



NI 43-101 UPDATED TECHNICAL REPORT FOR THE FREMONT GOLD PROPERTY, MARIPOSA COUNTY, CALIFORNIA, USA



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NI 43-101 UPDATED TECHNICAL REPORT FOR THE
FREMONT PROJECT, MARIPOSA COUNTY, CALIFORNIA, USA

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Fig. 24.1 Yosemite seen in the far distance from the Property198

1.0 SUMMARY

This report was prepared in accordance with National Instrument (“NI”) 43-101 Technical Report (the “Report”) with a new resource estimation for the gold mineralization contained on the Fremont Property (the “Property” or the “Fremont Gold Property”) in Mariposa County, central California, USA. This report is extensively based on the February 15, 2023 PEA of the Property, “Preliminary Economic Assessment of the Fremont Gold Project, Mariposa County, Central California, USA” by P&E Mining Consultants, Inc. The Property is owned 100% by Fremont Gold Mining LLC., a wholly owned subsidiary of Lode Gold Resources Inc (“Lode Gold” or the “Company”). The Fremont Gold Property is located 241 km east of the City of San Francisco, in the western foothills of the Sierra Nevada Mountains. This location coincides with the southernmost portion of the prolific California Mother Lode Gold Belt.

1.1 PROPERTY DESCRIPTION, LOCATION, ACCESS AND PHYSIOGRAPHY

The Fremont Property is situated in the western foothills of the Sierra Nevada Mountains of central California, about 150 miles east of San Francisco. It is accessible via state Highway 49 which runs through the property between the towns of Mariposa to the south, and Coulterville to the north. The center of the Property is at approximately 754,360 m E and 4,164,460 m N (NAD83 UTM Zone 10N), or Longitude 120° 07' W and Latitude 37° 36' N.

The Property is located mid-way between the Towns of Mariposa and Coulterville. The Town of Mariposa (population 1,526; 2020 Census) is located 20.3 km south of the Property and is the nearest community with major infrastructure and where the county seat is located for Mariposa County (population 17,131; 2020 Census). The nearest urban center is the City of Merced (population 86,333; 2020 Census), located 37 miles to the west-southwest of the Property. Merced is the county seat for Merced County (population 281,202; 2020 Census) and the location of the nearest railhead.

The property covers the northern portion of the historic Spanish Las Mariposa's land grant and consists of three Assessor Parcel Numbers (“APNs”) totaling 3,351.22 acres (1,357 ha). The three APNs include mineral and surface rights and the land under State Highway 49 and are subject to a 3% NSR royalty.

The climate is characterized by hot, dry summers with the highest average temperature of approximately 32°C in July and cool, wet winters, with the lowest average temperature of approximately 1°C in December and January (www.weatherspark.com). Exploration programs can be carried out year-round on the Property.

Most of the Property area lies south and adjacent to the Merced River Valley. Elevations range from 274 m.a.s.l. along the Merced River to >1,036 m.a.s.l. in the southeast corner of the Property. Vegetation on the Property consists of scattered clumps of scrub oak with open grasslands in the

southeast part of the Property and manzanita and chaparral covering steep gullies over the remainder of the Property. Pine trees occur as isolated trees or in clumps and grow well on reclaimed waste rock dump sites.

1.2 HISTORY

Mining at Pine Tree, Josephine and Queen Specimen deposits within the Property commenced in the early 1849. The Pine Tree and Josephine Mines operated almost continuously until 1863. Mining operation resumed between 1900 and 1915 mainly in the Queen Specimen deposit. The last time there was mining activity in the property was between the 1933 and 1942 by the Pacific Mining Co., and the total historical production is reported to be 403,565 metric tons of ore for a recovered total of 125,000 ounces of gold.

The more recent exploration on the Property commenced in 1984 when the Property was acquired by Goldenbell Mining Corporation (“Goldenbell”). Goldenbell compiled the historical data and completed geophysical surveys, drilling, and underground channel sampling. In 1985 – 1986, Goldenbell completed a 140 drill hole reverse circulation (“RC”) program totaling 19,875 m (65,158 ft) and also drilled 1,232 m (3,925 ft) of rotary (18 drill holes) and 1,009 m (3,310 ft) of core drill holes (16 drill holes). Four targets were drilled, namely Pine Tree – Josephine, Queen Specimen – Succedo, Chicken Gulch, and Crown Point. A Feasibility Study and a draft Environmental Impact Report (“EIR”) towards permitting were prepared based on an open pit operation with processing in a roaster – acid plant facility. A heap leach option was also investigated. In the late 1980s, Northwest Gold Corp. acquired the Property and completed metallurgical test work and detailed planning studies which indicated that capital costs would be significantly higher than originally anticipated and, based on the prevailing gold price, the Property was deemed uneconomic.

In 2008 and 2009, Global Mining Explorations Ventures LLC (later Precision Gold LLC; “Precision”) completed a drilling program on the historical tailings at the Pine Tree Mine and estimated a Mineral Resource. However, Precision relinquished its option to the Property in 2009 and no further exploration was completed until 2013 when California Gold Mining Inc. (“California Gold”) acquired the Property. California Gold completed exploration and drilling programs (including 15 twin drill-holes to validate the RC historical drilling), primarily at the Pine Tree-Josephine and Queen Specimen Deposits, between 2013 and 2018. California Gold was acquired by Stratabound Resources in 2021, later called Lode Gold Resources.

1.3 GEOLOGY, MINERALIZATION, AND DEPOSIT TYPE

The Fremont Gold Property is located in the Mother Lode Gold Belt District, which occurs in the southern portion of the Western Sierra Nevada Foothills Metamorphic Belt (WSNFMB) which consists in metamorphic rocks from the Paleozoic and Mesozoic that separates the Great Valley from the Sierra Nevada Batholith.

The project is located in the southern part of the WSNFMB where three different accreted terranes (Paterson and Wainger, 1991) are separated by two ductile shear zones. From west to east these are the Foothills

Terrane, the Merced River Terrane (greenschist – phyllite belt and Calaveras Complex) and the Northern Sierra Terrane or Shoo Fly Complex. They are separated by the Melones Fault zone to the west and the Calaveras-Shoo Fly thrust to the east. An additional regional fault, the Bear Mountains fault zones, divides the Foothills Terrane into eastern and western domains.

The Mother Lode Gold Belt District occurs along the Melones Fault Zone, a major crustal-scale fault trending north-northwesterly for 200 km that separates the Foothills Terrane from the Merced River Terrane. During the Early Cretaceous period, the Melones reverse fault system was reactivated in a transpressive regime, resulting in gold mineralization at approximately 125 ± 10 Ma.

The Property is located at the southern extent of the Mother Lode Gold Belt. The geology of the Property is dominated by the sedimentary Mariposa Formation (shales and greywackes with low grade metamorphism) to the west, the Melones Fault Zone in the center with serpentinite and a dioritic intrusions, and the Bullion Mountain Formation metavolcanics and Briceburg Formation metasedimentary rocks and metavolcanics to the east. The serpentinite matrix mélange in the Melones Fault Zone hosts the historical Pine Tree – Josephine Gold mine, Queen Specimen mine and Chicken Gulch and Crown Point Deposits, while the French, Evans and Ogle Lease mines where outside of the trend in tensional veins.

Most of the gold is hosted in quartz veins inside of the serpentinite matrix mélange and in the mélange itself, while a small portion is hosted in the altered serpentinite and quartz stockwork sedimentary rocks in contact with the mineralized bodies at footwall and hanging wall.

The Pine Tree-Josephine Deposit was mined from the 1849 to 1942 via numerous shafts and underground drifts and produced slightly more than 125,000 ounces of gold, primarily by shrinkage and open stoping mining methods, while the French mine, that was leased to a third party, kept producing gold until 1944 after the main operation was halted in 1942 by gold mining ban (War Production Order L-208).

Four main styles of gold mineralization are present at the Pine Tree – Josephine Deposit and generally throughout the four km mineralized trend on the Fremont Property: 1) quartz – hosted free gold; 2) quartz – sulphide veins; 3) mélange stockwork and 4) oxide – gold. The quartz – hosted mineralization mainly consists of free gold in quartz. It covers 3 of the 6 veins in Pine Tree – Josephine area.

The quartz free gold domain happens as quartz only or quartz-ankerite veins without any sulphide and locally it has mariposite and/or chlorite. It happens in three of the six main veins in the Josephine – Pine Tree area, especially as internal veins of the mineralized body between the footwall and hanging wall veins.

The quartz – sulphide veins occur as quartz with pyrite (or pyrrhotite) \pm gersdorffite \pm chalcopyrite. Gold occurs intergrown with pyrite and interstitial to quartz. Three of six main veins in the central area, including the Footwall Vein (Pine Tree Vein) and the Hanging Wall (Josephine Vein), belongs to this type. During historical mining, higher gold grades were found in large quartz veins that were cut by late-stage sulphide quartz veins, defining mineralized shoots. The mineralized shoots were generally short in strike length but persistent at depth.

The stockwork – mélange mineralization is located mainly in the tectonic mélange between the footwall and hanging wall quartz veins. The host meta-sedimentary, volcanic and ultramafic rocks are intensely altered to ankerite, sericite, albite, quartz, mariposite with cubic pyrite. Mineralized schists and tectonite pods contain pyrite and ankerite and host quartz-feldspar-ankerite veinlets.

The oxide – gold mineralization occurs as a thin cap on the upper portions of the gold deposits. Generally, the oxide zone varies from approximately one meter to a maximum of 56 m below surface are variably oxidized and potentially amenable to cyanide heap leaching.

The gold deposits on the Fremont Property are hosted in a serpentinite matrix mélange, altered serpentinite and sedimentary rocks and associated with a major fault zone with listwaenitic alteration (ankerite, albite, mariposite, sericite and talc). They are therefore classified as orogenic mesothermal gold deposits.

1.4 EXPLORATION

Lode Gold hasn't made any exploration work since 2022 when as Lode Gold completed surface exploration activities in 2022, which included compilation and reporting of a 2016 – 2017 property – wide soil geochemistry survey, trenching, mine development activities and flying a LiDAR™ topographic survey.

The soil geochemistry survey covered the entire Fremont Property with 1,364 samples. The survey was completed by California Gold between 2016 – 2017, however, the results were not previously compiled and reported. Based on their recent compilation, Lode Gold reported a large gold-in-soil anomaly extending across the entire four km Property length and averaging 285 m wide. The property-wide soil geochemical survey defines nearly continuous gold-in-soil mineralization of >30 ppb up to 112,491 ppb gold (112.5 g/t Au), covering an area of 1.14 km² or 282 acres. The surface gold-in-soil anomaly encompasses and links the three historical producing gold Deposits: The Pine Tree - Josephine and Queen Specimen Mines, plus the undeveloped Chicken Gulch and Crown Point Zones.

The exploration work completed in 2022 included the excavation of 10 surface trenches at 50 m intervals across 500 m of strike length overlying the Queen Specimen Deposit. This Deposit is the northernmost of four separately drilled gold-mineralized zones that are connected along four km of strike on surface by the >30 ppb gold in-soil anomaly. Systematic sampling of the new Queen Specimen trenches was designed to define the at-surface gold mineralization projected from historical and recent drill holes extending below 300 m from surface.

1.5 DRILLING

The last drilling programs on the Fremont Property were completed by California Gold between 2013 and 2018. California Gold completed 82 surface diamond drill holes totaling 19,781 m. Of the 82 drill holes, 52 were completed at Pine Tree – Josephine, 26 at Queen Specimen, and four in the historical French Mine. The 2013 to 2018 results from the Pine Tree-Josephine and Queen Specimen Deposits area drilling, along with the historical 1985 – 1986 drilling results (113

drill holes totaling 16,340 m), were previously incorporated into the 2016 initial Mineral Resource Estimate released by California Gold and the 2021 and 2023 updated Mineral Resource Estimate released by Lode Gold (previously Lode Gold).

1.6 SAMPLE PREPARATION, ANALYSES, SECURITY AND VERIFICATION

In the opinion of the Authors of this Technical Report, the sample preparation, security and analytical procedures for the Fremont Gold Project drilling and trench sampling programs were adequate. Examination of QA/QC results for all recent sampling indicates no significant issues with accuracy, contamination or precision in the data, and umpire sampling has confirmed the tenor of the original assay data. Independent due diligence sampling by the Authors shows acceptable correlation with the original assays. It is the opinion of the Authors that the data are suitable for use in the current Mineral Resource Estimate.

1.7 MINERAL PROCESSING AND METALLURGICAL TESTING

The historical operations consistently achieved gold recoveries averaging 88.5% with a combined gravity and flotation circuit. The locked-cycle test results of 1986 show a flotation recovery of 91.3% on several composite samples. In June/July 1987, Beacon Hill achieved a flotation gold recovery of 89.7% on the composite underground bulk sample.

Within the 2014 iteration of test work, the samples were grouped by different metallurgical domains, including sulphide replacement material (“SRM”) and quartz (“QTZ”), for treatment by gravity and flotation. The 2014 combined gravity and flotation recovery for the SRM was 85.6% for gold and 69.1% for silver. The 2014 combined gravity and flotation recovery for the QTZ domain was 93.6% for gold and 75.6% for silver.

The flotation concentrate was not amenable to cyanidation without further processing. The roasting process was the most effective oxidation process tested for the recovery of gold. Roasting tests were not conducted on the SRM and QTZ domain samples. However, there has been extensive roasting test work completed with cyanide leaching of the roasted product (calcine). The tests at scoping level achieved 92.7% gold recovery, and in the pilot campaign at the Lurgi Plant in Frankfurt, Germany, achieved 90% gold recovery in cyanidation of the calcine.

The coarse bottle roll on the oxide (“OXC”) domain achieved a gold recovery of 93% in ten days of leaching minus 25.4 mm (1 inch) material, which confirms that the OXC domain has reasonable potential for heap leaching. Since each zone has an oxide cap on the surface, an average laboratory recovery of 82.0% is considered to be a reasonable estimate.

1.8 MINERAL RESOURCE ESTIMATE

The Authors prepared an updated Mineral Resource Estimate for the Pine Tree-Josephine and Queen Specimen gold deposits. The updated Mineral Resource Estimate consists of a total of 0.12 million ounces (“Moz”) Au Recoverable Gold (Content Gold with a 90% Recovery rate) in

0.91 million tons (“Mt”) at 4.13 g/t Au as Indicated Mineral Resources and 1.082 Moz contained in 8.48 Mt at 3.97 g/t Au as Inferred Mineral Resources (Table 1.1).

| TABLE 1.1 SUMMARY OF MINERAL RESOURCE ESTIMATE | | | |
|---|------------------|-----------------------|--|
| Classification | Tons (Mt) | Grade (g/t Au) | Recoverable Ounces (Moz Au)¹ |
| Indicated | | | |
| Vein | 0.91 | 4.13 | 0.120 |
| Inferred | | | |
| Vein | 5.58 | 3.97 | 0.712 |
| Disseminated | 2.95 | 3.95 | 0.375 |
| Total | 8.53 | 3.96 | 1.087 |

- (1) Gold is expressed in Recoverable ounces, which is content gold with a 10% of discount, assuming a 90% recovery.
- (2) Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability.
- (3) The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- (4) The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
- (5) The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
- (6) Mineral resources were estimated in conformity with generally accepted CIM “Estimation of Mineral Resource and Mineral Reserve Best Practices” Guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. The Mineral Resources may be affected by subsequent assessment of mining, environmental, processing, permitting, taxation, socio-economic and other factors.
- (7) Mineral reserves can only be estimated based on the results of an economic evaluation as part of a preliminary feasibility study or feasibility study. As such, no Mineral Reserves have been estimated by BGE. There is no certainty that all or any part of the mineral resources will be converted into a mineral reserve.
- (8) Inferred mineral resources have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. It is safe to assumed that the majority of the Inferred mineral resources could be upgraded to a higher category with additional exploration. Mineral resources that are not mineral reserves have no demonstrated economic viability.

The updated Mineral Resource Estimate is based on 33,982 m of drilling, 518 m of trench sampling, and 5,760 m of underground channel sampling. The effective date of the updated Mineral Resource Estimate is March 5, 2025.

The underground Mineral Resource is reported using a cut-off grade of 3 g/t Au.

Historical mining has been depleted from the Mineral Resource Estimate by assigning a zero - volume percentage block inclusion for known areas of mining and development. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The Property is four km along strike from north to south. The Deposits are open along strike and particularly down dip, and further drilling may provide additional Mineral Resources.

1.9 MINING METHODS

Underground Mineral Resources have been constrained within potentially mineable long hole stopes based on block grade and continuity. Further detail is not applicable to this Technical Report.

1.10 RECOVERY METHODS

This section is not applicable to this Technical Report.

1.11 PROJECT INFRASTRUCTURE

The Property is serviced by paved, all-weather Highway 49 which runs parallel to the deposit on the west side of the Property, secondary access roads, and PG&E power line and transformer station on site. An office/drill core logging facility is also on site. Water for the Project is assumed be obtained from dewatering of historical underground workings and voids and wells.

1.12 MARKET STUDIES AND CONTRACTS

There are currently no material contracts in place pertaining to the Fremont Gold Project.

1.13 ENVIRONMENTAL STUDIES, PERMITS AND SOCIAL OR COMMUNITY IMPACT

The Project is located on private land within the boundaries of the County of Mariposa in the state of California. Mariposa County is the lead agent for all county, state and federal permitting jurisdictions.

Lode Gold previously obtained an Administrative Use Permit (“AUP”) from the Mariposa County Planning Department that was valid for a three-year period. The AUP was issued on October 2, 2017 and later extended to April 2, 2022. Lode Gold concluded the AUP exploration work in March 2022, reclaimed the surface disturbance and received notice from the Mariposa County Planning Department that the AUP was successfully closed out on June 28, 2022.

Depending upon the scope of any future exploration work, the Mariposa County Planning Department could require an AUP or Conditional Use Permit (“CUP”) and potentially a reclamation plan issued in accordance with the Surface Mining and Reclamation Act (“SMARA”). Future

exploration work may also be subject to environmental review under the California Environmental Quality Act (“CEQA”).

In 2022, Lode Gold initiated environmental baseline studies, including biological mapping of flora and fauna. Surface and groundwater sampling points, used in previous studies, have been upgraded and routine sampling initiated. Mine water, present in underground mine openings, is being sampled and analyzed.

Fremont Gold has and will continue to engage and consult with public, county, state and federal agency stakeholders, regarding the Project.

The Authors is not aware of any environmental liabilities on the Property. The Authors is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the Property.

1.14 ADJACENT PROPERTIES

Historical mines Potosi, Malvera, Tyro, Mary Harrison, Virginia, and Red Bank Mines are located approximately 12 km north of the Pine Tree – Josephine Mine, Fremont. Located approximately 10 km to the south are Yellowstone, Mt. Gaines, Mt. Ophir and Princeton Mines. The closest active gold mine in the Mother Lode Belt is the Lincoln Mine, 100 km to the North, property of Seduli Gold.

The silver-zinc Blue Moon project in Mariposa County is the closest active mining project to the Property. It’s located 12 km SE of the Fremont Project. On April 15th, 2025 Blue Moon Metals announced a key permitting milestone: Congressional Support and BLM Approval for construction of an underground decline for infill and expansion drilling was granted. An RFP process for contract mining was initiated.

In California there are more than 700 active or newly permitted mines, 14 of which are gold mines (<https://maps.conservation.ca.gov/mol/index.html>, 2022).

1.15 RECOMMENDATIONS

The Authors of this Technical Report consider that the Fremont Gold Project contains a significant gold Mineral Resource base that merits further evaluation. It’s recommended to elaborate a new PEA to study the potential economic viability for an underground mining and processing plan versus the prior recommended combined open pit and underground design.

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 TERMS OF REFERENCE

The following report was prepared by A. David Heyl (the Author) to provide a National Instrument (“NI”) 43-101 Technical Report (the “Report”) for the gold mineralization contained in the Pine Tree – Josephine and Queen Specimen Deposits of the Fremont Property (the “Property” or “Fremont Gold Project”), Mariposa County, California, USA. Lode Gold Resources Inc. (“Lode Gold” or the “Company”) has 100% ownership of the Property. Phillip J. Hollenbeck was hired to do a new estimation.

This Report was prepared at the request of Ms. Wendy T. Chan, CEO and Lode Gold, an Alberta-registered corporation, trading under the symbol of “LOD” on the TSX Venture Exchange and “LODFF” on the US-OTC. Lode Gold’s head office is located at:

100 King Street West,
Suite 5700
Toronto, Ontario
M5X 1C7
Tel: 416-915-4157

This Report has an effective date of March 5, 2025.

The Report is prepared in accordance with the requirements of National Instrument 43-101 (NI 43-101) and in compliance with Form NI 43-101F1 of the Ontario Securities Commission (“OSC”) and the Canadian Securities Administrators (“CSA”). The Mineral Resource Estimates are considered to be compliant with the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions.

2.2 SITE VISITS

Mr. A. David Heyl and CPG, a Qualified Person under the regulations of NI 43-101, conducted a site visit to the Fremont Property on December 20 and 21, 2024. At that time, an independent verification sampling program was conducted by Mr. Heyl.

2.3 SOURCES OF INFORMATION

In addition to the site visits, the authors (the “Authors”) of this Report held discussions with technical personnel from the Company regarding all pertinent aspects of the Project and conducted a review of available literature and documented results concerning the Property. The reader is referred to those data sources, which are outlined in the References section (Section 27) of this Report, for further details.

The Report is based, in part, on internal Company technical reports, and maps, published government reports, Company letters, memoranda, public disclosure and public information as

listed in the References section. Sections from reports authored by other consultants have been directly quoted or summarized in this Report and are so indicated where appropriate.

The authors and co-authors of each section of this Report are acting as independent Qualified Persons as defined by NI 43-101, they take responsibility for those sections of this Report as outlined in the “Certificate of Author” included in Section 28 of this Report.

2.4 UNITS AND CURRENCY

In this Report, all quantities are generally stated in Système International d’Unités (“SI”) metric units including metric tons (“tons”, “t”) and kilograms (“kg”) for weight, kilometers (“km”) or meters (“m”) for distance, hectares (“ha”) for area, grams (“g”) and grams per ton (“g/t”) for metal grades. Platinum group metal (“PGM”), gold and silver grades may also be reported in parts per million (“ppm”) or parts per billion (“ppb”). Base metal values are reported in percentage (“%”) and parts per billion (“ppb”). Quantities of PGM, gold and silver may also be reported in troy ounces (“oz”), and quantities of base metals in avoirdupois pounds (“lb”). Abbreviations and terminology are summarized in Tables 2.1 and 2.2.

Grid coordinates for maps are given in the UTM NAD 83 Zone 10N or as latitude and longitude.

| TABLE 2.1 TERMINOLOGY AND ABBREVIATIONS | |
|---|--|
| Abbreviation | Meaning |
| ° | degree(s) |
| °C | degrees Celsius |
| \$ | US dollar(s) |
| \$/t | dollars per ton |
| \$M | dollars, millions |
| \$/m | dollars per meter |
| \$/oz | dollars per ounce |
| < | less than |
| > | greater than |
| % | percent |
| µm | micron or micrometer |
| 3-D | three-dimensional |
| AAI | All Appropriate Inquiries |
| AAL | American Assay Laboratories |
| Actlabs | Activation Laboratories Ltd. |
| Ag | silver |
| AISC | all-in sustaining costs |
| ALS | ALS Minerals, part of ALS Global, ALS Limited (Australian Laboratory Services) |

TABLE 2.1 TERMINOLOGY AND ABBREVIATIONS

| Abbreviation | Meaning |
|-----------------------|---|
| ANFO | ammonium nitrate/fuel oil mixture |
| Arrangement Agreement | Lode Gold entered into a definitive arrangement agreement to acquire 100% of the issued and outstanding shares of California Gold Mining Inc., and all of California Gold's assets. |
| APCD | Air Pollution Control District |
| APNs | Assessor Parcel Numbers |
| AUP | Administrative Use Permit |
| Au | gold |
| AuEq | gold equivalent |
| Authors, the | the authors of this Technical Report |
| Avg | average |
| Bondar Clegg | Bondar Clegg & Company Ltd. |
| C | carbon |
| CAC | California Administrative Code |
| California Gold | California Gold Mining Inc. |
| CAPEX | capital costs |
| CCR | California Code of Regulations |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environment Quality Act |
| CIL | carbon in leach |
| CIM | Canadian Institute of Mining, Metallurgy, and Petroleum |
| cm | centimeter(s) |
| CN | cyanide |
| Company, the | Lode Gold Minerals Inc., the company that the report is written for |
| CO ₂ | carbon dioxide |
| COG | cut-off grade |
| CoV | coefficient of variation |
| CRM | certified reference material |
| CSA | Canadian Securities Administrators |
| CUP | Conditional Use Permit |
| CVAV | average coefficient of variation |
| CVG | calculated vertical gradient |
| CWA | Clean Water Act |
| DD or DDH | diamond drill hole |
| deg | degree |
| DEIR | Draft Environmental Impact Report |
| DEM | digital terrain model |
| dia. | diameter |
| DMBW | Derry Michener Booth & Wahl Consultants Ltd. |
| DSO | Deswik Stope Optimizer |
| E | east |
| EIR | Environmental Impact Report |

TABLE 2.1 TERMINOLOGY AND ABBREVIATIONS

| Abbreviation | Meaning |
|--------------------------------|--|
| EM | electromagnetic |
| ESA | Environmental Site Assessment |
| FAR | fresh air raise |
| Faverty | Faverty & Associates |
| ft | foot, feet |
| FW | footwall |
| FWQZ | Footwall Quartz Veins |
| EPCM | engineering, procurement and construction management |
| g | gram |
| g/L | grams per liter |
| g/t | grams per ton |
| G&A | general and administration |
| GIS | geographic information system |
| Global Mining | Global Mining Explorations Ventures LLC |
| Goldenbell | Goldenbell Mining Corporation |
| Goldrea | Goldrea Resources Corp. |
| gpm | gallons per minute |
| GPS | global positioning system |
| H | height (W x H) |
| H:V | horizontal to vertical ratio |
| H ₂ SO ₄ | sulphuric acid |
| ha | hectare(s) |
| HDPE | high density polyethylene |
| HerSchy | HerSchy Environmental, Inc. |
| Hg | mercury |
| HLF | Heap Leach facility |
| HMBP | Hazardous Materials Business Plan |
| HR | hydraulic radius |
| hr | hour |
| HW | hanging wall |
| HWQZ | Hanging Wall Quartz Veins |
| ICP | inductively coupled plasma |
| ICP-OES | inductively coupled plasma- optical emission spectroscopy |
| ID | identification |
| ID ³ | inverse distance cubed |
| in | inch(es) |
| INAA | Instrumental Neutron Activation Analysis |
| Inspectorate | Inspectorate America Corporation (rebranded as Bureau Veritas on October 1, 2018) |
| IP | induced polarization |
| IRR | internal rate of return |
| ISO | International Organization for Standardization |

TABLE 2.1 TERMINOLOGY AND ABBREVIATIONS

| Abbreviation | Meaning |
|---------------------|---|
| ISO/IEC | International Organization for Standardization / International Electrotechnical Commission |
| ITH | In-The-Hole Hammer |
| k | thousand(s) |
| KCA | Kappes, Cassiday & Associates |
| kg | kilograms(s) |
| kg/t | kilograms(s) per ton |
| km | kilometer(s) |
| km ² | square kilometer(s) |
| koz | thousands of ounces |
| kt | thousands of tons |
| ktpa | thousands of tons per annum |
| kV | kilovolts, 1,000 volts |
| kVa | kilovolt amps |
| kW | kilowatt |
| kWh | kilowatt hour |
| kWh/t | kilowatt hour per ton |
| L | length (W x L) |
| L | liter(s) |
| L/s | liter(s) per second |
| lb | pound (weight) |
| lb/ton | pound(s) per ton |
| level | mine working level referring to the nominal elevation (m RL), e.g., 4285 level (mine workings at 4285 m RL) |
| LH | Long hole |
| LHD(s) | load-haul-dump (trucks) |
| LiDAR | Light Detection and Ranging |
| LLDPE | low-density polyethylene |
| Lode Gold | Lode Gold Resources Inc. |
| LOM | life of mine |
| M | million(s) |
| m | meter(s) |
| m ³ | cubic meter(s) |
| m ³ /s | cubic meter(s) per second |
| Ma | millions of years |
| MAR | Mariposa Zone |
| m asl | meters above sea level |
| MEL | Mélange Zone |
| MgCl | magnesium chloride |
| MIBC | methyl isobutyl carbinol |
| min. | minute, time |
| MW | megawatts |

TABLE 2.1 TERMINOLOGY AND ABBREVIATIONS

| Abbreviation | Meaning |
|--------------------|--|
| mm | millimeter |
| Mm ³ | millions of cubic meters |
| Moz | million ounces |
| MRE | Mineral Resource Estimate |
| Mt | mega ton or million tons |
| Mtpa | millions of tons per annum |
| MW | megawatts |
| N | north |
| n | total number of items in the sample, statistics |
| NaCN | sodium cyanide |
| NAD | North American Datum |
| NEPA | National Environmental Protection Act |
| NGOs | Non-Governmental Organizations |
| NI | National Instrument |
| Northwest | Northwest Gold Corp. |
| NN | Nearest Neighbor |
| NSR | net smelter return |
| nT | nanotesla, an SI unit of magnetic flux density |
| NPDES | National Pollutant Discharge Elimination System |
| NPV | net present value |
| OCM | oxide cap mineralization |
| OK | ordinary kriging |
| OPEX | operating costs |
| OREAS | OREAS North America Inc. |
| Org C | organic carbon |
| OSC | Ontario Securities Commission |
| OXC | oxide |
| oz | ounce |
| oz/t | ounce(s) per ton |
| oz/ton | ounce(s) per ton |
| P80 | 80% percent passing |
| P&E | P&E Mining Consultants Inc. |
| PAX | potassium amyl xanthate |
| PEA | Preliminary Economic Assessment |
| P.Eng. | Professional Engineer |
| PF | paste backfill |
| PG&E | Pacific Gas and Electric Company |
| P.Geo. | Professional Geoscientist |
| Phase 1 ESA (2011) | Phase 1 Environmental Site Assessment in 2011 from HerSchy Environmental, Inc. |
| ppb | parts per billion |
| ppm | parts per million |

TABLE 2.1 TERMINOLOGY AND ABBREVIATIONS

| Abbreviation | Meaning |
|---------------------|--|
| Precision | Precision Gold LLC |
| psi | pounds per square inch |
| PTJ | Pine Tree-Josephine |
| Project, the | the Fremont Gold Property Project that is the subject of this Technical Report |
| Property, the | the Fremont Gold Property that is the subject of this Technical Report |
| Q1, Q2, Q3, Q4 | quarter one, quarter two, quarter three, quarter four |
| QA | quality assurance |
| QA/QC | quality assurance/quality control |
| QC | quality control |
| QQ | quantile-quantile (plot) |
| QS | Queen Specimen |
| QTZ | quartz |
| Queen Specimen | Queen Specimen-Succedo |
| R ² | coefficient of determination |
| RAR | return air raise |
| RC | reverse circulation |
| RECs | Recognized Environmental Concerns |
| Report, the | this Technical Report |
| RL | relative level |
| ROM | run of mine |
| RPA | Roscoe Postle Associates Inc. |
| RQD | rock quality designation |
| RWQCB | California Regional Water Quality Control Board |
| S | Sulphur |
| s or sec | second, time |
| SEDAR | System for Electronic Document Analysis and Retrieval |
| SLR | SLR Consulting Limited |
| SMARA | Surface Mining and Reclamation Act |
| SO ₂ | Sulphur dioxide |
| SPCC | Spill Control Countermeasure Plan |
| SRK | SRK Consulting (Canada) Inc. |
| SRM | sulphide replacement material |
| Std Dev | standard deviation |
| Lode Gold | Lode Gold Mining Inc. |
| t | metric ton(s) |
| t/h | tons per hour |
| t/m ³ | tons per cubic meter |
| Technical Report | NI 43-101 Technical Report |
| TMI | total magnetic intensity |
| tpa or tpy | tons per annum or tons per year |
| tpd | tons per day |

TABLE 2.1 TERMINOLOGY AND ABBREVIATIONS

| Abbreviation | Meaning |
|--------------|---|
| tpy or tpa | tons per year or tons per annum |
| TR | trench |
| UG | underground |
| US\$ | United States dollar(s) |
| USACE | US Army Corps of Engineers |
| USEPA | US Environmental Protection Agency |
| UTM | Universal Transverse Mercator grid system |
| V | volts |
| VLF-EM | very low frequency electromagnetics |
| W | west |
| WDRs | Waste Discharge Requirements |
| Wright | Wright Engineers Ltd. |
| Wt | weight |
| Wt % | weight percent |
| yr | year |

TABLE 2.2 UNIT MEASUREMENT ABBREVIATIONS

| Abbreviation | Meaning | Abbreviation | Meaning |
|--------------|-------------------------|-------------------|------------------------|
| µm | microns, micrometer | m ³ /s | cubic meter per second |
| \$ | Dollar | m ³ /y | cubic meter per year |
| \$/t | dollar per metric ton | m∅ | meter diameter |
| % | percent sign | m/h | meter per hour |
| % w/w | percent solid by weight | m/s | meter per second |
| ¢/kWh | cent per kilowatt hour | Mt | million tons |
| ° | Degree | Mtpy | million tons per year |
| °C | degree Celsius | min | minute |
| cm | centimeter | min/h | minute per hour |
| d | Day | mL | milliliter |
| ft | Feet | mm | millimeter |
| GWh | Gigawatt hours | MV | medium voltage |
| g/t | grams per ton | MVA | mega volt-ampere |
| h | Hour | MW | megawatts |
| ha | Hectare | oz | ounce (troy) |
| hp | horsepower | Pa | Pascal |
| k | kilo, thousands | pH | Measure of acidity |
| kg | Kilogram | ppb | part per billion |
| kg/t | kilogram per metric ton | ppm | part per million |
| km | Kilometer | s | second |
| kPa | Kilopascal | t or ton | metric ton |

| TABLE 2.2 UNIT MEASUREMENT ABBREVIATIONS | | | |
|--|------------------------------|--------------------|--|
| Abbreviation | Meaning | Abbreviation | Meaning |
| kV | Kilovolt | tpd | metric ton per day |
| kW | Kilowatt | t/h | metric ton per hour |
| kWh | kilowatt-hour | t/h/m | metric ton per hour per meter |
| kWh/t | kilowatt-hour per metric ton | t/h/m ² | metric tonne per hour per square metre |
| L | Liter | t/m | metric ton per month |
| L/s | liters per second | t/m ² | metric tonne per square metre |
| lb | pound(s) | t/m ³ | metric tonne per cubic metre |
| M | Million | T | short ton |
| m | Meter | tpy | metric tons per year |
| m ² | square meter | V | volt |
| m ³ | cubic meter | W | Watt |
| m ³ /d | cubic meter per day | wt% | weight percent |
| m ³ /h | cubic meter per hour | yr | year |

3.0 RELIANCE ON OTHER EXPERTS

The Authors have assumed, and relied on the fact, that all the information and existing technical documents listed in the References section of this Report are accurate and complete in all material aspects. Whereas the Authors have carefully reviewed all the available information presented to us, its accuracy and completeness cannot be guaranteed. The Authors reserve the right, but will not be obligated to revise the Report and conclusions if additional information becomes known to us subsequent to the effective date of this Report.

Copies of the land tenure documents, operating licenses, permits, and work contracts were not reviewed. Information relating to land tenure was reviewed by means of the public information available through the Mariposa County Assessor GIS Parcel Map website at: <https://www.mariposacounty.org/823/Maps-Property-Information/>. The Authors have relied upon this public information, and tenure information from Lode Gold and has not undertaken an independent detailed legal verification of title and ownership of the Fremont Property. The Authors have not verified the legality of any underlying agreement(s) that may exist concerning the licenses or other agreement(s) between third parties, but have relied on, and considers that it has a reasonable basis to rely on Lode Gold to have conducted the proper legal due diligence.

A draft copy of this Report has been reviewed for factual errors by the Company and the Authors have relied on Lode Gold's knowledge of the Property in this regard. All statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the effective date of this Report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The Fremont Property is located in Mariposa County, California, 20.3 km (12.6 miles) northwest of Mariposa, and approximately 241 km (150 miles) east of San Francisco, in the western foothills of the Sierra Nevada Mountains (Fig. 4.1). The Property is located in the southernmost portion of the prolific California Mother Lode Gold Belt. The center of the Property is at approximately 754,360 m E and 4,164,460 m N (NAD83 UTM Zone 10N), or Longitude 120° 07' W and Latitude 37° 36' N.

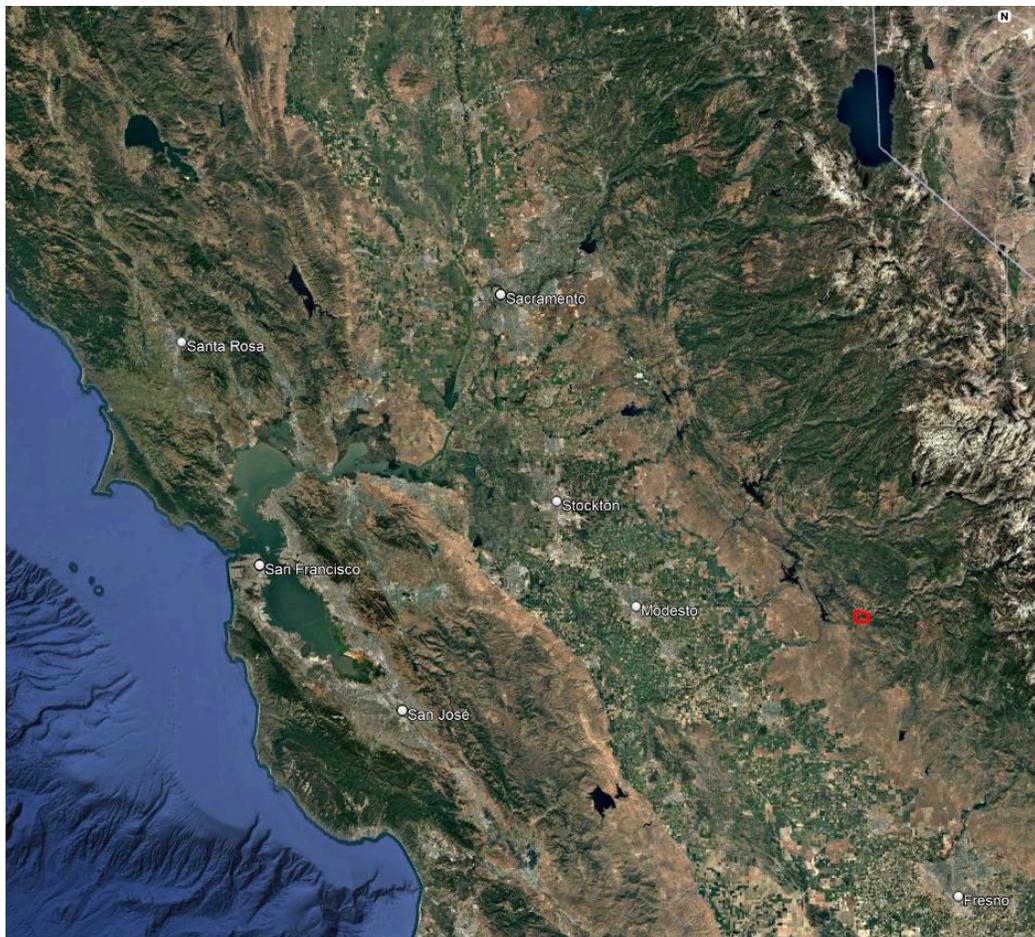


Fig. 4.1 Project property location. Lode Gold, 2025.

4.2 PROPERTY ACQUISITION, MINERAL RIGHTS AND TENURE

In April 2021, California Gold Mining Inc. ("California Gold") and Lode Gold entered into a definitive arrangement agreement for Lode Gold to acquire 100% of the issued and outstanding shares of California Gold Mining Inc., by way of a court-approved plan of arrangement under the Business Corporations Act (Ontario) (the "Arrangement Agreement"). Under the Arrangement Agreement, Lode Gold issued one common share for each common California Gold share. The acquisition includes all the assets of California Gold, including the Fremont Gold Project. On May 3, 2021, Lode Gold received Conditional Approval for the transaction by the TMX/TSX Venture Exchange, subsequent to which Lode Gold forwarded requested documents, including the Fremont 2016 NI 43-101 Technical

Report. On June 30, 2021, California Gold announced that greater than two-thirds of the shareholders voted to approve the transaction, thereby satisfying the two-thirds shareholder vote condition precedent.

On July 13, 2021, Lode Gold announced that it had received final court approval for the plan of arrangement thereby satisfying the second condition precedent. On August 9, 2021, Lode Gold received notice from the TSX Venture Exchange that it had accepted for filing documentation pursuant to the Lode Gold’s arm’s length acquisition of all issued and outstanding securities of California Gold by way of the court-approved Arrangement Agreement.

On August 16, 2021, Lode Gold announced that the transaction had closed and that California Gold had delisted. The Fremont Gold Project continues to remain under 100% ownership by Fremont Gold Mining LLC, a 100% wholly owned subsidiary of California Gold, which is now a 100% wholly owned subsidiary of Lode Gold.

On January 19, 2024, Lode Gold Announces Change of Name to Lode Gold Resources Inc.

Fremont Gold Mining LLC owns the title, including the mineral and surface rights, to the three Assessor Parcel Numbers (“APNs”) 008-060-0030, 008-010-0040, and 008-010-0050 totaling 3,351.22 acres (1,357 ha) that comprise the Fremont Property (Table 4.1), including the land under State Highway 49 (Fig. 4.2). Parcel Numbers 008-010-0030 and 08-010-0040 cover the Mineral Resources stated in Section 14 of this Report. All three Parcels are in good standing. The Property covers eight full and partial sections described as: Sections 4, 5, 8, 9, 10, 15, 16, and

17 Township 4 South, Range 17 East, Mount Diablo Base and Meridian.

| TABLE 4.1 FREMONT PROPERTY LAND INFORMATION | | | | |
|---|-----------------|-------------------------|-------------|------------------|
| Assessor Parcel Number | Area (acres) | Owner | Ownership | Total Tax (\$) |
| 008-060-003-000 | 1,561.22 | Fremont Gold Mining LLC | 100% | 32,664.99 |
| 008-010-004-000 | 1,290.00 | Fremont Gold Mining LLC | 100% | 25,217.72 |
| 008-010-005-000 | 500 | Fremont Gold Mining LLC | 100% | 9,759.49 |
| Total | 3,351.22 | Fremont Gold Mining | 100% | 67,642.20 |

Mariposa County Assessor GIS Parcel Map, February 2025

Note: * Land Information effective July 10, 2024. All \$ values are in US\$.

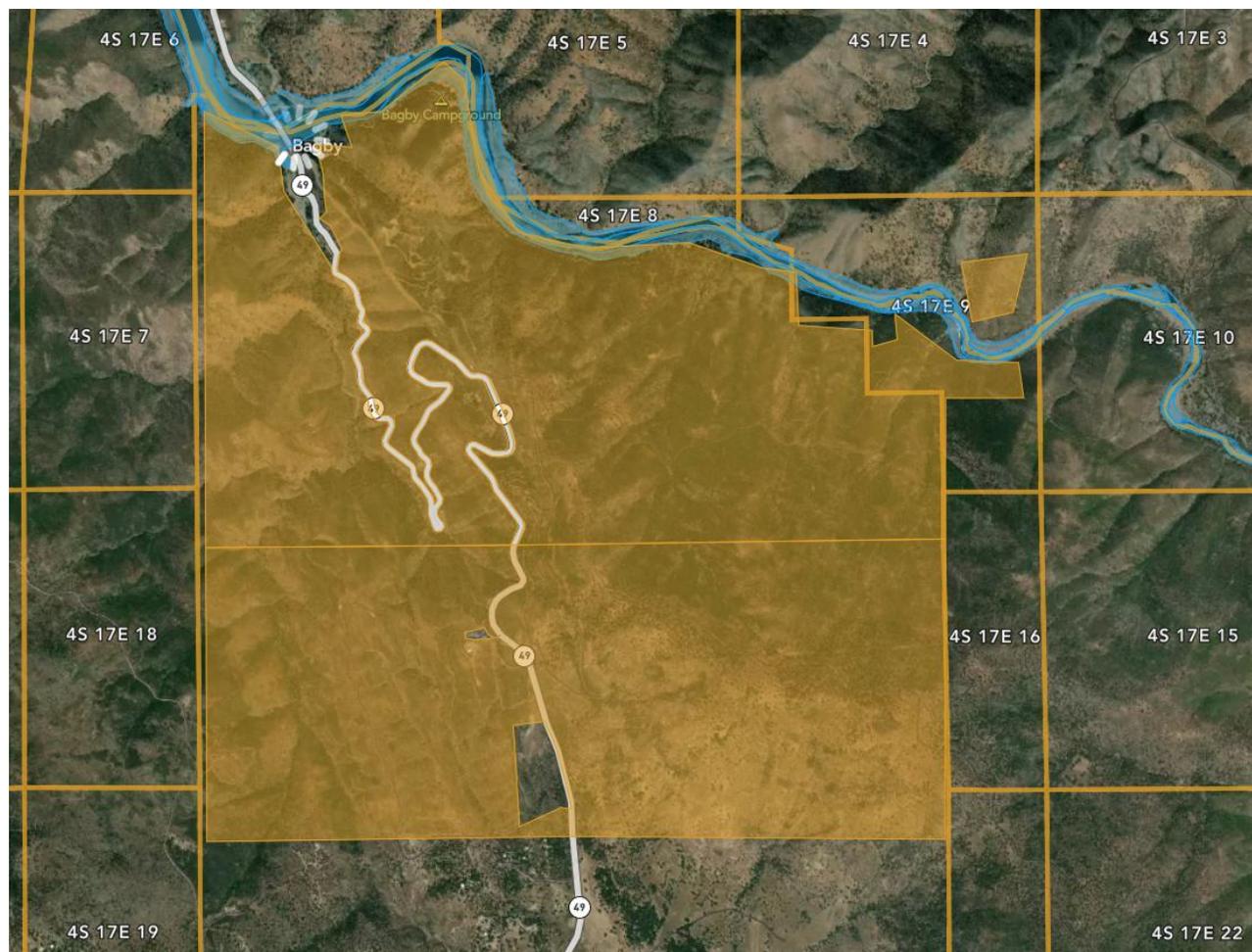


Fig. 4.2 Fremont property map. <https://www.acrevalue.com/>, 2025.

The Property boundaries were surveyed by Ager, Beretta & Ellis Inc. of Vancouver, BC for Goldenbell Resources Corporation (a previous owner) in 1985 and by Freeman and Seaman Land Surveying for California Gold in 2016. Within the Property, there are three small parcels of land deeded to Pacific Gas and Electric Co. ("PG&E") (i.e., 1.52 acres, Bear Valley substation), Mariposa County reclaimed dump site (29.26 acres), and the Merced Irrigation District (approximately 150 acres (61 ha) along the northern boundary). The only major structures on the Property are the office-warehouse located at 7585 Highway 49 and the PG&E electric power transformer substation.

The Property parcels are subject to three different zonings that can be checked online (<https://mariposa-county-public-gis-data-portal-mariposacounty.hub.arcgis.com/>).

MP: Lands that are suitable for extremely low-density residential development due to terrain and lack of accessibility. These lands are under private ownership within or adjacent to publicly owned lands, with brush and grass cover, and some timber. May include mineral or construction material processing, in conformance with the State Surface Mining and Reclamation Act and county code.

MG: Lands characterized by terrain that is less suitable for moderate or high residential densities or intense use, or is remote from established service centers. May include mineral or construction material processing, in conformance with the State Surface Mining and Reclamation Act and county code.

MH: Land best suited for moderate residential densities based upon suitability of terrain, location adjacent to population centers and services areas. May, as well, include mineral or construction material processing, in conformance with the State Surface Mining and Reclamation Act and county code.

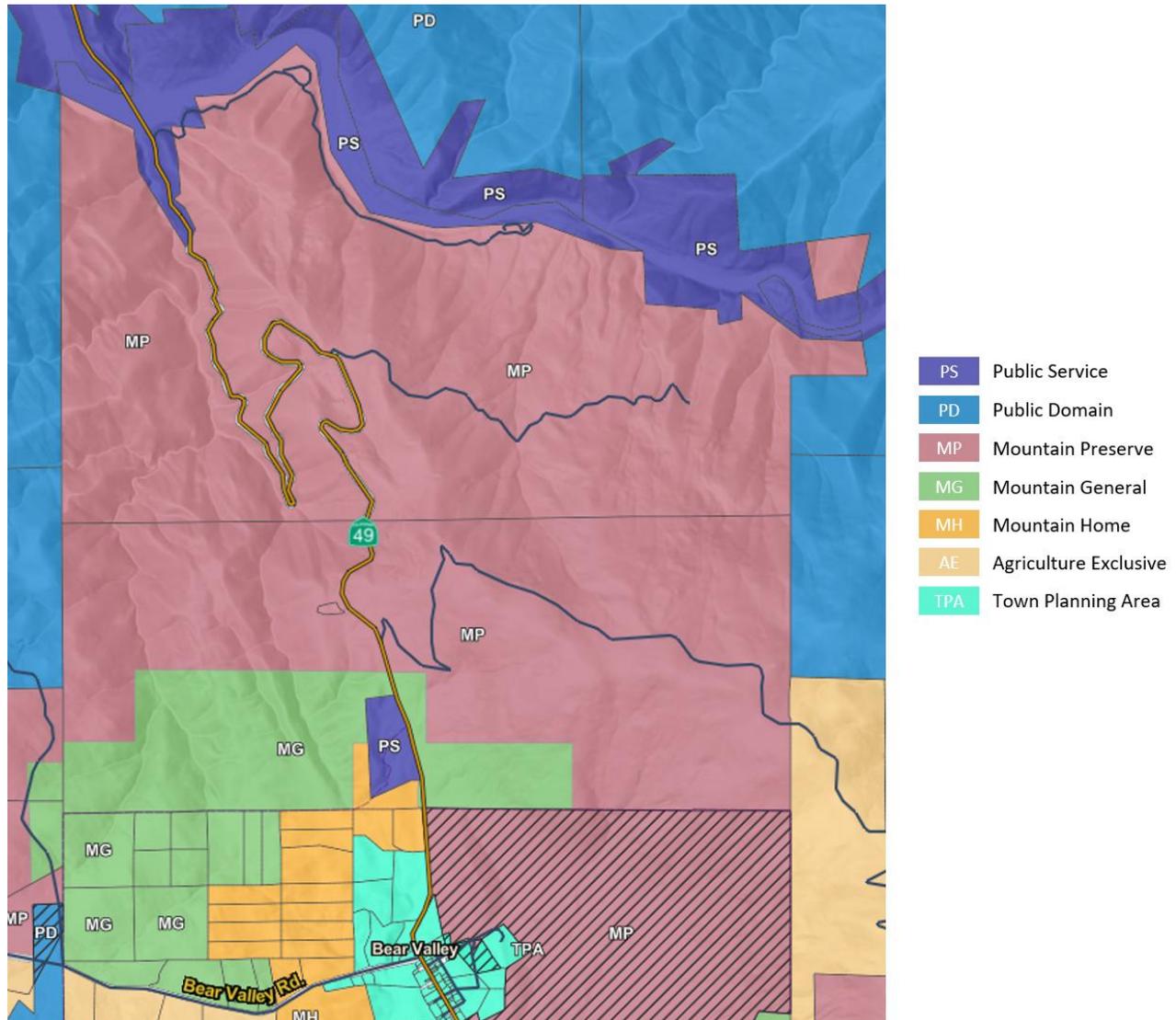


Fig. 4.3 Fremont Property parcel zoning map. (<https://mariposa-county-public-gis-data-portal-mariposacounty.hub.arcgis.com/>, 2025).

4.3 ROYALTIES AND OTHER ENCUMBRANCES

The Fremont Property is subject to a 3% Net Smelter Return (“NSR”) royalty to a third party.

4.4 PERMITTING AND ENVIRONMENTAL

The following report was prepared by P&E Mining Consultants Inc. (“P&E”) for the 2023 PEA.

Exploration permits were issued by Mariposa County through an Administrative Use Permit (“AUP”) valid for a three-year period. The most recent permit was issued on October 2, 2017, and was subsequently extended to April 2, 2022. Lode Gold resumed and concluded the AUP exploration work in March 2022, reclaimed the surface disturbance and received notice from the Mariposa County Planning Department that the AUP was successfully closed out on June 28, 2022. Depending upon the County Planning Departments review of proposed scope of any future exploration works an AUP, Conditional Use Permit (“CUP”) or Surface Mining and Reclamation Act (“SMARA”) permit may be applicable. Additionally, a county administered Grading Permit may be required where access roads are required.

Mariposa County is the lead agent for all county, state and federal permitting jurisdictions.

In October 2011, a Phase 1 Environmental Site Assessment (“Phase 1 ESA (2011)”) was completed on the Fremont Property by HerSchy Environmental, Inc. (“HerSchy”), as part of California Gold’s investigations made prior to its acquisition of the Property in 2012. That assessment was conducted in accordance with the American Society for Testing and Materials standard practice E1527-05 and is in compliance with the All-Appropriate Inquiries (“AAI”) final ruling. The Phase 1 ESA (2011) reported that following a review of current and historical files and discussions with regulatory agencies, the site appears to have Recognized Environmental Concerns (“RECs”). The first REC related to the habitability of the warehouse has been rectified. The second is related to the historical mine tailings storage area from the 1940s, with respect to elevated arsenic and sulphate reported in the mine tailings. HerSchy concluded that historical and future tailings should be properly handled to prevent environmental impacts. However, no recommendations were made for any remediation.

The Authors are not aware of any environmental liabilities on the Property. The Authors are not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the Property.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The following report was prepared by P&E Mining Consultants Inc. (“P&E”) for the 2023 PEA and updated by the Authors.

5.1 ACCESS

The Fremont Property is readily accessible by California State Highway 49 (Fig. 5.1). The Property is located mid-way between the Towns of Mariposa and Coulterville, approximately 241 km (150 miles) east-southeast of the City of San Francisco, California. The Town of Mariposa, with a population of 1,186 (2020 Census) is located 20.3 km (12.6 miles) south of the Property and is the nearest community with major infrastructure. State Highway 49 runs parallel to the deposit on the west side of the Property from north to south.

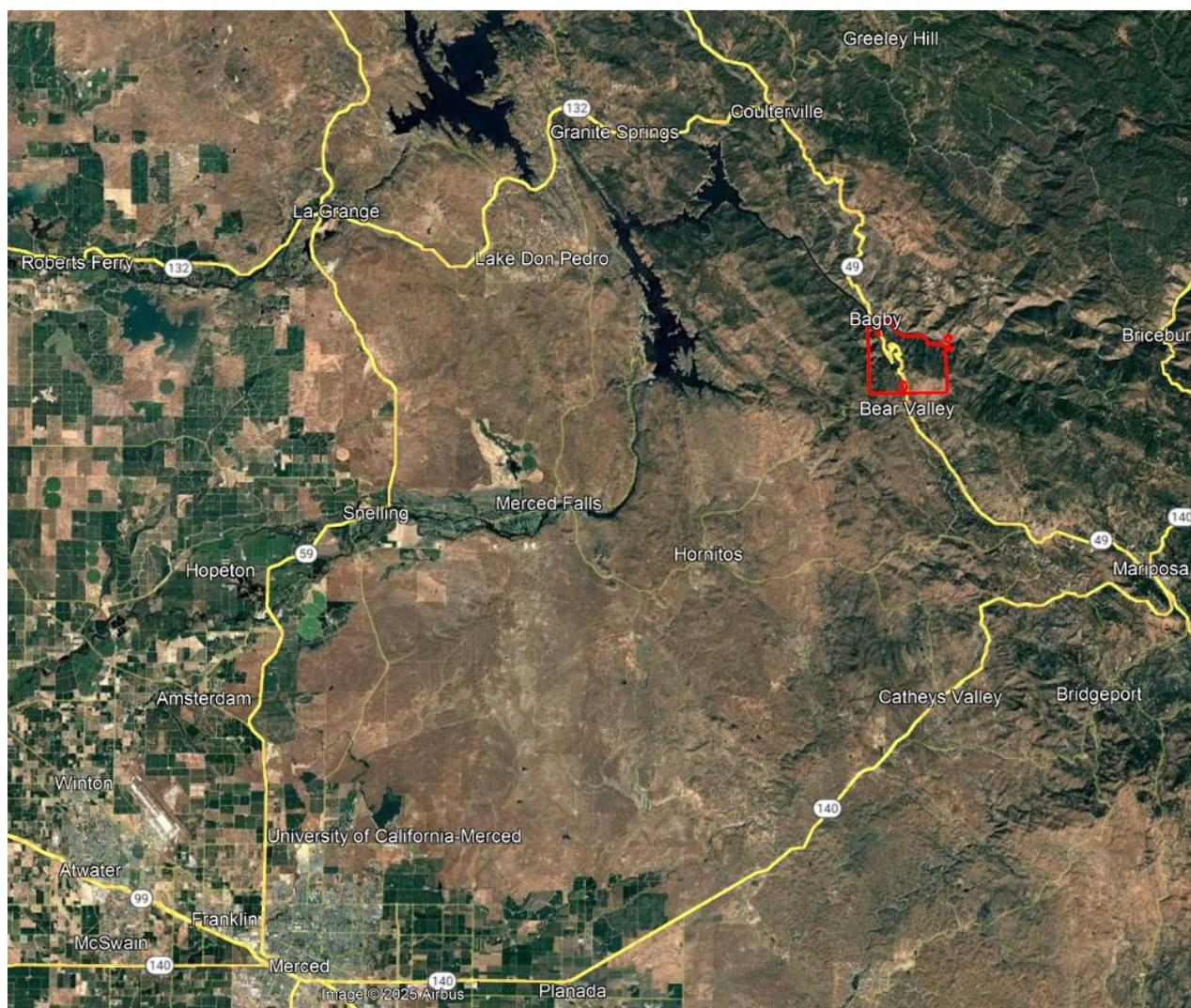


Fig. 5.1 Fremont property access. Google Earth 2025.

5.2 CLIMATE

The climate is characterized by hot, dry summers with the highest average temperature of approximately 32°C in July and cool, wet winters, with the lowest average temperature of approximately 1°C in December-January (www.weatherspark.com). Average annual precipitation, including any snowfall, is approximately 79 cm (31 inches) (www.bestplaces.net), almost all of which occurs as rain between September and June. The area averages 269 sunny days per year. Exploration programs can be conducted year-round on the Property.

5.3 LOCAL RESOURCES

The Town of Mariposa, county seat for Mariposa County, has grocery stores, gas stations, hotels, restaurants, a domestic airport and is the main gateway to Yosemite National Park. Exploration-related supplies can be purchased in Mariposa from one of two hardware and supply stores.

The nearest urban center is the City of Merced, located 45 km (28 miles) to the west-southwest of the Property. Merced is the county seat for Merced County, population 86,333; 2020 Census, and is the location of the nearest railhead.

5.4 INFRASTRUCTURE

California State Highway 49 runs parallel to the deposit on the west side of the Property from north to south and numerous private dirt roads provide access for mineral exploration and cattle grazing. A 70 kV power transmission line owned by PG&E traverses the Property from east to west. The local Bear Valley substation is located adjacent to Fremont Gold Mining LLC's office-warehouse, along Highway 49 (Fig. 5.2).

5.5 PHYSIOGRAPHY

Topography is characterized by sloping uplands (Fig. 5.3). The entire area drains northward to the Merced River. The majority of the Property area lies adjacent to the Merced River Valley, and ranges from 274 m.a.s.l (900 ft) along the Merced River to over 1,036 m.a.s.l (3,400 ft) on the northern end of Bullion Mountain in the southeast corner of the Property. The western third of the Property is within the Hell Hollow drainage system, which is a north-northwesterly trending canyon that hosts intermittent streams draining into the Merced River. In the southern portion of the Property, the uplands begin to level out and rolling woodland and grasslands are the dominant landforms.

Vegetation on the Property consists of scattered clumps of scrub oak with open grasslands in the southeast part of the Property and manzanita and chaparral covering steep gullies over the remainder of the Property. Pine trees, from which the Property name is derived, occur as isolated trees or in clumps and grow well on reclaimed waste dump sites.

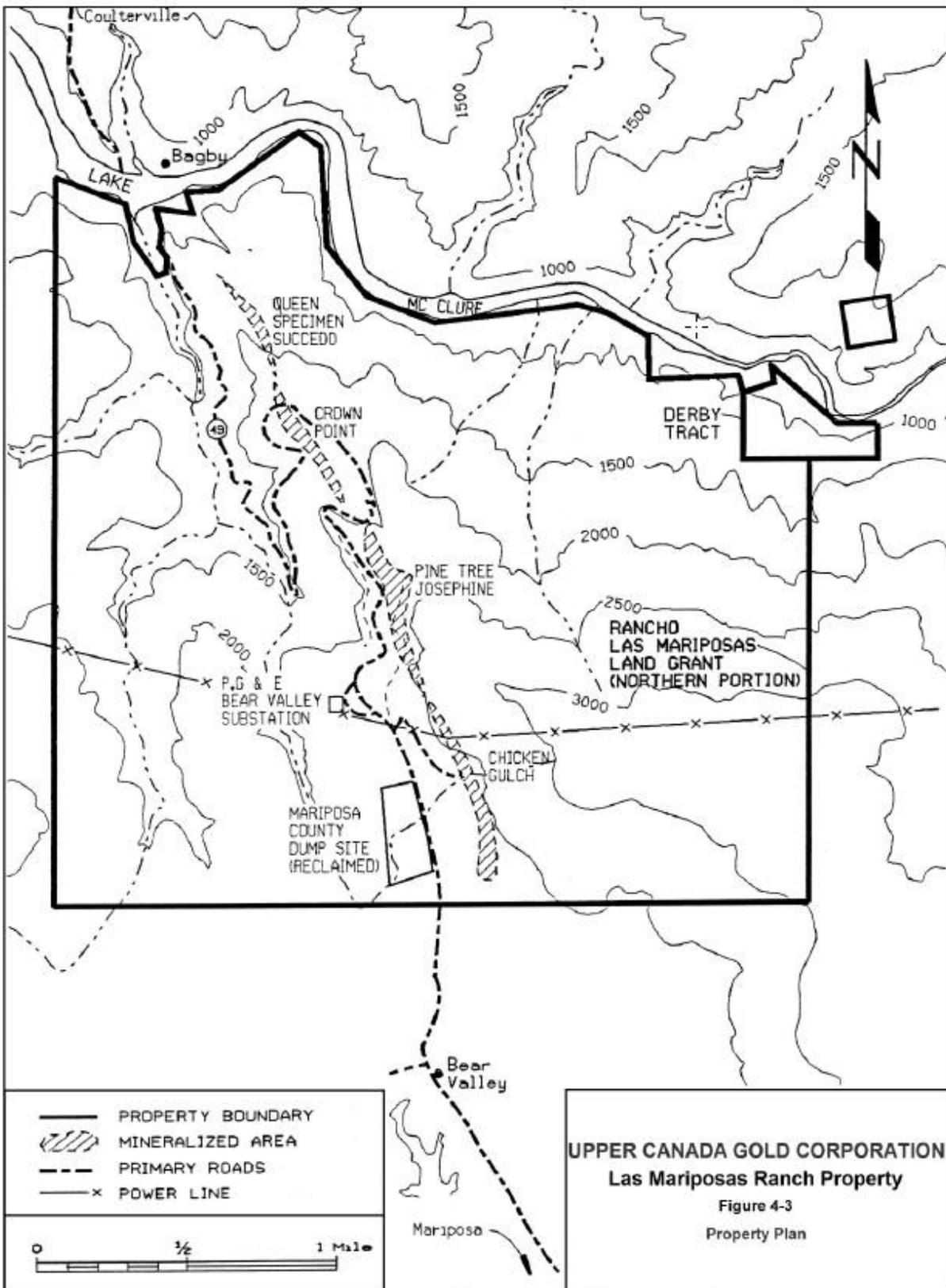


Fig. 5.2 Fremont property infrastructure. Burgoyne, 2013.



Fig. 5.3 Fremont property physiography.

Notes: View looking northwards. Highway 49 in the mid-ground and Merced River in the center of the image.

6.0 HISTORY

The following report was prepared by P&E Mining Consultants Inc. (“P&E”) for the 2023 PEA and updated by the Authors.

The records of gold exploration and mining activities in the Fremont Gold Property area extend from 1849 intermittently through to present-day. The main sources of information include Beacon Hill (1991), Smith (2008), and particularly Burgoyne (2013), SLR (2021) and P&E (2023). Collectively, the historical exploration and drilling programs resulted in the discovery of four main gold Deposits in the central trend: Pine Tree - Josephine, Queen Specimen-Succedo (“Queen Specimen”), Crown Point, and Chicken Gulch plus three minor historical mines: French Mine, Evans Mine and Ogle Lease (Fig. 6.1).

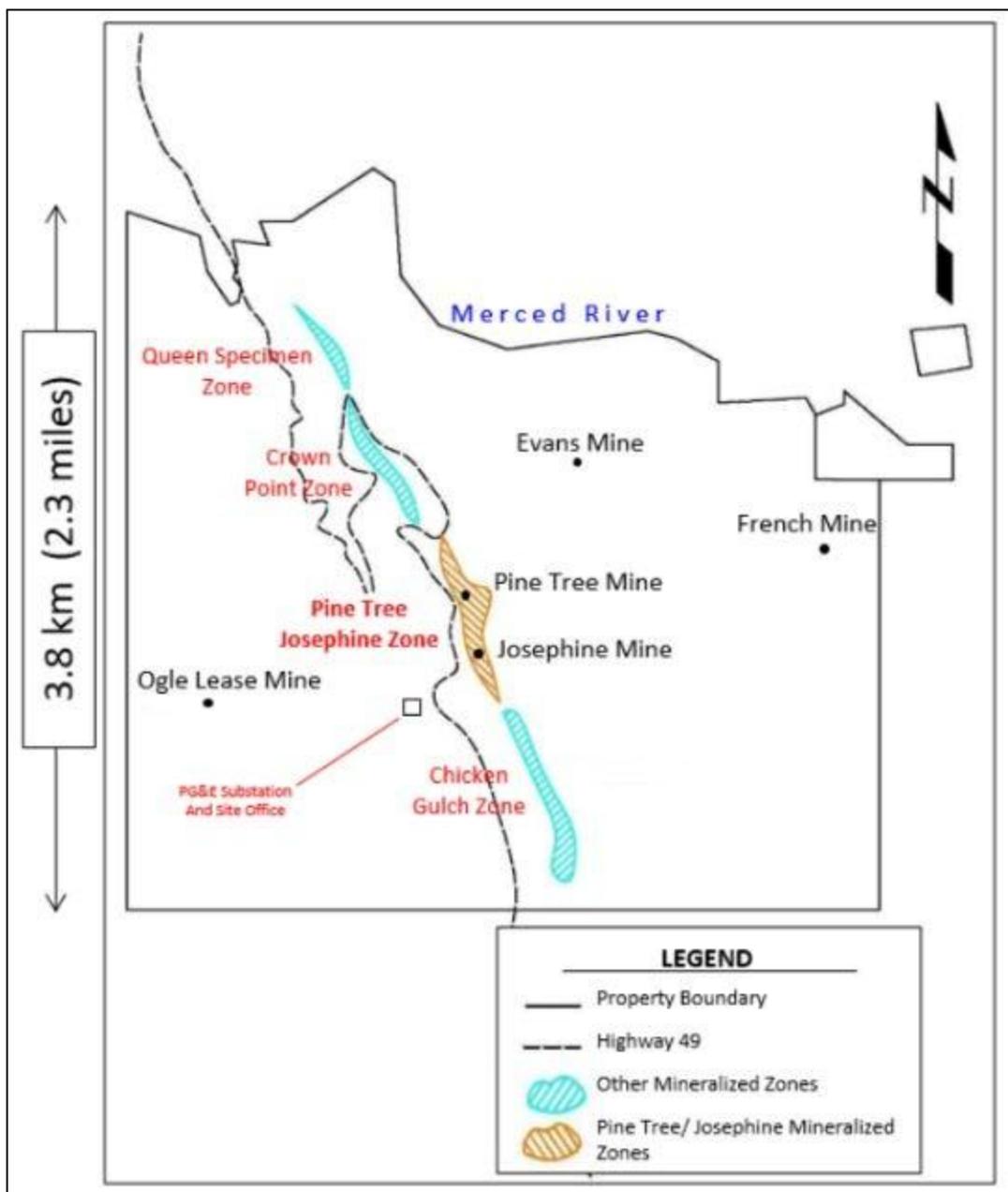


Fig. 6.1 Gold deposits in the Fremont Property. California Gold press release dated November 1, 2016.

6.1 PRIOR OWNERSHIP HISTORY

The Property consists of 1,357 ha (3,351 acres) of the northern portion of the Rancho de las Mariposas, which was granted to Juan B. Alvarado by the Governor and Commandant General of the Mexican Department of California while still a possession of Mexico on February 29, 1844 (Ford and Cochrane, 1984). The grant was purchased from Alvarado by John C. Fremont on February 10, 1847 prior to Mexico's cessation of California to the United States in the Treaty of Guadalupe Hidalgo in 1848 following the Mexican–American War. Gold was discovered in California at Sutters mill on January 24, 1848 sparking the California Gold Rush. (Author's note: The area of the property was explored and worked during the 1849 Gold Rush and afterwards).

In 1887, the title of the land grant was acquired by Mariposa Commercial and Mining Company. The Property was subsequently acquired by the Pacific Mining Co. (subsidiary of A.J. Industries) in 1933 and mined until 1942. The title to the grant remained with A.J. Industries until A.J. Land Company acquired it in 1963. The Property was dormant until 1984.

The Property was acquired from A.J. Land Company in 1984, through a seven-year lease, by Goldenbell Mining Corporation ("Goldenbell"), a subsidiary of Goldenbell Resources Incorporated controlled by ABM Gold Corp. of Vancouver, BC. In mid-1988, Northgate Exploration Ltd. acquired the controlling interest of ABM Gold Corp. and through its US subsidiary, Northwest Gold Corp. ("Northwest"), the Pine Tree-Josephine Property.

After an unsuccessful effort to put the Pine Tree-Josephine Mine back into production, the Project lease expired and the Property was returned to A.J. Land Company in 1991. In 2004, A.J. Land Company transferred title of the Property to Mike Mondo, a trustee of the Mondo Trust, who in turn transferred it to the Gene Mondo and Betty Mondo Family, L.P.

In 2008, Global Mining Explorations Ventures LLC (Global Mining, later renamed Precision Gold LLC ("Precision")) of Phoenix, Arizona, took a one-year option on the Property from the Mondo Family Trust and completed drilling of the tailings in Hell's Hole Gulch below the portal to the Pine Tree Mine, as reported in Smith (2008). Precision relinquished its property option on July 1, 2009.

On March 30, 2011, John 3:16 LLC, an Arizona-based limited liability company, optioned the Property from Gene Mondo and Betty Mondo Family, L.P. On May 9, 2011, California Gold (then Upper Canada Gold Corporation) re-optioned the Property from John 3:16 LLC, with an option to acquire the Property from them and the right to compel John 3:16 LLC to exercise its option. The option and re-option arrangements were terminated by California Gold on September 29, 2011.

On October 11, 2011, John 3:16 LLC entered into a new option agreement with Gene Mondo and Betty Mondo Family L.P. giving John 3:16 LLC the right to acquire the Property until April 10, 2012. On January 20, 2012, California Gold purchased this option from John 3:16 LLC in consideration for US\$50,000 and a contingent commitment to pay John 3:16 US\$100,000 plus 3% of the purchase price that the company ultimately paid for the Property. The fees paid to John 3:16 LLC have been referred to as the finders' fee payable regarding California Gold's acquisition of the Property.

On January 26, 2012, California Gold announced that it had entered into a definitive purchase and sale agreement with Gene Mondo and Betty Mondo Family, L.P., the owner of the Property (the Vendor), whereby the company could designate any date until January 16, 2013 to complete the Property acquisition. On October 12, 2012, California Gold and the Vendor agreed that, in exchange for a US\$40,000 payment to the Vendor, California Gold could extend the closing date until April 16, 2013. On March 1, 2013, California Gold completed the purchase of the Property through its wholly owned subsidiary Fremont Gold Mining LLC. The purchase price consisted of aggregate consideration to the Vendor of US\$5,120,000, of which approximately US\$5,000,000 was paid on closing. California Gold also paid a third party an aggregate finder's fee of US\$303,600, of which US\$253,600 was paid on closing.

In April 2021, Lode Gold entered into a definitive arrangement with California Gold to acquire 100% of the issued and outstanding shares of the latter, for all the assets of California Gold Mining Inc., including the Fremont Gold Project. On August 16, 2021, Lode Gold announced that the transaction had closed and that California Gold had delisted as a public company. The Fremont Gold Project continues to remain under 100% ownership by Fremont Gold Mining LLC, a 100% wholly owned subsidiary of California Gold, which now exists as a 100% wholly owned subsidiary of Lode Gold.

On January 19, 2024, Lode Gold Announces Change of Name to Lode Gold Resources Inc.

6.2 RECENT HISTORICAL MINERAL EXPLORATION

6.2.1 1984 TO 2013

Exploration in 1984 by Goldenbell consisted of an evaluation of historical underground data, geological mapping, surveying, reconnaissance soil surveys, and induced polarization, very low frequency electromagnetic and magnetic surveys (Champigny, 1984). The 1985 geophysical and geochemical datasets were evaluated from 1 inch = 200 feet section plans by Kikauka (2003). Geophysical and geochemical anomalies ranging from very strong to very weak strength rankings for Au in soil, induced polarization ("IP"), VLF-EM and magnetometer surveys and shallow to deep depth rankings for IP and resistivity surveys, are given by Kikauka (2003).

In 1984, an historical preliminary "geological reserve" estimate on the Pine Tree-Josephine Mines was completed, based on underground chip and muck car samples (see Section 6.3 below). In addition, in 1986, the Pine Tree portal, adit, and underground workings were rehabilitated, and geological mapping and channel sampling completed. Bulk samples were taken for metallurgical test work. On the basis of this work, a reverse circulation ("RC") drill hole program was completed in 1985 and 1986. Additional underground bulk sampling was completed in 1986 for metallurgical test work.

In 1985 and 1986, four separate targets were drilled: Pine Tree - Josephine, Queen Specimen, Chicken Gulch, and Crown Point (see Fig. 6.1). A total of 22,065 m (72,393 ft) of surface drilling was completed on those targets, which included 19,860 m (65,158 ft) of RC drilling in 140 holes,

1,196 m (3,925 ft) of rotary drilling in 18 holes, and 1,009 m (3,310 ft) of core drilling in 16 drill holes.

The Pine Tree - Josephine target area, which contained the only historical mineral resource at that time on the Property, was explored by 16,494 m (54,113 ft) of vertically oriented RC drilling in 113 holes drilled nominally on 30 m (100 ft) centers with a grid north orientation of 330° (see Fig. 6.2). The drill holes were at 30 m north-south intervals along mineralization trend and 21 m to 30 m (70 ft to 100 ft) intervals east-west. Except for the eight RC holes drilled at Queen Specimen (drill holes 133 to 140; Fig. 6.3), the RC drill holes were vertical (Appendix H). A total of 27 west-east drill section lines, at 30 m intervals, were completed on Section lines 19,600 N to 22,300 N. The maximum depth drilled was 276 m (905 ft). Significant intercepts for the four targets drilled are listed in Appendix I.

In addition to the drilling, 19 surface trenches were excavated on the projected up-dip surface exposure of the Pine Tree-Josephine veins and mineralized host rock. The trenches varied from 11 m to 26 m (35 ft to 85 ft) in length.

In 2003, Goldrea Resources Corp. (“Goldrea”) optioned the Project and re-assayed a representative sample of pulps from the historical Goldenbell drill programs. Goldrea concluded that the geological resource was open to expansion in the footwall and to the southeast and northwest.

In 2008, Global Mining (later “Precision”) completed a 27 vertical hole drilling program totaling 165.06 m (538.25 ft) on the tailings in Hell’s Hole Gulch below the portal to the Pine Tree Mine (Smith, 2008) (Fig. 6.4). The drilling program utilized a track-mounted sonic drill operated by Resonant Sonic International Drilling Company. Drilling of the tailings was done on a 30 m grid pattern and tested an area 171 m long and 142 m wide (560 ft by 465 ft) at the northwest end and 53 m wide (175 ft) at the southeast end of the tailings area. Bulk density data, detailed drill logs and assay results are presented in Smith (2008). Precision relinquished its option to the Property on July 1, 2009.

No exploration was completed on the Property between 2009 and 2013.

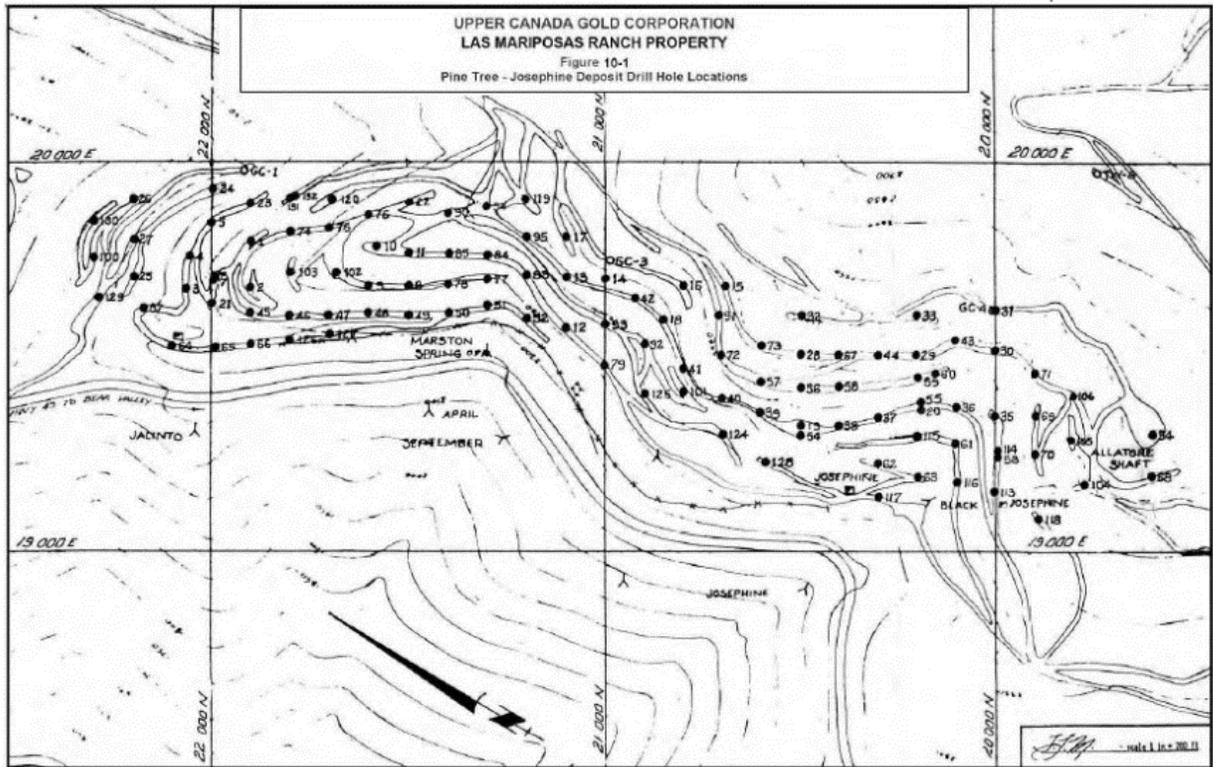


Fig. 6.2 Pine Tree – Josephine deposit, 1985-1986 RC drill hole locations. Burgoyne 2013.
Note: Historically, the Fremont Property was known as the Las Mariposas Ranch Property.

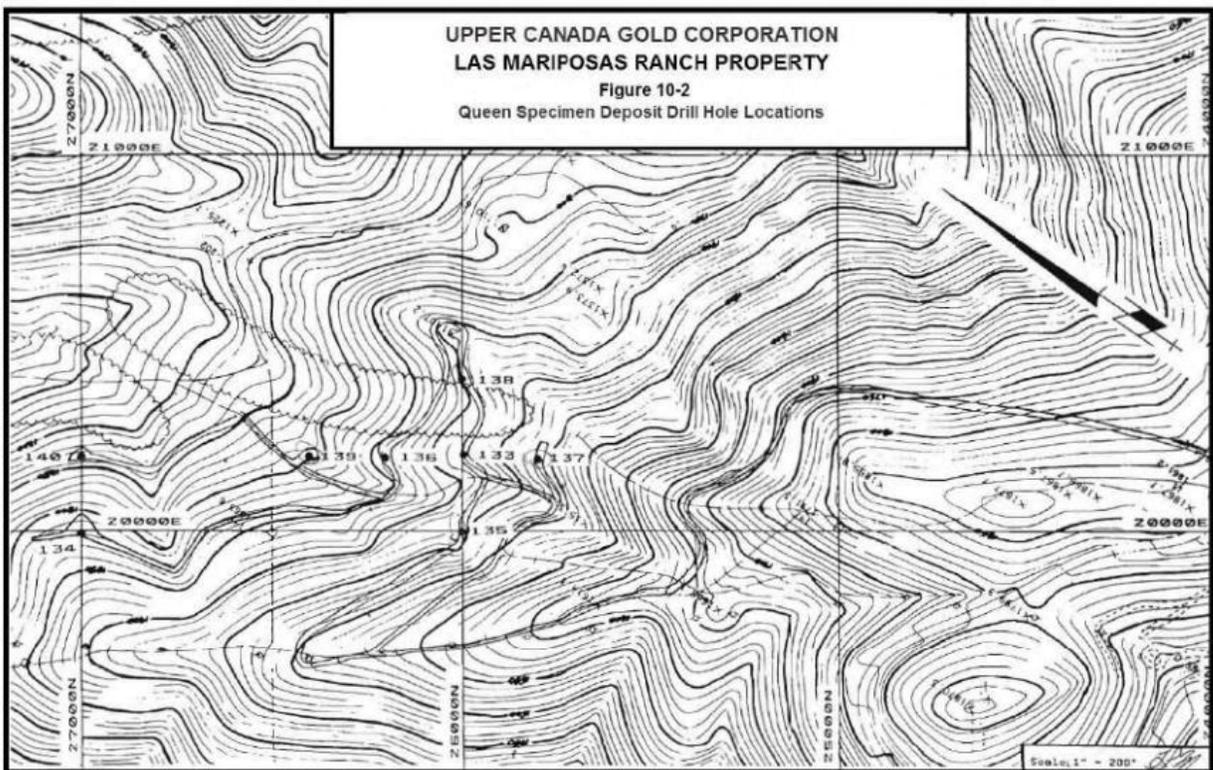


Fig. 6.3 Queen Specimen deposit 1985-1986 RC drill hole locations. Burgoyne 2013.

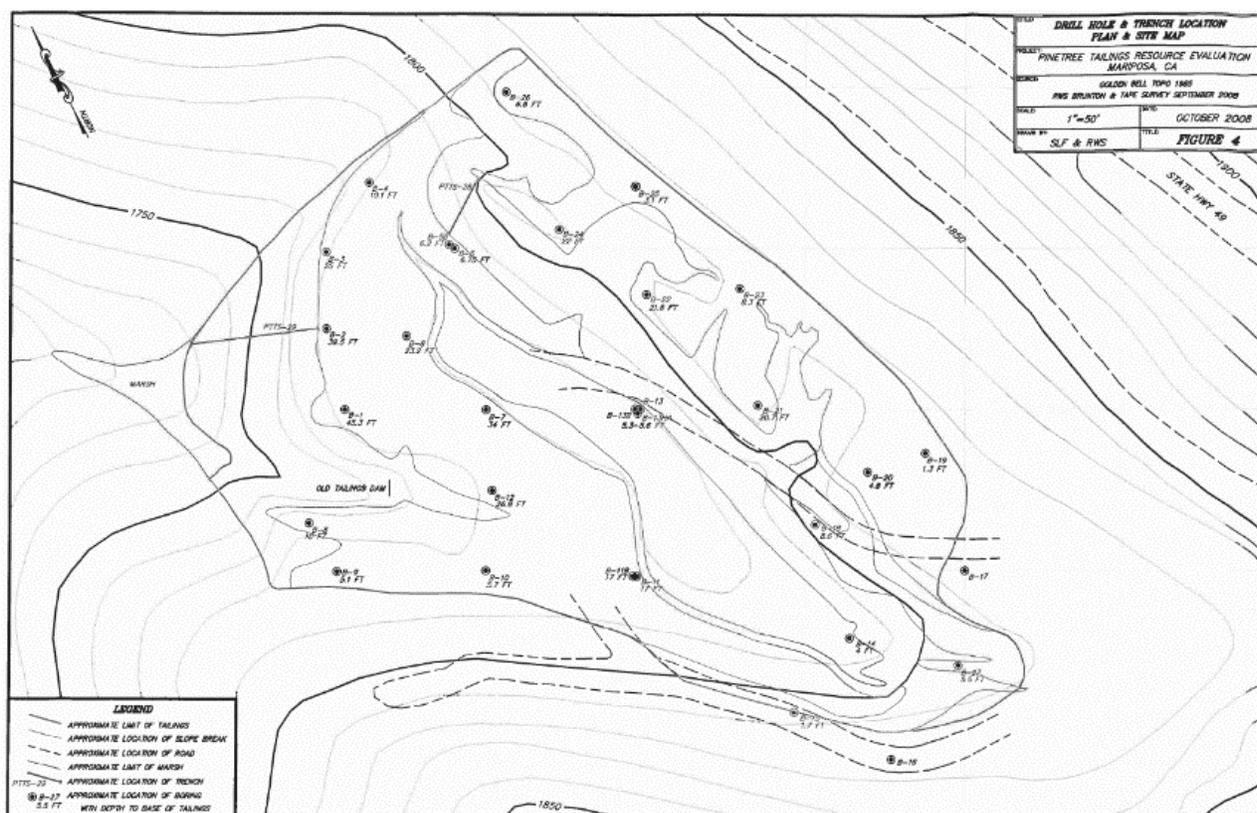


Fig. 6.4 Precision 2008 drill hole and trench locations. Smith 2008.

6.2.2 2013 TO 2021 CALIFORNIA GOLD

Since acquiring the Property in 2013, California Gold utilized geologic mapping, surface sampling, geophysical surveys, and RC drilling programs to identify drill targets in the Pine Tree–Josephine Deposit area and throughout the Property. The mapping, sampling and geophysical survey results have been summarized below. Highlights of the California Gold drilling programs are presented in Section 10 of this Report.

6.2.2.1 GEOLOGICAL MAPPING

In 2014, California Gold undertook a property-wide geological mapping program at a 1:5,000 scale. This work refined the geology of the Property and identified five new target areas (Fig. 6.5): 1) Golden Chain; 2) Vermont Slab; 3) Golden Slope; 4) Race Track Meadow; and 5) Ogle Canyon. In addition to this work, California Gold contracted SRK Consulting (Canada) Inc. (“SRK”) to complete a structural geology investigation of the Property. SRK completed structural and field mapping, drill core analysis, and produced a 3-D geological model to aid drill hole targeting.

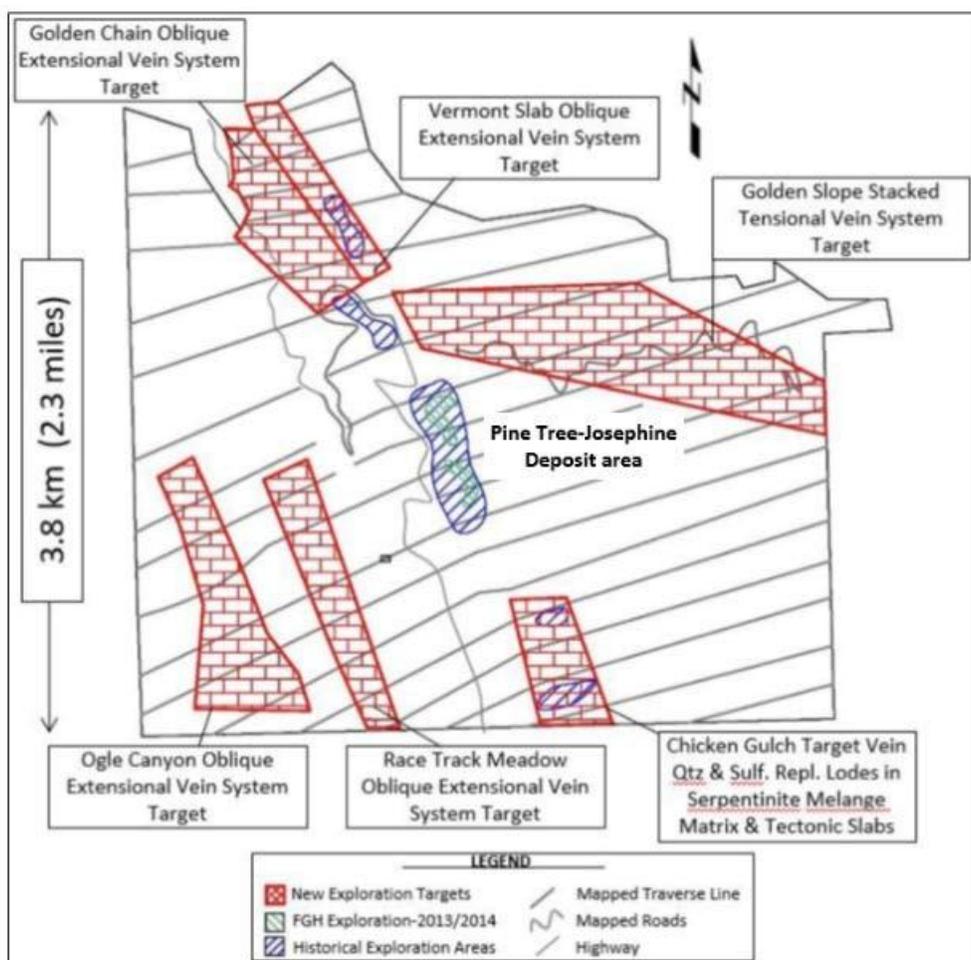


Fig. 6.5 Mineralized targets recognized during the 2014 surface mapping and sampling program. California Gold, press release dated January 12, 2016.

6.2.2.2 SURFACE SAMPLING

In 2014, in addition to the mapping program, a surface sampling program was undertaken. Chip samples were taken from areas of quartz mineralization found during the mapping program. A total of 91 chip samples were collected. The chip sampling was completed along the Melones Fault Zone (the main structure associated with gold mineralization on the Property) and in areas of favorable geology. Individual chip samples were collected from outcrops scattered throughout the Melones Fault Zone and near road-cuts. Continuous chip samples ranged from 0.06 m to 1.95 m (0.2 ft to 6.4 ft). All samples were crushed and assayed by standard fire assay and inductively coupled plasma (“ICP”) methods by American Assay Laboratories (“AAL”) in Sparks, Nevada.

6.2.2.3 AIRBORNE GEOPHYSICAL SURVEY

Geotech Airborne Geophysical Surveys flew a Helistinger survey, a helicopter-borne gamma-ray and aeromagnetic geophysical survey, over the Property in October 2015 (GeoTech, 2015). The processed survey results included total magnetic intensity (“TMI”), calculated vertical gradient

(“CVG”), digital terrain model (“DEM”), and gamma-ray spectrometry products (including uranium, thorium, and potassium). In late-2015, SRK interpreted the survey results, in order to establish a structural framework and map the distribution of fabrics, faults and major lithological units, and identify regional exploration drill targets on the Property (SRK, 2015). The structural interpretation results of their work are summarized in Section 7.4 of this Report.

6.3 HISTORICAL MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

6.3.1 PINE TREE - JOSEPHINE DEPOSIT

Several historical mineral reserve estimates for the Pine Tree-Josephine Project were completed by independent consulting firms and by Northwest Gold (Beacon Hill, 1991; Burgoyne, 2013; SLR, 2021). Each of these historical mineral reserve estimates is summarized below.

The historical mineral resource and mineral reserve estimates summarized below are relevant because they demonstrate the exploration and development history of the gold mineralized deposits on the Property. However, the historical mineral resource and mineral reserve estimates should not be relied on and are not considered to be current Mineral Resources and Mineral Reserves. The historical mineral resources have been superseded by the current Mineral Resource Estimate described in Section 14 of this Report.

6.3.1.1 INTERNATIONAL GEOSYSTEMS CORPORATION

The first historical “mineral reserve” estimate for the Pine Tree-Josephine Mine was completed in 1984 by International Geosystems Corporation (Vancouver, BC), on behalf of Goldenbell, prior to the signing of a lease with A.J. Land Co (Champigny, 1984). This was a conceptual study to determine if there was suitable exploration potential to warrant a major exploration program to define a gold deposit. A preliminary historical “geological reserve” estimate was completed based on 829 underground chip and 895 muck car samples. This estimate was based on a geostatistical block model using kriging. A minimum cut-off grade of 0.020 oz/ton Au over a minimum mineralized length of 7.6 m (25 ft) was used to produce gold grades for blocks having dimensions of 15.2 m x 15.2 m x 15.2 m (50 ft x 50 ft x 50 ft). The in-situ “geological reserves” in this study were 5.4 Mt (5.96 million tons) grading 2.64 g/t (0.077 oz/ton) Au (Table 6.1).

| TABLE 6.1 PINE TREE-JOSEPHINE 1984 GEOLOGICAL RESERVE ESTIMATE | | | |
|--|-----------|-------------------|--------------|
| Cut-off Grade (oz/ton Au) | Tons | Grade (oz/ton Au) | Content Gold |
| 0.020 | 5,960,000 | 0.077 | 458,920 |

Champigny (1984), as summarized by Beacon Hill (1991) and Burgoyne (2013)

The purpose of this study was to determine if there was suitable exploration potential to warrant a major exploration program to define a major gold deposit. The exploration program was the 1985-1986 surface drilling program described above.

6.3.1.2 WRIGHT ENGINEERS (1986)

In November 1986, Wright Engineers Limited of Vancouver, BC completed a feasibility study on the Property and prepared historical “geological reserve” and historical “mineable reserve” estimates.

All contiguous samples over 0.51 g/t (0.015 oz/ton) Au from the drill hole intercepts and trench results were composited into “blocks”. Lithologic and mineralogical zones or envelopes were manually constructed and digitized. Grade interpolation was done for blocks that lay within a lithological envelope created from cross-sections. Bench plans were constructed at 12.2 m (40 ft) intervals and were assigned gold values via an Inverse Distance Squared interpolation, using a search ellipsoid 46 m (150 ft) in radius, oriented along strike and tilted down the dip angle of the gold mineralization. The search radius in the direction perpendicular to the dip was 15.2 m (50 ft), in the plane of the section. Previously mined out zones in the block model were assigned zero grade and no tonnage. The “geological reserve” was estimated to be 14.7 Mt (16.2 million tons) grading 2.13 g/t (0.062 oz/ton) Au for a total content gold of 1 Moz (Table 6.2).

TABLE 6.2 PINE TREE-JOSEPHINE 1986 HISTORICAL GEOLOGICAL RESERVES

| Mineralization Type | Proven | | Probable | | Total | | |
|---------------------|-----------------|-------------------|-----------------|-------------------|-----------------|-------------------|----------------------|
| | Tonnage (k ton) | Grade (oz/ton Au) | Tonnage (k ton) | Grade (oz/ton Au) | Tonnage (k ton) | Grade (oz/ton Au) | Gold Content (oz Au) |
| 4 | 693 | 0.033 | - | - | 693 | 0.033 | 22,869 |
| 5 | 4,503 | 0.063 | 487 | 0.053 | 4,990 | 0.062 | 309,380 |
| 6 | 4,897 | 0.068 | 183 | 0.068 | 5,080 | 0.068 | 345,440 |
| 7 | 4,697 | 0.062 | 286 | 0.045 | 4,983 | 0.061 | 303,963 |
| 8 | 365 | 0.041 | 40 | 0.041 | 405 | 0.041 | 16,605 |
| 9 | 17 | 0.034 | - | - | 17 | 0.034 | 578 |
| Total | 15,172 | 0.062 | 996 | 0.053 | 16,168 | 0.062 | 998,835 |

Wright (1986) and SLR (2021)

Note: Historical geology and gold zone classification.

Wright Engineers also estimated an historical “mineable reserve”, where an allowance was made for mining dilution and an open pit was designed. A pit bottom was outlined using the bench plans as a guide and pit walls were at varying angles. A mineable historical “reserve” contained within the designed pit was estimated at 13.5 Mt (14.93 million tons) grading 1.99 g/t (0.058 oz/ton) Au for a total of 0.866 Moz of Au at a stripping ratio of 5.57:1 (Table 6.3).

| TABLE 6.3 PINE TREE-JOSEPHINE 1986 HISTORICAL “GEOLOGICAL AND MINEABLE RESERVES” | | | |
|--|---------------|-------------------|----------------------|
| Type of Historical Reserve | Tonnage (ton) | Grade (oz/ton Au) | Total Ounces (oz Au) |
| Geological | 16,168,000 | 0.062 | 1,002,416 |
| Mineable | 14,930,000 | 0.058 | 865,940 |

Wright (1986) and SLR (2021)

6.3.1.3 DERRY, MICHENER, BOOTH AND WAHL (1988)

| TABLE 6.4 PINE TREE-JOSEPHINE HISTORICAL “MINERAL RESOURCE ESTIMATE” | | | |
|--|------------------|-------------------|-------------------------------|
| Historical Resource (“Geologic Reserve”) | Tons | Grade (Au oz/ton) | Contained Ounces ¹ |
| Drill Indicated | 8,085,900 | 0.086 | 695,387 |
| Drill Indicated "Diorite Ore" ² | 204,200 | 0.04 | 8,168 |
| Drill Indicated Total | 8,290,100 | 0.085 | 704,659 |
| Drill Inferred | 1,597,300 | 0.078 | 124,589 |

DMBW (1988) as reproduced by SLR (2021)

Notes:

¹ Contained ounces may differ due to rounding.

² "Diorite ore" was separated due to its relative low grade and possible different metallurgy

DMBW (Derry, Michener, Booth and Wahl) (1988) reported historical in-situ “geologic reserve” for the Pine Tree–Josephine area, based on assay and geological information from vertical RC drill holes and limited surface trenching and underground workings completed in 1985 and 1986. A cut-off grade of 0.86 g/t (0.025 oz/ton) Au over a minimum continuous drill intercept of 3 m (10ft) and a tonnage factor of 2.67 t/m³ (12 ft³/ton) were utilized (Table 6.4). Note that “diorite ore” was distinguished, based on its lower grade and possible different metallurgical properties.

6.3.1.4 NORTHWEST (1988)

In May 1988, Northwest commenced development of a geological and open pit block model for the Pine Tree–Josephine area utilizing similar parameters to the Wright Engineer’s study. A block model utilizing the Inverse Distance Squared method was set-up to determine the historical “geological reserves”. The geological correlations determined in the DMBW (1988) study to define boundary conditions and establish the search criteria were utilized. The model was set-up to allow both "ore" and waste composites to influence block grades, thereby creating a diluted block, which reflected the actual grades that would be encountered during mining. A mining block cut-off of 0.86 g/t (0.025 oz/ton) Au was utilized. The preliminary estimate within the model gave a historical “geological in-situ reserve” of 8.9 Mt (9,852,000 tons) grading 2.88 g/t (0.084 oz/ton) Au (Table 6.5). This estimate compared very closely to the DMBW (1988) estimate.

| TABLE 6.5 PINE TREE-JOSEPHINE HISTORICAL RESERVES 1988 AND 1989 | | | | | |
|---|------------------------------|---------------------------|-----------|-------------------|----------------|
| Year | Historical Classification | Cut-off Grade (oz/ton Au) | Tons | Grade (oz/ton Au) | Ounces Au (oz) |
| 1988 | Geological (in-situ) Reserve | 0.025 | 9,852,000 | 0.084 | 827,000 |
| 1989 | Mineable Reserve (open pit) | 0.03 | 9,549,167 | 0.065 | 618,599 |

Beacon Hill (1991), Burgoyne (2013), SLR (2021).

Note: the 1989 estimate included 1,768,000 tons grading 0.065 oz/ton Au of open pit oxide.

A second historical “diluted in-situ” or “mineable reserve” was estimated in 1989 to include down-dip lower-grade mineralization (Table 6.5). The Northwest geological and block model was reviewed and audited by DMBW in August 1988, who concurred with the approach and methodology applied by Northwest. The model was re-run at various cut-off grades and it was found that a 0.93 g/t (0.027 oz/ton) Au cut-off grade would give the best return at the prevailing gold price of US\$425/oz. In February 1989, a historical open pit “mineable reserve” for the Pine Tree-Josephine mines of 8.7 Mt (9,549,167 tons) grading 2.23 g/t (0.065 oz/ton) Au (based on a 1.03 g/t (0.030 oz/ton) Au cut-off), contained 618,599 oz gold at a stripping ratio of 5.33:1. This historical “mineable” reserve used parameters of 5,450 tpd (6,000 tons per day) operation, \$1.04/t (\$0.94/ton) milling cost and \$7.79/t (\$7.07/ton) mining cost.

6.3.1.5 BEACON HILL (1988)

A conceptual underground mining plan was developed by Beacon Hill, based on mineralization outlines and reserve projections made by Northwest Gold from surface drilling and underground sampling data. The work completed in the study focused predominantly on the underground requirements for a hypothetical bulk tonnage mechanized mining operation. Information and costs for the surface requirements of the project were obtained from Wright Engineers, and Knight and Piésold.

Underground mining above the Pine Tree level was not considered in the earlier Northwest Gold study. It was assumed that due to the presence of old workings and the weaker, oxidized rock near surface, the major portion of this area would be more economically mined by open pit. However, some potential for additional underground mineral reserves was indicated at the south end of the zone beyond the economic open pit limits. The geological (in situ) reserves established as the basis for the Pine Tree underground study were as shown in Table 6.6.

| TABLE 6.6 PINE TREE-JOSEPHINE HISTORICAL UNDERGROUND GEOLOGICAL (IN SITU) RESERVES DECEMBER 1988 | | | |
|--|-----------|-------------------|--------------|
| Cut-off Au (oz/ton) | Tons | Grade Au (oz/ton) | Total Ounces |
| 0.05 | 9,040,000 | 0.123 | 1,111,920 |
| 0.06 | 7,536,000 | 0.132 | 994,752 |
| 0.07 | 7,036,000 | 0.136 | 956,896 |

Beacon Hill (1988, 1991)

The potential underground mining reserves were estimated by Beacon Hill from the above in-situ reserve base and proposed mining plan. A mining recovery factor of 85% was applied and the in-situ reserves were diluted by 25% in tonnage at a grade equal to one half of the cut-off grade. After making adjustments for previously mined-out areas the diluted, recoverable mining reserves within the projected block were estimated as shown in Table 6.7.

| TABLE 6.7 PINE TREE-JOSEPHINE HISTORICAL UNDERGROUND MINING RESERVES DECEMBER 1988 | | |
|--|---------------------|-------------------|
| Cut-off Au (oz/ton) | Total Tons Mineable | Grade Au (oz/ton) |
| 0.05 | 8,925,000 | 0.105 |
| 0.06 | 7,650,000 | 0.113 |
| 0.07 | 7,225,000 | 0.116 |

Beacon Hill (1988, 1991)

In the subsequent financial analyses, the reserves at the 0.07 oz/ton (2.4 g/t) Au cut-off were used as the base case. Sensitivity analyses were conducted on the 0.05 oz/ton and 0.06 oz/ton (1.7 g/t and 1.0 g/t) Au cut-offs.

6.3.1.6 PRECISION GOLD (2008)

In 2008, Precision Gold reported an historical mineral resource of 74,600 t (82,237 tons) grading 0.89 g/t (0.026 oz/ton) Au for Pine Tree tailings (Smith 2008) (Table 6.8). This historical mineral resource was based on the 27 vertical hole drilling program totaling 164 m (538.25 ft) completed on the tailings in Hell’s Hole Gulch below Pine Tree Mine portal.

| TABLE 6.8 PINE TREE TAILINGS RESOURCES - OCTOBER 2008 | | | |
|---|--------|-------------------|---------------------|
| Tailings | Tons | Grade (oz/ton Au) | Contained Gold (oz) |
| Pine Tree Mine | 82,237 | 0.026 | 2138 |

Smith (2008)
 Note: cut-off grade not provided.

This historical resource estimate for the tailings is not separated into categories/classifications, does not meet Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) Definition Standards for Mineral Resources and Mineral Reserves, and cannot be relied upon.

6.3.2 QUEEN SPECIMEN DEPOSIT

Historical mining reserve estimates of the Queen Specimen Deposit were completed by Wright Engineers (1986) and Northwest Gold Corp. (1988). These mining reserve estimates are summarized in Table 6.9. Geological (in situ) reserve estimates were not reported.

| TABLE 6.9 QUEEN SPECIMEN HISTORICAL “MINING RESERVES” | | | | | | |
|---|------|----------|---------------------|-----------|-------------------|-------------------------|
| Group | Year | Model | Material | Tons | Grade (oz/ton Au) | Contained Metal (oz Au) |
| Wright Engineers | 1986 | open pit | - | 2,460,000 | 0.058 | 143,000 |
| Northwest Gold Corp.* | 1988 | open pit | oxide plus sulphide | 1,970,000 | 0.064 | 126,000 |
| | | open pit | oxide | 500,000 | 0.058 | 29,000 |
| | | open pit | sulphide | 1,470,000 | 0.066 | 97,000 |

Wright (1986), Beacon Hill (1991), Burgoyne (2013), SLR (2021)

Note: * Beacon Hill (1991) reported that this estimate included 500,000 tons grading 0.058 oz/ton gold of open pit oxide “mining reserve” amendable to heap leaching at a strip ratio of 4.28.

The mining reserve estimate completed by Wright Engineers was based on 853 m (2,800 ft) of inclined reverse circulation drilling from eight drill holes completed on four separate geological cross-sections. The estimate was apparently calculated manually. An open pit with wall angles of 45° and 10% access ramp was designed to mine at a stripping ratio of 6.48:1. This historical “mineable reserve” given by Wright Engineers was 2.23 Mt (2.46 million tons) grading 1.99 g/t (0.058 ounces per ton) Au.

Northwest Gold completed a block model for the Queen Specimen Deposit in 1989 using the same principles and parameters as for the Pine Tree-Josephine Deposit. The block model was based on data from eight inclined reverse circulation holes drilled on four separate east-west sections (25800, 26000, 26200, 26400 North) spaced 61 m (200 ft) apart. This relatively wide drill hole-spacing and sparse amount of data meant that the historical “reserves” were classified as inferred.

Additional drilling was required to upgrade the confidence of this Deposit to the same level as the Pine Tree-Josephine Deposit. A “final” pit was generated using similar design parameters, and an open pit historical “mining reserve” was estimated at 1.79 Mt (1,970,000 tons) grading 2.19 g/t (0.064 ounces per ton) Au containing 126,000 ounces gold at a 4.28:1 stripping ratio. Beacon Hill (1991) reported that this included 454,000 t (500,000 tons) grading 1.99 g/t (0.058 ounces per ton) Au of open pit oxide “mining reserve” amenable to heap leaching at a stripping ratio of 4.28:1 and 1.33 Mt (1,470,000 tons) grading 2.26 g/t (0.066 oz/ton) Au of open pit sulphide “mining reserve”.

6.4 RECENT AND PREVIOUS MINERAL RESOURCE ESTIMATES

Recent and previous Mineral Resource Estimates have been reported by RPA in 2016, SLR in 2021 and P&E Mining Consultants in 2023.

6.4.1 RPA 2016 MINERAL RESOURCE ESTIMATE

In 2016, California Gold reported a Mineral Resource Estimate completed by RPA for the Pine Tree-Josephine Deposit, based on a conceptual open pit mining method (Table 6.10). This Mineral Resource included 9,362,000 t at an average grade of 1.71 g/t Au, containing 515,000 ounces in the Indicated Mineral Resource classification, and 7,850,000 t at an average grade of 1.44 g/t Au, containing 364,000 ounces in the Inferred Mineral Resource classification. The Mineral Resources were estimated at a 0.5 g/t Au cut-off grade, based on a US\$1,400/oz price of gold. The Mineral Resource Estimate was based on results from 25,970.3 m of drilling in 162 drill holes, in the Pine Tree-Josephine area.

| Classification | Tons (kt) | Grade Au (g/t) | Contained Metal Au (koz) |
|-----------------------|------------------|-----------------------|---------------------------------|
| Indicated | 9,362 | 1.71 | 515 |
| Inferred | 7,850 | 1.44 | 363 |

RPA (2016)

Notes:

1. CIM definitions were followed for classification of Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 0.5 g/t Au.
3. Mineral Resources are estimated using a gold price of US\$1,400 per ounce.
4. The Mineral Resources are constrained by a Whittle pit shell.

6.4.2 SLR 2021 MINERAL RESOURCE ESTIMATE

In 2021, Lode Gold reported an updated Mineral Resource Estimate completed by SLR (2021) for the Pine Tree-Josephine Deposit, based on a conceptual open pit mining method (Table 6.11). This Mineral Resource included 10,236,000 t at an average grade of 1.60 g/t Au, containing 526,000 ounces in the Indicated Mineral Resource classification, and 10,920,000 t at an average grade of 1.29 g/t Au, containing 452,000 oz in the Inferred Mineral Resource classification. The Mineral Resources were estimated at a 0.4 g/t Au cut-off grade, based on a price of US\$1,800/oz gold. The Mineral Resource Estimate was based on results from 25,970.3 m of drilling in 162 drill holes, in the Pine Tree-Josephine area. Subsequent to the preceding historical 2016 Mineral Resource Estimate conducted by RPA, 21 diamond drill holes were completed on the Queen Specimen Deposit, approximately 1 km north of the Pine Tree-Josephine Deposit. However, the Queen Specimen Deposit drilling was not included in the 2021 updated Mineral Resource Estimate reported for the Pine Tree-Josephine Deposit.

| TABLE 6.11 PINE TREE-JOSEPHINE MINERAL RESOURCE ESTIMATE AUGUST 31, 2021 | | | |
|--|-----------|----------------|--------------------------|
| Classification | Tons (kt) | Grade Au (g/t) | Contained Metal Au (koz) |
| Indicated | 10,236 | 1.6 | 526 |
| Inferred | 10,920 | 1.29 | 452 |

SLR (2021)

Notes:

1. CIM definitions were followed for classification of Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 0.4 g/t Au.
3. Mineral Resources are estimated using a gold price of US\$1,800/oz.
4. The Mineral Resources are constrained by a Whittle pit shell.

6.4.3 P&E 2023 MINERAL RESOURCE ESTIMATE

In 2023, Lode Gold reported a PEA in which the Mineral Resource estimation, completed by P&E Mining Consultants at Pine Tree, Josephine, and Queen Specimen Deposits with a mixed concept of both open pit and underground mining methods. The upper part of the Josephine – Pine Tree and Queen Specimen would be mined with two open pits while the rest of Josephine – Pine Tree would be mined with long hole stoping.

| TABLE 6.12 SUMMARY OF MINERAL RESOURCE ESTIMATE ¹⁻¹² | | | |
|---|---------------|----------------|-----------------|
| Classification | Tons (k) | Grade (g/t Au) | Ounces (koz Au) |
| Indicated | | | |
| Pit-Constrained | 18,891 | 1.9 | 1,154 |
| Out-of-Pit | 121 | 2.21 | 9 |
| Total | 19,011 | 1.9 | 1,163 |
| Inferred | | | |
| Pit-Constrained | 22,507 | 2.06 | 1,488 |
| Out-of-Pit | 5,816 | 2.87 | 536 |
| Total | 28,323 | 2.22 | 2,024 |

P&E Mining Consultants

Notes:

- 1) Mineral Resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.
- 2) The Inferred Mineral Resource in this estimate has a lower level of confidence that that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

- 3) Mineral Resources are reported within a constraining conceptual pit shell.
- 4) Inverse distance weighting of capped composite grades within domains was used for grade estimation.
- 5) Composite grade capping was implemented prior to grade estimation.
- 6) Bulk density was assigned by redox domain.
- 7) A gold price of US\$1,700/oz was used.
- 8) A cut-off grade of 0.25 g/t Au for oxide and quartz pit-constrained material and 0.45 g/t Au for sulphide pit-constrained material, and 1.45 g/t Au for out-of-pit (underground) material was used.
- 9) Pit-constrained Mineral Resources were determined to be potentially economic based on a mining cost of \$3/t mined, heap leach processing of \$9.16/t, flotation processing of \$10.02/t and G&A costs of \$2.50/t, with metallurgical recoveries of 85% by heap leach and 90% by flotation.
- 10) Out-of-pit Mineral Resources were determined to be potentially economic with the long hole mining method based on an underground mining cost of \$40/t mined, processing of \$10.02/t and G&A costs of \$2.50/t, with a metallurgical recovery of 90%. Out-of-Pit grade blocks that did not demonstrate potentially mineable configurations were removed from the Mineral Resource Estimate.
- 11) Totals may not sum due to rounding.
- 12) Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The reader is cautioned that the 2023 updated Mineral Resource Estimate for the Pine Tree - Josephine and Queen Specimen Deposits is superseded by the current Mineral Resource Estimate described in Section 14 of this Report.

6.5 PAST PRODUCTION

Mining at Pine Tree, Josephine, and Queen Specimen Deposits commenced in 1849. There aren't production records for the first ten years because there were legal procedures between the miners that were working the property and the owner of the land, John C. Fremont. There are records for the years 1860, 1861 and 1863 for a total production of 16,929 ounces of gold produced at 13.35 g/t. Between 1900 and 1915 there were production in the Queen Specimen Mine and in the Succedo Mine through the River adit. The recorded production was 20,968 tons at 29.42 g/t.

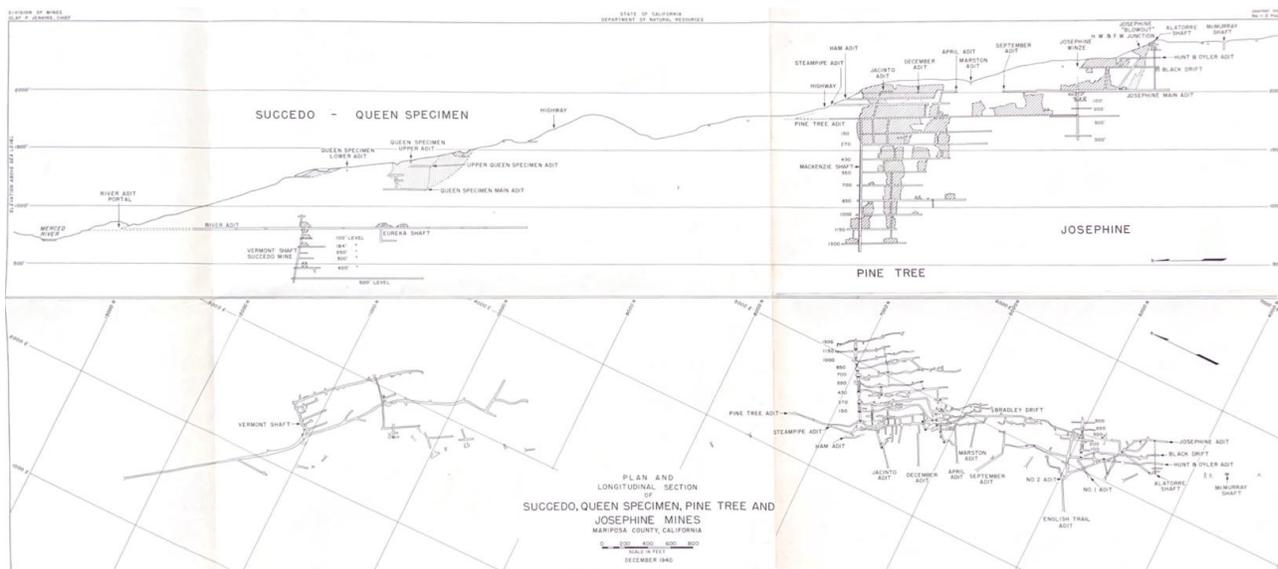


Fig. 6.6 Succedo, Queen Specimen, Pine Tree and Josephine Mines. Pacific Mining Co. 1940.

The Pine Tree-Josephine workings re-opened in 1933, when the operation was taken over by Pacific Mining Co. A 91 tpd (100 tons per day) flotation process plant was constructed near the portal of

the Pine Tree adit and an extensive exploration, development, and bulk sampling program was undertaken to evaluate the large-scale mining potential of the lower-grade mineralization.

Between 1933 and 1942, the Pine Tree level was connected with the Josephine workings, and the Mackenzie shaft deepened to 396 m (1,300 ft). Production totaled 373,000 tons of mineralized material, which accounts for 85% of the known historical production. Mining of the lower-grade “inter-vein” mineralization on a large-scale did not materialize and operations were suspended in 1942. The French Mine, that was leased to a third party, kept producing until 1944. Historical gold production from the Pine Tree–Josephine Mines is summarized in Table 6.14 (Bowen and Gray, 1957).

Beacon Hill (1991) report that the Queen Specimen Deposit was mined between 1850 and 1859, and again between 1908 and 1915. From 1922 to 1924, 2,722 t (3,000 tons) of mineralized material and tailings from previous operations were treated in a 9 tpd (10 tons per day) stamp mill. In June 1874, an adit was started from the south bank of the Merced River at Benton Mills. Work was terminated after 1,015 m (3,330 ft) of drifting and development commenced on the Succedo Mine below the Queen Specimen workings, where a shaft and five levels were developed, and a minimal amount of stoping was completed. Limited mining and development occurred between 1875 and 1898. Development resumed in 1899, with the driving of the Josephine winze and excavation of the inclined Mackenzie shaft at the north end of the Pine Tree Mine to a depth of 150 m (493 ft). Between 1900 and 1915, production amounted to approximately 19,051 t (21,000 tons) of mineralized material, which was processed in the Princeton Mill, near Mount Bullion.

| TABLE 6.13 FREMONT HISTORICAL GOLD PRODUCTION | | | | | |
|---|---------|--------|----------|--------|------------|
| Mine | Year | dry t | oz/dry t | Au ppm | Au oz Prod |
| Ogle Lease | Pre1939 | 135 | 0.14 | 4.80 | 19 |
| French Mine | 1934 | 846 | 0.50 | 17.14 | 423 |
| French Mine | 1935 | 1,355 | 0.36 | 12.34 | 488 |
| French Mine | 1936 | 790 | 0.29 | 9.94 | 229 |
| French Mine | 1937 | 648 | 0.26 | 8.91 | 168 |
| French Mine | 1938 | 228 | 0.31 | 10.63 | 71 |
| French Mine | 1939 | 249 | 0.29 | 9.94 | 72 |
| Queen Specimen | Pre1936 | 20,968 | 0.86 | 29.42 | 17,991 |
| Josephine - Pine Tree | Pre1933 | 94,967 | 0.48 | 16.46 | 45,584 |
| Josephine - Pine Tree | 1933 | 16,956 | 0.21 | 7.20 | 3,561 |
| Josephine - Pine Tree | 1934 | 30,289 | 0.22 | 7.54 | 6,664 |
| Josephine - Pine Tree | 1935 | 33,296 | 0.23 | 7.71 | 7,492 |
| Josephine - Pine Tree | 1936 | 38,756 | 0.19 | 6.65 | 7,519 |
| Josephine - Pine Tree | 1937 | 51,646 | 0.15 | 5.21 | 7,850 |

| | | | | | |
|-----------------------|-------|---------|------|------|---------|
| Josephine - Pine Tree | 1938 | 55,021 | 0.16 | 5.38 | 8,638 |
| Josephine - Pine Tree | 1939 | 53,176 | 0.16 | 5.59 | 8,668 |
| Josephine - Pine Tree | 1940 | 59,249 | 0.17 | 5.90 | 10,191 |
| | | | | | |
| All | Total | 458,575 | 0.27 | 9.39 | 125,626 |

Source: Pacific Mining Co. 1941

6.6 HISTORICAL FEASIBILITY STUDIES

The following summary is based on SLR (2021).

During 1986, work commenced on a comprehensive permitting process, and Wright Engineers Ltd. (“Wright”) of Vancouver, BC subsequently completed a four-volume Feasibility Study from 1986 to 1989 (Wright, 1986, 1988, 1989). The studies indicated that an economically viable open pit operation could be developed on the Property, which would require the construction of a roaster - acid process plant facility. In 1989, Wright completed a heap leach pre-feasibility study report that presented results of heap and pit design work, reserve estimation, and the economics of mining the open pit oxide mineralization on the Pine Tree-Josephine Deposit. This heap leach study, at the time, was considered potentially viable, subject to certain imposed conditions of tonnage and operating and capital costs.

On acquisition of the Property, Northwest carried out metallurgical test work and detailed planning studies, which indicated that capital costs would be significantly higher than originally anticipated and, based on the prevailing gold price, the Property was deemed uneconomic. Also, delays in the permitting process and the completion of costly additional studies were requested before the Environmental Impact Report could be certified. During 1988 and 1989, Northwest conducted a number of development and mine plan studies and re-evaluations of the Pine Tree Project to improve the economics and minimize the environmental impact of developing the existing “reserves”. During 1988, a historical “geological reserve” study was completed by Derry, Michener, Booth and Wahl (1988) of Denver, Colorado. The Pine Tree open pit plan “reserve” was re-evaluated in order to reduce strip ratio and increase grade. An open pit plan was also developed for the Queen Specimen Deposit. A study was commissioned to determine if additional drilling was warranted to confirm the extension of the mineralized structure at depth.

An extensive amount of metallurgical test work was completed between early 1986 and February 1988. Minor work was conducted through to March 1990. A final comprehensive Project report by Beacon Hill was issued in April 1991. The Beacon Hill report considered all aspects of Pine Tree-Josephine Mine development that occurred from 1984 to 1990 (Beacon Hill, 1991).

6.7 HISTORICAL UNDERGROUND STUDIES

The following summary is taken largely from SLR (2021).

Beacon Hill (1988, 1991) completed conceptual studies of the underground mining potential at the Pine Tree-Josephine Deposit. The study was based on known resources and resource projections made from existing geological data (see Tables 6.8 and 6.9 above). A mining plan was developed for

a mechanized bulk mining operation, using sub-level long hole stoping, to produce 2,250 t to 3,600 t (2,500 tons to 4,000 tons) of mineralized material per day. The results of the studies indicated that an underground mine was a potentially viable option if resources and subsequently developed reserves in the range of 8.2 Mt to 10 Mt (9 million to 11 million tons) grading 3.77 g/t to 4.11 g/t (0.11 oz/ton Au to 0.12 oz/ton) Au could be delineated.

6.8 HISTORICAL ENVIRONMENTAL STUDIES

The following summaries are based largely on Burgoyne (2013) and SLR 2021).

In 1987 and 1988, a three-volume Environmental Report was completed for Goldenbell. The report consisted of a Draft Environmental Impact Report by Faverty & Associates (1987), a Reclamation Plan by Cedar Creek Associates, Inc. (1987), and Comments and Responses to the Draft Environmental Impact Report by Faverty & Associates (1988). The Draft EIR included an exhaustive study on water quality from several stations monitoring springs, groundwater and surface water, in undisturbed areas and in the historical mining areas. Waters are somewhat alkaline and concentrations of dissolved arsenic, manganese, nickel, and strontium at the old mine areas are higher than those observed in the undisturbed areas. At the old mine workings, only arsenic and manganese were present at levels higher than the Maximum Containment Level for waters in California.

The permitting process commenced in March 1986 with the filing of a Mining Permit Application and Project Description Report with the Mariposa County Planning Department. Northwest began a comprehensive environmental monitoring and investigation program to provide technical input necessary for the preparation of an EIR. A draft EIR was submitted to the county Planning Department in September 1987 and after a period of public review, a final EIR was submitted in March 1988.

In 2011, California Gold (then Upper Canada Gold Corp.) commissioned a detailed Phase 1 Environmental Site Assessment from HerSchy Environmental, Inc. (the "Phase 1 ESA (2011)"). This assessment was conducted in accordance with the American Society for Testing and Materials standard practice E1527-05, to comply with the All-Appropriate Inquiries ("AAI") final ruling. The Phase 1 ESA (2011) reported that following a review of current and historical files and discussions with regulatory agencies, the site does have Recognized Environmental Concerns ("RECs") mostly related to the habitability of the office-warehouse building located on Highway 49 and the historical mine tailings area. According to Burgoyne (2013), California Gold advised that the office building was cleaned and habitable in 2013. The Phase 1 ESA (2011) also concluded that there are elevated arsenic and sulphate reported in the mine tailings. HerSchy Environmental concluded that historical and future tailings should be properly managed to prevent environmental impacts and no recommendations were made for any remediation.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The Fremont Gold Property is located in the Mother Lode Gold Belt District, which occurs in the southern portion of the Western Sierra Nevada Foothills Metamorphic Belt (WSNFMB) which consists in metamorphic rocks from the Paleozoic and Mesozoic that separates the Great Valley from the Sierra Nevada Batholith. The Mother Lode Gold Belt District has approximately 200 km extent from northwest to southeast and is an orogenic gold system, part of the larger Sierra Nevada Goldfields orogenic system, which has an extent of approximately 400 km northwest – southeast.

The Property is located on a peneplain that was formed in the Mid-Cretaceous to Early Tertiary from the outwash from the nearby Sierra Nevada cordillera and its uplift. The outwash both eroded the auriferous lode deposits and deposited alluvial placers in the southern part of the WSNFMB. The outwash alluvial deposits are generally in the form of gravel and sand beds, strongly red colored from hematite in what was then a semi-tropical climate. These beds were the host and source of the famous alluvial deposits of the California Gold Rush in 1848 to 1860.

Here in the WSNFMB are located three different accreted terranes (Paterson and Wainger, 1991) separated by two ductile shear zones. From west to east these are the Foothills Terrane, Merced River Terrane (greenschist – phyllite belt and Calaveras Complex) and Northern Sierra Terrane or Shoo Fly Complex. They are separated by the Melones Fault zone and the Calaveras-Shoo Fly thrust. An additional regional fault, the Bear Mountains fault zones, divides the Foothills Terrane into eastern and western domains.

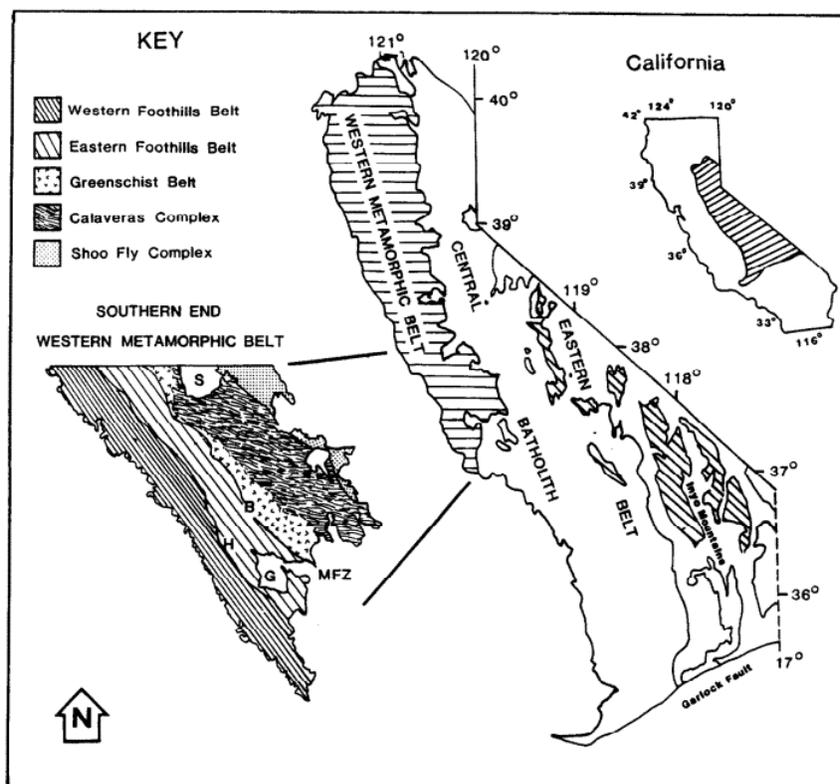


Fig. 7.1 Index Map of California, the Western Sierra Nevada Foothills Metamorphic Belt (WSNFMB). S = Standard pluton, B = Bagby, G = Guadalupe Igneous Complex and MFZ = Melones fault zone. Paterson and Wainger, 1991.

The Melones Fault Zone runs parallel to the deposit on the west side of the Property and separates the Jura-Triassic Arc Belt to the east and the Middle-Late Jurassic Arc Sequence to the west. The eastern Jura-Triassic Arc Belt is a northeast-southwest-trending belt consisting of a Paleozoic basement of disrupted ophiolite, serpentinite mélange, and ultramafic rocks overlain by uppermost Triassic-Early Jurassic arc volcanics and coeval 200 Ma intrusive rocks. The western Middle-Late Jurassic Arc Sequence (also trending northeast-southwest) consists of 165 Ma to 155 Ma volcanic arc rocks, greenstones, and metasedimentary rocks of the Mariposa Formation (Snow and Scherer, 2006). Lithological units are bound by steep faults, mélange, or both, although depositional contacts may be found locally.

7.2 REGIONAL GOLD DISTRICTS

Three major gold districts that comprise the Sierra Nevada Goldfields are hosted in the western Sierra Nevada Foothills Metamorphic Belt: 1) the Mother Lode Gold District; 2) Grass Valley Gold District; and 3) Alleghany Gold Districts. The Grass Valley Gold District occurs along the Bear Mountain Fault Zone. The Mother Lode and Alleghany Gold Districts occur along the Melones Fault Zone, which is a major, crustal-scale, north-northwesterly trending fault zone (Fig. 7.2 & 7.3). During the Early Cretaceous, this reverse fault system was reactivated in a transpressive regime, resulting in gold mineralization at approximately 125 ± 10 Ma (Goldfarb et al., 2008).

The Fremont Property is located in the southern portion of the Mother Lode Gold District. The Mother Lode Gold Belt District occurs along the Melones Fault Zone, as we mentioned, a major crustal-scale fault trending north-northwesterly for 200 km that separates the Foothills Terrane from the Merced River Terrane. During the Early Cretaceous period, the Melones reverse fault system was reactivated in a transpressive regime, resulting in gold mineralization at approximately 125 ± 10 Ma.

The Mother Lode Gold District is characterized by a series of echelon quartz veins, discontinuous silica-ankerite listwaenitic alteration zones, and ultramafic breccias associated with the Melones Fault Zone. The Melones Fault Zone varies in width from 60 m to more than 1.6 km and extends for a length of 200 km along the western foothills of the Sierra Nevada from the Greenwood-Georgetown area in the north to Mariposa in the south. Rocks associated with the Mother Lode Gold District are mainly steeply dipping (50° to 80° east) and consist of Paleozoic and Mesozoic slates, schists, greenstones and serpentine. Serpentinized ultramafic rocks occur exclusively as elongate bodies associated with the Melones Fault Zone.

The generation of the Sierra Foothills gold belt followed the transition from orthogonal to oblique subduction of the Farallon oceanic plate is coeval with reinvigorated eastward subduction of the Farallon plate, following the Nevadan collisional orogeny, and batholithic arc construction (Ernst et al., 2008). This event initiated sinistral transpression along the controlling fault zones as well as concomitant uplift.

Gold production in the Mariposa County area was \$48M in production, which at \$35/oz are 1.37 Moz (Cowen & Gray, 1957).

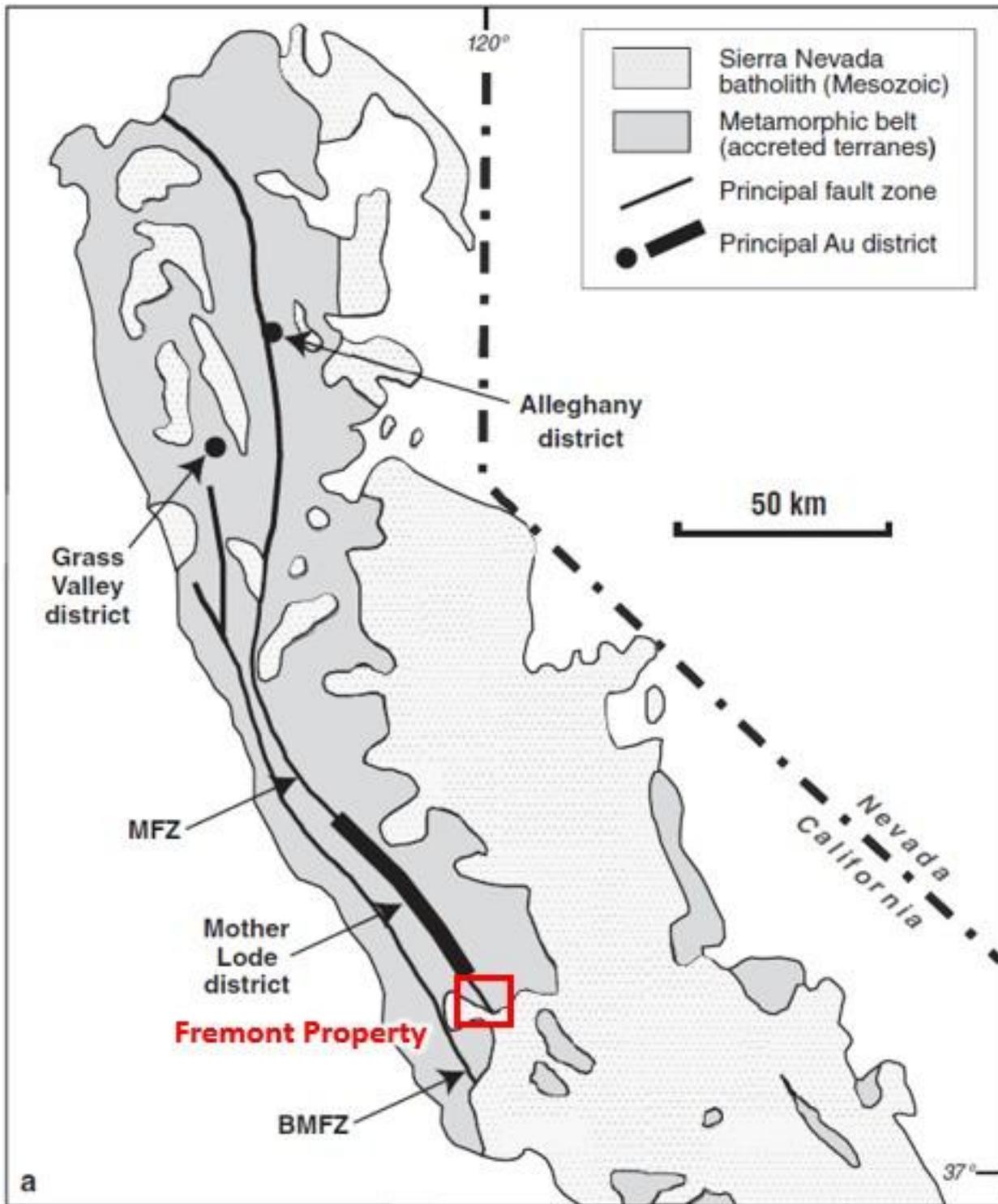


Fig. 7.2 Gold districts of the Sierra Morena Foothills Metamorphic Belt, California. Modified by P&E, July 2022 after Sillitoe, 2008.

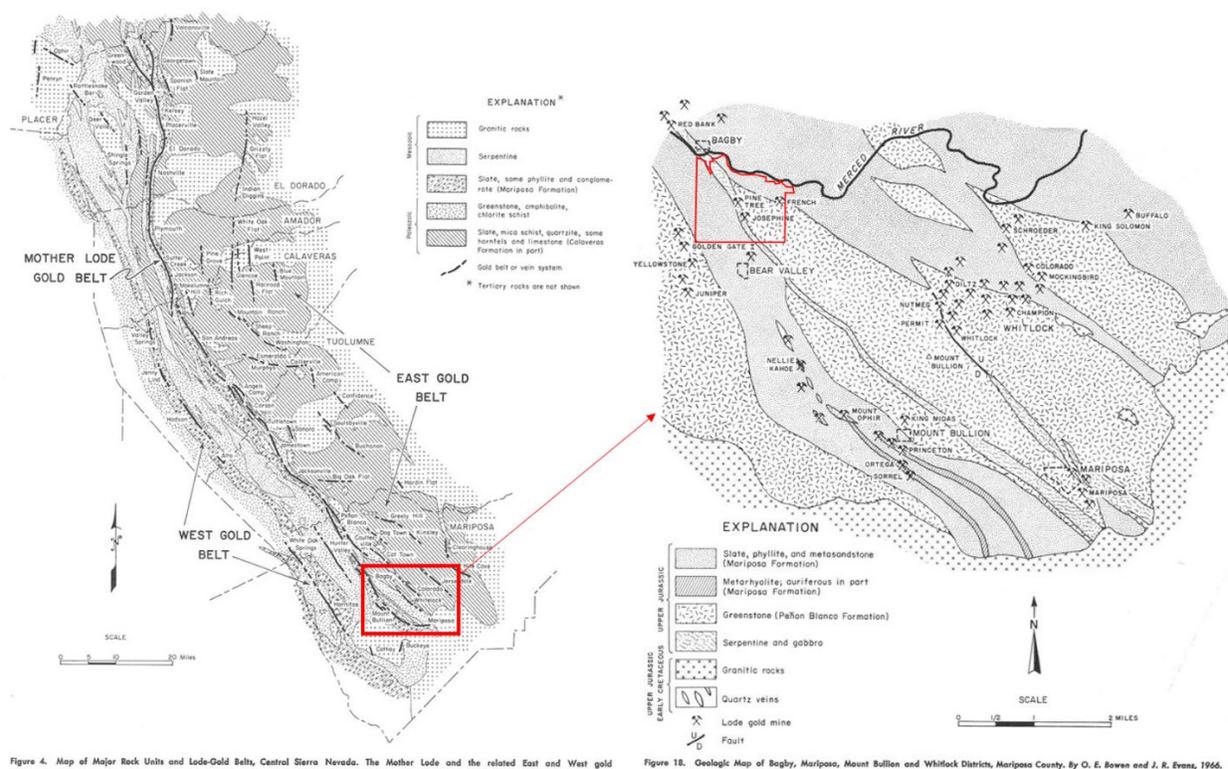


Fig. 7.3 Map of the Mother Lode and zoom in in the Mariposa County with the outline of the Fremont Property. Evans, 1966.

7.3 PROPERTY GEOLOGY

The Property is located at the southern extent of the Mother Lode Gold Belt. The geology of the Property is dominated by the sedimentary Mariposa Formation (shales and greywackes with low grade metamorphism) to the west, the Melones Fault Zone in the center with serpentinite and a dioritic intrusions, and the Bullion Mountain Formation metavolcanics and Briceburg Formation metasedimentary rocks and metavolcanics to the east. The serpentinite matrix mélangé in the Melones Fault Zone hosts the historical Pine Tree - Josephine Gold mine, Queen Specimen mine and Chicken Gulch and Crown Point Deposits, while the French, Evans and Ogle Lease mines where outside of the trend in tensional veins (Fig. 7.3).

Mariposa Formation metasedimentary and metavolcanic rocks of the Middle–Late Jurassic Arc Sequence occur west of the Melones Fault Zone. The metasedimentary rocks consist of thick to thin bedded, intercalated, grey to brown, slate, siltstone, greywackes, and rare limestone. This unit is the footwall unit to the Melones Fault Zone. Sedimentary structures are well preserved in fine-grained sandstone and siltstone west of, and distal to the Melones Fault Zone. Sedimentary structures comprise load structures, normally graded bedding, ripple foresets and climbing ripples, which are indicative of submarine over bank deposits. Way-up indicators uniformly indicate that beds are the right way-up. The southwest corner of the Property contains meta-andesite and meta- basalt flows of the Mariposa Formation.

Within approximately 200 m of the contact between the metasedimentary rocks and the Melones Fault Zone, the rocks become highly strained. Approaching the contact from the west: slate becomes increasingly common with rare, <10 cm thick layers of strongly boudinage and sheared limestone;

and rare sedimentary rocks that are highly silicified. The sheared ultramafic rocks and the tectonic blocks are considered to represent a tectonic mélangé developed during the evolution of the Melones Fault Zone and obduction of ophiolitic rocks (SRK, 2014). The sheared serpentinite and tectonic horses host quartz veins 2 m to >10 m thick. These veins are typically massive, sugary quartz veins that dip moderately east, with local breccia fragments, and host gold mineralization. The Melones Fault Zone hosts four gold mineralized areas, which from south to north are: the Chicken Gulch, Pine Tree–Josephine, Crown Point and Queen Specimen Deposits.

The Bullion Mountain Formations of the Jura-Triassic arc belt occur east of the Melones Fault Zone (Fig. 7.5). This Formation is the hanging wall to the Melones Fault Zone. The Bullion Mountain Formation metavolcanics contain intermediate to mafic metavolcanic rocks with local pillow basalt, gabbro dykes and tuffaceous rocks. The rocks of this Formation generally strike southeast and dip steeply to moderately. Proximal to the Melones Fault Zone, this unit dips subvertical to steeply northeast and is transposed and very highly strained. Towards the northeast of the Fremont Property, the sedimentary and volcanoclastic rocks are intercalated with numerous, approximately five cm-wide chert layers.

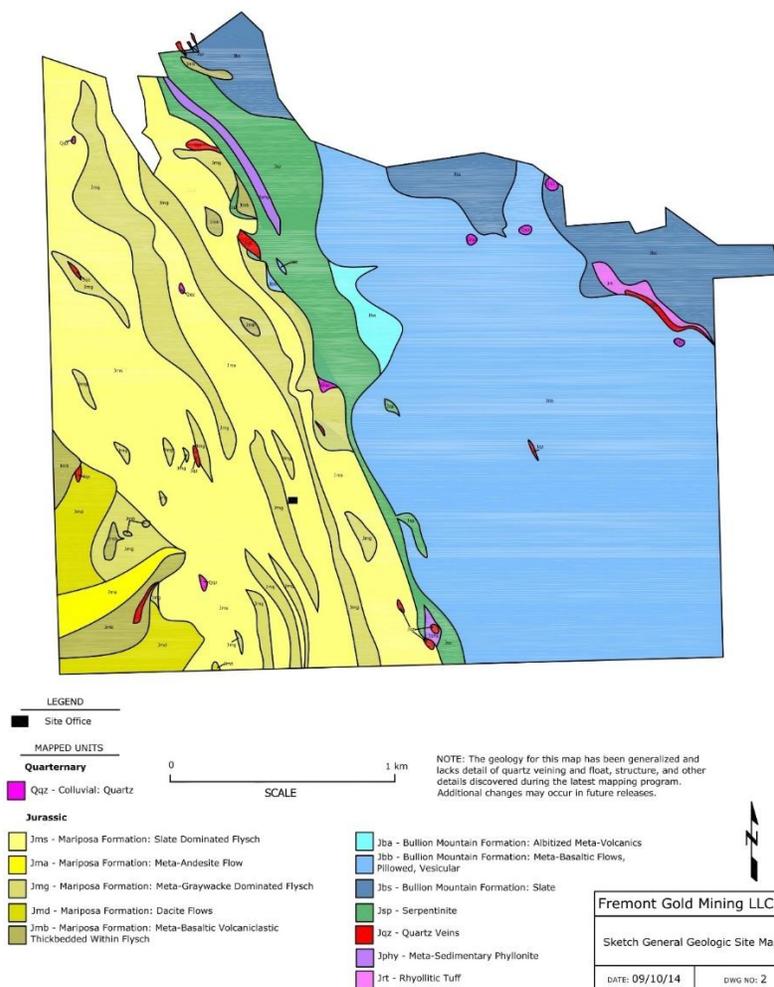


Fig. 7.5 Lithological map. Fremont Gold Mining, 2014.

7.4 STRUCTURAL GEOLOGY

The following report was prepared by P&E Mining Consultants Inc. (“P&E”) for the 2023 PEA.

The following summary of the structural geology of the Fremont Property is an excerpt from SLR (2021), which relied heavily on the analysis of airborne geophysical data by SRK (2014) (Figures 7.6 to 7.8). Note that the comments below in square brackets are added for clarity and illustration by the Authors of this current Report.

“The brittle-ductile Melones Fault Zone is the principal structural element within the Fremont Property and trends north-northwest and dips 45° to 60° to the east [Figures 7.5 to 7.7]. In addition to the Melones Fault Zone, numerous faults and minor brittle-ductile shear zones exist. The Melones Fault Zone is an envelope of strongly deformed rocks with numerous, discrete, subsidiary shear zones, that is cored by sheared ultramafic, serpentized rocks and extends well into the footwall sedimentary sequence and, to a lesser extent, into the hanging wall rocks. The Fault Zone varies in width along on its length and appears to pinch out towards the south of the study area and dilate to the north. The dilation to the north is principally due to the presence of a right-stepping jog in the Fault Zone; however, wider areas of Fault Zone may be in part related to the location of fold hinges within the Fault Zone (SRK, 2014).

Within the core of the Melones shear zone, rotated quartz porphyroclasts within the Mariposa Formation, combined with the shallow plunge of quartz veins boudins and F1 fold axes indicate D1 deformation was dominated by reverse dip-slip (hanging wall up and to the west) movement. However, within the sheared, serpentized, ultramafic rocks, C-S fabrics are commonly well developed, and indicate dextral strike-slip, sporadically sinistral strike-slip, and reverse dip-slip kinematics (SRK, 2014).

Evidence for D1 reverse dip-slip movement is preferentially preserved in sedimentary and volcanoclastic sequences within the footwall and hanging wall margins of the shear zone, [whereas] evidence for D2 dextral strike-slip movement is preserved within ultramafic rocks in the core of the shear zone. It is possible that anisotropy between the relatively stronger sedimentary units, and the weaker, serpentized ultramafic rocks allowed for the preferential preservation of D1 reverse movement within the sedimentary package, while D2 strike-slip deformation was partitioned into the serpentized ultramafic rocks and evidence of the D1 reverse phase of deformation was destroyed during D2 strike-slip movement (SRK, 2014).

Late brittle faults [D3] were identified through the analysis of the geophysical data. They are regularly spaced (300 m to 500 m), typically west-northwest to west- trending faults [Figures 7.6 to 7.8]. These late faults typically offset and rarely truncate early brittle-ductile structures. West-northwest-trending brittle faults typically show dextral strike separation, whereas rare west-southwest to southwest- trending brittle faults show a sinistral strike separation. It is suggested that these late brittle faults may have formed as a conjugate pair in an overall strike slip regime with the σ_1 principal stress oriented approximately northwest to southeast (SRK, 2014).”

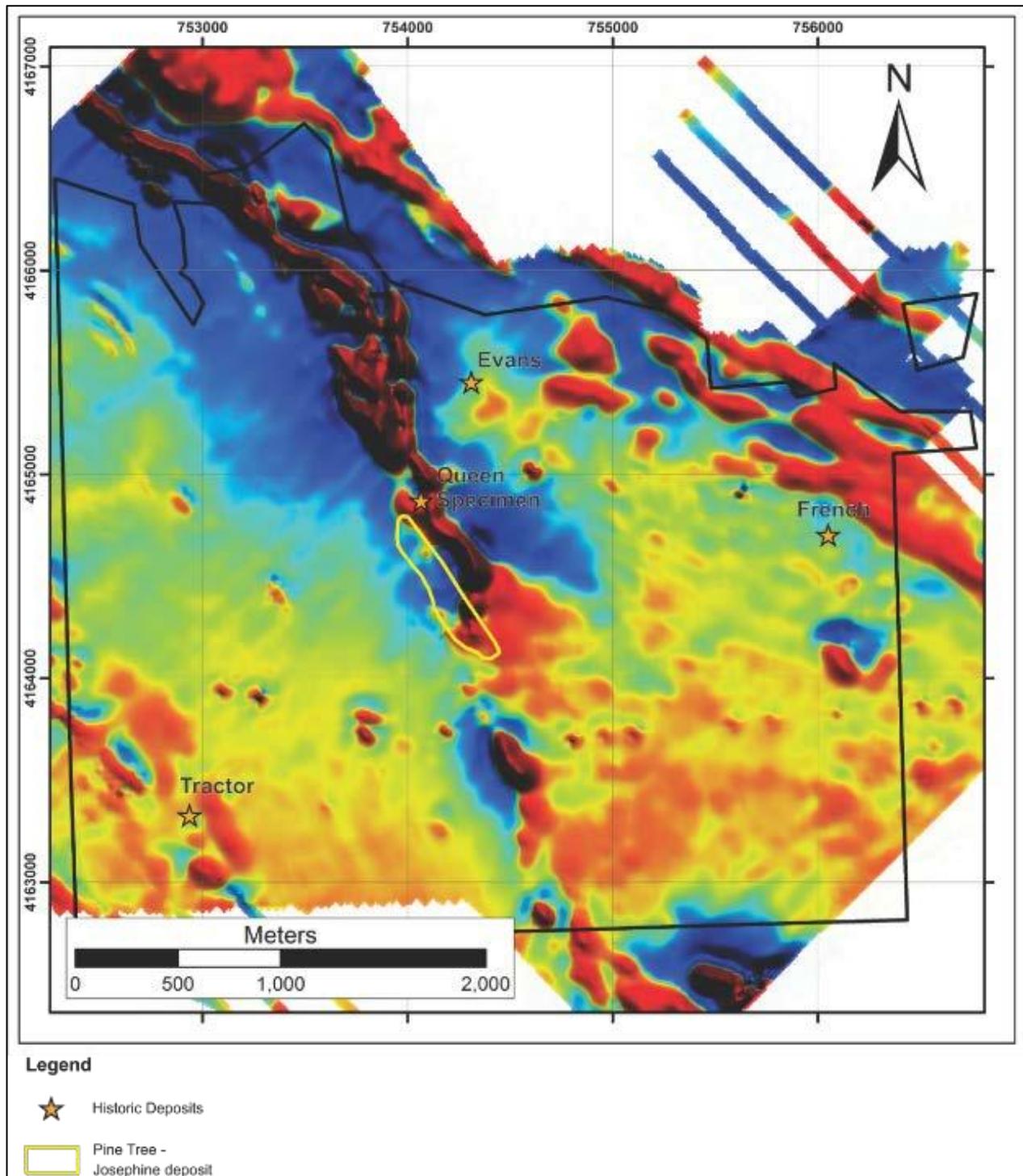
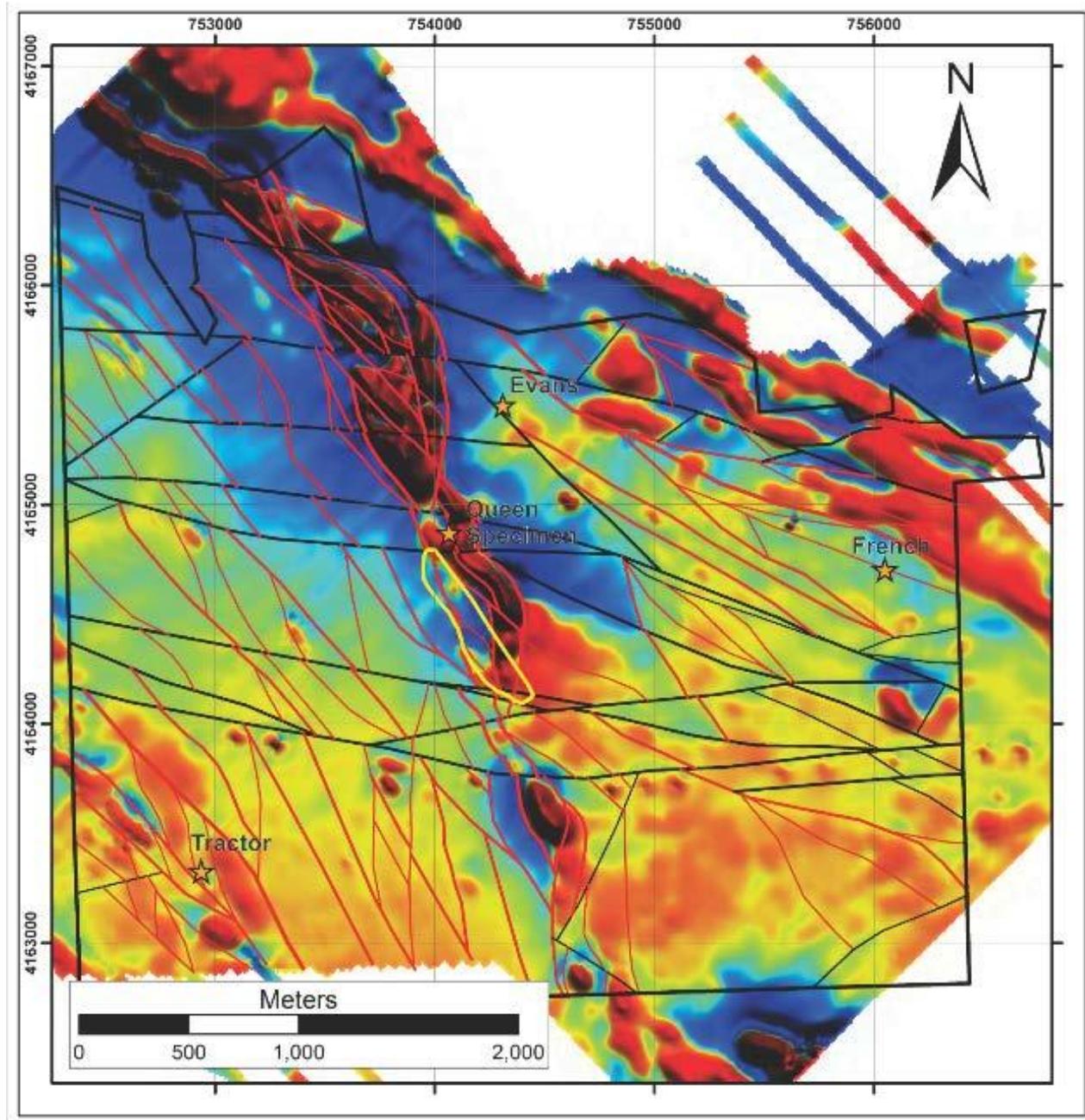


Fig. 7.6 Magnetic calculated vertical derivative map from the 2015 airborne geophysical survey. SRK, 2015.



Legend

Faults

- | | | |
|----------------------------------|--|---------------------------------|
| D ₁ to D ₃ | — 1st Order | ★ Historic Deposits |
| | — 2nd Order | |
| | — 3rd Order | |
| D ₃ | — 1st Order | □ Pine Tree - Josephine deposit |
| | — 2nd Order | |

Fig. 7.7 SRK structural interpretation of magnetic first vertical derivative. SRK, 2015.

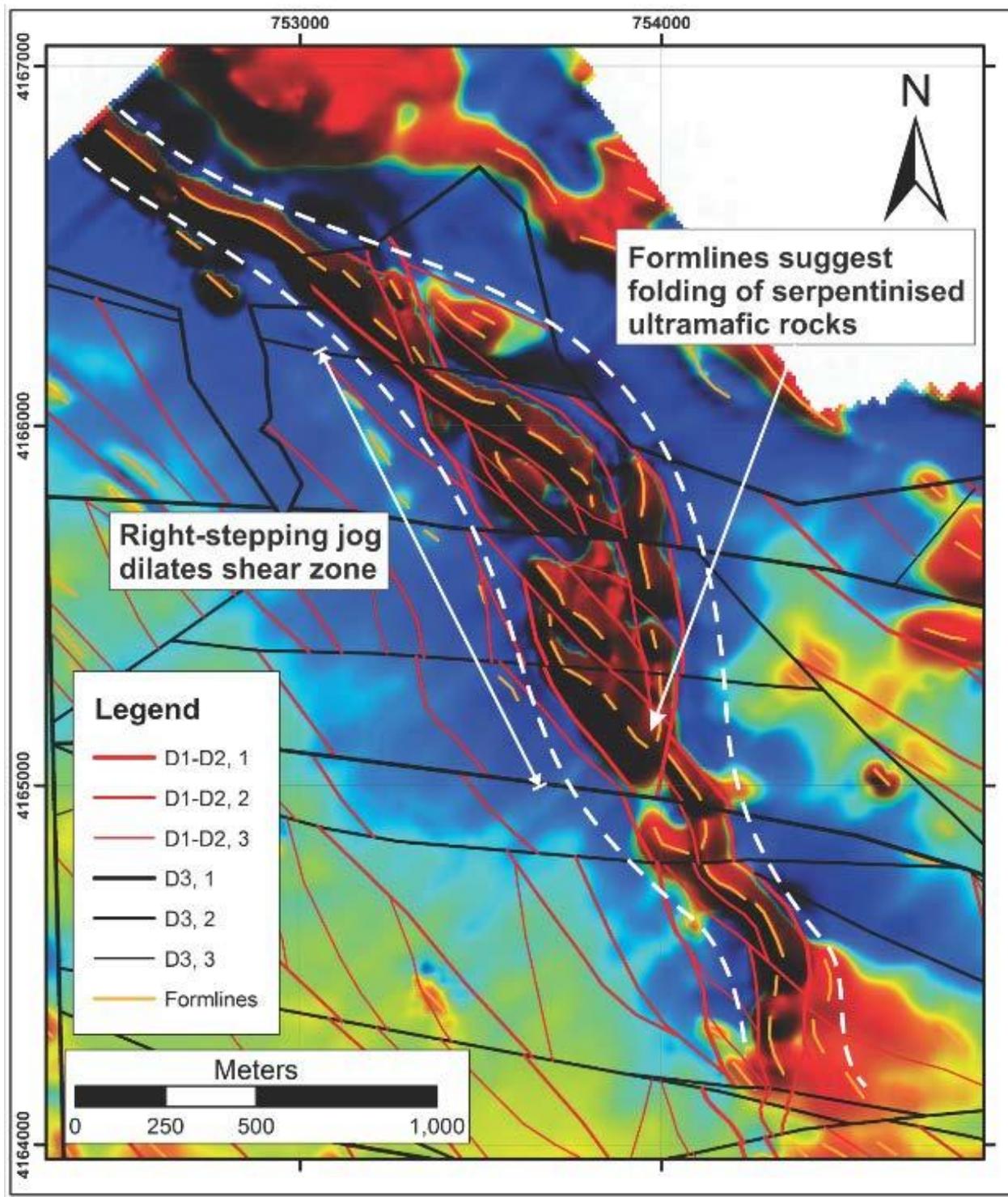


Fig. 7.8 SRK map illustrating dilational jog and folding interpretation at Queen Specimen deposit Area. SRK, 2015.

7.5 DEPOSIT GEOLOGY

Four gold deposits on the Fremont Property are described. Two of the four deposits, namely the Pine Tree – Josephine and Queen Specimen (Fig. 7.8), are included in the current Mineral Resource Estimate described in Section 14 of this Report and are therefore described below. The

additional two deposits, Crown Point and Chicken Gulch, are not included in the current Mineral Resource Estimate. However, with additional drilling, they could potentially be included in a future updated Mineral Resource Estimate, and therefore are described farther below.

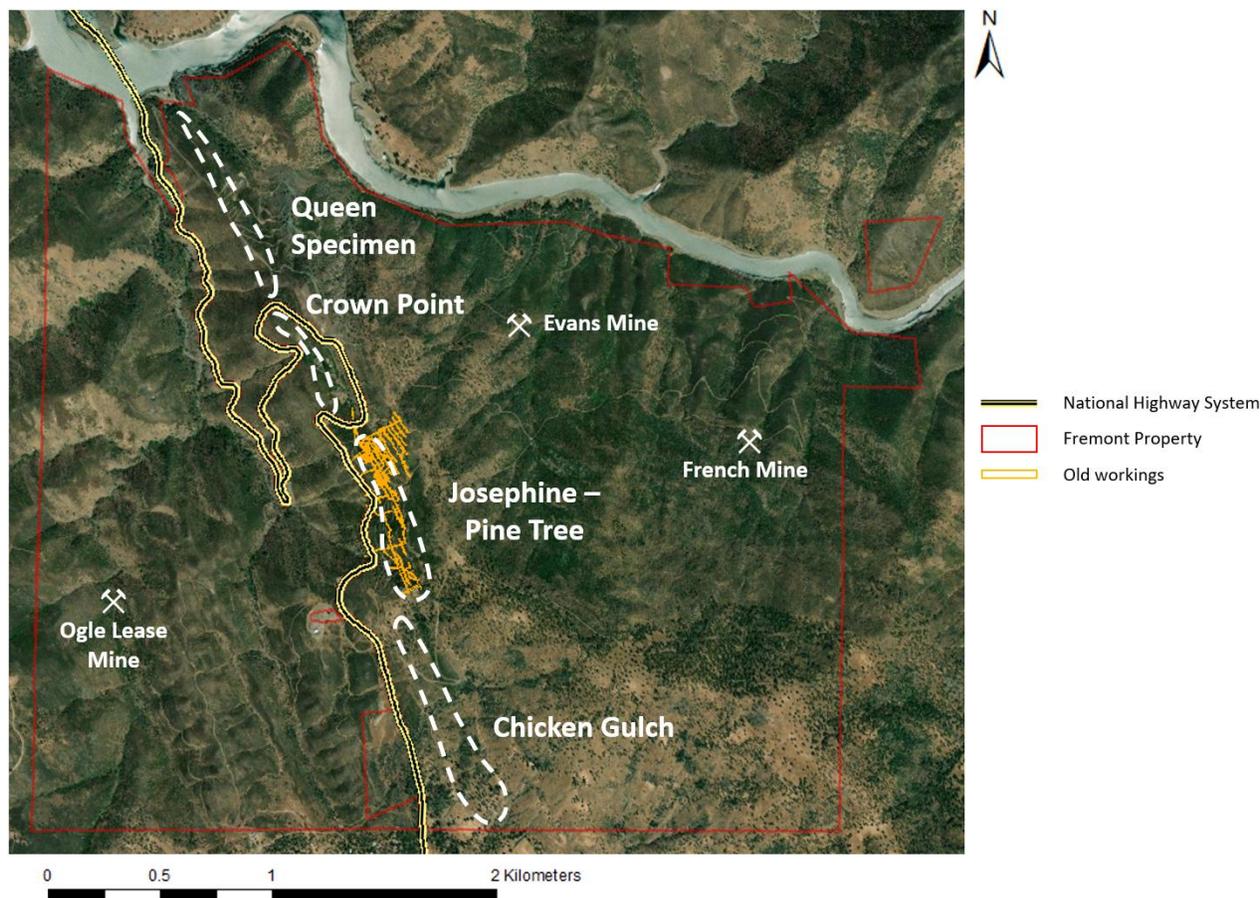


Fig. 7.9 Map of the Fremont Property with the 4 deposits in the Melones Fault Zone and the three other minor mines. Lode Gold, 2025.

7.5.1 PINE TREE-JOSEPHINE DEPOSIT

Pine Tree – Josephine is the most significant of the four gold mineralized deposits on the Fremont Property. The Pine Tree – Josephine Deposit has a strike length of 823 m (2,700 ft), dips moderately to steeply east-northeast, and has a maximum width of 152 m (500 ft) on surface. Historically, this Deposit has been extensively developed by numerous shafts and drifts and produced slightly more than 125,000 oz gold, primarily from shrinkage and open stope mining, until mine closure in 1942. Most of the mine development took place in a zone approximately 61 m (200 ft) wide, bounded on the hanging wall side by the Josephine Vein.

The Pine Tree – Josephine Deposit is hosted mainly in a fault *mélange* that consists of highly altered meta-sedimentary rocks, metavolcanics and ultramafic rocks, in which much of the pre-existing lithologies have been replaced by quartz, ankerite and sulphides. Gold mineralization does extend locally into the footwall Mariposa Formation and into the hanging wall listwaenite – altered serpentinites and altered gabbros/diorites. However, the more significant values are found within

the footwall Pine Tree Vein, the hanging wall Josephine Vein and the inter-vein material, which is 46 m to 61 m (150 ft to 200 ft) thick.

Gold mineralization in the Pine Tree-Josephine Deposit occurs mainly as free grains interstitial to vein quartz or intergrown with pyrite, chalcopyrite and gersdorffite. The upper portion of the Deposit is oxidized.

7.5.2 QUEEN SPECIMEN DEPOSIT

The Queen Specimen Deposit is the most northerly major alteration and mineralized zone known on the Fremont Property. The Deposit was originally developed by two separate sets of underground workings. The upper Queen Specimen workings were accessed by cross-cut adits from the hanging wall, whereas the lower Succedo workings consist of a 152 m (500 ft) internal shaft with levels developed from the River Tunnel.

On surface, the Queen Specimen Deposit consists of a number of sub-parallel quartz veins in quartz-ankerite altered serpentinite. The hanging wall rocks are the Calaveras Formation of meta-sedimentary rocks and volcanics and the footwall rocks are the Mariposa Formation of metamorphosed slates and greywacke.

Drilling during the 1985-1986 campaign was limited to eight inclined RC holes over a strike length of 213 m (700 ft) and to a maximum depth of 107 m (350 ft). The drilling defined a similar style of mineralization to that of the Pine Tree-Josephine Deposit, with generally similar grades, and overall narrower widths. The Queen Specimen Deposit dips 55° to 60° east.

Similar to the Pine Tree-Josephine Deposit, most of the mineralization in the Queen Specimen Deposit is free gold in the quartz veins, gold associated with pyrite the sulphide zone, and gold in the oxide cap.

7.6 MINERALIZATION

Four main styles of gold mineralization are present at the Pine Tree – Josephine Deposit and generally throughout the four km mineralized trend on the Fremont Property: 1) quartz hosted free gold; 2) quartz-sulphide veins; 3) mélange stockwork and 4) oxide-gold. The quartz-hosted mineralization mainly consists of free gold in quartz. It covers 3 of the 6 veins in Pine Tree – Josephine area.

The quartz free gold domain happens as quartz only or quartz-ankerite veins without any sulphide and locally it has mariposite and/or chlorite. It happens in three of the six main veins in the Josephine – Pine Tree area, especially as internal veins of the mineralized body between the footwall and hanging wall veins.

The quartz-sulphide veins occur as quartz with pyrite (or pyrrhotite) ± gersdorffite ± chalcopyrite. Gold occurs intergrown with pyrite and interstitial to quartz. Three of six main veins in the central area, including the Footwall Vein (Pine Tree Vein) and the Hanging Wall (Josephine Vein), belongs to this type. During historical mining, higher gold grades were found in large quartz veins that were

cut by late-stage sulphide quartz veins, defining mineralized shoots. The mineralized shoots were generally short in strike length but persistent at depth.

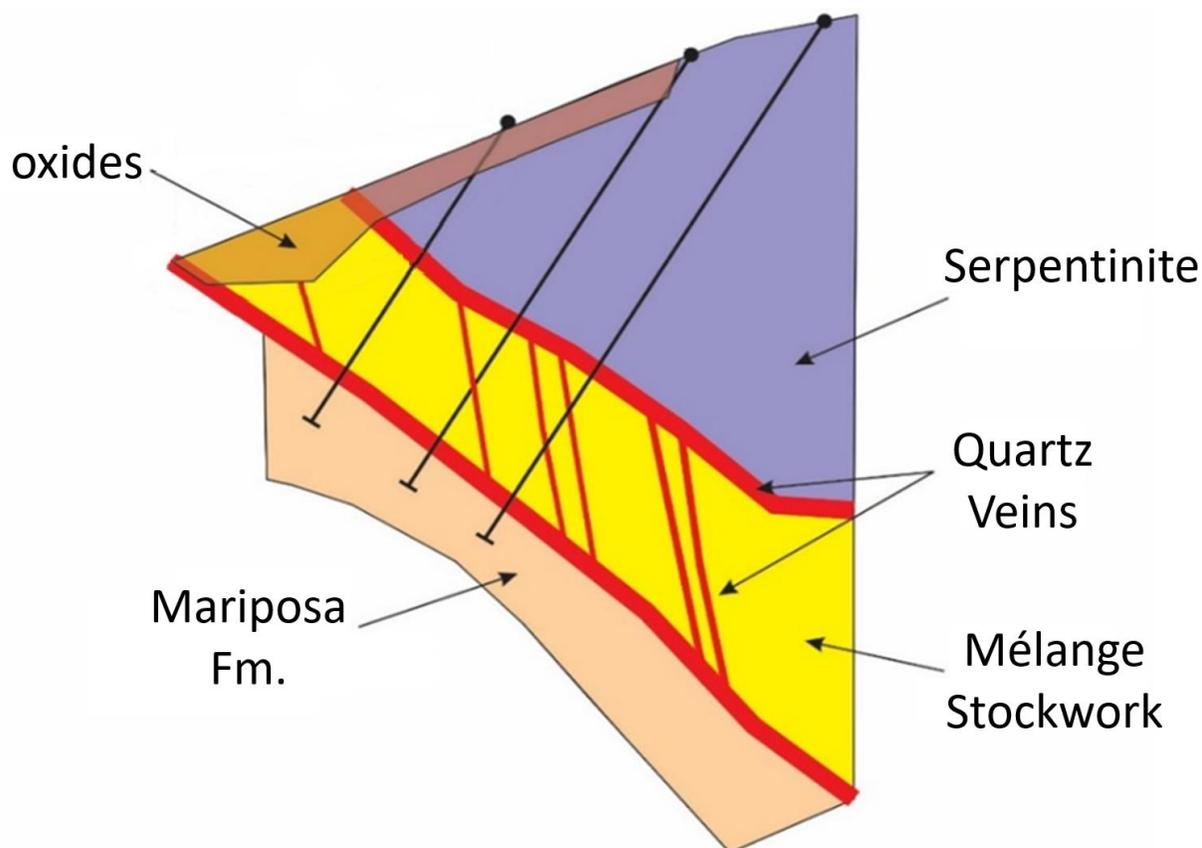


Fig. 7.10 Representative interpretive vertical cross section of the Pine Tree – Josephine Gold Deposit. Lode Gold, 2025, mod. from Lode Gold 2022.

The stockwork-mélange mineralization is located mainly in the tectonic mélange between the footwall and hanging wall quartz veins. The host meta-sedimentary, volcanic and ultramafic rocks are intensely altered to ankerite, sericite, albite, quartz, mariposite with cubic pyrite. Mineralized schists and tectonite pods contain pyrite and ankerite and host quartz-feldspar-ankerite veinlets.

The oxide-gold mineralization occurs as a thin cap on the upper portions of the gold deposits. Generally, the oxide zone varies from approximately one meter to a maximum of 56 m below surface are variably oxidized and potentially amenable to cyanide heap leaching.

The gold deposits on the Fremont Property are hosted in a serpentinite matrix mélange, altered serpentinite and sedimentary rocks and associated with a major fault zone with listwaenitic alteration (ankerite, albite, mariposite, sericite and talc). They are therefore classified as orogenic mesothermal gold deposits.

According to Burgoyne (2013), historical petrographic thin-section studies report the presence of gold mineralogically as native gold and electrum. Gold grains within pyrite grains vary from 0.03 mm to 0.05 mm in size.



Fig. 7.11 Visible gold in Queen Specimen 2018 drill-hole QS-DD-18-014. California Gold, press release May 2, 2018.

The oxide gold mineralization occurs as a thin cap on the upper portions of the gold deposits. In the order of one-sixth to one-seventh of the upper parts of the deposits are variably oxidized and potentially amenable to cyanide heap leaching. Generally, the oxide zone varies from approximately 0.5 m to a maximum of 56 m (185 ft) below surface.

Structurally, the bulk of the gold mineralization along the 4 km Pine Tree-Josephine mineralized trend is interpreted to be associated with fault-fill veins, breccia veins, and extensional veins formed during various increments of D1 brittle-ductile reverse dip-slip movement (shearing) along the Melones Fault Zone (SRK, 2014).

7.7 OTHER GOLD DEPOSITS OF INTEREST

The Fremont Property gold deposits not included in the current Mineral Resource Estimates are the Chicken Gulch and Crown Point Deposits. These two deposits are both located along the 4 km Pine Tree-Josephine trend (Fig. 7.12), however, there are insufficient drilling data to support Mineral Resource estimation. With further drilling, however, these two deposits could perhaps be included in future updated Mineral Resource Estimates, and therefore are briefly described below. (Note that in addition to the Chicken Gulch and Crown Point Deposits, two more, smaller, vein-type gold deposits known as the Evans and French Deposits are located to the east of the Pine Tree-Josephine Deposit - see Fig. 7.9).

7.7.1 CHICKEN GULCH DEPOSIT

The Chicken Gulch Deposit is a wedge-shaped, altered and mineralized zone that extends approximately 914 m (3,000 ft) in length and 107 m to 122 m (350 ft to 400 ft) in width at the south limit of the Fremont Property (see Fig. 7.8). The Deposit narrows irregularly along trend

towards the north and ultimately coalesces with Pine Tree-Josephine Deposit. Quartz veins occur along the hanging wall and footwall of the altered zone for much of its length. Historical development consisted only of surface cuts, some shallow shafts, and an adit driven from the north bank of Chicken Gulch. Near-surface gold mineralization occurs in the oxide zone and deeper mineralization in the underlying sulphide zone.

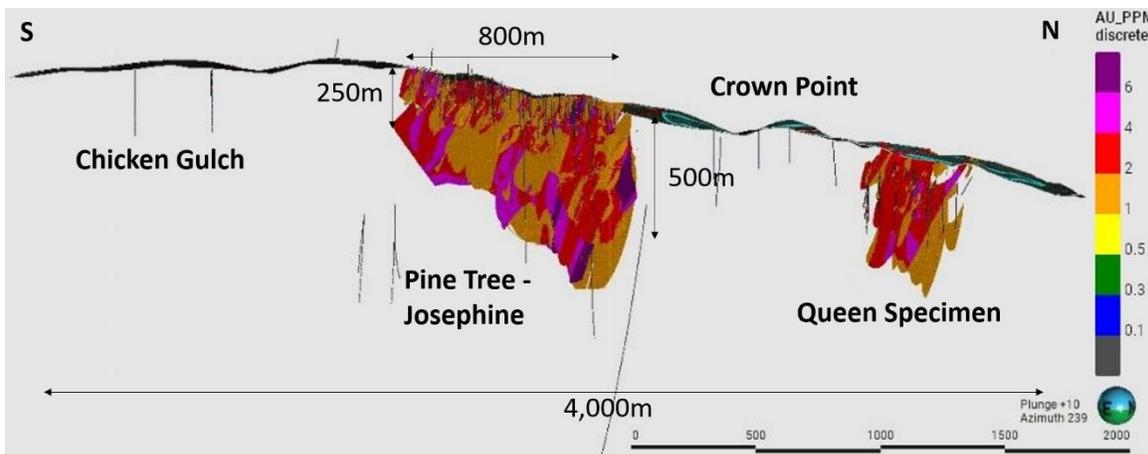


Fig. 7.12 Fremont gold mineralized trend with the block model of this report. Lode Gold, 2025.

7.7.2 CROWN POINT DEPOSIT

The Crown Point Deposit is located north along strike from the Pine Tree-Josephine Deposit (see Fig. 7.8). The Crown Point Deposit was explored by a number of short adits, most of which are now collapsed. Crown Point is geologically similar to the Pine Tree-Josephine and Chicken Gulch Deposits, with serpentinite and Mariposa Formation rocks in the hanging wall.

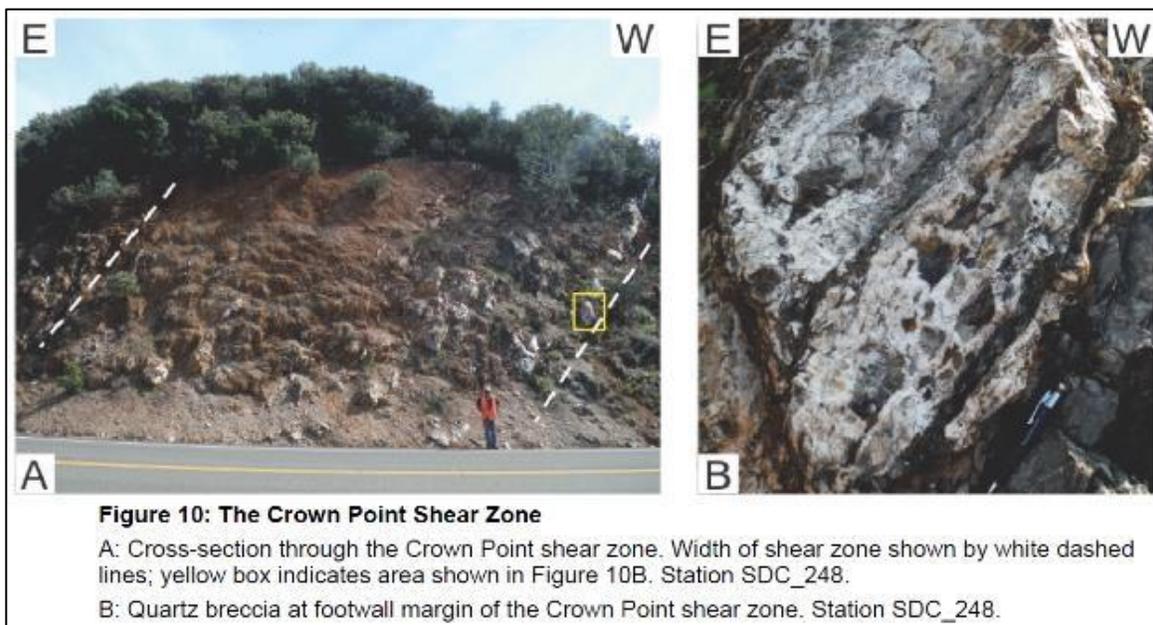


Fig. 7.13 Crown Point prospect shear zone. SRK, 2014.

According to SRK (2014), an approximately 10 m-wide shear zone within the sedimentary sequence at Crown Point defines the footwall margin of the Melones Fault Zone in this area (Fig. 7.12A). This

shear zone is oriented at $020^{\circ}/52^{\circ}$, and contains a stretching lineation oriented at $35^{\circ}/071^{\circ}$. Shear sense indicators here indicate dextral-reverse oblique-slip movement. The Crown Point Shear Zone is characterized by four features: 1) a hanging wall quartz vein stockwork in thick bedded, medium-grained sandstone; 2) a 1 m-wide zone of strong chlorite alteration at the hanging wall margin; 3) shear zone parallel quartz veins within fine-grained sedimentary rocks in the core of the shear zone; and 4) a 50 cm-wide quartz vein breccia at the footwall margin (Fig. 7.12B). Significant quartz vein development was not observed in the footwall rocks to the Crown Point Shear Zone.

8.0 DEPOSIT TYPE

The following report was prepared by P&E Mining Consultants Inc. (“P&E”) for the 2023 PEA and updated by the Authors.

The gold deposits of the Fremont Property are classified as orogenic catathedral gold deposits (Sillitoe, 2008; Goldfarb and Groves, 2015; Groves and Santosh, 2016). This gold deposit type is hosted in metamorphosed volcanic and sedimentary rocks and associated with major terrane-bounding fault zones in subduction-related geodynamic and geotectonic settings (Figures 8.1 and 8.2).

Gold mineralization in orogenic gold deposits is structurally controlled and hosted in altered quartz veins, vein networks, and wall rock adjacent to and along major regional-scale faults (Fig. 8.3). The veins consist mainly of quartz and carbonate, with smaller amounts of chlorite, mariposite, scheelite, tourmaline, and native gold. Pyrite, chalcopyrite and pyrrhotite comprise <10% of the veins. Mineralization is generally gold-rich with a gold to silver ratio of 5:1 to 10:1 and high contents of sulphur, arsenic, tellurium, tungsten, boron and molybdenum are present, along with low contents of lead and zinc.

Vein strike and dip extents range from hundreds to thousands of meters, either singly or, more typically, in complex vein networks. Veins are hosted in a wide variety of volcanic, sedimentary, intrusive and metamorphic rock types. The veins generally occur as systems of parallel or acutely intersecting veins, ranging in dip from 25° to 60°. Gold mineralization occurs as shoots with considerable vertical extent relative to their horizontal extent, that are generally found in ribboned vein structures, commonly in the hanging wall and (or) footwall of barren or low grade “bull” quartz veins.

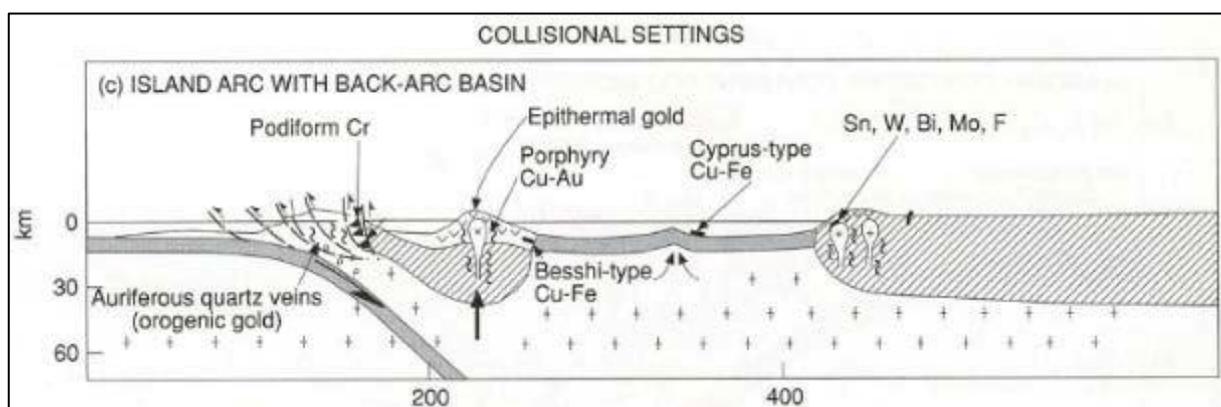


Fig. 8.1 Geodynamic setting of orogenic gold mineralization. Robb, 2005.

Despite their significant vertical depth extent of origin, (commonly >10 km), orogenic gold deposits can lack clear vertical mineral zonation. Wall rock alteration haloes are zoned and consist of listwaenitic alteration (carbonatization, sericitization, talc and pyritization-associated alteration mineral assemblages). Alteration halo dimensions vary with the composition of the host lithologies and usually envelope entire deposits in mafic and ultramafic rocks.

Spatial relationships of the Mother Lode Gold Belt along the Melones Fault Zone appear to indicate that the mineralizing fluids utilized the crustal scale fault system as a means of fluid transit during the Early Cretaceous (Goldfarb et al., 2008). In this model, strike-slip reactivation of the Melones Fault Zone channeled ascent of deeply-sourced fluids that led to the gold mineralization.

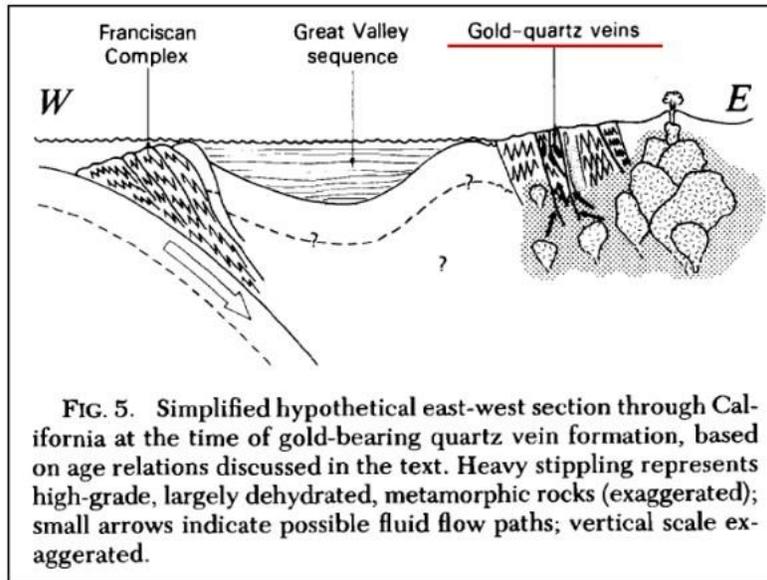


Fig. 8.2 Tectonic environment of orogenic gold mineralization in California. Bohlke and Kistler, 1986.

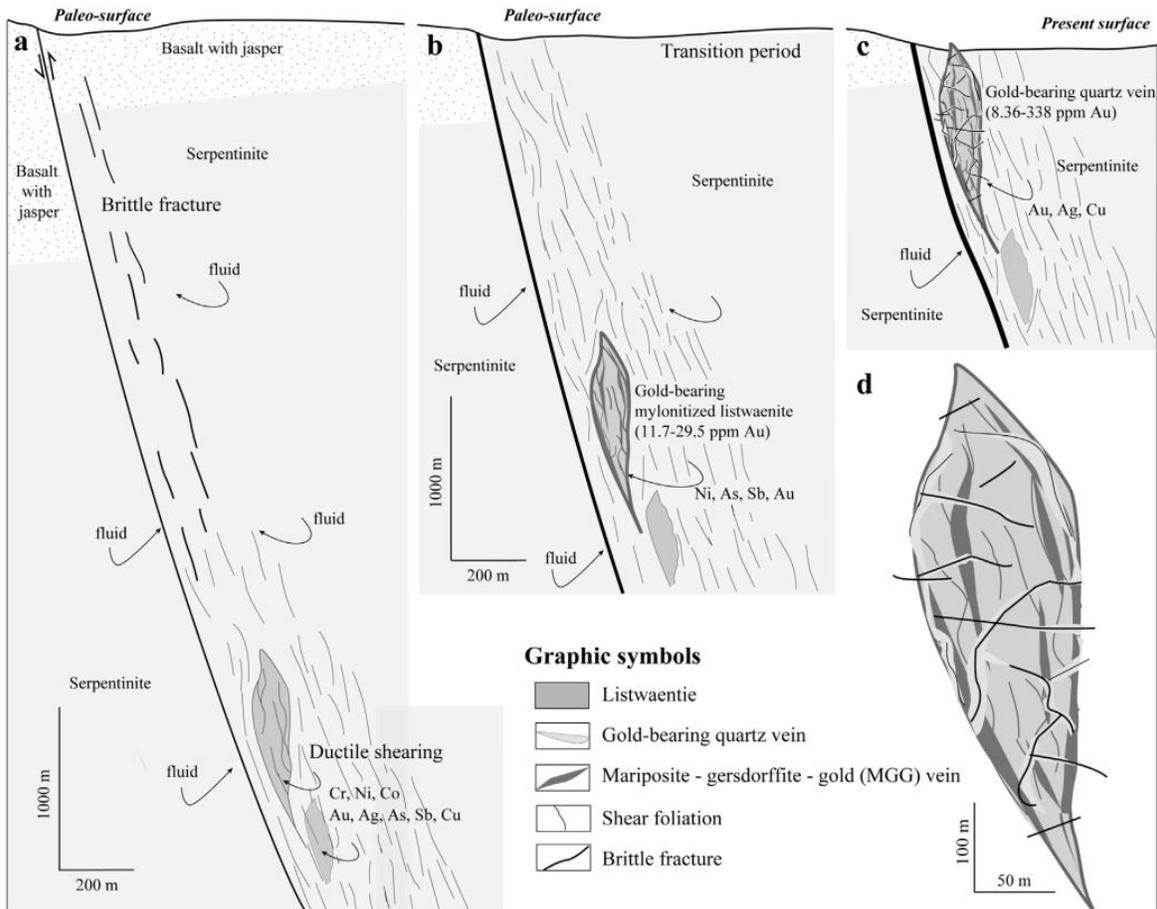


Fig. 8.3 Schematic model showing evolution of shear zone and listwaenite-related gold mineralization of the Sayi deposit. Qiu & Zhu, 2015.

Fig. 8.3 is a schematic model for orogenic fluid sources and gold mineralization in the crust. From meteoric water circulation and lateral secretion, magmatic-hydrothermal fluid exsolution from various granite intrusion types, to granulitization and prograde metamorphic devolatilization processes during orogeny. The gold-bearing fluids ascend along crustal-scale faults (e.g., San Andreas Fault) and become trapped in shear zones (Melones Fault Zone), where they cool, mix with surface-derived fluids (i.e., meteoric waters) and react with wall rocks to form gold deposits.

9.0 EXPLORATION

The following report was prepared by P&E Mining Consultants Inc. (“P&E”) for the 2023 PEA and updated by the Authors.

Further to the historical exploration programs outlined previously in Section 6, Lode Gold completed surface exploration activities on the Fremont Property in 2022. The exploration activities included compilation and reporting of a 2016-2017 property-wide soil geochemistry survey, in addition to trenching, mine development activities and flying a LiDAR™ survey in 2022. These activities are outlined below from Lode Gold press releases dated February 22, 2022 and March 23, 2022, which are available on its website (<https://lode-gold.com>) and filed under the Company profile on SEDAR (www.sedar.com).

9.1 SOIL GEOCHEMISTRY SURVEY

The soil geochemistry survey covered the entire Fremont Property with 1,364 samples, including 51 field duplicate samples collected on a 100 m x100 m grid (Lode Gold press release dated February 23, 2022). The soil samples were collected in canvas sacks by qualified independent contract exploration personnel at UTM grid coordinates provided. Hand-held Garmin GPS units were utilized to locate and record the actual sample sites. The survey was completed by California Gold in two tranches: the first in October 2016 and the second in February 2017 (Pohlman, 2016, 2017). However, the results of these two surveys were not previously compiled and reported.

Based on their compilation, Lode Gold reported a large gold-in-soil anomaly extending across the entire 4 km Property length and averaging 285 m wide. Offset by an interpreted fault, the property-wide soil geochemical survey defines nearly continuous gold-in-soil mineralization of >30 ppb (parts per billion) up to 112,491 ppb gold, (112.5 g/t or 3.281 ounces per ton Au) covering an area of 1.14 km² (282 acres). Excluding the highest value, the remaining 102 samples within the anomaly range up to 5,210 ppb and average 412 ppb gold, a multiple of 61.5 times above the average background value of 6.7 ppb gold outside the anomaly. The excluded high value is located within 15 m of the historically mined, high-grade Josephine Lode Gold Vein where it outcrops at surface and may be reflective of mineralization related to it. Results of the survey are presented in Fig. 9.1.

The surface gold-in-soil anomaly encompasses and links the three historical producing gold deposits, the Pine Tree, Josephine and Queen Specimen Mines, plus the undeveloped Crown Point and Chicken Gulch Zones. Although hosted in the same geological setting featuring similar gold mineralization, the four deposits and zones previously remained materially unconnected, due to the lack of intervening drill assay information prior to this soil geochemical survey.

In addition, a high-grade, >200 ppb gold-in-soil core area within the larger geochemical anomaly defined by 31 soil samples averaging 1,097 ppb gold (1.097 g/t Au), excluding the high value sample, lies also in an oxidized surface cap zone.

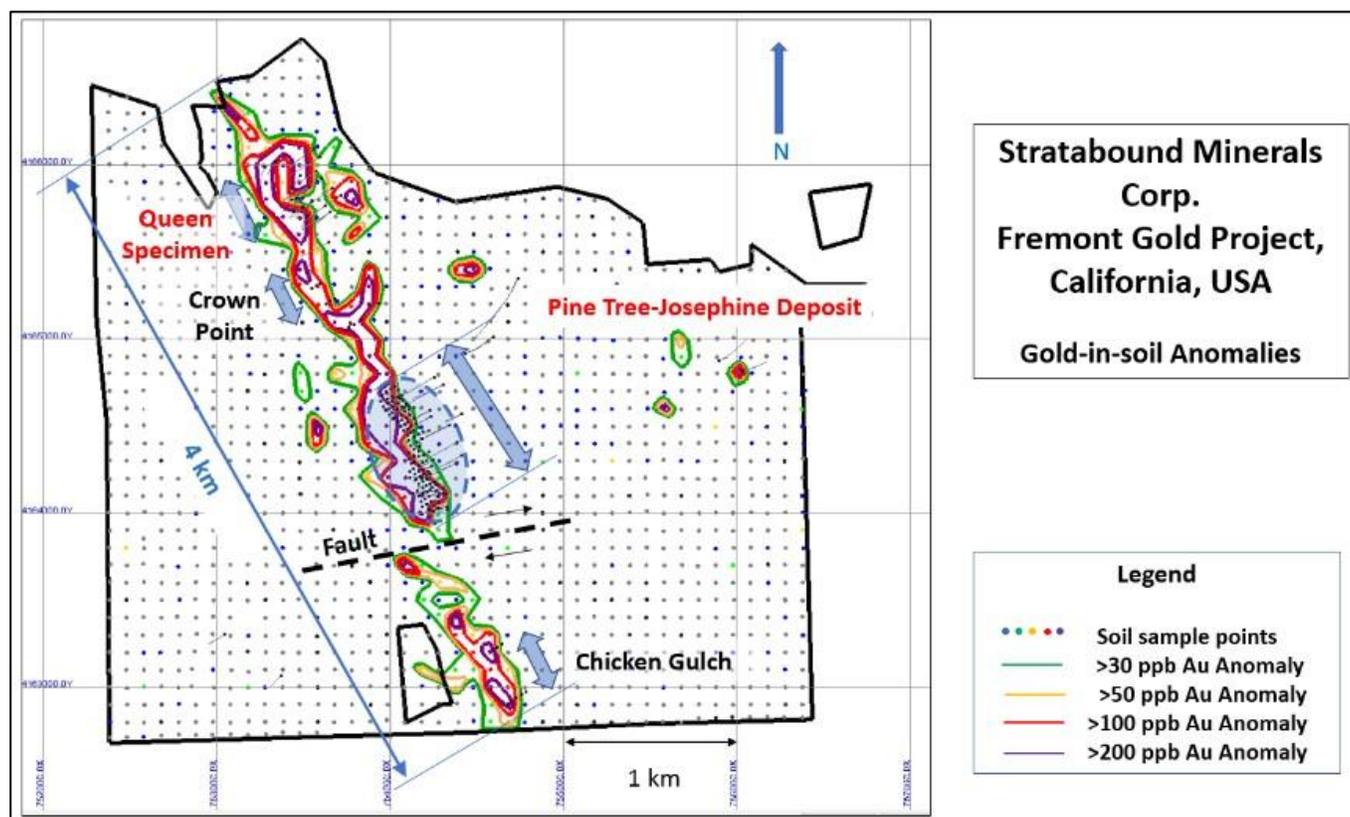


Fig. 9.1 Fremont property gold in soil anomalies. Lode Gold, 2022.

Note: 1 ppb Au = 0.001 g/t Au.

9.2 SURFACE TRENCHING

The exploration work included excavation of eight surface trenches at 50 m intervals across 500 m of strike length overlying the Queen Specimen Deposit. The Queen Specimen Deposit is the northernmost of four separately drilled gold-mineralized zones that connected along four km of strike on surface by a >30 ppb gold in-soil anomaly (see Fig. 9.1).

Systematic mapping and sampling of the new Queen Specimen trenches were designed to define the at-surface gold mineralization projected from historical and recent diamond and RC drill holes extending from 300 m below surface. The trenches range in length from 35.1 m to 93.0 m, most trend north-northeast to northeast, and one (the southernmost – Trench 6) trends southeast (Table 9.1 and Fig. 9.2). The geological mapping results correlate well with the underlying geology. In total, 334 trench samples were taken for assay. The gold assay results range from 0.005 g/t up to 4.140 g/t Au (Trench 1).

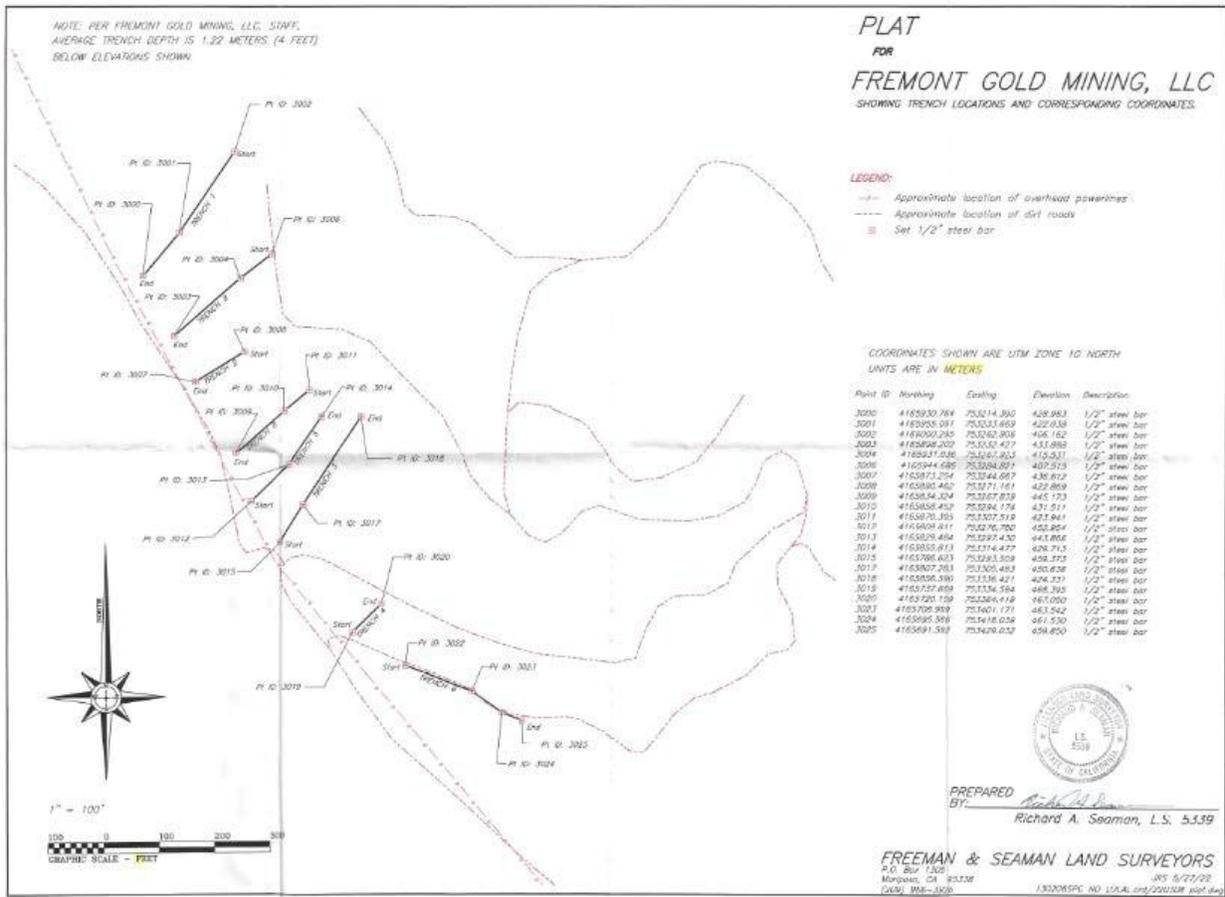


Fig. 9.2 Surface trenches at Queen Specimen. Lode Gold, 2022.

9.3 DRILL ROAD CHANNEL SAMPLING

The information in this section is summarized from Campo (2022).

In May 2022, outcrop exposures along the Pine Tree – Josephine drill road system were systematically mapped and sampled, in order to further evaluate the oxide mineralization exposed in this Mineral Resource area. 14 sections (PTJ-SS-22-01 to PTJ-SS-22-14) of the road network that had mainly continuous outcrop exposure of strongly oxidized bedrock and regolith were channel sampled in 3 m (10 ft) increments. CRMs, blanks, and field duplicate samples were included at a 5% frequency each.

The samples were collected with a geology pick in the soft, deeply weathered exposures. Hammer and chisels were utilized in some of the hard outcrops. The start and end points of each sample were surveyed with a hand-held Garmin 64 GPS unit. All samples at the site of their collection were photographed.

Geologically, most of the samples are of altered, deeply weathered diorite and with mafic or serpentinite clasts. 16 samples were of greywacke and sandstone of the Mariposa Formation. Some of the outcrops included small zones of silicified and pyrite altered diorite.

In total, 127 samples were taken from the 14 channels. The channels and samples returning >0.5 g/t Au are shown in Fig. 9.3.



Fig. 9.3 Location of Pine Tree – Josephine drill roads samples with >0.5 g/t Au. Campo, 2022.
Note: The long dimension of the photograph is approximately 500 m (1,600 ft).

9.4 2022 LIDAR™ SURVEY

GeoFocus Mapping Inc. was contracted by Lode Gold to fly a LiDAR™ survey over the Fremont Property in the spring of 2022. The LiDAR™ survey was completed with a fixed-wing aircraft on April 18, 2022; approximately 51.5 line-km were flown. The surveyed area is shown in Fig. 9.4.

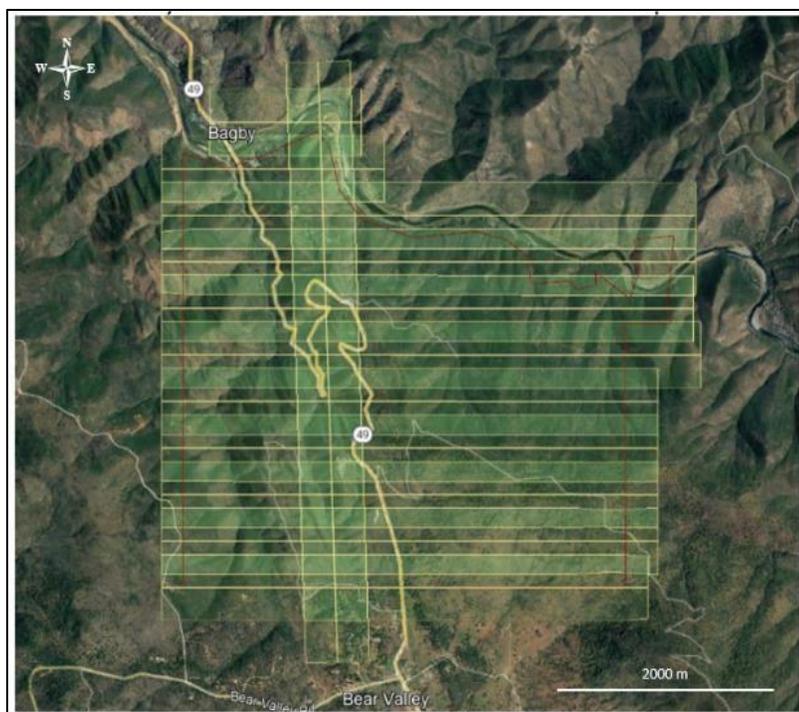


Fig. 9.4 Fremont property LIDARTM survey coverage. GeoFocus, 2022, Mod. by P&E, 2022.

10.0 DRILLING

The following report was prepared by P&E Mining Consultants Inc. (“P&E”) for the 2023 PEA.

Lode Gold has not completed any drilling on the Fremont Gold Property as of the effective date of this Report. Since 1985, 283 drill holes totaling 42,010 m (137,830 ft) have been completed by previous owners on the Fremont Property. A summary of this drilling is presented in Table 10.1.

| TABLE 10.1 SUMMARY OF FREMONT PROPERTY HISTORICAL AND RECENT DRILLING | | | | | |
|---|--------------------|-----------------------|-------------------|------------------|------------------|
| Year | Company | Number of Drill Holes | Length | | Drill Type |
| | | | (ft) | (m) | |
| 1930s | Pacific Mining Co. | >5 | unknown | unknown | core |
| 1985 to 1986 | Goldenbell | 174 | 72,393.00 | 22,065.39 | RC, rotary, core |
| 2008 | Global Mining | 27 | 538.25 | 164.06 | core |
| 2013 to 2018 | California Gold | 82 | 64,898.25 | 19,781 | core |
| Total | | 288 | 137,829.50 | 42,010.45 | |

SLR, 2021

10.1 HISTORICAL DRILLING PROGRAMS

Drilling activities at the Property were first undertaken in the 1930s by Pacific Mining Co. that completed limited drilling underground. The only surviving information on those drill holes are outlines on historical level plans. No further drilling was carried out on the Property until 1985.

In 1985 to 1986, Goldenbell initiated a 140 RC drill hole program totaling 19,860 m (65,158 ft) and also drilled 1,196 m (3,925 ft) of rotary (18 drill holes) and 1,009 m (3,310 ft) of core drill holes (16 drill holes). Four targets, namely Pine Tree – Josephine, Queen Specimen – Succedo, Chicken Gulch, and Crown Point, were drilled during 1985 and 1986. The RC drill footage by target area is presented in Table 10.2.

The Pine Tree-Josephine target area was explored by 113 RC drill holes for 16,494 m (54,113 ft) drilled at 30 m (100 ft) north-south intervals and 21 m to 30 m (70 ft to 100 ft) east-to-west intervals with a baseline orientation of 330°. In total 27 north-south cross-section lines (19,600 to 22,300 north) were completed at 30 m intervals. The maximum depth reached was 276 m (905 ft) vertical. All but two holes were drilled vertically. The Pine Tree-Josephine Deposit mineralization was delineated over a length of >823 m (2,700 ft), a width of 122 m to 152 m (400 ft to 500 ft), and a depth of 274 m (900 ft). All drill hole locations were surveyed by Ager, Beretta & Ellis Inc. of Vancouver, BC in 1986.

In the Queen Specimen target area, eight RC drill holes, totaling 861 m (2,825 ft), were completed at an inclination of -45°. These holes were drilled on five cross-sections approximately 61 m (200 ft) apart, with the most northerly section being 180 m (590 ft) apart. A mineralized deposit

approximately 366 m (1,200 ft) long and 61 m (200 ft) deep was defined. In the Chicken Gulch target area nine RC drill holes totaling 1,500 m (4,920 ft) were completed on two sections 305 m (1,000 ft) apart. In the Crown Point target area, 10 RC drill holes totaling 1,173 m (3,850 ft) were completed on three cross-sections 180 m (590 ft) and 130 m (425 ft) apart.

No further drilling was carried out on the Property until 2008.

| TABLE 10.2 SUMMARY OF GOLDENBELL 1985-1986 DRILLING | | | |
|--|------------------------------|---------------|---------------|
| Target | Number of Drill Holes | Length | |
| | | (ft) | (m) |
| Pine Tree -Josephine | 113 | 54,113 | 16,494 |
| Queen Specimen | 8 | 2,825 | 861 |
| Crown Point | 10 | 3,300 | 1,006 |
| Chicken Gulch | 9 | 4,920 | 1,500 |
| Total | 140 | 65,158 | 19,860 |

SLR, 2021

In 2008, Global Mining completed a 27 vertical hole drilling program totaling 164.06 m (538.25 ft) in the historical tailings dump near the Pine Tree Mine.

10.2 RECENT DRILLING PROGRAMS

California Gold completed 82 surface diamond drill holes from 2013 to 2018, totaling 19,781.00 m (64,898.25 ft). Of the 82 drill holes, 52 were drilled into the Pine Tree- Josephine Deposit, 26 into the Queen Specimen Deposit, and four in the historical French Mine area (Fig. 10.1 and Table 10.3).

Drill hole collar surveys were completed in the field using a hand-held GPS. At the end of the 2016 program, the collar locations were independently surveyed by Freeman and Seaman Land Surveyors. Downhole surveys in the 2013-2014 holes were completed with a Reflex EZ-shot. The 2015-2016 holes were surveyed using a Devico peewee or DeviShot instrument. Downhole surveys were taken every 30 m to 61 m (100 ft to 200 ft) and at the end of hole by the drillers. Drill hole surveys in the 2017-2018 program were taken every 15 m (50 ft). For the 2016 Mineral Resource Estimate, the drill hole database was converted from local coordinate system (mine grid) to NAD83 Zone 10 UTM coordinates and expressed in metric units.

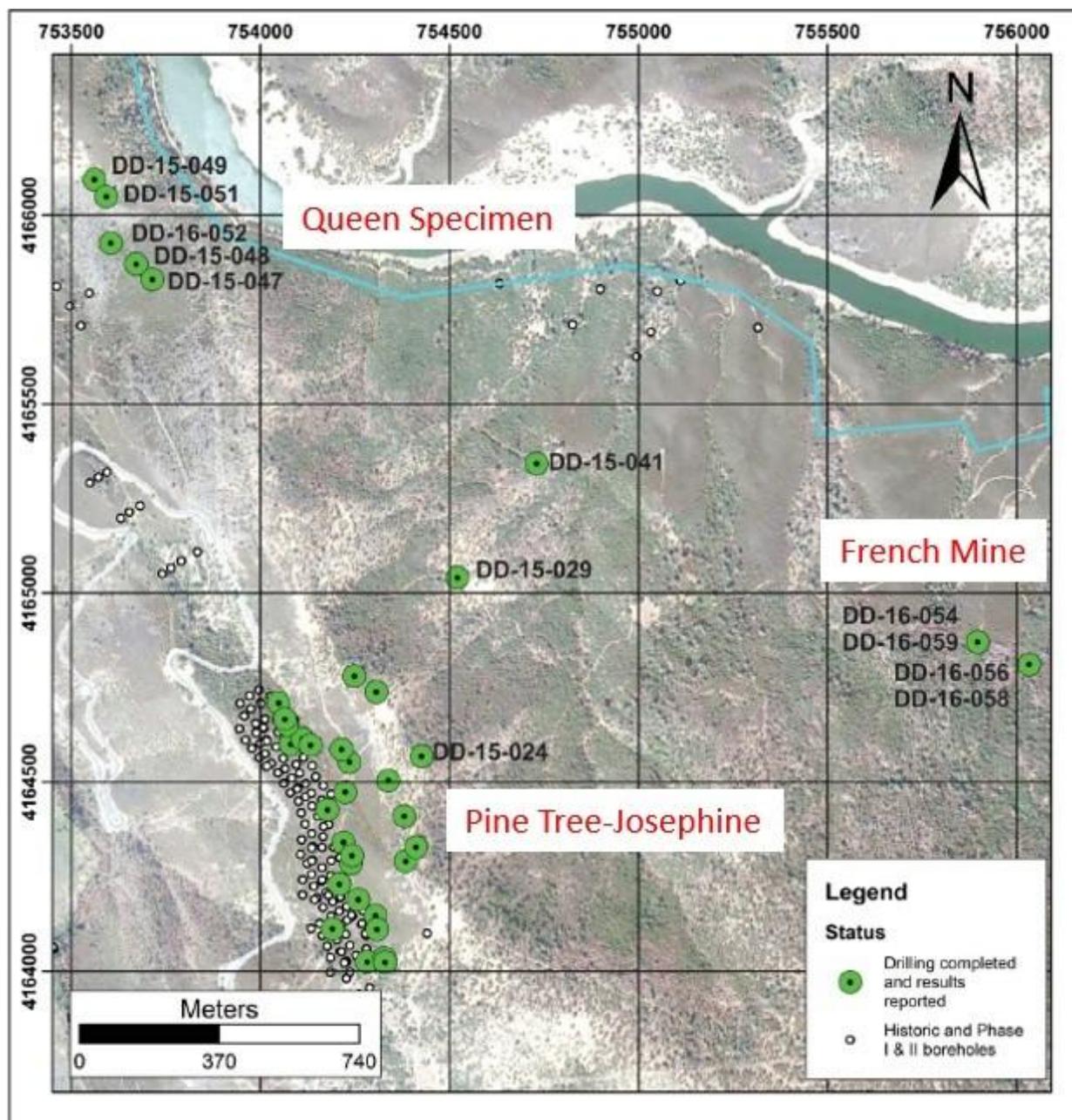


Fig. 10.1 Fremont property drill targets 2013 to 2018, plan view. California Gold press release, 2016.

| TABLE 10.3 CALIFORNIA GOLD DRILLING 2013-2018 | | | | |
|---|-----------------------|------------------|------------------|--------------|
| Target | Number of Drill Holes | Length | | Year |
| | | (ft) | (m) | |
| Pine Tree-Josephine | 52 | 40,809.55 | 12,438.75 | 2013 to 2016 |
| Queen Specimen | 26 | 19,636.50 | 5,985.21 | 2015 to 2018 |
| French Mine Area | 4 | 4,452.20 | 1,357.03 | 2016 |
| Total | 82 | 64,898.25 | 19,781.00 | |

SLR, 2021

10.2.1 PINE TREE-JOSEPHINE DRILLING: 2013-2016

The 52 drill holes completed at Pine Tree-Josephine included 14 twin holes drilled to confirm historical RC hole results and three holes drilled to recover materials for metallurgical test work. All the holes in the Pine Tree-Josephine area were drilled toward the southwest to intercept the northeast-dipping Melones Fault Zone and associated gold mineralized quartz veins. The drilling was carried out by National Drilling in 2013-2014 and by KB Drilling in 2015-2016. Drill core size was primarily HQ; however, NQ size was drilled where required by ground conditions.

10.2.1.1 PHASE I DRILLING 2013

The Phase I drilling program ran from May 22, 2013 to June 21, 2013, and included 14 diamond drill holes totaling 1,982 m (6,502 ft). The main objective of the drill program was to twin 14 of the 1985-1986 RC drill holes drilled by Goldenbell on the Fremont Property with new HQ 64 mm (2.5 inch) diameter diamond drill holes. Drill collar locations and interpreted cross-sectional projections are shown in Figures 10.2 to 10.3.

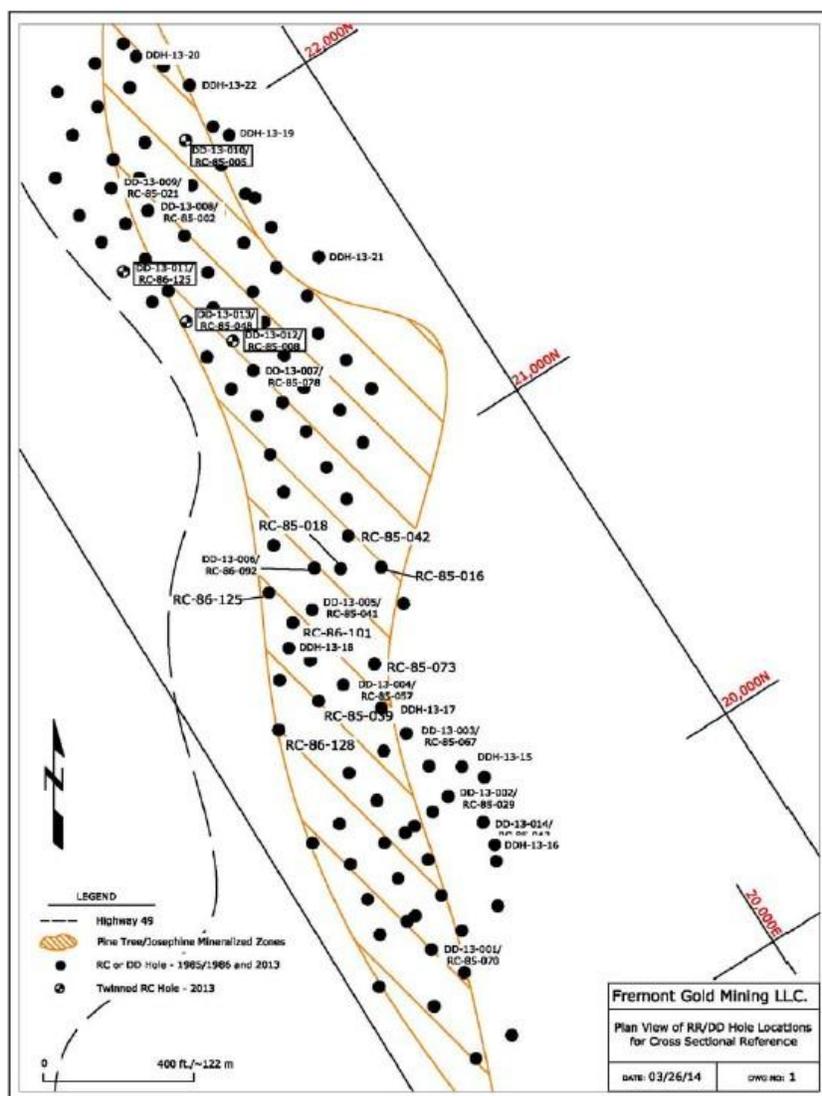


Fig. 10.2 Phase I (2013) diamond drill holes, plan view. California Gold press release, 2014.

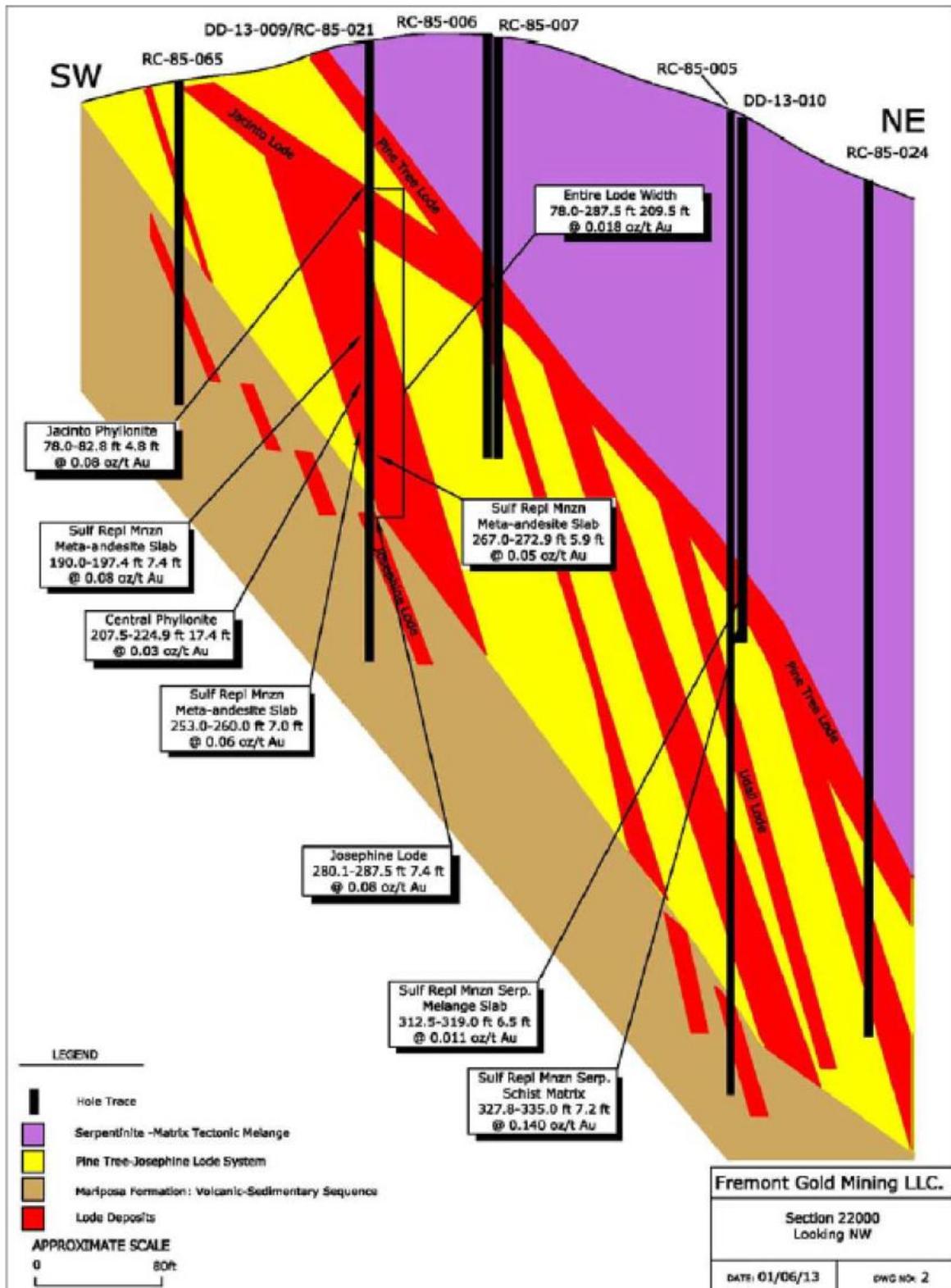


Fig. 10.3 Vertical cross-sectional projection 20,000 NW. California Gold press release, 2014.

The results from the Phase I drill program confirmed presence of a large gold-mineralized zone at Pine Tree-Josephine and in the development of a preliminary geological model for the Deposit. The large widths of the mineralized intersections and high overall gold grades encountered in the mineralized zones were considered to present a compelling case for Fremont to be evaluated as a bulk mining operation.

Based on the Phase I results, it was determined that more drilling was required for an initial Mineral Resource Estimate for the Fremont Property.

10.2.1.2 PHASE II DRILLING 2014

The Phase II drilling program at Fremont commenced on December 17, 2013 and concluded on January 29, 2014. Four PQ-sized diamond drill holes were drilled totaling 568 m (1,862 ft). The main objective of the Phase II drill program was to generate sufficient representative rock material from each of the three identified metallurgical domains that have recently been identified at the Fremont Property, to initiate PEA-level metallurgical testing. The three metallurgical domains identified were: 1) quartz-hosted gold mineralization; 2) sulphide replacement gold mineralization; and 3) oxide cap mineralization.

Collar locations for the Phase II drill holes are shown in plan and section views in Figures 10.4 and 10.5.

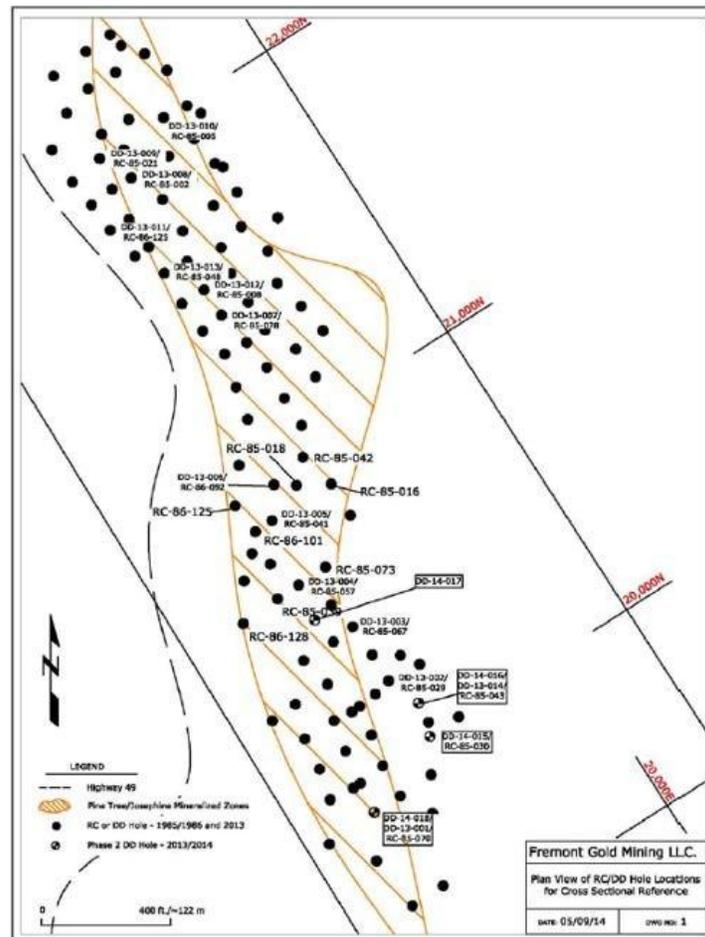


Fig. 10.4 Phase II (2014) diamond drill holes, plan view. California Gold press release, 2014.

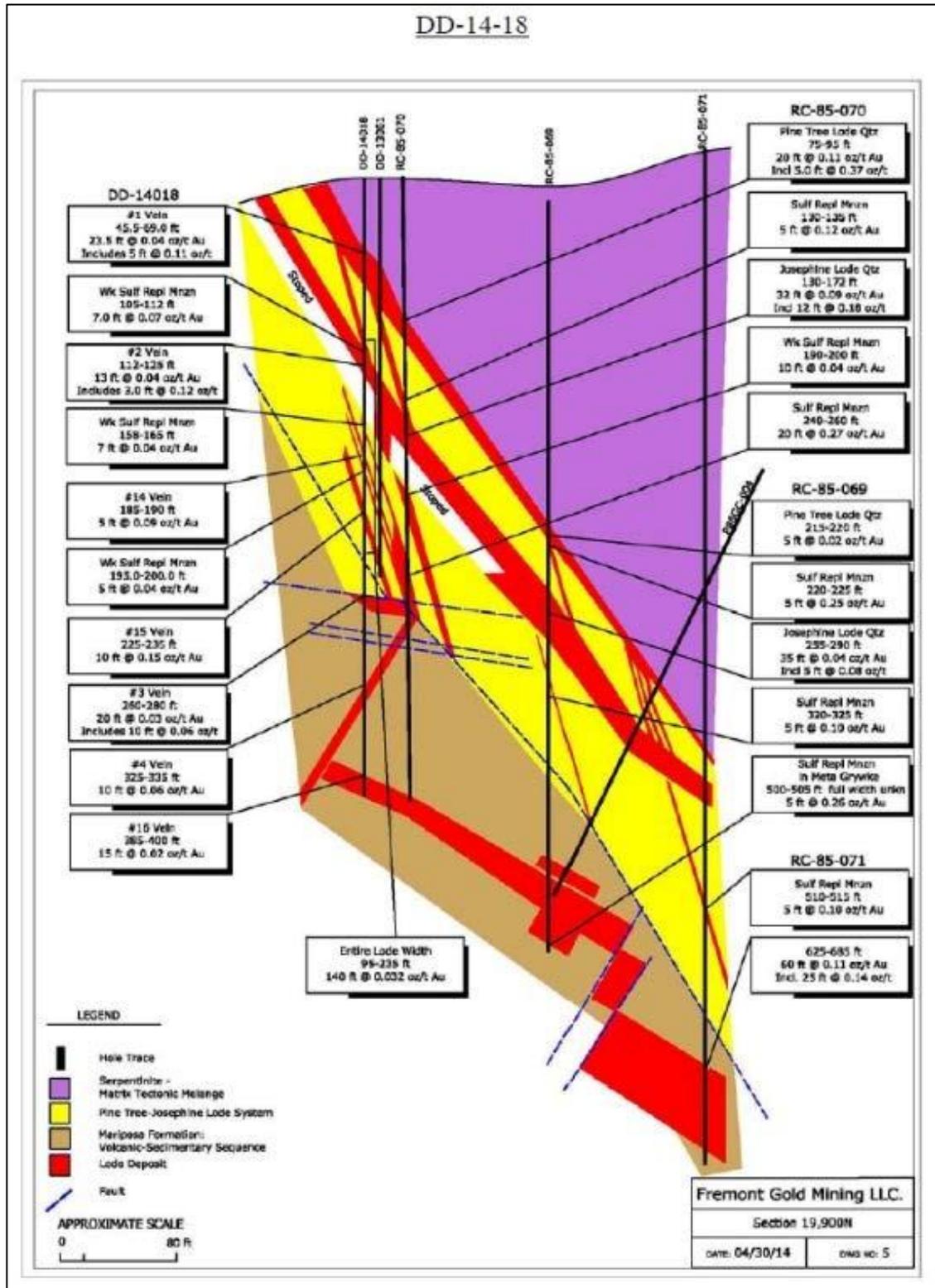


Fig. 10.5 Vertical cross-sectional projection 22,000 NW. California Gold press release, 2014.

The results from all four Phase II drill holes correlated well with the geology documented during historical RC drilling, underground mapping and mine development sampling programs. The Phase II drill program successfully generated sufficient representative rock material from each

of the three metallurgical domains on the Fremont Property to conduct PEA-level metallurgical studies.

10.2.1.3 PHASE III DRILLING 2015-2016

The objectives of the Phase III drilling program were three-fold: 1) generate sufficient data to support preparation of an initial Mineral Resource Estimate for the Pine Tree-Josephine mineralized zone; 2) test the down-dip extension of the Pine Tree-Josephine mineralized zone to depths of up to 914 m (3,000 ft) below surface; and 3) drill test additional targets on the Fremont Property for mineralization potential. The Phase III drilling program commenced on September 11, 2015 and concluded on March 5, 2016. The program consisted of 43 HQ-size diamond drill holes totaling 12,549 m (41,171 ft).

32 of the drill holes (DD-15-19 to DD-15-050) were infill holes completed at the main Pine Tree-Josephine mineralized zone for the Mineral Resource estimation. In addition to the in-fill drill holes, four deep holes (DD-16-053, DD-16-055, DD-16-057, DD-16-060) were completed to intersect the mineralized shear zone in the Pine Tree-Josephine system at depths of up to 914 m (3,000 ft) below surface. Up to 15 shallow drill holes were completed on the additional targets. During the program, up to five diamond drill rigs were operating on-site.

A plan view of the Phase III drill hole locations and an interpreted geological cross-section are shown in Figures 10.6 to 10.7, respectively.

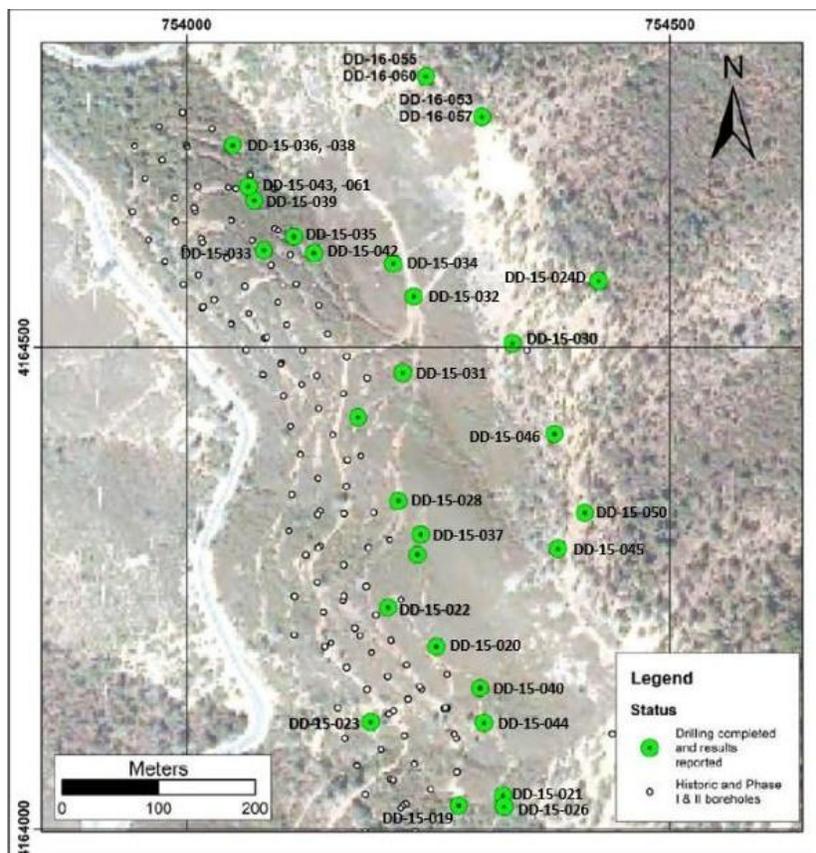


Fig. 10.6 Pine Tree – Josephine area, Phase III drilling (2015-2016), plan view. California Gold press release, 2016.

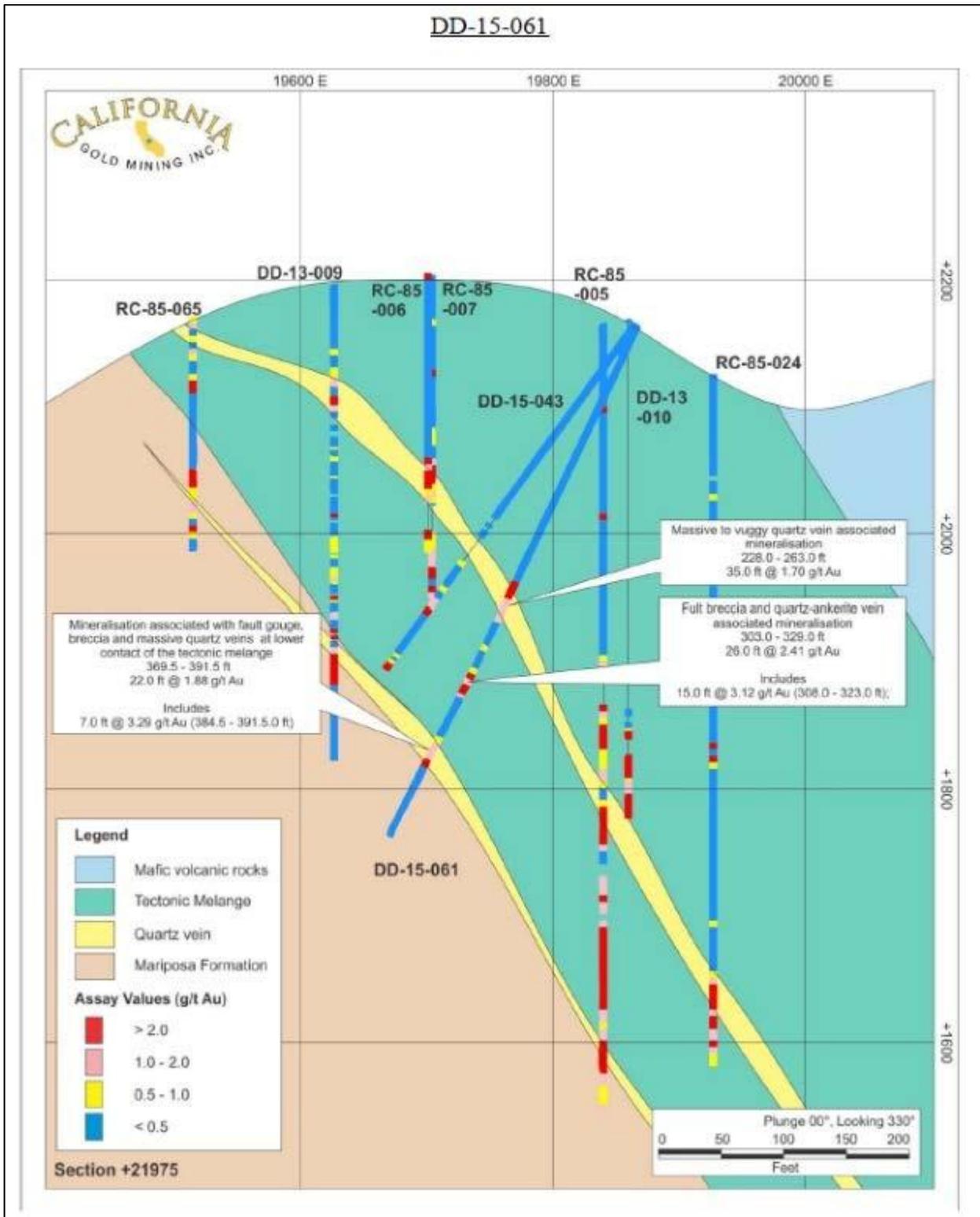


Fig. 10.7 Pine Tree – Josephine area, Phase III interpreted vertical cross-sectional. Projection 21,975 N. California Gold press release, 2016.

The results from all infill Phase III drill holes at Pine Tree-Josephine showed strong correlation with the geology documented during the preceding Phase I and II diamond drilling programs and the historical RC drilling campaigns, and geological analysis of the Pine Tree-Josephine Deposit. In

addition, all four of the deep drill holes successfully intersected the same mineralized structure as the shallow holes, demonstrating significant depth extension to the main Pine Tree-Josephine gold-bearing zone (Fig. 10.7).

10.2.2 QUEEN SPECIMEN DRILLING

Drilling programs at the Queen Specimen Deposit were completed in 2015-2016 and in 2017-2018. The results from each of these two drilling programs are summarized below.

10.2.2.1 QUEEN SPECIMEN DRILLING 2015-2016

Following completion of the Phase III drilling program at Pine Tree-Josephine in 2015-2016, five diamond drill holes were completed 1 km to the north on the Queen Specimen Deposit. The collar locations are shown on Fig. 10.8 and interpreted cross-sections are presented in Figures 10.9 and 10.10.

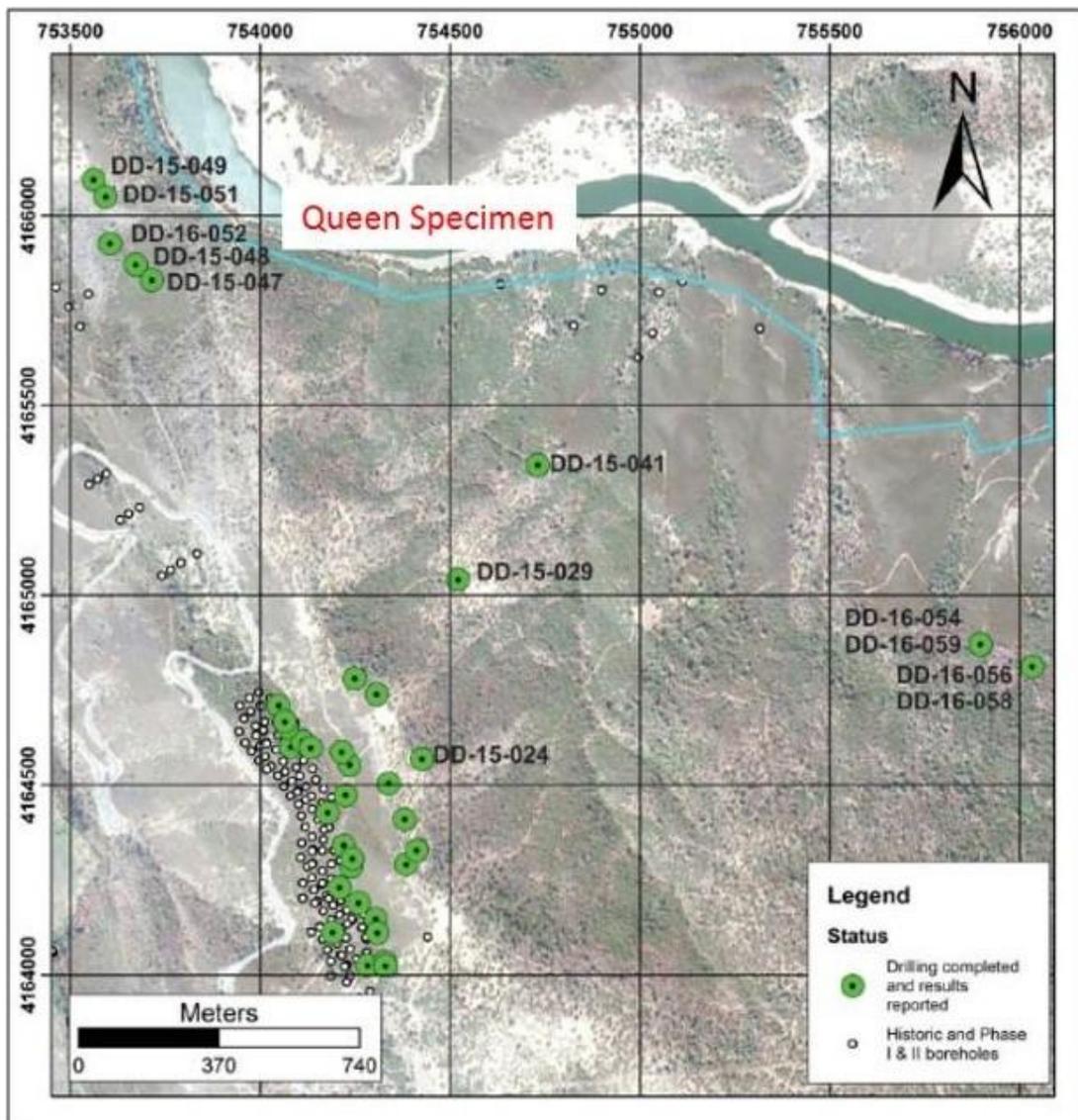


Fig. 10.8 Queen Specimen area, 2016 drill program holes completed, plan view. California Gold press release, 2016.

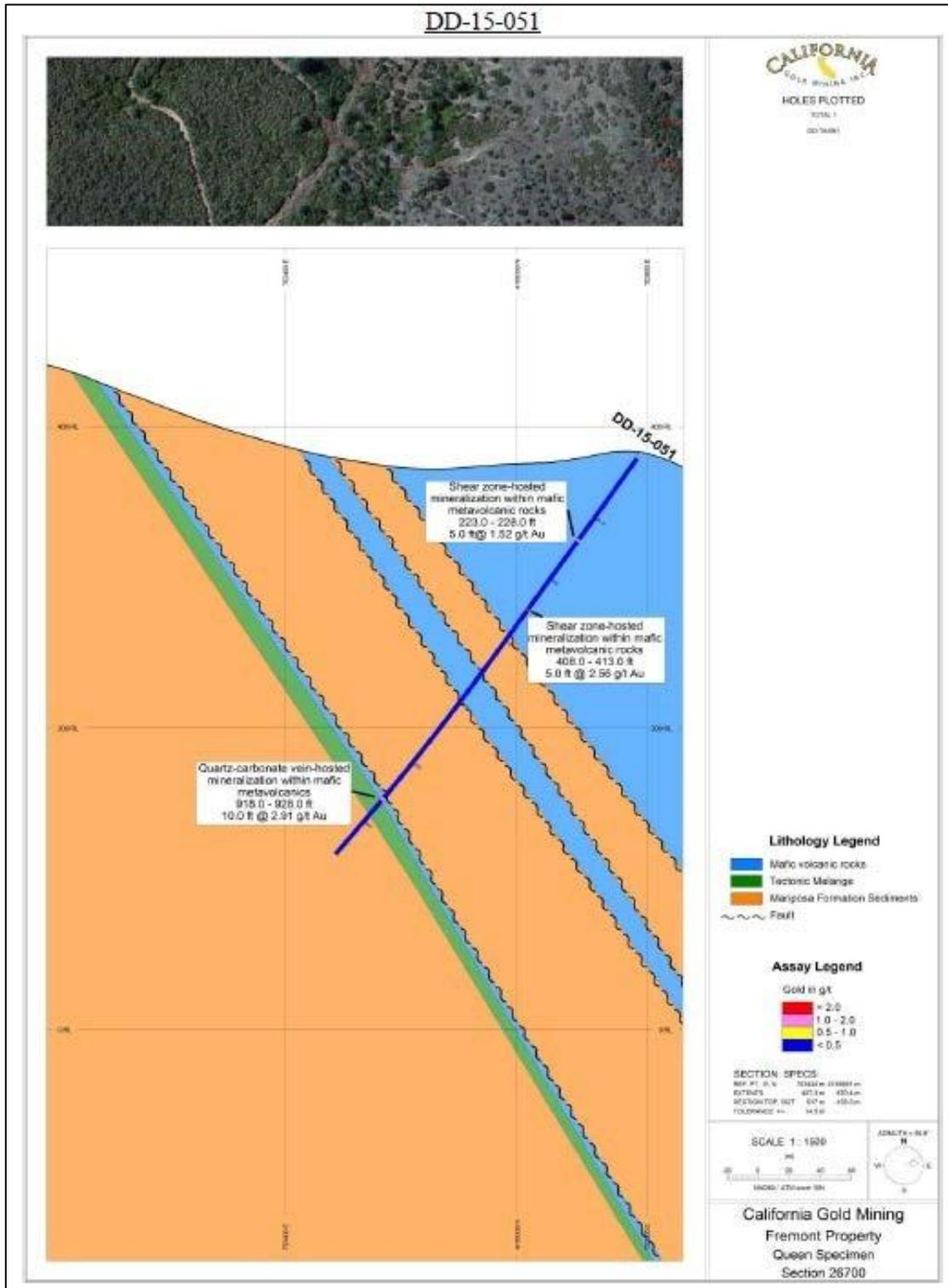


Fig. 10.9 Queen Specimen area, 2016 geological vertical cross-sectional projection, 26,700 N. California Gold press release, 2016.

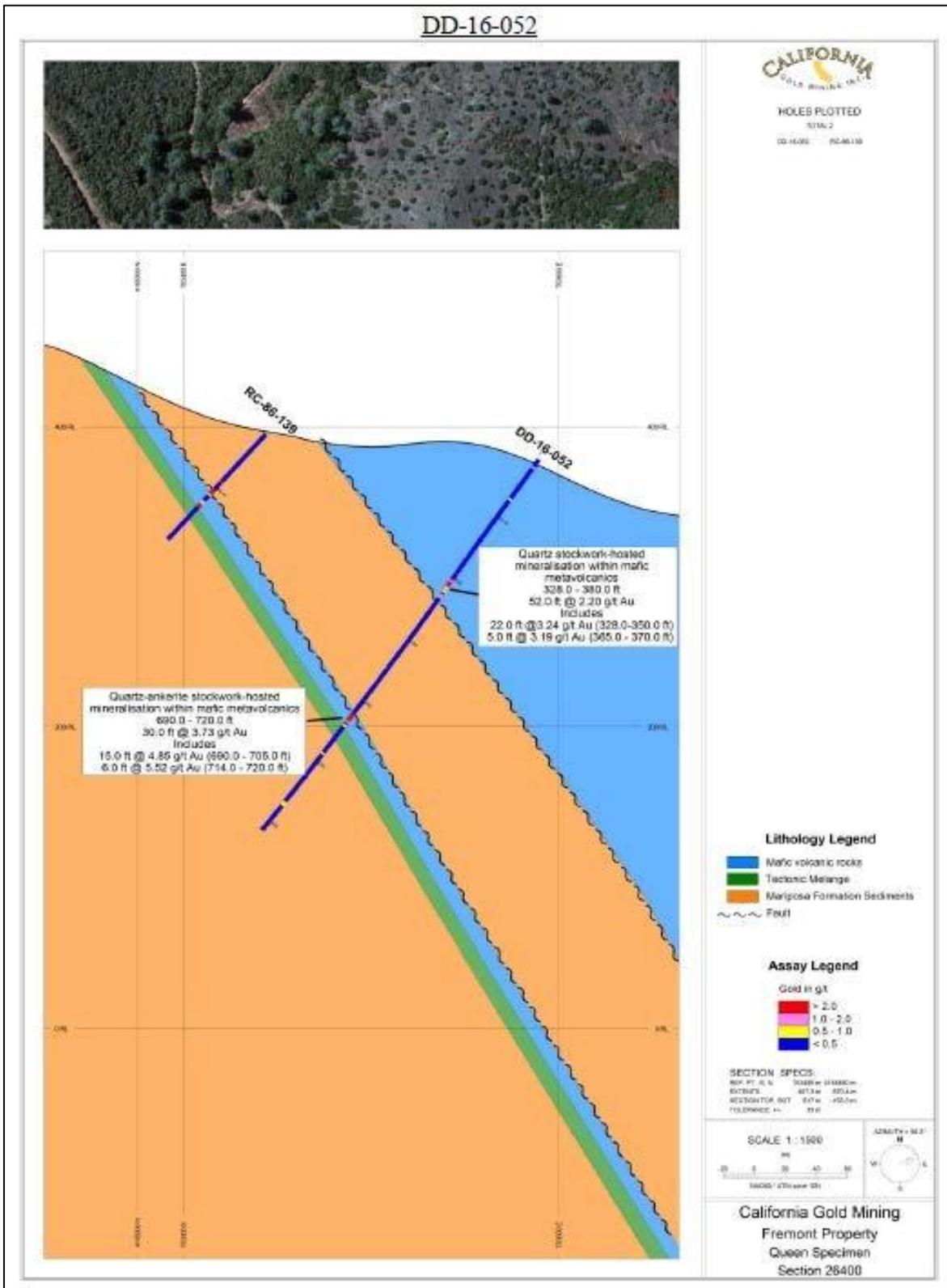


Fig. 10.10 Queen Specimen area, 2016 geological vertical cross-sectional projection, 26,400 N. California Gold press release, 2016.

10.2.2.2 QUEEN SPECIMEN DRILLING 2017-2018

21 drill holes were completed at the Queen Specimen Deposit in 2017-2018. Drill hole collar locations and cross-sectional projections are shown in Figures 10.11 to 10.13.

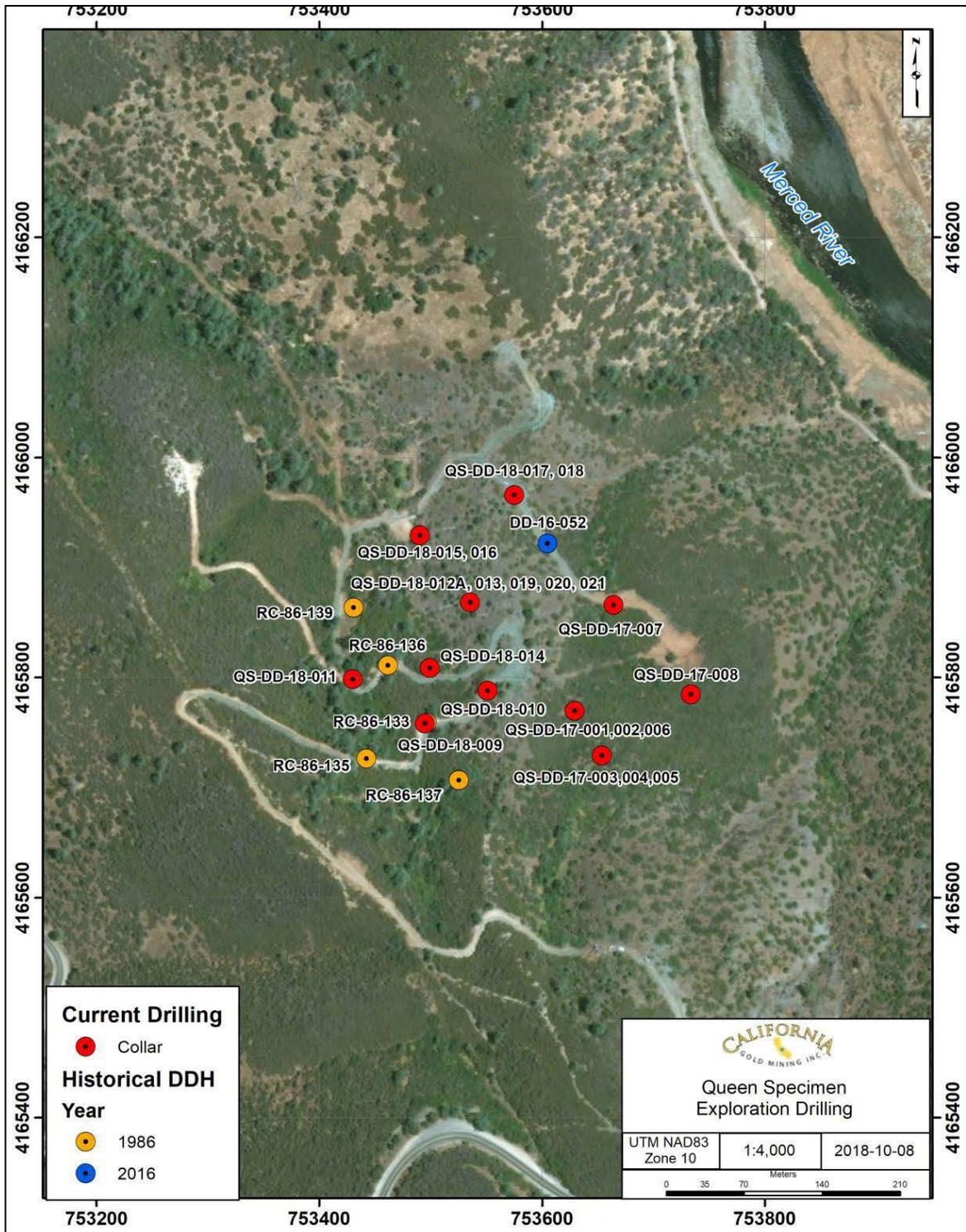


Fig. 10.11 Queen Specimen area, 2017-2018 drill program holes completed, plan view. California Gold press release, 2018.

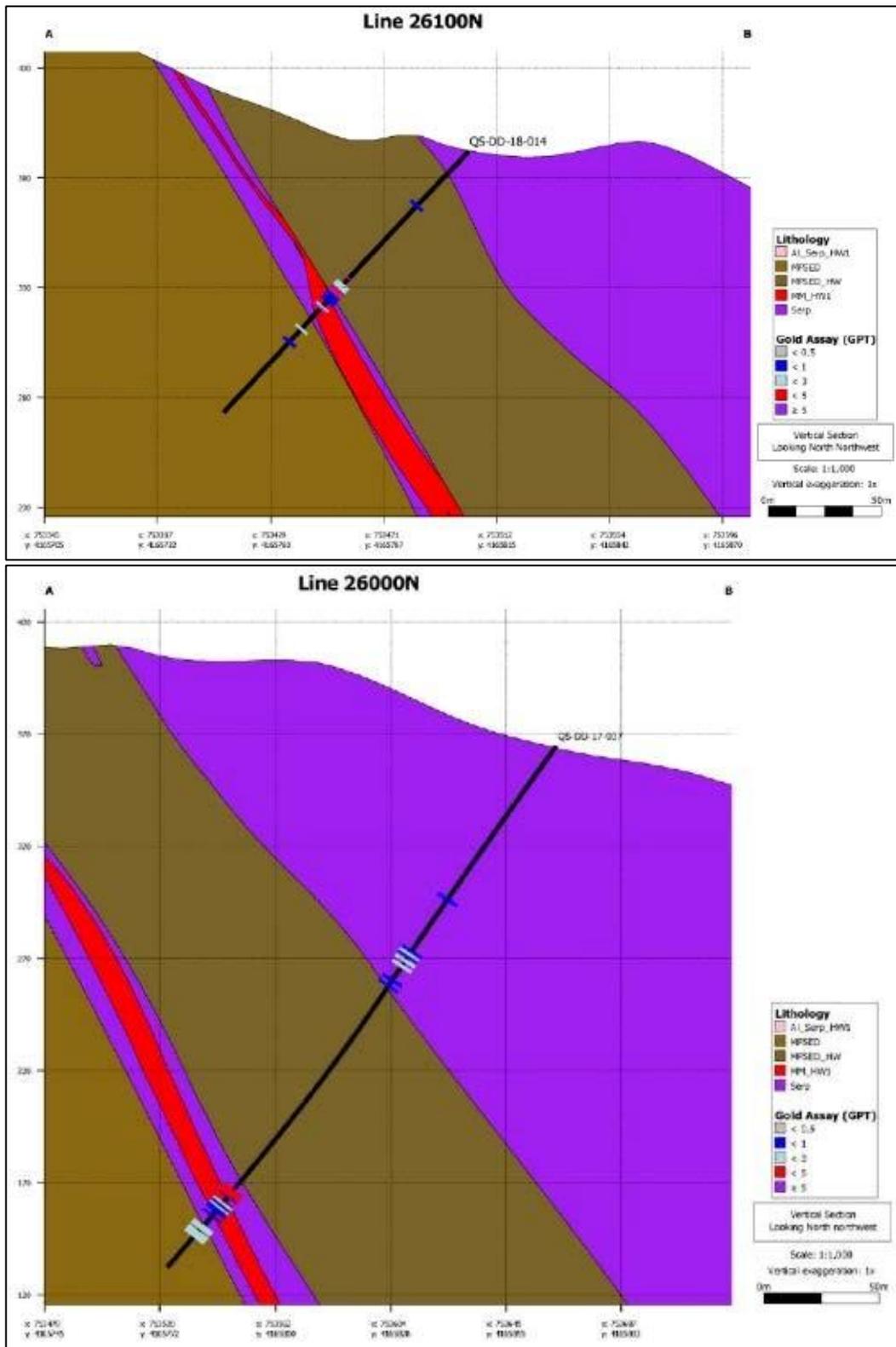


Fig. 10.12 Queen Specimen area, 2018 geological vertical cross-sectional projection, 26,100 N and 26,000 N. California Gold press release, 2016.

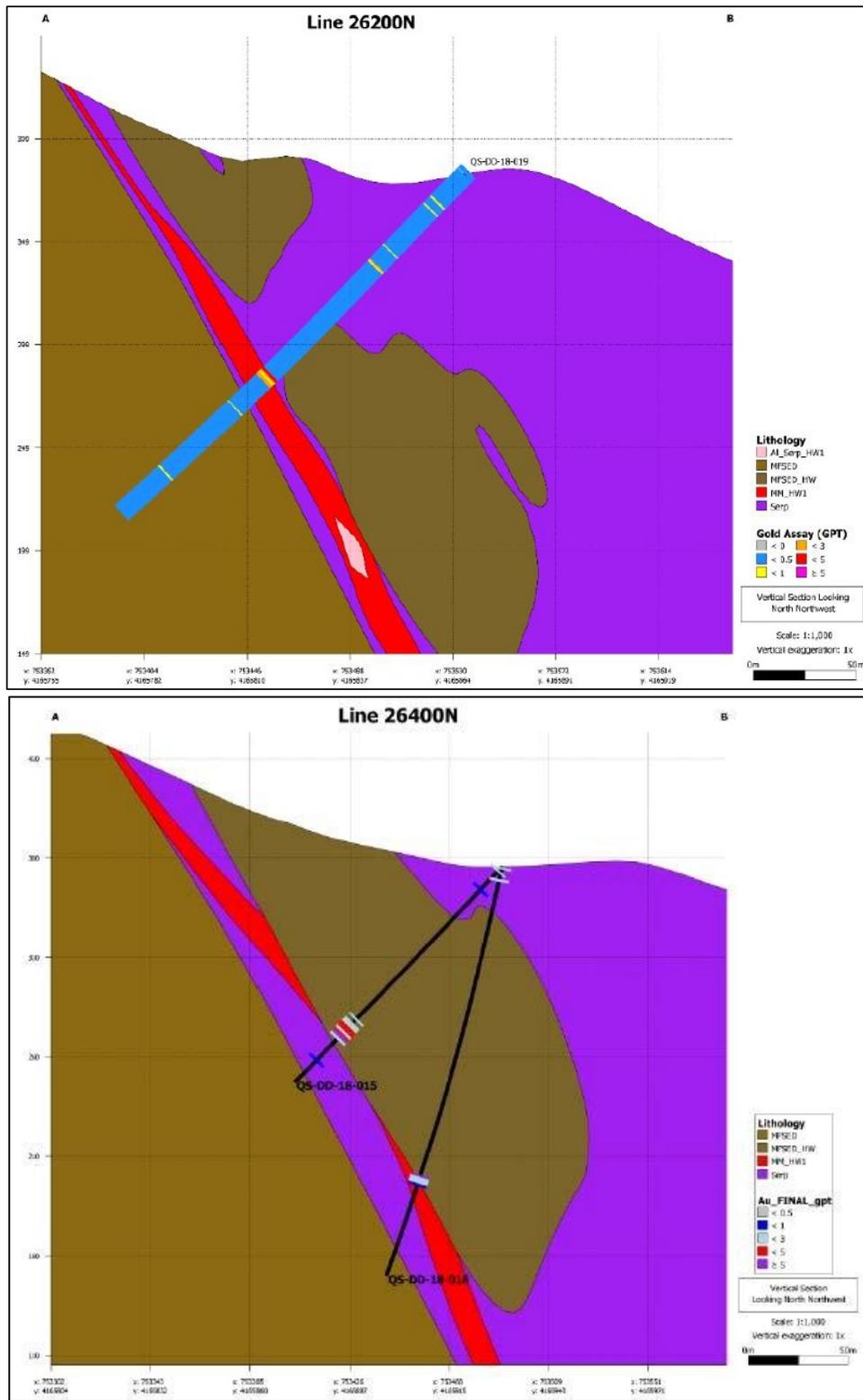


Fig. 10.13 Queen Specimen area, 2018 geological vertical cross-sectional projection, 26,200 N and 26,400 N. California Gold press release, 2016.

The Queen Specimen drill holes were designed to test the continuity of lithology, structures, and mineralization to the north along strike of the Pine Tree–Josephine Deposit. The drilling returned significant gold mineralized intercepts. In general, the same lithological sequence was observed in these drill holes as in the previously completed drill holes in the Pine Tree–Josephine Deposit, including a sequence of metavolcanic mafic rocks overlying a mélange of serpentinized ultramafic rocks. These rock units are separated from the underlying metasedimentary rocks of the Mariposa Formation by a zone of highly sheared and serpentinized phyllonite, characteristic of the Melones Shear Zone. In addition to the sequence noted above, a second occurrence of fault-emplaced Mariposa Formation sedimentary rocks is apparent within the hanging-wall mafic metavolcanic rocks. This stratigraphic repetition may reflect thrust faulting or folding associated with dextral movement along the Melones Shear Zone, evidence for which was observed in the historical airborne magnetic data acquired for the Fremont Project.

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

The following report was prepared by P&E Mining Consultants Inc. (“P&E”) for the 2023 PEA and updated by the Authors.

The following section discusses sampling conducted by Golden Bell (1985 to 1986 RC drilling), Precision Gold LLC’s (2008 tailings sampling), California Gold (2013 to 2018 diamond drilling), and Lode Gold (2022 trenching) at the Fremont Gold Property.

11.1 HISTORICAL SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1.1 GOLDENBELL REVERSE CIRCULATION (1985 TO 1986)

Drill cuttings from Goldenbell’s RC holes, completed in 1985 and 1986, were blown out of the first 3.05 m (10 ft) of each hole and collected as a pie sample in rubber dishwashing tubs placed alongside the hole collar. Cuttings were driven up the center tube of the drill stem by exhaust air from the hammer or bit and directed to a cyclone for air-solids separation. The solids from the cyclone underflow cascaded through a two-tier Jones riffle splitter, quartering the sample. Samples were collected every 1.52 m (5 ft).

The one-quarter samples from the Jones splitter were placed in a fabric sample bag marked with sample number, hole number and footage and transported to the sample logging station. At the logging station, the samples were dried (if wet), weighed and split using a Jones riffle splitter into “assay” and “geology” samples. The hole number, sample number, footage and weights were recorded on "split sheets" and entered into a computer. The assay samples were sent to the lab for analysis and a small handful of cuttings were taken from the geology samples and washed in a small pie plate. Each sample was then examined under a binocular microscope and rock type; color and alteration were recorded on “Geoform” software using the Geolog code. California Gold photographed the RC chip trays from 1985-1986. The three-quarter samples were collected in burlap sacks and stored on the drill pads. Select three-quarter samples were subsequently used for metallurgical test work.

There is no record in the available reports of the on-site security methods employed during the drilling program and at the sample logging station.

Following collection and logging, the samples were sent to Bondar Clegg & Company Ltd. (“Bondar Clegg”) in North Vancouver, BC. Bondar Clegg, acquired by ALS Minerals (“ALS”) in 2001, was established in 1962 and was a major provider of analytical services to the mineral industry, with laboratory facilities in Canada, the USA, Mexico, Ecuador, Peru, Brazil, Bolivia, Chile and Argentina.

When received by Bondar Clegg, the samples were dried (if wet), crushed, and split. The size of the split is not recorded. The crushed split was pulverized to -150 mesh and rolled. Gold and limited silver assay were performed on all samples, with certain samples screened and “metallic” gold analyses completed to check potential “nugget effect”.

11.1.2 PRECISION GOLD LLC TAILINGS SAMPLING (2008)

Tubes from the 2008 tailings sampling program (Smith, 2008), were labelled with the drill hole number and depth, and then placed in the geologist's truck for delivery to the logging and sampling site. When delivered, each boring's acetate core barrel was wiped clean, split and placed on clean plastic sheeting. One-half of the acetate core barrel was then carefully removed before cutting away some of the core material with a putty knife, thereby exposing the internal layering of the remaining core. The removed core material was divided into 3.05 m (10 ft) intervals and placed into appropriately labelled plastic one-gallon Ziploc bags and the remaining exposed core was photographed and described on a geologic boring log. On completion of logging, the remaining core material was also divided into 3.05 m sample intervals and added to the previously removed and bagged core material. Sample intervals that included the tailings/soil interface were carefully split into separate samples at the interface, resulting in a shorter sample interval.

A Company geologist delivered the samples to Inspectorate America Corporation ("Inspectorate" (rebranded as Bureau Veritas on October 1, 2018)) in Sparks, Nevada for laboratory analysis. The drill hole samples were assayed for gold using standard fire assay methods with an atomic absorption finish. Samples with assay results greater than 4 ppm gold were re-assayed using a gravimetric finish.

The Inspectorate lab in Sparks, Nevada was ISO 9001:2008 certified, participated in round robin testing, and hired BC Certified Assayers, experienced technicians, and chemists to complete all analytical work.

11.1.3 CALIFORNIA GOLD CORE DRILLING (2013 TO 2018)

HQ drill core was boxed by the drill helper on an on-going basis and delivered from the drill sites at the end of shift to the drill core logging and cutting facilities located in California Gold's office-warehouse, adjacent to Highway 49. The drill core was securely stored in the warehouse until logged and sampled by the geologists and geotechnicians, respectively. The office-warehouse was located in a secure fenced area and locked when unoccupied. Drill core was rolled into alignment where possible, washed, and inspected for footage errors or out-of-sequence pieces. The drill core was then logged for lithology, alteration, structure, mineralization, core recovery, and rock quality designation ("RQD"), before being photographed.

Drill core was sampled over the entire length of the drill hole. Samples ranged from 0.61 m (2 ft) (in quartz veins) to 2.43 m (8 ft), with the majority of the samples being 1.52 m (5 ft). Sample intervals honored geological contacts and were marked on the core and on the boxes. Pre-printed sample tags were utilized, with one part left in the sample binder as a record and the other half placed with the half drill core sample in a numbered sample bag. Aluminum tags with the unique sample number and sample footage were stapled into the drill core box. Drill core was sawn lengthwise, with the left-half becoming the sample and the right-half returned to the drill core box for reference purposes. Intervals that were too soft or broken to saw were separated in half using a putty knife.

After samples were split and bagged, they were put into rice bags and closed with a security seal for transportation to American Assay Laboratories (“AAL”), in Sparks, Nevada. The samples were collected from California Gold personnel at the locked facility by a contractor and transported directly to AAL. AAL, an ISO/IEC 17025:2005/2017 accredited commercial geochemical laboratory, is independent of California Gold and Lode Gold. AAL checked each bag for the security seal and sent the seal numbers back to the site manager for confirmation.

Drill core samples were dried and crushed to 90% minus 10 mesh. A rotary splitter was used to obtain a 500 g sample, which was then pulverized and further reduced to a 30 g sample. From 2013 to the start of the 2015 program, samples with strong mineralization were analyzed by screened metallica fire assay for potential “nugget effect”. The screened metallica were collected as the plus fraction from a 150-mesh screen at the laboratory. The plus 150 mesh fraction was fire assayed in its entirety. Two separate fire assays of the minus 150 mesh fraction were performed and arithmetically averaged. The minus and plus 150 mesh results were then combined for a total screened metallica fire assay. For the remainder of the 2015 to 2018 programs, a 30 g sample was analyzed by fire assay with ICP-OES or gravimetric finish. Approximately 10% of all drill core samples were subjected to repeat analysis.

11.2 LODE GOLD PINE TREE-JOSEPHINE TRENCHING (2022)

A channel sampling program was undertaken along the Pine Tree-Josephine drill road system in May of 2022, to further evaluate the oxide mineralization exposed in this Mineral Resource area. 14 sections of the road network, with mostly continuous outcrop exposure of strongly oxidized bedrock and regolith, were channel sampled in 3.05 m (10 ft) increments.

Continuous sections of oxidized outcrop were mapped and channel sampled. Outcrop with soft and deeply weathered exposures were sampled using a geo pick and pan, and hard outcrops were sampled using hammer and chisel. A total of 127 channel samples were collected during the trenching program. The start and end points of each channel sample were surveyed with a hand-held Garmin 64 GPS and all samples were photographed at the site of collection.

11.3 BULK DENSITY DATA

Specific gravity of various rock types and vein mineralization was measured by California Gold using a water immersion method. A total of 1,045 specific gravity measurements were taken. A verification program of California Gold’s specific gravity data was carried out in 2016, with approximately 14% of the data (143 out of 1,045 samples) sent for verification testing at ALS in Reno, Nevada using pycnometer method on pulp samples (method OA-GRA08b). Samples from 14 drill holes completed in the Pine Tree-Josephine area were included in verification testing. Aside from the very occasional gross outliers, pycnometer results generally compare well with California Gold’s field-measured results (Fig. 11.1), although the ALS determinations are generally higher than the original results

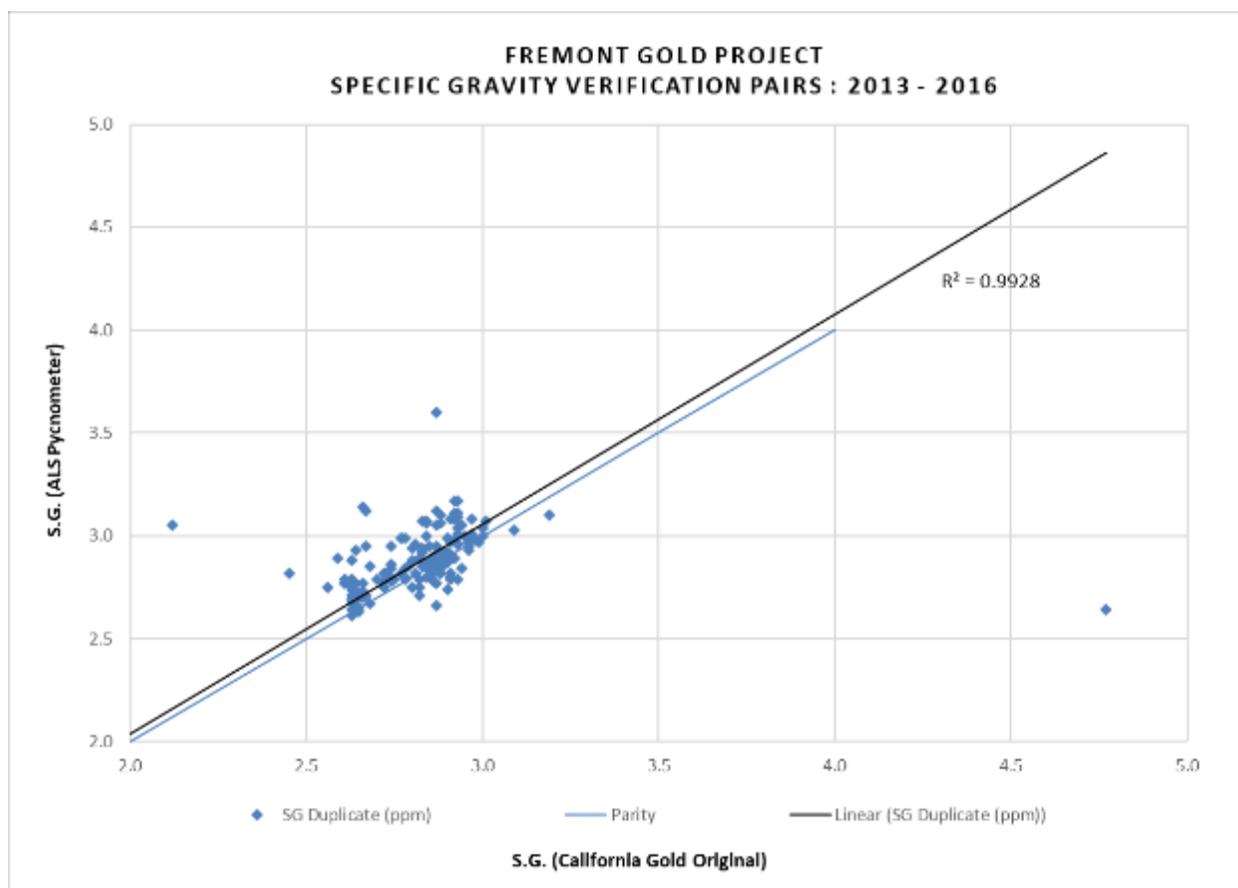


Fig. 11.1 California Gold specific gravity verification at ALS. P&E 2023.

11.4 HISTORICAL QUALITY ASSURANCE/QUALITY CONTROL REVIEW

11.4.1 GOLDENBELL RC (1985 TO 1986)

Mr. Alfred A. Burgoyne, P.Eng., carried out a review of the work undertaken by Goldenbell at the Property from 1984 to 1986 (Burgoyne, 2013). Mr. Burgoyne reports that “it is clear that Goldenbell monitored the quality of the reverse circulation drilling samples and analytical database through ‘reported’ check assays (duplicates) and re-analyses of samples. This was verified by checking assay certificates and the “Geologs” which tie the sample drill hole and interval to the sample number and assay.” Burgoyne, however, was unable to establish the quantity of duplicates taken or if blanks were inserted into the sample stream, and concluded that a formal Quality Assurance/Quality Control (“QA/QC”) program, that would meet generally accepted industry standards, was not undertaken. Consequently, California Gold drilled a number of twin drill holes (14 in total) at the Pine Tree-Josephine Deposit to confirm the mineralization reported in Goldenbell’s historical RC holes. Results of the twin drilling program are discussed in Section 12.4.

11.4.2 PRECISION GOLD LLC TAILINGS SAMPLING (2008)

Precision Gold's 2008 tailings sampling program included the insertion of "six certified reference materials ("CRM") of known gold value and four blanks of quartz sand" (Burgoyne, 2013). However, the QA/QC data results from the 2008 drill program have not been reviewed by the Authors.

11.4.3 CALIFORNIA GOLD CORE DRILLING (2013 TO 2018)

QA/QC protocol at the Property throughout 2013 to 2018 comprised the routine insertion of CRMs and blanks into the sample stream at a frequency of one CRM every 20 samples and one blank every 10 samples.

11.4.3.1 PERFORMANCE OF CERTIFIED REFERENCE MATERIALS

A total of six different CRMs, over a range of gold grades, were inserted into the sampling sequence throughout the 2013 to 2018 programs. The CRMs were sourced from Shea Clark Smith/MEG, Inc. of Reno, Nevada and included: the MEG-Au.13.02 (mean value of 0.746 ppm Au), MEG-Au.11.17 (mean value of 2.693 ppm Au), MEG-S107006x (mean value of 2.850 ppm Au), MEG-LWA-25 (mean value of 6.887 ppm Au) and MEG-Au.11.34 (mean value of 2.113 ppm Au) CRMs.

Criteria for assessing CRM performance are as follows: data falling within ± 2 standard deviations from the accepted mean value pass and data falling outside ± 3 standard deviations from the accepted mean value fail. A number of misallocated samples were observed in the data CRM data, and subsequently corrected by the Author.

There were 203 MEG-Au.13.02 and 36 MEG-S107006X samples to analyze in the 2013-2018 dataset and all data fell within ± 3 standard deviations from the mean (Figures 11.2 and 11.4).

The remaining CRMs, MEG-Au.11.17 (n=198), MEG-LWA-25 (n=210) and MEG-Au.11.34 (n=154), returned a majority of results within ± 3 standard deviations from the mean (Figures 11.3, 11.5 and 11.6). A single failure was noted for the 194 MEG-Au.11.17 CRM, which fell below -3 standard deviations from the mean with a value of 0.994 ppm Au. A high bias was also observed in the MEG-Au.11.17 CRM data. A single failure was also noted for the MEG-LWA-25 CRM, with the failed sample falling above +3 standard deviations from the mean with a value of 8.16 ppm Au. Two failures were observed in the 194 MEG-Au.11.34 CRM data, with both samples falling above +3 standard deviations from the mean with values of 5.554 and 3.22 ppm Au.

The Author considers that the CRM data demonstrates acceptable accuracy in the 2013 to 2018 Fremont Gold data.

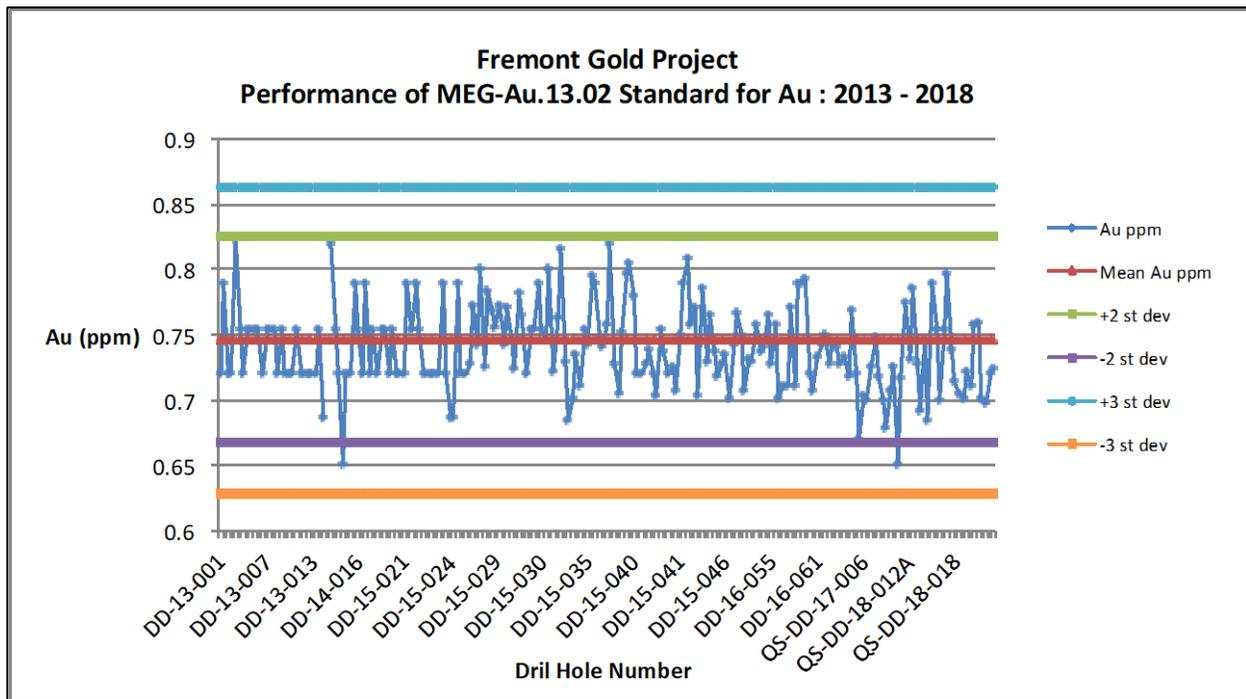


Fig. 11.2 Performance of MEG-AU.13.02 CRM for Au. P&E 2023.

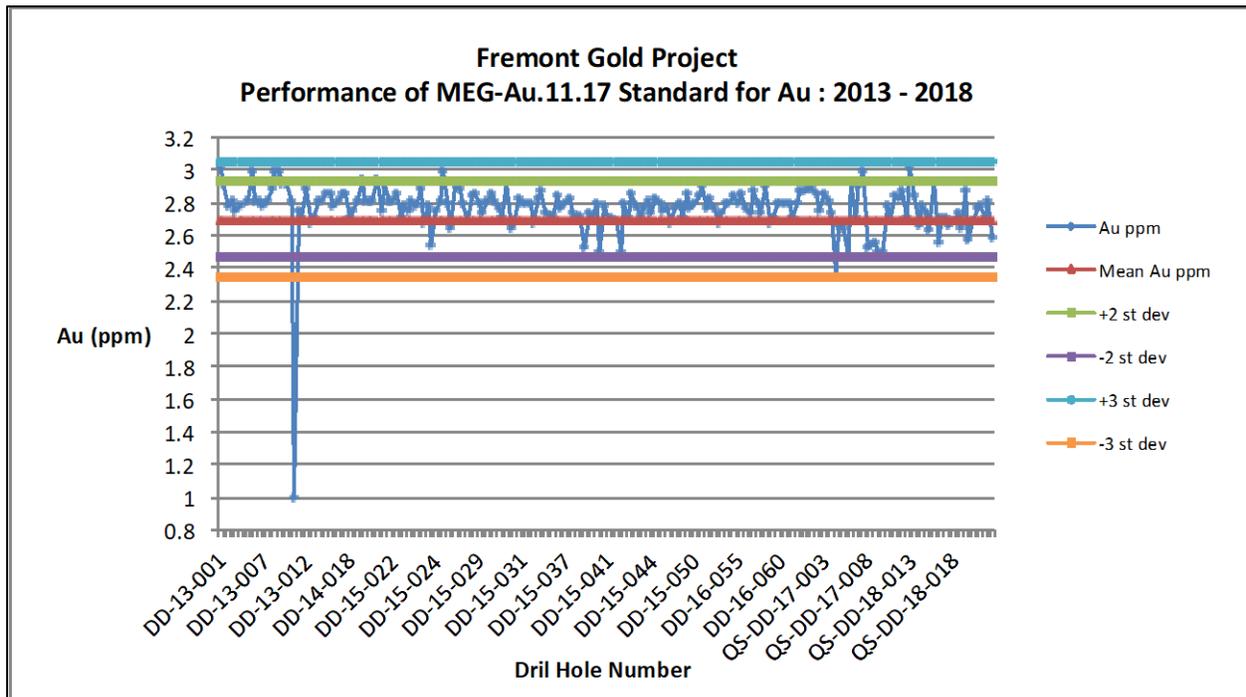


Fig. 11.3 Performance of MEG-AU.11.17 CRM for Au. P&E 2023.

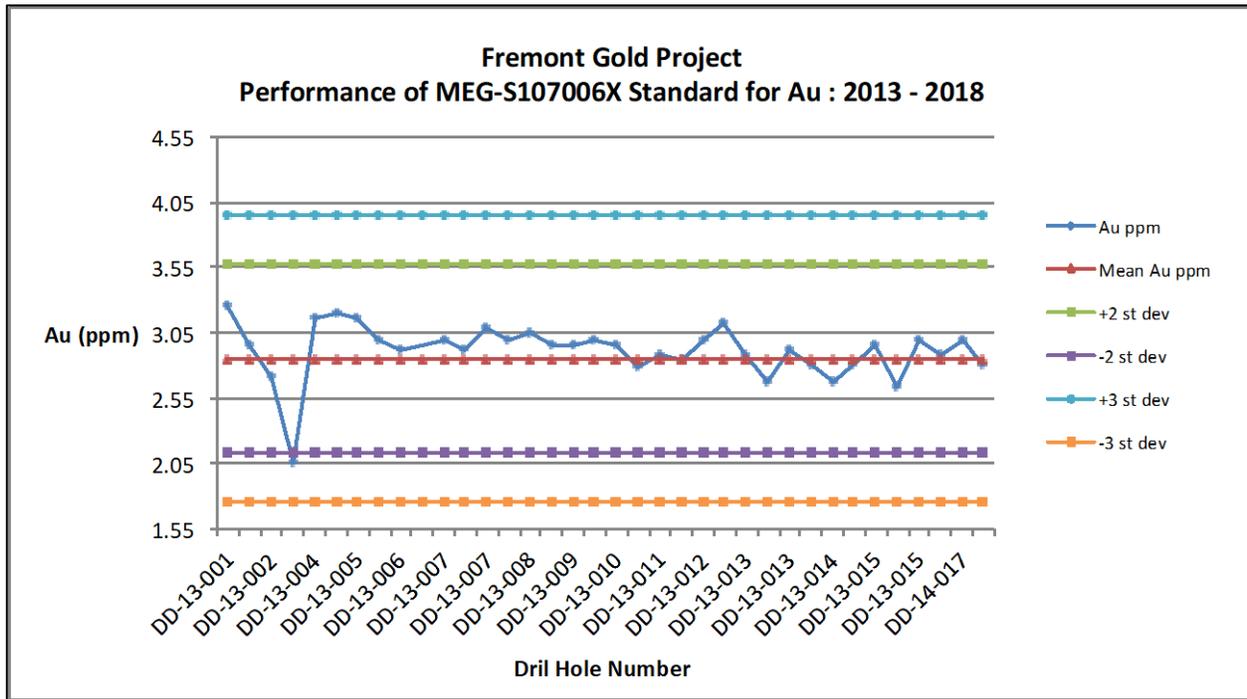


Fig. 11.4 Performance of MEG-S107006X CRM for Au. P&E 2023.

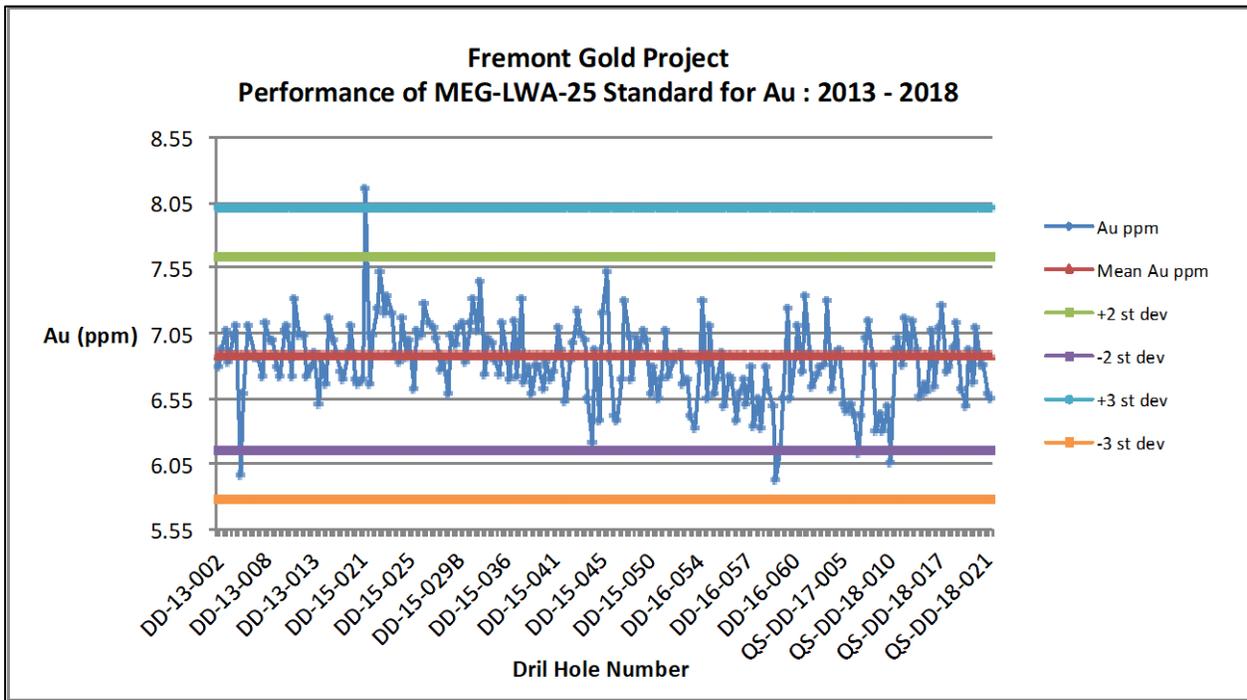


Fig. 11.5 Performance of MEG-LWA-25 CRM for Au. P&E 2023.

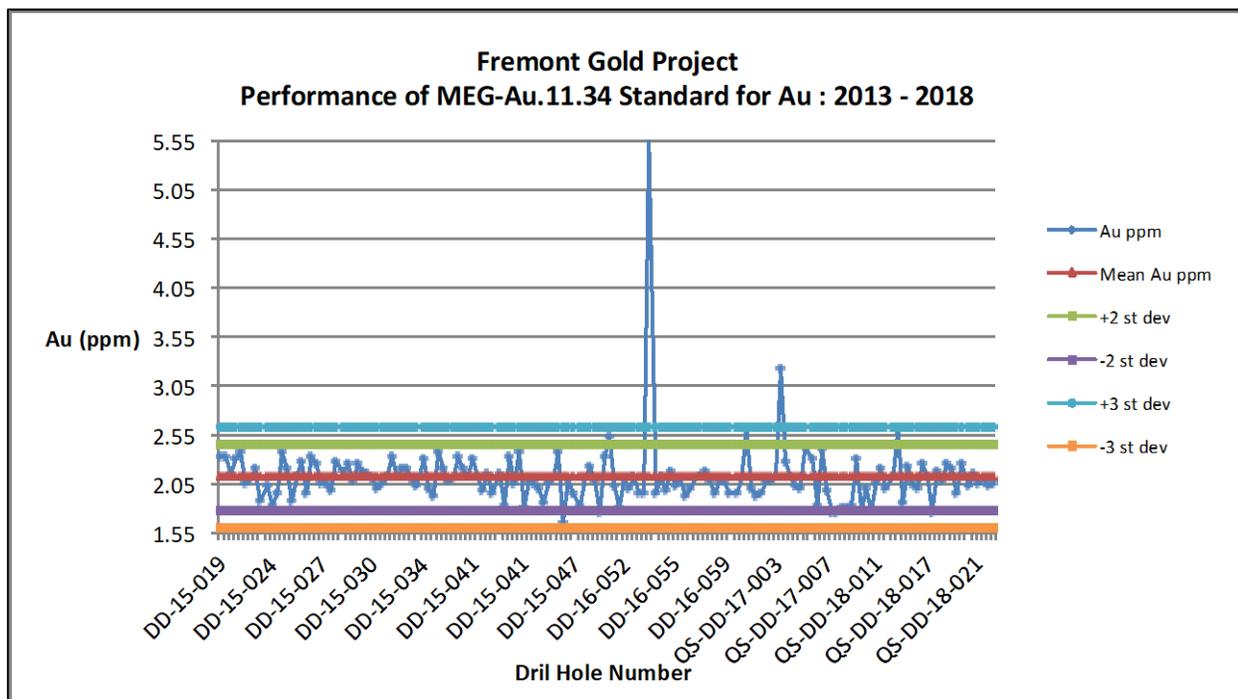


Fig. 11.6 Performance of MEG-AU.11.34 CRM for Au. P&E 2023.

11.4.3.2 PERFORMANCE OF BLANK MATERIAL

Blank material was sourced on the Property from slate or basalt previously analyzed as blank. All blank data for Au were reviewed by the Author. If the assayed value in the certificate was indicated as being less than detection limit, the value was assigned the value of one-half the detection limit for data treatment purposes. An upper tolerance limit of ten times the detection limit was set. A total of 2,897 blank samples were submitted from 2013 to 2018 at the Project.

The vast majority of data plots at or below the set tolerance limits for gold (Fig. 11.7) and the Authors do not consider the few outliers to be significant to the integrity of the data. The Authors consider the use of local, non-certified blanks for QAQC less than ideal but acceptable.

The Authors do not consider contamination to be an issue for the 2013 to 2018 drill core Au assay data.

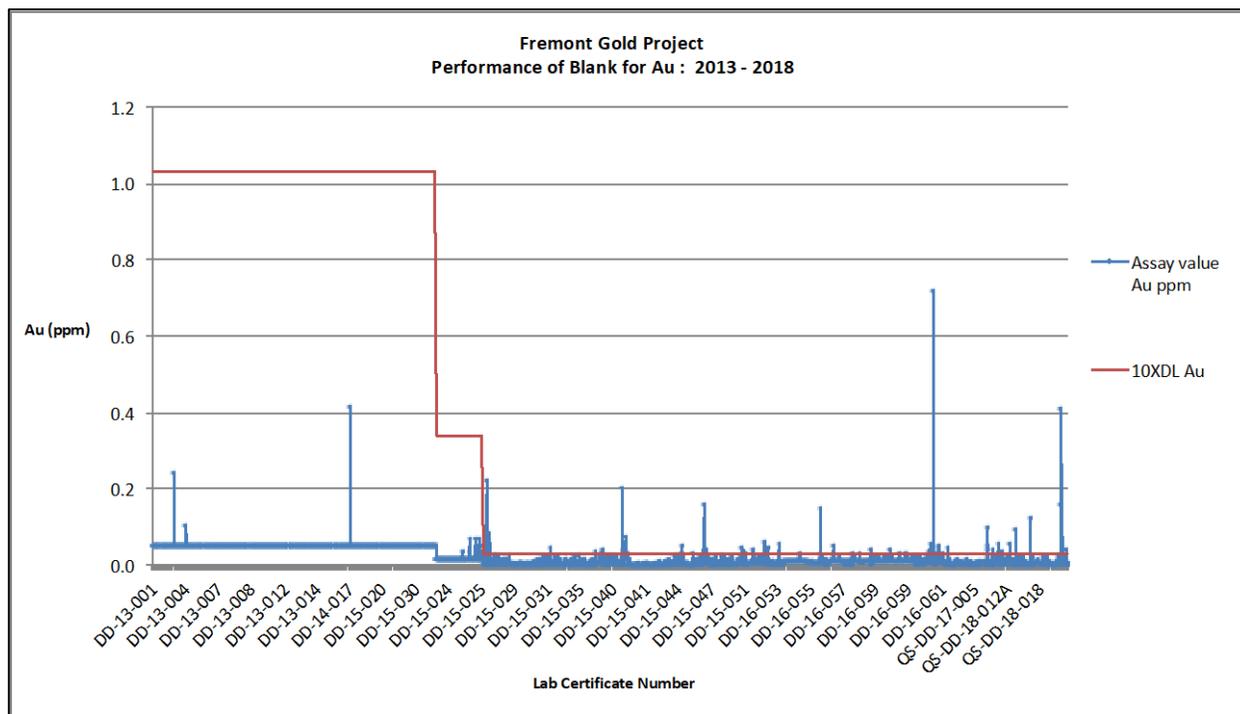


Fig. 11.7 Performance of BLANK for Au. P&E 2023.

11.4.3.3 PERFORMANCE OF LAB DUPLICATES

California Gold did not insert field duplicates into the sample stream throughout the 2013 to 2018 sampling. However, the Author reviewed the laboratory duplicate data for Au, which comprised 2,121 duplicate pairs. All data for 2013 to 2018 sampling at the Project were scatter graphed (Fig. 11.8) and a coefficient of determination (“R²”) of 0.9928 was estimated. The average coefficient of variation (“CV_{AV}”) was also used to estimate precision. Duplicate samples with combined means of <15 times the detection limit were excluded from the CV_{AV} data, to eliminate the level of influence of the data nearer the detection limit where higher-grade variations are more likely to occur, giving a CV_{AV} value of 12.7. The Author considers precision to be acceptable for this style of mineralization.

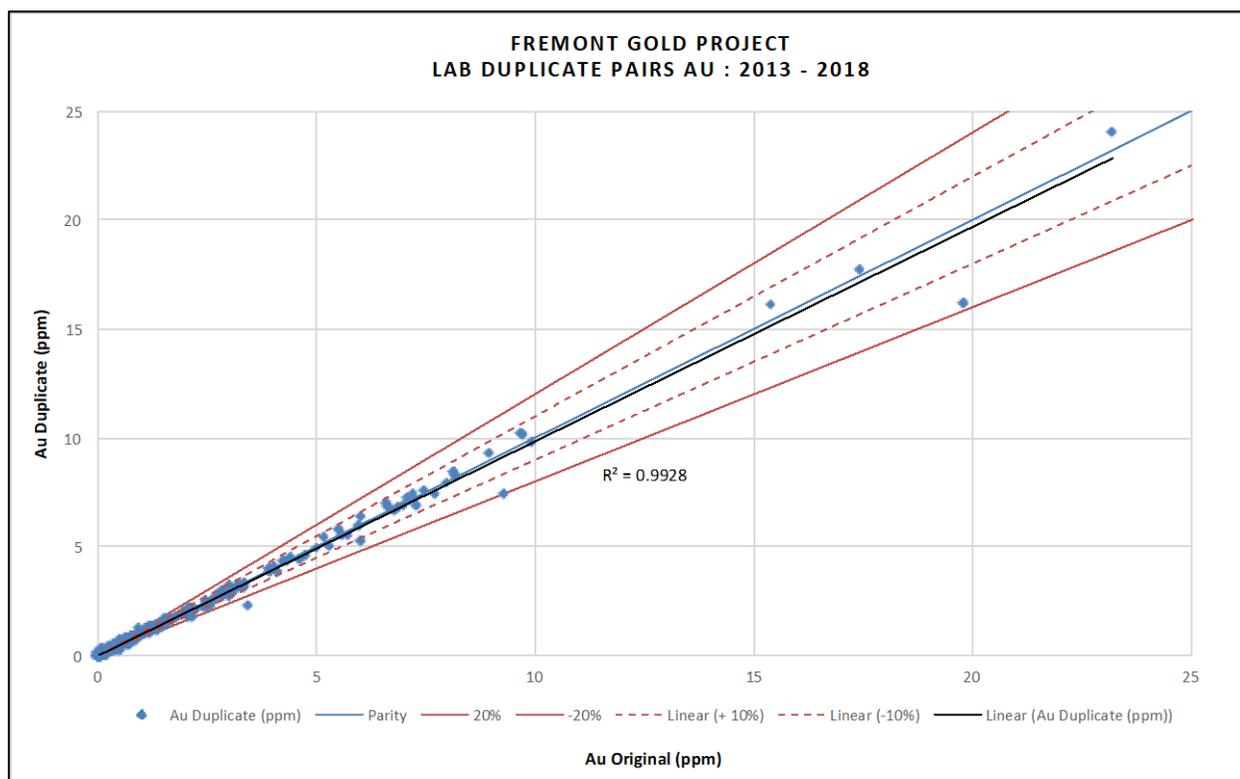


Fig. 11.8 Performance of LAB DUPLICATES for Au. P&E 2023.

11.5 LODE GOLD QUALITY ASSURANCE/QUALITY CONTROL REVIEW

11.5.1 LODE GOLD TRENCHING (2022)

QA/QC protocol for trench sampling consisted of inserting CRMs, blanks and field duplicates into the trench sample stream, at a frequency of 5% each.

11.5.1.1 PERFORMANCE OF CERTIFIED REFERENCE MATERIALS

CRMs are inserted at a frequency of 5%, alternating three CRMs from OREAS North America Inc. of Mansfield, Ontario (“OREAS”). The three OREAS CRMs used included: OREAS 231, OREAS 233 and OREAS 236 and all CRMs are certified for gold.

Criteria for assessing CRM performance are as previously described in Section 11.4.3.1. The Authors observed, and subsequently corrected, two misallocated samples in the CRM data.

There were seven data points to analyze for each of the CRMs and all data fell within acceptable limits (Figures 11.9 to 11.11). Slight high biases were noted for the OREAS 231 and 233 CRMs.

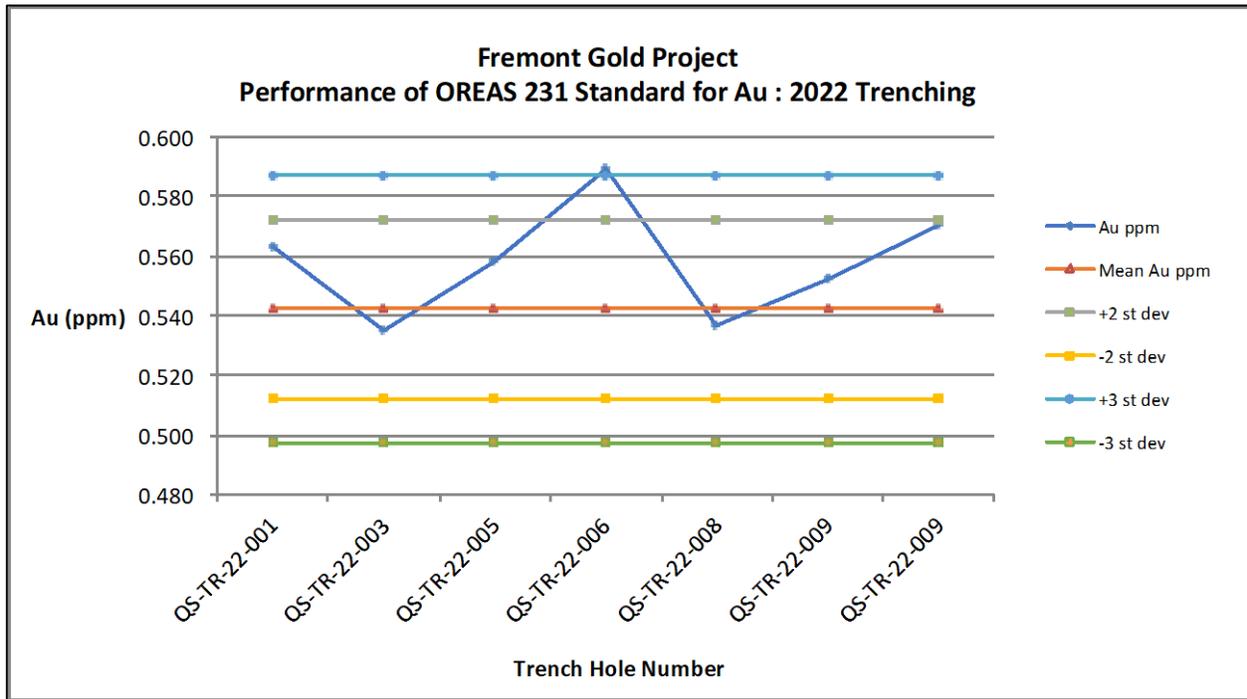


Fig. 11.9 Performance of OREAS 231 CRM for Au. P&E 2023.

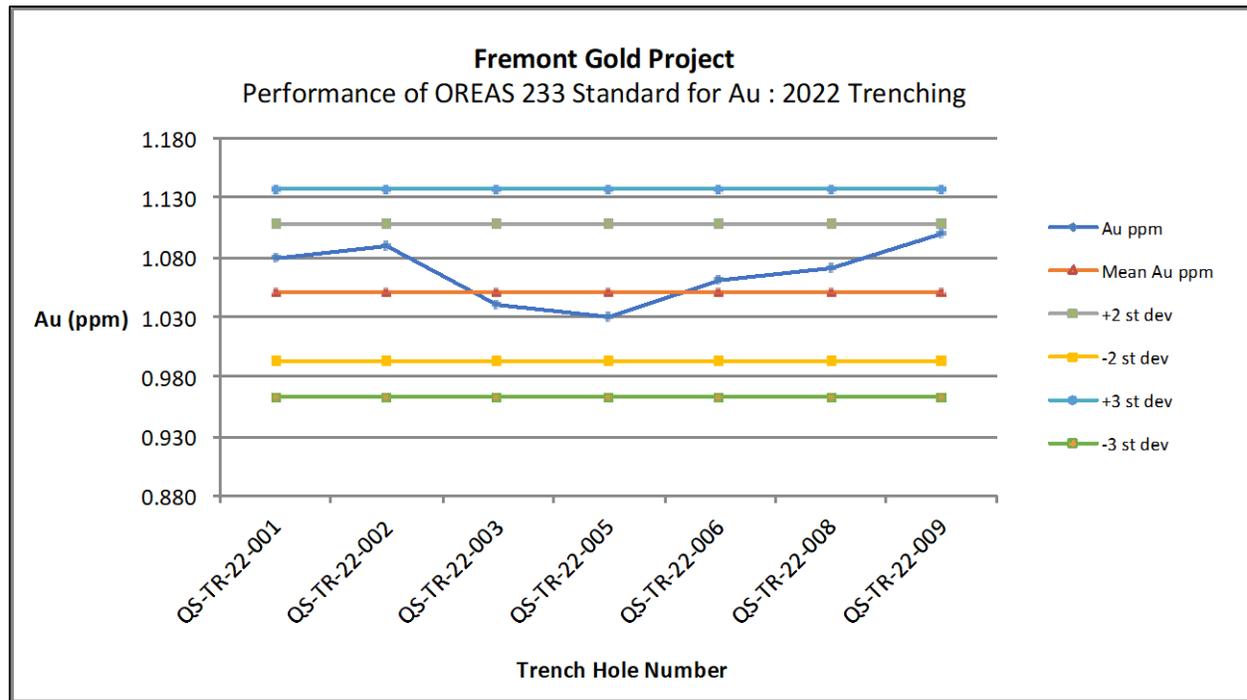


Fig. 11.10 Performance of OREAS 233 CRM for Au. P&E 2023.

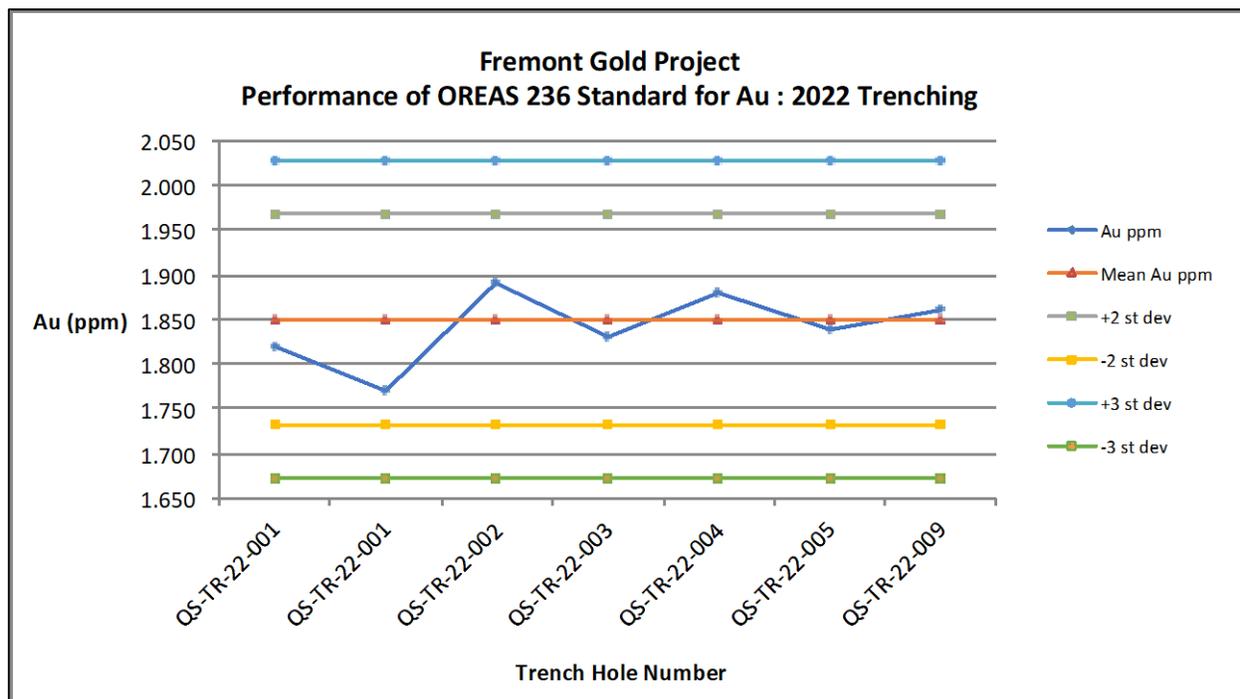


Fig. 11.11 Performance of OREAS 236 CRM for Au. P&E 2023.

11.5.1.2 PERFORMANCE OF BLANK MATERIAL

A total of 25 blank samples were submitted for the 2022 trench sampling program at the Project, at a frequency of 5%. All blank data for Au were reviewed by the Authors. If the assayed value in the certificate was indicated as being less than detection limit, the value was assigned the value of one-half the detection limit for data treatment purposes. An upper tolerance limit of ten times the detection limit was set.

The vast majority of data plots at or below the set tolerance limits for gold (Fig. 11.12), and the Author does not consider the few outliers to be significant to the integrity of the data.

The Authors do not consider contamination to be an issue for the 2022 Au trench data.

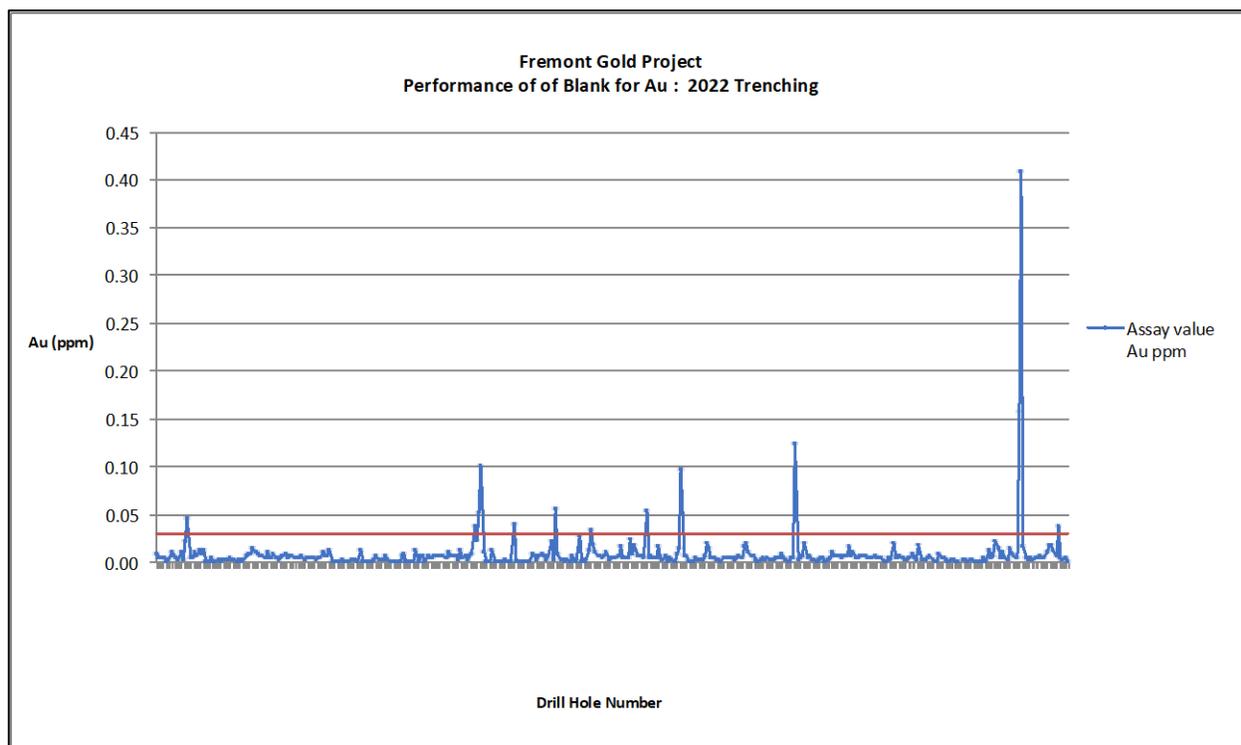


Fig. 11.12 Performance of BLANK for Au. P&E 2023.

11.5.1.3 PERFORMANCE OF DUPLICATES

Field duplicate samples were inserted into the sample sequence at a frequency of 5%. There were 17 field duplicate pairs for gold in the data set to review. The Author also examined the lab duplicate pairs, of which there were 50 pairs. The data were scatter graphed and the R^2 and CV_{AV} values were determined for both data sets to evaluate precision.

Field duplicate precision was poor, as expected for sampling and mineralization styles, with data broadly scattered (Fig. 11.13), an R^2 value of 0.291, and a CV_{AV} value of 89.7. Precision at the pulp level improves (Fig. 11.14), with more tightly constrained data plotting along the 1:1 line, an R^2 value of 0.992, and a CV_{AV} value of 10.4. The Authors consider the precision to be acceptable for this style of mineralization.

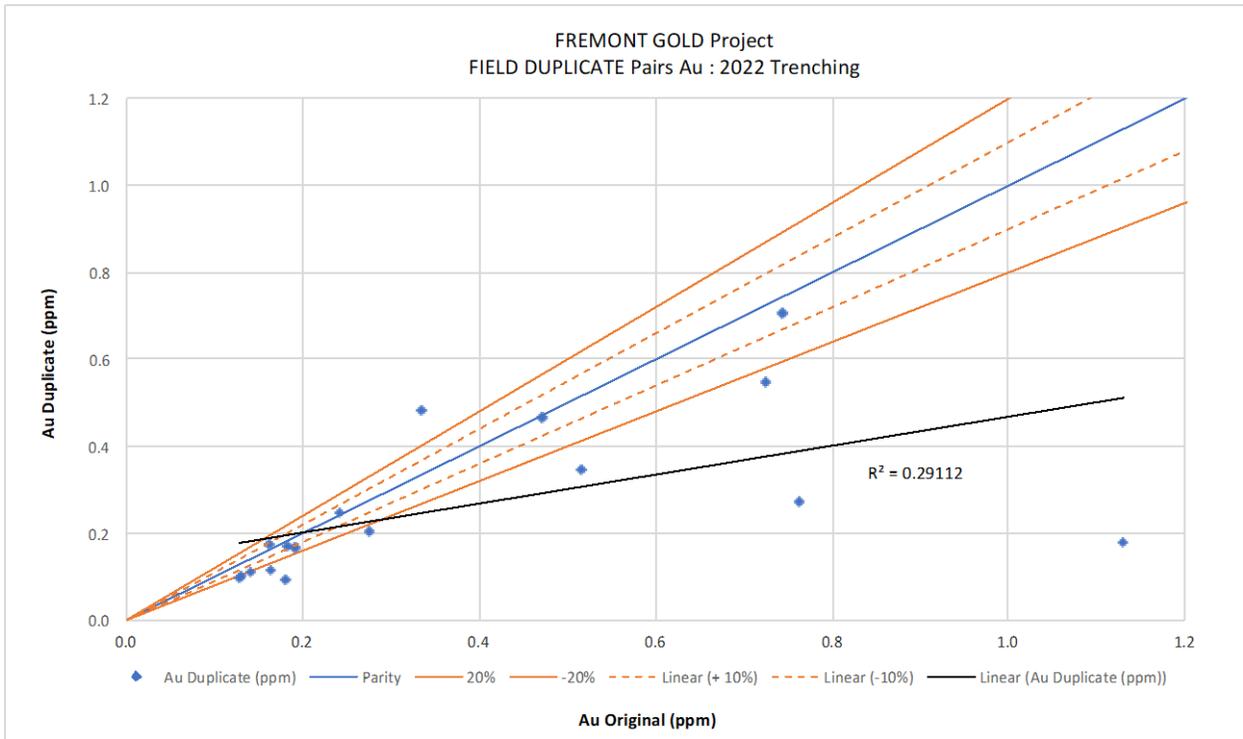


Fig. 11.13 Performance of FIELD DUPLICATES for Au R^2 values. P&E 2023.

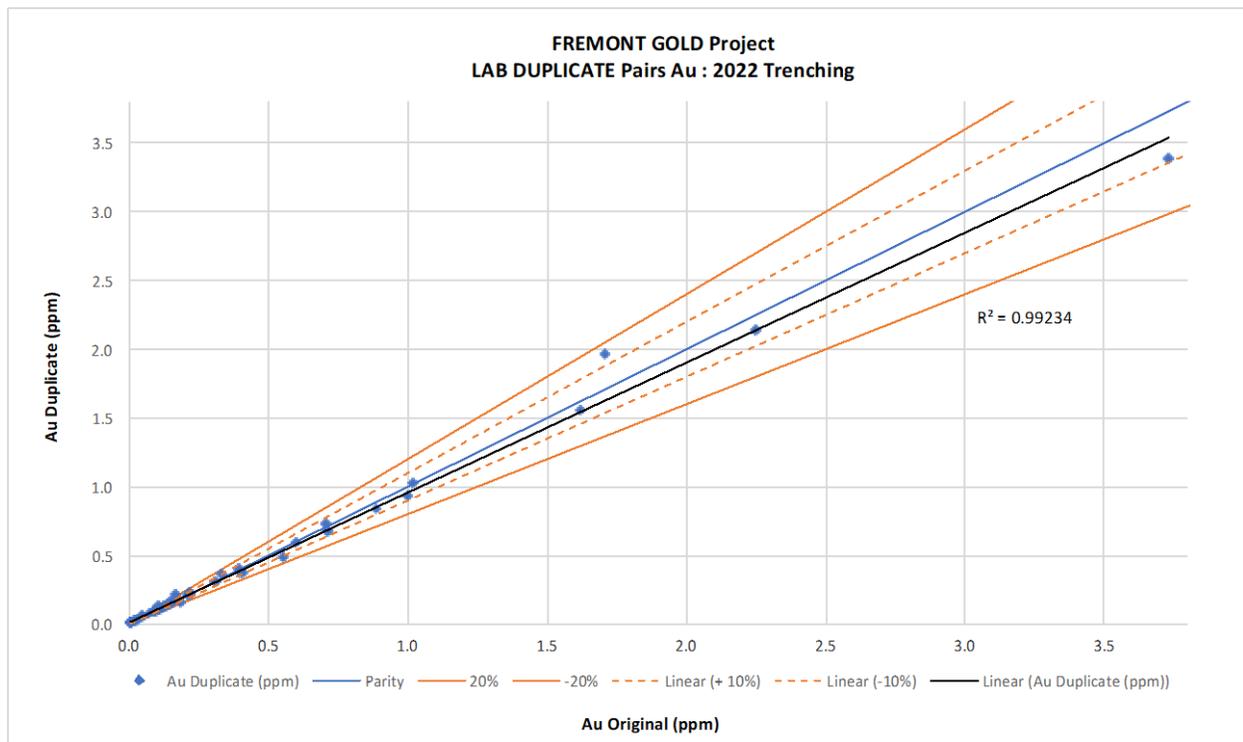


Fig. 11.14 Performance of LAB DUPLICATES for Au values. P&E 2023.

11.6 CALIFORNIA GOLD UMPIRE ASSAYING

Upon completion of the 2016 drill program, California Gold completed a comprehensive umpire - sampling program to confirm the integrity of the analytical results from the 2013 to 2016 drilling campaigns. Select pulverized pulp samples were submitted for check assaying at a secondary umpire laboratory (ALS in Sparks, Nevada), to check original analyses performed at the primary laboratory (AAL). A total of 710 pulp rejects (including nine blanks and 35 CRMs) from 15 holes drilled during the 2013 to 2016 programs, were sent to ALS for check assaying. Samples at ALS were analyzed utilizing the same method as used in the original analyses. The check assays represent 7% of the total assays sampled throughout the 2013 to 2016 period and the samples cover a range of gold values from across the Pine Tree-Josephine Deposit.

The Authors reviewed the umpire assay results and comparisons were made between the primary lab results and the umpire lab results with the aid of a scatter plot (Figures 11.15). As expected, lower grades are less reproduceable closer to lower detection limits. However, the original samples and check assays generally compare well, giving an R^2 value of 0.964. A slight bias is evident in the reported primary lab results.

ALS has developed and implemented strategically designed processes and a global quality management system at each of its locations. The global quality program includes internal and external inter-laboratory test programs and regularly scheduled internal audits that meet all requirements of ISO/IEC 17025:2017 and ISO 9001:2015. All ALS geochemical hub laboratories are accredited to ISO/IEC 17025:2017 for specific analytical procedures.

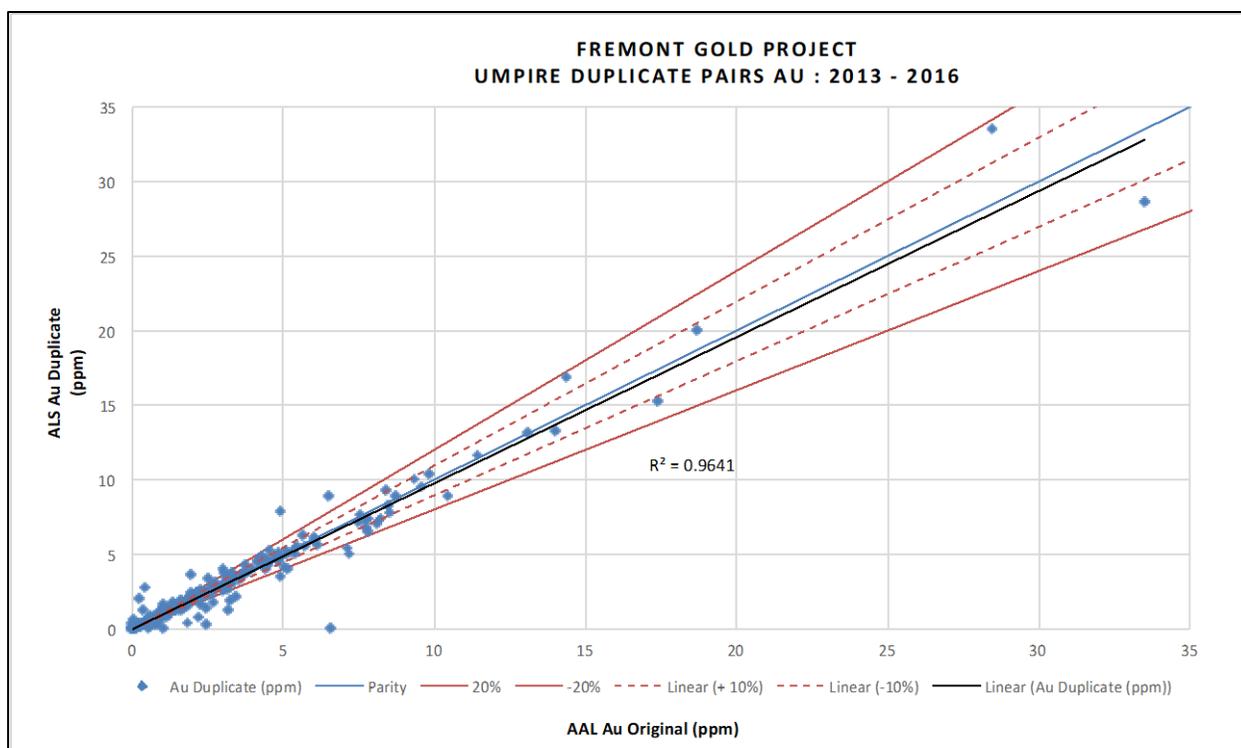


Fig. 11.15 Performance of LAB DUPLICATES for Au values 2013 – 2016. P&E 2023.

11.7 CONCLUSION

It is the opinion of the Authors that sample preparation, security and analytical procedures for the Fremont Gold Project drilling and trench sampling programs were adequate. Examination of QA/QC results for all recent sampling indicates no significant issues with accuracy, contamination or precision in the data and umpire sampling has confirmed the tenor of the original 2013 to 2016 data. The Authors concludes the data to be of good quality and satisfactory for use in the current Mineral Resource Estimate.

12.0 DATA VERIFICATION

The following report was prepared by P&E Mining Consultants Inc. (“P&E”) for the 2023 PEA. The Authors verified as well in 2024.

12.1 DRILL HOLE AND TRENCH ASSAY VERIFICATION

Verification of the 2013-2022 Fremont Gold Project drill hole and trench assay data for gold was performed by the Authors, by comparison of the database entries with assay certificates, provided directly to the Authors by AAL of Sparks, Nevada, in .xls and .pdf file formats. Historical RC drill hole data from 1985 and 1986 were verified using .pdf copies of signed Bondar-Clegg Certificates of Analysis, provided to P & E by Lode Gold and to the Authors in 2024 by Lode Gold.

Approximately 77% (9,927 out of 12,861 samples) of the historical 1985-1986 drill hole data, 99% (11,311 out of 11,380 samples) of the 2013 to 2016 drill hole assay data, 90% (2,932 out of 3,274 samples) of the 2017 to 2018 drill hole assay data and 100% (334 samples in total) of the 2022 trench data, were verified for gold, giving an approximate overall figure of 88% of the Project database verified. A few minor discrepancies of no material impact to the data were encountered during the verification process.

12.2 DRILL HOLE AND TRENCH DATA VERIFICATION

The Authors also validated the Mineral Resource database by checking for inconsistencies in analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, survey and missing interval and coordinate fields. A few errors were identified and corrected in the database. The Authors consider that the supplied database is suitable for Mineral Resource estimation.

Underground channel assay data were compiled by California Gold from historical records. Historical sample data were recorded using only two significant digits for the original ounce/short ton and converted to g/t. The Authors reviewed copies of the historical underground plans and confirmed that the supplied locations and assay grades are in agreement with the historical plans supplied by Lode Gold.

12.3 2024 SITE VISIT AND INDEPENDENT SAMPLING

The Fremont Gold Project was visited by Mr. A. David Heyl, CPG on December 20 and 21, 2024, for the purpose of completing a site visit that included core examination, core sample verification and collection, core storage facilities, document examination, property logistics, environmental sensitivities, drill sites and outcrop visits, GPS location verifications, discussions and due diligence sampling.

Mr. Heyl collected 4 samples from 6 diamond drill holes. All samples were selected from holes drilled in 2015, 2017 and 2018. A range of high, medium and low-grade samples were selected

from the stored drill core. Samples were collected by taking a quarter split of the drill core by diamond saw, with the other quarter core remaining in the drill core box. Individual samples were placed in plastic bags with a uniquely numbered tag, after which all samples were collectively placed in a larger bag for shipment.



Fig. 12.1 Core of Drillhole DD-15-021, 418 to 427 feet in depth.

12.4 CALIFORNIA GOLD 2013 DRILL HOLE TWINNING PROGRAM

The first 14 holes of the 2013 drill hole program undertaken at the Property by California Gold were designed to twin a number of Goldenbell's historical RC drill holes completed at the Pine Tree-Josephine Deposit. Historical holes located across the Pine Tree-Josephine Deposit were selected for twinning and are listed in Table 12.1. Three of the paired drill holes are located within 3.0 m of each other. The Authors have reviewed data relating to the twinned holes and considers the data to generally confirm gold grades and intercept thickness of representative historical

RC drill holes. However, a tendency for RC assay samples to be less than the reported diamond drill hole grade for the same elevation was observed.

TABLE 12.1 2013 CALIFORNIA GOLD TWIN HOLES

| RC Hole | Diamond Drill Hole | Section |
|----------------|------------------------------------|----------------|
| RC-85-070 | DD-13-001 & DD-14-018 ¹ | 19900N |
| RC-85-029 | DD-13-002 | 20200N |
| RC-85-067 | DD-13-003 | 20400N |
| RC-85-065 | DD-14-017 ¹ | 20500N |
| RC-85-057 | DD-13-004 | 20600N |
| RC-85-041 | DD-13-005 | 20800N |
| RC-85-092 | DD-13-006 | 21400N |
| RC-85-078 | DD-13-007 | 21400N |
| RC-85-002 | DD-13-008 | 21900N |
| RC-85-021 | DD-13-009 | 22000N |
| RC-85-005 | DD-13-010 | 22000N |
| RC-85-127 | DD-13-011 | 21700N |
| RC-85-008 | DD-13-012 | 21500N |
| RC-85-048 | DD-13-013 | 21600N |
| RC-85-043 | DD-13-014 & DD-14-016 ¹ | 20100N |

Note:
 1. 2014 holes were drilled for the 2014 metallurgical study.

Source: SLR (2021)

12.5 CONCLUSION

The Authors consider that there is good correlation of the gold assay values in Lode Gold’s database to the independent verification samples from the site visit and analyzed at Actlabs. It is the Authors’ opinion that the data have been suitably verified, and are of good quality and appropriate for use in the current Mineral Resource Estimate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The following report was prepared by P&E Mining Consultants Inc. (“P&E”) for the 2023 PEA.

13.1 PREVIOUS OPERATIONS

Historically, the Pine Tree-Josephine Deposit was treated by a combination of gravity concentration and flotation to concentrate the precious metal values into a pyritic concentrate which was subsequently smelted elsewhere. Since the gold grade decreased in the latter years of mine operation (1935-1944), the flotation concentrate gained more importance. Approximately 45% of the gold was recovered in a pyrite flotation concentrate grading 5.0 oz/t (171 g/t) gold, with an equal amount recovered by gravity methods. The production results, taken from annual reports by the Pacific Mining Company, are presented in Table 13.1.

TABLE 13.1 HISTORICAL PRODUCTION SUMMARY

| Year | Tons | Grade (oz/t) | Total Au (oz) | Concentrate | | | Bullion (oz) | Au Recovery (%) | Process |
|-------|---------|--------------|---------------|-------------|-----------|-----------|--------------|-----------------|---------------|
| | | | | Tons (t) | Au (oz/t) | Au (oz) | | | |
| 1933 | 16,956 | 0.211 | 3,560.76 | 193.77 | 16.09 | 3,118.03 | | 87.57% | Flotation |
| 1934 | 30,289 | 0.220 | 6,663.58 | 412.92 | 13.30 | 5,493.66 | | 82.44% | Flotation |
| 1935 | 33,296 | 0.225 | 7,491.60 | 309.55 | 21.18 | 6,553.55 | | 87.48% | Flotation |
| 1936 | 38,756 | 0.194 | 7,518.66 | 614.56 | 10.24 | 6,290.22 | 306.352 | 87.74% | Flot./Gravity |
| 1937 | 51,646 | 0.152 | 7,850.19 | 1265.03 | 4.88 | 6,177.50 | 693.2 | 87.52% | Flot./Gravity |
| 1938 | 55,021 | 0.157 | 8,638.30 | 1247.45 | 5.59 | 6,968.90 | 717.54 | 88.98% | Flot./Gravity |
| 1939 | 53,176 | 0.163 | 8,667.69 | 827.39 | 7.58 | 6,545.28 | 1,388.36 | 91.53% | Flot./Gravity |
| 1940 | 59,249 | 0.172 | 10,190.83 | 1384.70 | 5.48 | 7,588.00 | 1,395.30 | 88.15% | Flot./Gravity |
| TOTAL | 338,389 | 0.179 | 60,581.61 | 6,255.37 | 9.06 | 48,735.14 | 4,500.75 | 88.07% | Flot./Gravity |

13.2 TEST WORK PROGRAM

A testing program on the Pine Tree Deposit commenced in early 1986 and continued through to January 1988. The reports numbered 1 to 8 were utilized by Wright Engineers in the preparation of the November 1986 Feasibility Study. Reports numbered 1 to 17 were utilized in the preparation of Wright Engineers “Basic Design Report” dated February 1988. Reports 18 through 23 were utilized in the preparation of Beacon Hill Consultant’s “Project Development Report,” dated April of 1991. In 2014, Fremont Gold Mining LLC engaged Inspectorate Exploration and Mining Services to complete metallurgical testing on new samples.

All of the test work prior to 2014 segregated the Deposit into zones. These zones included some overlap with lithology and were defined as follows in Table 13.2.

| TABLE 13.2 PRE-2014 MINERALIZED ZONES FOR METALLURGICAL TEST WORK | |
|---|--------------------|
| Zone | Description |
| Zone 4 | Diorite |
| Zone 5 | Pine Tree |
| Zone 6 | Josephine Ankerite |
| Zone 7 | Josephine Slate |

In 2014, new samples were collected and sent to Inspectorate Exploration & Mining Services Ltd. (“Inspectorate”) for evaluation. The new samples were collected, based on different lithological divisions than the previous work, and therefore making direct comparisons difficult between the earlier “Zones” and the samples tested in 2014. The new samples were separated as oxide cap mineralization (“OCM”), sulphide replacement mineralization (“SRM”), and quartz-hosted gold mineralization (“QTZ”).

A list of the historical metallurgical test reports is presented in Table 13.3.

| TABLE 13.3 METALLURGICAL TEST REPORTS | | | |
|---------------------------------------|---|--------|------------------------------------|
| Report | | Date | Company |
| 1 | Preliminary Metallurgical Investigation | Feb-86 | Bacon, Donaldson & Associates, LTD |
| 2 | Metallurgy Study of Goldenbell Ore | May-86 | Utah International Inc. |
| 3 | Production of Gold Bearing Pyrite Flotation Concentrate from Goldenbell Ore | Jul-86 | Utah International Inc. |
| 4 | Results of Metallurgical Test work on Pine Tree Concentrate: Gold Recovery | Sep-86 | Bacon, Donaldson & Associates, LTD |
| 5 | Metallurgical Testing of Pine Tree Project Ore Samples | Sep-86 | Bacon, Donaldson & Associates, LTD |
| 6 | An Investigation of the Recovery of Gold and Silver from a Pine Tree Flotation Concentrate Sample | Oct-86 | Lakefield Research |
| 7 | Golden Flotation Pilot Plant | Oct-86 | Witteck Development Inc. |
| 8 | Roasting/Leaching of Goldenbell Gold/Silver Concentrate | Dec-86 | Hazen Research |
| 9 | Pine Tree Ore and Tailings Samples for Effluent Characterization | Jan-87 | Bacon, Donaldson & Associates, LTD |
| 10 | Metallurgical Study of Pine Tree Project Ore Samples | May-87 | Bacon, Donaldson & Associates, LTD |
| 11 | Pine Tree Gold Pilot Plant, Final Report on Flotation | Jul-87 | M.A. Hanna Company |
| 12 | Pine Tree Gold Pilot - Final Report on Grinding | Jun-87 | M.A. Hanna Company |

| TABLE 13.3 METALLURGICAL TEST REPORTS | | | |
|---------------------------------------|---|--------|--|
| Report | | Date | Company |
| 13 | Concentrate Dewatering (letter report) | Aug-87 | Eimco Process Equipment Company |
| 14 | Dead Roasting and Two Stage Roasting of Gold Ore Test Report | Nov-87 | Lurgi Plant in Frankfurt, Germany |
| 15 | Thickening of Goldenbell Roaster Calcine | Dec-87 | Bacon, Donaldson & Associates, LTD |
| 16 | Pine Tree Project Review of Grinding Mill Sizing | | |
| 17 | Carbon-in-Leach processing of Goldenbell Roaster Calcine | Feb-88 | Bacon, Donaldson & Associates, LTD |
| 18 | Cyanidation of Goldenbell Calcines | Mar-88 | Bacon, Donaldson & Associates, LTD |
| 19 | Supplementary Flotation and Gold Recovery Sulfides | Oct-88 | Bacon, Donaldson & Associates, LTD |
| 20 | Preliminary Evaluation of Bioleaching on Precious Metal Recovery from Pine Tree Concentrate | Jul-86 | Giant Bay Biotech Inc. |
| 21 | Bioleaching of Pine Tree Concentrate | Jun-89 | Giant Bay Biotech Inc. |
| 22 | Bottle Roll and Column Cyanidation Tests of Pine Tree Oxide | Aug-88 | Bacon, Donaldson & Associates, LTD |
| 23 | Pine Tree Project Grinding Evaluation | Feb-88 | J.H. Bassarear |
| 24 | Metallurgical Testing of Samples from the Fremont Project, California | Aug-14 | Inspectorate Exploration & Mining Services |

Sections 13.3 and 13.4 were based on, with formatting and text modifications, the Beacon Hill Consultants Ltd. "Project Development Report," dated April 1991 (Beacon Hill, 1991).

13.3 SCOPING TEST WORK

In early 1986, a test program was initiated at Bacon Donaldson and Associates on Pine Tree mineralized material to obtain preliminary environmental and metallurgical information. The results are presented in Report No. 1. Generally, the results were as follows:

1. Gravity concentration produced a concentrate of fine gold and coarse pyrite, with recoveries being as follows in Table 13.4.

| TABLE 13.4 1986 GRAVITY CONCENTRATION RESULTS | | |
|---|-----------------------|-----------------|
| Area | Concentrate Au (oz/t) | Au Recovery (%) |
| Zone 4 | 0.155 | 8.1 |
| Zone 5 | 3.332 | 31.5 |
| Zone 6 | 1.443 | 20.8 |

The gold grains in the concentrates were all <200 µm in size:

2. Cyanidation of a composite mineralized material sample yielded gold extractions of 42.2 and 82.4% at minus 3/8 inch and 50% minus 200 mesh, respectively;
3. Cyanidation of composites 4, 5 and 6 yielded gold extractions of 87.5%, 11.1% and 0.0%, respectively, at grinds of approximately 50% minus 200 mesh. The Zone 6 mineralized material utilized for this work was subsequently reclassified into two zones; Josephine Ankerite (Zone 6) and Josephine Slate (Zone 7);
4. Flotation of the overall composite yielded gold recoveries of 86.2 to 93.8%, with concentrate grades of 1.047 to 1.381 oz/t (36 g/t to 47 g/t);
5. Cyanidation of this concentrate yielded 34% gold extraction without regrinding, 35.4% after being reground to minus 200 mesh, and 47.1% after a regrind to 84% minus 400 mesh; and
6. Thioureaation of reground concentrate yielded a maximum of 64% gold extraction.

The conclusions of this report were that the gold in the flotation concentrate was 'refractory' in nature and that test work involving more severe treatment (pressure oxidation, Arseno process, bio leaching) should be carried out (Bacon, Donaldson and Associates, 1986).

Test work was next carried out in the laboratory of Utah International in March and April, 1986. Their initial investigations examined direct cyanidation of the mineralized material, flotation followed by cyanidation, and finally pre-treatment of flotation concentrate to increase cyanidation recovery.

The complete results were provided in their report "Metallurgical Study of Goldenbell Ore", May 1986, and are summarized below in Table 13.5.

| TABLE 13.5 MAY 1986 METALLURGICAL TEST WORK RESULTS | | | | |
|--|---------------------------|---------|---------|---------|
| Test Work Stage | Mineralized Material Type | | | |
| | Zone 4 | Zone 5 | Zone 6 | Zone 7 |
| Direct Cyanidation, Gold Extraction (%) | 9 | 60 | 25 | 5 |
| Flotation Recovery (%) | 9 | 80 | 85 | 90 |
| Conc. Grade Au (oz/t) | 0. | 1.5-2.3 | 1.5-2.3 | 1.2-2.0 |
| Cyanidation of Concentrate, Gold Extraction (%) | 100 | 95 | 75 | 35 |
| Pre-treatment and Cyanidation Gold Extraction in (%): | | | | |
| Hypochlorite | | | | 65 |
| Autoclave Oxidation | | | | 70 |
| Roasting with Lime | | | | 92 |

A number of other pre-treatment methods, such as aeration with lime, hot caustic, lead nitrate addition and a carbon-in-leach, were unsuccessful.

The refractory nature of the Zone 7 and Zone 6 concentrates was identified as being caused by carbonaceous material that adsorbs (preg-robs) the gold from cyanide solution. Tentatively the “preg robbing” mineral was identified as graphite. Based on these initial results, a recommendation to use autoclave oxidation on flotation concentrates was made.

As a follow-up to the previous work, Utah International subsequently ran a pilot plant campaign to produce significant quantities of flotation concentrate from Zones 6 and 7 mineralized materials for further test work. The pilot plant results are listed in Table 13.6.

| TABLE 13.6 UTAH INTERNATIONAL PILOT PLANT FLOTATION CONCENTRATE | | |
|---|-----------------------------|-------------------------------|
| Area | Flotation Gold Recovery (%) | Concentrate Gold Grade (oz/t) |
| Zone 6 | 85 | 1.49 |
| Zone 7 | 88 | 1.22 |

Sufficient concentrate was produced for further tests on oxidation at various laboratories in the next phase of testing. A secondary test at Utah International on floating carbonaceous material away from the pyrite concentrate was unsuccessful. Results were reported in “Production of Gold Bearing Pyrite Flotation Concentrate from Goldenbell Ore” (July 1986 - Appendices).

The Zone 7 concentrate produced in the Utah International pilot plant was shipped to Bacon Donaldson & Associates for further test work. The concentrate sample was subdivided into a

number of samples for testing at various laboratories and by proprietary processes. The laboratories and processes utilized are listed in Table 13.7.

| TABLE 13.7 METALLURGICAL TEST WORK LABORATORIES AND PROCESSES | |
|---|----------------------------|
| Laboratory | Process |
| 1. Bacon Donaldson & Assoc. | 1.1 Direct cyanidation |
| | 1.2 Oxygen pressure leach |
| | 1.3 Arseno Process |
| | 1.4 Roasting |
| 2. Giant Bay Resources | 2.1 Bioleach |
| 3. Calmet | 3.1 Calmet |
| 4. Lakefield Research | 4.1 Roasting |
| | 4.2 Pressure oxidation |
| 5. SKW Trostberg | 5.1 Pressure thioureaation |

The test work on the Utah International concentrate shipped to Bacon, Donaldson and Associates, and then distributed to various laboratories was complicated by the fact that the Zone 7 concentrate received was lower grade than expected. The Utah International pilot plant reported grades in excess of 1 oz/t Au and approximately 18% S. The concentrate actually received was only 0.745 oz/t (25.5 g/t) Au and 12.8% S (Bacon, Donaldson and Associates assay). Both Bacon, Donaldson & Associates and Lakefield Research refloated the concentrate and upgraded it to over 1 oz/t (34.3 g/t) Au and approximately 20% S for testing. The results of the test work by all the laboratories are summarized in Table 13.8.

TABLE 13.8 SUMMARY OF PRECIOUS METAL EXTRACTION IN PERCENT

| Group | Concentrate | Direct Cyanidation | | Oxygen Pressure Leach | | Roasting | | Bioleach | | Calmet | | Pressure Thioureaation | | Arseno Process | | Hypochlorite | |
|---------------------------|-------------|--------------------|----|-----------------------|------|----------|------|----------|------|--------|----|------------------------|----|----------------|------|--------------|------|
| | | Au | Ag | Au | Ag | Au | Ag | Au | Ag | Au | Ag | Au | Ag | Au | Ag | Au | Ag |
| Bacon, Donaldson & Assoc. | 1* | 49.5 | | 61.5 | | | | | | | | | | 74.5 | | 74.1 | 73.4 |
| Bacon, Donaldson & Assoc. | 2** | | | 72.3 | 75.3 | 90.3 | 50.2 | | | | | | | 80.9 | 90.5 | | |
| Lakefield Research | 2 | | | 58 | 34 | 87 | 47 | | | | | | | | | | |
| Giant Bay | 1 | | | | | | | 84.5 | 51.6 | | | | | | | | |
| SKW Trostberg | 1 | | | | | | | | | | | 60 | | | | | |
| Calmet | 1 | 2 | | | | | | | | 30 | | | | | | | |

Notes:

* 1 Utah Concentrate.

** 2 Refloated Concentrate.

As indicated by the results presented in Table 13.8, the three most effective treatments are listed in Table 13.9.

| TABLE 13.9 MOST EFFECTIVE METALLURGICAL TREATMENTS | | |
|--|-------------------|-------------------|
| Treatment Type | Au Extraction (%) | Ag Extraction (%) |
| 1. Roasting | 90.3 | 50.2 |
| 2. Bioleach | 84.5 | 51.6 |
| 3. Arseno Process | 80.9 | 90.5 |

13.4 HISTORICAL TEST WORK DETAILS

13.4.1 SAMPLES

The work described in Reports 1 to 8 was carried out on reverse circulation drill cuttings, with the exception of the lock-cycle flotation tests (Report No. 5), which were done on split diamond drill core. The test work described in Reports 10 to 15 was carried out on composite samples obtained from an underground bulk sampling program to provide confirmatory data for final design. With the exception of the work described in Reports 15 and 17, all testing of bulk samples was requested by NorthWest Gold Corp. and carried out under their direction by the various laboratories. The roasting test work was commissioned by NorthWest Gold Corp. and witnessed by Wright Engineers Limited and Minproc Inc.

13.4.2 GRINDING

The early flotation test work indicated that a primary grind of approximately 50% minus 200 mesh was required for good rougher gold recovery. A series of Bond work index tests was run at Bacon, Donaldson and Associates to determine the work indices of the various Zones. The results are listed in Table 13.10.

| TABLE 13.10 BACON, DONALDSON AND ASSOCIATES BOND INDEX TEST RESULTS | |
|---|-----------------------------|
| Zone | Bond Wi @ 50 mesh (kWh/ton) |
| Zone 5 | 11.3 |
| Zone 6 | 11.1 |
| Zone 7 | 10.6 |

Wright utilized the above data for preliminary sizing of a SAG mill and ball mill for the feasibility study. In early 1987, semi-autogenous grinding tests were conducted on a 60-ton representative bulk sample of Pine Tree mineralized material at the Hanna Research Centre. Detailed results of the tests are listed in Report No. 12.

The report concluded that the mineralized material was amenable to semi-autogenous grinding and was a relatively "soft-grinding" mineralized material.

In order to meet a final grind size of 80% minus 100 mesh (150 μm), the mineralized material required a total of 6 kWh/ton, split evenly between the primary and secondary mills. For a process plant design throughput of 360 tons/h (325 t/h), 2,000 hp (1.49 MW) grinding mills were recommended by Hanna.

One test of single-stage, semi-autogenous grinding indicated that the mineralized material could be ground to 80% -100 mesh in a single stage. Estimated power requirements were 6 to 7 kWh/ton (5 to 6 kWh/t).

Based on the Hanna test results; Wright sized and selected the following mills for the Pine Tree Project:

Primary Mill: 22 ft dia x 8.5 ft
2,250 hp (1.68 MW) semi-autogenous mill.

Secondary Ball Mill: 13.5 ft dia x 20 ft
2,250 hp (1.68 MW) ball mill.

An independent internal review of the grinding test program was completed, which confirmed the validity of the test results and the grinding mill sizing. (See Report No. 16 – “Pine Tree Project Review of Grinding Mill Sizing”). A further review was conducted by J. Bassarear, an independent consultant (Report No. 23). Bassarear worked with an incomplete set of data and was in general agreement with the grinding mill sizing.

13.4.3 FLOTATION AND CONCENTRATE DEWATERING

The results are presented below in chronological order for the various testing facilities.

13.4.3.1 JANUARY/FEBRUARY 1986

Preliminary Investigation, Bacon Donaldson and Associates (Report No. 1).

Type: Overall composite (i.e., Zone 4, 5, 6) where Zone 6 was later divided into Zones 6 and 7.

Grind: 56% minus 200 mesh. Results: see Table 13.11.

| TABLE 13.11 BACON, DONALDSON AND ASSOCIATE JANUARY / FEBRUARY 1986 TEST WORK RESULTS | | | |
|--|--------------|-----------|-----------|
| Concentrate | | Recovery | |
| Au (oz/t) | Ag (oz/t) | Au (%) | Ag (%) |
| 1 | 0.3 | 92 | 80 |

13.4.3.2 MAY 1986

Metallurgical Study of Goldenbell Ore, Utah International (Report No. 2). Test work results are shown in Table 13.12.

| TABLE 13.12 UTAH INTERNATIONAL MAY 1986 TEST WORK RESULTS | | | | |
|---|---------------------------|---------|---------|---------|
| Results | Mineralized Material Zone | | | |
| | Zone 4 | Zone 5 | Zone 6 | Zone 7 |
| Gold Recovery (%) | 90 | 80 | 85 | 90 |
| Gold Concentrate Grade (oz/t) | 0.5 | 1.5-2.3 | 1.5-2.3 | 1.2-2.0 |

Primary Grind: 15-25% plus 100 mesh.

50-55% minus 200 mesh.

Concentrate Re grind: 80% minus 400 mesh.

13.4.3.3 JULY 1986

Flotation Pilot Plant, Utah International (Report No. 3).

Types Tested: Zone 6 and Zone 7. Results shown in Table 13.13.

| TABLE 13.13 UTAH INTERNATIONAL JULY 1986 METALLURGICAL TEST WORK RESULTS | | |
|--|--------|--------|
| Results | Zone 6 | Zone 7 |
| Avg. Gold Recovery (%) | 85 | 88 |
| Sulphur Recovery (%) | 88 | 75 |
| Gold Concentrate Grade (oz/t) | 1.49 | 1.22 |
| Sulphur (%) | 24 | 18.2 |

Grind: Primary; 10-12% plus 100 mesh, 60% minus 200 mesh.
 Re grind; 90% minus 400 mesh.

Flotation Time: Rougher/Scavenger: 20 min.
 1st Cleaner: 13 min.
 2nd Cleaner: 12 min.

13.4.3.4 AUGUST 1986

Locked Cycle Flotation Testing, Bacon, Donaldson and Associates (Report No. 5). The test work results are shown in Table 13.14.

| TABLE 13.14 BACON, DONALDSON AND ASSOCIATES AUGUST 1986 TEST WORK RESULTS | | | | | |
|---|---------|-----------|--------|--------|--------|
| Results | | Composite | Zone 5 | Zone 6 | Zone 7 |
| Au Recovery (%) | Rougher | 91.7 | 91.3 | 91.6 | 93.6 |
| | Cleaner | 91.3 | 84.0 | 89.1 | 90.1 |
| Au Concentrate Grade (oz/t) | | 1.360 | 2.845 | 1.416 | 1.396 |

Grind: Primary; 33-48% minus 200 mesh.

13.4.3.5 SEPTEMBER 1986

Pilot Plant Flotation, Witteck Development (Report No. 7). The test work results are shown in Table 13.15.

| TABLE 13.15 WITTECK DEVELOPMENT SEPTEMBER 1986 TEST WORK RESULTS | | | | |
|--|-----------|-----------|-----------|------------------------|
| Results | Zone 5 | Zone 6 | Zone 7 | Zone 5, 6, 7 Composite |
| Avg. Au Recovery (%) | 77.8 | 78.7 | 90.9 | 70.9 |
| Concentrate Grade: | | | | |
| Au (oz/t) | 0.75-1.10 | 0.33-1.77 | 0.56-0.84 | 1.46 |
| S (%) | 9.0-12.5 | 6.3-20.4 | 11.3-15.3 | 24.9 |

Grind: 20% plus 100 mesh, 55% minus 200 mesh. Re grind: 82% minus 400 mesh.

These results from Witteck are averages based on daily composite samples, and thus reflect circuit upsets and equipment problems. The concentrate for the composite sample was purposely maintained at a high sulphur level, thus causing some recovery loss.

13.4.3.6 JUNE/JULY 1987

Two complementary series of flotation tests were conducted on the composite underground bulk sample. The first tests (Report No. 10) were a series of locked cycle tests carried out by Bacon, Donaldson and Associates. These tests indicated that a flotation circuit consisting of a rougher-scavenger followed by two stages of closed-circuit cleaning would yield satisfactory flotation recoveries. At an initial grind of 80% -100 mesh, there was no advantage to a cleaner concentrate or cleaner tail regrind.

The report concluded that a composite sample would yield an overall gold recovery of 89.7% at a gold grade of 1.48 oz/ton (50.7 g/t) and a sulphur grade of 20.8%. Depramin was utilized as a slime depressant and overall silver recovery was reported as 71.7%.

A gravity concentration stage recovered 10 to 12% of the gold and such a circuit was recommended for the process plant.

A concentrate thickening unit area of 1.8 ft²/tpd was required. The concentrate filtering rate was found to be 20 lb/hr/ft² at a cake moisture of 20%. The tailings thickener area was reported to be 1.0 to 1.4 ft /tpd for thickening to 50% solids. High-rate thickening tests were not performed.

The second series of flotation tests was carried out at Hanna Research Centre on the ground material prepared during the pilot plant grinding test. The material was treated in a continuous flotation pilot plant to produce sulphide concentrate for subsequent roaster tests. Test details are given in Report No. 11. The flotation pilot plant utilized the flowsheet developed by Bacon Donaldson & Associates, and also the reagent suite recommended by them.

A comparison of the flotation times used in the pilot plant with those prepared by Bacon, Donaldson & Associates is given Table 13.16.

| TABLE 13.16 JUNE/JULY 1987 TEST WORK FLOTATION TIMES | | |
|--|--------------------------|-------------------|
| Material Stage | Retention Time (minutes) | |
| | Bacon Donaldson | Hanna Pilot Plant |
| Conditioner | 10 | 33 |
| Rougher | 10 | 38 |
| Scavenger | 15 | 24 |
| 1 st Cleaner | 15 | 15 |
| 2 nd Cleaner | 6 | 15 |

It is apparent from the comparative retention times that the Hanna pilot plant equipment was somewhat over-sized. No data were reported to verify flotation rates in the rougher section or the scavenger section, which had extended retention times compared to the laboratory locked cycle tests.

The flotation concentrate produced in the pilot plant was higher-grade, averaging 2.24 oz/ton (76.8 g/t) Au and 32.10% S. At this grade, recovery was only 78.1% compared to the 89.7% obtained in the locked cycle tests.

A review of all metallurgical test results from Utah International, Bacon, Donaldson & Associates, Witteck Development, and Hanna Mines generated a grade recovery curve for the Pine Tree mineralized material that indicated sulphur grades of 12 to 15% would be required for 90% gold recovery. The range of sulphur grades chosen for roaster design was from 10 to 17%.

A separate sample of concentrate was sent to Eimco for filtration test work. The results are reported in Report No. 13. The concentrate filtered readily on a belt-type filter. Disc filters were not suitable, due to fast settling coarse pyrite. There were no thickening tests performed on either concentrate or tailings. Consequently, the locked cycle thickening rates were utilized for concentrate and the Witteck Development pilot plant thickening rates for tailings.

13.4.3.7 OCTOBER 1988

Bacon, Donaldson & Associates carried out test work to determine if the carbon in the mineralized material could be separated from the sulphides and gold. This test work included both flotation testing and gravity concentration. In order to evaluate the effectiveness of the carbon removal steps, the resulting sulphide products were cyanided directly or were treated hydrometallurgically prior to cyanidation. Full results are presented in Report No. 19.

It was shown that a significant proportion of the carbonaceous material present in the Pine Tree mineralized material could be removed by flotation prior to sulphide flotation. For Zone 7 material, 5% or less of the gold was associated with the carbon product. For composite material which had an increased free gold content compared to Zone 7, the gold associated with the carbon product was proportionately higher. The possibility for the recovery of gold from the carbon product was not addressed.

The use of gravity concentration using a centrifugal concentrator to eliminate the carbon problem was not successful.

A gold recovery comparable to that achieved by roasting was achieved with the following steps:

- a. Removal of graphite concentrate,
- b. Production of a sulphide concentrate,
- c. Oxidative pre-treatment of the concentrate, and d.
- Cyanidation of the leach residue.

13.4.3.8 CARBON FLOTATION

Tests were conducted on Zone 7 mineralized material utilizing fuel oil as the collector. An optimum addition of 0.75 lb/ton (0.36 kg/t) was determined. Results are given in Table 13.17.

| TABLE 13.17 GOLD LOSS DURING CARBON FLOTATION | | | |
|---|------------------|------------------|--------------|
| Test No. | Float Time (min) | Weight % Floated | Au % Floated |
| 7382-F4 | 10 | 6.32 | 5.63 |
| 7382-F1 | 10 | 9.74 | 9.68 |
| 7382-F2 | 10 | 6.43 | 5.22 |

The results shown are for rougher carbon flotation. The concentrates from further tests were cleaned once. In each case, approximately one third of the gold reported to the cleaner tail. The gold loss to the final carbon concentrate varied from 3.77 to 6.30% of the total gold under identical conditions. It was visually estimated that 90% carbon recovery was achieved.

13.4.4 GRAVITY CONCENTRATION

Tests were conducted on a Zone 7 sample and a composite sample to determine whether a gravity concentrate that was low in carbon, and contained most of the gold, could be produced. The tests were performed using a centrifugal concentrator manufactured by Canadian Gold Centrifuge Ltd. It was hoped that the carbon would be rejected, due to its low specific gravity, and the gold and sulphide minerals retained. The results of these tests indicated 15.8 and 30.4% gold recovery for Zone 7 and the composite sample, respectively. The low gold recovery together with the fact that carbon was observed in the concentrate, resulted in a decision to abandon this line of test work.

Some tests were conducted on the use of gravity concentration to remove carbon from rougher flotation concentrate. Bulk sulphide concentrates were prepared by flotation, and subsequently upgraded by means of the centrifugal concentrator. The results, which are summarized in Table 13.18 below, indicated very low gold extraction for cyanidation of the centrifuge concentrates. Further gravity concentration test work was, therefore, abandoned.

| TABLE 13.18 CYANIDATION OF CENTRIFUGED FLOTATION CONCENTRATE | | | | |
|--|------|---------------|------------|---------|
| Test No. | Zone | Au Recovery % | | |
| | | Float | Centrifuge | Cyanide |
| 8033-F3 | Comp | 90.6 | 77.2 | 55.7 |
| 8033-F4 | 7 | 55.0 | 93.1 | 38.0 |

13.4.5 TREATMENT OF CARBON REMOVAL PRODUCTS

a. Cyanidation of carbon flotation tails:

A sample of Zone 7 mineralized material was subjected to carbon flotation. The tailing from this float was cyanided for 24 hours. A gold extraction of 14.8% was

achieved from the tails. It was apparent that the carbon rougher float tails were highly refractory.

b. Cyanidation of sulphide concentrate produced after carbon flotation:

A carbon concentrate was removed prior to sulphide (gold) flotation. The sulphide concentrate was cleaned twice prior to being cyanided. A 24-hour cyanidation extracted 59% of the gold from the concentrate. The results indicated that either sufficient carbon remained in the sulphide concentrate to cause preg robbing or the gold was locked within the sulphides.

c. Cyanidation of the sulphide concentrate following re-oxidation:

The cleaned sulphide concentrate from (b) above was treated by means of the Arseno Process prior to being cyanided. During the Arseno leach, 7.3% of the gold was dissolved. The residue from the pre-treatment was cyanided and yielded a gold extraction of 90.1%. The overall gold extraction from the concentrate was calculated as follows:

| | | |
|---------------------------------------|---|--------------|
| Gold to leach solution | = | 7.3% |
| Cyanidation of residue, 90.1% x 92.7% | = | 83.5% |
| Total | = | 90.8% |

This gold extraction is comparable to that which was achieved by roasting. However, gold recovery to the sulphide concentrate was only 81.6% compared to 90% for the concentrate utilized in the roasting test work.

13.4.6 ROASTING AND CALCINE LEACHING

During the scoping stage of test work, Utah International, Bacon, Donaldson & Associates and Lakefield Research conducted small-scale batch roasting tests on Pine Tree concentrates (Reports No. 2, 4, and 6, respectively). In each case, cyanidation of the calcine gave a gold recovery of approximately 90%.

In order to more closely define the roasting parameters, a new series of tests were undertaken, beginning in September 1986. These tests consisted of a flotation pilot plant at Witteck Development Inc. to produce sufficient concentrates for a roasting test program at Hazen Research. The pilot plant run was completed on September 19, 1986, and roasting test work began at Hazen Research in mid-October. The head assay of the composite (Zones 5, 6, 7) concentrate sample received at Hazen Research are presented in Table 13.19.

| TABLE 13.19 WITTECK COMPOSITE CONCENTRATE SAMPLE ASSAY | | | | | |
|--|-----------|-------|---------|-----------|----------|
| Au (oz/t) | Ag (oz/t) | S (%) | CO2 (%) | Org C (%) | Hg (ppm) |
| 1.09 | 0.455 | 17.6 | 2.16 | 0.74 | 1.2 |

The results of the test work program at Hazen are summarized in Table 13.20 and detailed in Report No 8.

| TABLE 13.20 ROASTING TEST RESULTS – HAZEN RESEARCH | | | | | | | |
|--|-------------|---------------|-----------|---------------|-----------|------------|--------|
| Roast Conditions | | Calcine Assay | | Residue Assay | | Extraction | |
| Temp. (°C) | Time (Sec.) | Au (oz/t) | Ag (oz/t) | Au (oz/t) | Ag (oz/t) | Au (%) | Ag (%) |
| 550 | 5 | 1.22 | 0.54 | 0.538 | 0.4 | 55.9 | 25.9 |
| 550 | 10 | 1.08 | 0.51 | 0.204 | 0.33 | 81.1 | 35.3 |
| 550 | 15 | 1.04 | 0.43 | 0.12 | 0.31 | 88.5 | 27.9 |
| | | | | | | | |
| 600 | 5 | 1.1 | 0.49 | 0.148 | 0.4 | 86.5 | 18.4 |
| 600 | 10 | 1.03 | 0.43 | 0.126 | 0.31 | 87.8 | 27.9 |
| 600 | 15 | 1.16 | 0.51 | 0.124 | 0.36 | 89.3 | 29.4 |
| | | | | | | | |
| 650 | 5 | 1.14 | 0.42 | 0.148 | 0.25 | 87 | 40.5 |
| 650 | 10 | 1.14 | 0.42 | 0.142 | 0.2 | 87.5 | 52.4 |
| 650 | 15 | 1.17 | 0.46 | 0.118 | 0.2 | 89.9 | 56.5 |
| | | | | | | | |
| 700 | 5 | 1.21 | 0.44 | 0.122 | 0.24 | 89.9 | 45.5 |
| 700 | 10 | 1.22 | 0.46 | 0.12 | 0.32 | 90.2 | 30.4 |
| 700 | 15 | 1.22 | 0.45 | 0.118 | 0.28 | 90.3 | 37.8 |
| | | | | | | | |
| 750 | 5 | 1.2 | 0.42 | 0.5 | 0.36 | 87.5 | 14.3 |
| 750 | 10 | 1.2 | 0.42 | 0.164 | 0.4 | 86.3 | 4.8 |
| 750 | 15 | 1.2 | 0.2 | 0.166 | 0.3 | 86.2 | -- |

The best gold and silver extractions were obtained at temperatures of 650 to 700°C, with a 15 second residence time. Gold extraction was 89.9 to 90.3% and silver extraction was 56.5% at 650°C. Both silver and gold extraction fell off rapidly as the temperature was raised above 700°C. The cyanide leaching conditions for these tests were 10 lb/ton NaCN (based on calcine weight) and 16 hours residence time. A lime pre-aeration was carried out to minimize cyanide consumption, which was approximately 2.6 lb/ton (1.3 kg/t). Lime consumption was 22 lb/ton (11 kg/t). The reagent consumptions for cyanidation of calcine at the various laboratories are summarized in Table 13.21 below. The leach time required was in the order of 16 hours.

| Type | Laboratory | Lime Consumption | Cyanide Consumption | Au Extraction | Ag Extraction |
|-----------|-------------------------------|------------------|---------------------|---------------|---------------|
| | | (lb/ton) | (lb/ton) | (%) | (%) |
| Zone 7 | Bacon, Donaldson & Associates | N/A | N/A | 90.3 | 50.2 |
| Zone 7 | Utah International 550°C | 612* | 2.52 | 92.1 | 53.7 |
| Zone 7 | Lakefield 550°C | 5.13 | 4.85 | 87 | 47 |
| Composite | Hazen 650°C | 22 | 2.62 | 90 | 56.5 |

* High lime consumption as excess lime was added to roaster feed.

In order to provide design data for the "Basic Design Report", a continuous pilot plant roasting test on Pine Tree concentrate was carried out at the Lurgi Plant in Frankfurt, Germany in October 1987. The results are presented in Report No. 14. The roasting test results indicated that a two-stage, low-temperature, fluid bed roast was the preferred roaster configuration for maximum subsequent gold extraction. The roaster test was carried out on a combined jig/flotation concentrate containing 19.5% sulphur and 1.7% arsenic. The roasted calcines were leached by Bacon, Donaldson & Associates to determine gold recovery, lime and cyanide consumption and leach residence time required (Report No.17 and 18). These results are listed in Table 13.22.

| Test No. | Roaster | Roaster Temperature | | Au |
|----------|---------------|---------------------|---------|------------|
| | Configuration | (°C) | | Extraction |
| | | Stage 1 | Stage 2 | (%) |
| 1 | 2-stage | 700 | 650 | 91.9 |
| 2 | 2-stage | 650 | 600 | 92.3 |
| 3 | 1-stage | 700 | | 72.6 |
| 4 | 1-stage | 700 | | 83 |
| 5 | 1-stage | 650 | | 86 |
| 6 | 1-stage | 600 | | 91.9 |
| 7 | 1-stage | 730 | | 77.1 |
| 8 | 2-stage | 600 | 650 | 92.6 |

Based on these cyanidation results, the average gold extraction for 2-stage roasting was 92.27%, and for single stage roasting 82.12%. Two-stage roasting at lower temperatures (600°C, 650°C) was thus indicated as being the best selection.

Further test work was done (Report No. 17) on carbon loading utilizing regenerated carbon from an operating plant. Gold loadings of 200 oz/ton (6,850 g/t) were obtained.

13.4.7 SULPHUR DIOXIDE ABSORPTION CAPACITY OF FLOTATION TAILINGS

As part of an investigation to reduce the capital and operating costs for roaster off-gas cleaning, the use of leached roaster calcines and flotation tailings as neutralizing agents was considered. The flotation tailings contain a high proportion of the carbonate mineral ankerite and it was thought that SO₂ could be scrubbed and neutralized using the tailings pulp. Nine tests were conducted at Bacon, Donaldson & Associates in May 1988 to determine the neutralization capacity of both tailings and calcine. The results were communicated to Wright Engineers by FAX. No formal report was produced.

13.4.7.1 METHOD

Dry tailings or calcine were added to sulphuric acid and sulphuric/sulphurous acid solutions and agitated for up to four hours at temperatures ranging from ambient to 100°C. Sulphur analyses were conducted on the solutions and solids at regular intervals during each test.

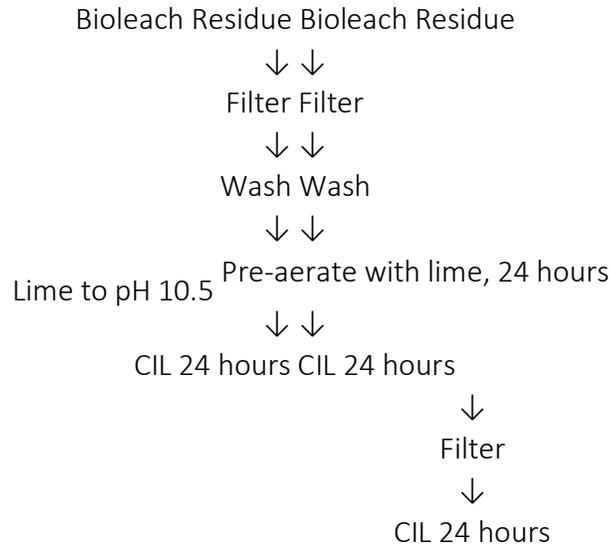
13.4.7.2 RESULTS

- Reasonable sulphur balances were obtained on 7 of the 9 tests.
- Neutralization took place above 40°C and appeared to be optimum at 60°C.
- 100 g of tailings neutralized 1.07 g of sulphur in a sulphuric acid solution where the acid was added progressively. The test was not taken to its end point.
- 100 g of tailings neutralized 0.76 g of sulphur in a solution containing 17.5 g/L H₂SO₄ in a 6% H₂SO₃ solution.
- 100 g of calcine-neutralized 0.84 g of sulphur in a solution containing 17.5 g/L H₂SO₄ in a 6% H₂SO₃ solution.

It was concluded that flotation tailings and leached calcine could provide the neutralizing capacity required to scrub roaster off-gases and a continuous pilot program was proposed.

13.4.8 BIOLEACHING

In 1986 Giant Bay Biotech Inc. conducted a batch bioleaching test on Zone 7 concentrate. A recovery of 84.5% was obtained. Giant Bay repeated the test in June 1989 on a sample from the same source and obtained a gold recovery of 90.7% (Report No. 20). The bioleach procedure in both cases was similar and an identical degree of sulphide sulphur oxidation was achieved. The cyanidation procedure, however, was quite different, as outlined below:



It was concluded that the improvement in results was probably due to the different cyanidation procedure and that a similar improvement might be obtained if the same procedure was applied to pressure oxidation or Arseno (now called Redox) process residues. Wright and Bacon, Donaldson & Associates designed a test work program to investigate this. In summary, the test work program was as follows:

13.4.8.1 CONFIRMATION TESTING

Batch Float: Zone 7

Composite

Bioleach: Zone 7

Composite

The purpose of this work was to confirm the 1989 Giant Bay work and was carried out in March 1990 as outlined below.

13.4.8.2 ALTERNATIVE PROCESS TESTING

Bulk Float: Zone 7

Composite

Bioleach Program: Zone 7

Composite

Pressure Oxidation Program: Zone 7

Composite

Redox Process Program: Zone 7

Composite

Neutralization with flotation tails

This program would have required one ton of Zone 7 mineralized material and one ton of a composite of Zones 5, 6 and 7 mineralized materials to produce the necessary concentrates.

The work was not carried out due to high cost. Confirmatory bioleach work was conducted on two freshly prepared concentrates: 1) produced from a composite of Zones 5, 6 and 7 mineralized materials; and 2) the other from Zone 7 mineralized material alone (Report No. 21). Flotation results are summarized in Table 13.23.

| TABLE 13.23 BULK FLOTATION RESULTS | | | | | | |
|------------------------------------|-----------|--------|-----------|--------|----------------|--------|
| Products | % Wt | | Au oz/ton | | % Distribution | |
| | Composite | Zone 7 | Composite | Zone 7 | Composite | Zone 7 |
| Rougher Conc. | 8.74 | 10.03 | 0.638 | 0.488 | 91.1 | 86.5 |
| 1 st Cleaner Conc. | 8.21 | 2.73 | 0.678* | 1.701 | 91.8 | 82 |
| 1 st Cleaner Tail | 0.53 | 7.3 | 0.029 | 0.035 | 0.3 | 4.5 |
| 2 nd Cleaner Conc. | 2.03 | 1.89 | 2.3 | 2.356* | 76.3 | 78.9 |
| 2 nd Cleaner Tail | 6.17 | 0.84 | 0.144 | 0.214 | 14.5 | 3.2 |
| Final Tail | 91.26 | 89.97 | 0.006 | 0.009 | 8.9 | 13.5 |
| Calc. Head | 100 | 100 | 0.061 | 0.057 | 100 | 100 |
| Assay Head | | | 0.054 | 0.055 | | |

* Material used for bioleaching.

A five-liter batch bioleach test was conducted on each sample. To initiate each test, the slurry pH was lowered to 2 with sulphuric acid and an active culture of thiobacillus ferrooxidans added. The leach progress was followed by daily monitoring of pH, redox potential and dissolved oxygen. Details are summarized in Table 13.24.

| TABLE 13.24 BIOLEACHING RESULTS | | |
|---------------------------------|-----------|----------------|
| Parameter | Composite | Zone 7 |
| Initial Pulp Density (g/L) | 100 | 52.9 |
| H2SO4 consumption (kg/t) | 48.3 | 31.8 |
| Leach Time (days) | 18 | 14 |
| Weight Loss (%) | 20.6 | 70.7 |
| S2 Oxidation (%) | 92.4 | 97.3 |
| Head Assays: | | |
| Au (oz/ton) | 0.678 | 2.356 |
| Fe (%) | 10.6 | 29.2 |
| As (%) | 1.04 | Not determined |
| S2 (%) | 8.35 | 35.82 |

The cyanidation procedure duplicated what was utilized by Giant Bay Biotech in June 1989. Gold recoveries were 91.2 and 93.7% for the composite and Zone 7 products, respectively. The respective sodium cyanide consumptions were 9.96 kg/t concentrate and 48.83 kg/t concentrate.

Wright Engineers determined that continuous leach residence times of 100 to 120 hours would be required.

13.4.9 HEAP LEACHING OF OXIDE MINERALIZED MATERIAL

Limited leaching test work was conducted on the Pine Tree oxide materials by Bacon, Donaldson & Associates (Report No. 22). The work consisted of one series of bottle roll tests and one series of column leach tests on samples of each of Zones 5, 6 and 7. The samples are described in Bacon, Donaldson & Associates' report as follows in Table 13.25.

| TABLE 13.25 OXIDE MATERIAL COARSE BOTTLE ROLL LEACH TEST RESULTS | | | | | | | | |
|--|----------------------|-------------------------|------------------------|---------------------|-------------------|--------------------------|---------------------------|---------------------------|
| Sample | Grind (%) (-200 No.) | Au Assay, Head (oz/ton) | Calc. Au Head (oz/ton) | Tailing Au (oz/ton) | Au Extraction (%) | Initial NaCN Conc. (g/L) | NaCN Consumption (lb/ton) | Lime Consumption (lb/ton) |
| Zone 5 | 19.3 | 0.0140 | 0.0499 | 0.0035 | 93.0 | 1.0 | 0.92 | 1.12 |
| Zone 6 | 32.9 | 0.0440 | 0.0519 | 0.0041 | 92.3 | 1.0 | 1.76 | 22.78 |
| Zone 7 | 43.7 | 0.0630 | 0.0755 | 0.0125 | 83.4 | 1.0 | 0.94 | 11.15 |

The results showed reasonable gold extractions with moderate cyanide consumptions, with high lime consumptions for Zones 6 and 7. The large discrepancy in the assay head and calculated head for Zone 5 is consistent with the sample description, which indicated the presence of free gold. The Zone 7 mineralized material showed signs of preg robbing. A gold extraction of 87.6% was

reported after 6 hours leaching compared to 83.4% after 24 hours. Column testing was conducted on material crushed to minus 2 inches. Test conditions were as follows in Table 13.26.

| Sample | Sample Wt. (lb) | Column Diameter (in) | Column Height (in) | Initial NaCN Conc'n (g/L) | pH Range | Solution Flow Rate (gpm/ft ²) |
|--------|-----------------|----------------------|--------------------|---------------------------|--------------|---|
| Zone 5 | 33.0 | 4 | 66.5 | 1.0 | 10.2 to 10.6 | 0.03 |
| Zone 6 | 33.0 | 4 | 61.0 | 1.0 | 10.0 to 10.6 | 0.03 |
| Zone 7 | 30.0 | 4 | 70.0 | 1.0 | 10.3 to 10.7 | 0.03 |

Note: Conc'n = concentrate, gpm = gallons per minute.

The Zone 7 mineralized material contained argillite, which swelled and plugged the column immediately when the solution was applied. The material was removed from the column and agglomerated by hand with the addition of 10.0 lb/ton (5 kg/t) of Portland cement. The test then proceeded satisfactorily.

The Zone 5 and 6 samples were each leached for 6 days, and then the columns allowed to drain between days 6 and 9. The columns were drained again between days 12 and 16 and the solutions partially stripped of gold using activated carbon between days 16 and 17. The stripped solution was subsequently circulated through the columns for two additional days before the tests were terminated. The Zone 7 mineralized material was leached for 35 days without interruption. The results are given in Table 13.27 and illustrated in Figures 13.1a and 13.1b.

| Sample | Material Top Size (in) | Test Duration (Days) | Calc. Head Grade Au (oz/ton) | Residue Au (oz/ton) | Au Extraction (%) | Consumption | |
|--------|------------------------|----------------------|------------------------------|---------------------|-------------------|---------------|---------------|
| | | | | | | NaCN (lb/ton) | Lime (lb/ton) |
| Zone 5 | 2 | 19 | 0.0286 | 0.0035 | 88.1 | 3.2 | 1.7 |
| Zone 6 | 2 | 19 | 0.0248 | 0.0058 | 78.8 | 3.3 | 12.0 |
| Zone 7 | 2 | 35 | 0.0830 | 0.0175 | 79.2 | 3.1 | 10.8 |

The plots of gold extraction versus time show that extraction in all cases was complete after six days. The Zone 7 mineralized material exhibited preg robbing after 16 days, after which extraction decreased from 85 to 79%. The Zone 6 and 7 mineralized materials showed high lime consumption, in-line with the bottle roll tests. Cyanide consumption for all three materials, however, was high and in the range 3.1 to 3.3 lb/ton (1.55 to 1.65 kg/t).

The above tests were used by Wright for the preliminary design of a heap leach facility. A report entitled "Pine Tree Project, Heap Leach Prefeasibility Study" was issued in January 1989.

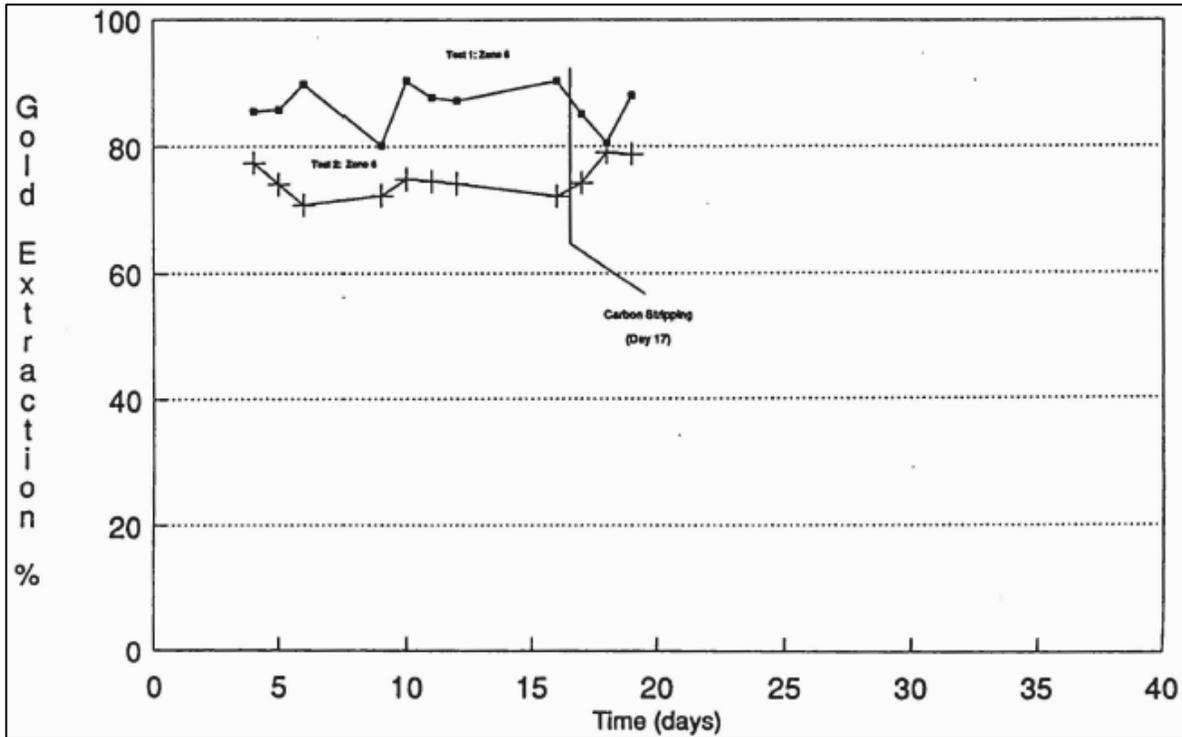


Fig. 13.1A Oxide material column leach test results. Zone 5 and ZONE 6. Bacon, Donaldson & Associates, 1986.

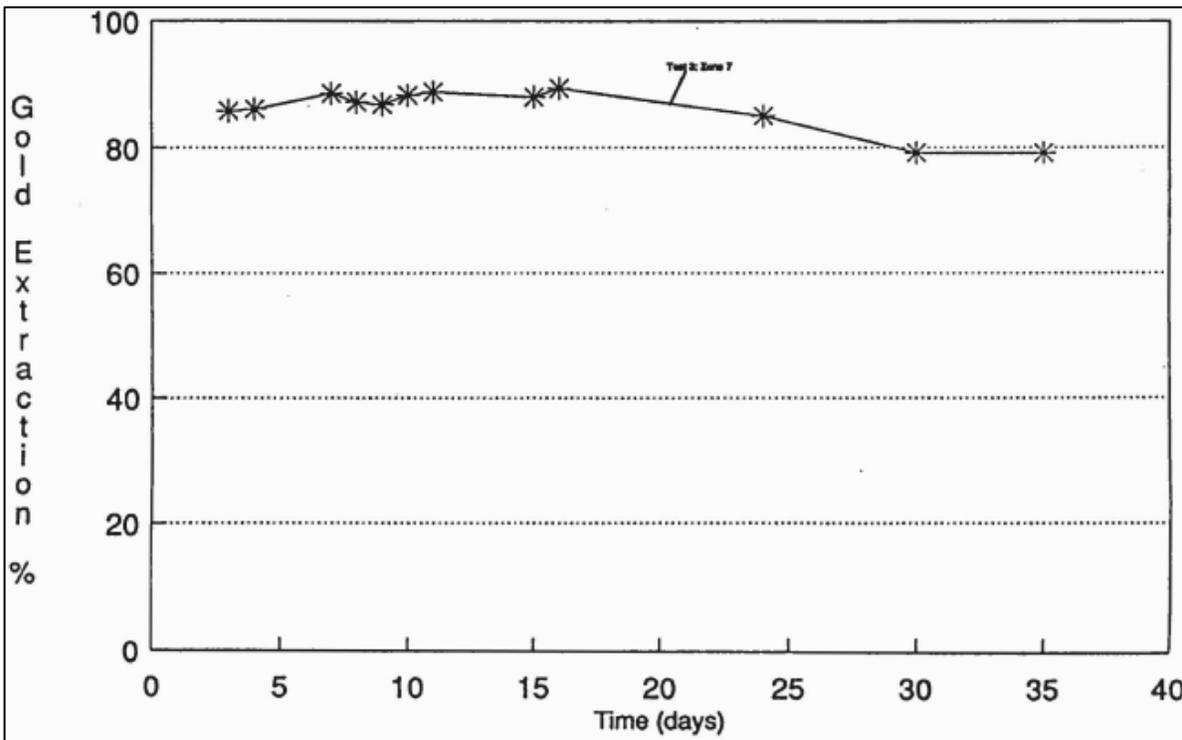


Fig. 13.1B Oxide material column leach test results. ZONE 7. Bacon, Donaldson & Associates, 1986.

13.5 2014 TEST WORK

In 2014, new mineralized samples were collected and sent to Inspectorate Exploration & Mining Services Ltd. (“Inspectorate”) for evaluation. Split drill core along with some rock pieces from 109 different samples were utilized for creating the three different composites used for testing. The samples in this program included four drill holes near the south end of the Pine Tree-Josephine Deposit.

Three metallurgical domains were identified and composited as follows:

1. Oxide Cap Mineralization (OXC Composite);
2. Sulphide Replacement Mineralization (SRM Composite); and
3. Quartz-hosted Gold Mineralization (QTZ Composite).

The head analysis of these composites is presented in Table 13.28.

| Element | Unit | Composite Analysis | | |
|---------------|------|--------------------|------|------|
| | | OXC | QTZ | SRM |
| Au | g/t | 2.19 | 3.74 | 2.79 |
| Ag | g/t | 1.5 | 1.2 | 1.4 |
| Hg | g/t | 0.07 | 0.05 | 0.11 |
| C (total) | % | 0.62 | 1.3 | 2.07 |
| C (graphitic) | % | 0 | 0 | 0.01 |
| S (total) | % | 0.02 | 0.86 | 1.88 |

Note: OXC = Oxide, QTZ = quartz, SRM = sulphide replacement material.

13.5.1 COMMINATION TESTING

Samples from the SRM and QTZ composites were tested for hardness using the Bond Ball Mill Work Index test. The results are presented in Table 13.29.

| Material | Amount | Unit |
|---------------|--------|---------|
| SRM Composite | 11.2 | kWh/ton |
| | 12.3 | kWh/ton |
| QTZ Composite | 13.0 | kWh/ton |
| | 14.3 | kWh/ton |

Note: QTZ = quartz, SRM = sulphide replacement material.

These results indicate a medium range hardness of the mineralized composite samples.

13.5.2 FLOTATION TESTS

13.5.2.1 ROUGHER FLOTATION KINETIC TESTS

Rougher flotation kinetic tests were completed on the SRM and QTZ composites. Two rougher circuit flotation tests were conducted on each composite at grinds of 150 and 75 µm to identify the effect of grind size on grade and recovery. A one-minute pre-float utilizing only frothier (MIBC) was performed with the objective to remove any naturally floating carbonaceous material. Following the pre-float, four timed rougher concentrates were produced and analyzed separately. The results are summarized in Table 13.30.

| Composite | Grind | Assays | | | Rougher Recovery | | |
|-----------|-------------|-------------|-------------|----------|------------------|-----------|----------|
| | P80 (µm) | Au (g/t) | Ag (g/t) | S (%) | Au (%) | Ag (%) | S (%) |
| SRM | 150 | 16.2 | 8.1 | 9.2 | 95.9 | 78.7 | 92.1 |
| SRM | 74 | 14.6 | 6.7 | 8.6 | 95.4 | 77.3 | 93.6 |
| QTZ | 153 | 33.4 | 13.3 | 6.9 | 95.6 | 78.4 | 95.9 |
| QTZ | 76 | 23.7 | 7.6 | 5 | 95.9 | 74.1 | 96.9 |

Note: QTZ = quartz, SRM = sulphide replacement material.

The grind size appeared to have little effect on the metallurgical grade or recovery. All additional test work was completed at the 150 µm grind size.

The metallurgical relationships found in the rougher flotation stage are illustrated in Fig. 13.2.

FIGURE 13.2 ROUGHER FLOTATION KINETIC RELATIONSHIPS

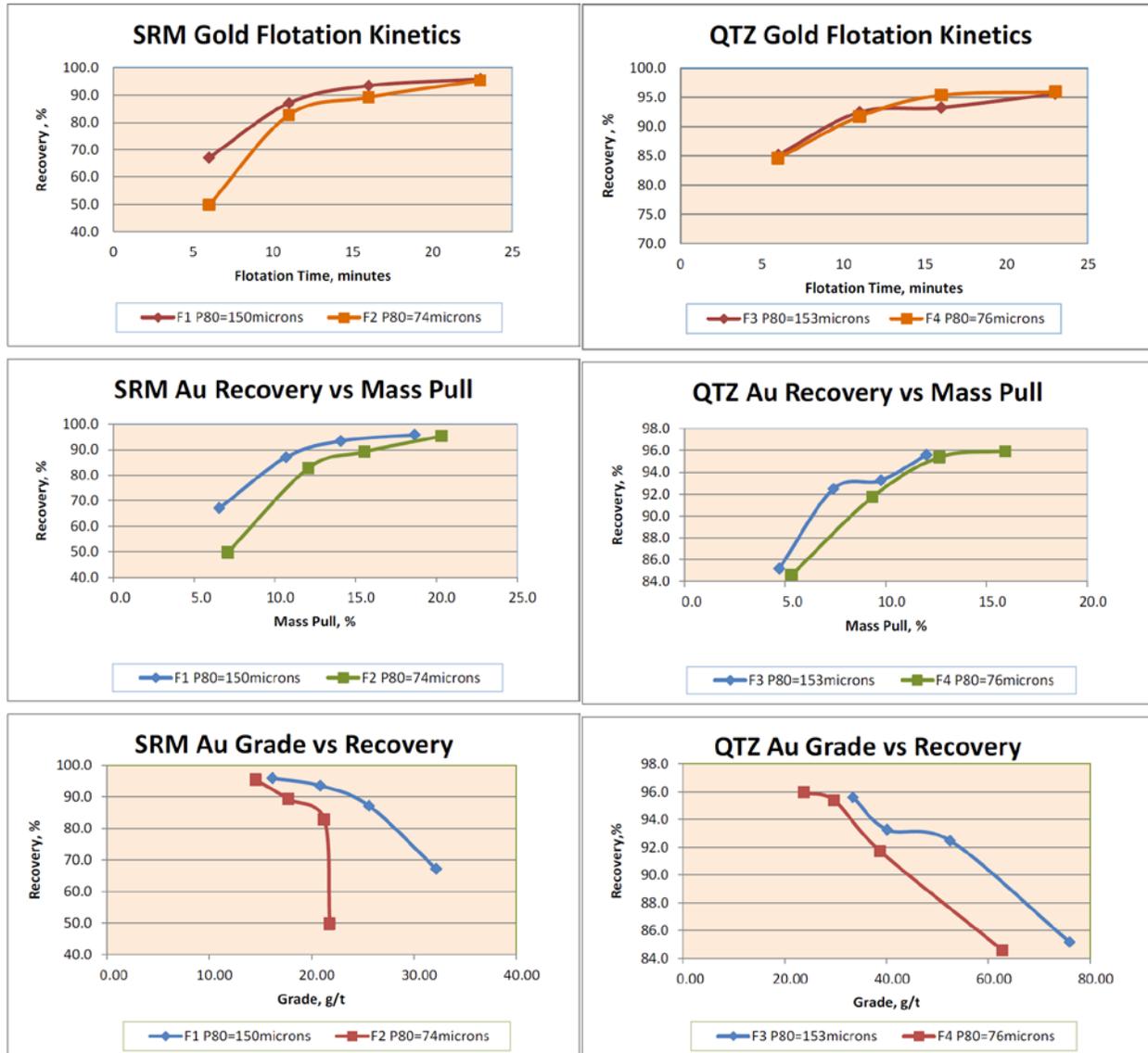


Fig. 13.2 Rougher flotation kinetic relationships. Inspectorate 2014.

13.5.2.2 ROUGHER-CLEANER CIRCUIT FLOTATION TESTS

A single rougher-cleaner circuit test was conducted on each of the SRM and QTZ composites at a primary grind of 150 μm . The rougher concentrate was reground to approximately 30 μm before going to cleaner flotation at a natural pH. The SRM and QTZ cleaner tests produced Au recoveries of 72.9 and 79.5%, respectively. The metallurgical results are presented in Table 13.31.

TABLE 13.31 CLEANER CIRCUIT FLOTATION METALLURGY

| Comp | Feed Grade | | Ro Con | Regrind P80 (µm) | 3rd CC | 3rd Cleaner Concentrates | | | Cleaner Circuit % Recovery | | | Total Circuit % Recovery | | |
|------|------------|----------|-----------|---------------------|-----------|-----------------------------|----------|-------|-------------------------------|-----------|----------|--------------------------|-----------|----------|
| | Au (g/t) | Ag (g/t) | Wt (%) | | Wt (%) | Au (g/t) | Ag (g/t) | S (%) | <u>Au</u> | <u>Ag</u> | <u>S</u> | <u>Au</u> | <u>Ag</u> | <u>S</u> |
| SRM | 2.69 | 1.8 | 16.5 | 30 | 2.6 | 71.4 | 41 | 38.9 | 72.9 | 79.5 | 59.8 | 68.8 | 60.6 | 53.9 |
| QTZ | 3.87 | 1.9 | 10.3 | 24 | 1.4 | 214.8 | 85 | 40.9 | 83.9 | 85.8 | 71.9 | 79.5 | 65.2 | 67.4 |

Note: Comp = Composite, Ro Con = rougher concentrate, CC = cleaner concentrates, QTZ = quartz, SRM = sulphide replacement material.

13.5.3 GRAVITY CONCENTRATION

Gravity concentration tests were conducted at 150 µm for both composites utilizing a laboratory Knelson centrifugal gravity separator. A double pass through the concentrator was followed by an upgrading stage. The results of the gravity separation between both composites are different, likely due to the mineralogical difference and amount of available free gold. The results are presented in the Table 13.32.

| TABLE 13.32 GRAVITY SEPARATION CONCENTRATE PRODUCTION | | | | | |
|---|---------------|----------|----------|--------------|--------|
| Product | Mass Pull (%) | Assay | | Distribution | |
| | | Au (g/t) | Ag (g/t) | Au (%) | Ag (%) |
| SRM Concentrate | 7.4 | 27.63 | 10.4 | 69.5 | 62.6 |
| QTZ Concentrate | 7.1 | 37.57 | 20.7 | 76.7 | 75.9 |

Note: QTZ = quartz, SRM = sulphide replacement material.

13.5.4 COMBINED GRAVITY SEPARATION AND FLOTATION TESTS

Tests were conducted on the SRM and QTZ composites combining the centrifugal gravity separation process and a full flotation circuit. Both samples were ground to the nominal 150 µm. The combination of gravity separation followed by a rougher-cleaner flotation circuit with a regrind stage produced highly encouraging results, as summarized in the Table 13.33.

| TABLE 13.33 COMBINED GRAVITY SEPARATION AND FLOTATION TEST RESULTS | | | | |
|--|--------------|-------------|-----------------|-----------------|
| Circuit | Au (g/t) | Ag (g/t) | Au Recovery (%) | Ag Recovery (%) |
| SRM Composite | | | | |
| Gravity Concentrate | 229.5 | 51.1 | 7.0 | 2.5 |
| Flotation Concentrate | 54.5 | 29.0 | 78.6 | 66.6 |
| Total | 58.1 | 29.5 | 85.6 | 69.1 |
| QTZ Composite | | | | |
| Gravity Concentrate | 1,636.0 | 853.0 | 38.6 | 31.7 |
| Flotation Concentrate | 84.7 | 43.0 | 55.0 | 43.9 |
| Total | 139.0 | 71.4 | 93.6 | 75.6 |

Note: QTZ = quartz, SRM = sulphide replacement material.

13.5.5 CYANIDATION TESTS

13.5.5.1 BOTTLE ROLL DIRECT CYANIDE LEACH TESTS

A 10-day coarse bottle roll cyanidation leach test was conducted on 50 kg of minus 25 mm (1 in) material from the OXC composite. The test was run at a pH of 10.5 with 1.0 g/L NaCN. The gold and silver leached rapidly for 48 hours, slowed for approximately 70 hours and later resumed leaching. At the end of ten days, 93% of the gold and 75% of the silver had been extracted, as demonstrated in Fig. 13.3.

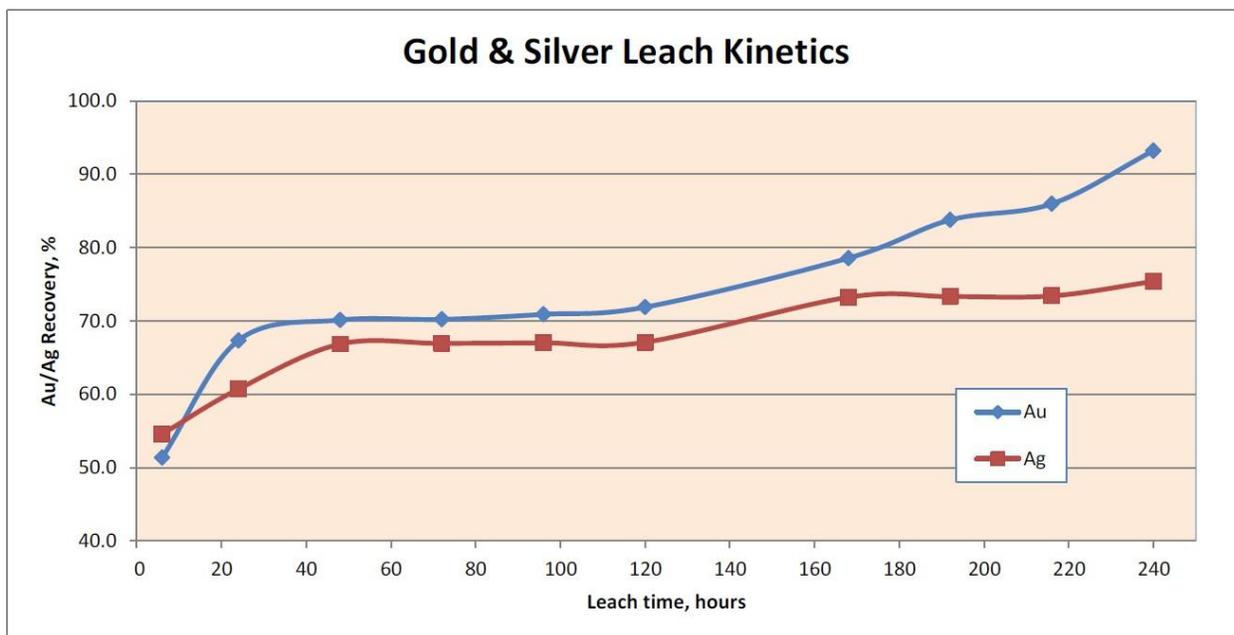


Fig. 13.3 OXC coarse bottle roll leach kinetics. Inspectorate 2014.

A single 72-hour cyanidation test was run on both the SRM and QTZ composites at the nominal grind of 150 µm. The tests were run at 40% solids, pH 10.5, and 1.0 g/L NaCN. The two mineralized material types were not found to be amenable to the cyanidation process. The results are presented in Table 13.34.

| Composite | Extraction | |
|-----------|------------|--------|
| | Au (%) | Ag (%) |
| SRM | <0.5 | 7.3 |
| QTZ | 4.7 | 31.9 |

Note: QTZ = quartz, SRM = sulphide replacement material.

13.5.5.2 BOTTLE ROLL CARBON-IN-LEACH (CIL) TESTS

Two carbon-in-leach (CIL) tests were conducted on the SRM and QTZ composites at the nominal grind of 150 microns. The recoveries were improved over the direct bottle rolls. The results are presented in Table 13.35.

| TABLE 13.35 SRM AND QTZ CIL RESULTS | |
|-------------------------------------|-------------------|
| Composite | Au Extraction (%) |
| SRM | 10.4 |
| QTZ | 38.2 |

Note: QTZ = quartz, SRM = sulphide replacement material, CIL = carbon-in-leach.

13.6 CONCLUSIONS

The historical operations consistently achieved gold recoveries averaging 88.5% with a combined flotation and gravity circuit, as shown in Table 13.1. The locked-cycle test results presented in Table 13.14 show a flotation recovery of 91.3% on a composite sample of Zones 5, 6 and 7. In June/July 1987, Beacon Hill achieved a flotation gold recovery of 89.7% on the composite underground bulk sample.

For the 2014 iteration of test work, the samples were grouped by different metallurgical domains, including SRM and QTZ, for treatment by gravity and flotation. The 2014 Combined Gravity and Flotation recovery for the SRM is 85.6% for gold and 69.1% for silver. The 2014 Combined Gravity and Flotation recovery for the QTZ is 93.6% for gold and 75.6% for silver.

The flotation concentrate was not amenable to cyanidation without further processing. The roasting process was the most effective oxidation process tested for the recovery of gold. Roasting tests were not conducted on the SRM and QTZ samples. However, there has been extensive roasting test work completed and the cyanide leaching of the roasted product (calcine). The tests in the scoping work achieved 92.7% gold recovery and in the pilot campaign conducted by Lurgi achieved 90% gold recovery in cyanidation of the calcine.

There are likely to be metal losses in the roaster, and therefore it is assumed that 97% of the metal sent to the roaster is available for recovery.

The coarse bottle roll on the OXC achieved a gold recovery of 93% in ten days of leaching minus 1 inch material, which confirms that the OXC has reasonable potential for heap leaching. The column leach tests on Zone 5, Zone 6, and Zone 7 oxide cap yielded gold recoveries of 88.1%, 78.8%, and 79.2%, respectively. Since each zone has an oxide cap on the surface, an average laboratory recovery of 82.0% is a reasonable starting point. The estimated process and recoveries are presented in Table 13.36.

| TABLE 13.36 METALLURGICAL PROCESSES AND ESTIMATED RECOVERIES | | | |
|--|--|--------------------------|--------|
| Material | Process | Estimated Final Recovery | |
| | | Au (%) | Ag (%) |
| SRM | Mill, Gravity, Float, Roast, Cyanidation | 74.7 | 60.3 |
| QTZ | Mill, Gravity, Float, Roast, Cyanidation | 81.7 | 66 |
| OXC | Heap Leach | 82 | |

Note: OXC = oxide, QTZ = quartz, SRM = sulphide replacement material.

14.0 MINERAL RESOURCE ESTIMATE

14.1 INTRODUCTION

This mineral resource update was done by BGE as a reconsideration of the resource reported in the 2023 PEA. The estimation work was done by Patrick Hollenbeck, CPG, as an independent consultant under NI 43-101 definition. The effective date of the Mineral Resource Statement is March 5, 2025.

This section summarizes the resource estimation procedures and key assumptions made by BGE in the process of building the geologic model and mineral estimates. In the opinion of BGE, the resource evaluation reported herein is a reasonable representation of the gold mineral resources found at the Fremont Property at the current level of sampling. The mineral resources have been estimated in conformity with generally accepted CIM Estimation of Mineral Resource and Mineral Reserves Best Practices guidelines (2003) and are reported in accordance with the Canadian Securities Administrators' NI 43-101. Mineral resources that are not mineral reserves do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resource will be converted into mineral reserve.

14.2 RESOURCE ESTIMATION PROCEDURES

The 2025 resource update was completed through the following methodology;

- Geologic model review and refinement;
- Definition of mineralized wireframe envelopes;
- Interval compositing;
- High-grade outlier capping review;
- Geostatistical analysis;
- Block model construction and grade estimation;
- Resource classification and validation;
- Cutoff grade selection based on reasonable prospects for economic extraction; and
- Preparation of a mineral resource statement.

14.3 DRILL HOLE DATABASE

The drillhole database consists of 3,513 total drillholes, channel samples, and surface trench samples as seen in Table 14.1, which includes the breakdown of historical data (pre-2000) by type. Table 14.1 provides details for the database used for the resource update, broken down by time period and type. Fig. 14.1 shows a plan view of the collar location for all 3,513 drillholes and channel samples used in the geologic model and estimation process, as well as the Fremont property boundary.

| TABLE 14.1 DATABASE USED FOR THE RESOURCE UPDATE | | |
|--|--------------|----------------|
| Data Type and Era | Collar Count | Total Length m |
| Historical Data Pre-1940s | 2865 | 2945.44 |
| Channel Samples | 2693 | 2723.83 |
| DD Hist | 172 | 221.61 |
| 1980s Data | 347 | 525.66 |
| RC Drilling | 347 | 525.66 |
| Modern Data 2000s | 301 | 367.67 |
| DD | 283 | 340.67 |
| Trenches | 18 | 27 |
| Grand Total | 3513 | 3838.77 |

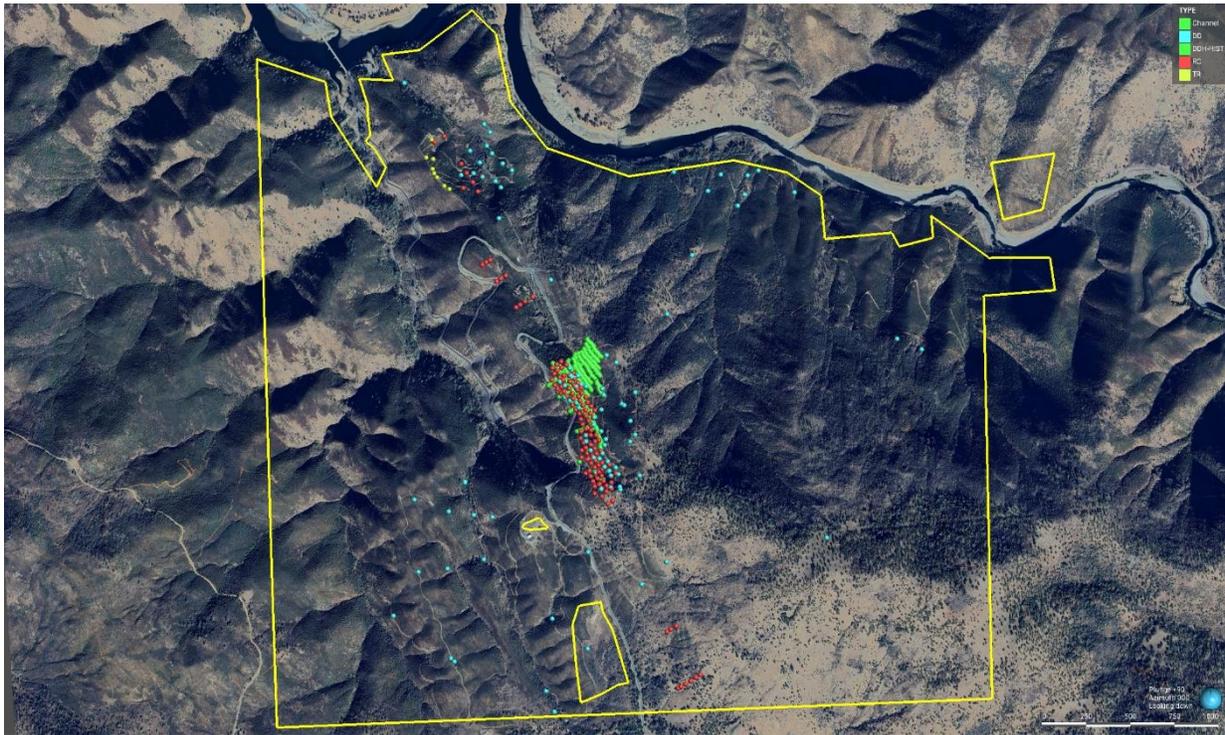


Fig. 14.1 Drillhole Collar Positions Relative to Property Boundary for Holes Used in the Fremont Mineral Resource Update, Plan View. BGE 2025.

There are 32,767 total samples available in the database, of which 6,254 were used for the mineralization domains and resource estimation. Table 14.2 provides length-weighted general statistics for the samples used in the modeling process.

| TABLE 14.2 LENGTH-WEIGHTED GENERAL STATISTICS FOR GOLD SAMPLES USED IN THE 2025 RESOURCE UPDATE | |
|--|---------------|
| | Au ppm |
| Count | 6,254 |
| Length | 7450.96 |
| Mean | 4.30 |
| SD | 6.81 |
| CV | 1.58 |
| Variance | 46.36 |
| Minimum | 0.004 |
| Q1 | 1.3 |
| Q2 | 2.6 |
| Q3 | 4.79 |
| Maximum | 130.95 |

The database was provided to BGE as part of a complete Leapfrog Geo project, from which general data quality checks were undertaken in order to ensure the input data was valid and without obvious errors such as overlapping grade intervals. However, assay certificates, QA/QC results, and other database validation results were not reviewed by BGE as a part of this study. BGE is reliant upon the 2023 PEA authors to have performed relevant and required database confirmation and QA/QC examination, and refers the reader to that report.

The database, given the age disparity between the original pre-1940s sampling and the more modern 2000s drilling, was examined to verify if the sample values were relatively consistent in a spatial context. To this end, a database filter was set up using X10-Geo statistical software to restrict samples from the “historical” pre-2000 data to within 20m of the “modern” post-2000 drilling. For this study, the closest historical sample to the modern data was used to avoid over-smoothing the comparison. QQ plots were built for each vein to visualize the grade variability between the two data populations in each vein, and are shown in Fig. 14.2 and Fig. 14.3. Generally, the data trends higher in the Historical data for veins 1000 and 5000, but higher in the Modern drilling in veins 2000 and 3000. Veins 4000 and 6000 did not show a bias towards either dataset.

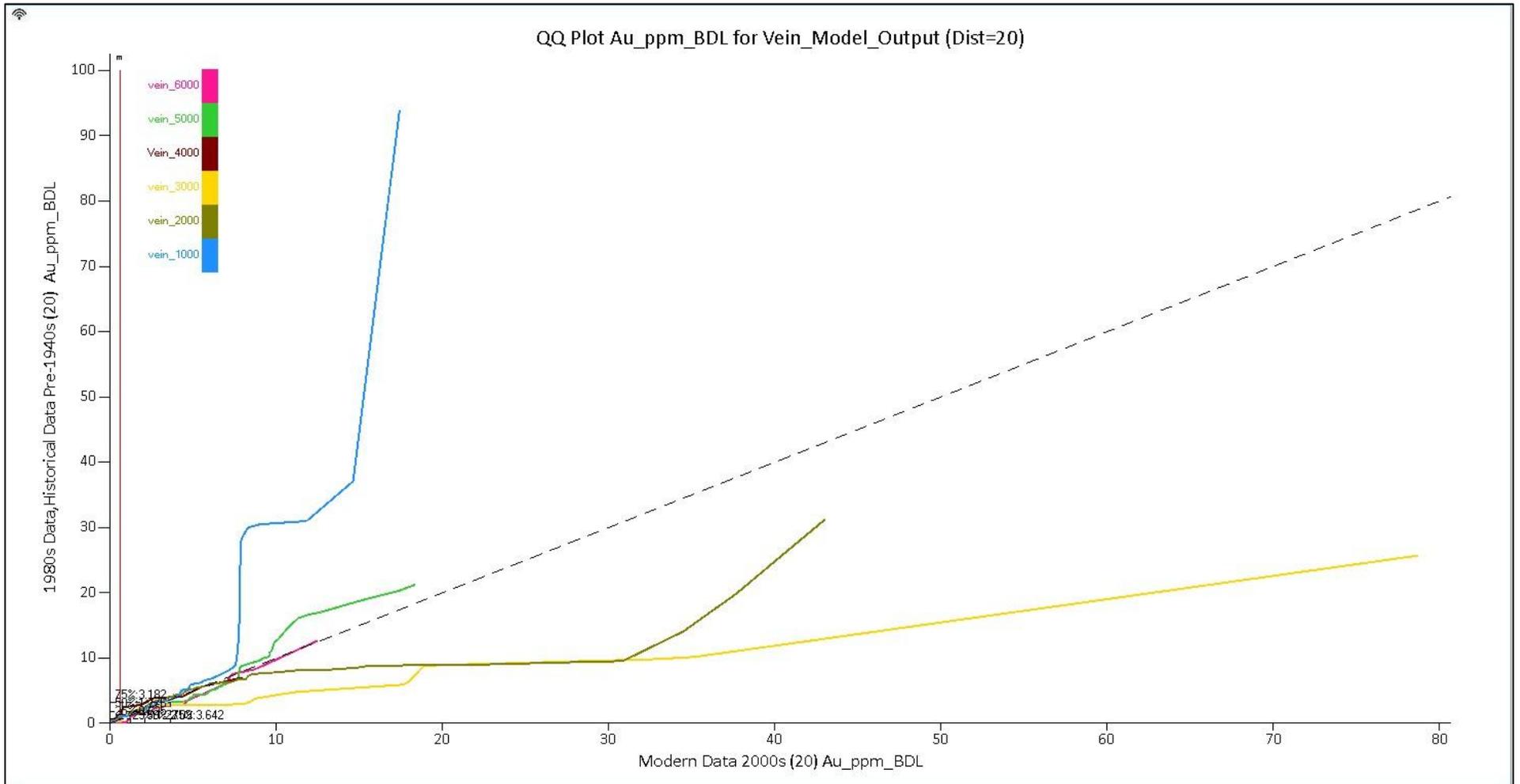


Fig. 14.2 Q-Q Plot of Au Grades in Modern Drilling (X axis) vs Historical Drilling (Y axis) within 20m of each other, Broken Down by Vein, Pine Tree/Josephine Area. BGE

2025.

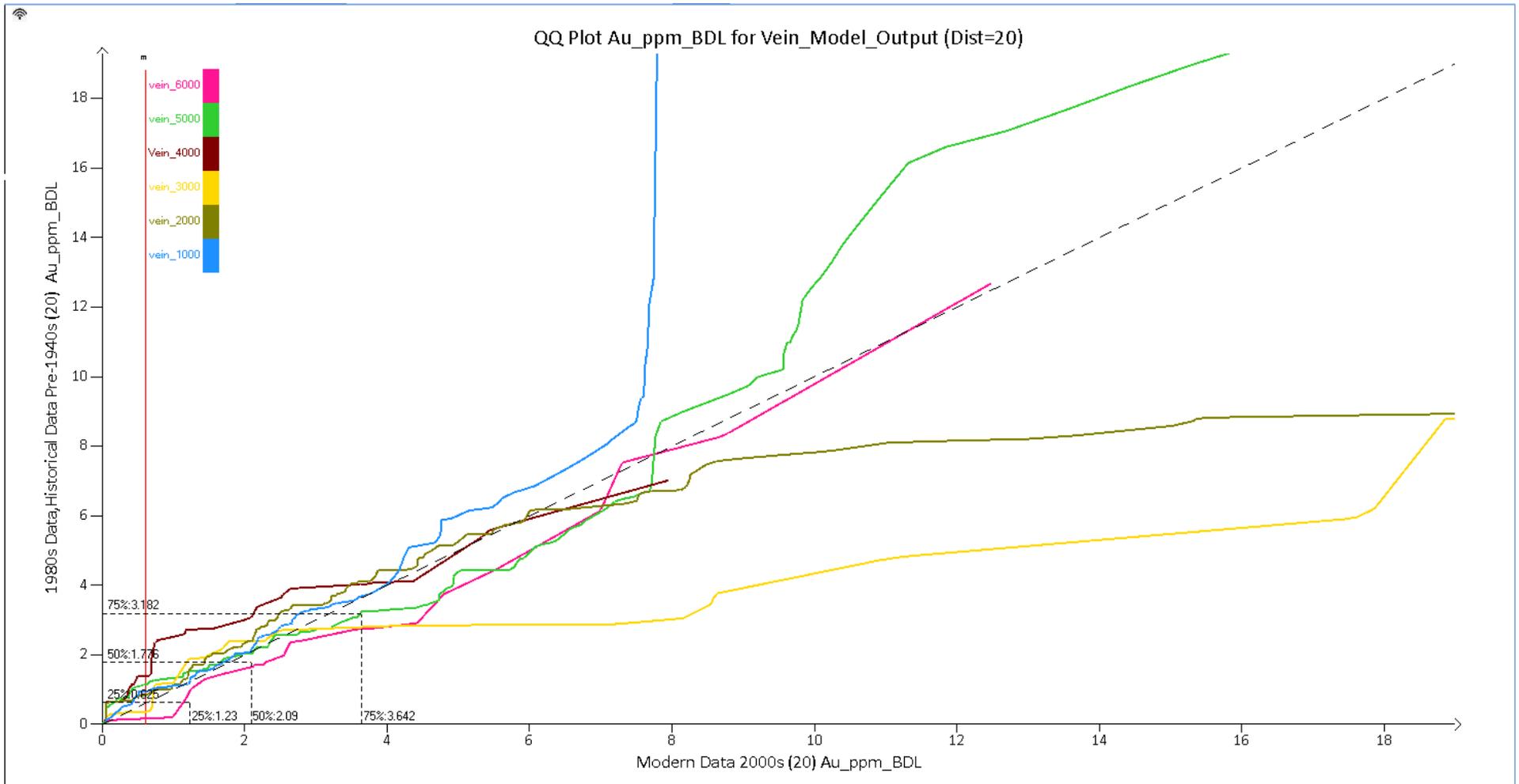


Fig. 14.3 Q-Q Plot of Au Grades in Modern Drilling (X axis) vs Historical Drilling (Y axis) within 20m of each other, Broken Down by Vein, Pine Tree/Josephine Area, zoomed in to Show Details in Population Majority. BGE 2025.

TABLE 14.3 COMPARATIVE STATISTICS FOR MODERN AND HISTORICAL SAMPLES WITHIN 20M OF EACH OTHER

| Domain | Data | Column | Count | Min | Max | Mean | Total | Variance | StDev | CV | Skewness | Kurtosis | GeomMean | Median |
|-----------|-----------------|------------|-------|-------|-------|-------|-------|----------|--------|------|----------|----------|----------|--------|
| vein_1000 | Modern Drilling | Au_ppm_BDL | 101 | 0.05 | 17.41 | 2.781 | 327.7 | 6.1 | 2.471 | 0.89 | 2.1 | 7.87 | 1.841 | 2.09 |
| | Historical Data | Au_ppm_BDL | 101 | 0.06 | 93.93 | 3.785 | 533.7 | 40 | 6.324 | 1.67 | 8.17 | 103.5 | 2.239 | 2.092 |
| vein_2000 | Modern Drilling | Au_ppm_BDL | 136 | 0.05 | 43.02 | 3.602 | 435.4 | 27.79 | 5.271 | 1.46 | 4.55 | 27.03 | 1.862 | 2.209 |
| | Historical Data | Au_ppm_BDL | 136 | 0.03 | 31.26 | 3.339 | 674.4 | 10.94 | 3.308 | 0.99 | 4.85 | 38.78 | 2.253 | 2.74 |
| vein_3000 | Modern Drilling | Au_ppm_BDL | 21 | 0.05 | 78.72 | 8.058 | 222.6 | 337.1 | 18.362 | 2.28 | 3.72 | 16.44 | 2.171 | 1.713 |
| | Historical Data | Au_ppm_BDL | 21 | 0.24 | 25.71 | 3.454 | 107.2 | 27 | 5.196 | 1.5 | 3.77 | 17.92 | 1.917 | 2.25 |
| Vein_4000 | Modern Drilling | Au_ppm_BDL | 31 | 0.02 | 7.95 | 1.441 | 47.68 | 3.19 | 1.786 | 1.24 | 2.08 | 5.18 | 0.575 | 0.725 |
| | Historical Data | Au_ppm_BDL | 31 | 0.13 | 7.02 | 2.215 | 105.6 | 2.71 | 1.645 | 0.74 | 0.89 | 1.04 | 1.486 | 2.243 |
| vein_5000 | Modern Drilling | Au_ppm_BDL | 103 | 0.004 | 18.34 | 3.558 | 338.5 | 10.13 | 3.183 | 0.89 | 1.56 | 3.59 | 1.862 | 2.656 |
| | Historical Data | Au_ppm_BDL | 103 | 0.03 | 21.25 | 3.574 | 559.6 | 12.82 | 3.58 | 1 | 2.53 | 7.71 | 2.262 | 2.57 |
| vein_6000 | Modern Drilling | Au_ppm_BDL | 16 | 0.05 | 12.48 | 3.683 | 62.31 | 13.1 | 3.619 | 0.98 | 1.49 | 2.32 | 1.776 | 2.279 |
| | Historical Data | Au_ppm_BDL | 16 | 0.06 | 12.68 | 3.13 | 72.86 | 12.04 | 3.471 | 1.11 | 1.79 | 3.61 | 1.484 | 1.776 |

14.4 DOMAIN MODELING

14.4.1 GEOLOGIC MODEL

The Fremont geologic model consists of 12 total veins, including 6 veins in the Pine Tree/Josephine area and four in the Queen Specimen, including the extension of the largest vein 1000 through both areas. The vein model was built by Lode Gold geologists in Leapfrog Geo software, using high gold grades (above 4 ppm in most cases) to identify the vein intercepts. The model was reviewed by BGE and found to have been made using standard methodology and no issues were identified, and only minor adjustments were made. No other geologic controls or domains were considered for the purposes of this project. Fig. 14.4 through Fig. 14.6 show examples of the geologic model in long section (perpendicular to the vein trend), plan view, and cross-sectional view respectively. Table 14.4 provides the number of data intervals utilized for creating the geologic model.

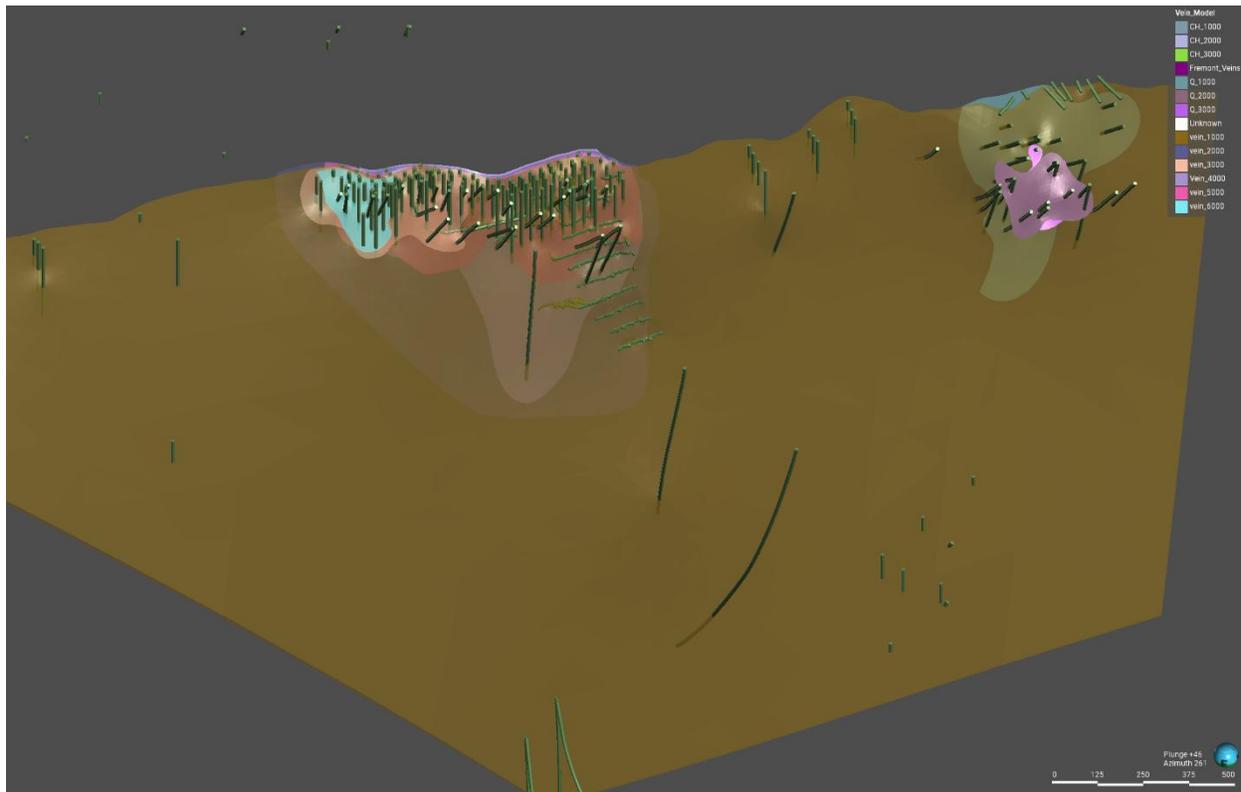


Fig. 14.4 Long Section View of Veins and Drilling in the Fremont Project Area, Looking South-West. BGE 2025.

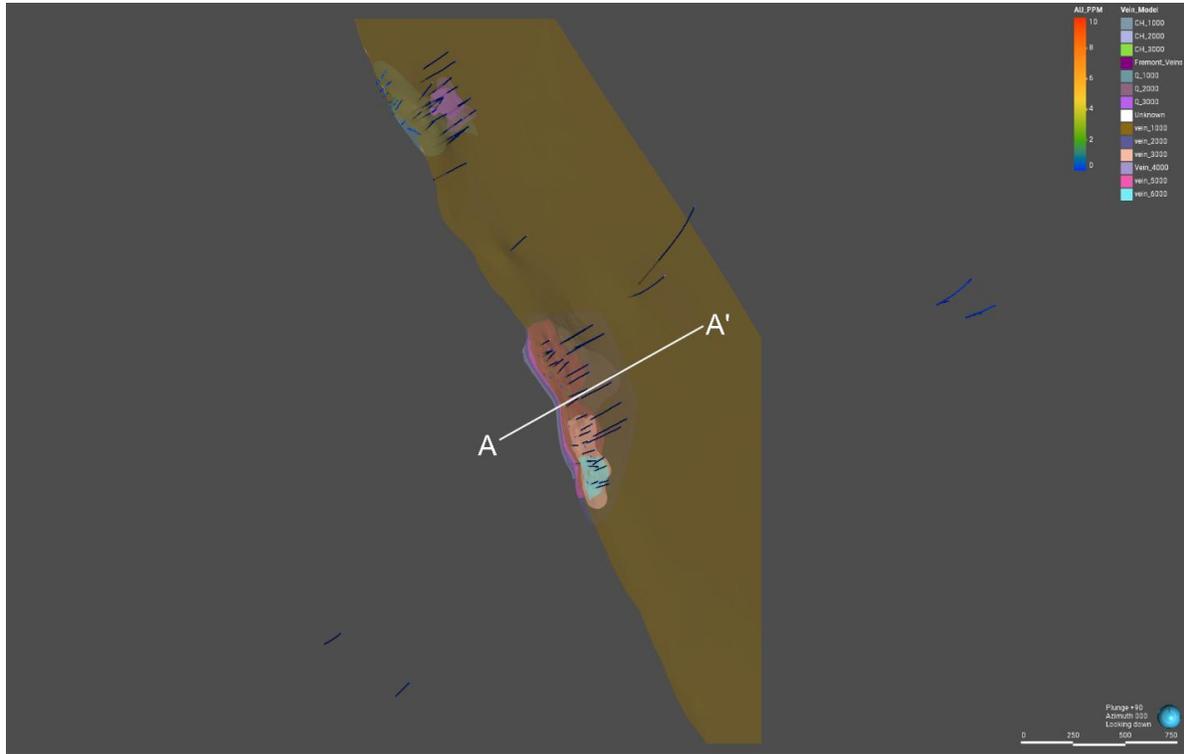


Fig. 14.5 Location of Geological Cross Section in next figure, shown relative to drillhole traces. BGE 2025.

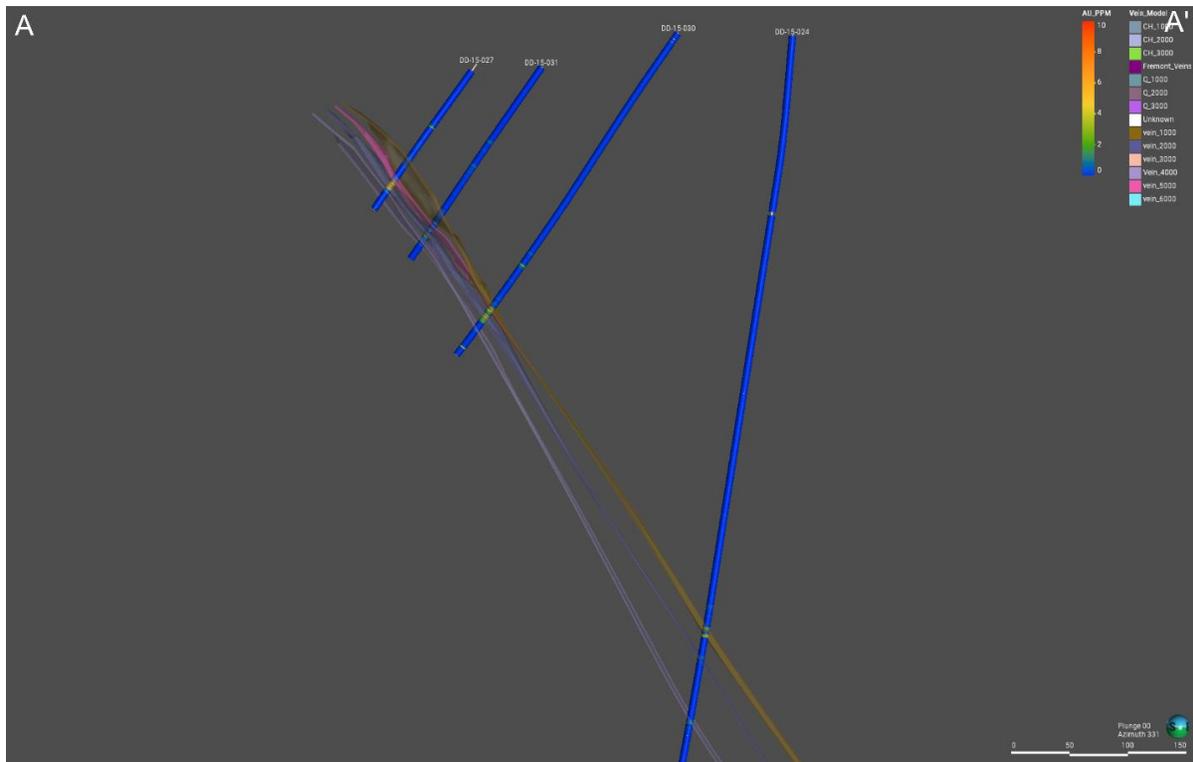


Fig. 14.6 Geologic Cross-Section A-A', Showing Drillhole Traces Piercing the Pine Tree/Josephine Vein System. BGE 2025.

| Area | Domain | Count |
|-----------------------|-----------|-------|
| Pine Tree - Josephine | vein_1000 | 3513 |
| | vein_2000 | 1520 |
| | vein_3000 | 106 |
| | Vein_4000 | 317 |
| | vein_5000 | 717 |
| | vein_6000 | 50 |
| Queen Specimen | Q_1000 | 48 |
| | Q_2000 | 31 |
| | Q_3000 | 12 |

In addition to the modeled veins, the area surrounding the veins was considered to have “Disseminated” mineralization and was also included in the subsequent resource modeling steps.

14.4.2 MINERALIZED ENVELOPE

The Pine Tree – Josephine veins were sub-domained to differentiate mineralized from non-mineralized (or sub-economic) material, which in turn would provide stationarity to the estimations, i.e. the expectation that an average grade should be present in any non-sampled portion of a given domain. Mineralized envelopes were created using an implicit “Indicator” model in Leapfrog Geo software; this approach considers samples above a given cutoff to be “inside” the domain, but changing the values to binary 0 and 1 values, thereby removing the influence of high-grade outliers on the shape of the final envelope, while also considering a probability of grade within the shell. The cutoff grades for mineralization varied per vein, and were based on populations breaks observed in histogram distributions of the data within each vein, as seen in Fig. 14.8. The “Indicator” shells utilize an additional “Probability” parameter, which effectively specifies the probability that all material within an indicator is at or above the cutoff. Probability values were set at 50% on all indicators with exception of veins 5000 and 6000, which were set to 60% and 55% respectively, in order to sufficiently constrain the mineralized zones without allowing “blowouts” to occur, in which the model swells in areas where a high-grade intercept is not flanked by lower-grade material.

The mineralization in the veins is known to follow an “ore-shoot” style of deposition, wherein crossing faults allow apertures to expand and contract along the trend of a given vein; areas where the apertures have expanded tend to result in gold mineralization, and mineralization is lacking where the apertures have contracted. Known crossing faults have been built in the Leapfrog project, and while they weren’t used directly to offset and manipulate the geologic

model, their presence was used to help drive the shape of the mineralized envelopes. To this end, a “structural trend” was built in Leapfrog Geo using the crossing faults as the primary surfaces for the trend. Application of this structural trend in the mineralized envelope calculation resulted in the formation of the expected “chutes” vertically projecting from areas of mineralization, and conversely clipping out the low-grade or non-mineralized material into chutes of their own. Fig. 14.7 provides a plan-view cross-sectional example of the faults and the resulting mineralized envelope in Vein 1000.

Sample and volume statistics for the two mineralization shells are presented in Table 14.5, while a long-section view of the mineralized (red) and non-mineralized (blue) zones of Vein 1000 are shown in Fig. 14.9.

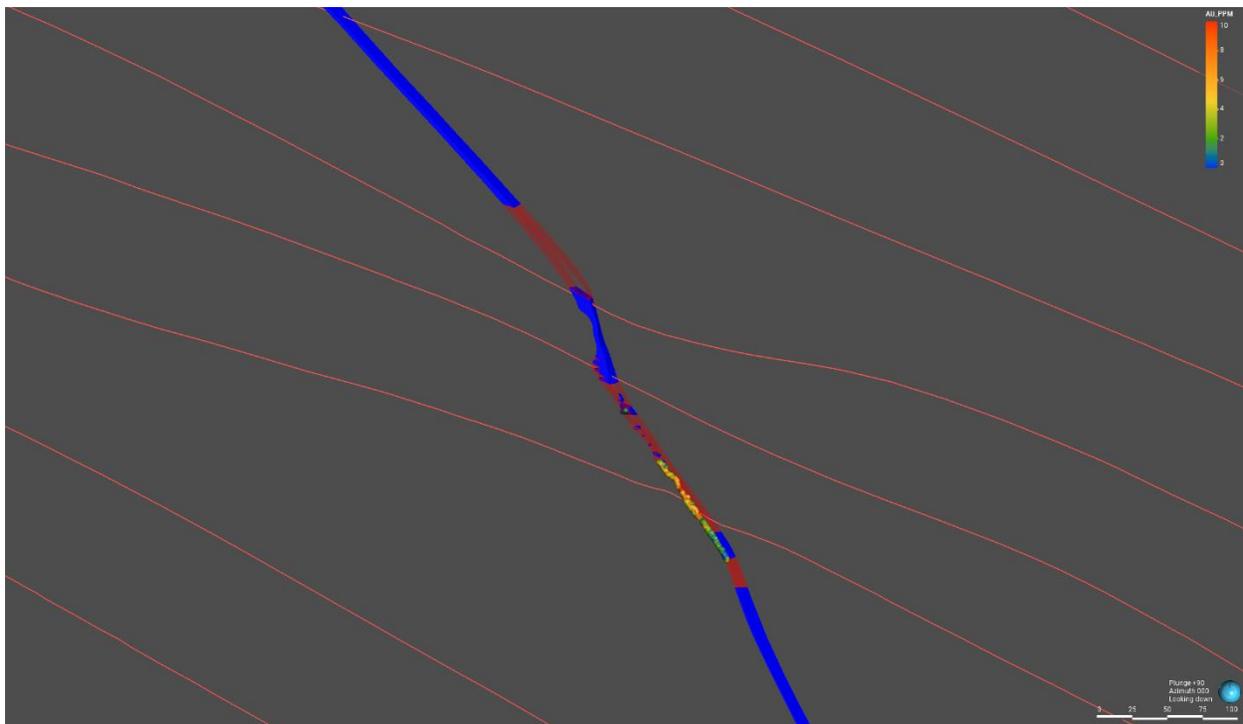


Fig. 14.7 Plan-View Section of Vein 1000 Mineralized Zones Relative to Crossing Faults. BGE 2025.

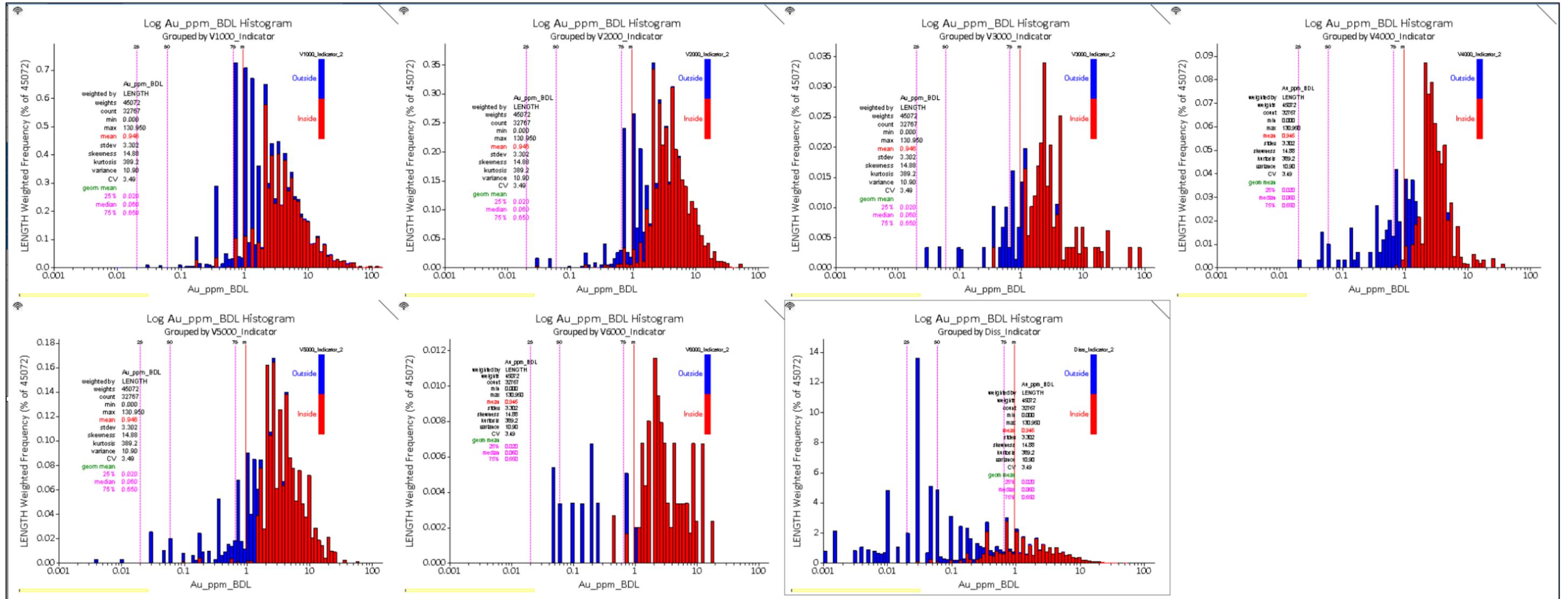


Fig. 14.8 Log-Transformed Histograms of Au Grades for Indicator Cutoffs – Blue are Below Cut-off; Red is Above Cutoff. BGE 2025.

TABLE 14.5 PRIMARY AND HIGH-GRADE MINERALIZED ENVELOPE STATISTICS INCLUDING SAMPLE STATISTICS AND VOLUMETRICS

| Vein 1000 | | | Vein 2000 | | | Vein 3000 | | | Vein 4000 | | | Vein 5000 | | | Vein 6000 | | | Disseminated | | |
|--------------------------|---------------|----------------|--------------------------|---------------|-------------|--------------------------|-------------|-----------|--------------------------|-------------|-------------|--------------------------|-------------|-------------|--------------------------|-----------|-----------|--------------------------|----------------|-------------------|
| Total number of samples | 3,513 | | Total number of samples | 1,520 | | Total number of samples | 106 | | Total number of samples | 317 | | Total number of samples | 717 | | Total number of samples | 50 | | Total number of samples | 29,146 | |
| Cut-off value | 1.75 | | Cut-off value | 1.7 | | Cut-off value | 1.2 | | Cut-off value | 1.5 | | Cut-off value | 1.5 | | Cut-off value | 1 | | Cut-off value | 0.3 | |
| | ≥ cut-off | < cut-off | | ≥ cut-off | < cut-off | | ≥ cut-off | < cut-off | | ≥ cut-off | < cut-off | | ≥ cut-off | < cut-off | | ≥ cut-off | < cut-off | | ≥ cut-off | < cut-off |
| Number of points | 2,144 | 1,369 | Number of points | 1,116 | 404 | Number of points | 77 | 29 | Number of points | 201 | 116 | Number of points | 530 | 187 | Number of points | 38 | 12 | Number of points | 11,510 | 17,636 |
| Percentage | 61.03% | 38.97% | Percentage | 73.42% | 26.58% | Percentage | 72.64% | 27.36% | Percentage | 63.41% | 36.59% | Percentage | 73.92% | 26.08% | Percentage | 76.00% | 24.00% | Percentage | 39.49% | 60.51% |
| Mean value | 7.69 | 0.96 | Mean value | 5.35 | 0.93 | Mean value | 6.07 | 0.59 | Mean value | 3.85 | 0.68 | Mean value | 5.22 | 0.75 | Mean value | 4.31 | 0.32 | Mean value | 3.07 | 0.06 |
| Minimum value | 1.75 | 0.01 | Minimum value | 1.71 | 0.03 | Minimum value | 1.20 | 0.03 | Minimum value | 1.50 | 0.02 | Minimum value | 1.50 | 0.00 | Minimum value | 1.20 | 0.05 | Minimum value | 0.30 | 0.00 |
| Maximum value | 130.95 | 1.74 | Maximum value | 51.42 | 1.68 | Maximum value | 78.72 | 1.16 | Maximum value | 34.28 | 1.44 | Maximum value | 58.96 | 1.47 | Maximum value | 18.41 | 0.99 | Maximum value | 130.95 | 0.29 |
| Standard deviation | 11.581 | 0.446 | Standard deviation | 4.573 | 0.405 | Standard deviation | 11.254 | 0.336 | Standard deviation | 3.484 | 0.431 | Standard deviation | 4.860 | 0.461 | Standard deviation | 3.763 | 0.301 | Standard deviation | 6.360 | 0.066 |
| Coefficient of variance | 1.507 | 0.464 | Coefficient of variance | 0.854 | 0.436 | Coefficient of variance | 1.855 | 0.570 | Coefficient of variance | 0.904 | 0.633 | Coefficient of variance | 0.931 | 0.616 | Coefficient of variance | 0.874 | 0.935 | Coefficient of variance | 2.071 | 1.085 |
| Variance | 134.122 | 0.199 | Variance | 20.910 | 0.164 | Variance | 126.64 2 | 0.113 | Variance | 12.140 | 0.186 | Variance | 23.620 | 0.212 | Variance | 14.159 | 0.090 | Variance | 40.452 | 0.004 |
| Output volume statistics | | | Output volume statistics | | | Output volume statistics | | | Output volume statistics | | | Output volume statistics | | | Output volume statistics | | | Output volume statistics | | |
| Resolution | 2 | | Resolution | 2 | | Resolution | 2 | | Resolution | 2 | | Resolution | 1 | | Resolution | 2 | | Resolution | 2 | |
| Iso-value (Probability) | 0.5 | | Iso-value (Probability) | 0.5 | | Iso-value (Probability) | 0.5 | | Iso-value (Probability) | 0.5 | | Iso-value (Probability) | 0.55 | | Iso-value (Probability) | 0.6 | | Iso-value (Probability) | 0.5 | |
| | Inside | Outside | | Inside | Outside | | Inside | Outside | | Inside | Outside | | Inside | Outside | | Inside | Outside | | Inside | Outside |
| ≥ cut-off | | | ≥ cut-off | | | ≥ cut-off | | | ≥ cut-off | | | ≥ cut-off | | | ≥ cut-off | | | ≥ cut-off | | |
| Number of samples | 1,983 | 161 | Number of samples | 1,098 | 18 | Number of samples | 76 | 1 | Number of samples | 200 | 1 | Number of samples | 523 | 7 | Number of samples | 38 | 0 | Number of samples | 10,298 | 1212 |
| Percentage | 56.45% | 4.58% | Percentage | 72.24% | 1.18% | Percentage | 71.70% | 0.94% | Percentage | 63.09% | 0.32% | Percentage | 72.94% | 0.98% | Percentage | 76.00% | 0.00% | Percentage | 35.33% | 4.16% |
| < cut-off | | | < cut-off | | | < cut-off | | | < cut-off | | | < cut-off | | | < cut-off | | | < cut-off | | |
| Number of samples | 249 | 1,120 | Number of samples | 82 | 322 | Number of samples | 1 | 28 | Number of samples | 10 | 106 | Number of samples | 8 | 179 | Number of samples | 2 | 10 | Number of samples | 857 | 16,779 |
| Percentage | 7.09% | 31.88% | Percentage | 5.39% | 21.18% | Percentage | 0.94% | 26.42% | Percentage | 3.15% | 33.44% | Percentage | 1.12% | 24.97% | Percentage | 4.00% | 20.00% | Percentage | 2.94% | 57.57% |
| All points | | | All points | | | All points | | | All points | | | All points | | | All points | | | All points | | |
| Mean value | 7.10 | 1.52 | Mean value | 5.09 | 1.02 | Mean value | 6.02 | 0.71 | Mean value | 3.72 | 0.68 | Mean value | 5.19 | 0.82 | Mean value | 4.12 | 0.27 | Mean value | 3.08 | 0.12 |
| Minimum value | 0.17 | 0.01 | Minimum value | 0.03 | 0.03 | Minimum value | 0.34 | 0.03 | Minimum value | 0.68 | 0.02 | Minimum value | 0.10 | 0.00 | Minimum value | 0.44 | 0.05 | Minimum value | 0.01 | 0.00 |
| Maximum value | 130.95 | 47.99 | Maximum value | 51.42 | 5.48 | Maximum value | 78.72 | 3.90 | Maximum value | 34.28 | 4.69 | Maximum value | 58.96 | 4.11 | Maximum value | 18.41 | 0.99 | Maximum value | 130.95 | 34.73 |
| Standard deviation | 11.393 | 2.870 | Standard deviation | 4.576 | 0.641 | Standard deviation | 11.270 | 0.688 | Standard deviation | 3.458 | 0.575 | Standard deviation | 4.877 | 0.605 | Standard deviation | 3.757 | 0.303 | Standard deviation | 6.446 | 0.512 |
| Coefficient of variance | 1.604 | 1.888 | Coefficient of variance | 0.900 | 0.628 | Coefficient of variance | 1.872 | 0.966 | Coefficient of variance | 0.930 | 0.847 | Coefficient of variance | 0.940 | 0.737 | Coefficient of variance | 0.912 | 1.107 | Coefficient of variance | 2.094 | 4.444 |
| Variance | 129.808 | 8.236 | Variance | 20.937 | 0.411 | Variance | 127.00 5 | 0.474 | Variance | 11.961 | 0.331 | Variance | 23.787 | 0.366 | Variance | 14.119 | 0.092 | Variance | 41.556 | 0.262 |
| Volume | 1,508,00 0 | 13,443,00 0 | Volume | 1,296,70 0 | 351,46 0 | Volume | 86,586 | 36,019 | Volume | 306,26 0 | 263,61 0 | Volume | 360,73 0 | 183,97 0 | Volume | 35,139 | 14,859 | Volume | 16,887,00 0 | 1,679,700,00 0 |
| Number of parts | 67 | 131 | Number of parts | 30 | 82 | Number of parts | 5 | 13 | Number of parts | 9 | 12 | Number of parts | 25 | 38 | Number of parts | 1 | 3 | Number of parts | 187 | 186 |

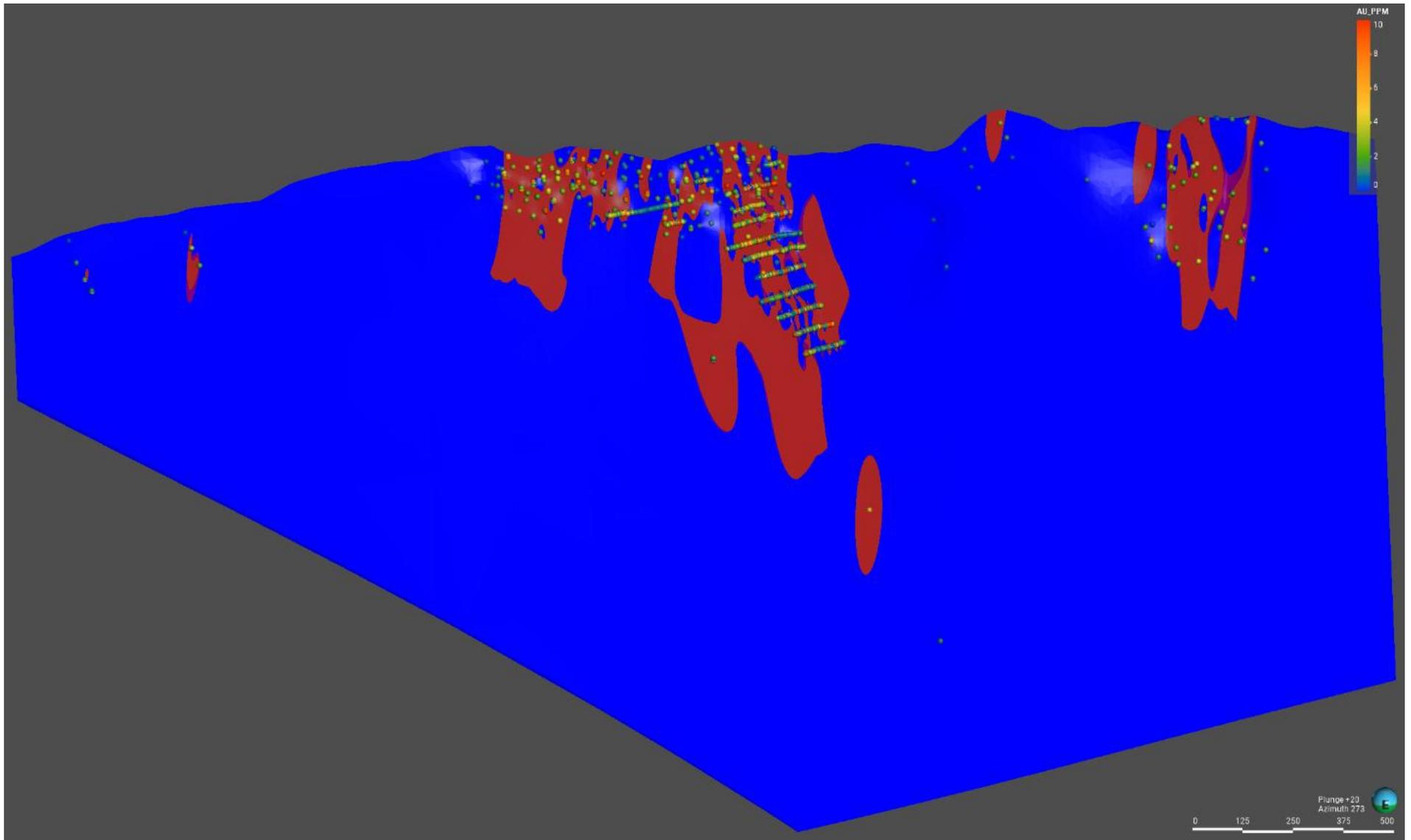


Fig. 14.9 Ore (red) and Waste (Blue) Mineralization Shells Within Vein 1000 with Associated Au samples displayed, Long-section View. BGE 2025.

14.5 BULK DENSITY

Conforming with the average rock density defined in the 2023 PEA report, a bulk density of 2.76 tons per cubic meter was used for all domains.

14.6 COMPOSITING

Compositing was done on 3m intervals through the mineralized zones. No limit on residual samples was applied due to the variable width of the veins – a restriction on residuals could result in a stand-alone sample being left out of the estimation entirely. The composite length was selected as an approximation of double the 1.52m average sample length, and was primarily done to normalize outlier values as well as to reduce noise for the purposes of variography. The compositing parameters for the different veins are provided in Table 14.6; histogram grade distributions of the composites are shown in Fig. 14.10 through Fig. 14.14 for the Pine Tree-Josephine veins.

TABLE 14.6 COMPOSITING PARAMETERS

| Compositing | | | | | | |
|--------------|-----------------|------------------|---------------------|---------------------|------------------|----------------------|
| Domain | Composite in | Composite length | Residual End Length | End Length Handling | Min Coverage pct | Additional Weighting |
| Vein 1000 | Within boundary | 3 | 0 | Discarded | 10 | |
| Vein 2000 | Within boundary | 3 | 0 | Discarded | 10 | |
| Vein 3000 | No Compositing | | | | | |
| Vein 4000 | Within boundary | 3 | 0 | Discarded | 10 | |
| Vein 5000 | Within boundary | 3 | 0 | Discarded | 10 | |
| Vein 6000 | No Compositing | | | | | |
| Disseminated | Within boundary | 3 | 0 | Discarded | 10 | |

| Compositing | | | | | | |
|--------------|-----------------|------------------|---------------------|---------------------|------------------|----------------------|
| Domain | Composite in | Composite length | Residual End Length | End Length Handling | Min Coverage pct | Additional Weighting |
| Vein 1000 | Within boundary | 3 | 0 | Discarded | 10 | |
| Vein 2000 | Within boundary | 3 | 0 | Discarded | 10 | |
| Vein 3000 | No Compositing | | | | | |
| Vein 4000 | Within boundary | 3 | 0 | Discarded | 10 | |
| Vein 5000 | Within boundary | 3 | 0 | Discarded | 10 | |
| Vein 6000 | No Compositing | | | | | |
| Disseminated | Within boundary | 3 | 0 | Discarded | 10 | |

| | | | | | | |
|----------------|----------------|--|--|--|--|--|
| Queen Specimen | No Compositing | | | | | |
|----------------|----------------|--|--|--|--|--|

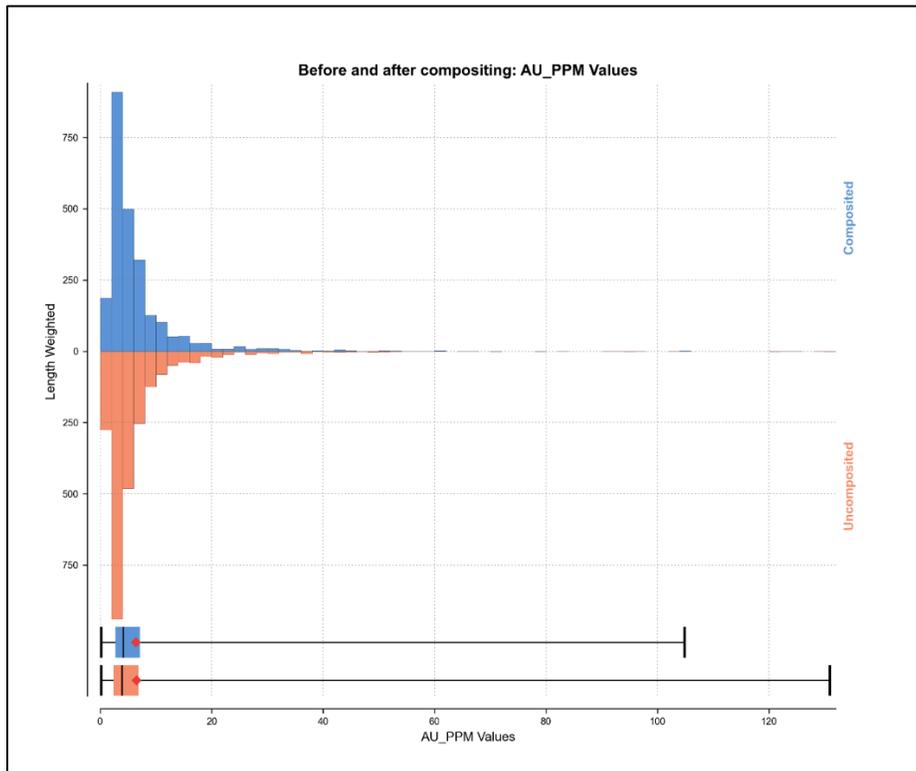


Fig. 14.10 Interval Grade Comparison Histogram for Vein 1000 Composites. BGE 2025.

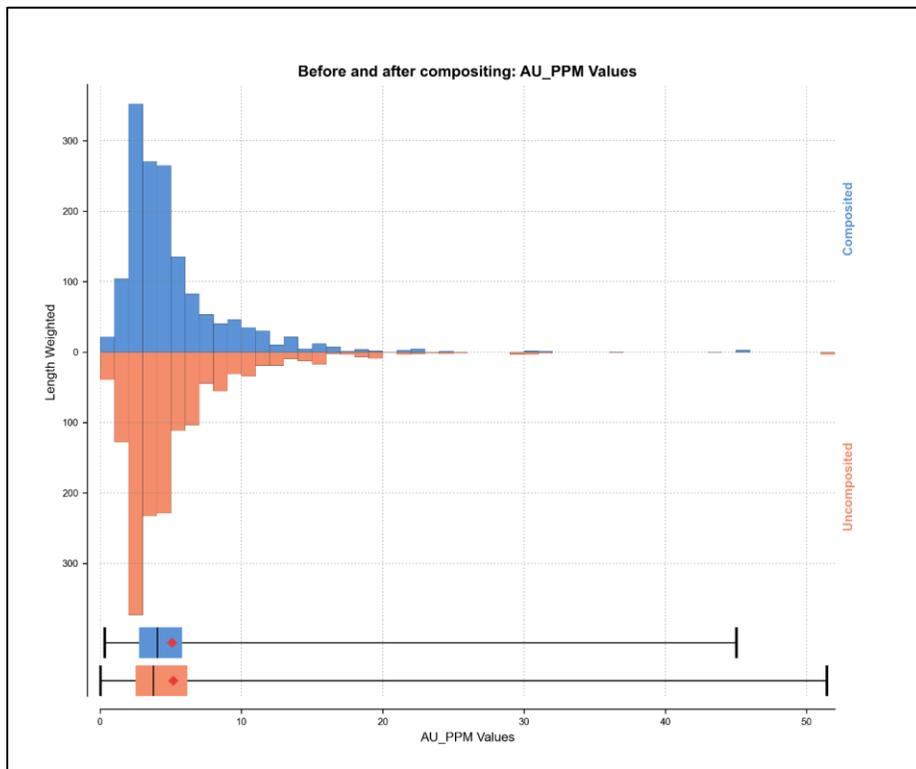


Fig. 14.11 Interval Grade Comparison Histogram for Vein 2000 Composites. BGE 2025.

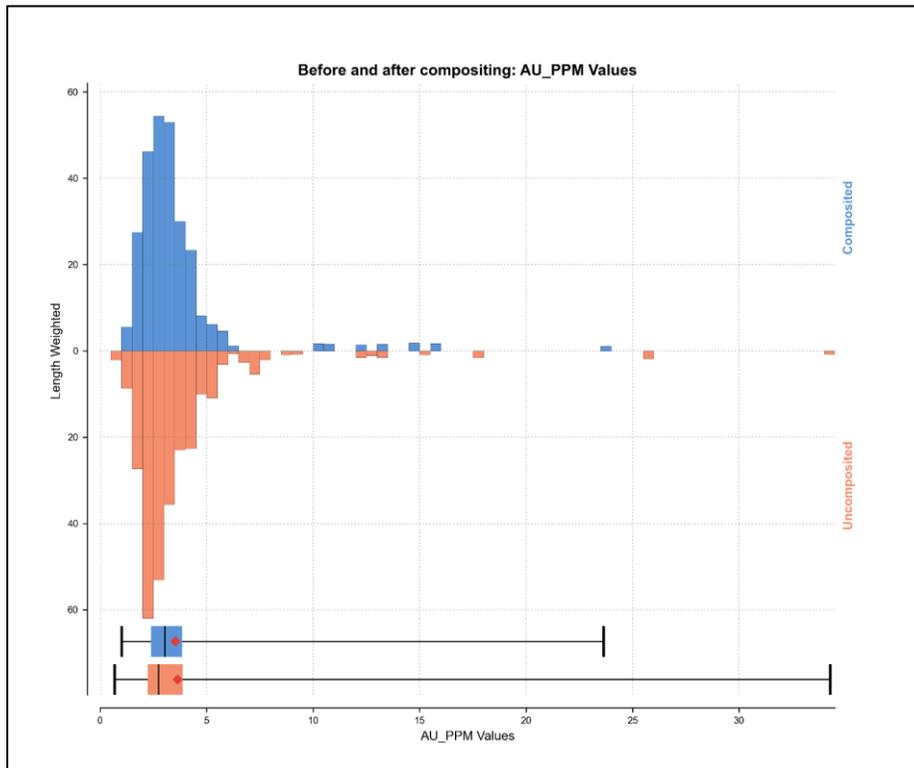


Fig. 14.12 Interval Grade Comparison Histogram for Vein 4000 Composites. BGE 2025.

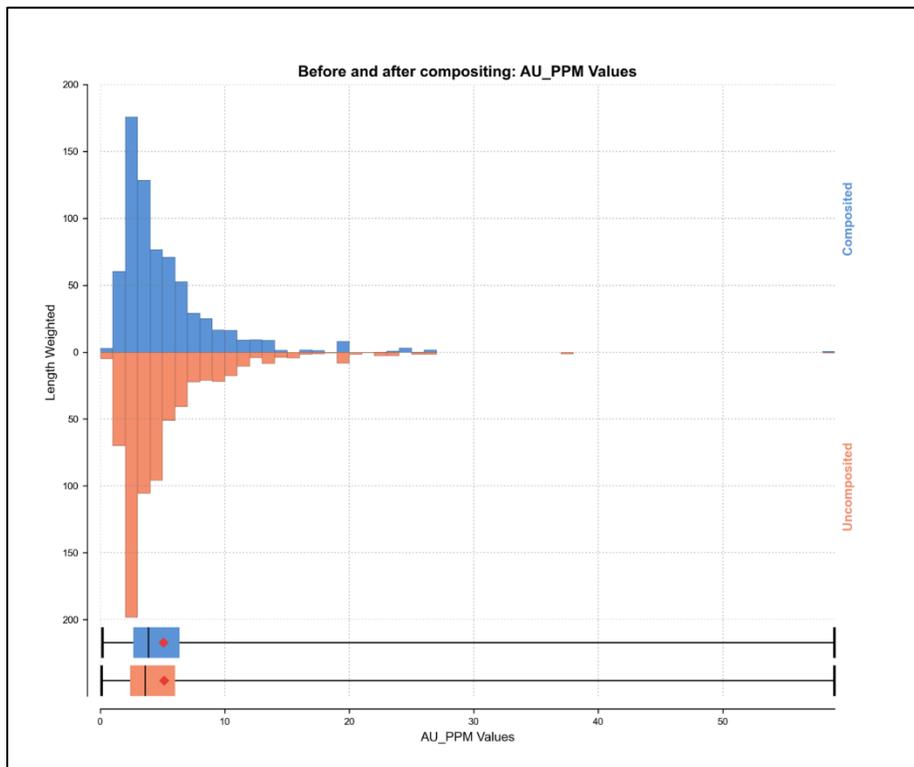


Fig. 14.13 Interval Grade Comparison Histogram for Vein 5000 Composites. BGE 2025.

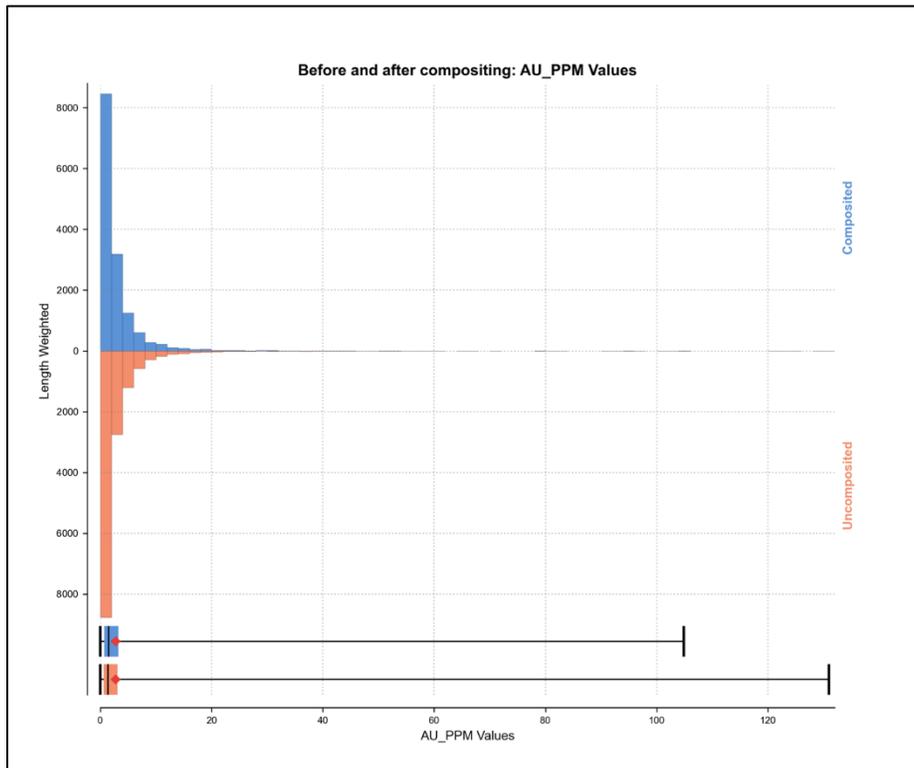


Fig. 14.14 Grade Comparison Histogram for Disseminated Zone Composites. BGE 2025.

TABLE 14.7 GENERAL COMPOSITE STATISTICS FOR 3M COMPOSITED VS UNCOMPOSITED SAMPLES, PINE TREE – JOSEPHINE AREA

| | Vein 1000 | | Vein 2000 | | Vein 3000 | Vein 4000 | | Vein 5000 | | Vein 6000 | Disseminated | |
|----------|------------|--------------|------------|--------------|--------------|------------|--------------|------------|--------------|--------------|--------------|--------------|
| | Composited | Uncomposited | Composited | Uncomposited | Uncomposited | Composited | Uncomposited | Composited | Uncomposited | Uncomposited | Composited | Uncomposited |
| Count | 1453 | 2232 | 810 | 1180 | | 146 | 210 | 378 | 531 | | 6147 | 11068 |
| Length | 2401.01 | 2416.89 | 1518.82 | 1501.58 | | 270.97 | 279.82 | 701.83 | 703.26 | | 14365.22 | 14225.97 |
| Mean | 6.40 | 6.54 | 5.10 | 5.18 | | 3.54 | 3.64 | 5.09 | 5.14 | | 2.77 | 2.78 |
| SD | 7.11 | 9.78 | 4.08 | 4.79 | | 2.48 | 3.28 | 4.00 | 4.61 | | 4.15 | 5.40 |
| CV | 1.11 | 1.49 | 0.80 | 0.92 | | 0.70 | 0.90 | 0.79 | 0.90 | | 1.50 | 1.94 |
| Variance | 50.56 | 95.69 | 16.67 | 22.95 | | 6.14 | 10.74 | 16.03 | 21.22 | | 17.26 | 29.14 |
| Minimum | 0.17 | 0.17 | 0.34 | 0.03 | | 1.02 | 0.68 | 0.17 | 0.10 | | 0.03 | 0.01 |
| Q1 | 2.74 | 2.40 | 2.74 | 2.50 | | 2.40 | 2.22 | 2.64 | 2.40 | | 0.70 | 0.61 |
| Q2 | 4.17 | 3.93 | 4.05 | 3.77 | | 3.03 | 2.74 | 3.89 | 3.60 | | 1.51 | 1.37 |
| Q3 | 7.15 | 6.85 | 5.79 | 6.17 | | 3.85 | 3.87 | 6.38 | 6.00 | | 3.28 | 3.08 |
| Maximum | 104.89 | 130.95 | 45.03 | 51.42 | | 23.64 | 34.28 | 58.96 | 58.96 | | 104.89 | 130.95 |

14.7 CAPPING

Capping was set on a vein-by-vein basis depending on the grade distributions in each mineralized and non-mineralized domain within a given vein. Caps were set on the composited values in all cases where composites were used, and in the case of Vein 3000 the raw sample data was capped as composites were not created. Lognormal Probability Plots and histogram distributions were examined to look for breaks or peaks in the data, which in turn would suggest a cap value. Fig. 14.15 shows an example of the method used for Vein 1000, in which the Lognormal Probability Plot in the upper left shows a breakdown of grade continuity at 50ppm Au; the histogram in the upper-right graph shows the peak of capped grades at 50ppm. The bottom-left and bottom-right graphs show the grade distribution of the capped samples as well as the population distribution without the capped values respectively. Accordingly, the cap for Vein 1000 was set at 50ppm Au. Table 14.8 provides the capping statistics for all veins.

14.8 HIGH-GRADE OUTLIERS

In addition to the capping significant outliers, the remaining higher-grade intercepts were limited using a “high-yield restriction” - in other words, if a given composite or sample exceeded a specified grade, its influence would be limited to a set distance from the sample location, at which point its value would step down to a more centralized value within the distribution. These cutoffs were set largely by reviewing the histogram distributions of the capped data per vein, and the ranges were set as a percentage of the total search range of the given estimator. Parameters for the high-grade outliers for each vein and mineralization domain are provided in Table 14.13 through Table 14.15 in the “Outlier Restrictions” columns.

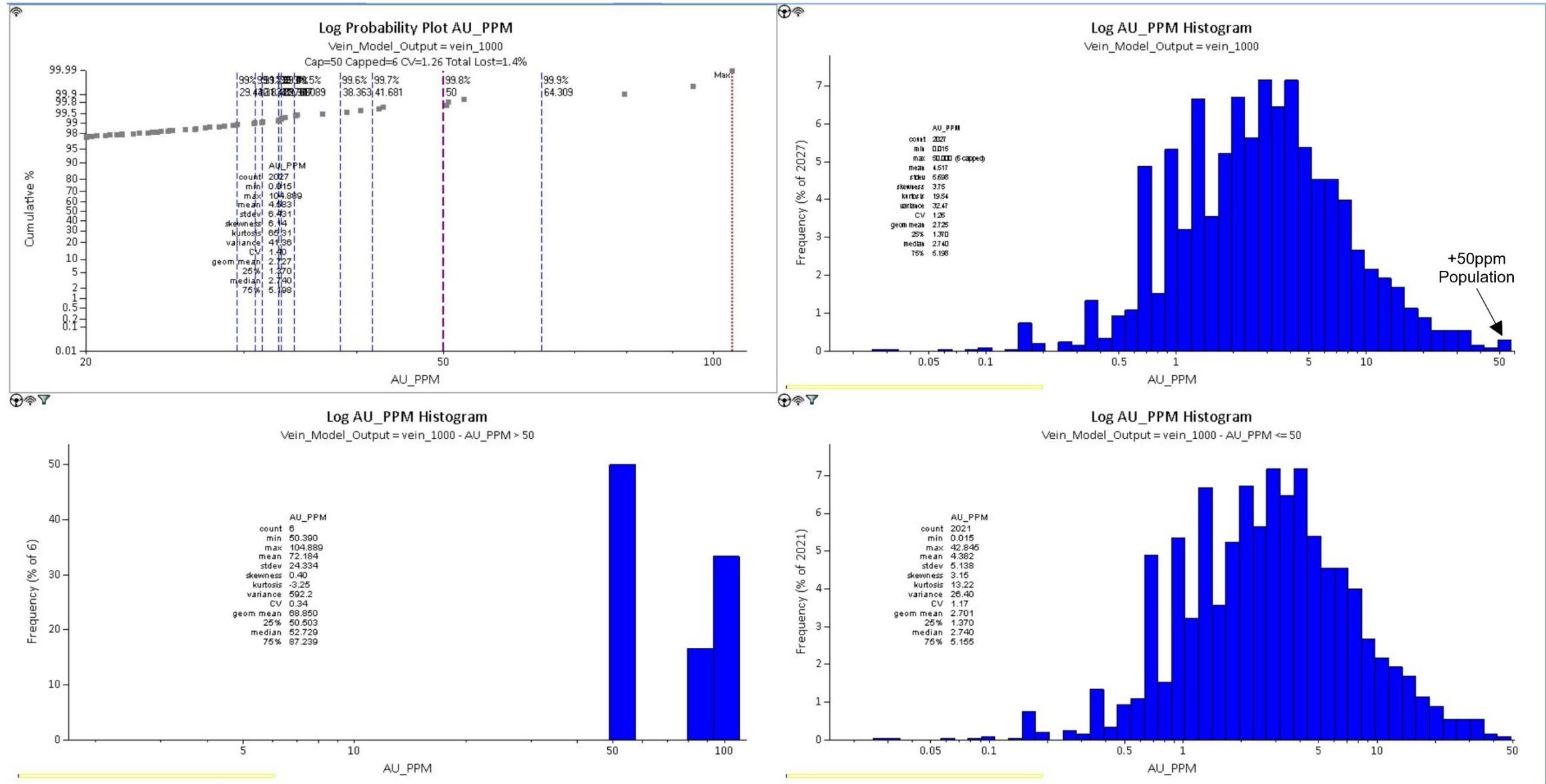


TABLE 14.8 CAPPED SAMPLE STATISTICS

| Mineralized Zone | Cap | Capped | Percentile | Capped% | Lost Total % | Lost CV% | Count | Min | Max | Mean | Total | Variance | CV |
|------------------|---------|--------|------------|---------|--------------|----------|-------|-------|-----|-------|-------|----------|------|
| Vein 1000 | 50 | 6 | 99.80% | 0.30% | 1.40% | 10% | 2027 | 0.015 | 50 | 4.517 | 9156 | 32.47 | 1.26 |
| Vein 2000 | 25 | 3 | 99.70% | 0.30% | 1% | 7.10% | 982 | 0.03 | 25 | 4.17 | 8162 | 13.08 | 0.87 |
| Vein 3000 | 30 | 2 | 98% | 1.90% | 16% | 31% | 106 | 0.03 | 30 | 3.897 | 593.3 | 34.7 | 1.51 |
| Vein 4000 | No Cap | | | | | | | | | | | | |
| Vein 5000 | 26 | 2 | 99.90% | 0.40% | 0.50% | 5% | 494 | 0.004 | 26 | 3.933 | 3802 | 13.55 | 0.94 |
| Vein 6000 | No Cap | | | | | | | | | | | | |
| Disseminated | 20 | 4 | 99.90% | 0.03% | 1.40% | 29% | 12756 | 0 | 20 | 0.284 | 10106 | 0.49 | 2.47 |
| Queen Specimen | No Caps | | | | | | | | | | | | |

14.9 VARIOGRAPHY AND SPATIAL ANALYSIS

A variogram study was performed on the composited dataset in order to determine grade continuity and to provide parameters for the resource categorizations as discussed in section 14.12. While a significant number of channel samples are present, particularly in veins 1000 and 2000, they are relatively close together. As such, the variography results are of limited range, even when also considering the drilling data. As such, it is likely that the variography for this study is underestimating the overall grade continuity in the deposit, for which additional drilling should help to resolve in future exploration campaigns.

Parameters for the experimental variograms are provided in Table 14.9.

TABLE 14.9 VARIOGRAM PARAMETERS

| Domain | Model space | Variance | Nugget | Normalised Nugget | Structure 1 | | | | | | | | | Structure 2 | | | | | | | | | | |
|--------------|--------------|----------|--------|-------------------|-------------|-----------------|-------------|-------|-------|------------|-------|-------|----------|-------------|------|-----------------|-------------|-------|-------|------------|-------|-------|----------|--------|
| | | | | | Sill | Normalised sill | Structure | Alpha | Major | Semi-major | Minor | Dip | Dip Azi. | Pitch | Sill | Normalised sill | Structure | Alpha | Major | Semi-major | Minor | Dip | Dip Azi. | Pitch |
| Vein 1000 | Data | 51.302 | 36.568 | 0.713 | 10.661 | 0.208 | Exponential | | 88.39 | 4.596 | 4.832 | 59.87 | 57.60 | 103.01 | 4.05 | 0.0789 | Exponential | | 150 | 30 | 30 | 59.87 | 57.60 | 103.01 |
| | Normal score | 1.000 | 0.604 | | 0.224 | | Exponential | | 88.39 | 4.596 | 4.832 | 59.87 | 57.60 | 103.01 | 0.17 | | Exponential | | 150 | 30 | 30 | 59.87 | 57.60 | 103.01 |
| Vein 2000 | Data | 17.542 | 11.078 | 0.632 | 6.527 | 0.372 | Exponential | | 85 | 60 | 17 | 55.70 | 61.64 | 108.75 | | | | | | | | | | |
| | Normal score | 1.000 | 0.553 | | 0.448 | | Exponential | | 85 | 60 | 17 | 55.70 | 61.64 | 108.75 | | | | | | | | | | |
| Vein 3000 | Data | 128.676 | 39.961 | 0.311 | 88.715 | 0.689 | Spherical | | 105 | 89 | 10 | 53.54 | 69.96 | 117.71 | | | | | | | | | | |
| Vein 4000 | Normal score | 0.998 | 0.097 | | 0.903 | | Exponential | | 81 | 55 | 13 | 53.12 | 62.33 | 113.77 | | | | | | | | | | |
| | Data | 7.806 | 1.285 | 0.165 | 6.651 | 0.852 | Exponential | | 81 | 55 | 13 | 53.12 | 62.33 | 113.77 | | | | | | | | | | |
| Vein 5000 | Normal score | 1.000 | 0.417 | | 0.583 | | Exponential | | 53 | 36 | 10 | 51.57 | 64.00 | 112.22 | | | | | | | | | | |
| | Data | 23.777 | 12.459 | 0.524 | 11.441 | 0.481 | Exponential | | 53 | 36 | 10 | 51.57 | 64.00 | 112.22 | | | | | | | | | | |
| Disseminated | Data | 20.313 | 15.097 | 0.743 | 4.172 | 0.205 | Exponential | | 23.15 | 7.343 | 9.318 | 60.94 | 62.98 | 112.05 | 1.04 | 0.0513 | Exponential | | 120 | 43 | 20 | 60.94 | 62.98 | 112.05 |
| | Normal score | 1.000 | 0.610 | | 0.286 | | Exponential | | 23.15 | 7.343 | 9.318 | 60.94 | 62.98 | 112.05 | 0.10 | | Exponential | | 120 | 43 | 20 | 60.94 | 62.98 | 112.05 |

While the key purpose of variography is to provide input parameters for the Ordinary Kriging algorithm, the results of the variography study can also provide reasonable search ranges for categorization purposes. As discussed further in Section 14.12, blocks to be considered for Indicated categorization would have to have a nearest sample within 70% of the variogram range as illustrated in Fig. 14.16. The ranges were set based on the Major axis range analysis, so the semi-major and minor ranges have the potential to be overly generous; this was resolved through the other categorization criteria as described in Section 14.12.

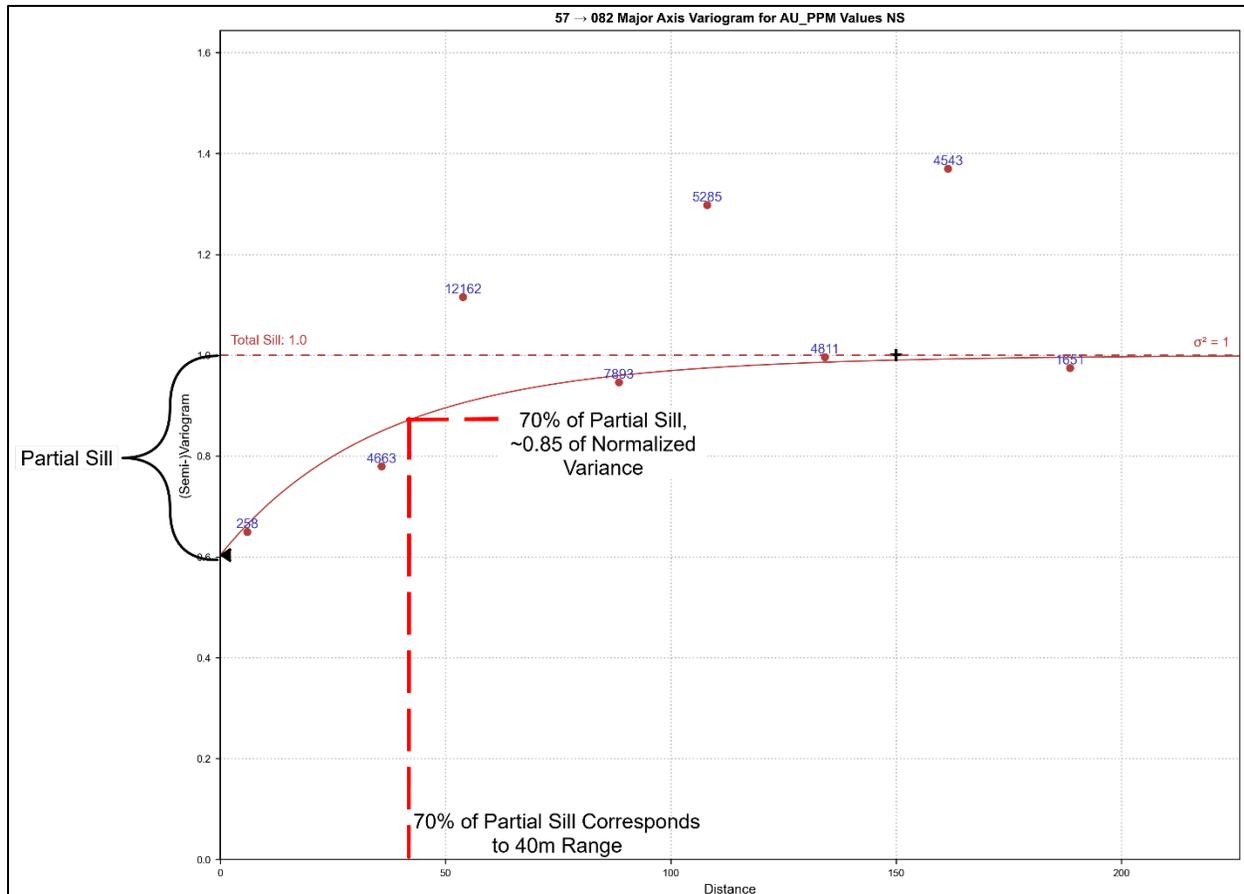


Fig. 14.16 Procedure for Selecting Category Ranges from Variography Results, Vein 1000 Major Axis Shown. BGE 2025.

14.10 BLOCK MODEL

14.10.1 CONSTRUCTION

The block model was constructed as an Octree-style sub-blocked model using the EDGE estimation tools in Leapfrog Geo software. The Octree model allows each parent block to be divided into 8 equal sub-blocks, which can then in turn be divided into 8 sub-blocks, and so on unto the minimum sub-block size is met. The block model used for the Fremont resource uses 20x20x20m parent blocks, which are sub-blocked by a factor of 32 down to a minimum size of 0.625x0.625x0.625m blocks. Such a range of block sizes was necessary to reduce the number of

blocks outside the vein model (in the waste material) while also providing enough resolution to have complete block coverage inside the veins, even where the veins are less than 1m wide. Parameters for the block model can be found in

| TABLE 14.10 BLOCK MODEL CONSTRUCTION PARAMETRES | | |
|---|----------------------------------|-------------|
| Definition | | |
| Number of parent blocks: | 146 × 23 × 81 = 271,998 | |
| Sub-blocks per parent: | 32 × 32 × 32 = 32,768 | |
| Sub-block mode: | Octree | |
| Base point: | 752810.728, 4165982.746, 706.344 | |
| Parent block size: | 20, 20, 20 | |
| Minimum sub-block size: | 0.625, 0.625, 0.625 | |
| Boundary size: | 2920, 460, 1620 | |
| Leapfrog rotation: | | |
| Azimuth: | 59° | |
| Dip: | -31° | |
| Pitch: | 0° | |
| Bounding box | | |
| Axis | Minimum | Maximum |
| X | 752810.728 | 755367.8052 |
| Y | 4163479.817 | 4166615.552 |
| Z | -682.267027 | 943.2615145 |

14.10.2 INTERPOLATION AND SEARCH PARAMETERS

Three estimation methods were utilized to generate the Pine Tree - Josephine resource; Ordinary Kriging (OK), Inverse Distance (ID), and Nearest Neighbor (NN). The Queen Specimen had too few samples for variography and was only estimated with ID and NN. Ordinary kriging was the primary estimation type for the Pine Tree/Josephine area, whereas with the others utilized as validation checks and confirmation. The interpolation parameters for each estimation are shown in Table 14.11 and Table 14.12.

Additionally, search parameters were applied to specify factors such as the number of samples to use, the maximum distance allowed to a given sample, and how many samples per drillhole. In general, the search ranges were up to triple the variogram ranges for each vein. The long range is justified by the fact that there is a high density of sampling within the mined areas, which had a significant influence on the variogram ranges, but the grades encountered by the sparser and spatially-distributed drilling suggests a longer range of continuity than that calculated by the underground channel samples. Conversely, to leave the channel samples out of the variography

study would have resulted in far fewer samples and variography that would not likely be representative of the grade continuity. As such, the longer search ranges were considered reasonable to infill with Inferred material at ranges suggested by the drilling, while also using all data available. Search parameters are available in Table 14.13 through Table 14.15.

| TABLE 14.11 INTERPOLANT PARAMETERS FOR OK ESTIMATORS | | | | |
|--|--------------|----------------|-------------|---|
| Estimator | | Value Clipping | | Interpolant |
| Estimate Type | Vein | Lower bound | Upper bound | Variogram Model / Structural Trend |
| OK | Vein 1000 | 0 | 50 | AU_PPM in AU_PPM Indicator 1.75 Vein 1000 ST: Inside: Transformed Variogram Model |
| | Vein 2000 | 0 | 25 | AU_PPM in AU_PPM Indicator 1.7 Vein 2000 ST: Inside: Transformed Variogram Model |
| | Vein 3000 | 0 | 30 | AU_PPM in AU_PPM Indicator 1.75 Vein 1000 ST: Inside: Transformed Variogram Model |
| | Vein 4000 | | | AU_PPM in AU_PPM Indicator 1.5 Vein 4000 ST: Inside: Transformed Variogram Model |
| | Vein 5000 | 0 | 26 | AU_PPM in AU_PPM Indicator 1.5 Vein 5000 ST: Inside: Transformed Variogram Model |
| | Vein 6000 | | | AU_PPM in AU_PPM Indicator 1.75 Vein 1000 ST: Inside: Transformed Variogram Model |
| | Disseminated | 0 | 20 | AU_PPM in AU_PPM Indicator 0.3 Disseminated ST: Inside: Transformed Variogram Model |

| TABLE 14.12 INTERPOLANT PARAMETERS FOR ID AND NN ESTIMATORS | | | | | |
|---|--------------|----------------|-------------|-------------|--|
| Estimator | | Value Clipping | | IDW Options | |
| Estimate Type | | Lower bound | Upper bound | Exponent | Declustering model |
| IDW | Vein 1000 | 0 | 50 | 1 | Declustering, AU_PPM in AU_PPM Indicator 1.75 Vein 1000 ST: Inside |
| | Vein 2000 | 0 | 25 | 1 | Declustering, AU_PPM in AU_PPM Indicator 1.7 Vein 2000 ST: Inside |
| | Vein 3000 | 0 | 30 | 1 | None |
| | Vein 4000 | None | | 1.5 | None |
| | Vein 5000 | 0 | 26 | 1 | Declustering, AU_PPM in AU_PPM Indicator 1.5 Vein 5000 ST: Inside |
| | Vein 6000 | None | | 1 | Declustering, AU_PPM in AU_PPM Indicator 1.0 Vein 6000 ST: Inside |
| | Disseminated | 0 | 20 | 2 | |
| IDW | Q_1000 | None | | 2 | No Declustering |
| | Q_2000 | None | | 2 | |
| | Q_3000 | None | | 2 | |

TABLE 14.13 SEARCH PARAMETERS FOR MINERALIZED ZONES FOR OK, ID, NN

| Pine Tree Josephine | | | | | | | | | | | | | | |
|---------------------|--------------|------------------|--------------|---------|----------------------|----------|--------|--|-------------------|---------|----------------------|----------|-----------|----------------------|
| Estimation Type | Domain | Ellipsoid Ranges | | | Ellipsoid Directions | | | Ellipsoid Orientation | Number of Samples | | Outlier Restrictions | | | Drillhole Limit |
| | | Maximum | Intermediate | Minimum | Dip | Dip Azi. | Pitch | Variable Orientation | Minimum | Maximum | Method | Distance | Threshold | Max Samples per Hole |
| Ordinary Krige | Vein 1000 | 300 | 60 | 60 | | | | VO, AU_PPM in AU_PPM Indicator 1.75 Vein 1000 ST: Inside | 3 | 24 | Clamp | 15 | 20 | 2 |
| | Vein 2000 | 255 | 180 | 51 | | | | VO, AU_PPM in AU_PPM Indicator 1.7 Vein 2000 ST: Inside | 2 | 24 | Clamp | 20 | 7.5 | 2 |
| | Vein 3000 | 150 | 30 | 30 | 59.87 | 57.60 | 103.01 | None | 1 | 20 | Clamp | 20 | 5 | 2 |
| | Vein 4000 | 162 | 110 | 26 | 53.12 | 62.33 | 113.77 | None | 2 | 20 | Clamp | 15 | 7 | 2 |
| | Vein 5000 | 106 | 72 | 20 | 51.57 | 64.00 | 112.22 | None | 2 | 20 | Clamp | 10 | 10 | 2 |
| | Vein 6000 | 300 | 60 | 60 | 59.87 | 57.60 | 103.01 | None | 2 | 12 | Clamp | 15 | 10 | 2 |
| | Disseminated | 240 | 86 | 40 | | | | VO, AU_PPM in AU_PPM Indicator 0.3 Disseminated ST: Inside | 4 | 20 | Clamp | 15 | 5 | 2 |
| Inverse Distance | Vein 1000 | 300 | 60 | 60 | | | | VO, AU_PPM in AU_PPM Indicator 1.75 Vein 1000 ST: Inside | 3 | 24 | Clamp | 15 | 20 | 2 |
| | Vein 2000 | 255 | 180 | 51 | | | | VO, AU_PPM in AU_PPM Indicator 1.7 Vein 2000 ST: Inside | 2 | 24 | Clamp | 20 | 7.5 | 2 |
| | Vein 3000 | 150 | 30 | 30 | 59.87 | 57.60 | 103.01 | None | 1 | 20 | Clamp | 20 | 5 | 2 |
| | Vein 4000 | 162 | 110 | 26 | 53.12 | 62.33 | 113.77 | None | 2 | 20 | Clamp | 15 | 7 | 2 |
| | Vein 5000 | 106 | 72 | 20 | 51.57 | 64.00 | 112.22 | None | 2 | 20 | Clamp | 10 | 10 | 2 |
| | Vein 6000 | 300 | 60 | 60 | 59.87 | 57.60 | 103.01 | None | 2 | 12 | Clamp | 15 | 10 | 2 |
| | Disseminated | 240 | 86 | 40 | | | | VO, AU_PPM in AU_PPM Indicator 0.3 Disseminated ST: Inside | 4 | 20 | Clamp | 15 | 5 | 2 |
| Nearest Neighbor | Vein 1000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Vein 2000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Vein 3000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Vein 4000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Vein 5000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Vein 6000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Disseminated | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |

TABLE 14.14 SEARCH PARAMETERS FOR NON-MINERALIZED ZONES FOR OK, ID, NN

| Pine Tree Josephine | | | | | | | | | | | | | | |
|---------------------|--------------|------------------|--------------|---------|----------------------|----------|--------|---|-------------------|---------|----------------------|----------|-----------|----------------------|
| Estimation Type | Domain | Ellipsoid Ranges | | | Ellipsoid Directions | | | Ellipsoid Orientation | Number of Samples | | Outlier Restrictions | | | Drillhole Limit |
| | | Maximum | Intermediate | Minimum | Dip | Dip Azi. | Pitch | Variable Orientation | Minimum | Maximum | Method | Distance | Threshold | Max Samples per Hole |
| Ordinary Kriging | Vein 1000 | 300 | 60 | 60 | | | | VO, AU_PPM in AU_PPM Indicator 1.75 Vein 1000 ST: Outside | 3 | 24 | Clamp | 15 | 3 | 2 |
| | Vein 2000 | 255 | 180 | 51 | | | | VO, AU_PPM in AU_PPM Indicator 1.7 Vein 2000 ST: Outside | 2 | 24 | Clamp | 10 | 5 | 2 |
| | Vein 3000 | 150 | 30 | 30 | 59.87 | 57.60 | 103.01 | None | 1 | 20 | Clamp | 20 | 1.25 | 2 |
| | Vein 4000 | 162 | 110 | 26 | 53.12 | 62.33 | 113.77 | None | 2 | 20 | Clamp | 15 | 1.5 | 2 |
| | Vein 5000 | 106 | 72 | 20 | 51.57 | 64.00 | 112.22 | None | 2 | 20 | Clamp | 10 | 1.5 | 2 |
| | Vein 6000 | 300 | 60 | 60 | 59.87 | 57.60 | 103.01 | None | 2 | 12 | None | | | 2 |
| | Disseminated | 340 | 129 | 60 | | | | VO, AU_PPM in AU_PPM Indicator 0.3 Disseminated ST: Outside | 3 | 20 | None | | | 2 |
| Inverse Distance | Vein 1000 | 300 | 60 | 60 | | | | VO, AU_PPM in AU_PPM Indicator 1.75 Vein 1000 ST: Outside | 3 | 24 | Clamp | 15 | 3 | 2 |
| | Vein 2000 | 255 | 180 | 51 | | | | VO, AU_PPM in AU_PPM Indicator 1.7 Vein 2000 ST: Outside | 2 | 24 | Clamp | 10 | 5 | 2 |
| | Vein 3000 | 150 | 30 | 30 | 59.87 | 57.60 | 103.01 | None | 1 | 20 | Clamp | 20 | 1.5 | 2 |
| | Vein 4000 | 162 | 110 | 26 | 53.12 | 62.33 | 113.77 | None | 2 | 20 | Clamp | 15 | 1.5 | 2 |
| | Vein 5000 | 106 | 72 | 20 | 51.57 | 64.00 | 112.22 | None | 2 | 20 | Clamp | 10 | 1.5 | 2 |
| | Vein 6000 | 300 | 60 | 60 | 59.87 | 57.60 | 103.01 | None | 2 | 12 | None | | | 2 |
| | Disseminated | 340 | 129 | 60 | | | | VO, AU_PPM in AU_PPM Indicator 0.3 Disseminated ST: Outside | 3 | 20 | None | | | 2 |
| Nearest Neighbor | Vein 1000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Vein 2000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Vein 3000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Vein 4000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Vein 5000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Vein 6000 | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |
| | Disseminated | 300 | 300 | 300 | 0.00 | 0.00 | 128.14 | None | 1 | 1 | | | | |

TABLE 14.15 SEARCH PARAMETERS FOR OK, ID, NN

| Queen Specimen | | | | | | | | | | | | | | |
|------------------|--------|------------------|--------------|---------|----------------------|----------|--------|-----------------------|-------------------|---------|----------------------|----------|-----------|----------------------|
| Estimation Type | Domain | Ellipsoid Ranges | | | Ellipsoid Directions | | | Ellipsoid Orientation | Number of Samples | | Outlier Restrictions | | | Drillhole Limit |
| | | Maximum | Intermediate | Minimum | Dip | Dip Azi. | Pitch | Variable Orientation | Minimum | Maximum | Method | Distance | Threshold | Max Samples per Hole |
| Inverse Distance | Q1000 | 150 | 30 | 30 | 62.55 | 53.30 | 117.96 | None | 2 | 16 | None | | | 2 |
| | Q2000 | 150 | 30 | 30 | 49.52 | 53.30 | 117.96 | None | 2 | 16 | None | | | 2 |
| | Q3000 | 150 | 30 | 30 | 47.05 | 53.30 | 117.96 | None | 2 | 16 | None | | | 2 |
| Nearest Neighbor | Q1000 | 200 | 200 | 200 | 0 | 0 | 90 | None | 1 | 1 | | | | |
| | Q2000 | 200 | 200 | 200 | 0 | 0 | 90 | None | 1 | 1 | | | | |
| | Q3000 | 200 | 200 | 200 | 0 | 0 | 90 | None | 1 | 1 | | | | |

14.11 MODEL VALIDATION

14.11.1 VISUAL COMPARISON

The first step in validating the block model was a detailed examination of the blocks and drillholes together in cross-sectional views perpendicular to the block orientations. Sections were stepped through on vertical and plan-view sections to confirm that the blocks looked reasonably estimated relative to the input drilling. A representative cross-section line is shown in plan-view in Fig. 14.17, while the cross-section is shown in Fig. 14.18. Additionally, a long-section view of the blocks and input composites for Vein 1000 are shown in Fig. 14.19.

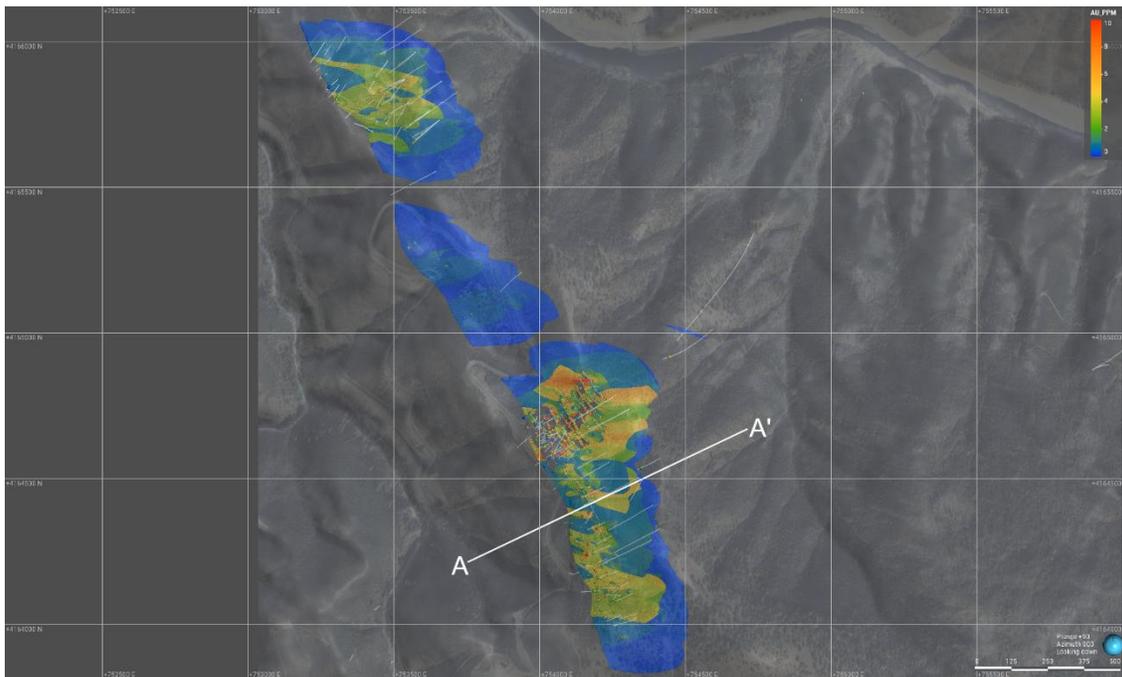


Fig. 14.17 Plan View of Ordinary Kriged Block Grades in Vein 1000 with Cross-Sectional Line A-A' for Reference. BGE 2025.

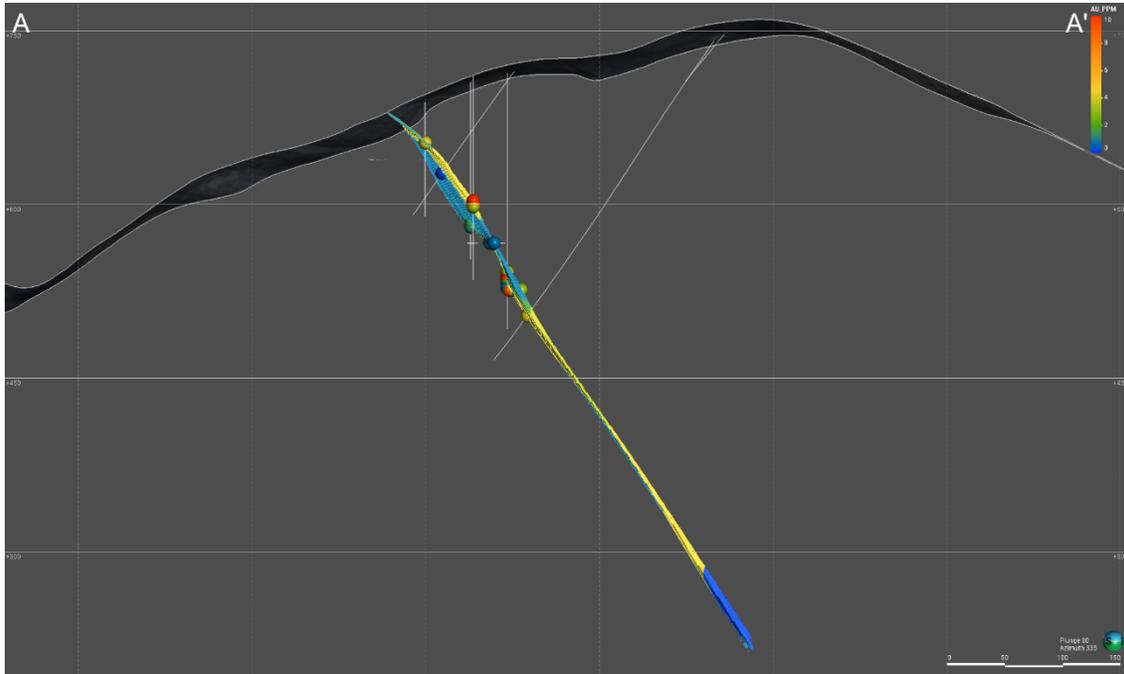


Fig. 14.18 Representative Cross Section A-A' of OK-Estimated Blocks with Drillhole Samples in Vein 1000, Looking North-West. BGE 2025.

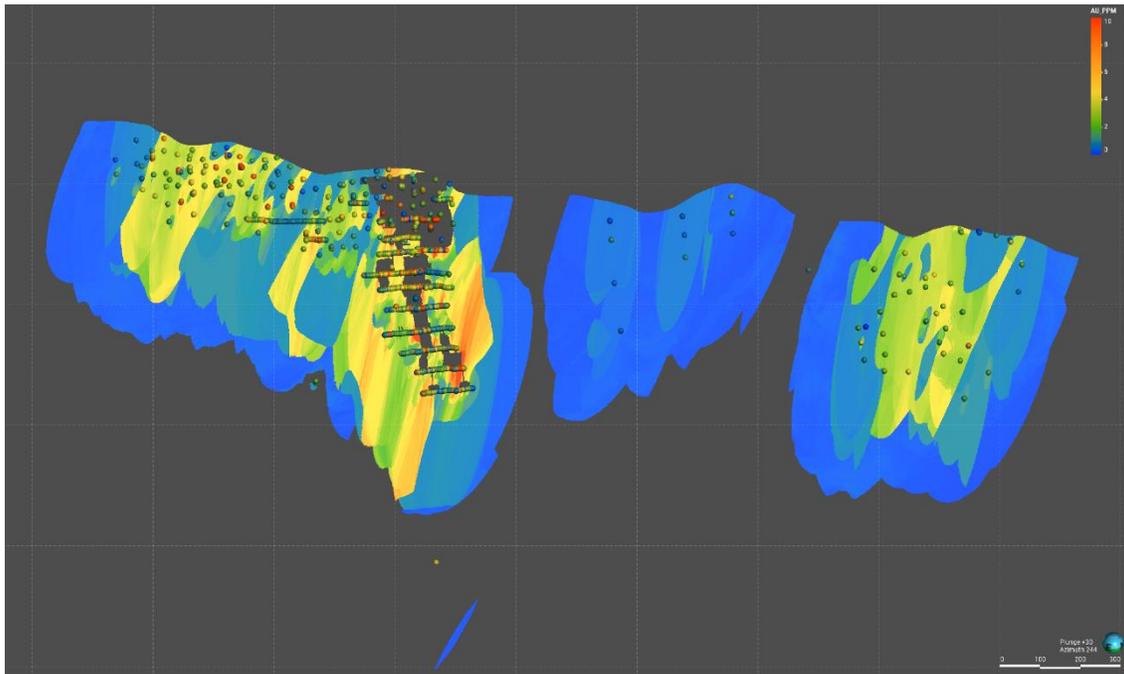


Fig. 14.19 Representative Long Section of OK-Estimated Blocks with Drillholes and Channel Samples in Vein 1000, Looking North. BGE 2025.

14.11.2 SWATH PLOTS

Another method utilized for statistically validating the block model was the use of swath plots along the X, Y, and Z axes of the block model – this procedure compares the average block grades within a directional “Swath” against the average composite grades within the same swath, with the expectation that the composite grades will be more erratic and the estimations will be generally smoother and centrally-focused. The resulting plots in the Easting (X) direction, Northing (Y) direction, and Elevation (Z) directions are seen in Fig. 14.20, Fig. 14.21, and Fig. 14.22 respectively, with their position relative to the Vein 1000 block model shown in Fig. 14.23 through Fig. 14.25. Overall, there were no unexpected behaviors in the blocks; the nearest neighbor estimates, drawing directly from the composite grades, were the most erratic, while the OK and ID3 estimates were nearly identical to one another and generally very smooth. The RBF estimation is the smoothest and has the lowest overall grade in all three swath directions.

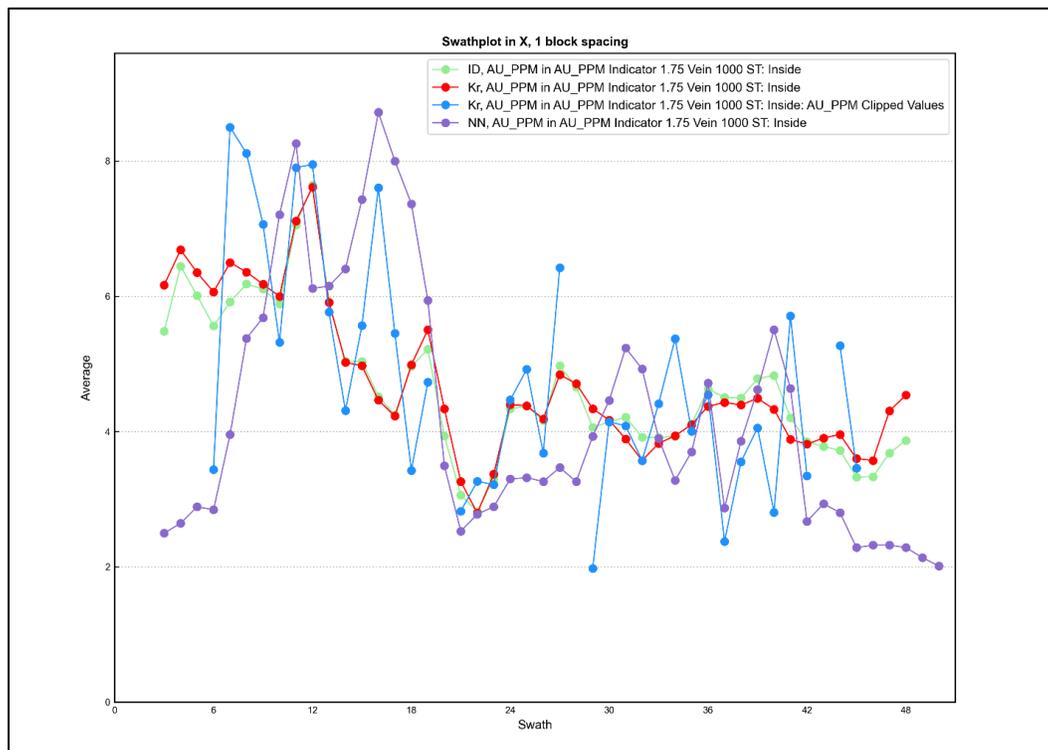


Fig. 14.20 Swath Plots Showing OK, ID, and NN Block Grades vs Composite Grades (Blue) by X-axis Swath Intervals in Vein 1000. BGE 2025.

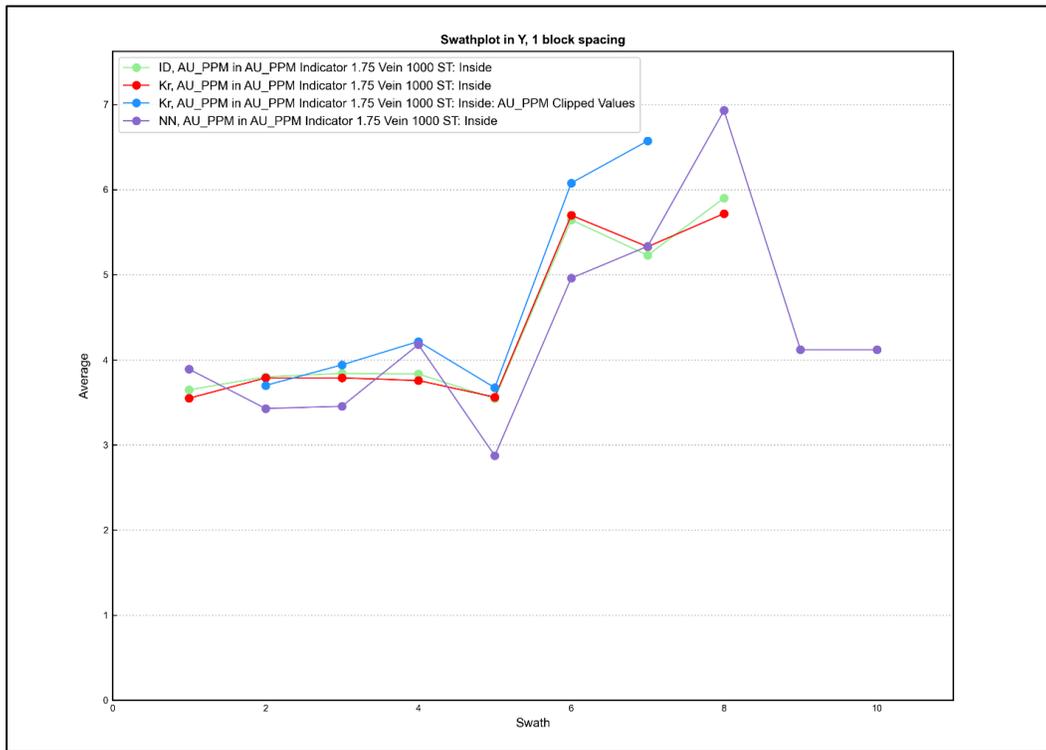


Fig. 14.21 Swath Plots Showing OK, ID, and NN Block Grades vs Composite Grades (Blue) by Y-axis Swath Intervals in Vein 1000. BGE 2025.

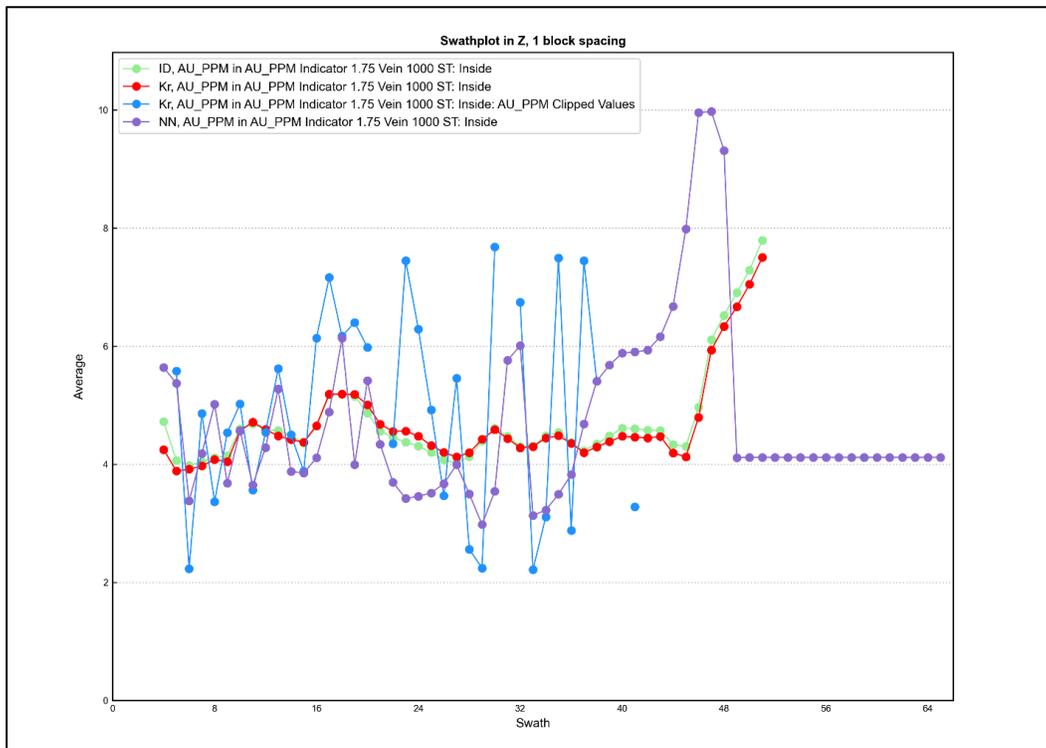


Fig. 14.22 Swath Plots Showing OK, ID, and NN Block Grades vs Composite Grades (Blue) by Z-axis Swath Intervals in Vein 1000. BGE 2025.

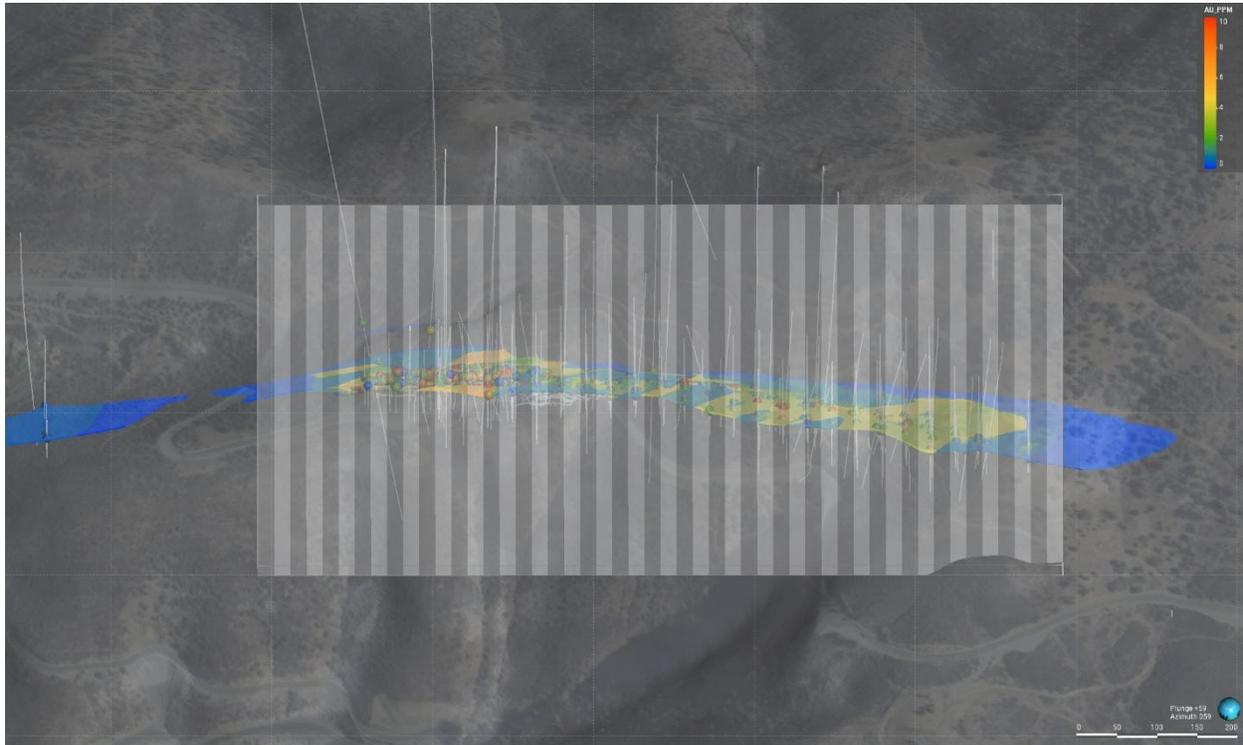


Fig. 14.23 Position of X-Axis Swaths Relative to Vein 1000 Block Model, Plan View. BGE 2025.

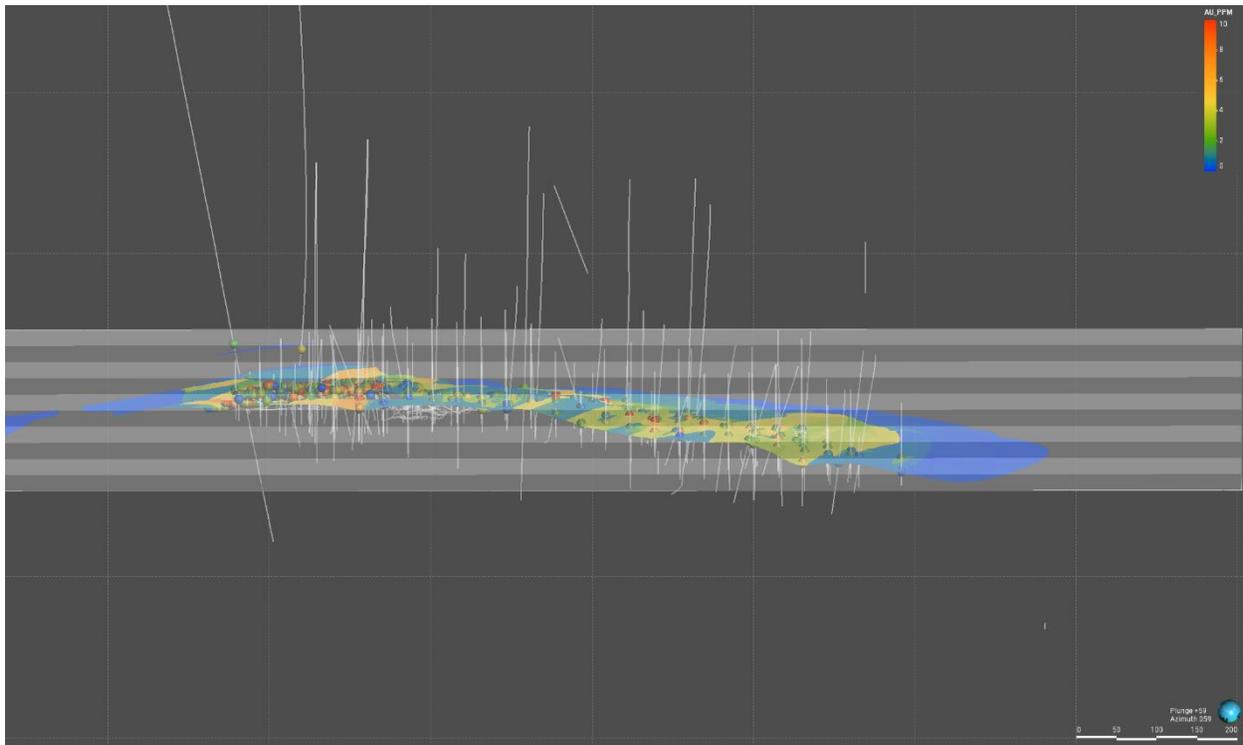


Fig. 14.24 Position of Y-Axis Swaths Relative to Vein 1000 Block Model, Plan View. BGE 2025.

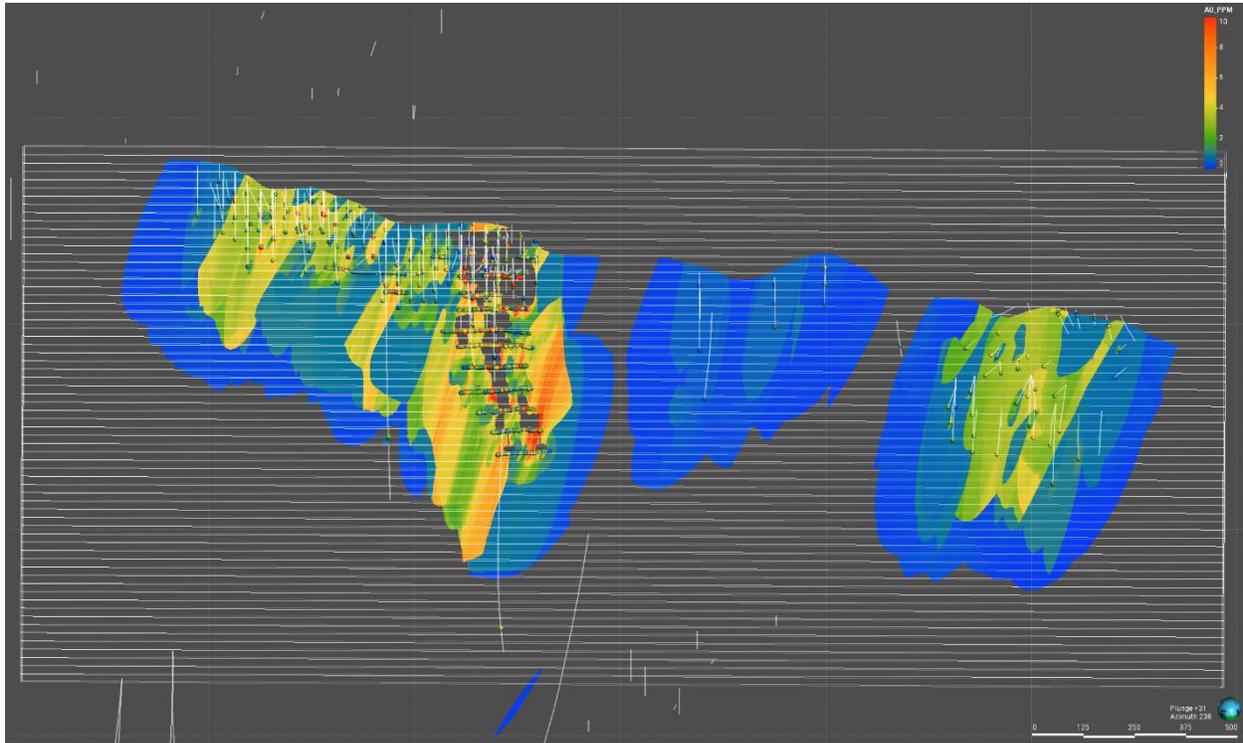


Fig. 14.25 Position of Z-Axis Swaths Relative to Vein 1000 Block Model, Looking South-West. BGE 2025.

14.11.3 ESTIMATION COMPARISONS

Even though the reported estimation type is the Ordinary Krigé (OK) estimation for the purposes of this report, the three other estimations provide a comparative basis for ensuring the OK estimation was not skewed in some way relative to the other types. As such, log-transformed scatter plots of the block grades compared against the OK grades are provided in Fig. 14.26 through Fig. 14.27. None of the plots indicate a fundamental flaw in the OK estimation – the ID3 estimation is nearly identical to the OK, while the Nearest Neighbor shows a higher range of variability such that the low grades are lower and the high grades are higher, again highlighting the smoothing inherent in the OK estimation. Likewise, just as with the swath plots, the RBF estimator generally shows a lower-grade result than the OK.

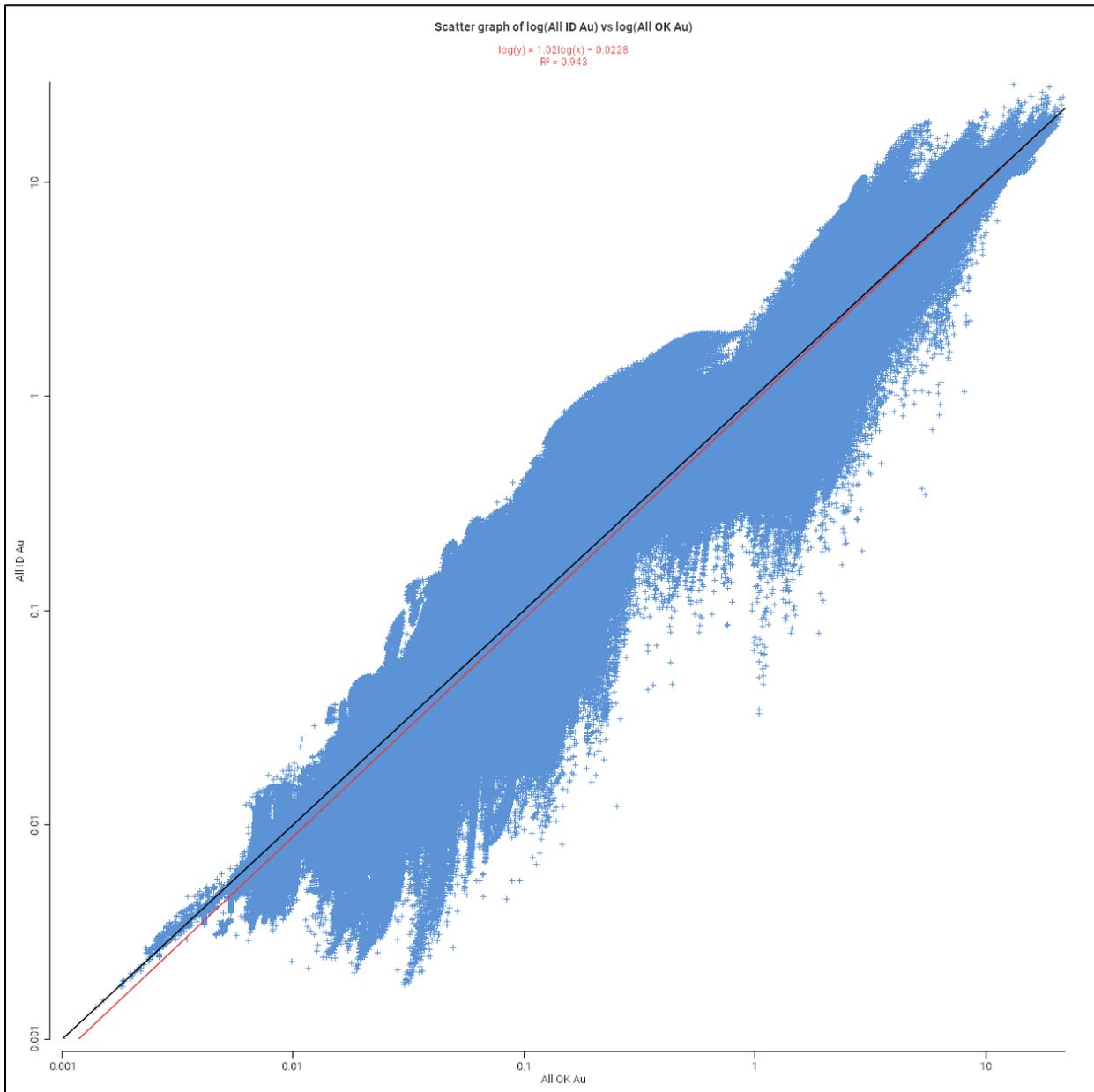


Fig. 14.26 Log-Scaled Scatter Plot of OK vs ID Estimated Block Grades. BGE 2025.

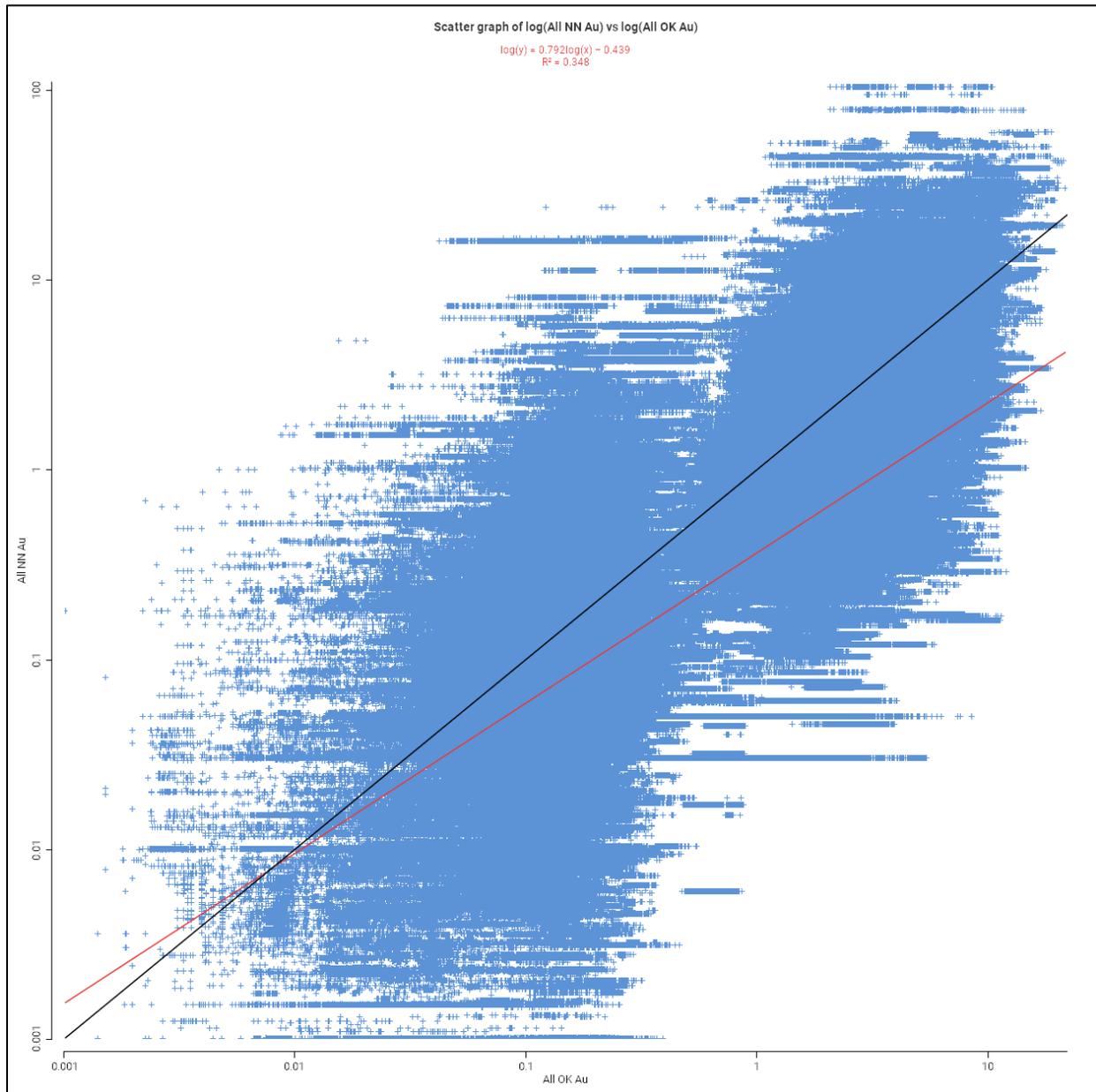


Fig. 14.27 Log-Scaled Scatter Plot of OK vs NN Estimated Block Grades. BGE 2025.

14.12 RESOURCE CLASSIFICATION

The dominant presence of the channel samples as compared with the minimal drilling made it impossible to categorize without their utilization, but at the same time favoring the modern drilling that is available. As such, the channel samples are an integral part of the resource classification calculations, but three factors were used to calculate an Indicated category:

- A minimum distance to the nearest modern drilling sample used in the block estimation.
- The Kriged Slope of Regression Value in a given block;

- A minimum number of drillholes or channels used for the block estimation.

To that end, the first analysis was of the Slope of Regression (SoR) for each Ordinary Kriging estimation, wherein a break in the trend of the SoR distribution was considered for a cutoff for an Indicated block. Fig. 14.28 provides an example of the methodology for vein 1000 – the trend of the histogram has a noticeable break at the 0.4 SoR value, for which the values can be seen spatially as the red zones in Fig. 14.29. This method was followed for all veins with an assigned Indicated category, and the Slope of Regression values that were used as the minimum cutoff are listed along with the other categorization criteria in Table 14.16.

Fig. 14.30 shows the spatial distribution of blocks assigned as Indicated (red) and Inferred (blue) within vein VT-2001.

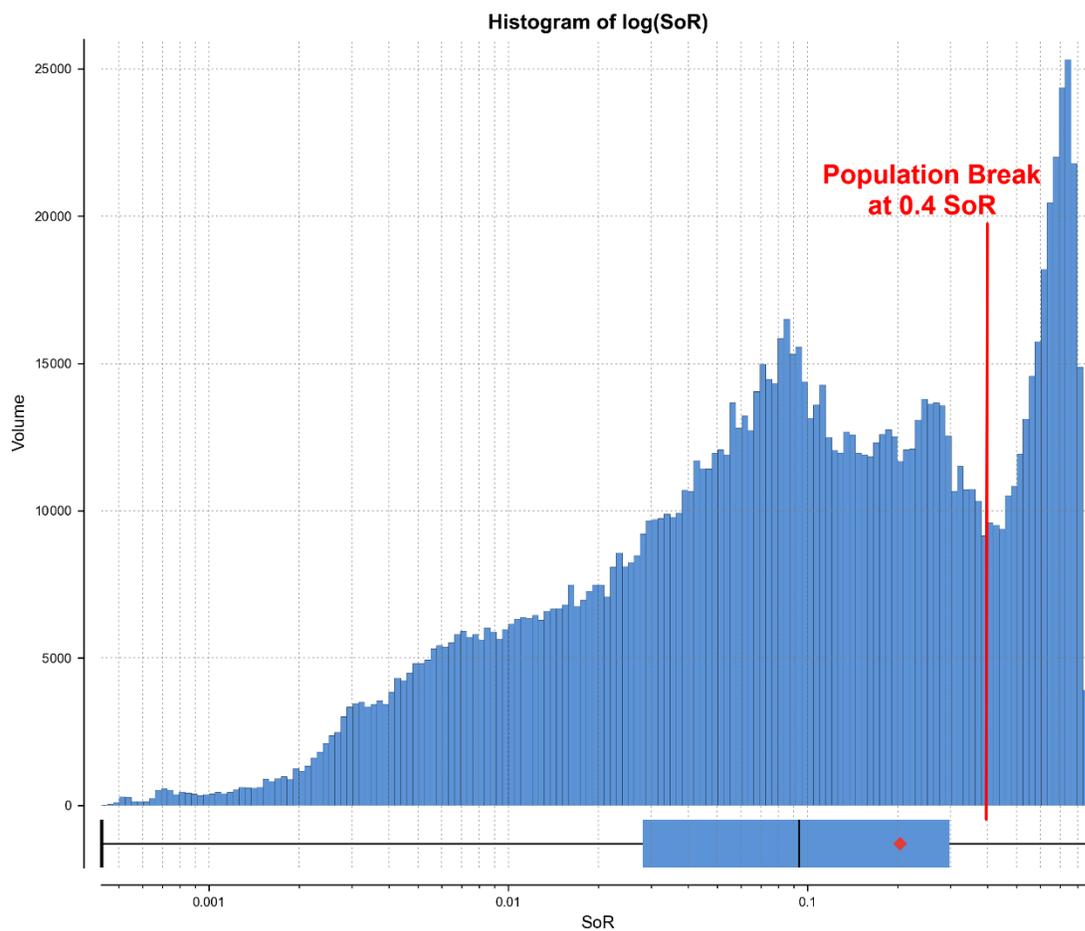


Fig. 14.28 Example of the methodology for Vein 1000. BGE 2025.

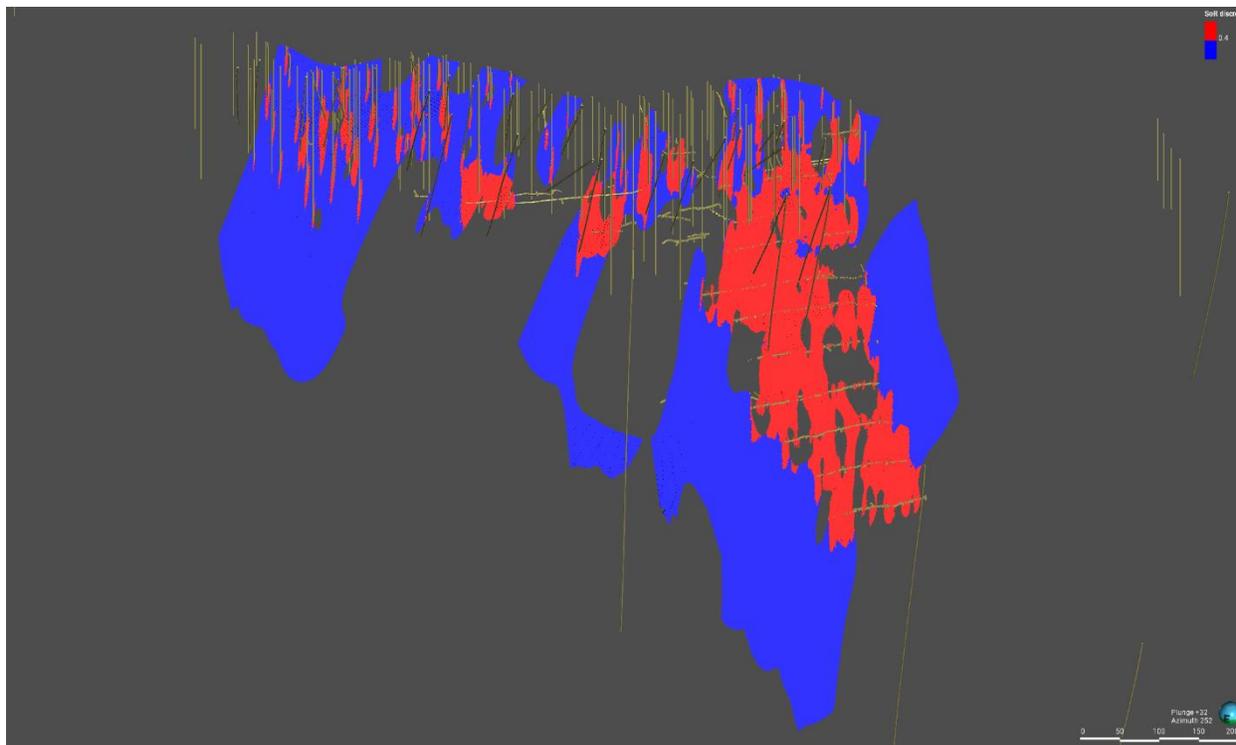


Fig. 14.29 Representation of the SoR discrete >0.4 for Vein 1000. BGE 2025.

In addition to the Slope of Regression study, the minimum distance to a modern drilling sample was derived from the variogram as described in Fig. 14.17. Details of the required criteria for Indicated categorization are provided in Table 14.16, while an example of the Indicated vs Inferred (red and blue respectively) blocks in Vein 1000 are shown in Fig. 14.30.

| TABLE 14.16 INDICATED CATEGORIZATION CRITERIA | | | |
|---|-----------------------------|---------------------|----------------------|
| Criteria for Indicated Categorization | | | |
| Domain | Distance to Modern Drilling | Slope of Regression | Number of Drillholes |
| Vein 1000 | <=40m | >=0.4 | >12 |
| Vein 2000 | <=30m | >=0.6 | >12 |
| Vein 4000 | <=18m | >=0.7 | >12 |
| Vein 5000 | <=18m | >=0.55 | >12 |

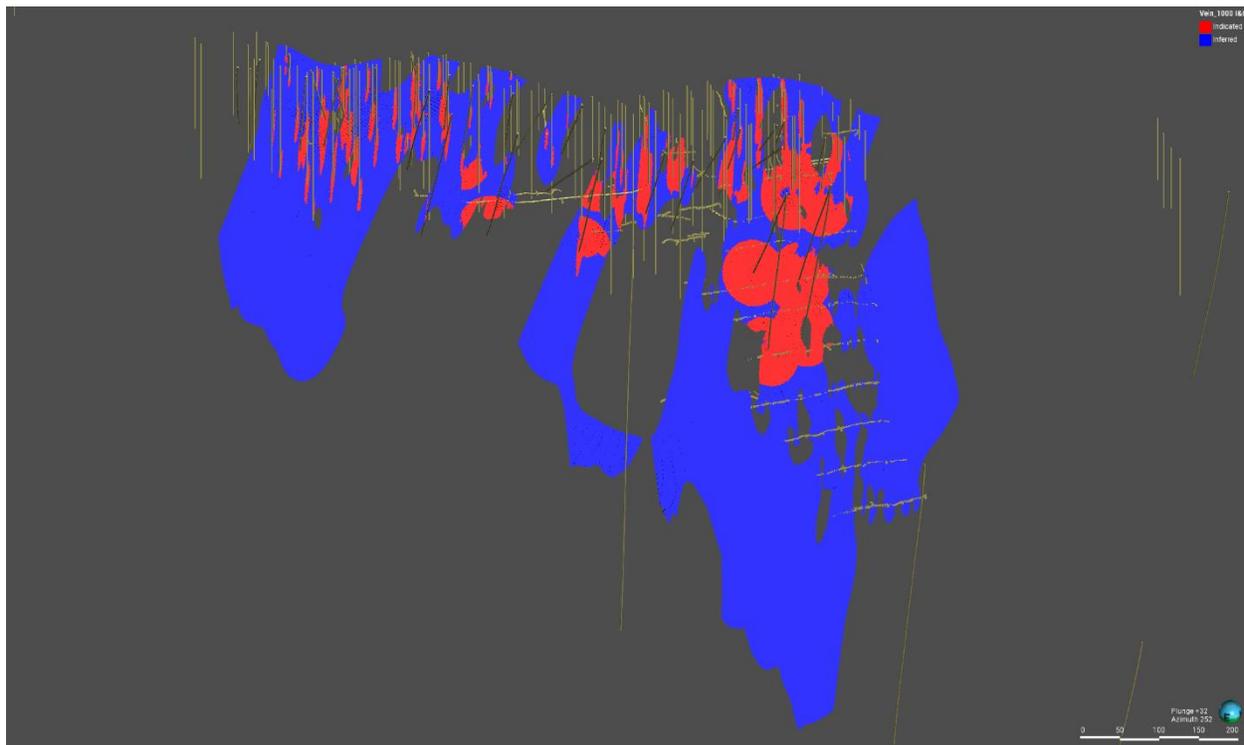


Fig. 14.30 Representation of the Indicated Resources (red) and Inferred Resources (blue). BGE 2025.

14.13 MINERAL RESOURCE STATEMENT

CIM Definition Standards defines a Mineral Resource as:

“a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling”.

BGE considers the Fremont project to be a reasonable prospect for underground mining given its history and resource results. The assumed Gold break-even grade for the purposes of reporting is

3 ppm, and an assumed metal recovery percentage of 90% was applied to the estimated grades prior to reporting. The final resource is presented in Table 14.17 and Table 14.18.

BGE is unaware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political issues that may adversely affect the Mineral Resources presented in this Report.

BGE considers that the blocks with grades above the cut-off grade satisfy the criteria for “reasonable prospects for economic extraction” and can be reported as a Mineral Resource.

| TABLE 14.17 PINE TREE – JOSEPHINE MINERAL RESOURCE ESTIMATION AT 3 G/T CUT-OFF | | | | | | | | | |
|--|--------------|-----------------|---------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|
| Mining Area | I&I | Vein | Average Value | | | | Material Content | | |
| | | | Mass | All OK Au Recov | All ID Au Recov | All NN Au Recov | All OK Au Recov | All ID Au Recov | All NN Au Recov |
| | | | kt | ppm | ppm | ppm | thousand t. oz | thousand t. oz | thousand t. oz |
| Pine Tree-Josephine | Indicated | Vein 1000 | 178.32 | 4.26 | 4.32 | 4.03 | 24.45 | 24.76 | 23.09 |
| | | Vein 2000 | 600.22 | 4.13 | 4.10 | 4.20 | 79.70 | 79.16 | 80.98 |
| | | Vein 4000 | 28.15 | 3.31 | 3.32 | 3.60 | 3.00 | 3.01 | 3.25 |
| | | Vein 5000 | 100.04 | 4.17 | 4.21 | 4.41 | 13.43 | 13.53 | 14.19 |
| | | Total | 906.74 | 4.14 | 4.13 | 4.17 | 120.57 | 120.46 | 121.51 |
| | Inferred | Vein 1000 | 1,261.16 | 4.65 | 4.59 | 4.17 | 188.75 | 186.08 | 169.10 |
| | | Vein 2000 | 2,161.97 | 3.71 | 3.76 | 3.80 | 258.14 | 261.20 | 264.27 |
| | | Vein 3000 | 61.35 | 3.75 | 4.12 | 6.60 | 7.40 | 8.12 | 13.02 |
| | | Vein 4000 | 208.34 | 3.30 | 3.27 | 3.65 | 22.10 | 21.89 | 24.45 |
| | | Vein 5000 | 670.84 | 4.02 | 3.89 | 5.46 | 86.76 | 83.91 | 117.82 |
| | | Vein 6000 | 74.09 | 4.11 | 4.08 | 5.12 | 9.78 | 9.72 | 12.20 |
| | | Disseminated | 2,901.88 | 3.86 | 3.95 | 4.27 | 360.44 | 368.66 | 397.92 |
| | Total | 7,339.62 | 3.96 | 3.98 | 4.23 | 933.38 | 939.58 | 998.78 | |

| TABLE 14.18 QUEEN SPECIMEN MINERAL RESOURCE ESTIMATION AT 3 G/T CUT-OFF | | | | | | |
|---|----------|--------------|-----------------|--------------------|--------------------|--|
| Mining Areas | I&I | Vein | Average Value | | Material Content | |
| | | | Mass | All ID Au QS Recov | All ID Au QS Recov | |
| | | | kt | ppm | thousand t. oz | |
| Queen Specimen | Inferred | Q-1000 | 96.11 | 4.82 | 14.88 | |
| | | Q-2000 | 62.44 | 3.67 | 7.37 | |
| | | Vein 1000 | 929.12 | 3.74 | 111.80 | |
| | | Disseminated | 51.47 | 4.04 | 6.69 | |
| | | Total | 1,139.14 | 3.84 | 140.74 | |

(9) Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability.

(10) The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

(11) The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

(12) The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.

Mineral resources were estimated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserve Best Practices" Guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. The Mineral Resources may be affected by subsequent assessment of mining, environmental, processing, permitting, taxation, socio-economic and other factors.

Mineral reserves can only be estimated based on the results of an economic evaluation as part of a preliminary feasibility study or feasibility study. As such, no Mineral Reserves have been estimated by BGE. There is no certainty that all or any part of the mineral resources will be converted into a mineral reserve.

Inferred mineral resources have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. It is safe to assumed that the majority of the Inferred mineral resources could be upgraded to a higher category with additional exploration.

Mineral resources that are not mineral reserves have no demonstrated economic viability.

14.14 GRADE SENSITIVITY ANALYSIS

The cutoff grade selected for the Fremont deposit can have significant implications for the total resource reported, as seen in the grade-tonnage plot in Fig. 14.31. It is important to note that the grade-tonnage curve is not intended to serve as a mineral resource statement, but only to show the sensitivity of the reported resource to a given cut-off grade.

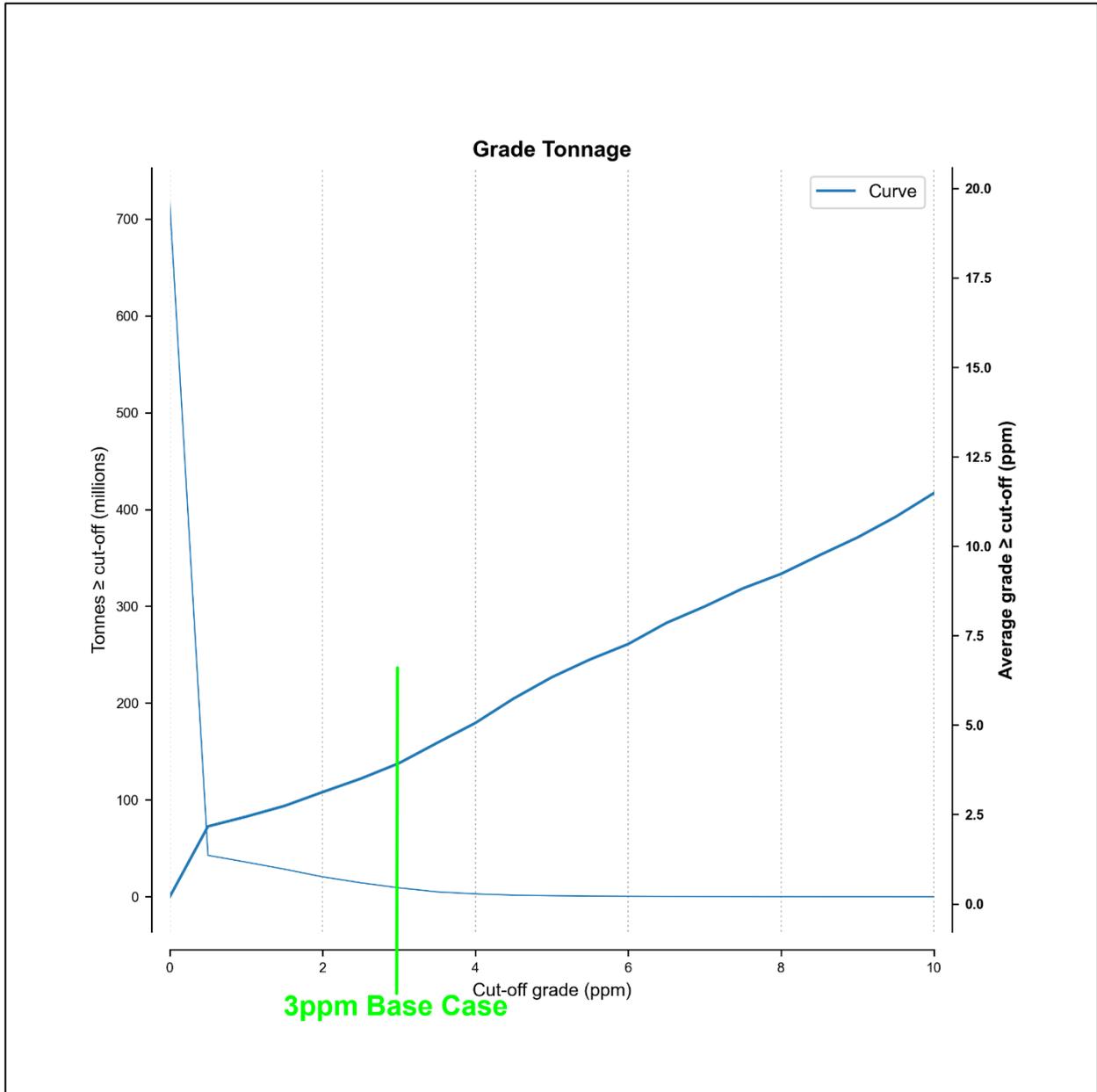


Fig. 14.31 Grade-Tonnage Curve Showing Gold Grade Cut-off Sensitivity for OK Estimated Blocks, All Categories, Pine Tree-Josephine Area. BGE 2025.

| TABLE 14.19 TABLE OF TONS FOR PINE TREE - JOSEPHINE, AVERAGE GRADE AND MATERIAL CONTENT | | | |
|---|--------------------------------|--|------------------------------------|
| Cut-off grade (ppm) | Tons \geq cut-off (millions) | Average grade \geq Recoverable cut-off (ppm) | Material Recoverable Content (Koz) |
| 0 | 487.00 | 0.25 | 3861 |
| 0.5 | 38.02 | 2.21 | 2707 |
| 1 | 32.82 | 2.44 | 2576 |
| 1.5 | 26.39 | 2.73 | 2313 |
| 2 | 18.80 | 3.13 | 1891 |
| 2.5 | 12.99 | 3.52 | 1471 |
| 3 | 8.2464 | 3.98 | 1054 |
| 3.5 | 4.68 | 4.54 | 683 |
| 4 | 2.76 | 5.11 | 453 |
| 4.5 | 1.59 | 5.76 | 295 |
| 5 | 1.01 | 6.36 | 207 |
| 5.5 | 0.71 | 6.84 | 157 |
| 6 | 0.51 | 7.27 | 120 |
| 6.5 | 0.33 | 7.86 | 83 |
| 7 | 0.23 | 8.32 | 62 |
| 7.5 | 0.16 | 8.82 | 45 |
| 8 | 0.12 | 9.23 | 34 |
| 8.5 | 0.08 | 9.74 | 24 |
| 9 | 0.05 | 10.24 | 17 |
| 9.5 | 0.03 | 10.82 | 11 |
| 10 | 0.02 | 11.48 | 7 |

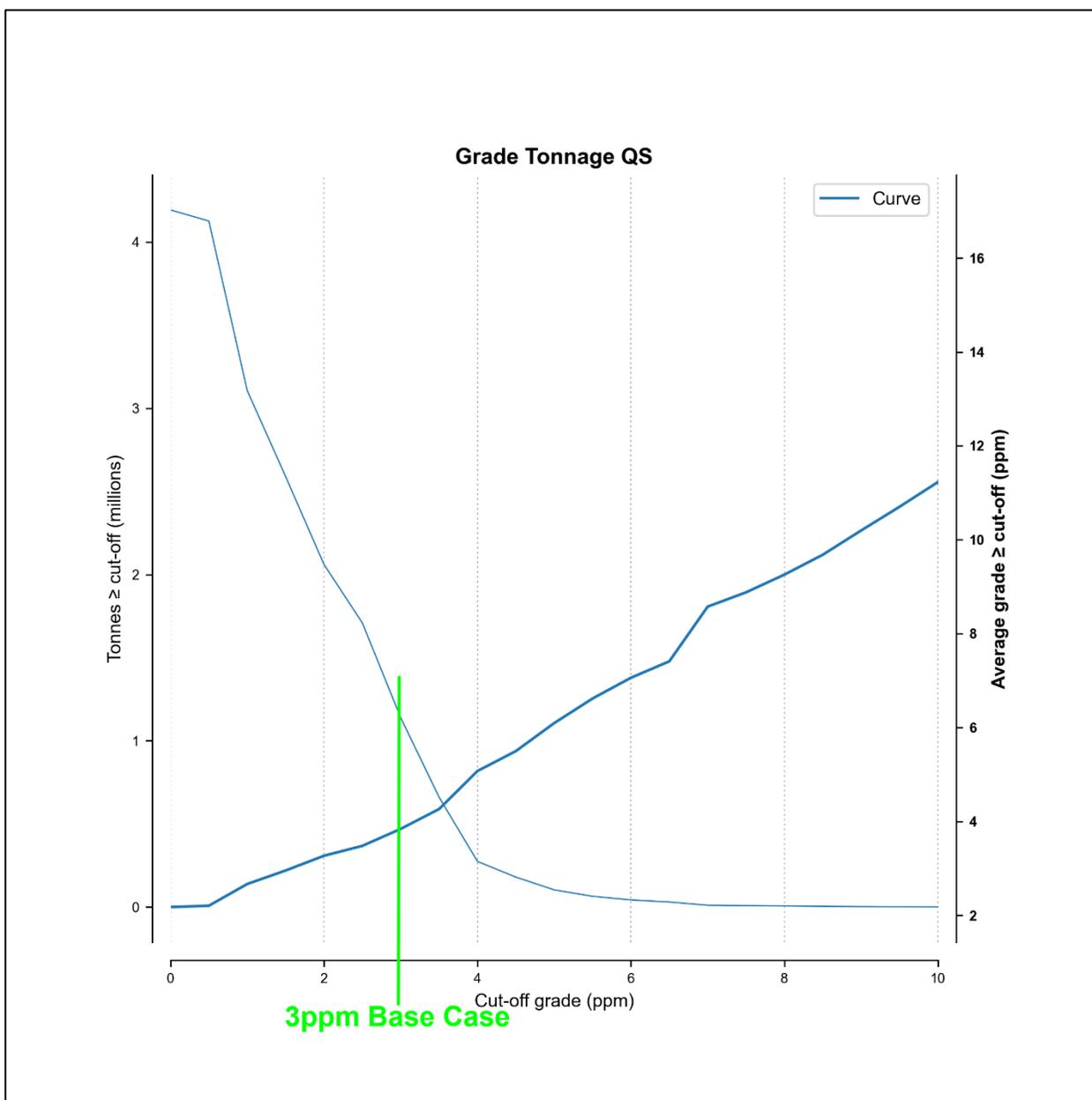


Fig. 14.32 Grade-Tonnage Curve Showing Gold Grade Cut-off Sensitivity for OK Estimated Blocks, Inferred Category, Queen Specimen Area. Note: Gold reported is Recoverable Gold. That's is Content Gold with a 90% Recovery applied.

| TABLE 14.20 TABLE OF TONS FOR QUEEN SPECIMEN, AVERAGE GRADE AND MATERIAL CONTENT | | | |
|--|--------------------------------|--|------------------------------------|
| | Tons \geq cut-off (millions) | Average grade \geq Recoverable cut-off (ppm) | Material Recoverable Content (Koz) |
| 0 | 4.19 | 2.18 | 294 |
| 0.5 | 4.13 | 2.21 | 293 |
| 1 | 3.11 | 2.67 | 267 |
| 1.5 | 2.59 | 2.96 | 246 |
| 2 | 2.06 | 3.27 | 217 |
| 2.5 | 1.71 | 3.48 | 191 |
| 3 | 1.1391 | 3.84 | 141 |
| 3.5 | 0.66 | 4.26 | 91 |
| 4 | 0.27 | 5.07 | 45 |
| 4.5 | 0.18 | 5.50 | 32 |
| 5 | 0.10 | 6.10 | 20 |
| 5.5 | 0.06 | 6.62 | 14 |
| 6 | 0.04 | 7.06 | 10 |
| 6.5 | 0.03 | 7.41 | 7 |
| 7 | 0.01 | 8.58 | 3 |
| 7.5 | 0.01 | 8.88 | 3 |
| 8 | 0.01 | 9.26 | 2 |
| 8.5 | 0.00 | 9.68 | 1 |
| 9 | 0.00 | 10.20 | 1 |
| 9.5 | 0.00 | 10.70 | 1 |
| 10 | 0.00 | 11.23 | 0 |

15.0 to 22.0 OTHER SECTIONS

These sections do not apply to the Property which is the subject of this report.

23.0 ADJACENT PROPERTIES

There are no other relevant data and information to disclose that makes the Technical Report misleading.

24.0 OTHER RELEVANT DATA AND INFORMATION

There are no other relevant data and information to disclose that makes the Technical Report misleading.

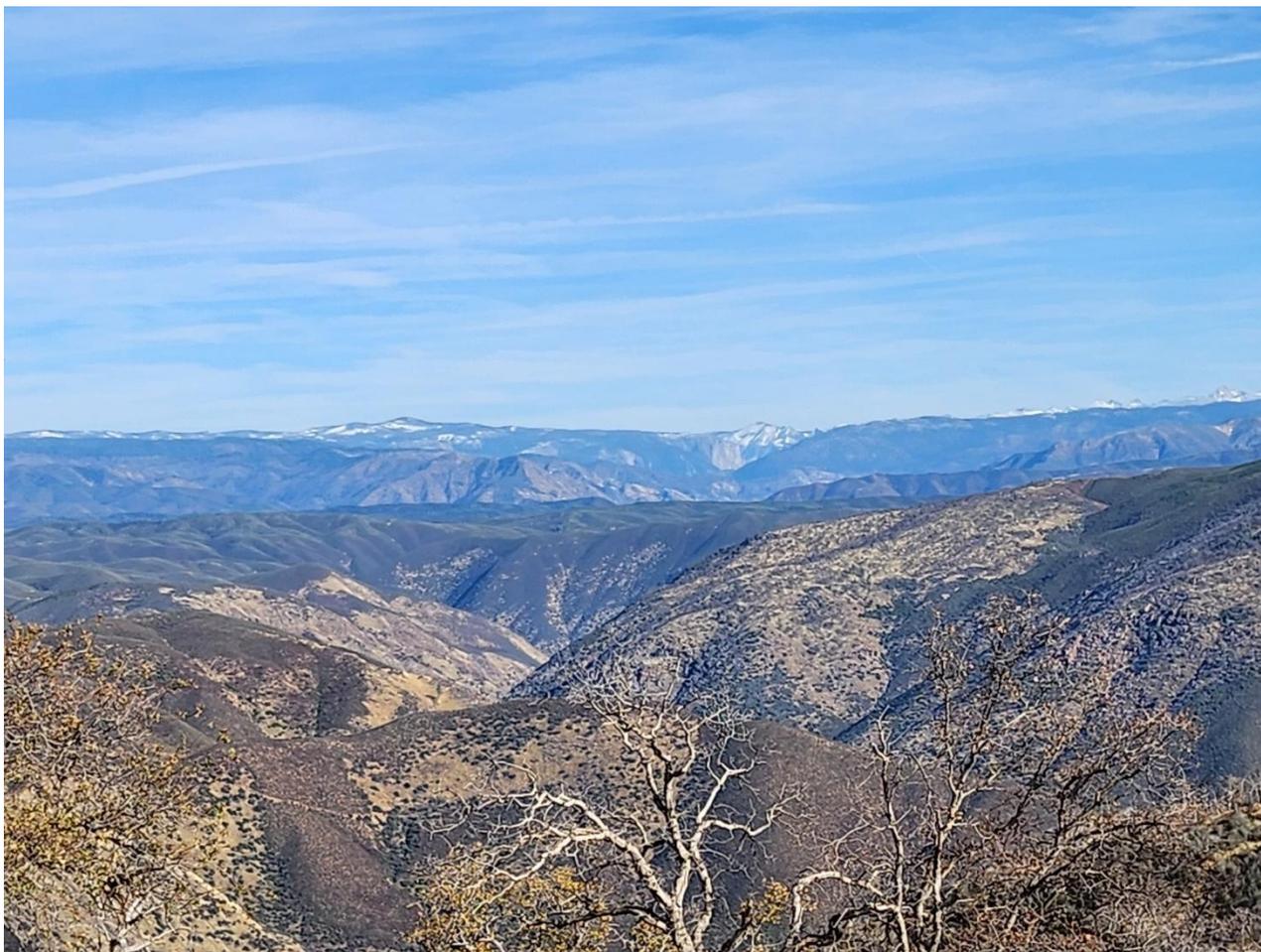


Fig. 24.1 Yosemite seen in the far distance from the Property

25.0 INTERPRETATION AND CONCLUSIONS

Lode Gold Resources' 100% owned Fremont Gold Property is located in Mariposa County, California, 20.3 km northwest of the Town of Mariposa, and approximately 241 km east of the City of San Francisco, in the western foothills of the Sierra Nevada Mountains. The Property consists of three county assessor parcels totaling 3,351.22 acres (1,357 ha). The three private land parcels include pre-United States mineral and surface rights and the mineral rights from and the land under State Highway 49, all of which are owned 100% by Fremont Gold Mining LLC., a wholly owned subsidiary of Lode Gold, subject to a 3% NSR royalty.

The Fremont Property is readily accessible by California State Highway 49, which runs parallel to the deposit on the west side of the Property from north to south. A 70 kV power transmission line owned by PG&E crosses the Property from east to west. The local Bear Valley substation is located adjacent to Lode Gold's office-warehouse, along Highway 49. Access and weather conditions allow for exploration and development work to be conducted year-round.

Regionally, the Fremont Property is located in the Mother Lode Gold District, which occurs in the southern portion of the western Sierra Nevada Foothills Metamorphic Belt. The Mother Lode Gold District occurs along the Melones Fault Zone, a major, crustal-scale fault trending north- northwesterly for 200 km. During the Early Cretaceous period, the Melones reverse fault system was reactivated in a transpressive regime, resulting in gold mineralization in the metasediments and metavolcanics at approximately 125 ± 10 Ma. The Melones Fault Zone hosts the historical Pine Tree-Josephine and the Queen Specimen gold deposits that from 1849 to 1942 and produced at least 125,000 ounces of gold.

Four main styles of gold deposits on the Property consist of orogenic-catathedral related gold mineralization are present on the Fremont Property: 1) quartz hosted free gold; 2) quartz-sulphide veins; 3) mélangé stockwork and 4) oxide-gold. The quartz-hosted mineralization mainly consists of free gold in quartz. It covers 3 of the 6 veins in Pine Tree – Josephine area. The quartz free gold domain happens as quartz only or quartz-ankerite veins without any sulphide and locally it has mariposite and/or chlorite. It happens in three of the six main veins in the Josephine – Pine Tree area, especially as internal veins of the mineralized body between the footwall and hanging wall veins.

The field work has been done since the 1980's, most recently in 2022, including compilation and reporting of a 2016-2017 property-wide soil geochemistry survey, and trenching, mine development activities, drilling and flying a LiDAR™ topographic survey in 2022. The four separate main deposits explored with drilling to date in the Property are along separately drilled gold-mineralized zones that are connected along 4 km of strike on surface by a >30 ppb gold in-soil anomaly.

Lode Gold has not completed any drilling on the Fremont Property. The most recent drilling programs were completed by California Gold Mining Inc. between 2013 and 2018. California Gold completed 82 surface diamond drill holes totaling 19,781 m. Of the 82 drill holes, 52 were completed into the Pine Tree-Josephine Deposit, 26 into the Queen Specimen Deposit, and

four into the historical French Mine area. Historical 1985-1986 drilling results included 113 RC drill holes totaling 16,340 m on the Pine Tree-Josephine Deposit.

In the opinion of the Authors, the sample preparation, analytical procedures, security and QA/QC program meet industry standards, and that the data are of good quality and satisfactory for use in the Mineral Resource Estimate reported in this Technical Report. In the Authors opinion, the drilling results are suitable for use in the current Mineral Resource Estimate.

The Property is serviced by paved, all-weather Highway 49 which runs parallel to the deposit on the west side of the Property, secondary access roads, and PG&E power line and transformer station on site. An office/core logging facility is also on site.

The Property is located in Mariposa County on private land and, therefore is subject to California Environmental Quality Assurance process Surface Mining and Reclamation Act. A Conditional Use Permit ("CUP") and approved closure plan will be sought from the County following the completion of the Environmental Impact Report and Closure Plan acceptance. In addition to CUP and closure plan approval, the Project will require permits including state water and air impacts and authorizations prior to construction and operation of the mine. California has limited power availability in its grid. For potential employees local housing at affordable pricing and state and income local taxes need to be reviewed. A Closure Plan, and associated financial assurance, will be prepared by Fremont and submitted to the government for filing before development of the Project commences.

The historical operations consistently achieved gold recoveries averaging 88.5% with a combined flotation and gravity circuit. Lock-cycle test results show a flotation recovery of 91.3% on a composite sample of Zones 5, 6 and 7. In June/July 1987, Beacon Hill achieved a flotation gold recovery of 89.7% on a composite underground bulk sample. For the 2014 iteration of test work, the samples were grouped by different metallurgical domains, including sulphide replacement material ("SRM") and quartz ("QTZ"), for treatment by gravity and flotation. The 2014 combined gravity and flotation recovery for the SRM was 85.6% for gold and 69.1% for silver. The 2014 combined gravity and flotation recovery for the QTZ was 93.6% for gold and 75.6% for silver.

The flotation concentrate was not amenable to cyanidation without further processing. The roasting process was the most effective oxidation process evaluated for the recovery of gold. Roasting tests were not conducted on the SRM and QTZ samples. However, there has been extensive roasting test work completed and the cyanide leaching of the roasted product (calcine). The tests in a scoping work achieved 92.7% gold recovery and in a pilot campaign conducted at the Lurgi Plant in Frankfurt, Germany, achieved 90% gold recovery in cyanidation of the calcine.

A coarse bottle roll on oxide material ("OXC") achieved a gold recovery of 93% in ten days of leaching -25.4 mm material, which confirms that the OXC has reasonable potential for heap leaching. Column leach tests on Zone 5, Zone 6, and Zone 7 oxide cap yielded gold recoveries of 88.1%, 78.8%, and 79.2%, respectively. Since each zone has an oxide cap on the surface, an

average laboratory recovery of 82.0% is a reasonable starting point. There is limited oxidized material on the Property and potential social-environmental impacts may out-weigh any short-term benefits.

Underground Mineral Resources are estimated using a cut-off grade of 3.0 g/t Au @ US\$2,000/oz Au. Underground Mineral Resources have been constrained within potentially mineable long hole stoping shapes, based on block grade, continuity and lode structure. Historical mining has been depleted from the Mineral Resource Estimate by assigning a zero-volume percentage block inclusion for known areas of mining and development. The updated Mineral Resource Estimate is based on 33,982 m of drilling, 518 m of trench sampling, and 5,760 m of underground channel sampling. The Property has a resource of four km along strike from north to south. The deposits are open along strike and particularly down dip, and further drilling may provide additional Mineral Resources.

The Pine Tree – Josephine target is planned for underground production. The selected mining method is long hole open stoping with both longitudinal retreat and transverse mining, depending on the vein thickness. Stopes will be filled with cemented paste backfill from the plant. The plant may be a standard crushing and milling circuit, followed by gravity and/or flotation to concentrate. Extraction maybe onsite by gravity/leaching or even done offsite.

The Mineral Resources presented in this Report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. The Inferred Mineral Resource component of this estimate has a lower level of confidence than that applied to the Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

An updated Mineral Resource Estimate was prepared by the Authors for the Pine Tree – Josephine and Queen Specimen gold deposits. The updated Mineral Resource Estimate consists of a total of 120.57 Koz Au (906.74 KT at 4.13 g/T Recoverable Au) in Indicated Mineral Resources and 1.086 Moz (8.53 Mt at 3.96 g/t Recoverable Au) in combined Inferred Mineral Resources.

As Qualified Persons, the author has been able to classify the Fremont Gold Property Mineral Resource Estimates into separate categories of confidence according to the industry standards lay out under CIM standards. As such, the author has determined that the estimated Mineral Resources in all categories are Compliant, Current and consist of Inferred, Indicated and Mineral Resources.

TABLE 25.1 FREMONT GOLD PROPERTY RESOURCE ESTIMATES

| Vein | | Mass KT (Tons) | Avg Recoverable Value gm/T Au | | | Material Recoverable Content Koz Au | | |
|-------------------------|-----------|-------------------|-------------------------------|--------------------|--------------------|-------------------------------------|--------------------|--------------------|
| | | | All OK Au Recov | All ID Au Recov | All NN Au Recov | All OK Au Recov | All ID Au Recov | All NN Au Recov |
| Pine Tree- Josephine | Indicated | 906.74 | 4.14 | 4.13 | 4.17 | 120.57 | 120.46 | 121.51 |
| | Inferred | 7,339.62 | 3.96 | 3.98 | 4.23 | 933.38 | 939.58 | 998.78 |
| Queen Specimen | Inferred | 1,139.14 | | 3.84 | | | 140.74 | |

26.0 RECOMMENDATIONS

The Author of this Technical Report consider that the Fremont Gold Property contains a significant gold Mineral Resource base that merits further evaluation. Key technical improvements to the Project economics, in order of priority include:

1. Upgrade the current Inferred resources into Measured and Indicated by conducting underground channel twin sampling to validate the historical mine channel assays via access to the available adits from historical workings.
2. Increase in underground Mineral Resources through definition and expansion drilling. Significant exploration potential exists along the remaining undefined 65% strike, potential parallel zones and down dip with focus on defining ore shoot plunges.
3. Increase structural studies to define the ore shoot plunges.
4. Initiate mineralogical/metallurgical studies to evaluate:
 - a) Gold particle sizing with metallic/nugget screening.
 - b) If reported graphite is active (cyanacide) or not, and
 - c) Spiral gravity treatment to separate graphite and other gangue minerals from the sulfides and gold.
 - d) Milling sizes for gravity optimization.
5. Explore the possibility of a pilot plant to optimize the mineralogical/metallurgical studies in order to gather production data for upcoming feasibility studies.
6. Increase head grade from optimized mine design and cut-off grade analysis.
7. Explore converting waste materials to commercial aggregate by-products analogous to what Soledad Mountain gold mine in California and other mining operations world-wide are undertaking.
8. Investigate optimizing project economics by direct sales of flotation concentrate to nearby US smelters.
9. Capitalize the use of historical underground workings for access, bulk material conveyor-type transport, and development infrastructure such as ventilation raises, production slot raises and passes.
10. Phase production over several stages in the mine design to leverage California resources for power, trained personnel, and so forth.
11. Enhance the long-term real estate value beyond the mine life through progressive and post-mining re-purposing of the Property for recreation, community, environmental, social, and commercial uses.

12. Review the current QC protocols to have only certified blanks, which includes the insertion of appropriate certified reference materials, blanks and duplicates.

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CERTIFICATE of QUALIFIED PERSON

I, Allen David V. Heyl, certified professional geologist (CPG), of P.O. Box 4054, Evergreen, Colorado, USA, 80437 do hereby certify that:

- I am the co-author of the technical report titled “Updated Technical Report for the Fremont Gold Property” and dated effective March 5, 2025 (the “Technical Report”) prepared for Lode Gold Resources.
- I am a graduate of the Ft. Lewis College, in 1982, and hold a Bachelor’s of Science degree in Geology.
- I am currently a registered member of the American Institute of Professional Geologists, registered CPG No.11277 since 2010.
- I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43- 101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I am a “qualified person” for purposes of NI 43-101. I have been practicing my profession as a geologist for mining companies and as a consultant since 1983. I am a consulting CPG to the mining and mineral industries.
- I have visited the Fremont Gold Property (the “Property”) from December 19 to December 20, 2024 as a site visit and to review project data.
- I am the responsible for the items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 23, and portions of items 25, 26 and 27 contained in the Technical Report.
- I am independent of Lode Gold Resources as set out in Section 1.5 of NI 43-101.
- I have no prior involvement with the Property that is the subject of the Technical Report.
- I have read NI 43-101 and Form 43-101F1 and certify that items of this Technical Report that I am responsible for have been prepared in compliance with the foregoing instrument and form.
- As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all of the scientific and technical information that is required to be disclosed to ensure that the Technical Report is not misleading.
- I have no interest in the property that is the subject of this Technical Report, either directly or indirectly

Signed and Dated at Evergreen, Colorado USA, April 18, 2025.

Signed:

Allen David V. Heyl, CPG

Independent Consultant (Geology)