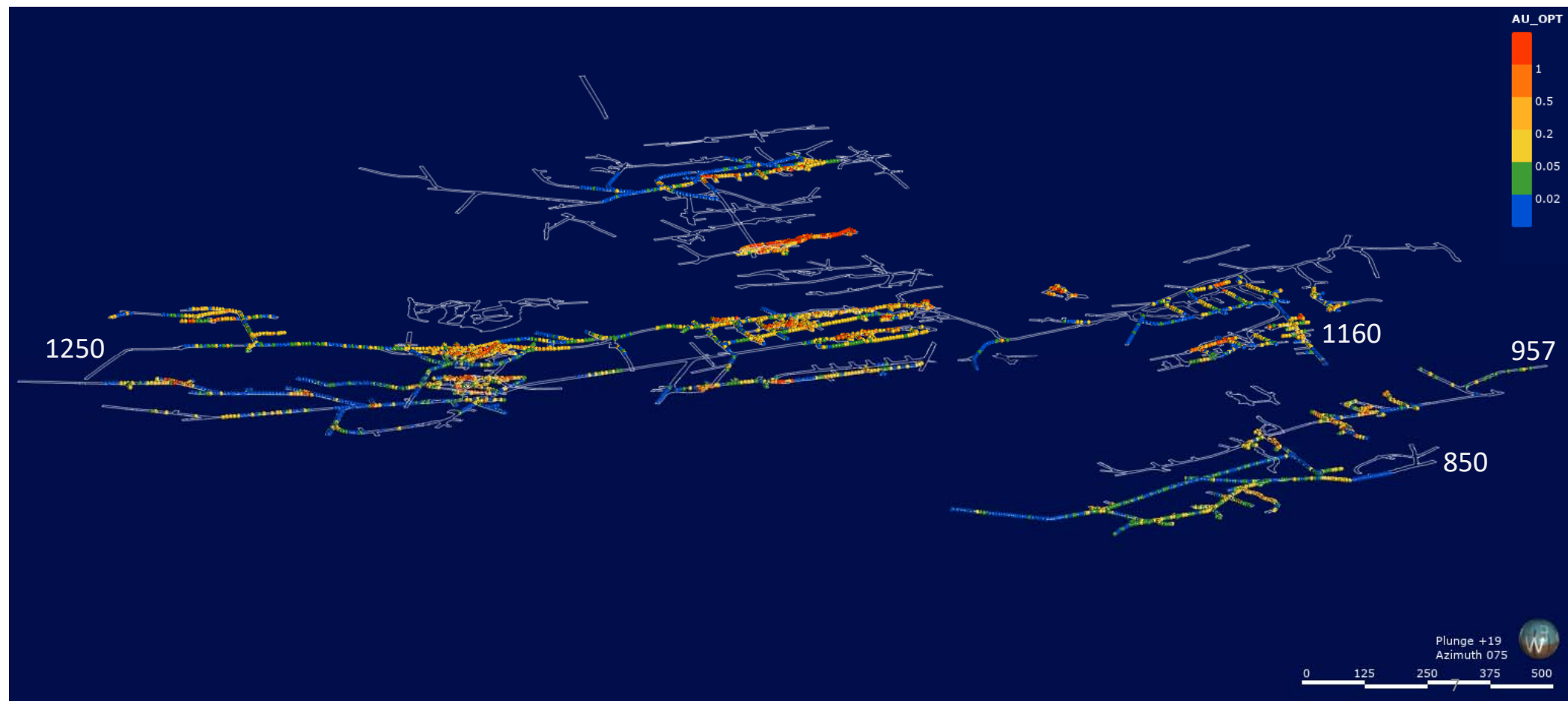


**Assumptions:**

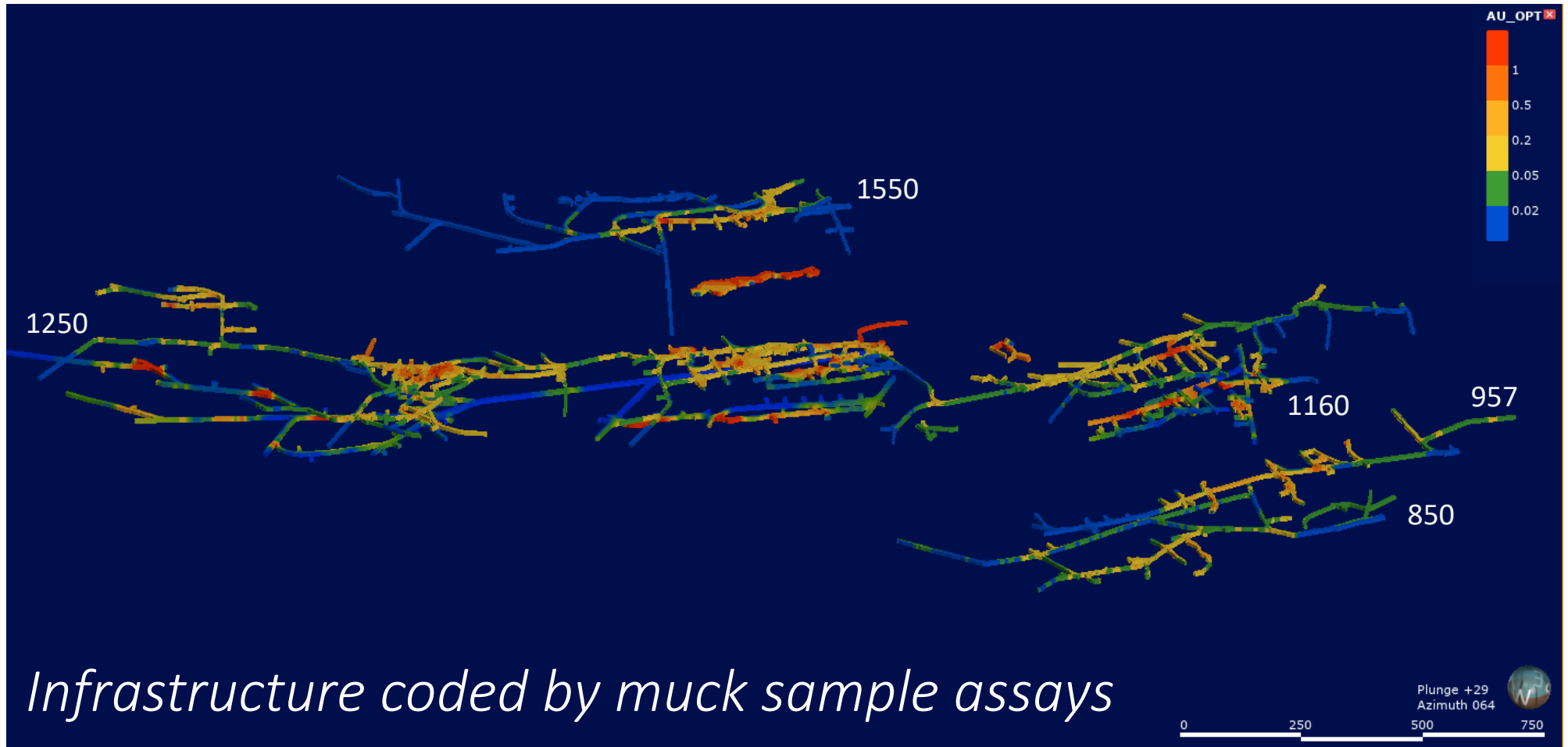
- Value 1 assumed to be Au (opt)
- Value 2 assumed to be Ag (opt)
- Values listed as TR given numeric "0"
- 2 digits assumed to be preceded by a decimal



Muck samples: Value 1 = Au (opt)

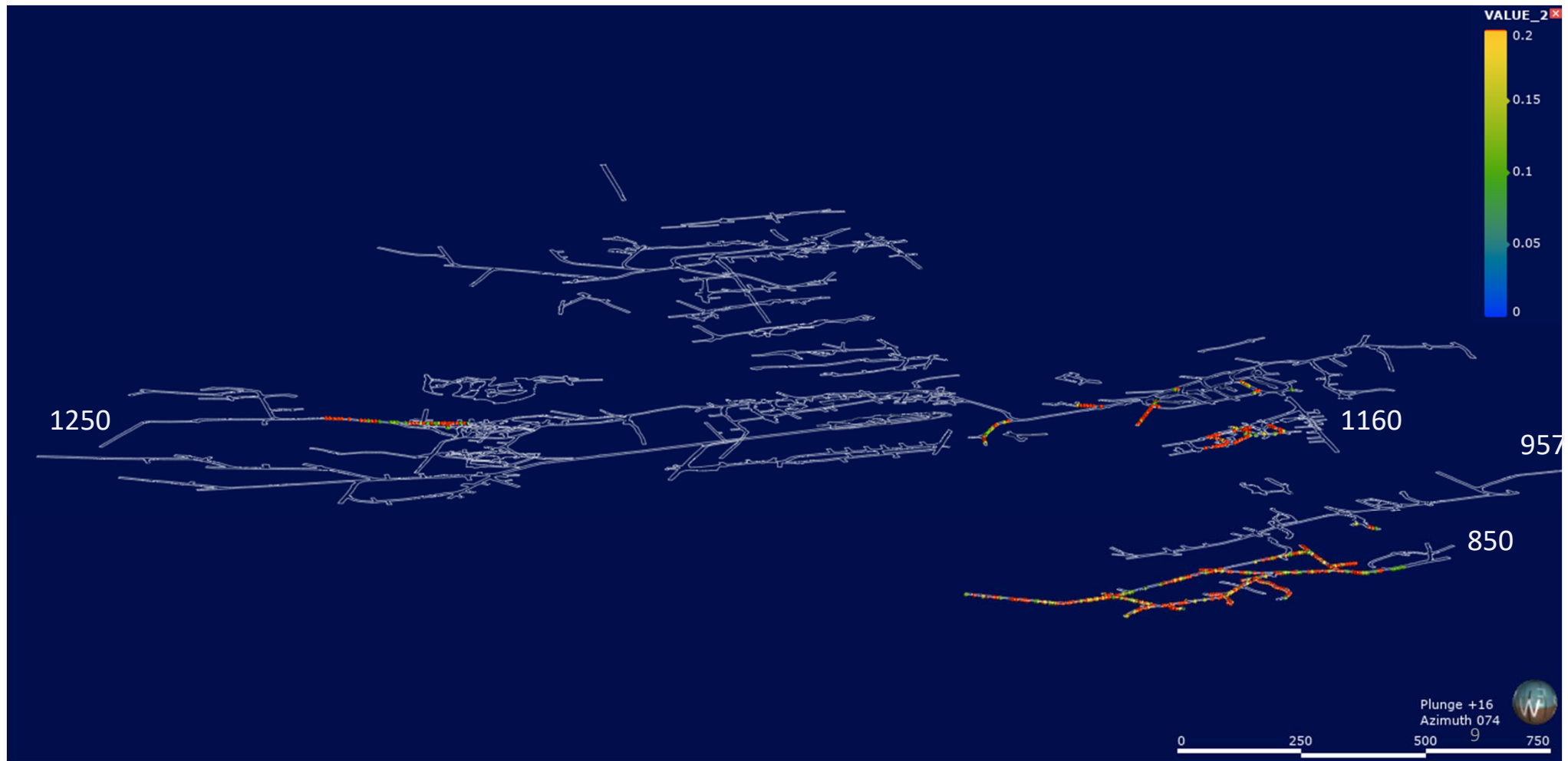


Muck samples: Value 1 = Au (opt)



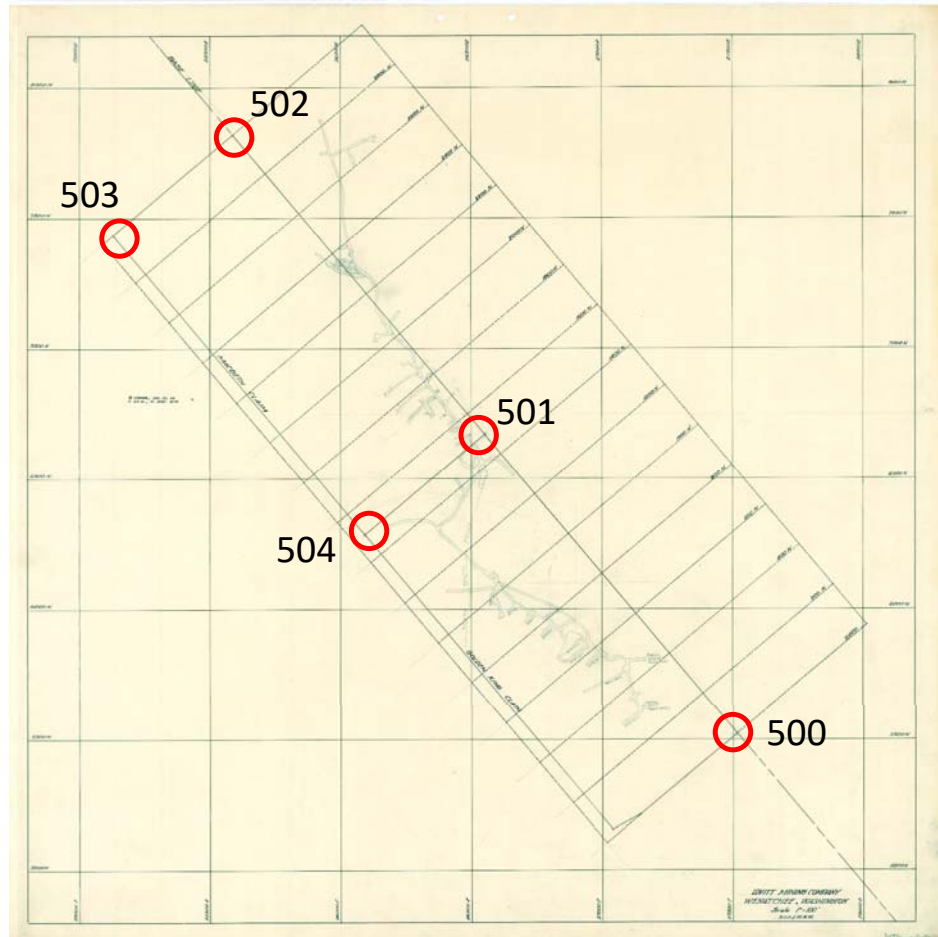


Muck samples: Value 2 = Ag (opt)



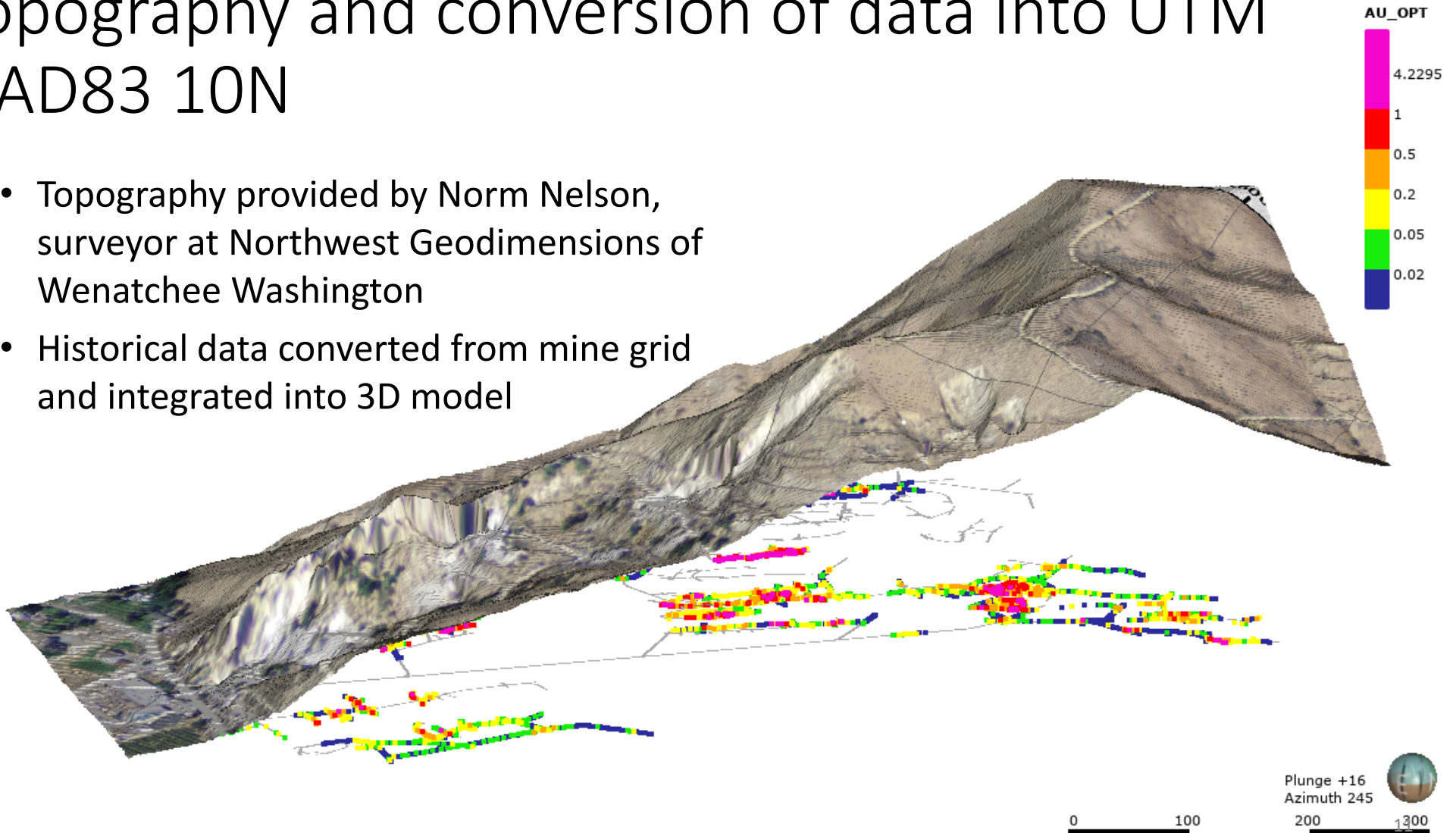
# Conversion of data to UTM NAD83 Zone 10N

	A	B	C	D
1	UTM83-10			
2	Point No.	Northing	Easting	Description
3	500	5,251,043.25	702,632.27	LOT CORNER-UTM
4	501	5,251,371.36	702,336.54	LOT CORNER-UTM
5	502	5,251,710.97	702,030.44	LOT CORNER-UTM
6	503	5,251,588.53	701,894.60	LOT CORNER-UTM
7	504	5,251,248.92	702,200.69	LOT CORNER-UTM
8	505	5,250,924.20	702,493.37	LOT CORNER-UTM

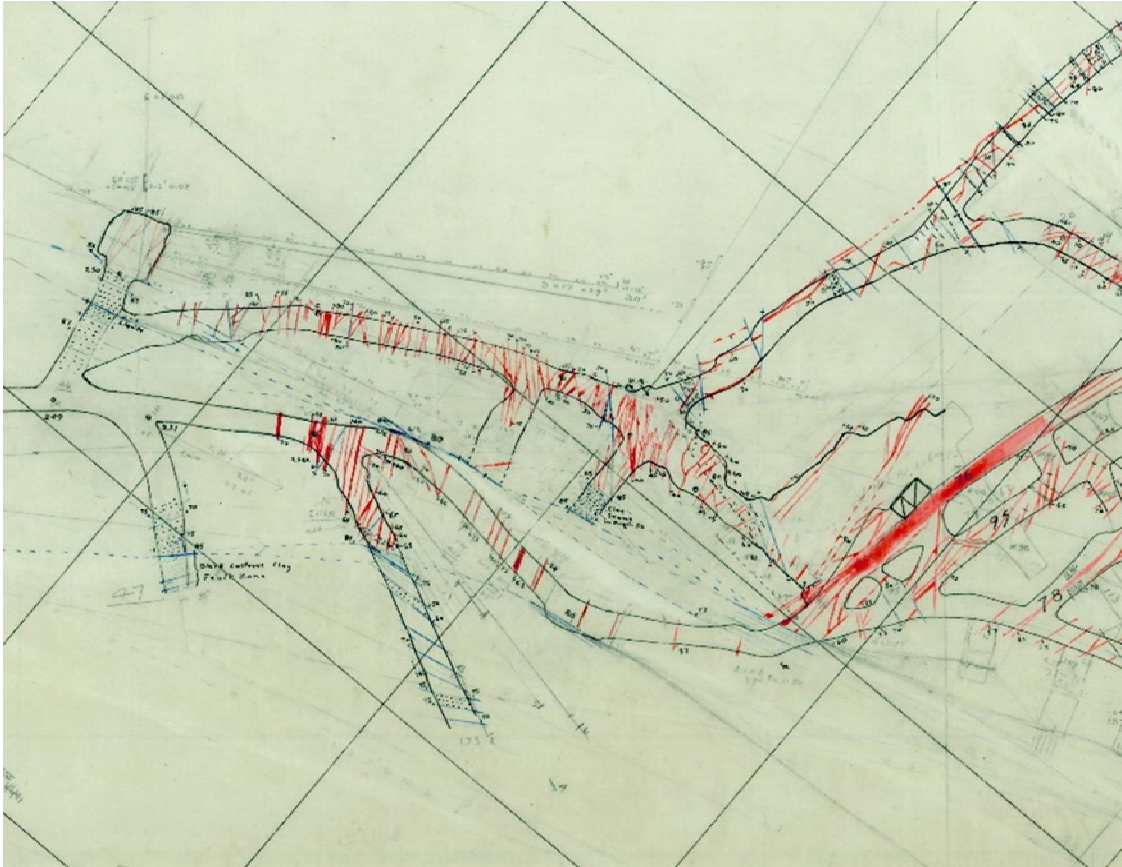


# Topography and conversion of data into UTM NAD83 10N

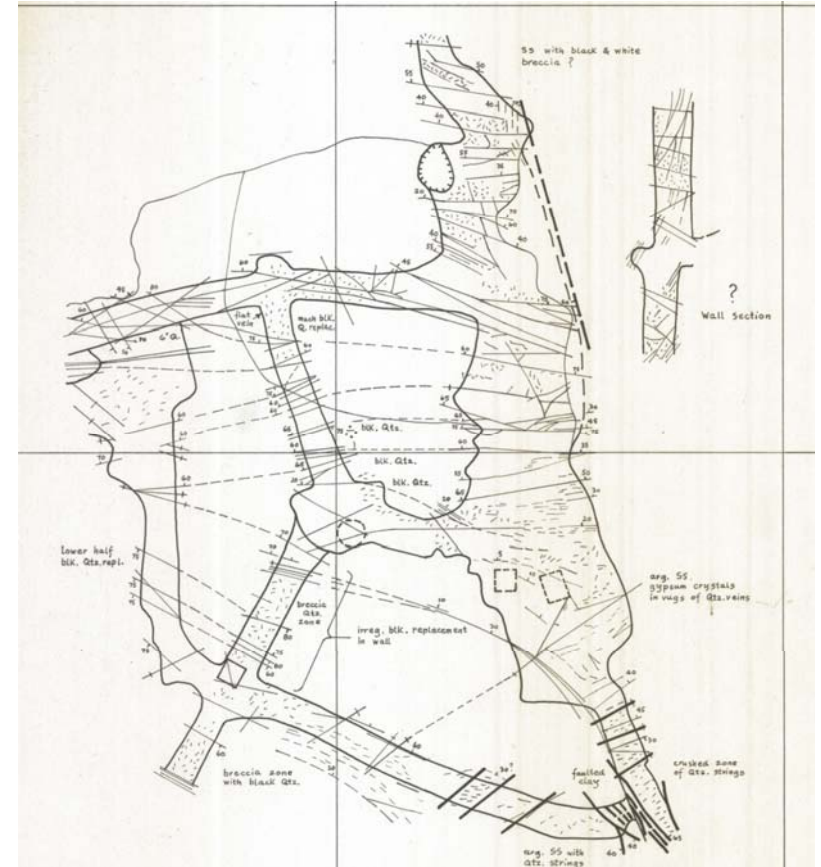
- Topography provided by Norm Nelson, surveyor at Northwest Geodimensions of Wenatchee Washington
- Historical data converted from mine grid and integrated into 3D model



# Geologic data digitized from K and Q series maps



*K Series maps; original mapping from 1960*

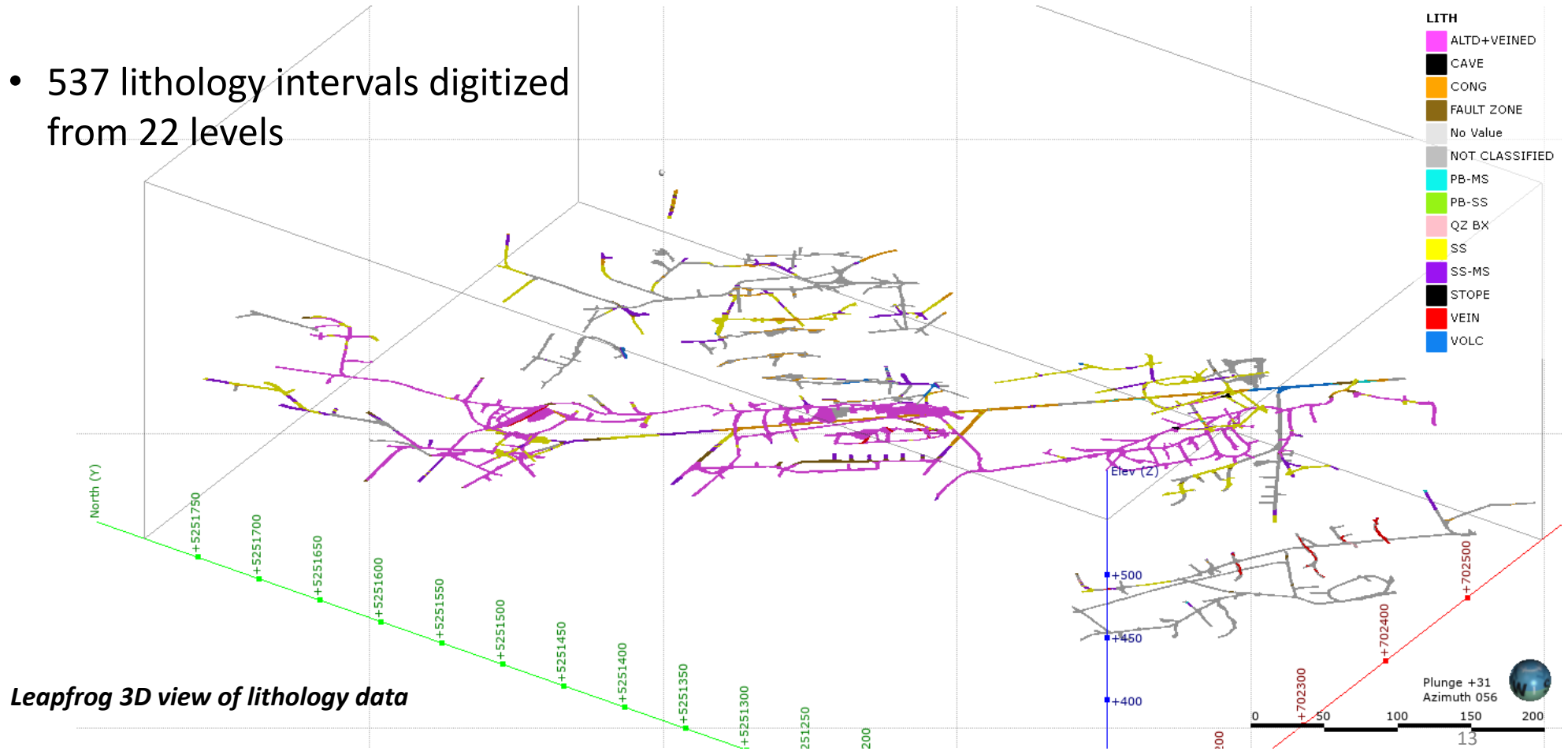


*Q Series maps (1975), digitized from 1960 maps*



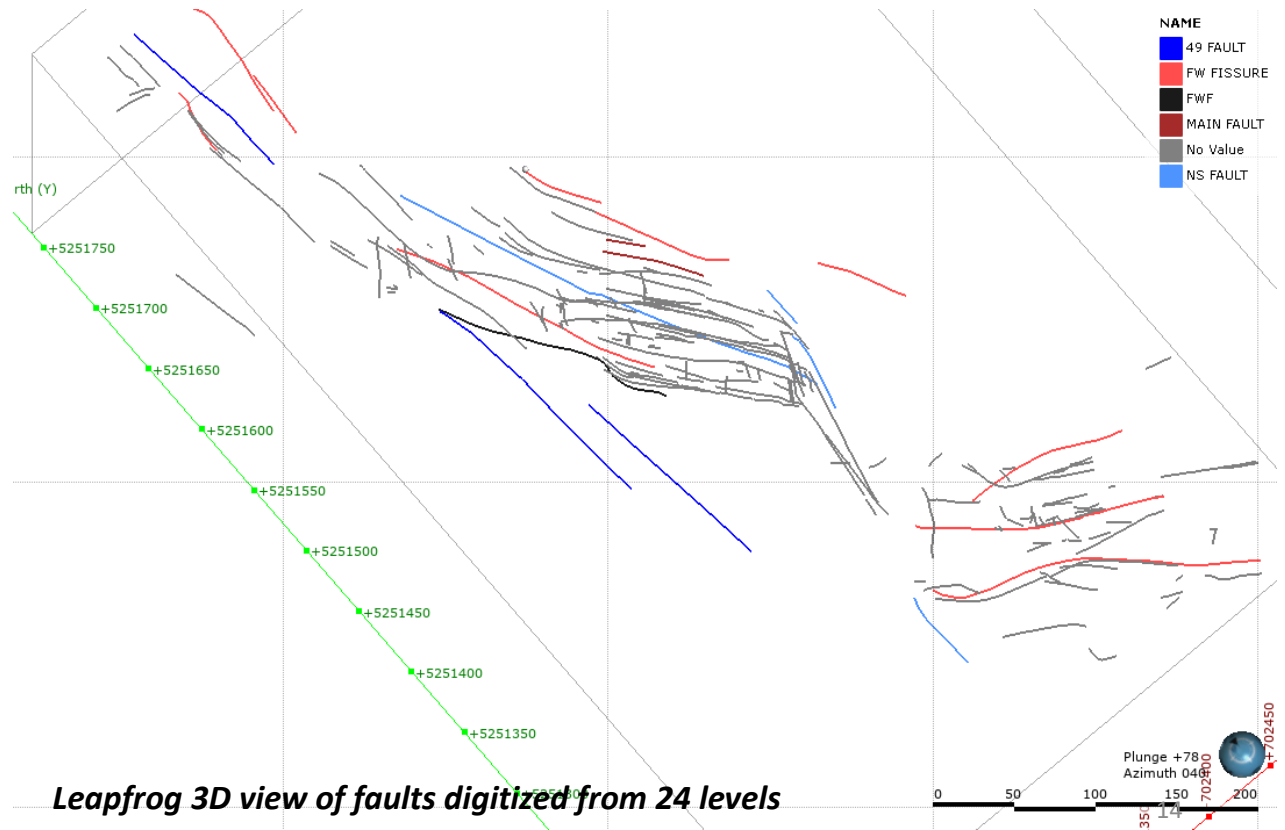
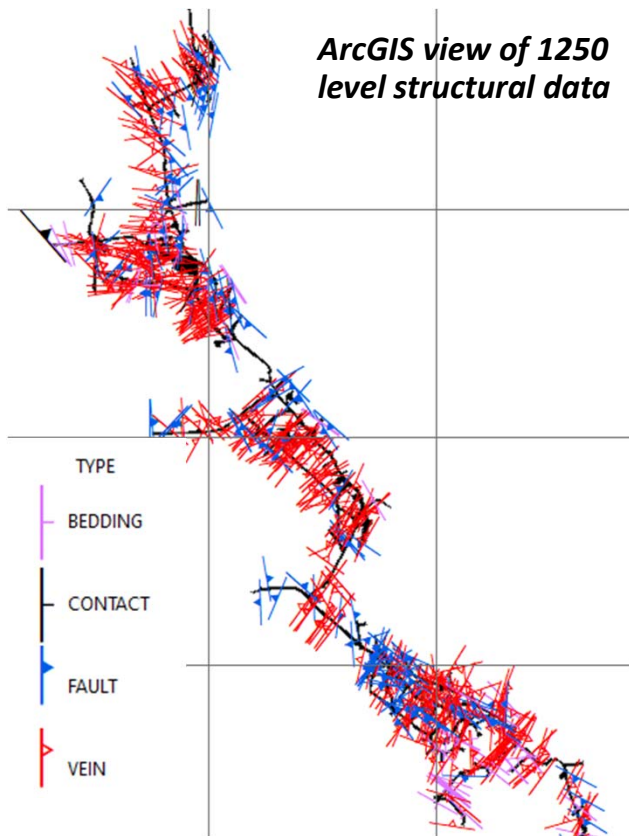
# Geologic Data Digitized

- 537 lithology intervals digitized from 22 levels

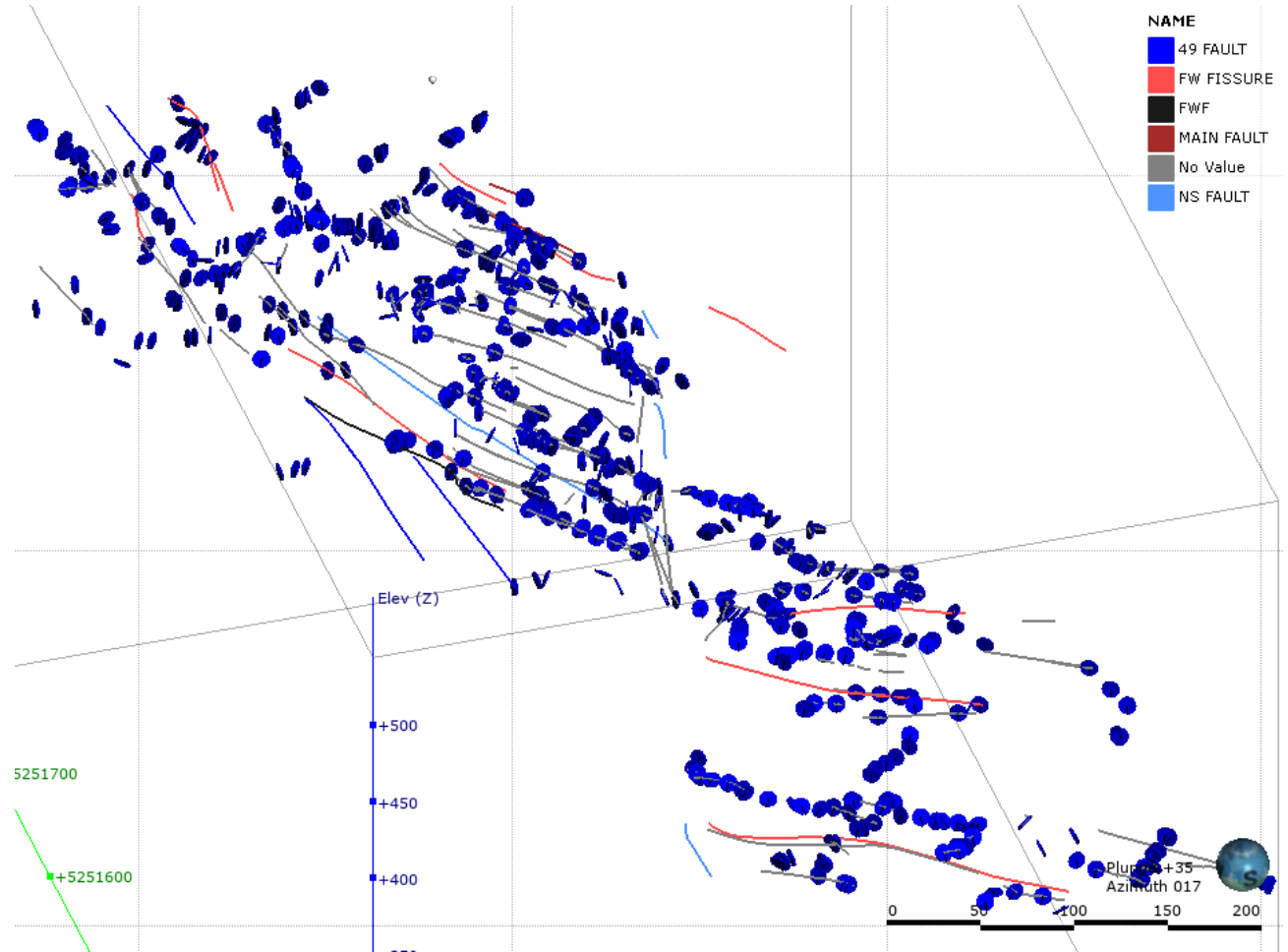


# Structural Data Digitized

- 2,240 structural data points, including veins, faults, bedding and contacts, digitized from 24 levels



# Structural Data - Faults



*Leapfrog 3D view of digitized structures showing faults and fault point data*



# Structural Data - Veins

*Leapfrog 3D view of digitized structures showing the distribution of vein point data*

