OCEANAGOLD
WAIHI OPERATION

Dewatering and Settlement Report 2025

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DEWATERING & SETTLEMENT MONITORING REPORT 2025

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EXECUTIVE SUMMARY

This annual Dewatering and Settlement Monitoring Report is a requirement of the consent conditions for the Martha, Favona, Trio, Correnso and Project Martha mining projects, in Waihi, New Zealand.

Compliance monitoring and assessment of groundwater and settlement trends are reported in this document for the period 1 January 2025 to 31 December 2025. Such monitoring and reporting have been completed in accordance with the current Dewatering and Settlement Monitoring Plan that was approved by the Hauraki District Council (HDC) and Waikato Regional Council (WRC) in August 2023.

On 16 July 2017, the Correnso groundwater take permit 124860 was replaced by the Project Martha groundwater take permit 139551. This allows dewatering to a lower level (500 mRL cf. 700 mRL). The mine datum is set at 1,000m above sea level.

New settlement triggers were applied during 2020 following approval of the Project Martha consents. These current trigger levels are based on settlement estimates, which trigger a notification to council and review of the area and ongoing settlement trends. Exceeding settlement trigger limits alone does not represent an issue. Settlement can occur with no material effect at the surface. Tilt, which is differential settlement, has the potential to be problematic for residential properties or public infrastructure and can be caused by shallow settlement effects. Tilts are typically only potentially problematic if greater than 1 in 1000 and therefore this is the consented tilt trigger level. Shallow settlement effects can be linked to drawdown of the shallow water table and therefore monitoring of the piezometric levels is of importance.

The current settlement survey results indicate that 94.6% (302/319) of the marks were within the predicted ranges of settlement resulting from mining activities. Seventeen marks triggered further investigation. Five of these triggered settlement marks were located above the Favona mining area.

The remaining twelve of the above seventeen triggered marks are located in the wider Waihi area. Generally, no effects were observed at surface near these locations, all but one measured tilts were less than 1 in 1000, and nearby shallow piezometers have not displayed any changes outside of normal seasonal trends.

Five marks in the Favona area have measured tilts greater than 1 in 1000. These marks are situated on farmland that is owned by the company and are located directly above the Favona workings, as such, this ground movement has no material effect on residential property.

Overall, the settlement and dewatering trends are within predicted expectations and no surface effects of concern have been identified to date.

Martha Open Pit

Dewatering from the Martha Pit was discontinued on 4 May 2015 after a slip on the north wall resulted in access and power supply to the dewatering pumps becoming limited. Dewatering from within the Correnso underground mine (still authorised under the original consents) was initiated on 18 May 2015. The Martha, Trio, Correnso and SUPA groundwater systems are hydraulically linked, and water levels are now controlled by the Martha Underground dewatering.

Generally, the groundwater level monitoring which has been completed to date indicates that the Martha Open Pit and Underground dewatering has:

- negligible effect on the shallow groundwater table,
- minor effect in the deeper younger volcanic groundwater pressures locally around the pit, and
- notable depressurisation or dewatering in the deep andesite.

As the drawdown effects are primarily deep and limited to within the andesite rock, no undesirable tilts have manifested at the surface. No new trends have developed during 2025.

Analysis of the relevant monitoring data has indicated that most settlement around Martha Pit had developed by the mid to late 1990s, but widespread small magnitude settlement has been ongoing and is likely to be related to dewatering of deeper structures within the andesite rock mass. Groundwater

monitoring data does not show any widespread or significant dewatering of alluvium, or of the upper portions of the young volcanic materials which could lead to undesirable tilt at the surface.

There were no complaints regarding mine dewatering or settlement in response to mine dewatering, during 2025. Compliance was achieved with the consent conditions granted for the Martha Extended Project.

Favona

At the Favona Mine the measured piezometer levels indicate continued dewatering of the vein system, with the groundwater level being maintained at approximately 800 mRL mine datum by the end of 2025. Water levels in the country rock surrounding the vein system stand higher and are either not responding or responding slowly to dewatering.

Five Favona marks exceed the settlement predictions set for Project Martha. A settlement trend exists over a 150 m wide area above the underground workings with a maximum total settlement of 390 mm (F18), of which up to 341 mm can be attributed to Favona mining activity. This is greater than the 80 mm initially predicted by URS (2002 Technical Report) to be due to dewatering. This settlement is attributed to a combination of depressurisation stress (primary consolidation) associated with drawdown in the andesite rock and relaxation of the country rock as mining proceeded. Primary consolidation (i.e. which occurs the first time a mine is dewatered) is greater than a second cycle (i.e due to subsequent dewatering activities). It is therefore worthy of note that the Favona Mine is outside of the Martha groundwater system; the Martha system was historically dewatered for a longer period and to greater depth and is currently undergoing a second period of dewatering.

Six tilt gradients attributable to Favona mining activity remain steeper than 1 in 1000. These locations are on farmland that is owned by the company and are south of the residential area along Barry Road. All of these locations have been recorded in previous surveying events.

The previous trigger levels which applied to the Favona piezometers have been removed. These have been superseded by the Waihi wide triggers that were introduced as part of the Correnso dewatering consent. The current trigger is a 15m water level change within a month. No Favona piezometer had such an increase or decrease. Compliance with the conditions of the Favona consents and Monitoring Plan was achieved.

Trio

The groundwater levels in this area are assessed to be controlled by the Martha Underground dewatering.

Correnso

The Correnso Underground Mine was granted consent and operations began on 20 December 2013.

The Correnso water take permit was activated in July 2017, allowing dewatering to lower the groundwater down to 700 mRL (WRC #124860, Schedule One – General Conditions, Condition 1), beyond the lowest level authorised for the mining of Trio.

New settlement trigger levels for Correnso were applied in 2017 and Project Martha superseded these in 2020. During 2025, no settlement marks in the Correnso Extensions Project Area (CEPA) displayed dewatering related settlement and no consent related groundwater trigger was activated. Compliance was achieved with the consent conditions granted for the Correnso Project.

SUPA

The Slevin Underground Project Area is essentially an extension of the Correnso mining area. Mining within the SUPA area began 16 January 2017. No new WRC consents were required for the activity which is covered by existing WRC consent conditions. The HDC dewatering and settlement related conditions are similar to the WRC conditions for Correnso. No new monitoring or reporting is required as the existing networks adequately encompass SUPA.

MDDP

The Martha Drill Drives Project (MDDP) was granted consent on 9 August 2017. Mining in the MDDP began 17 August 2017 and was completed during 2019. The project involved the construction of two underground drill drives from the SUPA area towards Martha Pit. No specific HDC conditions relate to dewatering and settlement, rather it is covered by existing WRC Correnso consent conditions. No new monitoring or reporting is required as the existing networks adequately encompass MDDP.

Project Martha

Consents for Project Martha were granted on 1 February 2019. Joint HDC and WRC consents were activated on 27 July 2019 when blasting began in the project area. The current Project Martha groundwater take permit (139551) was activated on 1 January 2020 and allows dewatering down to 500 mRL. New dewatering bores were installed during 2020 to progressively lower the water level to enable Project Martha activities. At the end of 2025, the water level was at approximately 641 mRL.

In June 2023, amendments were made to the Dewatering and Settlement Monitoring Plan to specifically address additional monitoring requirements due to the proposal to mine the Rex orebody to a higher elevation. This was approved by WRC and HDC in August 2023, and more focused monitoring of groundwater level/pressure along the strike of the Rex orebody began in October 2023. Six additional settlement marks were also installed. No decreases in groundwater level exceeding the 2m trigger were identified during 2024.

1 INTRODUCTION

This report is submitted to meet the requirements of the various consents which are currently held by Oceana Gold New Zealand Limited (OGNZL) regarding mine-related dewatering and settlement. New consents have been issued for different projects as mining has progressed at Waihi with many having conditions and reporting requirements in common. A full list of the relevant conditions pertaining to dewatering and settlement are included in Appendix A. Consents for Martha, Favona, Trio, Correnso, SUPA, MDDP and Project Martha all require a dewatering and settlement monitoring plan. Below is a summary of the current common consent requirements:

The (annual monitoring report) report shall, as a minimum, provide the following information:

a) The volume of groundwater abstracted;
b) The data from monitoring undertaken during the previous year, including groundwater contour plans (derived from the data) in respect of the piezometer network;
c) An interpretation and analysis of the monitoring data, in particular any change in the groundwater profile over the previous year, predictions of the future impacts that may arise as a result of any trends that have been identified including review of the predicted post closure effects based on actual monitoring data, and what contingency actions, if any, the consent holder proposes to take in response to those predictions, this analysis shall be undertaken by a party appropriately experienced and qualified to assess the information;
d) Any contingency actions that may have been taken during the year;
e) Comment on compliance with relevant resource consent conditions, including any reasons for non-compliance or difficulties in achieving conformance with the conditions.
f) The report shall be forwarded in a form acceptable to the Councils.

2 CLIMATE CONDITIONS

Historical rainfall data for Waihi has been collected since 1907, with annual measured rainfall ranging between 1249 and 3234 mm.

Annual and seasonal rainfall trends are displayed in the following figures (Fig. 1 – Fig. 3). Cumulative Rainfall Departure (CRD) is a concept used to evaluate the temporal correlation of rainfall with surface water or groundwater levels. The CRD is calculated by determining the mean of the rainfall for the period in question, subtracting the mean from each data point to determine the departure from the mean, and accumulating the resultant departures. The CRD plot presents monthly long-term trends in rainfall since 2000, with a rising slope since July 2022 influenced predominantly by the cyclonic events in Jan-Feb 2023, followed by a rapid decline in 2024 and a slight rebound in 2025.

The 2025 annual rainfall (2179 mm) was significantly more than the previous year (1279 mm in 2024), less than 2023 (2898 mm), and 79 mm more than the historical average of 2100 mm. The month with the highest rainfall in 2025 was April (420 mm), followed by July (318 mm) and the driest month was March (32 mm) followed by February (125 mm).

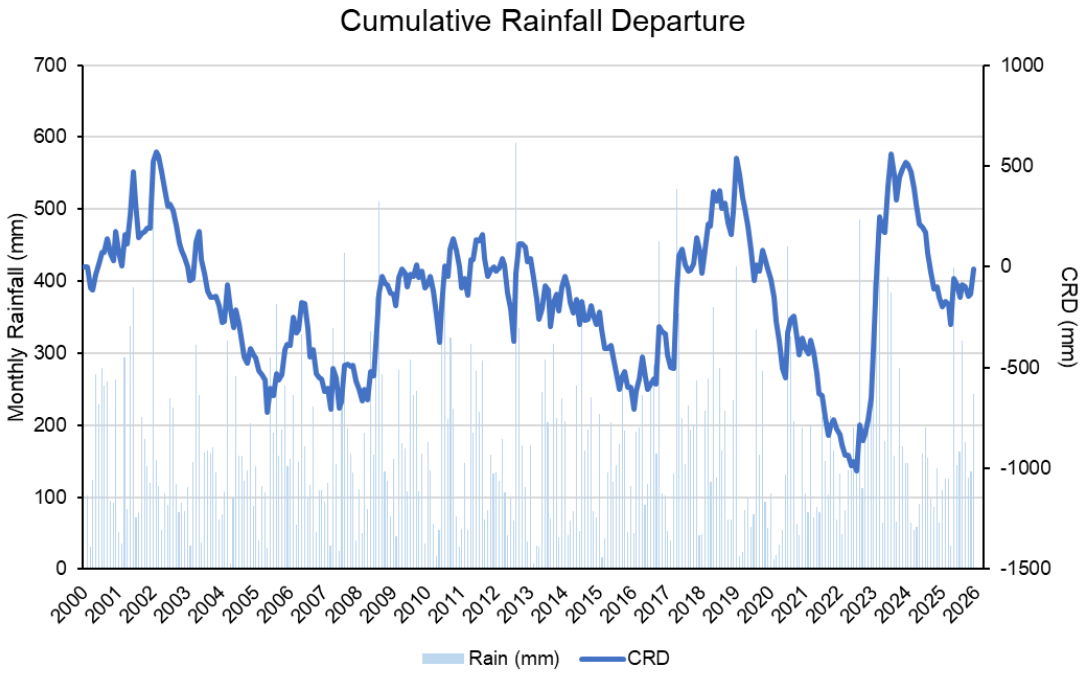


Figure 1. CRD plot 2000–2025

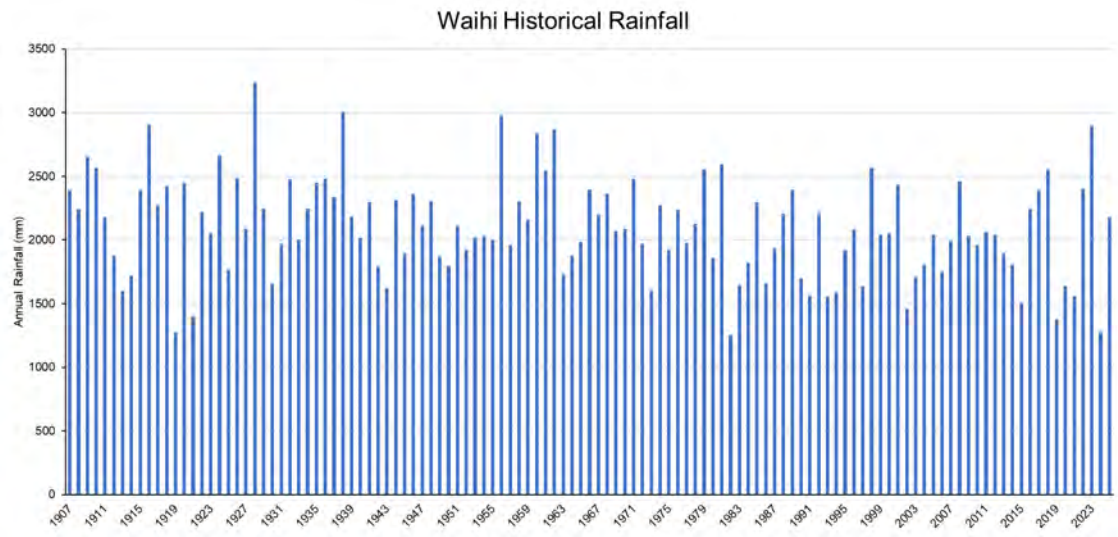


Figure 2. Historical rainfall 1907–2025

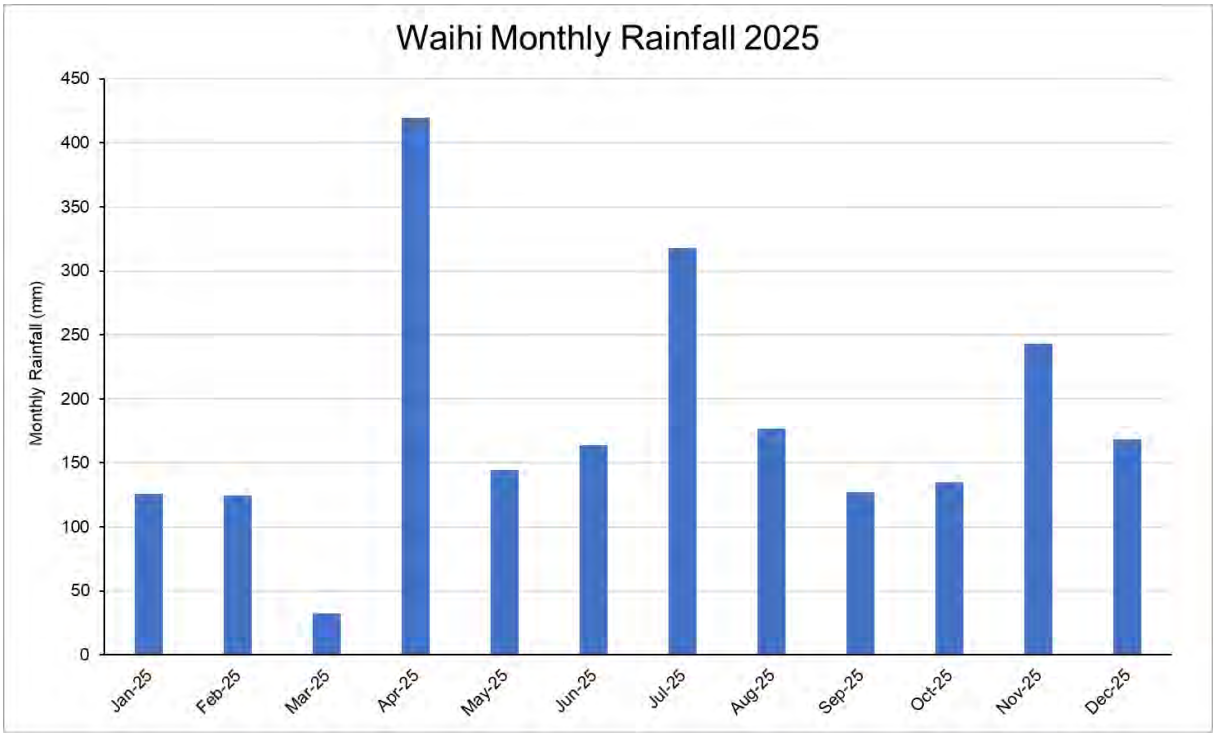


Figure 3. Monthly rainfall 2025.

3 GEOLOGICAL SETTING

The mineralised veins of the Martha, Favona, Trio and Correnso gold deposits in Waihi are developed within Miocene age lava flows, intrusives and volcaniclastics of predominantly andesitic and minor dacitic composition (Figure 4). The andesites extend to depths greater than 600m below the surface and are extensively modified in places by weathering and hydrothermal alteration. The andesites are unconformably overlain by younger, unmineralised rhyolitic ignimbrites under much of the Waihi township. The ignimbrites drape over an eroded andesitic graben and horst landscape resulting in a volcaniclastic package that is highly variable in thickness (0 to >100m). Additionally, the ignimbrites exhibit variable textures, ranging from light weight, soft and pumice-rich horizons that are highly permeable to hard welded ignimbrites that appear less permeable. Paleosols (buried soils) and sedimentary deposits, such as alluvium and boulder alluvium (in places) mark the tops of successive eruption sequences.

There is a discontinuous layer of recent alluvium beneath the Waihi township that is located in areas where old streams and river channels cut into the ignimbrites and andesite units. These alluvial deposits are extensive to the east of Waihi where they are associated with the drainage systems of the Ohinemuri River catchment.

The most common effect of hydrothermal alteration on the andesitic host rocks surrounding the veins is the alteration of primary feldspars to illite and smectite clays and the introduction of pervasive potassic feldspar. Illite and smectite clays generally cause the host rocks to lose their internal strength forming weaker and usually more friable rock. The extent of clay alteration is highly variable and dependant on veining and the host rock type. In Waihi the strongly clay altered zones are usually concentrated within close proximity to the veins or faults (e.g. within the hanging wall of Favona) and within the vein zones themselves (e.g. Martha, Correnso and Trio). Potassic alteration on the other hand generally increases the overall strength of the host rocks which often results in the rocks surrounding the veins being more resistant to weathering and forming bluffs such as the Martha Hill (prior to mining of the Martha Open Pit) and Union Hill in Waihi. Paleo-weathering and hydrothermal alteration appear to have created an extensive low-permeability clay-rich horizon within the upper part of the andesite sequence. This horizon generally separates the andesites, hydro-geologically, from the younger overlying sequence of permeable rhyolitic ignimbrites. Exposure of the altered andesite in the southern wall of the Martha Pit indicates that the weathered clay horizon may extend up to 30m in thickness.

In the vicinity of the Martha vein zone the groundwater is largely concentrated within old underground mine workings, faults and veins where the historical mine workings act as effective conduits allowing inflow of groundwater water from the area surrounding the current Martha Open pit.

Principal veins and faults at both Martha and Favona dip to the south-east while the Correnso vein strikes north-north-west with an easterly dip. The Trio-Union-Amaranth veins are located on a paleotopographic high, informally referred to as the Union Horst that separates the Martha vein system from the Favona-Moonlight vein systems.

There is a hydrogeological connectivity between the Martha vein system and the Trio-Union-Amaranth vein system which is thought to be facilitated by the connecting Correnso structure. This was demonstrated historically by the rise and fall of ground water levels in the Union Hill shaft in unison with the rise and fall of water levels in the Martha Open Pit. There is only a very weak hydro-geological connectivity between the Martha system and the Favona system, shown by a lack of mutual response in the measured ground water levels. The zone of separation between the two groundwater systems is not well defined, but may be due to a fault boundary, either the No 9 fault or the Favona footwall fault, both of which are north to northeast trending and have a perceived strike extent exceeding 1km.

Groundwater inflow is predominantly controlled by infiltration from overlying layers and through outcrops of ignimbrite in the beds of streams and at the ground surface. The rhyolitic ignimbrite sequence is generally considered compressible and to date has accounted for most of the dewatering induced settlement around the mine site. This is indicated by settlement magnitude generally corresponding to the thickness of the rhyolitic ignimbrite and the magnitude of dewatering in these materials.

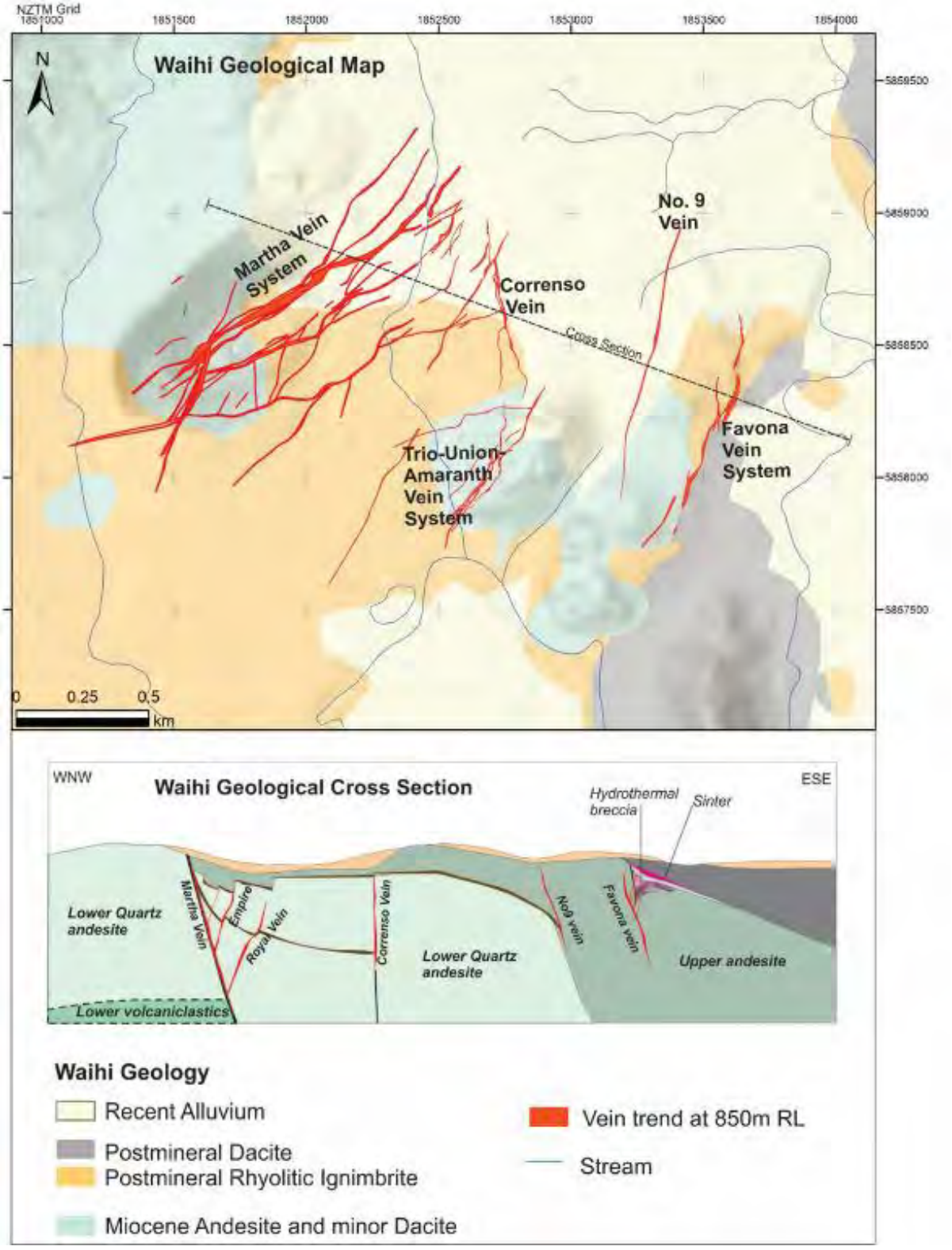


Figure 4. Geological map and cross section of the Waihi area showing the distribution of quartz veining and dominant geological rock units.

4 MINING ACTIVITIES

The main features of the mining activities during 2025 (in relation to dewatering and settlement) are described in the following sections.

4.1 Martha Open Pit

Access from the surface to the Martha Pit remained restricted during 2025 due to the north wall slip. No production works were undertaken in the pit during 2025. The pit remains in care and maintenance. In pit waste rock storage (from Martha Underground) continued.

4.2 Underground

4.2.1 Development & Production 2025

2025 saw development and production in the Martha mining area (Figure 5 & Figure 7), consisting mainly of declines, accesses, ore drives and stoping. Throughout 2025, 10,257m of development was completed. Approximately 263k tonnes of ore from development and 473k tonnes of ore from production was extracted over the period.

Limited mining activities were carried out in Correnso in 2025 (Figure 5 & Figure 6), with development blasting, stoping and drive rehabilitation. Backfilling in line with the land use consents continued.

4.2.2 Future Mining Activities

Mining activities for 2026 will focus on ore drives and stoping in Martha in the areas of Rex, Empire West, Empire, Edward and Royal East. It is planned to remove approximately 645k tonnes of ore and complete approximately 10,000m of development for the year. The reader should refer to the Annual Work Programme (WAI-200-REP-002) for a full description of the planned future mining activities.

4.2.3 Waste Rock Management

Waste rock is managed by underground stockpiling, backfilling into stopes, and placement on temporary stockpiles on the surface and within Martha Open Pit.

On the surface, a short-term stockpile is maintained immediately behind the mill area, enabling easy access for backloading. Larger or longer-term volumes will be stored at the Favona ‘Polishing Pond’ Stockpile (near the water treatment plant) and within the Martha Open Pit.

Waste rock placement at the Favona ‘Polishing Pond’ Stockpile started in early February 2007. The stockpile stopped receiving material in 2011 and was empty until 2020 when it began to store waste rock from the Martha Underground. Previously, the site has also been utilised for interim placement of Martha ore.

Waste rock placement within the Martha Open Pit started in August 2023 and will continue into 2026.

Before undertaking stockpile construction, the Favona Underground Mine Settlement, Dewatering and Water Quality Monitoring Plan was prepared, and approved by Waikato Regional Council (WRC). A separate Favona Water Quality Monitoring Report is prepared mid-year and will be submitted to WRC at the appropriate time.

4.2.4 Groundwater Inflows

During 2025, there were no anomalous water inflows in the Edward, Empire West and Empire declines which are used for accessing deeper ore bodies for Project Martha.

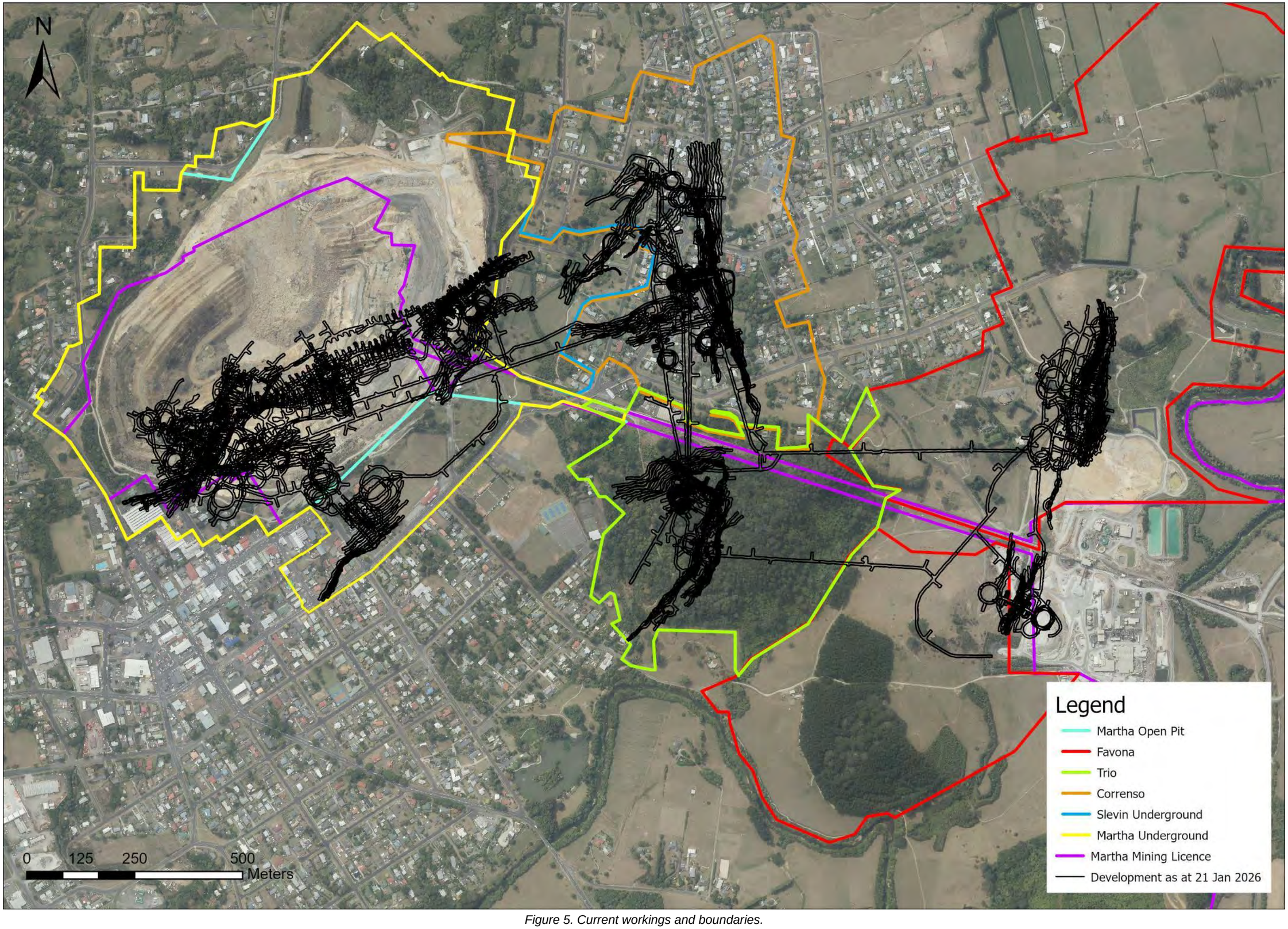


Figure 5. Current workings and boundaries.

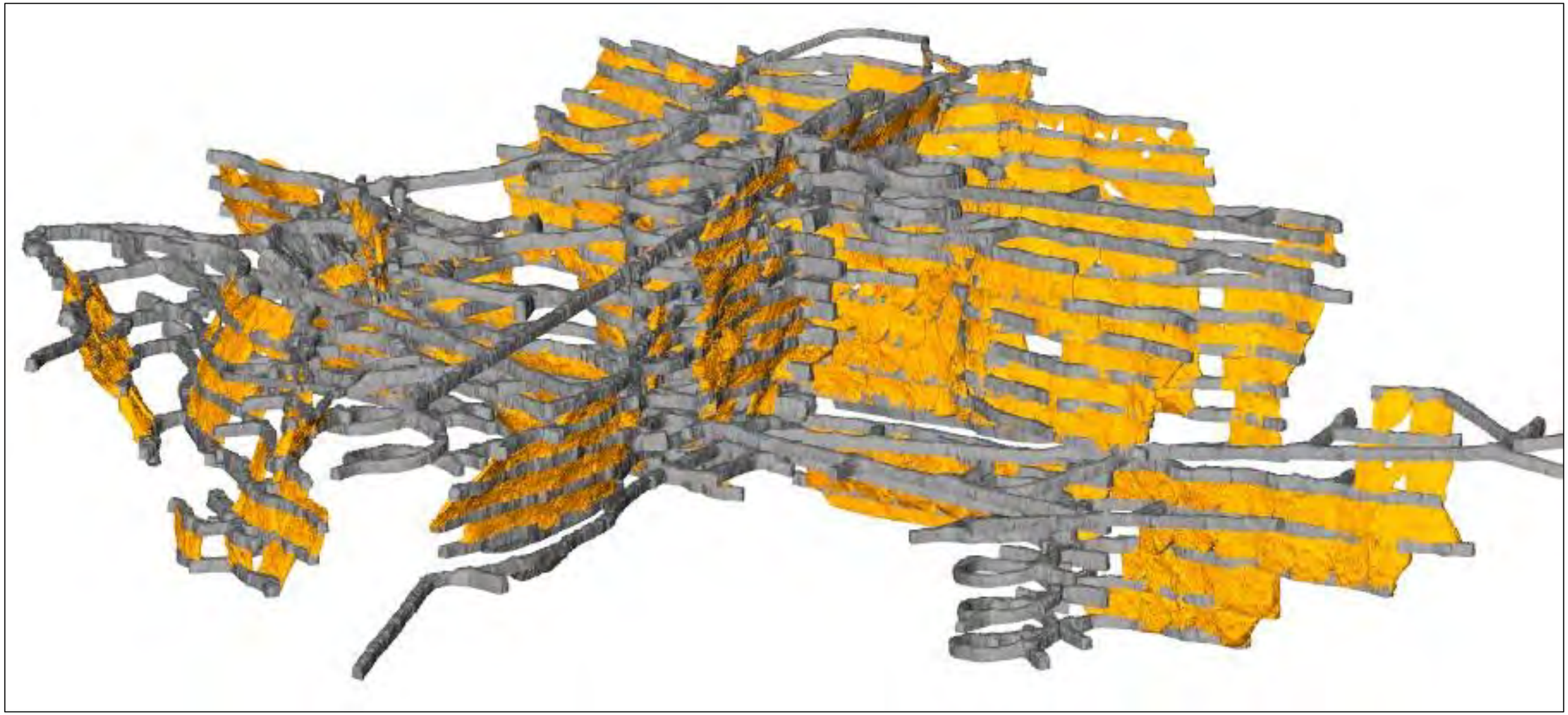


Figure 6 Oblique view of Correnso showing completed development (grey) and stoping (yellow) activities. View is looking northeast from above.

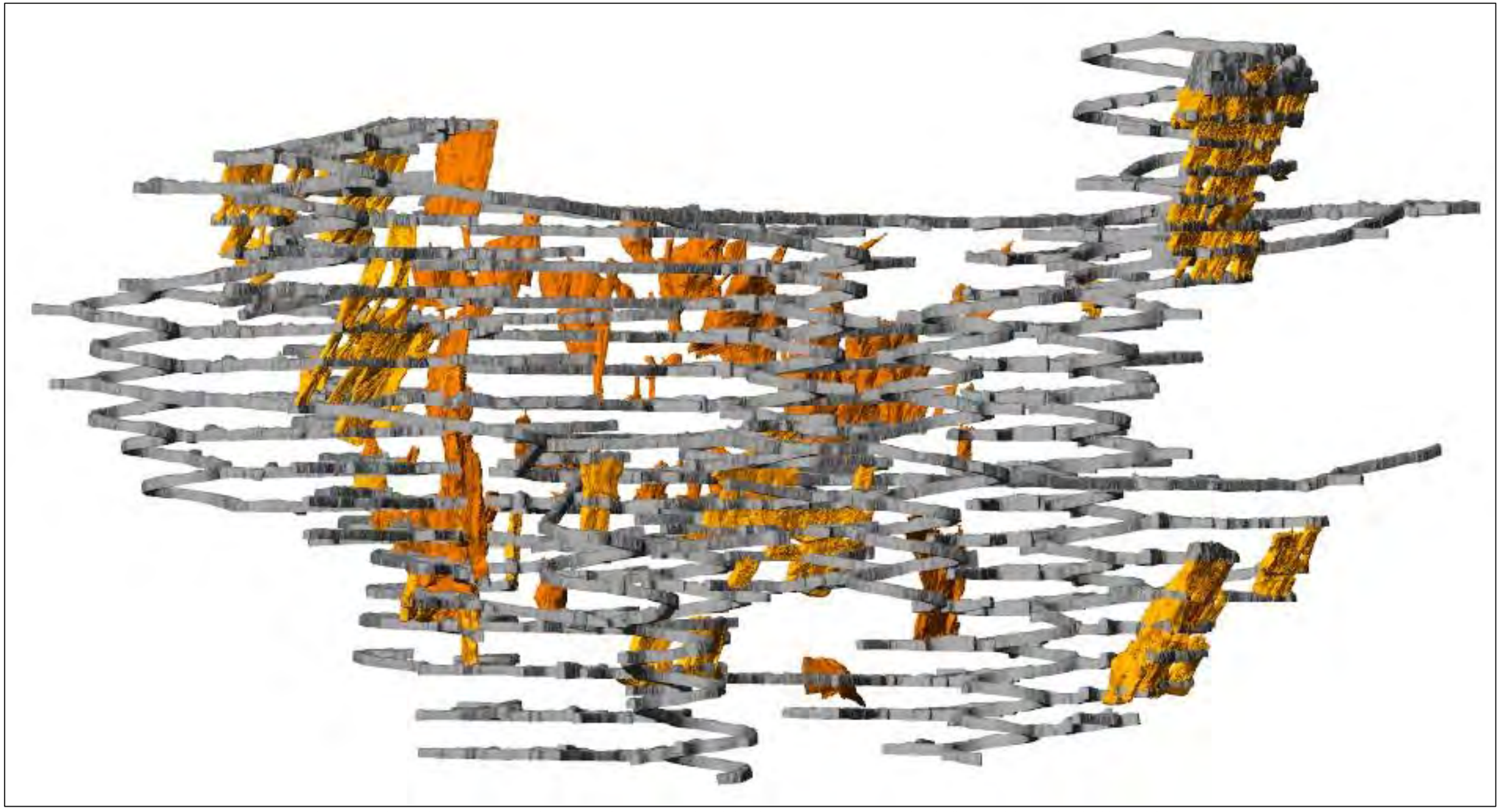


Figure 7. Oblique view of Martha Underground showing completed development (grey) and stoping (yellow) activities. View looking northeast.

5 DEWATERING

Table 1 shows the annual combined abstraction rate from Martha, Favona, Correnso and Trio. Figure 8 shows groundwater take rates and Figure 9 shows the water levels. Figure 12 & Figure 13 show the current pump arrangement for underground dewatering.

During 2020, four dewatering pumps were installed in two bores (800 PC1 and 800 PC2) from the 800 mRL level to lower the groundwater levels for the Project Martha development. Dewatering to 500 mRL is permitted under the Project Martha consent. Water from these bores is connected to the existing Correnso dewatering line. Water levels began to be drawn down using these pumps during 2021. At the end of 2025, groundwater levels were drawn to 641 mRL (Figure 11). The 800 PC1 and 800 PC2 bore hole pumps have achieved service life and will be decommissioned.

Decline intermediate pump stations have been established in Edward and Empire declines to pump water from the decline face and historic stopes to a central pump station at 800 SUPA. The 800 SUPA pump station discharges to the Correnso dewatering line.

The mine datum is set at 1,000 m above sea level, which makes the Waihi township ground surface level around 1,120 mRL.

Table 1. Martha, Favona, Trio & Correnso Mines - Annual dewatering volumes and rates.

Year	Total mine take (m^3)	Average pump rate (m^3/day)	Service water pumped underground (m^3)	Total mine take minus service water (m^3)
2016	2,911,046	7,954	181,466	2,729,580
2017	3,637,734	9,996	219,198	3,418,536
2018	4,285,048	11,511	262,227	4,022,821
2019	3,153,288	8,639	254,859	2,898,429
2020	2,687,124	7,342	173,290	2,513,834
2021	3,379,568	9,259	182,803	3,196,765
2022	2,537,964	6,953	198,999	2,338,965
2023	4,045,764	11,084	229,295	3,816,469
2024	2,721,100	7,435	227,393	2,493,707
2025	2,715,912	7,440	222,886	2,493,026

Note: for continuity, Favona abstraction volumes are included in 'Total mine take' numbers reported in Table 1.

During December 2019, at the request of a peer reviewer, a standalone flow meter was installed for the Favona dewatering line. In 2021, the pump was removed as the area was dry.

5.1 Future Dewatering

The Project Martha dewatering consent allows dewatering to 500 mRL. Underground water levels were drawn to approximately 641 mRL in 2025. This will be progressively lowered during 2026, with a target pumping rate of 35 – 180 L/s, depending on rainfall and operational requirements. Water levels are projected to be lowered to approximately 600 mRL in 2026. Dewatering will be primarily from the drive and stope face as they mine below the dewatering bore levels. Ground water inflow into planned mine development will be pumped from the active mining front to the primary pump system.

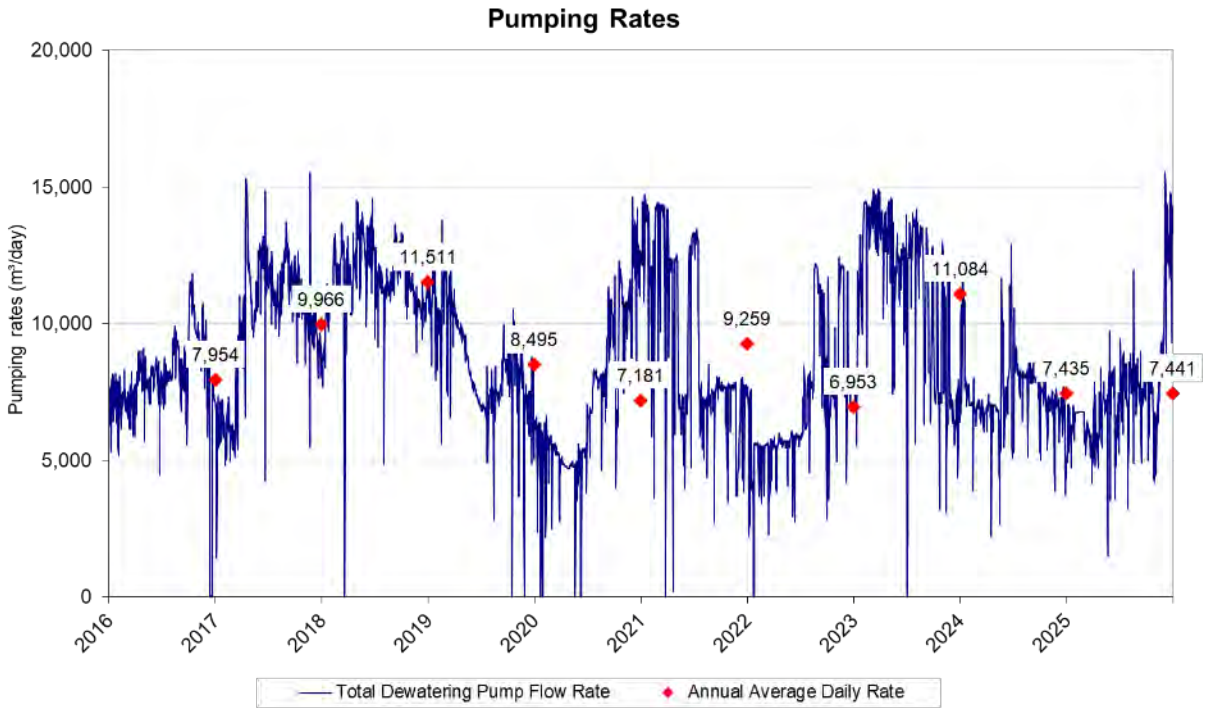


Figure 8. Underground dewatering pumping rates

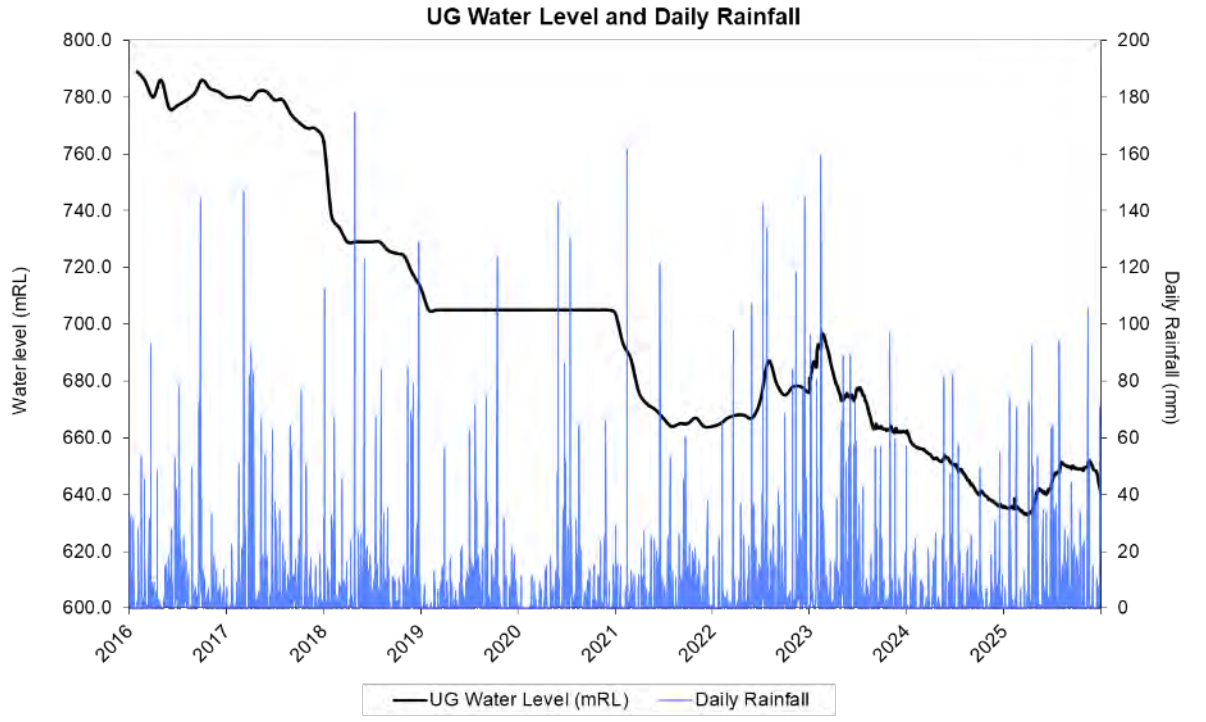


Figure 9. Dewatering water level and rainfall.

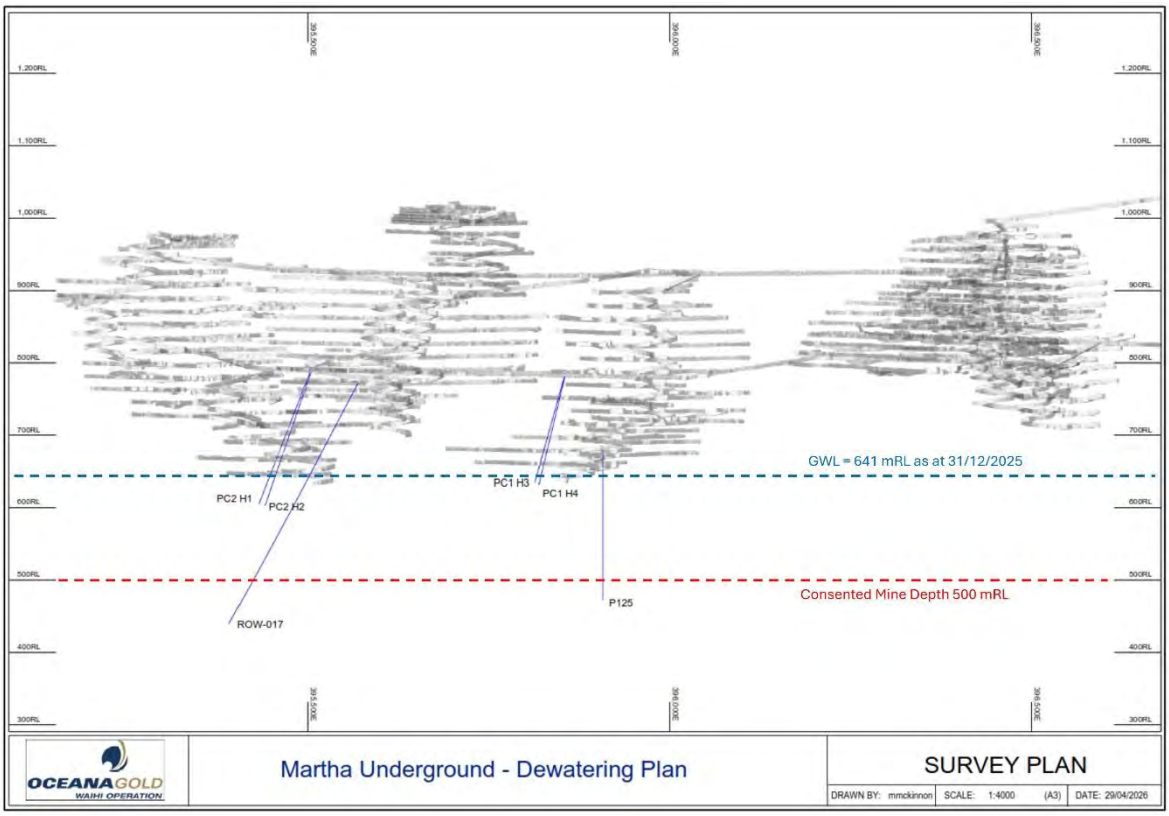
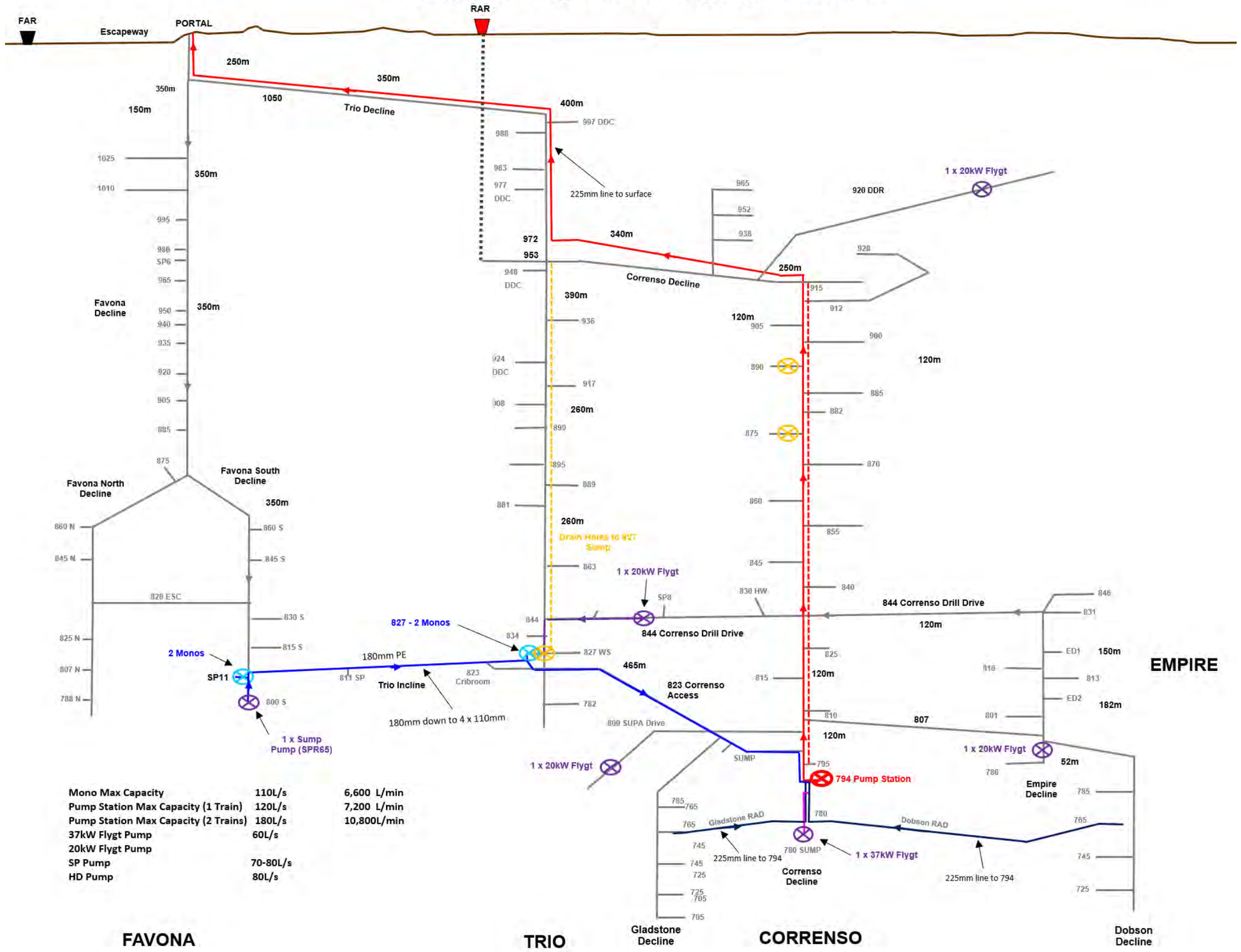


Figure 10. Project Martha underground piezo locations

Figure 11. Underground dewatering level

Waihi Underground Pumping Schematic



Mono Max Capacity	110L/s	6,600 L/min
Pump Station Max Capacity (1 Train)	120L/s	7,200 L/min
Pump Station Max Capacity (2 Trains)	180L/s	10,800L/min
37kW Flygt Pump	60L/s	
20kW Flygt Pump		
SP Pump	70-80L/s	
HD Pump	80L/s	

Figure 12. Correnso, Trio and Favona pumping schematic

MUG Pumping Schematic

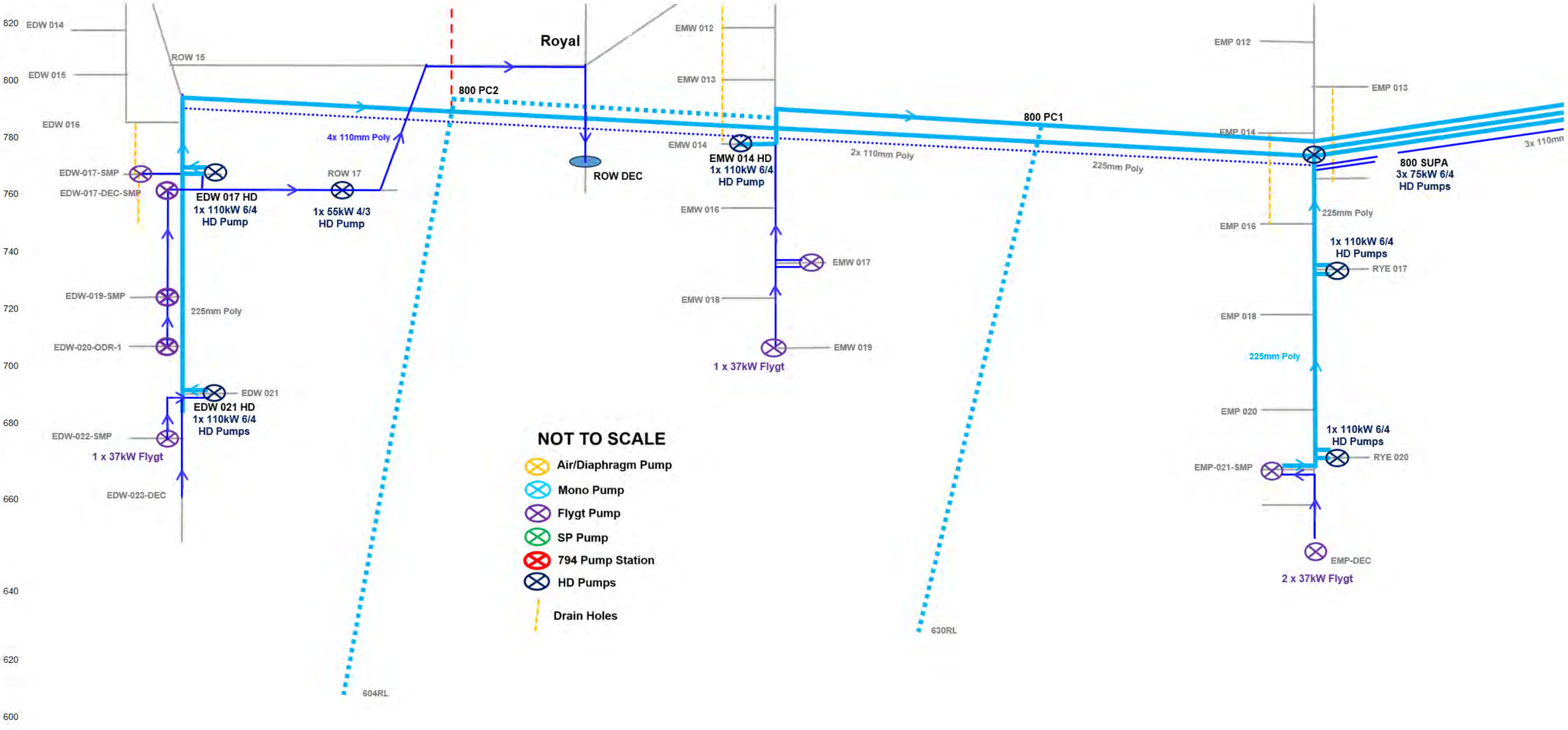


Figure 13. Martha Underground pumping schematic

6 GROUNDWATER MONITORING

This section is provided to meet Conditions 13a, b and c of the Martha Consent, Conditions 2a, 4b, and 4c, Schedule 2 of the Favona Consent, Conditions 6 (ii) and (iii) of the Trio Development Consent (referred to by the Trio Underground Mine Consent 6.1.1), Condition 35 of the Correnso Underground Mine Consent, Condition 29 of the SUPA Consent and Condition 22 of the Project Martha Consent. It includes:

- Data from monitoring undertaken during the previous year including groundwater contour plans (derived from the data) in respect of the piezometer network.
- Identification and interpretation of any environmentally important trends in dewatering behaviour or groundwater profile. Existing trends identified prior to 2025 will not be discussed in depth unless there has been a significant change or trigger reached.

6.1 Monitoring Network

OGNZL has maintained a piezometer network within and around Martha Mine since 1987 and Favona Mine since 2004. The following changes have previously been made to the network:

- Additional Correnso/SUPA piezometers were installed in 2011, 2014 and 2016.
- P106 was drilled northwest of Martha Pit and four vibrating wire piezometers (VWPs) were installed during 2017.
- Seven Project Martha piezometers were added to the network during 2019 and three during 2021.
- Two new piezometers (P122 & P123, each connected to 4 VWPs) equipped with telemetry were added during December 2022 – January 2023.
- In 2023 there were several upgrades to the network to monitor response from shallow Rex orebody mining. P113 which was dry, was re-drilled in a nearby location, as P113A. P110, P111, P112, & P114 were upgraded to telemetry monitoring and water level loggers were installed in P110, P113 and P114.
- Also in 2023, a VWP (ROW-17) was installed in the Martha Underground Mine at 773 mRL with a single tip at 472 mRL.
- Two new vibrating wire piezometers equipped with telemetry were installed in 2025. P124 southwest of the Martha Pit and P125 in the Martha Underground Mine.

Monitoring of P79-S was discontinued in Aug 2025 due to it being blocked. Monitoring of GLD004 discontinued in May 2025 following a review of monitoring requirements for the Waihi North Project.

All piezometers are monitored monthly as required by the consent conditions. The water levels are translated to the mine datum reference level to enable comparison between bores or areas. VWPs record values at daily intervals with the data downloaded monthly.

6.1.1 Monitoring Network

The number of piezometers in the 2025 monitoring network were as follows:

- Waihi town network - 51 standpipe and 5 pneumatic
- Waihi East, south of the Martha Pit and northwest of the Martha Pit - 56 VWPs

The piezometer network locations are shown *Figure 14*, well depths and average 2024 and 2025 water depths are shown in Table 2. Note that where the 2025 average depth is less than 1m, it has been reported to 1 decimal place.

Table 2. Piezometer network water depths

Well ID	Depth (mRL)	2024 Average GWL (mRL)	2025 Average GWL (mRL)	2025 Average Water Depth (m)	Piezometer Type	Comment
ALLUVIUM						
P2-4	1101	1108	1108	7	Standpipe	
P8-4	1112	1118	1119	7	Standpipe	
P63-S	1113	1117	1117	4	Standpipe	
P76-S	1109	1111	1112	3	Standpipe	
P77-S	1111	1115	1115	4	Standpipe	
P87-S	1110	1115	1115	5	Standpipe	
P91-1	1113	1119	1120	7	VWP	
P93-1	1105	1116	1116	11	VWP	
P94-1	1114	1115	1115	1	VWP	
P101-1	1102	1107	1109	7	VWP	
P102-1	1109	1113	1114	5	VWP	
WC201-4	1104	1111	1111	7	Standpipe	
WC201-5	1110	1111	1111	1	Standpipe	
WC203-4	1099	1102	1102	3	Standpipe	
GLD004S	1080	1085	1086	7	Standpipe	Ceased May-25
YOUNG VOLCANICS						
P2-3	1073	1092	1092	19	Standpipe	
P4-2	1048	1088	1088	40	Standpipe	
P7-2	1039	1091	1091	52	Standpipe	
P7-3	1081	1090	1090	9	Standpipe	
P8-3	1093	1116	1116	23	Standpipe	
P27-1	1074	1078	1079	5	Standpipe	
P63	1070	1090	1090	21	Standpipe	
P64-I	1086	1100	1101	15	Standpipe	
P76-I	1073	1103	1104	31	Standpipe	
P77-I	1046	1095	1099	53	Standpipe	
P78-S	1109.5	1109	1110.3	0.8	Standpipe	
P78-I	1066	1103	1105	39	Standpipe	
P79-S	1091	1096	1097	6	Standpipe	Blocked Aug-25
P79-I	1061	1092	1093	32	Standpipe	
P87-I	1070	1110	1111	41	Standpipe	
P90-1	1100	1115	1116	16	VWP	
P90-2	1020	1100	1100	80	VWP	
P91-2	1097	1119	1119	22	VWP	
P91-3	1011	1112	1112	101	VWP	
P92-1	1096	1119	1120	24	VWP	
P92-2	1000	1108	1111	111	VWP	
P93-3	1015	1089	1090	75	VWP	
P94-2	1094	1114	1115	21	VWP	

Well ID	Depth (mRL)	2024 Average GWL (mRL)	2025 Average GWL (mRL)	2025 Average Water Depth (m)	Piezometer Type	Comment
YOUNG VOLCANICS cont.						
P94-3	1016	1101	1101	85	VWP	
P95-1	1091	1115	1116	25	VWP	
P95-2	1031	1102	1103	72	VWP	
P100-1	1066	1081	1084	18	VWP	
P100-2	996	1052	1054	78	VWP	
P101-2	1083	1094	1099	16	VWP	
P101-3	1068	1087	1091	23	VWP	
P102-2	1079	1092	1097	18	VWP	
P102-3	1055	1088	1093	38	VWP	
P107	1089	1111	1111	22	Standpipe	
P108	1116	1121	1121	5	Standpipe	
P109	1091	1096	1096	5	Standpipe	
P110	1097	1104	1105	8	Standpipe	
P111-1	1100	1107	1107	7	VWP	
P112-1	1057.8	1058	1057.4	-	VWP	Dry
P113A-1	1090.2	1089	1089.6	-	VWP	Dry
P113A-2	1069.7	1071	1070.0	0.3	VWP	
P114	1054.0	1055	1054.6	0.6	Standpipe	
P115	1072	1094	1094	22	Standpipe	
P116	1045	1092	1092	47	Standpipe	
P122-1	1092	1101	1102	10	VWP	
P122-2	1059.9	1060	1060.0	-	VWP	Dry
BH6	1053	1111	1112	59	Standpipe	
BH9	1074	1096	1101	27	Standpipe	
BH11	1075	1093	1094	19	Standpipe	
BH12	1079	1106	1105	26	Standpipe	
GLD004I	1065	1086	1087	22	Standpipe	Ceased May-25
WC202-2	1048	1072	1070	22	Pneumatic	
ANDESITE						
P2-1	974.3	975	975.1	0.8	Standpipe	
P2-2	1035	1045	1045	10	Standpipe	
P7-1	989	1003	1003	14	Standpipe	
P9-1	1037	1118	1118	81	Standpipe	
P69-S	1114	1132	1133	19	Standpipe	
P69-D	1063	1091	1090	27	Standpipe	
P75	979	1063	1067	88	Standpipe	
P76-D	1056	1097	1098	42	Standpipe	
P77-D	1031	1094	1099	68	Standpipe	

Well ID	Depth (mRL)	2024 Average GWL (mRL)	2025 Average GWL (mRL)	Average Water Depth (m)	Piezometer Type	Comment
ANDESITE cont.						
P78-D	1053	1072	1073	20	Standpipe	
P79-D	1048	1087	1089	41	Standpipe	
P87-D	1025	1102	1103	78	Standpipe	
P90-3	983	1084	1082	99	VWP	
P91-4	971	1103	1102	131	VWP	
P92-3	965	1101	1096	131	VWP	
P93-4	975	1039	1041	66	VWP	
P94-4	976	994	994	18	VWP	
P95-3	1001	1061	1061	60	VWP	
P100-3	981	1044	1045	64	VWP	
P100-4	956	989	987	31	VWP	
P101-4	1037	1037	1039	2	VWP	
P102-4	1027	1032	1032	5	VWP	
P106-1	1100.2	1100	1100.0	-	VWP	Dry
P106-2	1060.2	1060	1059.8	-	VWP	Dry
P106-3	1010	1011	1013	3	VWP	
P106-4	974.2	974	974.5	0.3	VWP	
P111-2	1088.4	1088	1088.3	-	VWP	Dry
P111-3	1055	1060	1060	5	VWP	
P112-2	1035.8	1035	1035.0	-	VWP	Dry
P112-3	997.8	998	997.5	-	VWP	Dry
P113A-3	1035	1059	1053	18	VWP	
P122-3	1031.9	1032	1031.9	0	VWP	Dry
P122-4	932.9	932	931.5	-	VWP	Dry
P123-1	1044	1107	1104	60	VWP	
P123-2	1004.4	1003	1001.7	-	VWP	Dry
P123-3	964	968	967	3	VWP	
P123-4	924.4	925	924.6	0.2	VWP	
P124-1	1079	NA	1098	19	VWP	Commissioned Aug-25
P124-2	1037	NA	1096	59	VWP	Commissioned Aug-25
P124-3	901	NA	917	16	VWP	Commissioned Aug-25
WC201-1	1059	1107	1108	49	Pneumatic	
WC201-2	1077	1109	1110	33	Pneumatic	
WC201-3	1097	1111	1110	13	Pneumatic	
WC202-1	1032	1073	1073	41	Pneumatic	
GLD004D	1020	1086	1087	67	Standpipe	Ceased May-25

6.1.2 Inspection and Maintenance

The piezometer dip-meters are maintained in good working condition. Calibration against a reference tape is carried out annually by Hydrologic NZ Ltd. The dip-meter tape is replaced if the difference against the reference tape is more than 0.1%. Annual calibrations were completed in 2025.

The consent conditions require an inspection of the piezometer installations and appraisal of the piezometer network every two years. In effect, inspections of the piezometer network are undertaken more frequently, with the piezometer monitoring procedure requiring 6-monthly sounding to the bottom of all standpipe piezometers to identify any locations with excess accumulated sediment.

The piezometer designs have screens which allow water to flow into the pipe at specified depths. Previously, piezometers that were impacted by accumulated sediment have been flushed with high pressure water. However, this has been unsuccessful and if the screens become completely blocked, they can no longer be monitored.

6.2 Groundwater Results

Groundwater contour plans have been updated for the three principal geological units: alluvium (plus shallow groundwater in weathered young volcanic materials), young volcanics (including ignimbrite), and andesite, based on the average groundwater depths in Table 2. The groundwater plans are presented in Figure 15, Figure 17 and Figure 21 respectively.

6.2.1 Shallow Groundwater

Figure 15 shows the inferred contours for shallow groundwater in alluvium and weathered young volcanic materials and shows the water level trends over time.

Figure 16 shows the trend plots for the piezos that were monitored in 2025. Note that GLD004 has been excluded as the 1085 mRL would compress the scale. The overall contour pattern and the trend plots demonstrate that the shallow groundwater system remains essentially unaffected by dewatering and underground mining operations. Shallow groundwater levels are controlled principally by rainfall infiltration, surface soil permeability and natural and assisted drainage to surface water systems.

Contouring of the area southwest of Martha Mine has been impacted by the loss of access to WC206. For the purposes of completing the contour plan it was assumed that groundwater level in the alluvium at that location remained the same as in previous years.

Figure 14. Waihi piezometer network 2025

Figure 15. Alluvium water level contours.

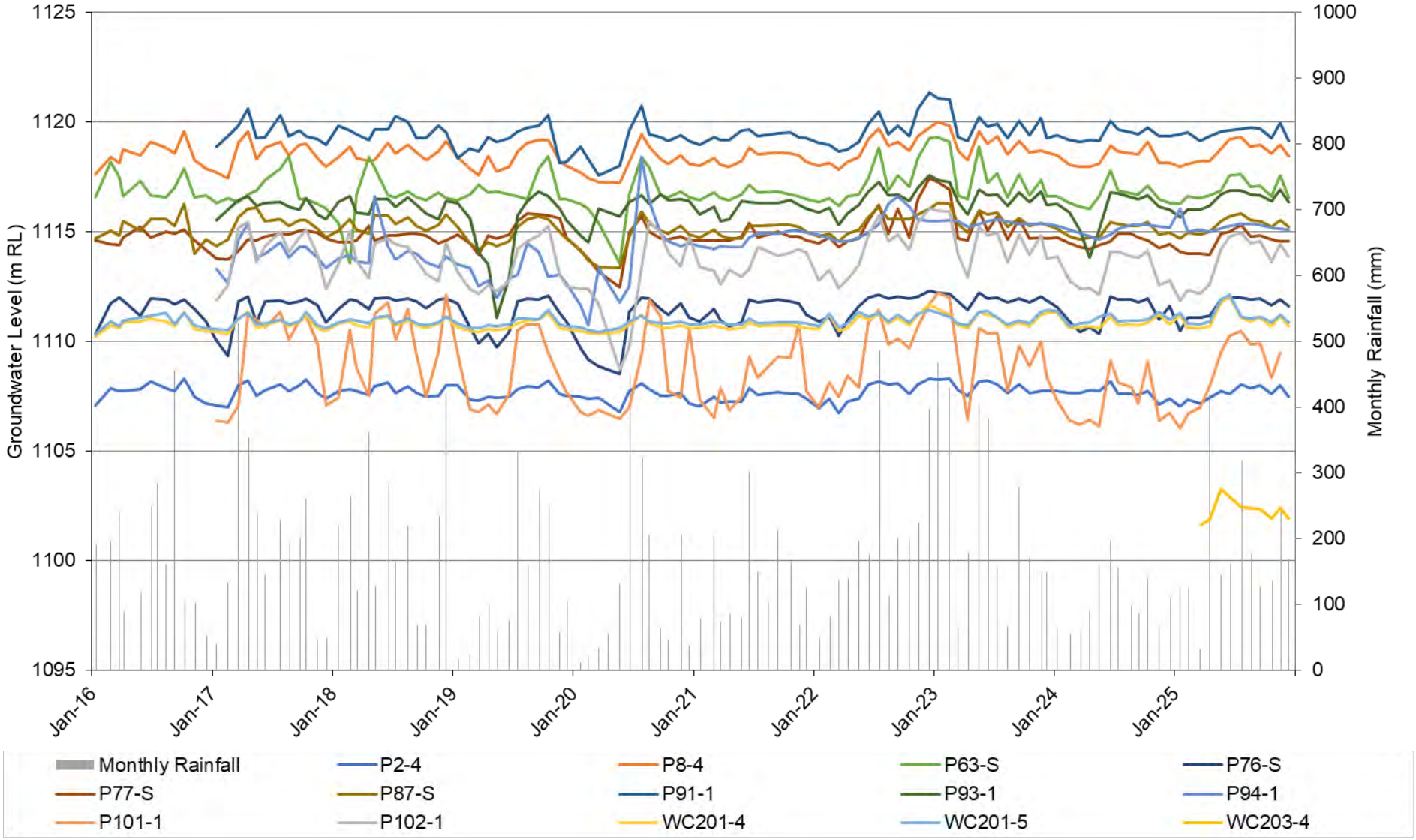


Figure 16. Groundwater level trends – shallow groundwater (alluvium & weathered contact of young volcanics).

6.2.2 Young Volcanics

Groundwater contours in the deeper portions of the young volcanic materials below the shallow groundwater system and groundwater level trends are shown on Figure 17, Figure 18, Figure 19 and Figure 20. As previously requested by the Peer Reviewer, P107-P110 & P113A-P116 are shown in a separate chart (Figure 20). Refer to Appendix F for conceptual hydrogeologic sections relative to the interpreted groundwater flow systems.

The young volcanic materials infill topographic depressions in the surface of the andesite rock body in which the open pit and underground mines are constructed.

Groundwater level change and the associated consolidation of the varying thickness of these relatively compressible young volcanic materials are considered to be responsible for much of the settlement and for the settlement patterns around the Martha and Favona Mines. Noting, that dewatering of the deep andesites is also contributing to general settlements across Waihi.

The dewatering pattern in the young volcanics around Martha Mine indicates drainage towards the open pit. The limited groundwater discharge at the contact of the young volcanic materials with the underlying andesite in the pit (see Figure 17 & Figure 18) suggests drainage is affected by features other than the contact (which defines a paleo-valley in the andesite). The most likely additional drain point is a substantial block cave evident in the pit wall. This block cave, referred to as the Milking Cow, was active during historical (pre-1950's) underground operations and resulted in substantial settlement of the ground surface, down-folding of fill and young volcanic strata, and close fracturing of the welded ignimbrite layers.

Prior to the start of dewatering at Martha Mine, groundwater levels in all rock units were similar. With the onset of mine dewatering, water levels in the veins and historic workings were drawn down. Groundwater levels in the various rock units below the shallow aquifer showed increasing vertical separation until the mid to late 1990's. Thereafter, the water levels (other than in the veins and workings) stabilised and have remained stable since. This pattern is demonstrated in the monitoring wells at site P2, with piezometer P2-1 following the vein water levels until the water level dropped below the piezometer tip. P2-2 measures the upper andesite water levels, P2-3, the young volcanic rock water levels and P2-4 the alluvium (shallow aquifer) water levels.

The development of the settlement pattern has shown a similar behaviour with an initial higher rate of settlement followed by a much-reduced rate of settlement once groundwater levels in the upper rock layers stabilised. These patterns are discussed in the following sections.

BH11 and BH12 have been included in the young volcanics hydrograph. These were historically listed as andesite piezometers. The piezometer network was reviewed by GWS Limited as part of a wider assessment of the Waihi piezometer network. The findings of the GWS review resulted in the installation of two new Martha vibrating wire piezometers (VWP), P122 and P123. Note that P123 does not have any sensor tips in the Young Volcanics.

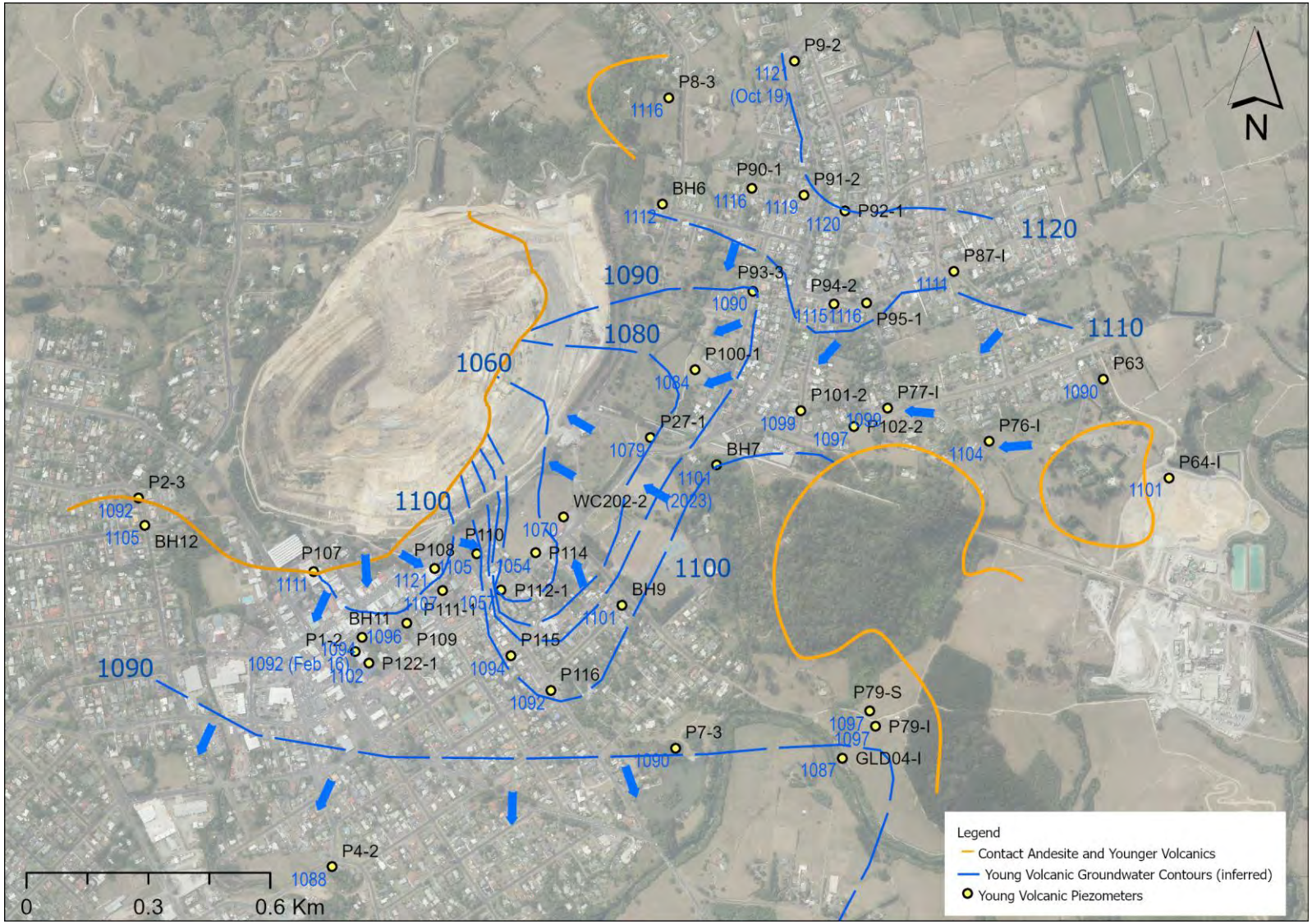


Figure 17. Deeper young volcanic water level contours.

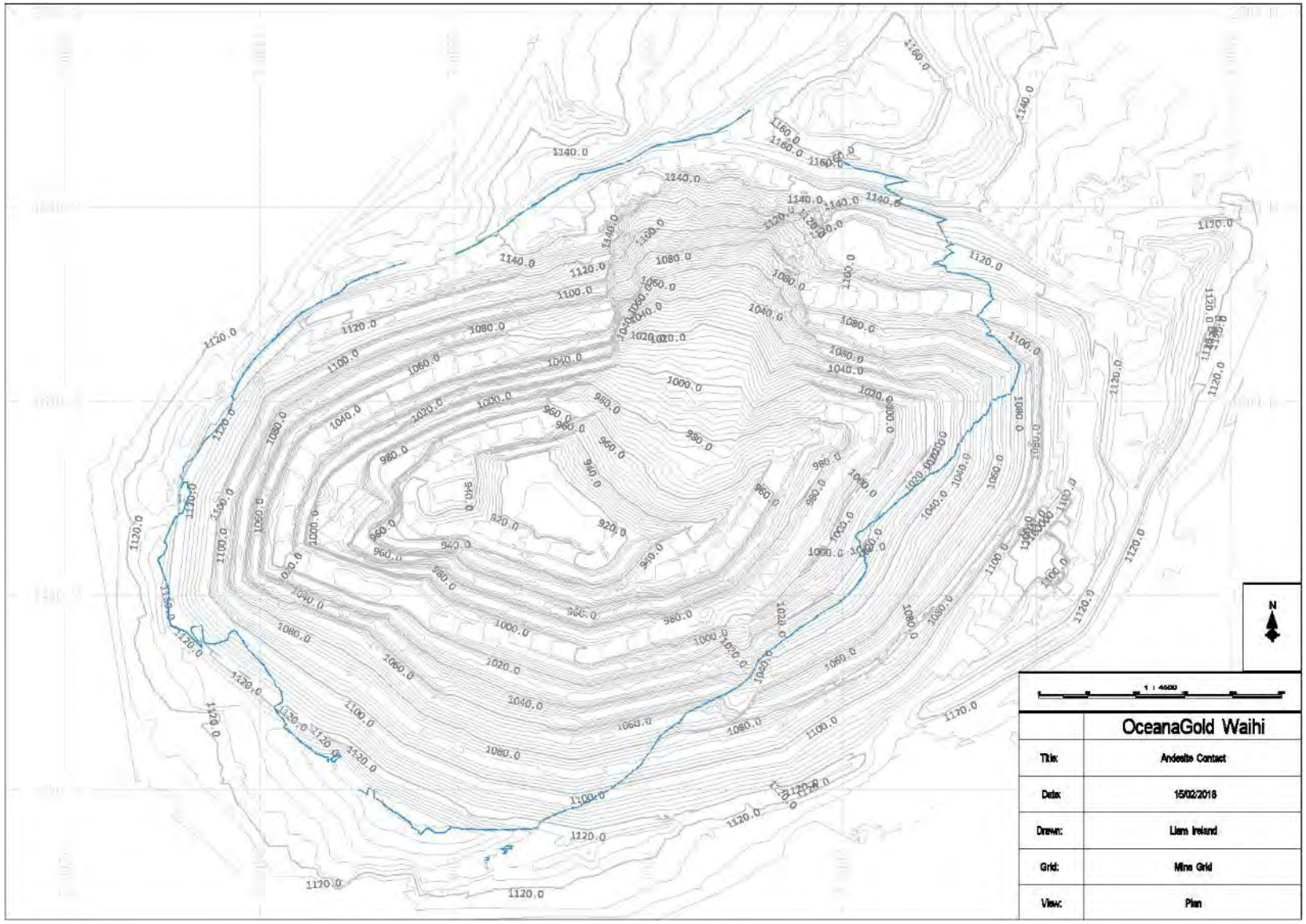


Figure 18. Groundwater level trends – deeper young volcanic materials.

Note: (blue line indicates contact of the young volcanics with the underlying andesite where seepage at the base of the young volcanics would occur).

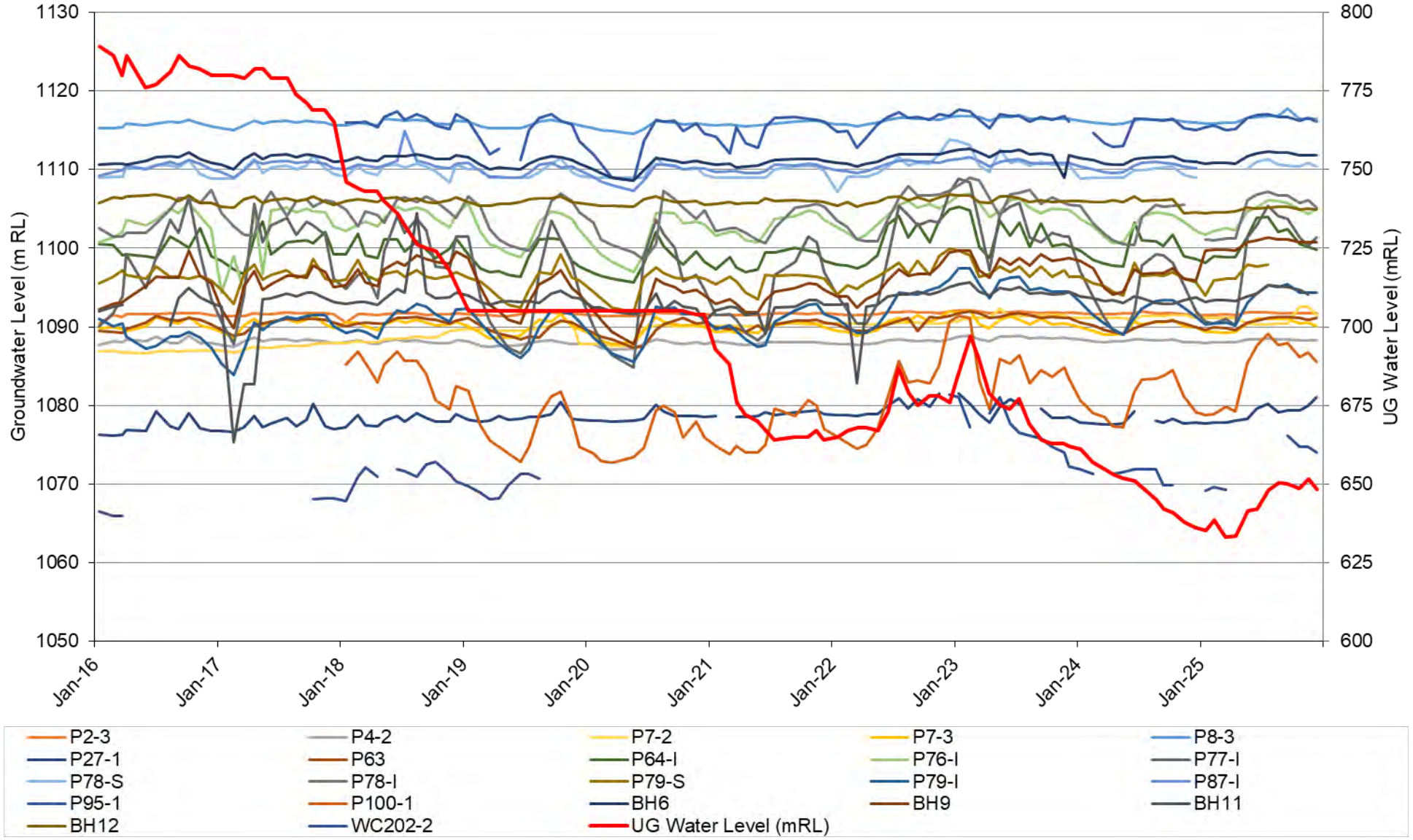


Figure 19. Groundwater level trends – deeper young volcanics near underlying andesite contact.

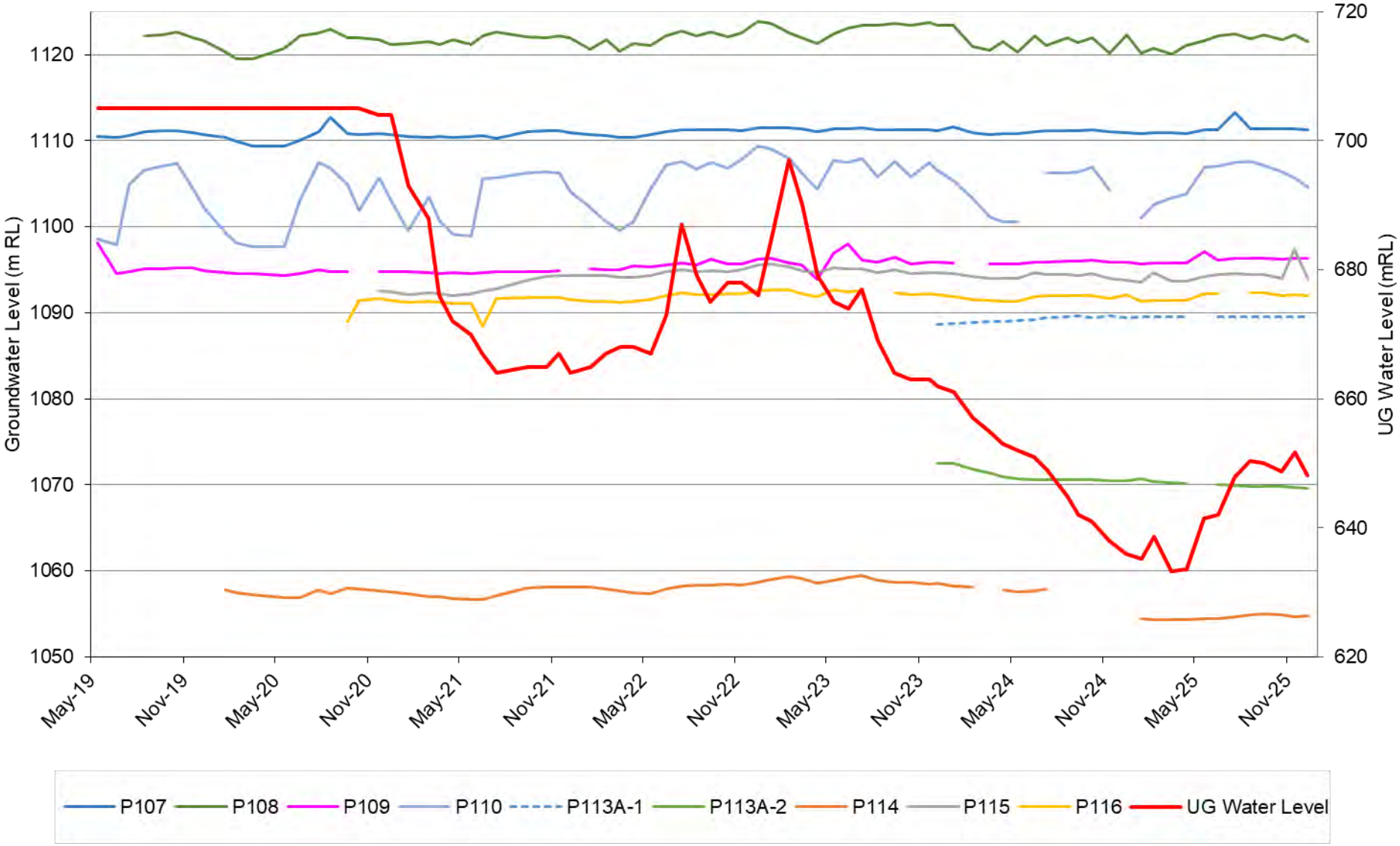


Figure 20. Groundwater level trends – P107-P110 & P113A-P116

6.2.3 Andesite

Andesite rock forms the local basement rock body for the Waihi area and hosts the mineralisation which was being mined at Martha Pit and is currently mined in the Underground.

Figure 21 shows the extent of the dewatering effects in the andesite rock body as a result of dewatering. Data from the vibrating wire piezometer units have been included. Figure 22 provides the water level trends in the andesite rock body. While groundwater level data is available for the vein systems and the shallower andesite rock, no monitoring data is available for intermediate depths within the andesite rock mass outside of development areas. Hence, groundwater levels between the vein and the shallow rock mass have been interpolated. Refer to Appendix F for conceptual hydrogeologic sections relative to the interpreted groundwater flow systems.

Groundwater levels in the andesite vein systems have responded rapidly and substantially to mine dewatering along the strike of the Martha vein system, Trio vein system (beneath Union Hill), and Favona/Moonlight vein systems (Figure 21). An area of dewatering, indicated between Martha Mine and Trio/Correnso vein systems, suggests a relatively close linkage. Outside of these structures, the dewatering effect in the andesite rock is attenuated or absent. This is illustrated by the different responses shown on Figure 22.

P123 has four sensor tips in the andesite with the shallowest sensor in the upper andesite shown on Figure 22. The P123 monitoring data shows water pressures of some 60 m head in the shallowest VWP tip located at 80 m depth (1044 m RL). This indicates a shallow perched system in the andesite and is likely due to the inherent higher water holding capacity of weathered and clay altered rockmass. The tips below that depth show little to no water pressure suggesting dewatering has occurred below 110 m depth (1015 m RL) to a depth of at least 200 m (925 m RL). Sub-horizontal drains in the pit wall are likely to have contributed to dewatering in the lower andesite rockmass and the little to no water pressure measured in tip 2 and tip 3.

Review of the core photographs for P123 and the geologic model of the Martha Pit in that area shows a number of reasons why those conditions might exist. A summary of the geologic conditions near each VWP tip is summarised as follows:

- Tip 1 (80 m BGL - 1044 m RL): Andesite with argillic clay alteration and propylitic alteration.
- Tip 2 (120 m BGL – 1004 m RL): Andesite with argillic clay alteration with a silicified overprint. Fractured with calcite veining.
- Tip 3 (160 m BGL – 964 m RL): Andesite with argillic clay alteration with a silicified overprint. Massive quartz after calcite veining.
- Tip 4 (200 m BGL – 924 m RL): Andesite with silicified overprint. Some fracturing.

The Martha Mine geologic model shows that between an elevation of 1015 to 960 m RL along the northwestern pit face, there are a number of vein sets that dip back behind the pit wall. Those veins are generally at a similar elevation to those observed in the core for P123.

In summary, our interpretation is that rainfall infiltration, combined with the higher water holding capacity and lower permeability of clay altered andesite, results in water being retained in the circa. 110 m below the land surface.

Below that depth (circa 1014 m RL), the rock mass itself is silicified, with fractures and veins providing secondary permeability. That secondary permeability is higher than the permeability of the overlying clay altered andesite rock mass, resulting in the observed underdrainage effect. It is not clear how far that dewatering effect extends to the northwest. A lobe of dewatering extends to the southwest of Martha Mine and this is considered to be due to the drainage effect along the north-south Edward lode structure. Dewatering is shown to reduce eastwards along the Martha system but may extend further at depth as the host rocks are more deeply buried in that direction and no deep monitoring wells are available for confirmation.

Figure 21 also indicates the dewatering centralised on the Favona system with the restriction of connection between Favona and the Union systems. The geological model in Section 3 indicates an up-thrown block (Union Horst, Figure 21) between the Union and Favona systems. This structural hiatus is likely to account for the restricted groundwater interconnection between the Martha-Union and Favona systems.

The vibrating wire and Favona piezometers have been excluded from Figure 22 and are presented in Figure 23 to Figure 41.

The piezometer network was reviewed by GWS Limited as part of a wider assessment of the Waihi piezometer network. The findings of the GWS review resulted in the installation of two new Martha vibrating wire piezometers (VWP), P122 and P123.

P122 is located in Waihi south of Martha Pit and three sensors in the andesite are dry with deepest at 933 mRL, although the shallowest sensor tip in the younger volcanics is saturated with a pressure at 1101 mRL. Both these piezometers P122 and P123 are discussed in more detail in Section 6.2.4.

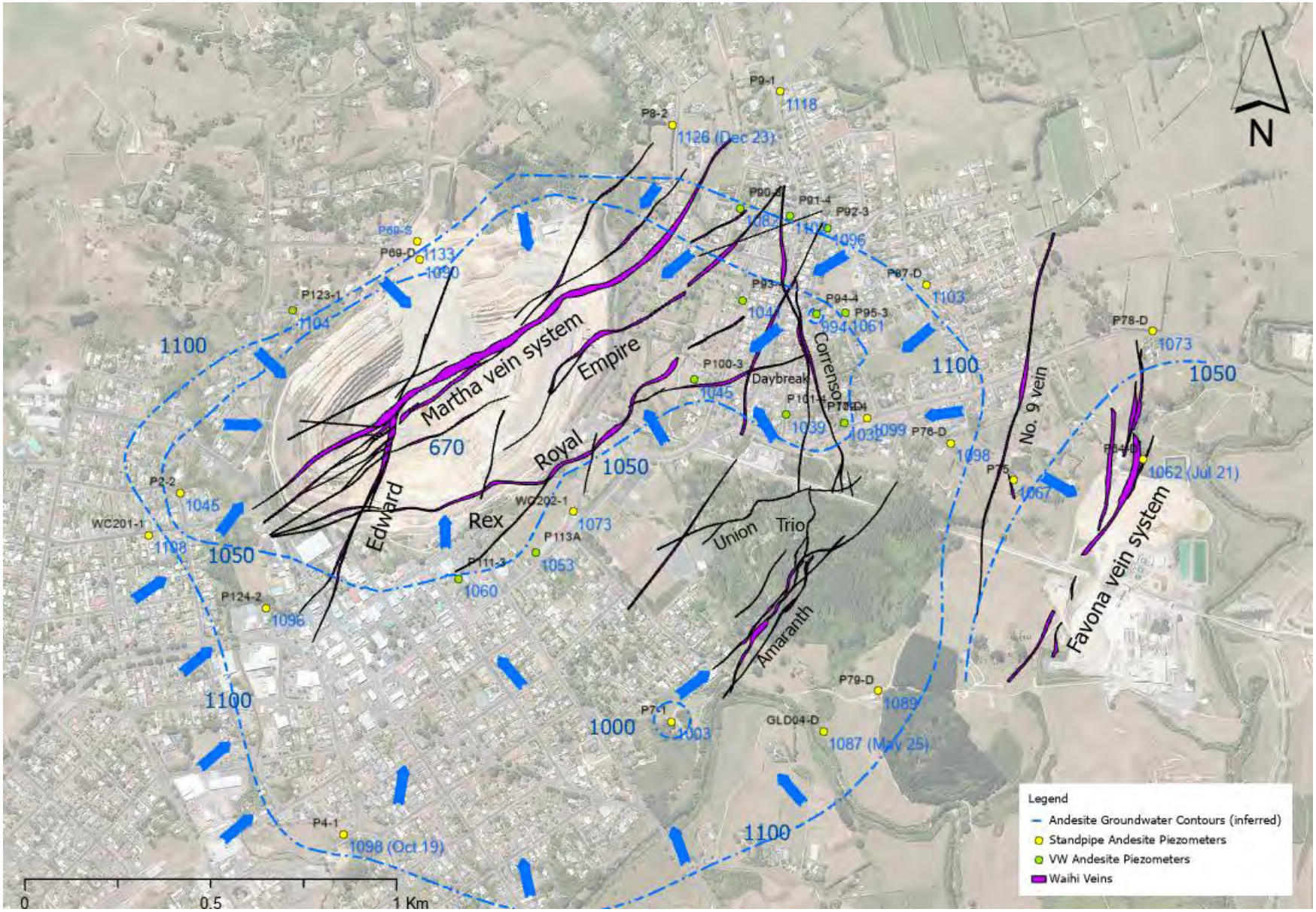


Figure 21. Upper andesite water level contours.

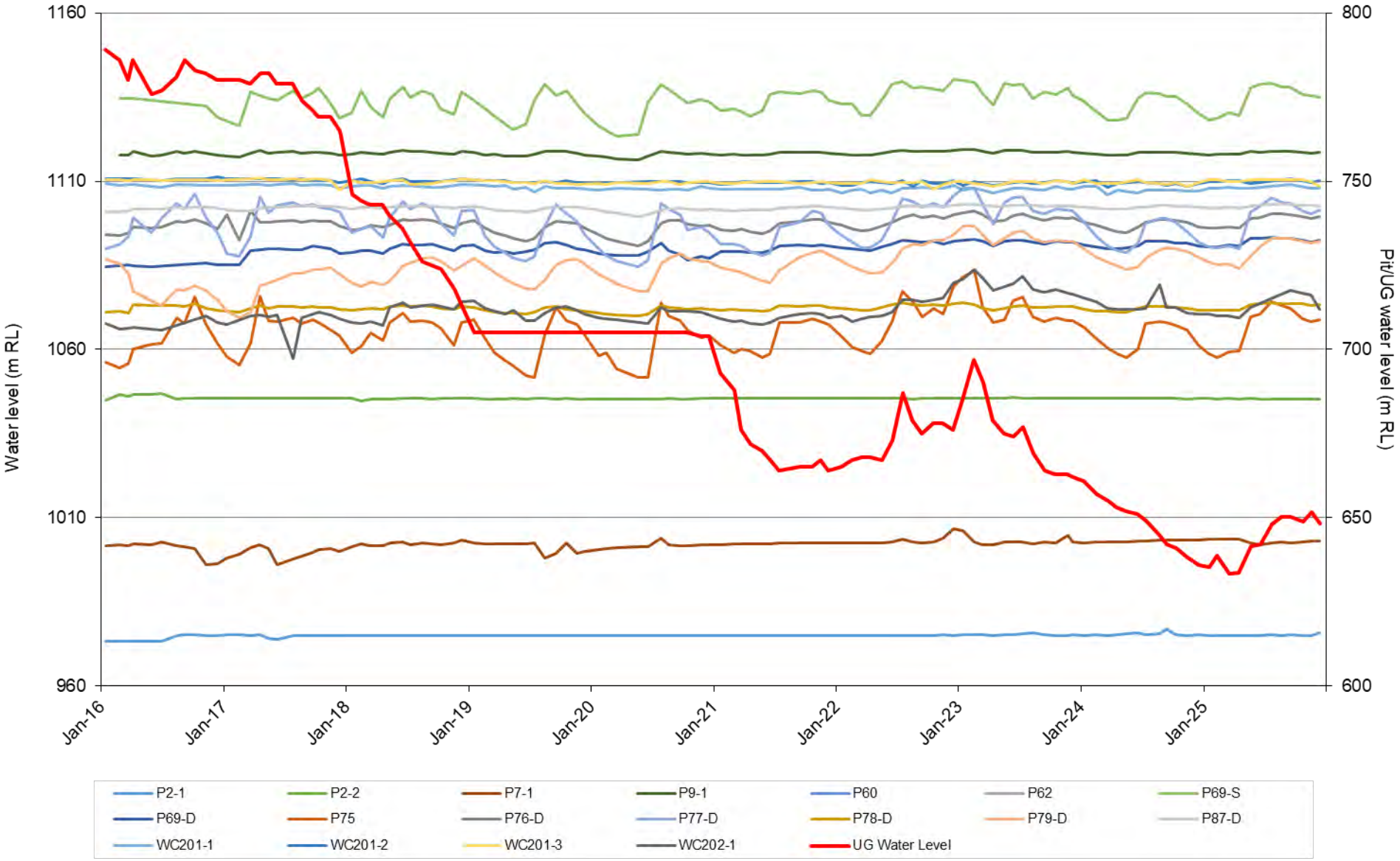


Figure 22. Andesite water level trends.

6.2.4 Martha Groundwater Assessment

The Martha groundwater levels remained relatively stable during the reporting period, following expected trends with an increase in piezometric levels in response to heavy rainfall in April 2025 (Figure 16, Figure 19, Figure 20, Figure 22). This was generally followed by gradual declines through the second half of 2025. No triggers were reached during the monitoring period.

Project Martha piezometers P107 to P110 and P114 to P116 are standpipes installed at varying ground elevations. Figure 20 shows these water levels have remained relatively stable, except for the P114 decline that was reported to HDC in December 2024. P113 has remained dry since installation and was replaced by P113A.

Upper Rex Monitoring

In June 2023, amendments were made to the Dewatering and Settlement Monitoring Plan to specifically address additional monitoring requirements due to the proposal to mine the Rex orebody to a higher elevation. This was approved by WRC and HDC in August 2023, and more focused monitoring of groundwater level/pressure along the strike of the Rex orebody began in October 2023. Five Project Martha piezometers (P110, P111, P112, P113A & P114) were upgraded with telemetry, providing hourly water level data. In addition, standpipe piezometers P110 and P114 are equipped with water level loggers.

Trigger responses were set for P111, P112, P113A and P114 at a change in water level greater than two metres in less than a one-month period as outlined in the Dewatering and Settlement Monitoring Plan. If a response is triggered, this is considered a significant anomaly, and further action should be followed as per the Plan. No triggers were reached for the piezometers monitoring groundwater levels in the upper Rex area during 2025.

Vibrating wire piezometer P111 (Figure 23) was installed with three tips, one in the young volcanics and two in the andesite layer. The young volcanic piezometer is measuring some water pressure at 1107mRL. The upper andesite piezometer (1088mRL) appears to be dry, indicating this area may be previously affected by dewatering. The lower andesite piezometer is measuring around 5m of water pressure above the tip, at 1060mRL.

P112 is also a vibrating wire piezometer installed with three tips, one in the young volcanics and two in the andesite layer. The young volcanic piezometer (1058mRL) now appears to be dry, while both the andesite piezometers have been dry (1035mRL & 998mRL) since installation in July 2020 (Figure 24).

As the original P113 standpipe piezometer is dry, a deeper monitoring bore was drilled to replace it. P113A has three vibrating wire piezometers installed at 1090mRL, 1070mRL, and 1035mRL. The shallow tip (1090mRL) appears to be dry, while water levels in the deeper tips have remained relatively stable since installation in October 2023. The intermediate tip (1069.7mRL) is measuring around 0.3m of water pressure above the tip at 1070.0mRL, and the deep tip (1035mRL) is measuring around 18m of water pressure above the tip at 1053mRL (Figure 25).

The standpipe piezometers, P110 and P114 have telemetry installed, providing hourly water level data for closer monitoring of groundwater levels in the upper Rex area. Depths of these bores are at 1097mRL for P110, and 1054mRL for P114. Water levels in both are stable with P110 measuring around 8m of water pressure at 1105mRL, and P114 measuring around 0.6m of water pressure at 1054.6mRL. The other Project Martha standpipe piezometers remained stable during the reporting period, following expected seasonal trends, and continue to be dipped monthly.

The key to the lithology zone shading for hydrographs below (Figure 23 to Figure 27 and Figure 33 to Figure 41) is shown in Table 3. Dry tips are represented by a dashed line.

Table 3. Lithology shading.

Lithology	
Alluvium	
Young Volcanics	
Andesite	

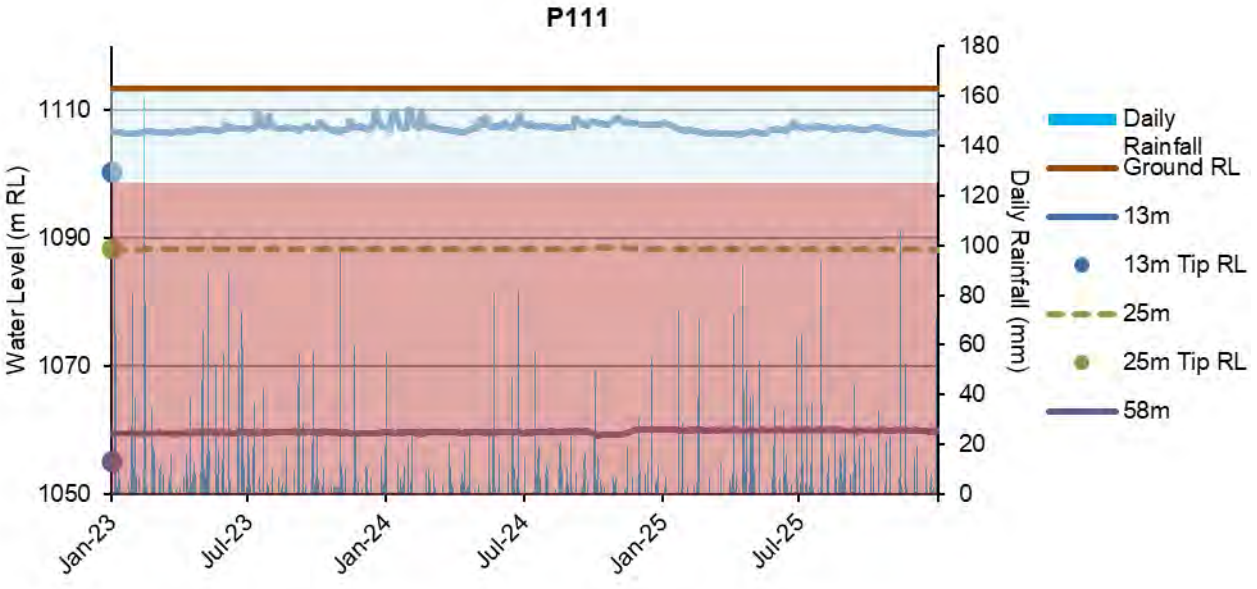


Figure 23. P111 vibrating wire piezometer.

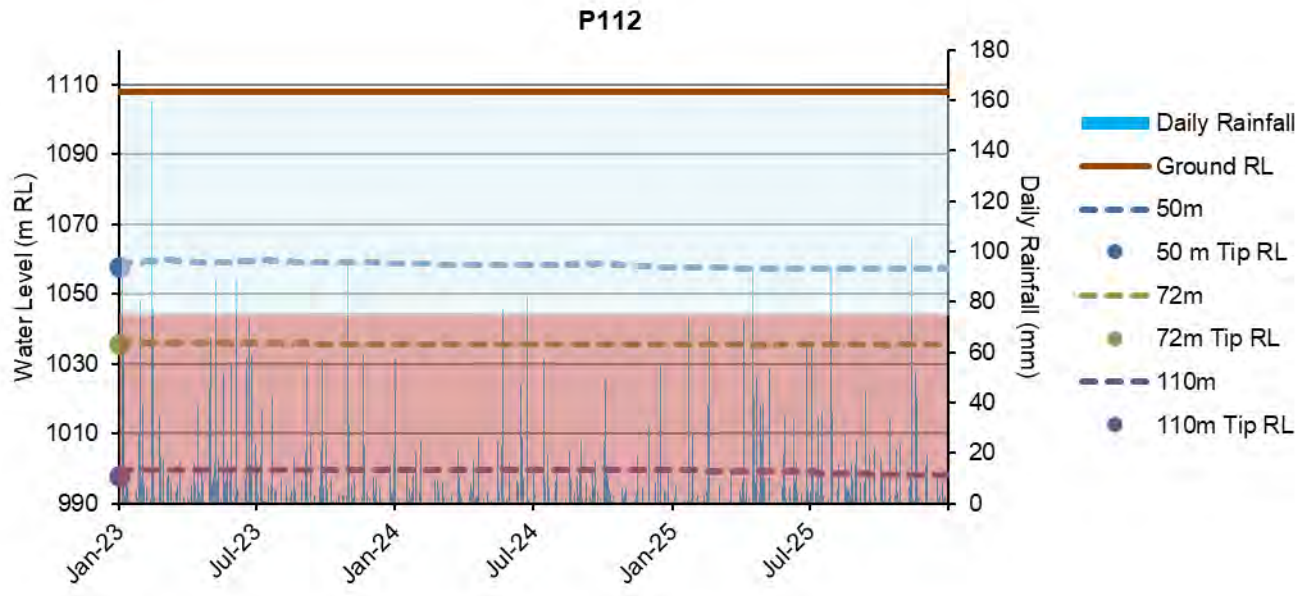


Figure 24. P112 vibrating wire piezometer.

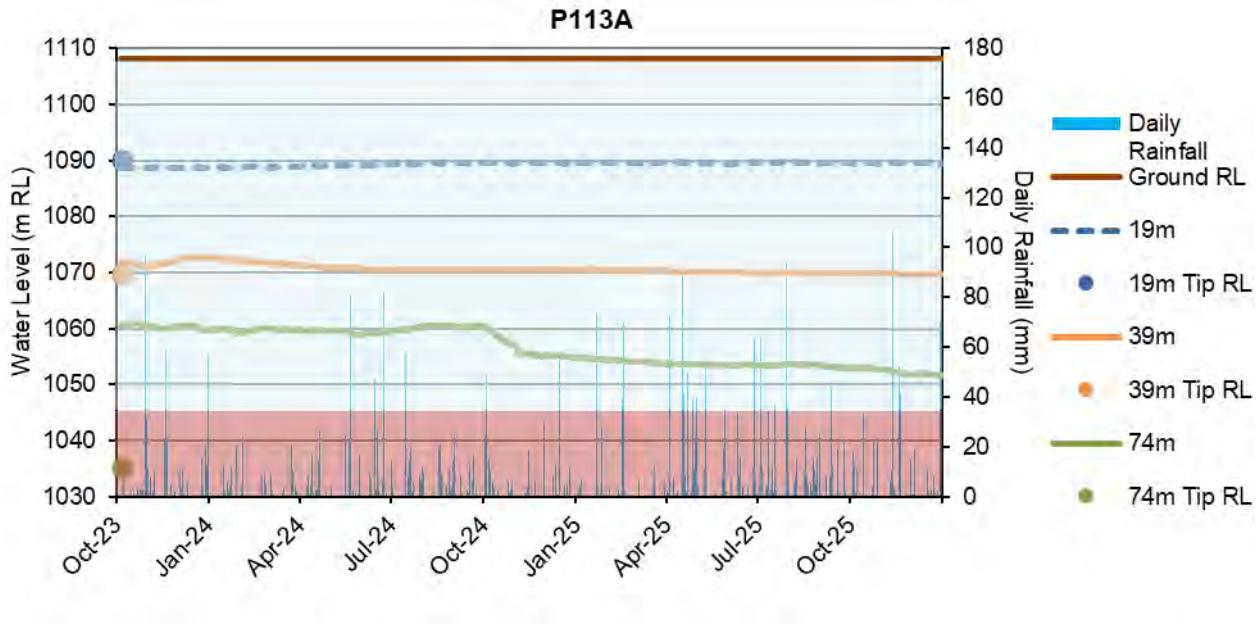


Figure 25. P113A vibrating wire piezometer.

Two Project Martha piezometers were installed in 2022 – 2023. Locations and tip depths were advised by GWS and discussed with the hydrogeologic peer reviewer. A further piezometer (P124) was installed in mid-2025, southwest of the Martha Pit along strike of the Martha vein system, as recommended by the Peer Reviewer.

Tip depths and average water levels for 2025 are shown in Table 4. Some tips show little water pressure, indicating dry conditions.

Table 4. Project Martha piezometer depths and water levels.

Piezometer	Target Material	Depth (mRL)	2025 Average GWL (mRL)	Average Water Depth (m)	Comment
P122-1	Upper young volcanics	1092	1102	10	
P122-2	Base young volcanics	1060	1060	-	Dry
P122-3	Upper andesite	1032	1032	-	Dry
P122-4	Lower andesite	933	932	-	Dry
P123-1	Upper andesite	1044	1104	60	
P123-2	Lower andesite	1004	1002	-	Dry
P123-3	Lower andesite	964	967	3	
P123-4	Lower andesite	924.4	924.6	0.2	
P124-1	Upper andesite	1079	1098	19	
P124-2	Upper andesite	1037	1096	59	
P124-3	Lower andesite	901	917	16	

P122 was installed in January 2023 with four tips, one in the upper young volcanics, one in the base young volcanics, and two in the andesite layer. Water levels appear to have stabilised in the upper young volcanic piezometer tip with around 10m of water measured at 1102mRL. The other three piezometers appear to be dry at 1060mRL, 1032mRL, and 933mRL (Figure 26).

P123 was installed in December 2022 with all four tips in the andesite layer and these seem to have now stabilised. The 1044mRL tip is measuring around 60m of water pressure above the tip at 1104mRL, the 1004mRL tip is considered to be dry. The 964mRL tip is measuring around 3m of water pressure at 967mRL, and the 924.4mRL tip is measuring around 0.2m of water pressure at 924.6mRL (Figure 27).

P124 was installed in August 2025 with three tips, two in the upper andesite and one in the lower Andesite. The 1079mRL tip is measuring around 19m of water pressure above the tip at 1098mRL, the 1037mRL tip is measuring around 59m of water pressure at 1096mRL, and the 901mRL tip is measuring around 14m of water pressure at 917mRL (Figure 28).

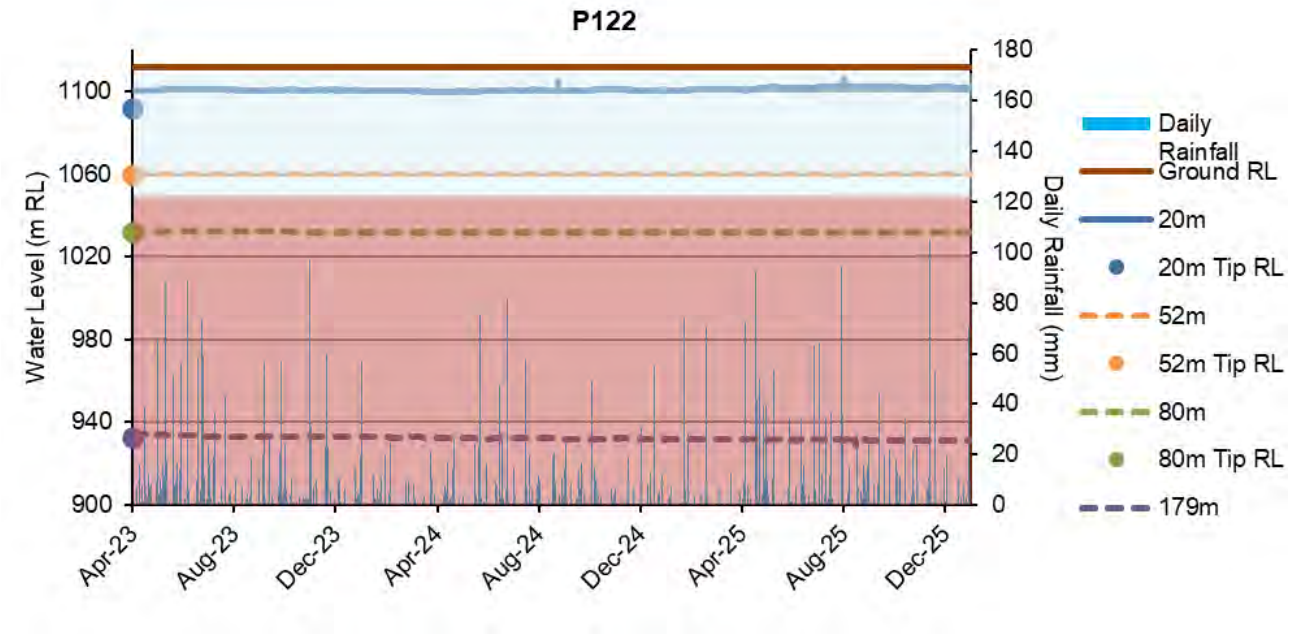


Figure 26. P122 vibrating wire piezometer.

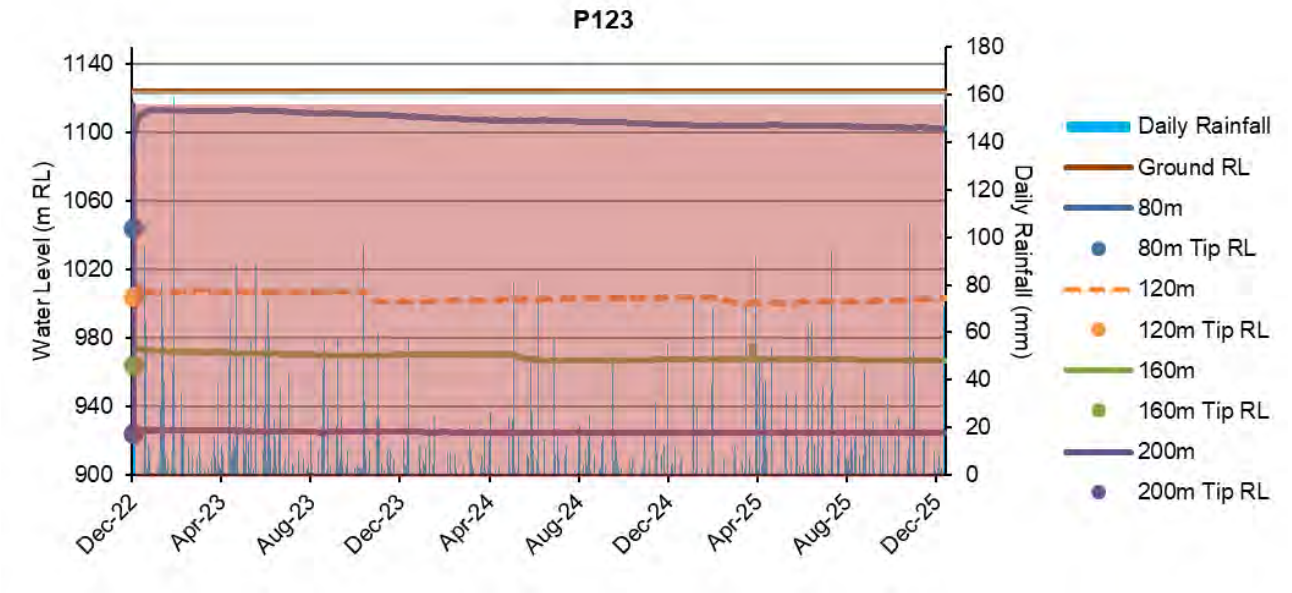


Figure 27. P123 vibrating wire piezometer.

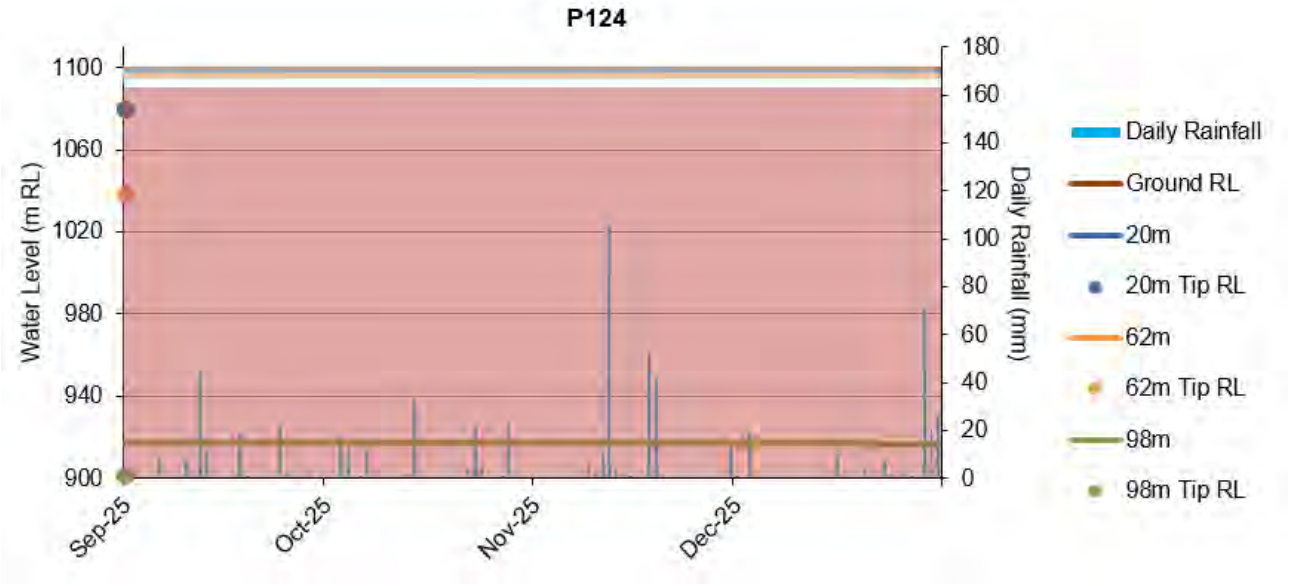


Figure 28. P124 vibrating wire piezometer.

Underground Piezometers

In July 2022 a piezometer (ROW-17) was installed in an existing exploration drill hole (Figure 29). The drill hole collar is in the Edward decline at 773 mRL and the piezometer tip is at 472 mRL. The hole length is around 350 m, however vertically it is 300 m. It terminates approximately under the Empire West orebody and is set in deep Martha andesite. Piezometer readings show the December 2025 water level at 642 mRL (Figure 30).

A second underground piezometer (P125) was installed in December 2025 and became operational in January 2026. Further details and monitoring data will be included in the 2026 annual report. Early monitoring results indicate a close correlation to ROW-17 water levels.

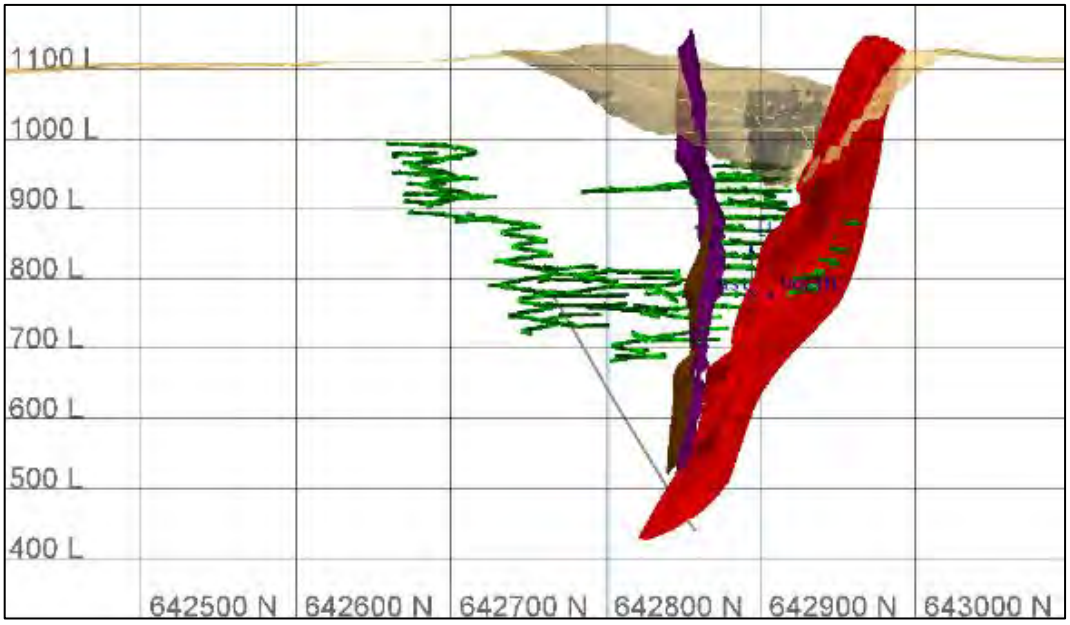


Figure 29. Underground piezometer cross section.

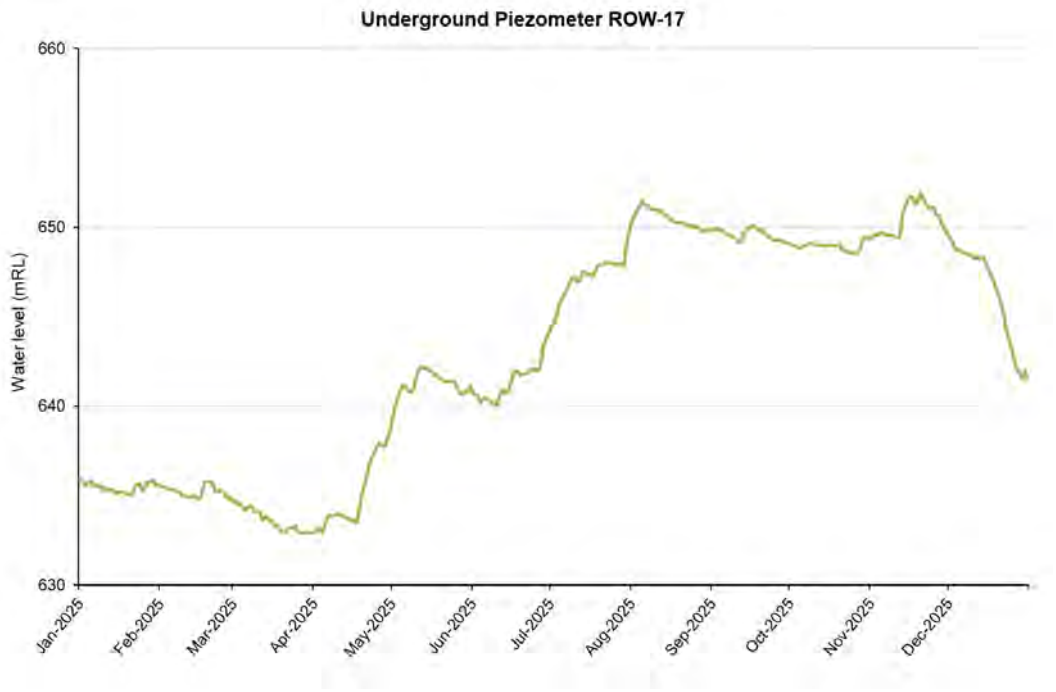


Figure 30. Underground piezometer water level.

Project Martha Water Chemistry

A review of existing piezometers suitable for baseline water chemistry sampling of shallow and deep aquifers of the mine area was undertaken by WWLA in May 2023 to demonstrate compliance with Project Martha Consent 139551. Due to limitations of sampling equipment (due to narrow bore diameter, bore depth and large purge volumes required) some of the suggested locations are unable to be sampled easily. Locations that can be sampled were added to the groundwater monitoring schedule, with two rounds of sampling undertaken in 2025. Results are provided in section 11.2.

6.2.5 Favona Groundwater Assessment

In the Favona Mine groundwater accumulates at the 800 level and this is the assumed groundwater level in this area. However, mine development links Favona to Trio and Correnso, which are both part of the Martha groundwater system. Figure 31 shows water level trends in the Favona andesite with the underground dewatering level and Figure 32 shows selected Favona andesite piezometers with rainfall. This demonstrates how water levels for most Favona wells are influenced by seasonal rainfall periods and not by Martha/Underground dewatering. The majority of the relevant piezometers have shown an increasing trend towards the end of 2022 and beginning of 2023 due to higher than usual rainfall. In 2025 a seasonal level increase occurred over winter and then dissipated with the reduced rainfall coming into summer. P79-D has recovered to typical levels held prior to its depressurisation in 2016. A slight delayed response to rainfall and drier periods can be noted in four piezometers, with P78-D and P87-D less responsive. No well had a 15m (or greater) decrease during the reporting period.

The Dewatering and Settlement Monitoring Plan states the intentions of OGNZL for baseline groundwater quality sampling for assessment of post closure effects of groundwater movement between the Favona and Martha mineralised groundwater systems, and specifies sampling requirements for standpipe piezometers P76-D, P76-I, P77-D and P77-I. These locations were added to the groundwater monitoring schedule. However, they could not be sampled as the bore diameters are too narrow for efficient sampling.

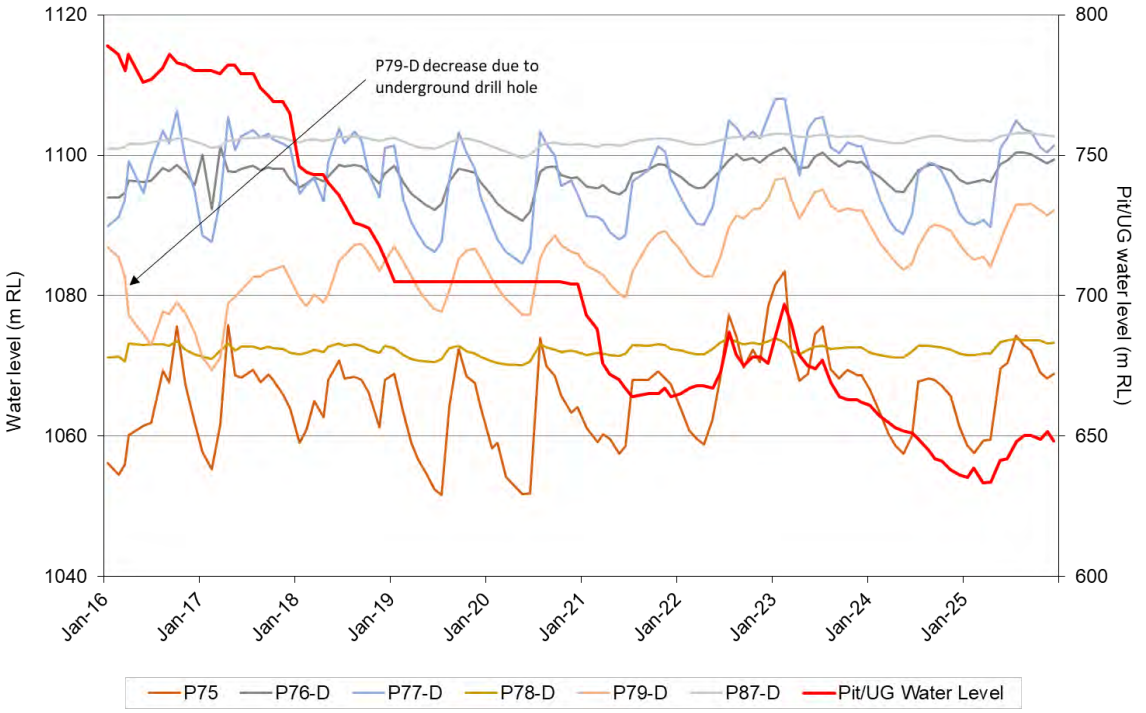


Figure 31. Favona andesite water level trends with underground dewatering level.

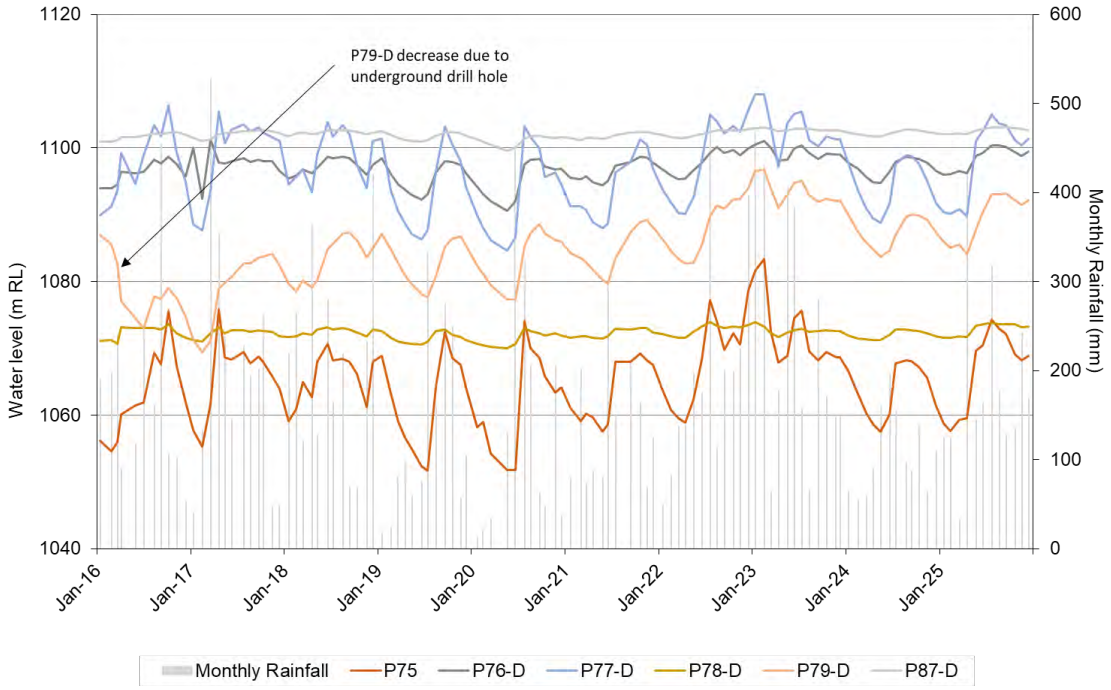


Figure 32. Selected Favona andesite piezometers with rainfall.

6.2.6 Waihi East – CEPA

Six boreholes were drilled between July – September 2011, each with three or four vibrating wire piezometer tips installed. These are located east of the Martha Pit to provide improved groundwater information in an area that had few existing wells and in the vicinity of the Correnso Project. Two additional vibrating wire piezometers and 39 additional settlement markers were installed in early 2014. One further piezometer was installed in 2016 for monitoring related to the Daybreak/SUPA orebody.

The piezometers were located across and perpendicular to the Correnso vein system in three lines (P90, P91 and P92 forming one line, P93, P94 and P95 a second line and P100, P101 and P102 the third). Separation distance between the northern and southern lines is some 500m. The piezometers were constructed to intercept the shallow aquifer, young volcanics, and andesite rock (Table 5).

Table 5. Summary of geological units and depths - Waihi East piezometers.

Bore	Shallow	Young Volcanics		Andesite	
		Upper	Basal Zone		
P90	-	20.0m	100.0m	137.0m	
P91	9.3m	25.5m	111.3m	151.3m	
P92	-	23.3m	121.3m	156.3m	
P93	12.3m	26.0m	100.0m	143.0m	
P94	6.0m	25.0m	104.0m	144.0m	
P95	-	35.0m	90.0m	120.0m	
P100	-	50.0m	120.0m	135.0m	160.0m
P101	12.8m	32.0m	47.0m	78.0m	
P102	8.0m	38.0m	62.0m	90.0m	

Figure 33 to Figure 41 present the records from the piezometers expressing water level as mRL. The charts also display the depth of the piezometer tips, lithology shading and daily rainfall. Separation between the shallow and deeper piezometers is evident in the records. The nine groundwater monitoring piezometers have indicated generally stable water levels in Waihi East. Exceptions are discussed below.

Note: In the following plots the gaps in the data are usually due to either brief logger malfunction issues or flat batteries in the unit:

- P91 logger failed and was replaced in Jul 2025.
- P94 logger failed in Oct 2025 and was removed for repair. It was reinstalled in Dec 2025.
- P101 logger failed in Dec 2025 and was removed for repair.

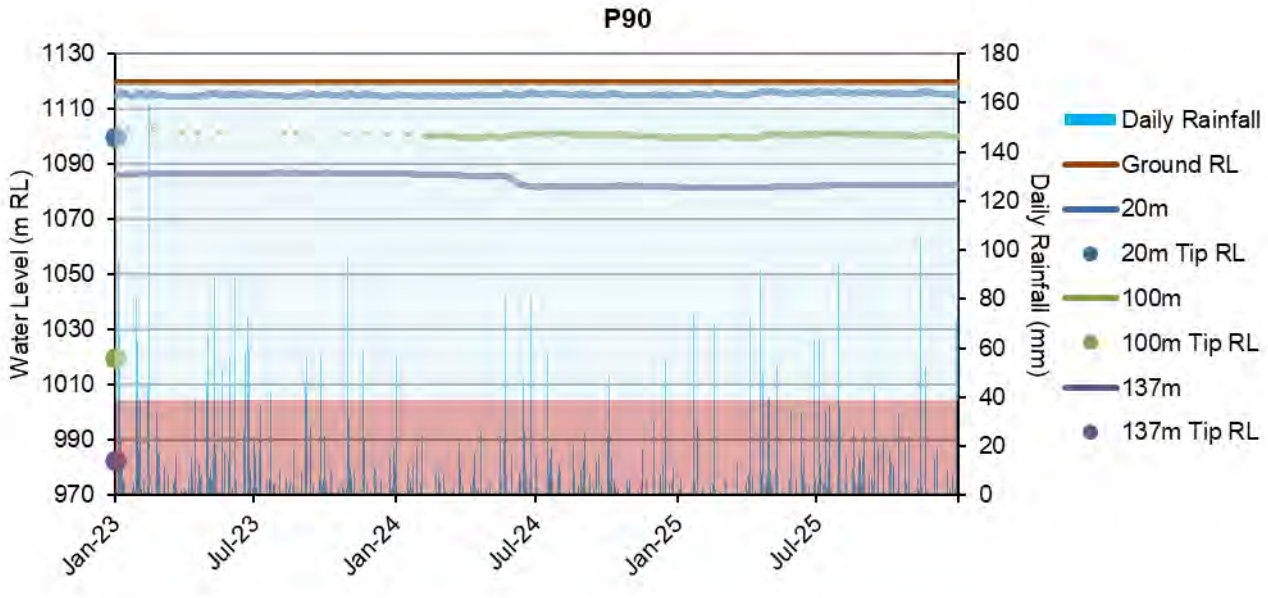


Figure 33. P90 vibrating wire piezometer.

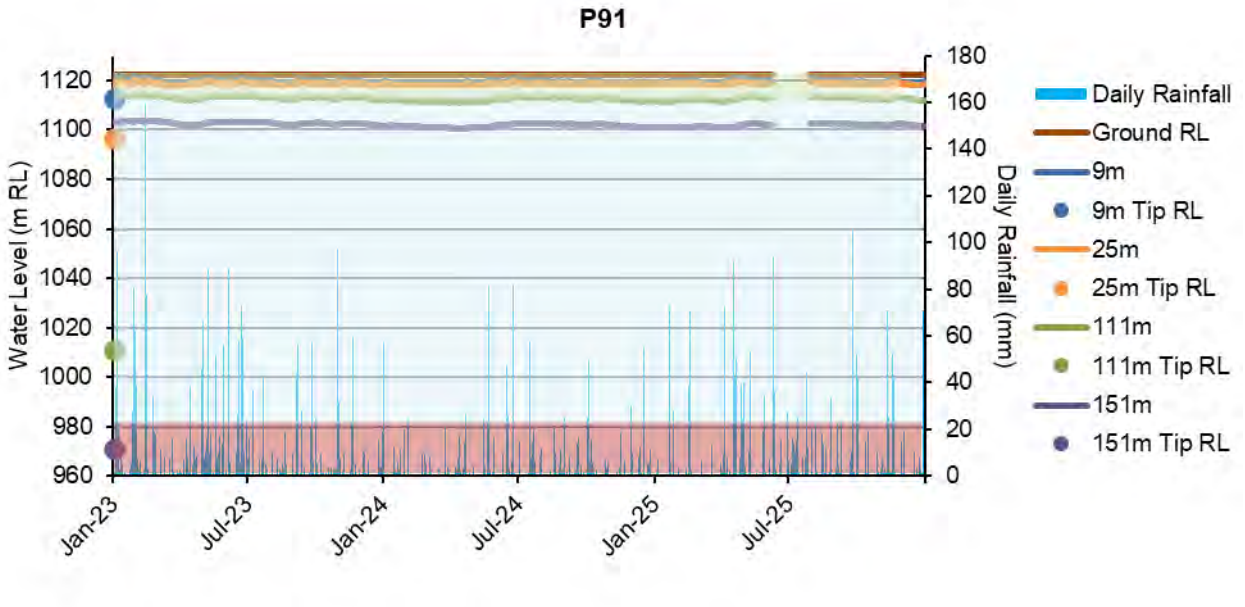


Figure 34. P91 vibrating wire piezometer.

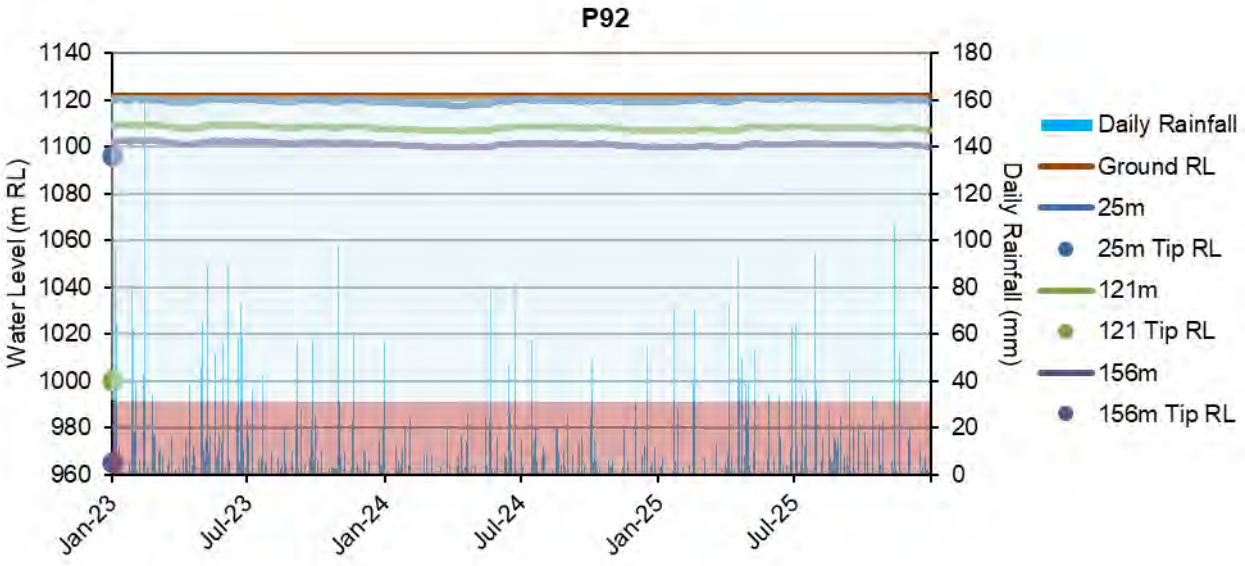


Figure 35. P92 vibrating wire piezometer.

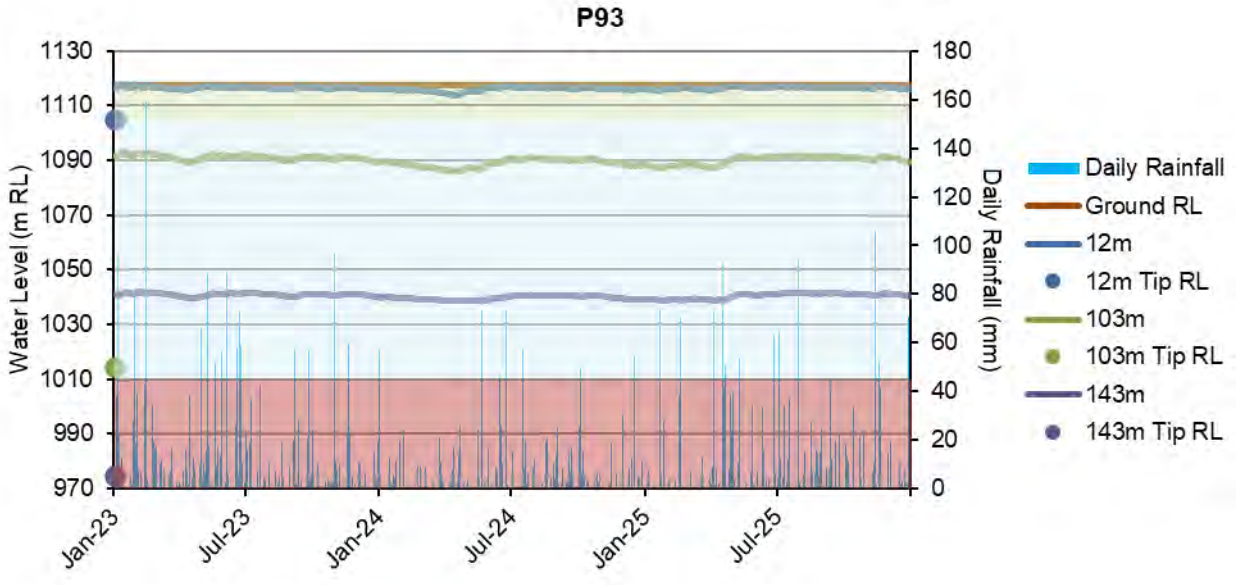


Figure 36. P93 vibrating wire piezometer.

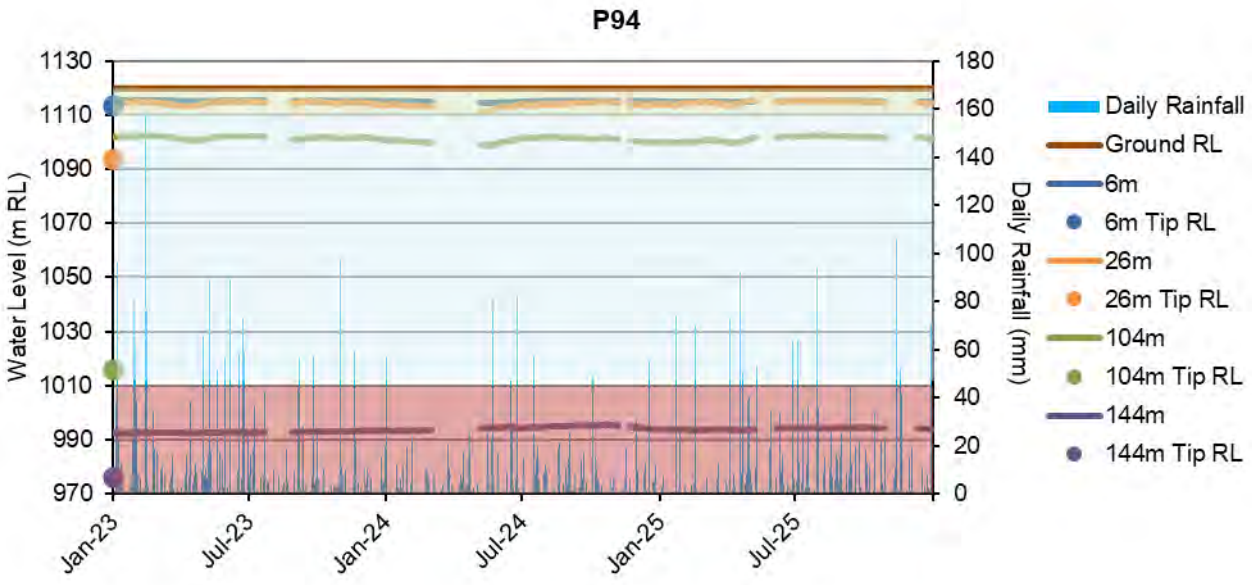


Figure 37. P94 vibrating wire piezometer.

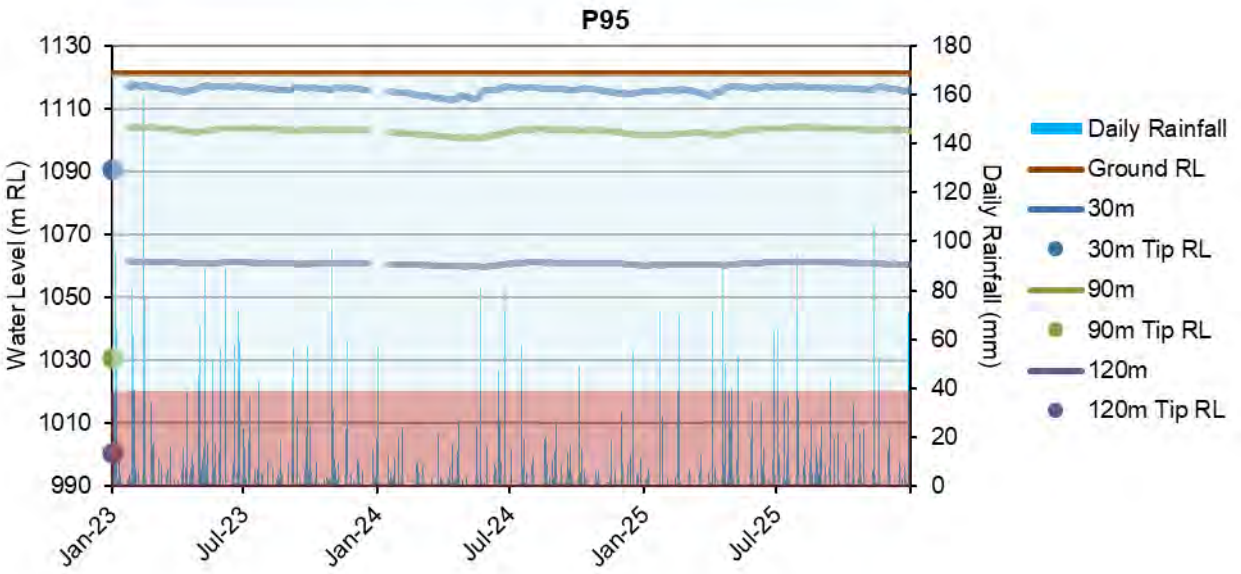


Figure 38. P95 vibrating wire piezometer.

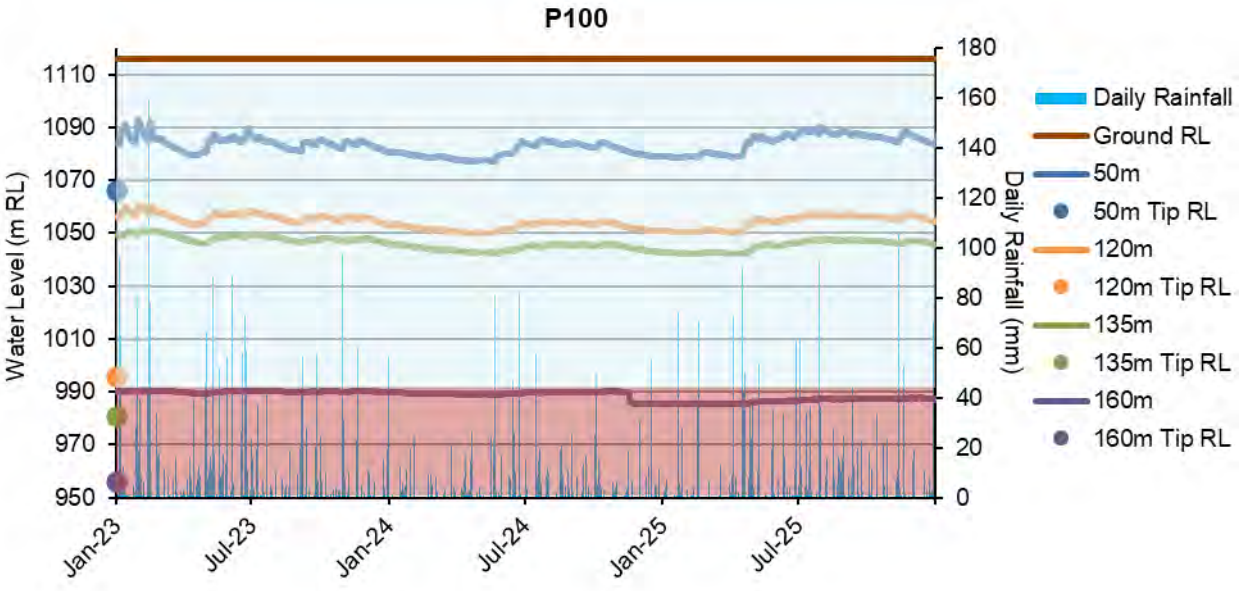


Figure 39. P100 vibrating wire piezometer.

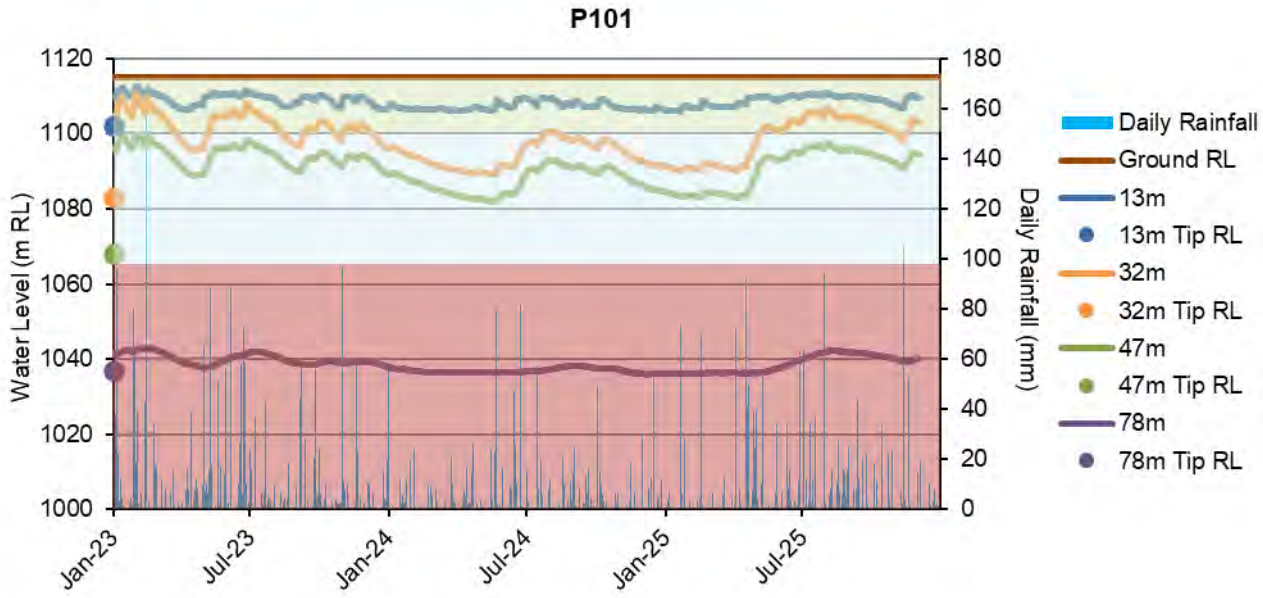


Figure 40. P101 vibrating wire piezometer.

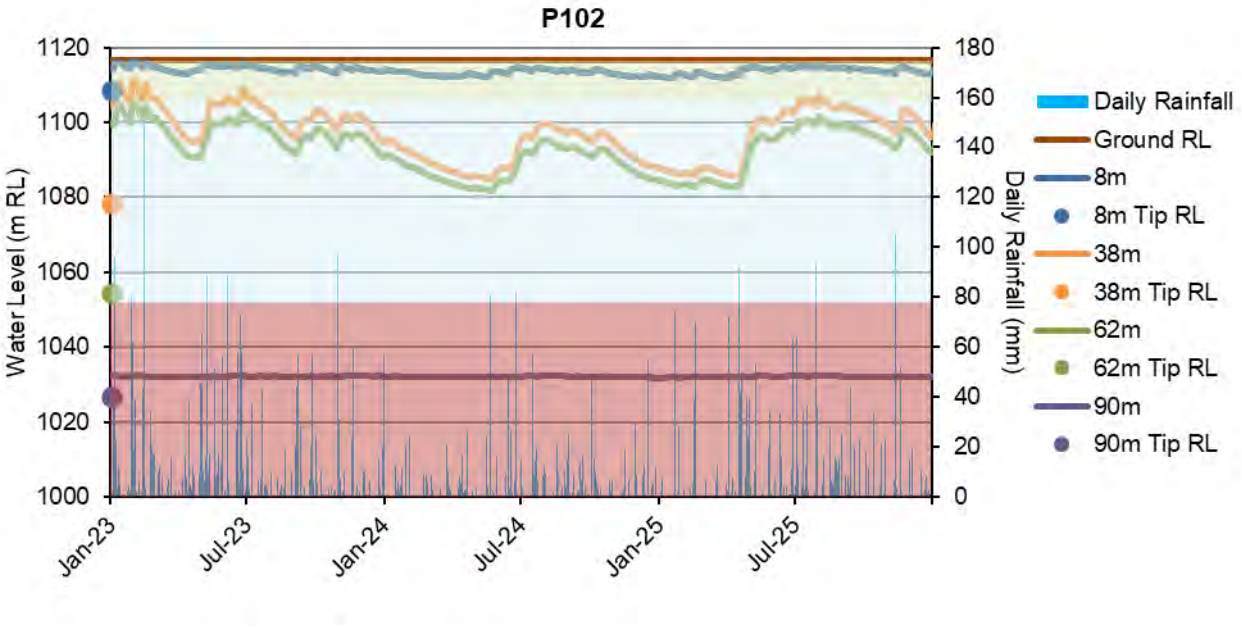


Figure 41. P102 vibrating wire piezometer.

Overall, through 2025, the measured groundwater levels have been generally stable and within historical ranges. Piezometric levels in the young volcanics have continued to show influence from rainfall. This is particularly evident at P101 and P102, which show seasonal response to rainfall.

6.2.7 Private Wells

Private wells are bores on non-OGNZL owned land that are mainly used for water supply. They show seasonal fluctuations in groundwater levels, and these levels can also be influenced by landowners using the bore. The Wharry Rd, Whangamata Rd, and Mataura Rd bores that were previously monitored, can no longer be accessed. Two such access restrictions were due to health and safety concerns and the other due to the landowner not allowing OGNZL access.

A well search undertaken by WWLA identified three private wells (two northeast and one southwest of the Martha Pit, along strike of the Martha vein system) that OGNZL could potentially monitor going forward. However, following investigation it was determined that these could also not be accessed for reasons similar to those above.

As a result of these private well access limitations, only the Black Hill Orchard private well was monitored in 2025.

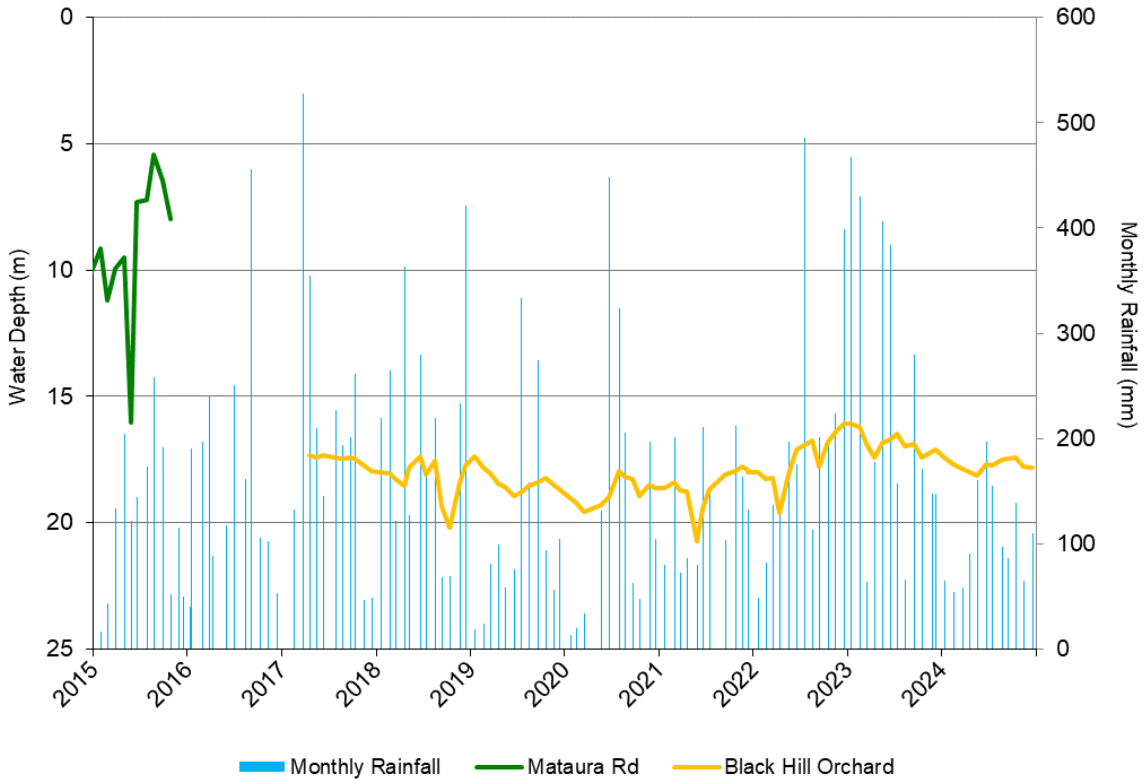


Figure 42. Private bore water levels.

7 SETTLEMENT MONITORING

Condition 13b of the Extended Martha Mine consent requires the identification of any environmentally important trends in settlement behaviour. Condition 13d of the same consent requires a comparison to be made between the settlement survey data and that predicted as part of the consent application.

A reassessment for the settlement prediction was conducted for the Trio Development Project (Engineering Geology, June 2010). This review assessed the effect of pumping from the Martha Pit to draw down the groundwater level progressively to 755mRL, which would also dewater the connected Trio system.

Another reassessment was conducted for the Correnso Underground project (Engineering Geology, 2012). The relevant report recommended new trigger levels for settlement based on additional depressurisation of the andesite layer.

Further reassessment was undertaken for Project Martha with dewatering to below 700 mRL authorised. New triggers were applied during the 2020 reporting period (Table 6).

A review of the settlement marker network was undertaken during 2019 by GWS Ltd. This resulted in the removal of erroneous and high-density settlement markers for settlement plotting and trigger assessments.

Seven settlements zones were defined around the Martha Mine pit in 1999, extending to the outskirts of Waihi. The zones were established based on the first ten years (pre-extension) of settlement history having regard to the then current knowledge of the thickness and composition of compressible materials (such as ash-soils, alluvium, sediments, and unconsolidated younger volcanic deposits) and the expected effect from Martha Mine dewatering. Table 6 provides the most recent update of the Settlement Zone trigger levels, approved in 2019 and applied following the commencement of Project Martha in 2020, to reflect the changed mining and dewatering conditions. Figure 43 shows the predicted settlement zones. These have also been updated with the commencement of Project Martha.

Table 6. Summary of predicted settlement zones and Project Martha trigger levels.

Zone	New Trigger Levels (mm) Project Martha (2020)
Settlement Zone 1	55
Settlement Zone 2	65
Settlement Zone 3	95
Settlement Zone 4	160
Settlement Zone 5	260
Settlement Zone 6	340
Settlement Zone 7	540

The settlement measured is an accumulation of all causes of settlement. Generally, this is considered to be the result of mine dewatering, but close to the mines and (in the case of Favona) overlying the mine areas, additional settlement may be the result of primary consolidation settlement (as opposed to reconsolidation settlement which is the process in the Martha groundwater system where historic dewatering resulted in groundwater levels dropping to lower elevations for a longer time period than is proposed for current mining activity). Nevertheless, it is the total settlement that is discussed in this report as settlement due to dewatering alone cannot be separated from other causes.

Comment is provided in relation to the predicted settlements given in Table 6 and these comments are expanded on where monitoring data show exceedance of the trigger values.

7.1 Method

The initial settlement survey network was established in 1980 during the exploration phase of the project and has been regularly monitored since December 1987. Over the course of the project, settlement survey marks have been added, removed or replaced, as required, to extend the network or to compensate for damaged sites. Figure 44 is a settlement contour map of raw, unadjusted survey data, that has been segregated from Figure 43 at the request of HDC. This allows easier interpretation of the contour lines.

Figure 45 shows the location of settlement marks monitored by OGNZL up to the end of 2025. Also, included on Figure 45 are the defined subsidence hazard zones related to historical underground mine stopes and shafts (IGNS, 2002). Figure 46 provides the marks identified as triggered during the 2025 surveys.

Settlement monitoring was undertaken in May/June and November/December 2025 across the settlement network surrounding Waihi Township (refer Appendix C) and also along the Favona network which is an extension of the Martha Mine survey network. Appendix B presents the two summary settlement monitoring reports. For simplicity this report refers to surveys as May and November 2025.

The raw data provided by the surveyors has been graphed and where changes in the record are apparent as a result of mark relocation or replacement, corrections have been applied using graphical projection so that total settlement over the life of mining can be assessed for each location. The correction process applied was as follows:

- Updating the time-history graph for all data from settlement markers with data up to 1/11/2025.
- Where changes in the time-history graph identified a datum change, a correction was arrived at by projecting the initial data visually on the graph to the time of the new datum and a correction calculated. A smooth settlement curve resulting after the correction was applied and similarity of curve shape to those of adjacent marks was taken as indicating an acceptable correction.
- Where marks were installed in May 1999, the previously determined settlement for that location from 1988 to 1999 was applied as a correction.
- Where marks were installed or changed other than in May 1999, the previously assessed settlement at the location as of May 1999 was used with a best fit trend line of settlement in time to correct the values to be consistent with the May 1999 value.
- For Favona marks, settlement values as at 1/12/2005 were assessed for each location and used to correct the new marks to account for settlement from 1988 to 2005.
- The corrected data has then been used to generate:
  - Settlement-time trend graphs for each zone.
  - Plans of total settlement.
  - Contours of total settlement.
  - Calculation of tilt.
  - Settlement-time trend graphs of specific areas.
- Where Favona development has affected settlement, a projection of the pre-Favona Mine settlement trend has been made as a means to estimate the current Martha Mine settlement and this settlement value has been subtracted from the total measured settlement to provide an estimate of the settlement due to the Favona Mine development.

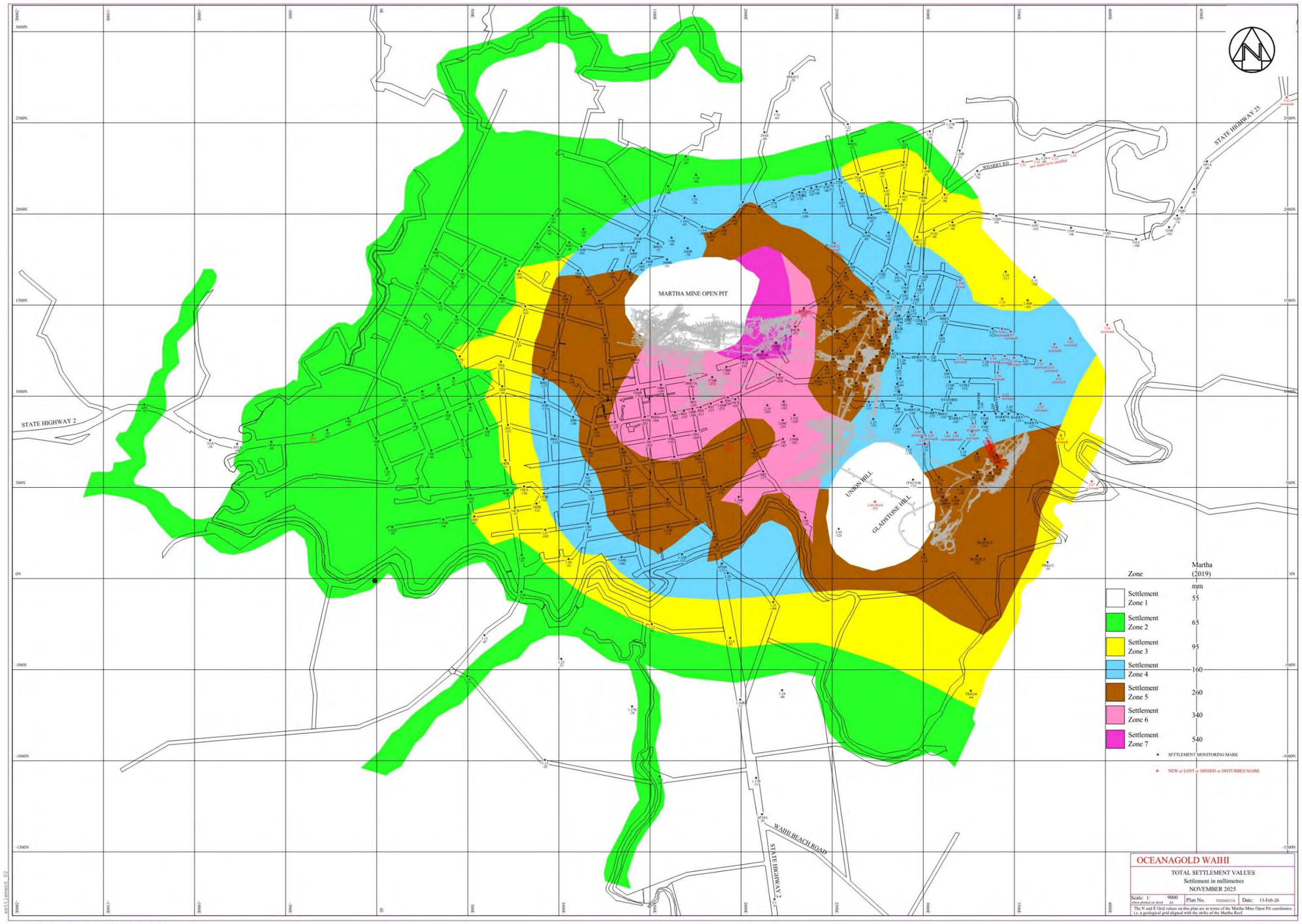


Figure 43. Total settlement zones – November 2025.

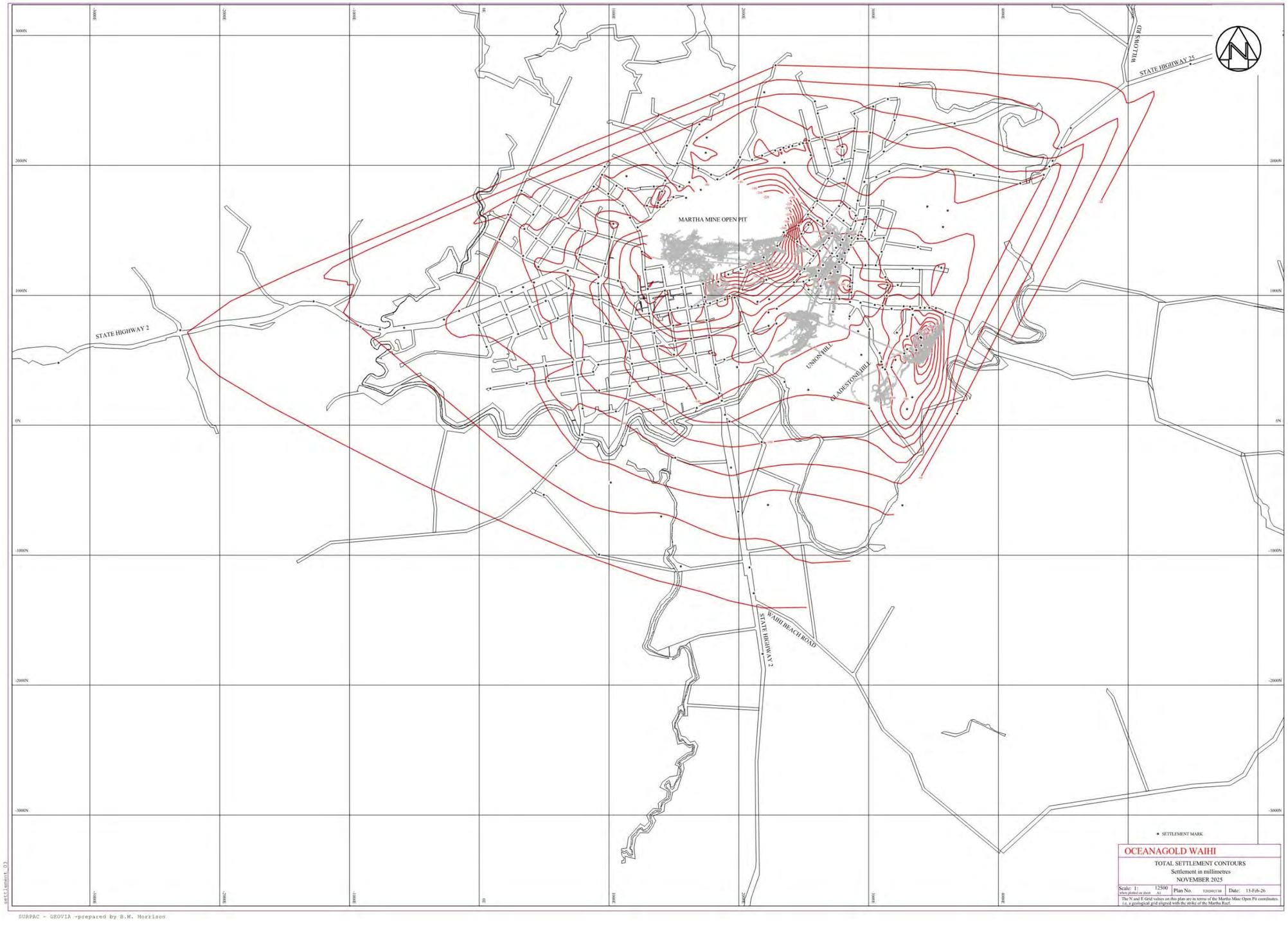


Figure 44. Total settlement contours – November 2025

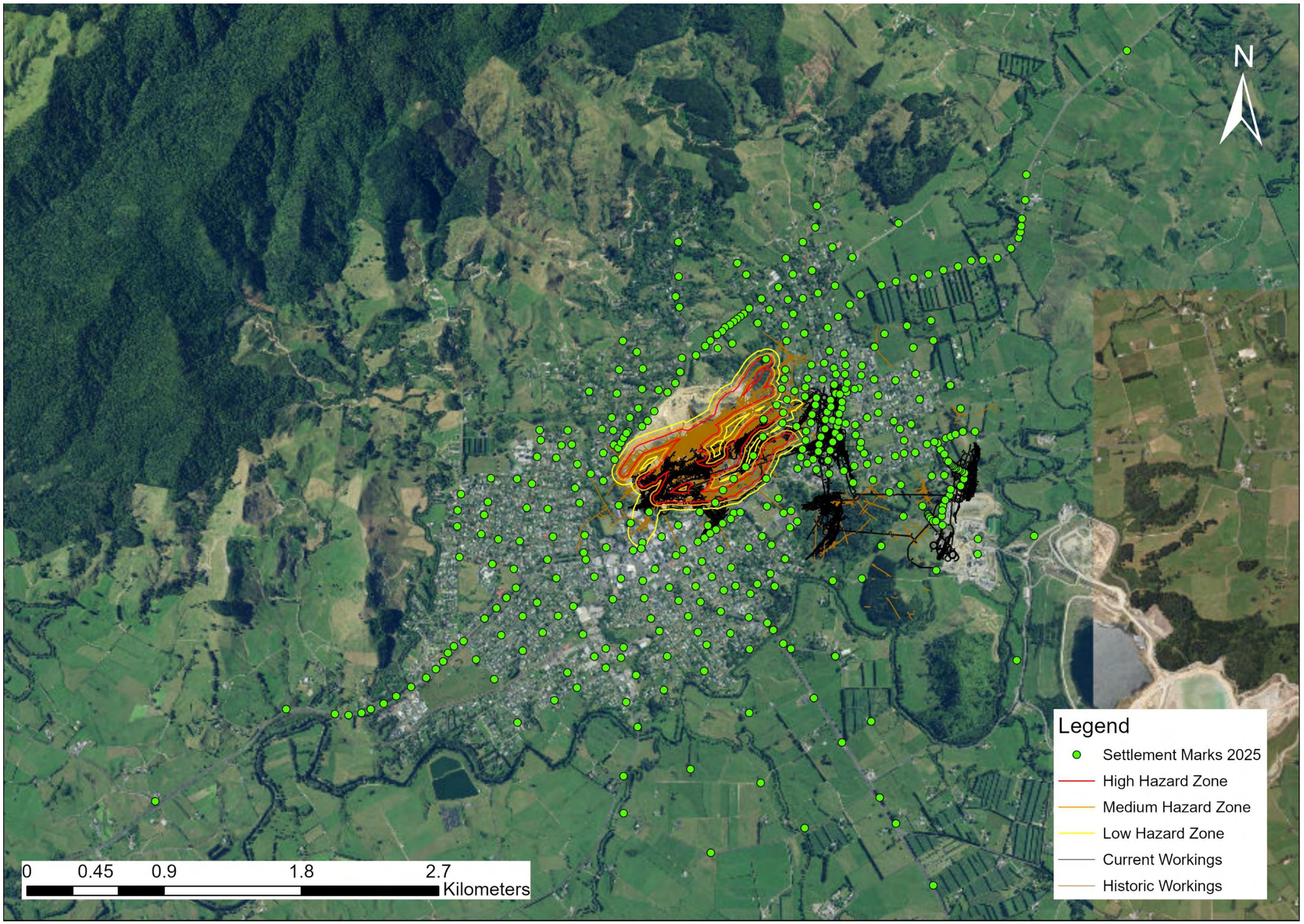


Figure 45. Settlement marker location plan, hazard zones, and underground activity

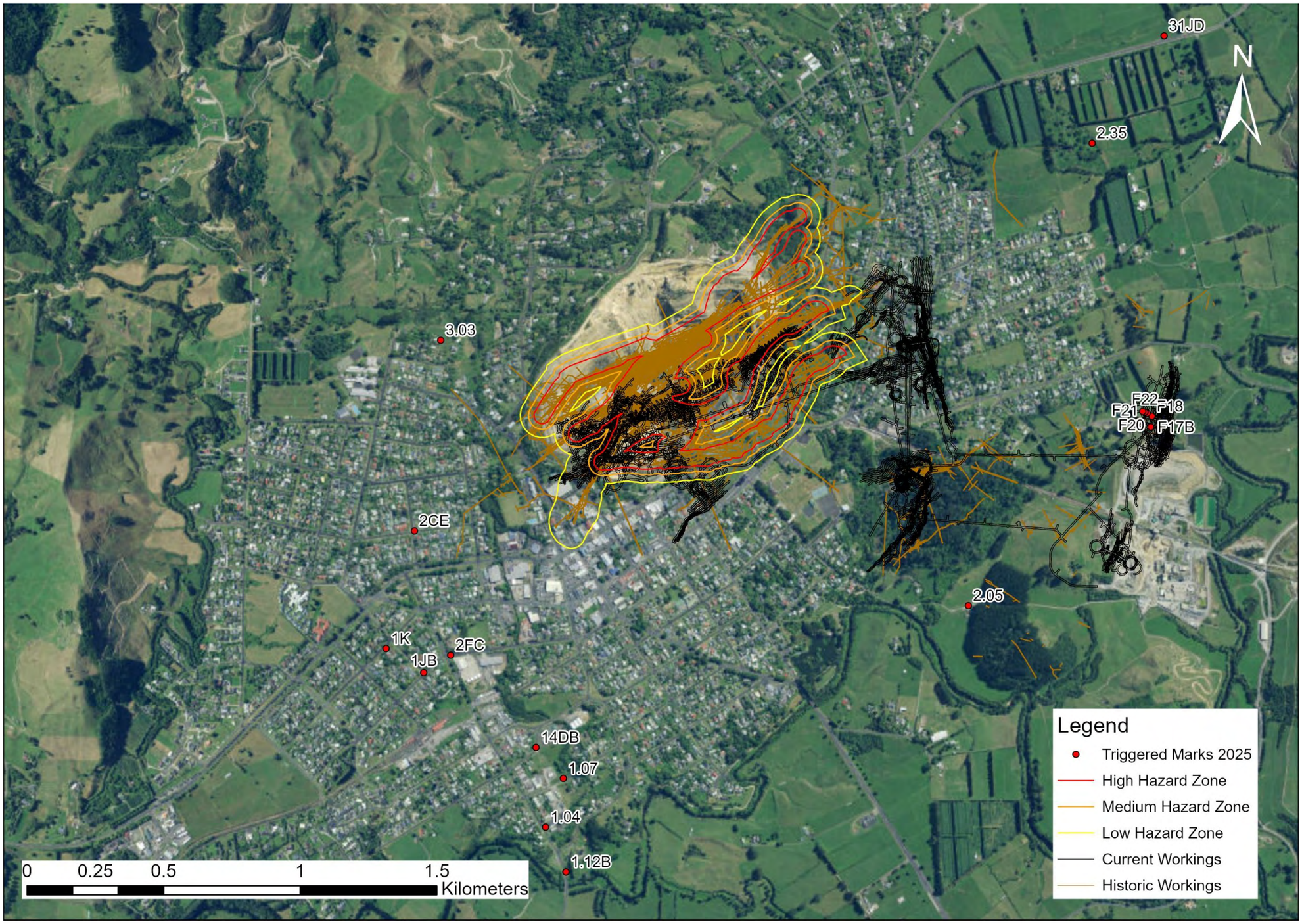


Figure 46. Triggered settlement marks – November 2025

7.2 Results

Appendix C presents plans showing the settlement mark locations, measured settlement values and inferred settlement contours.

Time-history plots of settlement survey data for each zone are presented in Appendix D. These plots also depict the zone settlement predictions (for Project Martha) as horizontal lines on each set of graphs.

The projected trends and the maximum settlements are provided on the graphs in Appendix D. Key trends are described below.

94.6% (302/319) of the marks did not exceed the settlement trigger levels; 17 marks were triggered.

Figure 46 above shows the location of the twelve settlement marks that are located beyond the influence of the Favona Underground that exceeded the trigger limits during the November 2025 survey. The other five marks that exceeded the trigger limits are located above the Favona Underground.

Some points in the time-history plots of settlement in Appendix D for May 2021 showed greater settlement compared to the general trends. This was due to a larger than normal survey mis-close associated with onboarding of new survey staff in May 2021. This was generally most notable to the north and east extents of the survey. The reason for this larger than normal mis-close was able to be identified and corrected for the November 2021 survey. The May 2021 survey data was reprocessed to remove the May 2021 mis-close. The November 2022 results follow the general settlement trends prior to the May 2022 survey.

A summary of the number of settlement survey marks that have been triggered within each of the settlement zones is presented below in Table 7. Further discussion regarding each of the triggered survey marks is provided in the following sections.

Table 7. Number of survey marks triggered in each settlement zone.

Zone	Triggered Marks
1	3
2	5
3	4
4	0
5	0
6	0
7	0
Favona	5
Total	**17**

7.2.1 ZONE 1 – Trigger 55mm

The Zone 1 time-history plot (Appendix D) shows three groupings, one showing a small but steady ongoing settlement after about 1999, another with little settlement until November 2015 and then a small ongoing settlement and another group with no settlement evident. To show these observations the marks for Zone 1 were re-plotted as groups namely:

- Zone 1 along Waihi-Whangamata Road has had a small steady ongoing settlement since 1999 which has reached between 17 and 66mm during this reporting period (*Figure 47*)
- Zone 1 south of Waihi has had a small steady ongoing settlement since 1999 which has reached between 19 and 53mm during this reporting period. Besides mark 2.05 which reached 100mm. (*Figure 48*)
- Zone 1 west of Waihi has had a very small amount of settlement up to 2015 following which the settlement rate increased to a small steady ongoing settlement which has reached approximately 20mm during this reporting period (*Figure 49*)
- Zone 1 north of Waihi which has had no measurable settlement (Figure 50)

This grouping shows that the marks in Zone 1 with a slow ongoing settlement trend are located along the Waihi to Whangamata Road to the east of Waihi, and to the south of Waihi. A steady increase in settlement rate from about 1999 is also be observed in most marks in Zones 2 to 6, suggesting that there is a small and widespread effect occurring at depth. The one marked monitored in Zone 1 to the west of Waihi show little settlement until 2015 and then a small steady on-going settlement showing the widespread effects at depth have reached these markers.

The above observations suggest the following:

- Many Zone 1 marks and also the increasing settlement in Zones 2 to 6 marks is a response to the ongoing dewatering of the deeper structures in the andesite rock body (fracture depressurisation) as a result of mine dewatering. This is a broad effect and has negligible influence on differential tilt between marks.

The stable water levels in the wells monitoring the deeper younger volcanic materials and the upper andesite layers (Figure 19) indicate that the observed settlement behaviour is not related to on-going consolidation of these materials at these locations as no on-going dewatering is evident at these locations.

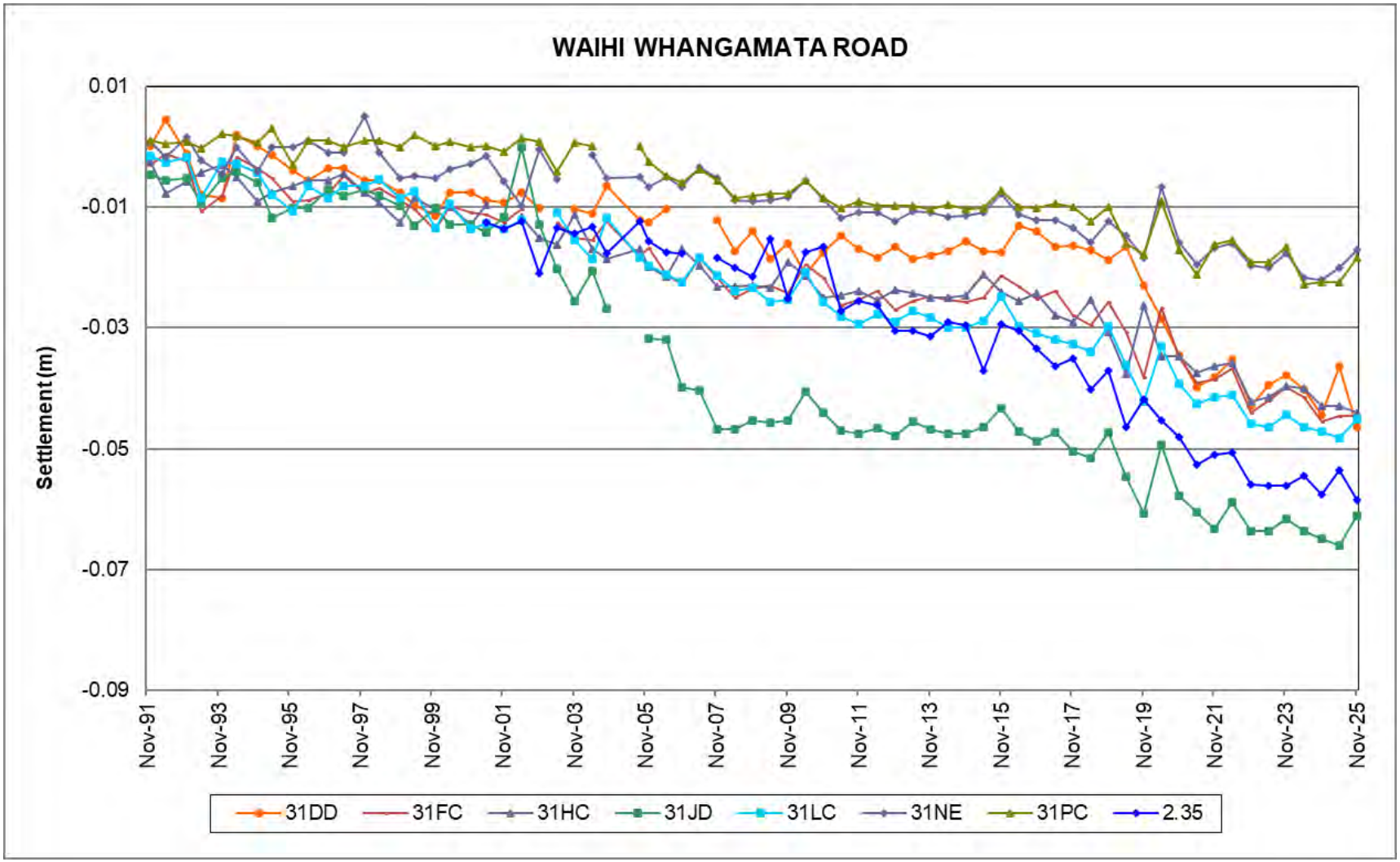


Figure 47. Zone 1 Waihi to Whangamata Road

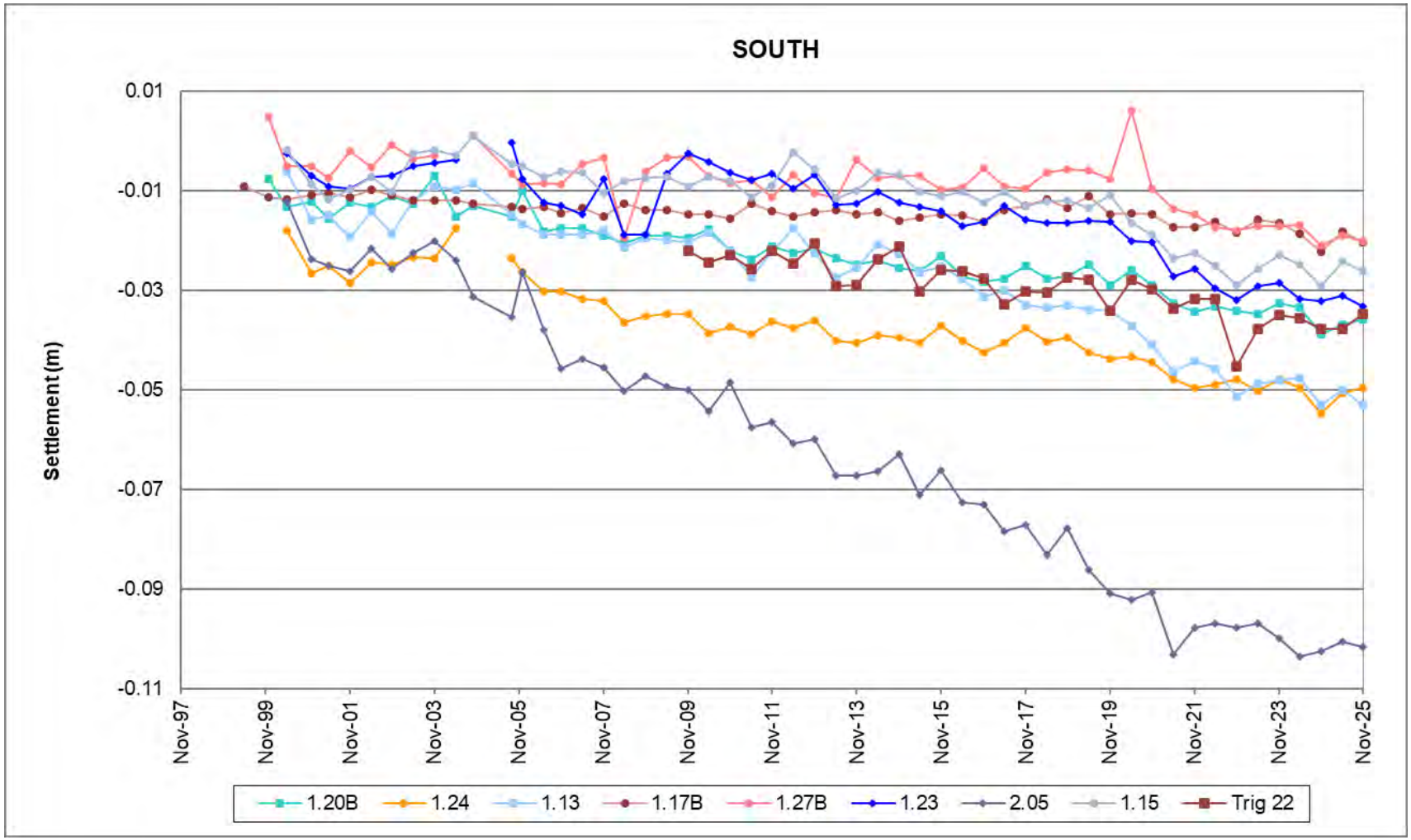


Figure 48. Zone 1 Waihi South

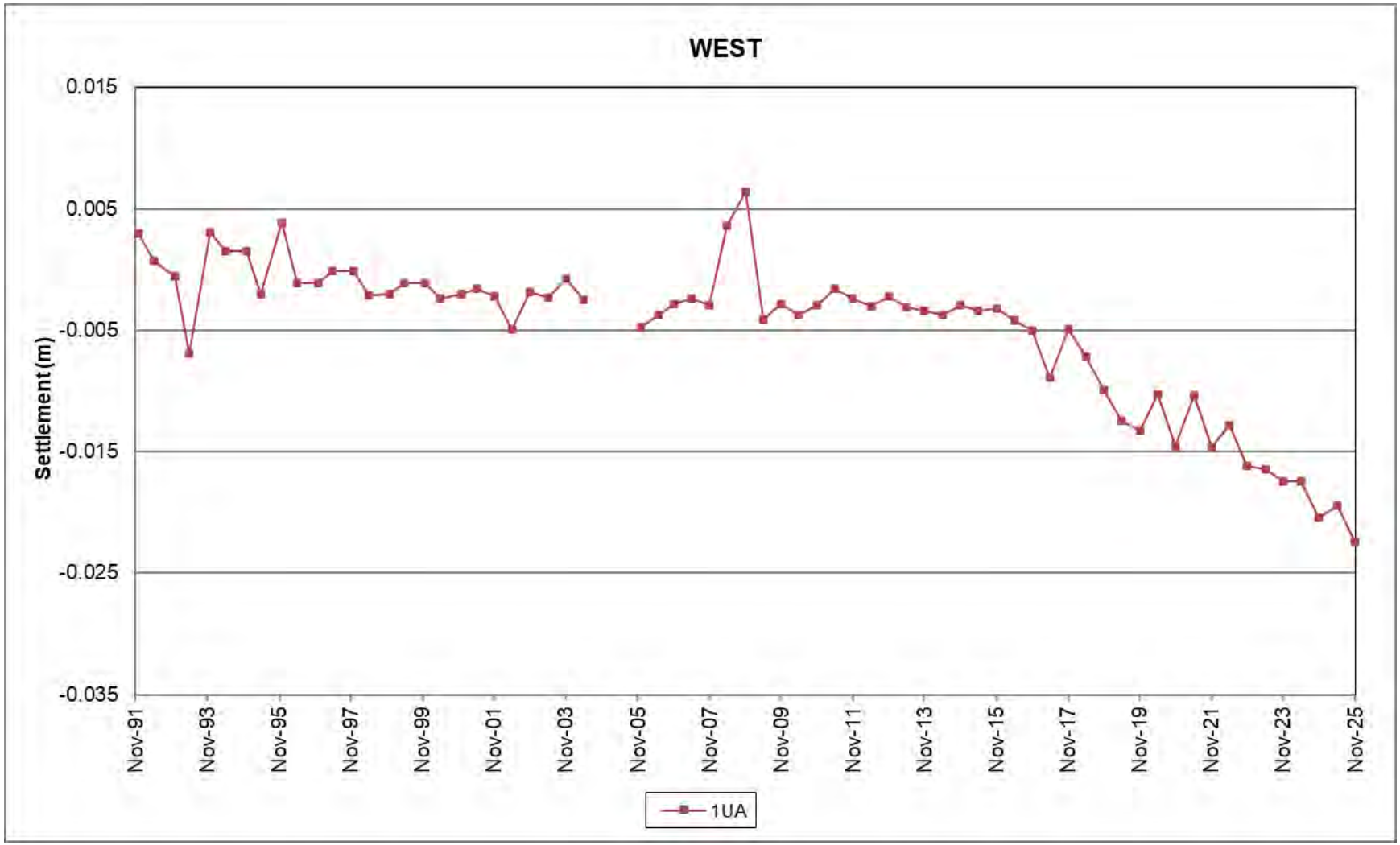


Figure 49. Zone 1 West of Waihi

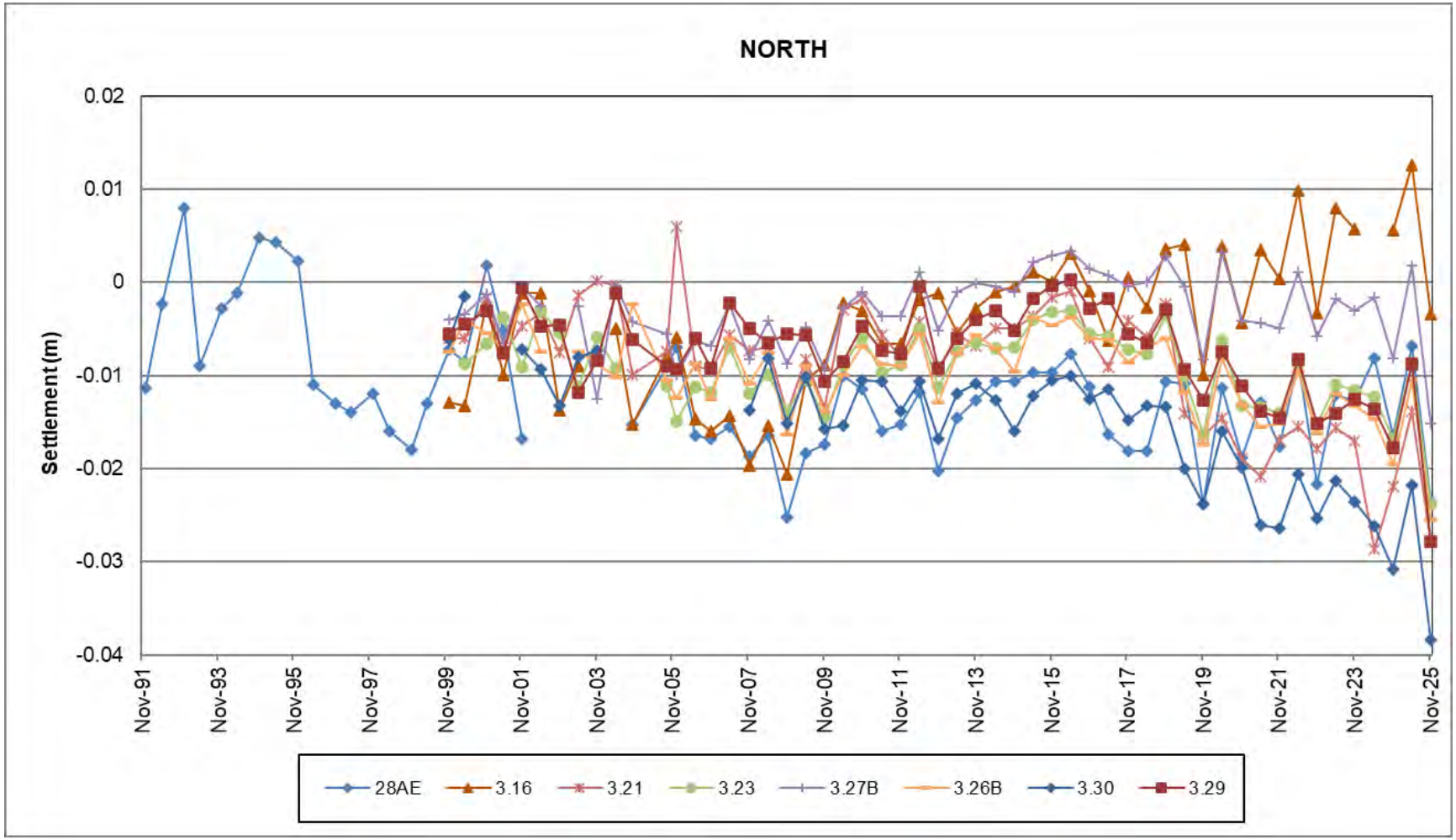


Figure 50. Zone 1 North of Waihi

The monitoring results that exceed the trigger levels, as shown on the relevant Zone 1 time – history plots, are discussed below.

Three marks in Zone 1 showed settlement greater than the trigger levels: 2.05, 2.35, and 31JD.

Mark 2.05 is near Winner Hill and was included in Zone 1 because it was an andesite outcrop. Dewatering of the andesite was originally thought to contribute less to settlements. Like other marks to the south of Waihi Mark 2.05 indicates ongoing settlement after 2003 due to deeper and more extensive dewatering of the andesite. Mark 2.05 is more representative of Zone 4 settlements.

Mark 2.35 is south of the Waihi to Whangamata Road and close to the Settlement Zone 3 boundary. The data suggests an acceleration of settlement after September 2005, however neighbouring marks in Zone 3 have similar settlement values indicative of a general trend in this area. This mark is northeast of Correnso and is not in close proximity to underground mine activities.

Mark 31JD was identified as having an incorrectly applied correction factor. This has now been reviewed and corrected back to the 2006 dataset. Under earlier settlement trigger limits, this mark had been triggered and was previously considered to no longer exceed trigger levels. Following correction of the calculation, the mark continues to exceed the current trigger threshold. Review of surveyor comments and site observations indicates that this mark is located in close proximity to a compost heap, which may be contributing to the observed settlement behaviour. Settlement marks along the Waihi Whangamata Road show similar settlement trends, particularly when located near the Ohinemuri River. These marks are not in close proximity to underground mining activities, suggesting the observed settlement is likely influenced by local ground conditions rather than mining-related effects. Graphs showing the settlement rate for this mark are shown below prior to corrections being added (Figure 51) and after corrections were applied (Figure 52).

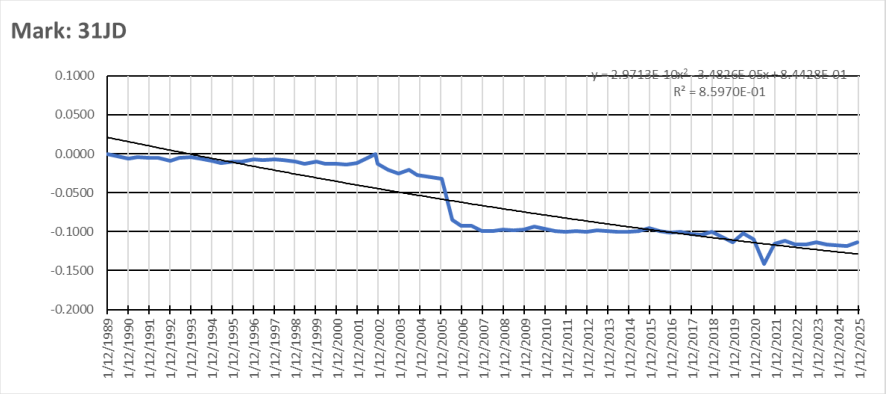


Figure 51.31JD Settlement records prior to correction.

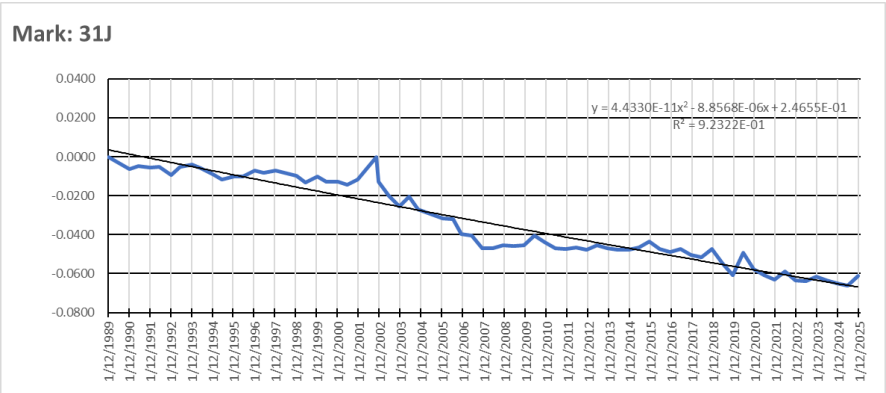


Figure 52. 31JD Settlement records after the correction, no longer exceeding trigger limits.

7.2.2 ZONE 2 – Trigger 65mm

This settlement zone encompasses the western outskirts of Waihi township and some marks to the north and south of Waihi. The time-history plot for Settlement Zone 2 (Appendix D) shows all but five of the Zone 2 marks to be tracking less than the settlement trigger level. As with Zone 1 most of the marks have small settlements. Total settlements during this reporting period are between 6 and 82mm. Movements exceeding trigger levels are discussed below.

On review, the settlement in Zone 2 which is occurring at Mark 1.12B, is assessed to be associated with ongoing dewatering for the Martha Underground (MUG) and likely shows the effect of the deep dewatering in the andesite. Piezometer P4, in the southern area of Waihi, indicates the overlying younger volcanics have not been dewatered. The settlements are relatively small, result in negligible tilt and are therefore not of concern at this point in time. Mark 1.12B continued to exceed the trigger limit by 17 mm in the November 2025 survey. Mark 1.12B will continue to be reviewed with subsequent monitoring surveys.

Mark 1.04 is located in the southern region of Waihi, near the Ohinemuri river. This mark has been triggered previously. The settlement at this mark is assessed to be unrelated to mining activities due to its distance from mining works. It should be further noted that this mark is located near the river and likely upon alluvial soils which are often susceptible to moisture related shrink and swell. Further, this mark may indicate slow natural settlement or ground creep towards the watercourse which is indicated via the measurement of gradual settlement over time.

Mark 3.03 triggered for the first time since 2019 following the November 2025 survey event. The mark has shown a steady rate of settlement toward the trigger, but an increase in rate of settlement was evident at this mark during the November 2025 survey. This was also observed in most marks within Zone 2 and 3 during the November 2025 survey. The surveyor noted this mark is located near the Zone 4 boundary. This settlement mark will be monitored closely in the following reporting periods and further investigations will be taken if the mark continues to trigger.

Mark 1K triggered for the first time in the November 2025 survey. The surveyor noted this mark is located near Zone 3. Similar to the above mark, this has shown a steady rate of settlement toward the trigger, but an increase in rate of settlement was evident at this mark during the November 2025 survey. Ongoing monitoring of this settlement mark will continue, with additional investigation undertaken if exceedances continue.

Mark 1JB, which is in close proximity to mark 1K, triggered for the first time since 2019. This has only triggered once before. The observed settlement is not thought to be related to mine dewatering and roadworks have occurred in this area. The surveyor also noted this mark is located near Zone 3. This settlement mark will be monitored closely in the following reporting periods and further investigations will be taken if the mark continues to trigger.

7.2.3 ZONE 3 – Trigger 95mm

This zone includes areas to the east, south and west of Waihi town.

Review of the time-history plot for Zone 3 shows, as with Zones 1 and 2, most marks display ongoing steady settlement. Total settlements during this reporting period are between 12 and 116mm. Tilts between adjacent marks are well within acceptable limits.

Mark 2CE is located to the west of Waihi township and has showed an increased rate of settlement compared to nearby marks between 1991 and 1995. Thereafter, it has settled at a similar rate to nearby marks. This settlement pattern is similar to point 2BC in Zone 5 which is close in proximity. This increase settlement rate in the early 1990's is associated with dewatering/depressurisation effects due to the development of Martha Pit. Steady ongoing settlements similar to the surrounding points indicates settlement associated with dewatering of the deeper andesite. This mark will continue to be reviewed, however, settlements are explainable and tilts are small, so not of concern.

Mark 1.07 and mark 14DB are located in the southern region of Waihi. These marks have triggered in the past, and the observed settlement is not thought to be associated with mine dewatering. The Ohinemuri River where shrink/swell susceptible alluvial soils are likely to be present.

Mark 2FC triggered during the November 2025 survey event similar to November 2024. The mark has shown a steady rate of settlement toward the trigger and shows a similar pattern to 14DB. The surveyor noted this mark is located near the Zone 4 boundary. This settlement mark will be monitored closely in the following reporting periods and further investigations will be taken if the mark continues to trigger.

7.2.4 ZONE 4 – Trigger 160mm

The Zone 4 time-history plots (Appendix D) show relatively steady ongoing settlement since 1995 in response to mine dewatering. Total settlements during this reporting period are between 0 and 139mm. Tilts between adjacent marks are well within acceptable limits.

7.2.5 ZONE 5 – Trigger 260mm

The data for the Zone 5 marks is provided on the relevant time-history plot in Appendix D. Total settlements during this reporting period are between 25 and 185mm.

No marks in Zone 5 that are located outside of the area over the Favona Underground exceeded the predicted maximum settlement for the zone.

7.2.6 ZONE 6 – Trigger 340mm

The settlement in this zone is shown on the relevant Zone 6 time-history plot in Appendix D. This settlement zone extends through the centre of the Waihi commercial area. Total settlements during this reporting period are between 60 and 401 mm.

One mark in this zone previously exceeded the maximum predicted settlement, mark BM20. This mark (mark BM20) has been noted as disturbed by the surveyor over multiple readings and therefore removed from the survey. Mark BM20a will be used in its place.

Figure 53 below presents a plot of the settlement profile that has been measured within the Rex area to date and Figure 54 presents the locations for the corresponding settlement monitoring marks. These marks are relative to one another with R01 starting on the south side moving up to the north. These marks are grouped together as they represent the area over current expansion on the underground mine that lies directly below the centre of Waihi township.

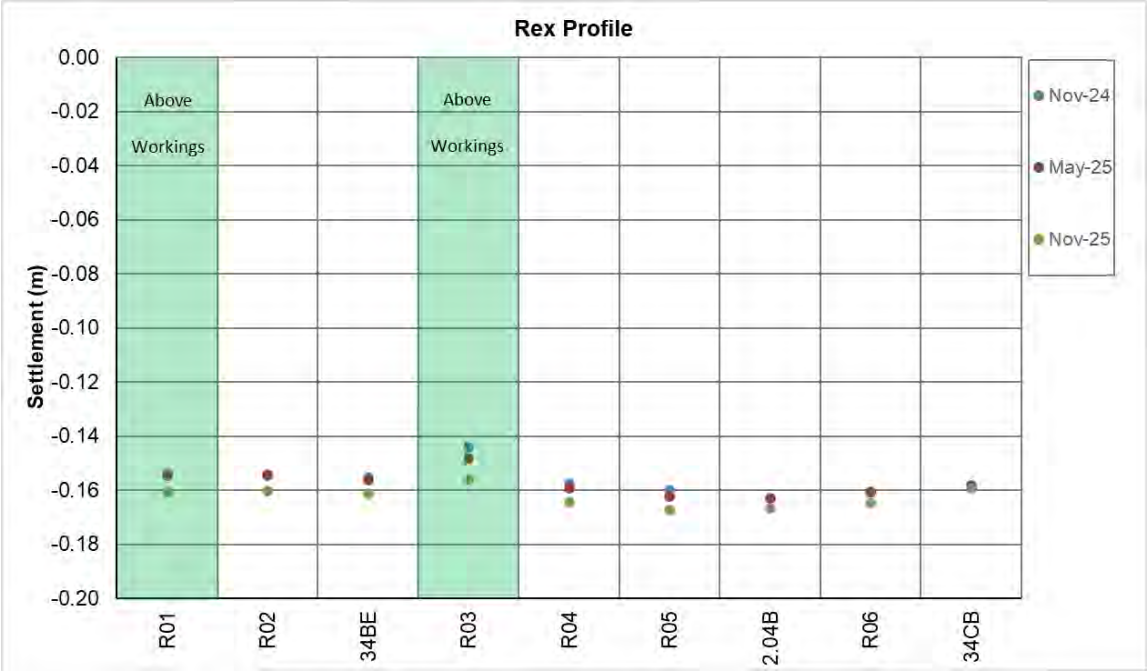


Figure 53. Rex Settlement Profile

Figure 54. Rex Settlement Marker Locations

7.2.7 ZONE 7 – Trigger 540mm

The settlements which have been measured within Zone 7 are all less than the predicted maximum. (Zone 7 time-history plot, Appendix D). Total settlements during this reporting period are between 312 and 335mm. Ongoing settlements are relatively constant and match the ongoing dewatering at depth within the andesite.

No new settlement trends are indicated by the latest monitoring results.

7.3 Favona Settlement

The measured settlement in the vicinity of the Favona Mine has a component of settlement due to Martha Mine dewatering as well as a component of settlement related to Favona Mine dewatering.

A separation of the measured total settlement into Martha and Favona settlement components has been undertaken by projecting the settlement evident before the commencement of the Favona Mine and accepting these projected settlements as Martha settlements. The difference between the projected (Martha) settlement and total measured settlement has been taken as the Favona component of settlement.

Table 8 sets out the total settlement, the settlement attributed to Martha dewatering and the settlement attributed to Favona Mine dewatering, as assessed for the Favona Mine settlement markers.

Table 8. Separation of settlement – Favona marks – November 2025.

Mark	Measured Total Settlement. (mm)	Estimated Martha Settlement. (mm)	Estimated Favona Settlement. (mm)
F02	105	50	55
F06	115	40	75
F08A	124	44	80
F10B	135	44	91
F12C	142	39	103
F14D	136	60	76
F15C	180	55	125
F16B	170	55	115
F17B	302	55	247
F18	390	49	341
F20	329	44	285
F21	295	43	252
F22	271	42	229
F24	229	42	187
F26	194	45	149
F28B	-	49	124
F30B	-	52	107
F32B	-	49	80
F34C	116	58	58
F35B	108	61	47

The largest measured settlement at Favona Mine occurs where the markers overlie mine workings (i.e. marks F15C to F26). The maximum predicted settlement over the workings from dewatering was assessed as 80 mm for earlier projects, with mine dewatering related settlement not extending into the urbanised area. The actual total settlement and the extent of settlement exceeded the predictions for the dewatering settlement. The difference between the predictions and measured settlement was assessed to reflect depressurisation and consolidation of the andesite rock body, which was not considered in the initial settlement predictions. Andesite rock was considered to be a stiff material with negligible consolidation characteristics, but the long-term settlement observed in response to Martha Mine dewatering (in Zones 1 to 6, discussed above) suggests that some minor consolidation of the deeper andesite rock is occurring, possibly as a response to fracture depressurisation. In addition, some further relaxation of the rock mass towards the mine workings

may be occurring, and this may be providing further volume reduction of the andesite rock mass in the vicinity of the mine.

Another potential influence is that the Favona andesite has been undergoing primary consolidation, as current water level monitoring data suggests that the Favona system was not dewatered to the same extent as the Martha groundwater system during historical mining in the early 1900's. Consolidation predictions for Favona were made based on Martha's "reconsolidation" dewatering data. The amount of primary consolidation is greater for the first time of dewatering compared to the second or subsequent times of dewatering. This is because the first cycle of dewatering results in pre-consolidation and an increase in the stiffness of the ground, and subsequent recovery of the groundwater levels does not result in full rebound of the ground surface to its original levels.

Settlement predictions for Project Martha have been updated for the zone encompassing Favona marks to reflect the effects outlined above. Five Favona marks exceeded the maximum predicted settlement in the November 2025 survey: F17B, F18, F20, F21 and F22. All are located on company owned land above active underground workings. Marks F18, 17B and F24 are noted by the surveyor as possibly disturbed (Appendix B). Marks F28B, F30B and F32B were lost during the November 2025 survey, and new marks will be established in the next surveying round.

7.4 Trio Underground

No marks have exceeded the trigger limits in the vicinity of Trio Underground have been observed.

7.5 Summary

The analysis of the relevant survey data to the end of 2025 continues to indicate that current slow settlements associated with Martha Mine are likely to be related to dewatering of the deeper structures within the andesite rock mass. Groundwater monitoring data does not show any widespread or significant ongoing dewatering of alluvium, younger volcanic materials or the upper layers of the andesite rock body.

Settlement triggers include modification to Martha Mine Extended Pit associated with the cutback projects; the extended duration of dewatering at Martha Mine; assumptions made in the Favona settlement predictions (fracture depressurisation, secondary rather than primary consolidation); and localised natural, induced and historic effects.

The area around Martha Mine of greatest settlement is adjacent to the eastern pit wall where the weaker younger volcanic rocks are thickest, and dewatering of this geological unit is greatest and most protracted. This is also an area that has historic underground workings which have not been backfilled.

The main area of noteworthy settlement at Favona overlies the underground workings. This area comprises Company owned farmland. Outside the Favona workings area the measured ground surface settlement is notably lower. The conditions giving rise to settlement at Favona differ from those in the Martha Groundwater System as the latter has been dewatered to a greater extent for a longer time than the current dewatering while the former has not been previously dewatered. While settlement has exceeded initial estimates at Favona, such estimates were based on Martha settlement data which was responding to reconsolidation rather than primary consolidation.

In relation to the Trio, Correnso and SUPA mines, these areas are located in the dewatered Martha Groundwater System and settlement (as described in this document) has already been developing in response to Martha Mine dewatering. Also, as these are linked to the Martha system, settlement will be based on additional consolidation and did not include settlement due to dewatering of the andesites.

8 TILT

As noted above, a full assessment and review of the Waihi settlement marker network and database was undertaken by GWS Limited in 2019. This review resulted in the removal of erroneous and high-density settlement marks and an updated settlement database with revised settlement marker corrections where appropriate. Revised settlement marker corrections have been applied in this reporting period. It should also be noted that there is some crossover of marks between adjacent Mining Permit boundaries.

The settlement and tilt assessments have been grouped into six areas as follows:

- Favona
- Martha
- North Wall
- Correnso
- Correnso South
- SUPA

It should be noted that there is some crossover of marks between Mining Permit boundaries.

The current assessment of tilt between adjacent settlement marks is summarised below in Tables 9a to 9f. In the following tables each tilt result is recorded next to the second of the two marks used in its calculation. An orange cell denotes the locations where tilt greater (steeper) than 1:1000 has been inferred, and a green cell denotes a survey monitoring pin that is located above OceanaGold underground mine workings.

Table 9. Assessment of settlement and tilt between adjacent marks in Nov 2025
FAVONA

Mark	x	y	Distance (m)	Nov 2025 Δz (m)	Abs (m)	Δh (m)	Tilt (1:X)
F02	3097.60	490.00		-0.1047	0.1047		
F06	3107.08	445.21	45.78	-0.1145	0.1145	0.0098	4672
F10B	3176.88	446.75	69.82	-0.1351	0.1351	0.0206	3389
F12C	3207.32	503.82	64.69	-0.1421	0.1421	0.0070	9241
F14D	3274.74	552.64	83.24	-0.1363	0.1363	0.0058	14351
F15C	3297.17	585.32	39.64	-0.1795	0.1795	0.0432	918
F16B	3367.38	578.70	70.52	-0.1699	0.1699	0.0096	7346
F17B	3405.48	613.91	51.88	-0.3018	0.3018	0.1319	393
F18	3423.83	648.30	38.98	-0.3904	0.3904	0.0886	440
F21	3405.99	672.00	29.66	-0.2948	0.2948	0.0956	310
F24	3388.13	690.85	25.97	-0.2291	0.2291	0.0657	395
F34C	3339.49	849.57	166.01	-0.1161	0.1161	0.1130	1469
F35B	3336.68	896.06	46.58	-0.1079	0.1079	0.0082	5680

Assessment of settlement and tilt between adjacent marks in Nov 2025 MARTHA

Mark	x	y	Distance (m)	Nov 2025 Δz (m)	Abs (m)	Δh (m)	Tilt (1:X)
20BB	2533.26	1622.29		-0.1353	0.1353		
20AC	2461.04	1536.91	111.83	-0.1392	0.1392	0.0039	28674
BM20A	2345.50	1484.90	126.71	-0.2712	0.2712	0.1320	960
20D	2482.07	1473.48	137.05	-0.1602	0.1602	0.1110	1235
19CB	2296.71	1381.40	206.97	-0.3226	0.3226	0.1624	1274
19BB	2191.56	1292.02	138.00	-0.3351	0.3351	0.0125	11040
BM19B	2117.17	1244.36	88.35	-0.3235	0.3235	0.0116	7617
17CB	2014.23	1201.01	111.70	-0.3260	0.3260	0.0025	44678
17BB	1919.52	1160.79	102.90	-0.2601	0.2601	0.0659	1561
17AB	1841.32	1104.80	96.18	-0.2213	0.2213	0.0388	2479

Mark	x	y	Distance (m)	Nov 2025 Δz (m)	Abs (m)	Δh (m)	Tilt (1:X)
34CB	1967.74	983.20	175.41	-0.1595	0.1595	0.0618	2838
R06	1927.48	994.19	41.73	-0.1646	0.1646	0.0051	8183
2.04B	1893.21	968.34	42.93	-0.1668	0.1668	0.0022	19512
R05	1833.86	959.98	59.94	-0.1673	0.1673	0.0005	119872
BM17A	1724.44	1088.92	169.11	-0.1288	0.1288	0.0385	4392
R03	1737.89	986.34	103.46	-0.156	0.1560	0.0272	3804
R05	1833.86	959.98	99.52	-0.1673	0.1673	0.0113	8807
R04	1777.69	939.42	59.81	-0.1644	0.1644	0.0029	20626
R03	1737.89	986.34	61.53	-0.156	0.1560	0.0084	7325
34BE	1732.56	931.60	55.00	-0.1563	0.1563	0.0003	10344
R04	1777.69	939.42	45.80	-0.1644	0.1644	0.0081	14856
34BE	1732.56	931.60	45.80	-0.1613	0.1613	0.0031	14775
R02	1686.32	920.99	47.44	-0.1602	0.0000	0.1613	43129
R01	1636.96	912.74	50.04	-0.1606	0.1606	0.1606	125112
10BC	1560.13	1062.92	168.69	-0.1564	0.1564	0.0042	40165
10AB	1430.61	1037.00	132.09	-0.1527	0.1527	0.0037	35700
BM16	1418.09	1218.03	181.46	-0.1633	0.1633	0.0106	17119
10DC	1279.04	1198.33	140.44	-0.1603	0.1603	0.0030	46813
16BC	1252.81	1336.47	140.61	-0.1584	0.1584	0.0019	74006
BM9B	1220.25	1523.29	189.63	-0.0935	0.0935	0.0649	2922

Assessment of settlement and tilt between adjacent marks in Nov 2025 NORTH WALL

Mark	x	y	Distance (m)	Nov 2025 Δz (m)	Abs (m)	Δh (m)	Tilt (1:X)
27AB	2009.08	2064.33		-0.0170	0.0170		
26Q	1963.00	1982.71	93.73	-0.0402	0.0402	0.0232	4040
26PB	1834.84	1893.11	156.38	-0.0575	0.0575	0.0173	9039
26OB	1706.93	1812.27	151.31	-0.0139	0.0139	0.0436	3471
26MB	1593.46	1750.66	129.12	-0.0564	0.0564	0.0425	3038
26JB	1495.71	1756.55	97.93	-0.0494	0.0494	0.0070	13990
BM26	1542.45	1837.81	93.74	-0.0384	0.0384	0.0110	8522
3.09	1618.51	1870.17	82.66	-0.0358	0.0358	0.0026	31792

Assessment of settlement and tilt between adjacent marks in Nov 2025 CORRENSO

Mark	x	y	Distance (m)	Nov 2025 Δz (m)	Abs (m)	Δh (m)	Tilt (1:X)
25E	2472.35	1162.01		-0.1680	0.1680		N/A
25B	2497.67	1105.83	61.62	-0.1320	0.1320	0.0360	1712
25I	2537.20	1045.04	72.51	-0.1277	0.1277	0.0043	16863
24H	2630.70	1072.28	97.39	-0.1222	0.1222	0.0055	17707
24B	2667.67	1126.40	65.54	-0.1198	0.1198	0.0024	27309
24G	2705.96	1170.46	58.38	-0.1347	0.1347	0.0149	3918
24L	2761.67	1181.33	56.76	-0.1417	0.1417	0.0070	8108
24AC	2743.58	1218.90	41.70	-0.1350	0.1350	0.0067	6224
24F	2772.80	1257.27	48.23	-0.1289	0.1289	0.0061	7907
BM24	2794.55	1279.36	31.00	-0.1208	0.1208	0.0081	3827
24E	2758.43	1303.23	43.29	-0.1253	0.1253	0.0045	9621
24DC	2718.29	1323.13	44.80	-0.1261	0.1261	0.0008	56006
25H	2648.48	1232.96	114.03	-0.1427	0.1427	0.0166	6870
25CB	2615.91	1190.50	53.51	-0.1433	0.1433	0.0006	89183
25G	2594.60	1149.42	46.29	-0.1449	0.1449	0.0016	28928
25F	2542.53	1116.24	61.74	-0.1454	0.1454	0.0005	123472
25B	2497.67	1105.83	46.05	-0.1320	0.1320	0.0134	3437
BM25	2424.91	1100.25	72.97	-0.1549	0.1549	0.0229	3187

Mark	x	y	Distance (m)	Nov 2025 Δz (m)	Abs (m)	Δh (m)	Tilt (1:X)
25E	2472.35	1162.01	77.88	-0.1680	0.1680	0.0131	5945
25A	2505.13	1203.77	53.09	-0.1673	0.1673	0.0007	75840
25D	2547.05	1248.02	60.95	-0.1665	0.1665	0.0008	76188
21DC	2573.96	1304.15	62.25	-0.1542	0.1542	0.0123	5061
21N	2623.25	1342.44	62.41	-0.1347	0.1347	0.0195	3201
21C	2651.57	1389.82	55.20	-0.1241	0.1241	0.0106	5208
21M	2694.90	1439.65	66.03	-0.1126	0.1126	0.0115	5742
21BC	2719.27	1477.80	45.27	-0.0979	0.0979	0.0147	3080
21EB	2799.95	1429.09	94.24	-0.1009	0.1009	0.0030	31413
24K	2783.89	1387.72	44.38	-0.1177	0.1177	0.0168	2642
24J	2749.39	1365.76	40.89	-0.1071	0.1071	0.0106	3858
24DC	2718.29	1323.13	52.77	-0.1261	0.1261	0.0190	2777
22F	2815.91	1325.41	97.65	-0.1259	0.1259	0.0002	488263
22C	2846.39	1352.54	40.80	-0.1435	0.1435	0.0176	2318
22GB	2862.88	1387.97	39.08	-0.1178	0.1178	0.0257	1521
22BC	2916.75	1435.77	72.02	-0.1040	0.1040	0.0138	5219
22I	2918.98	1461.37	25.69	-0.1016	0.1016	0.0024	10706
22H	2869.25	1441.80	53.44	-0.0905	0.0905	0.0111	4814
21P	2849.17	1456.90	25.13	-0.0929	0.0929	0.0024	10470
21FB	2861.65	1512.21	56.70	-0.0745	0.0745	0.0184	3082
21Q	2899.60	1571.32	70.24	-0.0759	0.0759	0.0014	50172
21GC	2901.12	1614.05	42.76	-0.0770	0.0770	0.0011	38873
22KB	2981.80	1603.49	81.37	-0.0676	0.0676	0.0094	8657
2.29B	2953.39	1548.17	62.19	-0.0955	0.0955	0.0279	2229
22J	2944.47	1489.76	59.09	-0.0839	0.0839	0.0116	5094
22I	2918.98	1461.37	38.16	-0.1016	0.1016	0.0177	2156
22H	2869.25	1441.80	53.44	-0.0905	0.0905	0.0111	4814
21EB	2799.95	1429.09	70.46	-0.1009	0.1009	0.0104	6775
21BC	2719.27	1477.80	94.24	-0.0979	0.0979	0.0030	31414
BM21	2654.80	1515.40	74.63	-0.1072	0.1072	0.0093	8025
20F	2605.79	1575.98	77.92	-0.1207	0.1207	0.0135	5772
20E	2535.65	1542.67	77.65	-0.1755	0.1755	0.0548	1417
21C	2651.57	1389.82	191.83	-0.1241	0.1241	0.0514	3732

Assessment of settlement and tilt between adjacent marks in Nov 2025 CORRENSO SOUTH

Mark	x	y	Distance (m)	Nov 2025 Δz (m)	Abs (m)	Δh (m)	Tilt (1:X)
23F	2700.77	968.79		-0.1249	0.1249		
2.13	2725.42	874.95	97.03	-0.1175	0.1175	0.0074	13112
23E	2774.82	972.51	109.36	-0.1263	0.1263	0.0088	12427
2.14A	2853.28	838.67	155.15	-0.1196	0.1196	0.0067	23156
23B	2856.49	949.79	111.17	-0.1247	0.1247	0.0051	21798
BANK1	2866.21	1023.25	74.10	-0.1156	0.1156	0.0091	8159
23C	2856.14	1068.01	45.88	-0.1264	0.1264	0.0108	4248
2.25	2874.51	1097.26	34.54	-0.1247	0.1247	0.0017	20088
23D	2861.42	1154.89	59.09	-0.1308	0.1308	0.0061	9687
2.24	2885.91	1215.47	65.35	-0.1379	0.1379	0.0071	9204
MATAURA1	2831.84	1250.81	64.60	-0.1258	0.1258	0.0121	5339
BM24	2794.55	1279.36	46.96	-0.1208	0.1208	0.0050	9393

Assessment of settlement and tilt between adjacent marks in Nov 2025 SUPA

Mark	x	y	Distance (m)	Nov 2025 Δz (m)	Abs (m)	Δh (m)	Tilt (1:X)
BM25	2424.91	1100.25		-0.1549	0.1549		
34H	2233.59	970.56	231.14	-0.1218	0.1218	0.0331	6978
2.10	2143.92	950.39	91.91	-0.1556	0.1556	0.0338	2717

Mark	x	y	Distance (m)	Nov 2025 Δz (m)	Abs (m)	Δh (m)	Tilt (1:X)
34CB	1967.74	983.20	179.21	-0.1595	0.1595	0.0039	45951
34GC	2211.33	1119.52	279.14	-0.2192	0.2192	0.0597	4676
19BB	2191.56	1292.02	173.63	-0.3351	0.3351	0.1159	1498
19CB	2296.71	1381.40	138.00	-0.3226	0.3226	0.0125	11040
21O	2527.37	1356.34	232.01	-0.1564	0.1564	0.1662	1396
20C	2450.61	1413.86	95.92	-0.1845	0.1845	0.0281	3413
20D	2482.07	1473.48	67.41	-0.1602	0.1602	0.0243	2774
BM20A	2345.50	1484.90	137.05	-0.2712	0.2712	0.1110	1235

Table Key:

Monitoring mark located above mine workings.

Tilt greater than 1:1000 observed.

Discussion

Favona Tilt

Figure 55 below presents a plot of the settlement profile that has been measured within the Favona area to date and Figure 56 presents the locations for the corresponding settlement monitoring marks.

The results for Favona indicate that no new tilt measurements in excess of 1:1000 have been observed since the previous round of monitoring.

Previously, tilts greater than 1:1000 were identified in six locations within the Favona area F14D/F15C, F16B/F17B, F17B/F18, F18/F21, F21/F24 and F24/F32B.

Note F28B, F30B, 32B have been lost during the Nov 2025 survey due to a surface excavation and the construction of a metalled contractor's site yard, therefore have been removed from calculations but are included in the graph below.

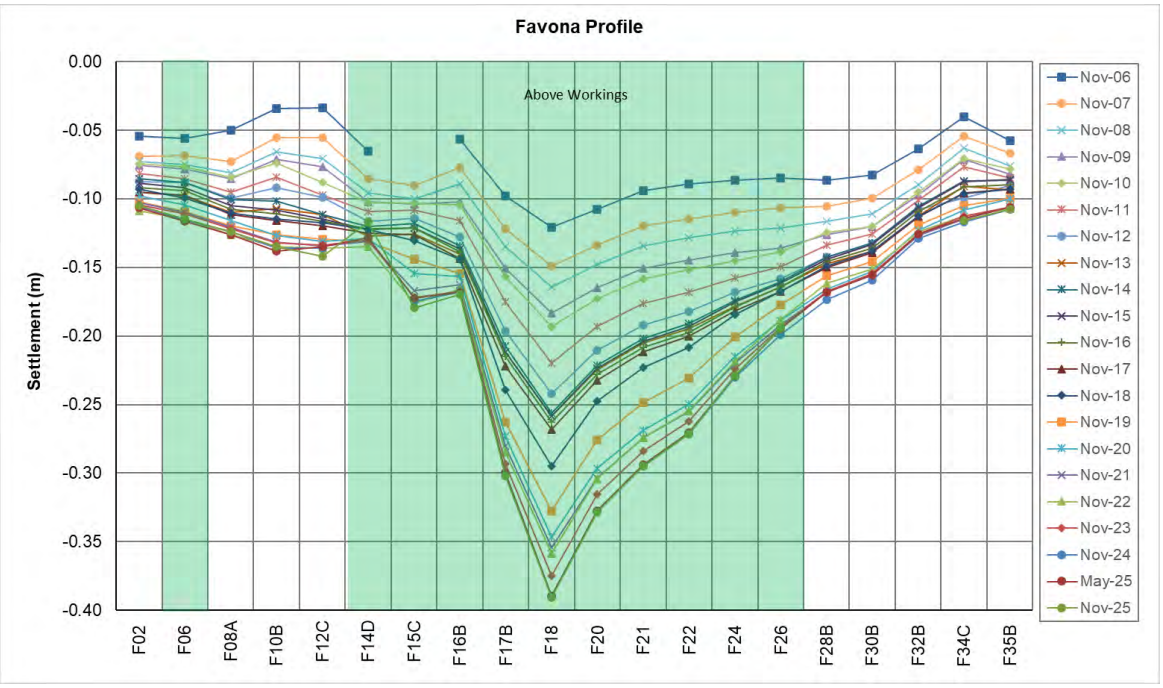


Figure 55. Favona Settlement Profile

The calculated tilts that exceed 1:1000 are all located over or near the Favona underground workings. The tilt in this area has changed little since 2005, with small increases in tilt observed as the dewatered underground workings adjust compared to the adjacent land. All these locations are situated on farmland that is owned by the company; are over 100m south of any non-company residences; and as such this area of tilt is not considered to be an issue. Monitoring will continue, and this will determine an anomalous result that need to be addressed.

Note 1: The Favona tilt calculation is based on the total measured settlement at each mark, without separation of any Martha effect. While the calculated tilt may not precisely reflect the tilt due to Favona alone, this potential discrepancy is expected to be minor.

Note 2: Not all Favona settlement marks are included in the tilt calculations due to some being too closely spaced to enable accurate or reliable tilt calculations. For the purposes of the calculations that are presented in this document, the minimum distance between adjacent marks is 25m.

Figure 56. Favona Settlement Marker Locations

Martha / North Wall Tilt

Tilt greater than 1:1000 has been identified within the Martha area at one location. This tilt occurs between 20AC and BM20a (refer to Figure 57 below for mark locations). This location is within the Slevin Park area which has been noted as swampy and historically infilled with poor material. There is a long history of previous slumping/subsidence, and it was noted by the surveyor some cracks are visible in the sealed pavements within the area. Settlement monitoring of this location will continue. We understand that HDC also undertakes regular independent monitoring of this zone. No other tilt greater than 1:1000 has been identified within the Martha/North Wall areas. Settlement marks for these areas are shown in Figure 58 and Figure 59 respectively.

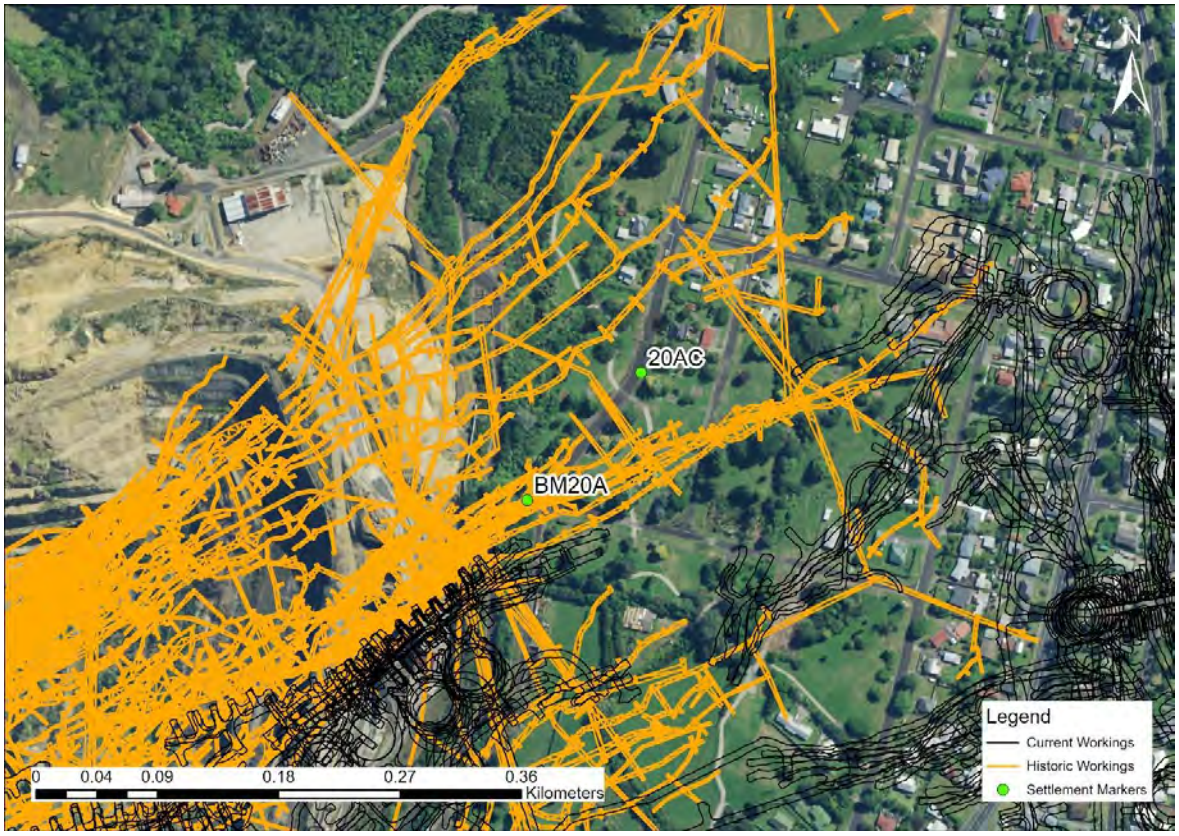


Figure 57. 20AC and BM20A survey mark locations

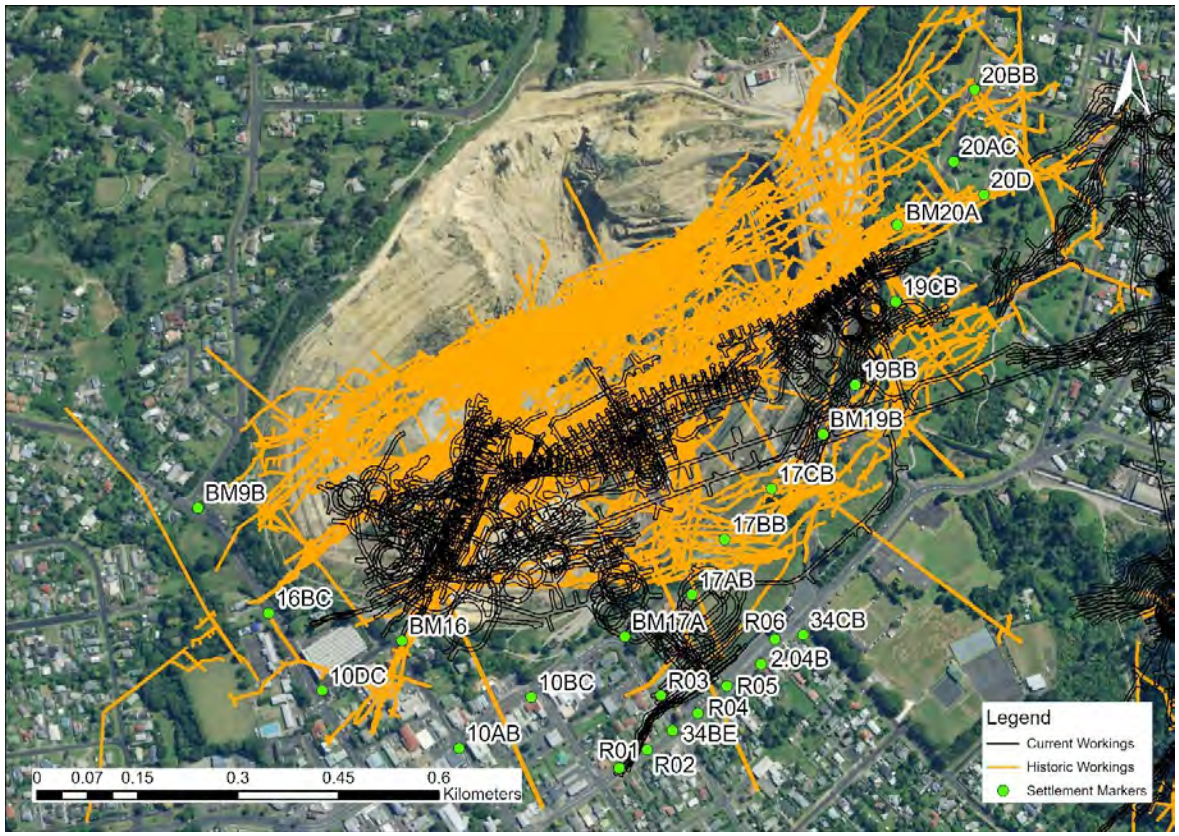


Figure 58. Martha Underground Settlement Marker Locations

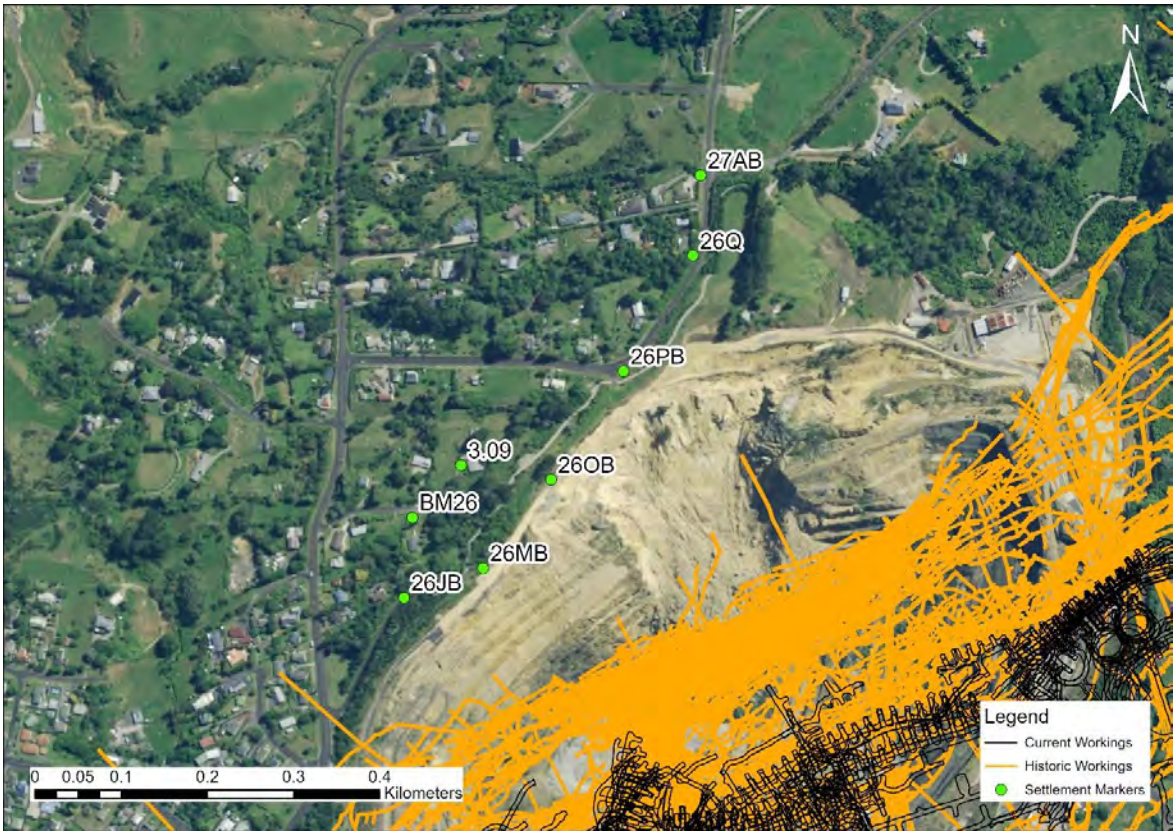


Figure 59. North Wall Settlement Marker Locations

Correnso / Correnso South Tilt

No tilt greater than 1:1000 has been identified within the Correnso/Correnso South areas. Settlement marks for these areas are shown in Figure 60 and 61 respectively.

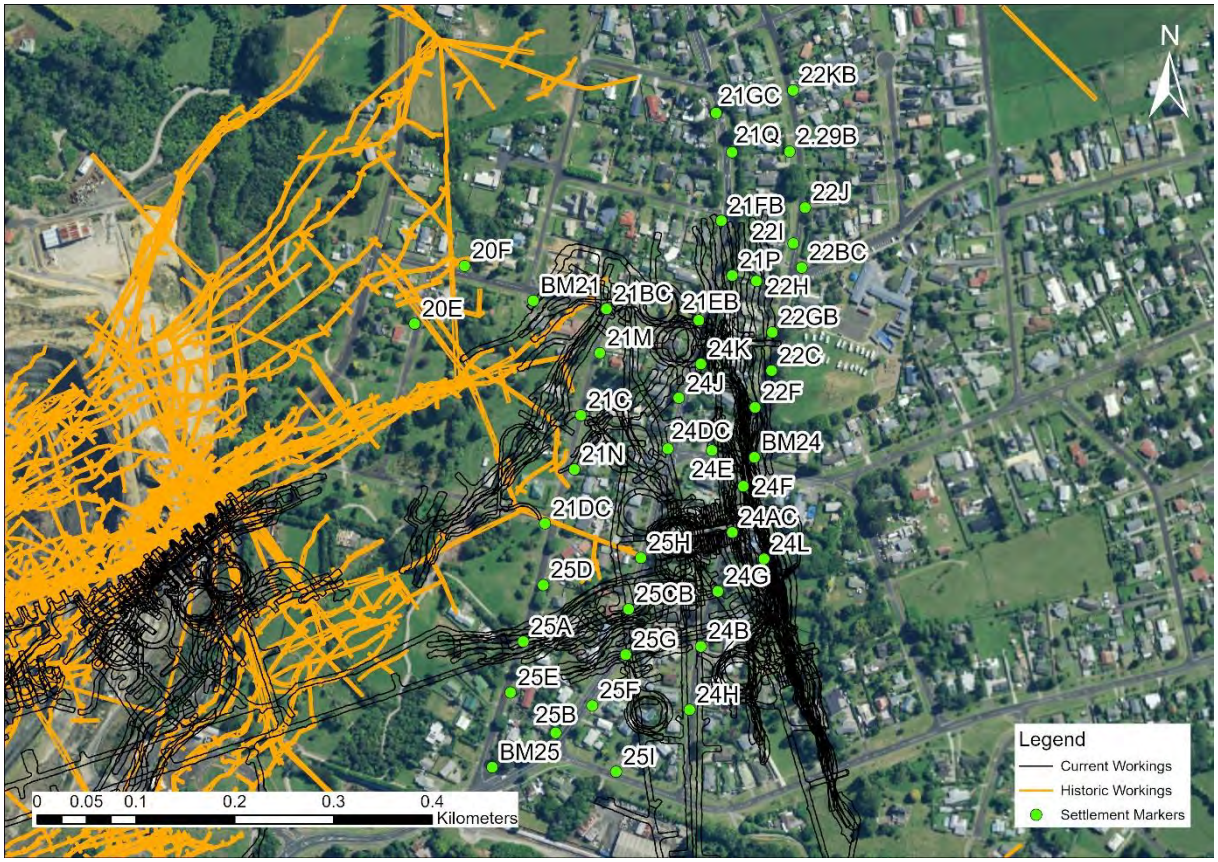


Figure 60. Correnso Settlement Mark Locations

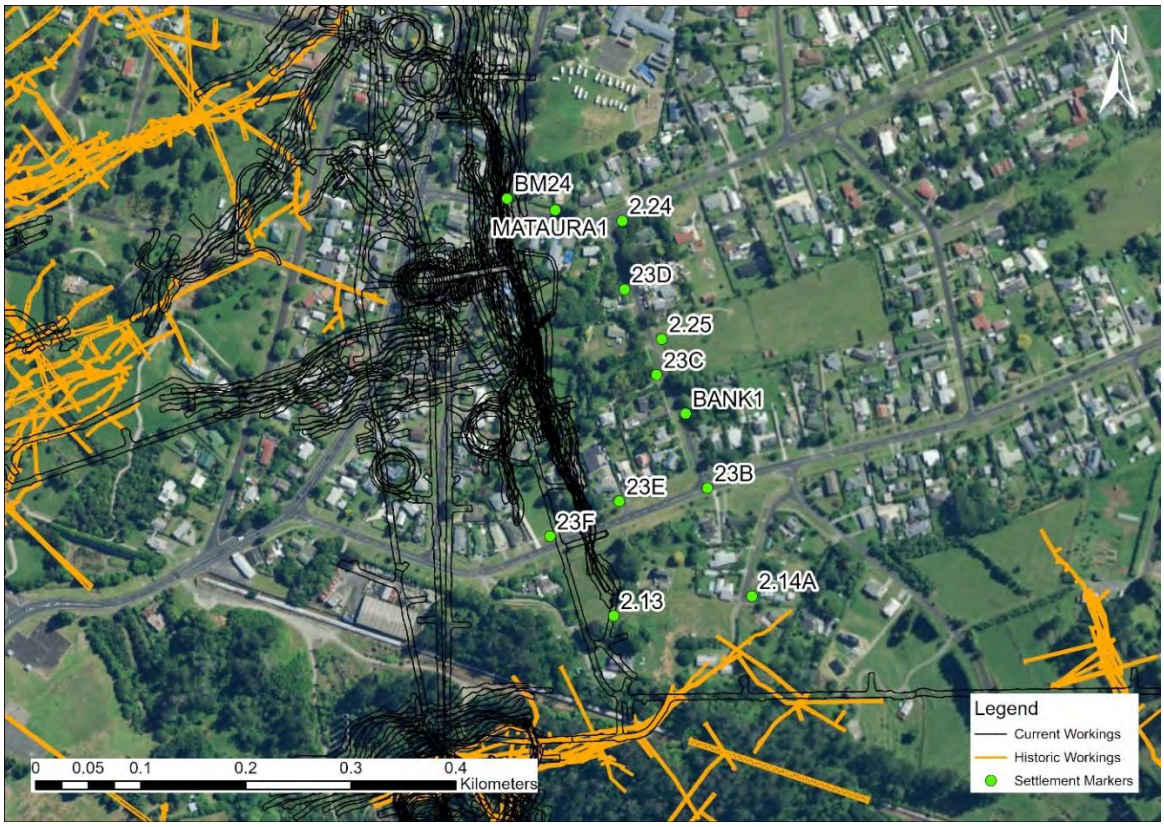


Figure 61. Correnso South Settlement Mark Locations

SUPA Tilt

No tilt greater than 1:1000 has been identified within the SUPA area. Settlement marks for these areas are shown in Figure 62.

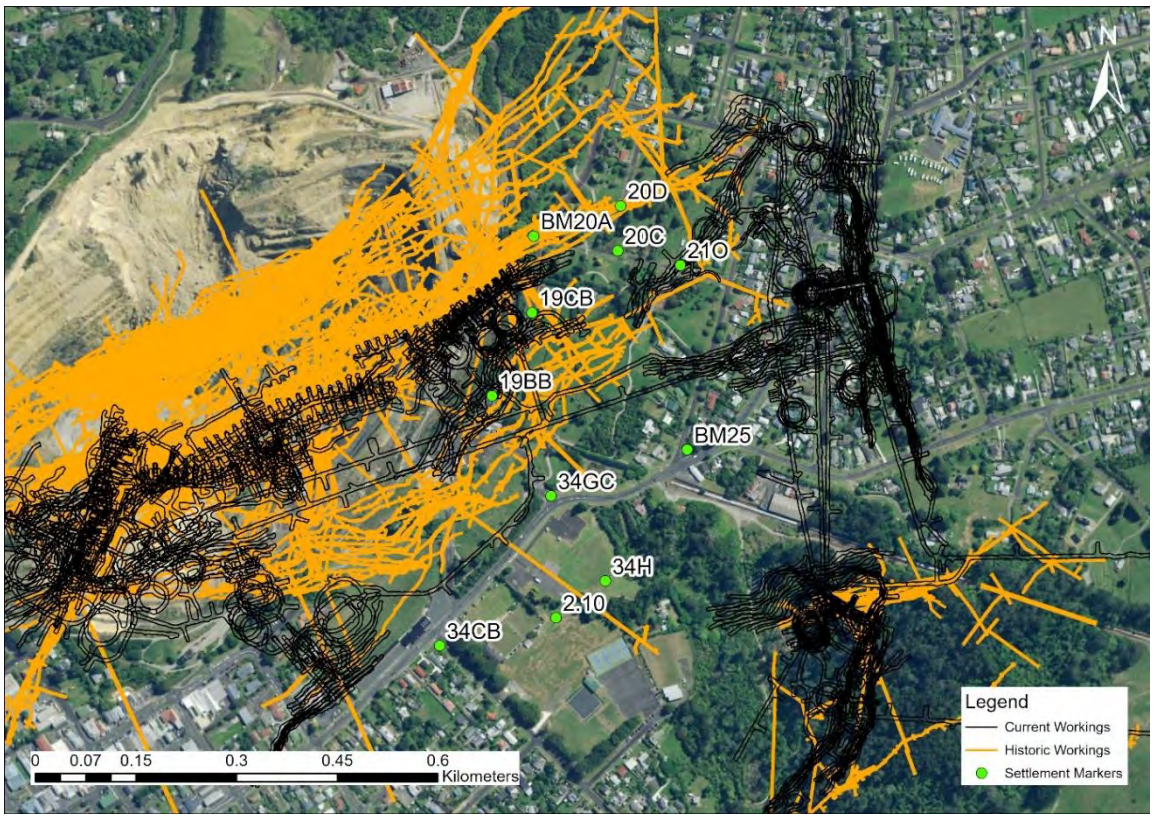


Figure 62. SUPA Settlement Mark Locations

Comparisons of Historic Tilt

Table 10 below presents a comparison of the current round of tilt calculations with the previous three rounds of monitoring results to inform and enable the assessment of tilt trends. In the following tables an orange cell denotes the locations where tilt greater (steeper) than 1:1000 has been inferred, and a green cell denotes a survey monitoring pin that is located above OceanaGold underground mine workings.

In reading the following tables it must be noted that the tilt calculations are very dependent on the separation distance between the relevant markers. To explain, if two adjacent settlement monitoring marks are relatively close together, even a small change in the measured settlement (including that due to survey tolerance) can result in large estimates of measured tilt. In some cases, subsequent monitoring rounds may result in a reduction to the estimated tilt in some locations. As such it is very important to consider the overall tilt trends.
No anomalous tilt trends were identified as a result of the current round of survey monitoring, but some marks have shown an overall trend of increasing tilt. The tilt greater than 1:1000 that has occurred between 20AC and BM20a will be monitored closely in the following reporting period.

Table 10. Summary of Historic Tilt Calculations

FAVONA

Mark	May 24 (1:X)	Nov 24 (1:X)	May 25 (1:X)	Nov 25 (1:X)
F02				
F06	5069	4656	4656	4672
F10B	3490	3389	3232	3389
F12C	43383	7207861	21497	9241
F14D*	*	*	12295	14351
F15C	*	*	896	918
F16B	17982	10650	15259	7346
F17B	397	393	393	393
F18	446	435	435	440
F21	319	314	310	310
F24	411	402	402	395
F34C	1447	1469	1444	1469
F35B	5480	5063	5680	5680

* Mark F14C was recorded as 'lost' during the May and Nov 2024 survey and replaced with F14D in the May 2025 survey. Therefore, has been re added to the calculations above. Subsequently, the tilt calculations have been amended in Table 1a for the inclusion on F14D.
**F32 has been excluded from this table due to the mark being lost during the Nov 2025 survey.

Summary of Historic Tilt Calculations - MARTHA

Mark	May 24 (1:X)	Nov 24 (1:X)	May 25 (1:X)	Nov 25 (1:X)
20BB				
20AC	22494	28158	28158	28674
BM20A	1049	1022	990	960
20D	1543	1507	1371	1235
19CB	1573	1529	1385	1274
19BB	9587	8906	9521	11040
BM19B	372363	66068	133315	7617
17CB	53032	31857	74159	44678
17BB	1351	1412	1393	1561
17AB	3102	2763	2845	2479
34CB	*	*	3258	2838
R06	*	*	19501	8183
2.04B	*	*	19396	19512
R05	*	*	116797	119872
BM17A	*	*	3486	4392
R03	*	*	3024	3804
R05	*	*	6960	8807
R04	*	*	20626	20626
R03	*	*	5397	7325
34BE	*	*	6613	10344
R04	*	*	14856	14856
34BE	*	*	14856	14775
R02	*	*	22411	43129
R01	*	*	125112	125112
10BC	*	*	16564	40165
10AB	16512540	415534	48596	35700

Mark	May 24 (1:X)	Nov 24 (1:X)	May 25 (1:X)	Nov 25 (1:X)
BM16	71895	147555	115242	17119
10DC	23287	31596	35057	46813
16BC	57084	41821	36408	74006
BM9B	5154	5252	3065	2922

* Tilt calculation added in May 2025 assessment, due to incorporation of Rex marks.

Summary of Historic Tilt Calculations – NORTH WALL

Mark	May 24 (1:X)	Nov 24 (1:X)	May 25 (1:X)	Nov 25 (1:X)
27AB	N/A	N/A		
26Q	3655	3728	3882	4040
26PB	10148	9034	8540	9039
26OB	3571	3322	3556	3471
26MB	10892	8972	2967	3038
26JB	49998	37877	19530	13990
BM26	11896	9627	18843	8522
3.09	7760	7272	22826	31792

Summary of Historic Tilt Calculations - CORRENSO

Mark	May 24 (1:X)	Nov 24 (1:X)	May 25 (1:X)	Nov 25 (1:X)
25E				
25B	2198	2052	1866	1712
25I	11311	11490	13654	16863
24H	14150	13015	13015	17707
24B	23879	25649	118029	27309
24G	3370	5884	4518	3918
24L	5105	11309	28118	8108
24AC	6826	24403	58828	6224
24F	5528	4515	9410	7907
BM24	3137	5611	3075	3827
24E	7982	7837	7837	9621
24DC	7844	13951	10638	56006
25H	6963	7321	6488	6870
25CB	91521	86962	86962	89183
25G	43238	81134	29472	28928
25F	28614	24138	24138	123472
25B	7174	6207	4420	3437
BM25	4398	4319	3493	3187
25E	6808	5927	6415	5945
25A	31702	19134	19134	75840
25D	125924	47468	85129	76188
21DC	6355	5511	5511	5061
21N	3817	3639	5915	3201
21C	4023	3937	2677	5208
21M	5011	6967	5292	5742
21BC	3103	2559	3082	3080
21EB	34152	23801	48095	31413
24K	2410	2491	2806	2642

Mark	May 24 (1:X)	Nov 24 (1:X)	May 25 (1:X)	Nov 25 (1:X)
24J	8726	6505	7554	3858
24DC	4511	3852	10557	2777
22F	23999	55201	55201	488263
22C	2335	2308	2308	2318
22GB	1392	1459	1459	1521
22BC	4766	4555	4555	5219
22I	33205	18703	10824	10706
22H	4206	4812	5288	4814
21P	2631	7285	16204	10470
21FB	2137	2775	3451	3082
21Q	183843	50823	50823	50172
21GC	20464	20464	39247	38873
22KB	7673	8652	7821	8657
2.29B	2207	2306	2075	2229
22J	5327	4693	4693	5094
22I	1840	1943	2047	2156
22H	4206	4812	5288	4814
21EB	7267	6777	7499	6775
21BC	34152	23801	48096	31414
BM21	9073	7228	7228	8025
20F	7341	8190	7411	5772
20E	1302	1257	1368	1417
21C	3782	3525	3805	3732

Summary of Historic Tilt Calculations – CORRENSO SOUTH

Mark	May 24 (1:X)	Nov 24 (1:X)	May 25 (1:X)	Nov 25 (1:X)
23F				
2.13	1658	1675	11517	13112
23E	12895	134767	10057	12427
2.14A	8174	12810	88656	23156
23B	5674	5791	100102	21798
BANK1	19668	1096272	7360	8159
23C	6746	6746	5882	4248
2.25	60015	9273	20028	20088
23D	11779	6482	9661	9687
2.24	14566	31324	10737	9204
MATAURA1	5024	5357	4947	5339
BM24	21893	24144	24144	9393

Summary of Historic Tilt Calculations - SUPA

Mark	May 24 (1:X)	Nov 24 (1:X)	May 25 (1:X)	Nov 25 (1:X)
BM25				
34H	11841	12089	7674	6978
2.10	15459	5797	2980	2717
34CB	10901	4421	30684	45951
34GC	4721	4835	4835	4676
19BB	1816	1755	1687	1498

Mark	May 24 (1:X)	Nov 24 (1:X)	May 25 (1:X)	Nov 25 (1:X)
19CB	9587	8906	9521	11040
21O	1712	1620	1495	1396
20C	4049	3298	3085	3413
20D	3411	3171	2668	2774
BM20A	1543	1507	1371	1235

Table Key:

Monitoring mark located above mine workings.

Tilt greater than 1:1000 observed.

9 COMPLAINTS

The company maintains a complaints database in accordance with consent conditions. There were no complaints received during 2025 in relation to dewatering or settlement. There were three concerns related to dewatering and settlement. These came from three different complainants and following investigation by OGZNL were deemed to be non-mine related.

10 CONTINGENCY ACTIONS

No contingency actions were necessary in 2025 as no trigger levels were exceeded.

11 WATER QUALITY RESULTS

11.1 Underground Water Quality

Underground dewatering water is sampled at the Water Treatment Plant. This is a combination of underground water from the Favona, Trio, Correnso, SUPA, and Martha Mine workings, and treated service water, but it gives a general indication of the underground water quality. Additionally, Environmental staff endeavour to collect quarterly water samples from four locations underground.

The only backfilled mine workings that are considered near its final closure state is the Favona underground mine. Separate sampling of Correnso and Favona underground water from sumps at the lowest accessible points in each mine began during 2018. Sampling from the two Martha Underground bores, PC1 and PC2, began in 2021.

Underground sites were unable to be sampled during the 2025 reporting period. This is because the 800 PC1 and 800 PC2 borehole pumps have reached the end of their service life and are being decommissioned. New intermediate pump stations have been installed in the Edward and Empire declines to pump water from the decline faces and historic stopes to a central pump station at 800 SUPA. All underground water is now collected and discharged from the 800 SUPA pump station into the Correnso dewatering line. As a result, the dewatering line provides a representative sample of underground water, and individual underground pumps are no longer required to be sampled. The composite underground mine water/ dewatering line was sampled monthly throughout the period.

During the reporting period, results from the composite underground dewatering had stable pH and EC values averaging 7.6 units and 278 mS/m respectively. Sulphate values averaged 1760 g/m^3, iron averaged 7.4 g/m^3 and manganese 10.0 g/m^3. Other metal concentrations were low (Appendix E).

Figure 63 to Figure 69 show water quality results and Piper Diagrams for the various types of underground water. All water types have a similar make up of cation and anions. UG dewatering and Correnso and at times Favona are calcium sulphate waters, while PC01 and at times Favona, are calcium magnesium sulphate waters.

While elevated levels of some metals are noted, all underground water is currently pumped to the Water Treatment Plant.

Treated water is used as service water underground, as discussed in Section 5. Treated water quality is extremely consistent as it needs to comply with water quality parameters prior to river discharge. In 2025 service water made up 8% of the dewatering volume total and is unlikely to have any effect on groundwater quality. Water quality results are provided in Appendix E.

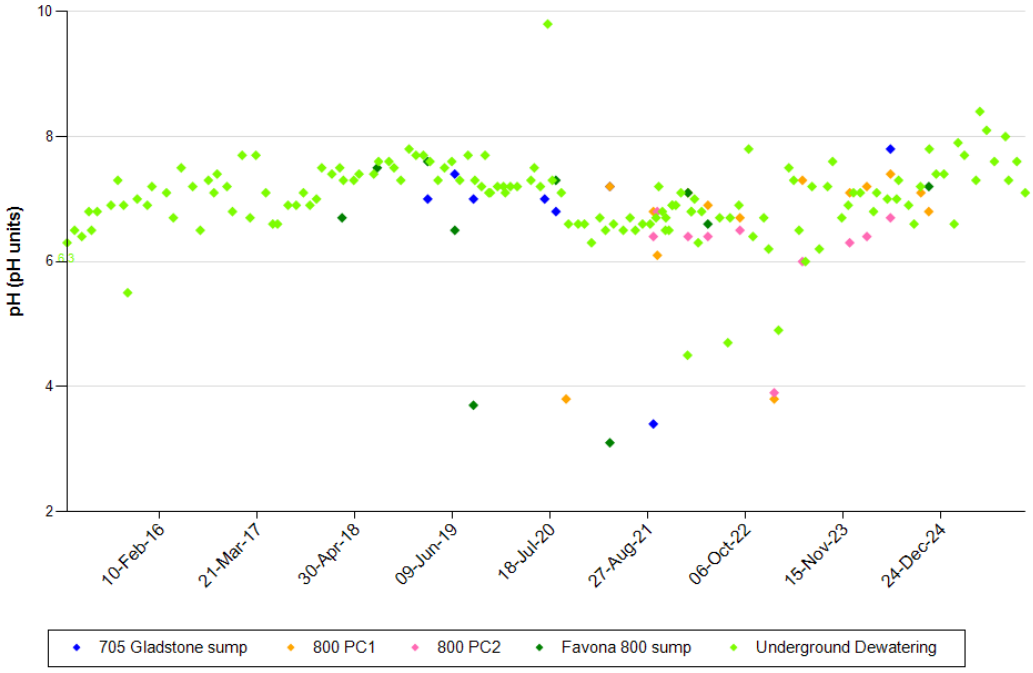


Figure 63. Underground sample sites – summaries of pH results.

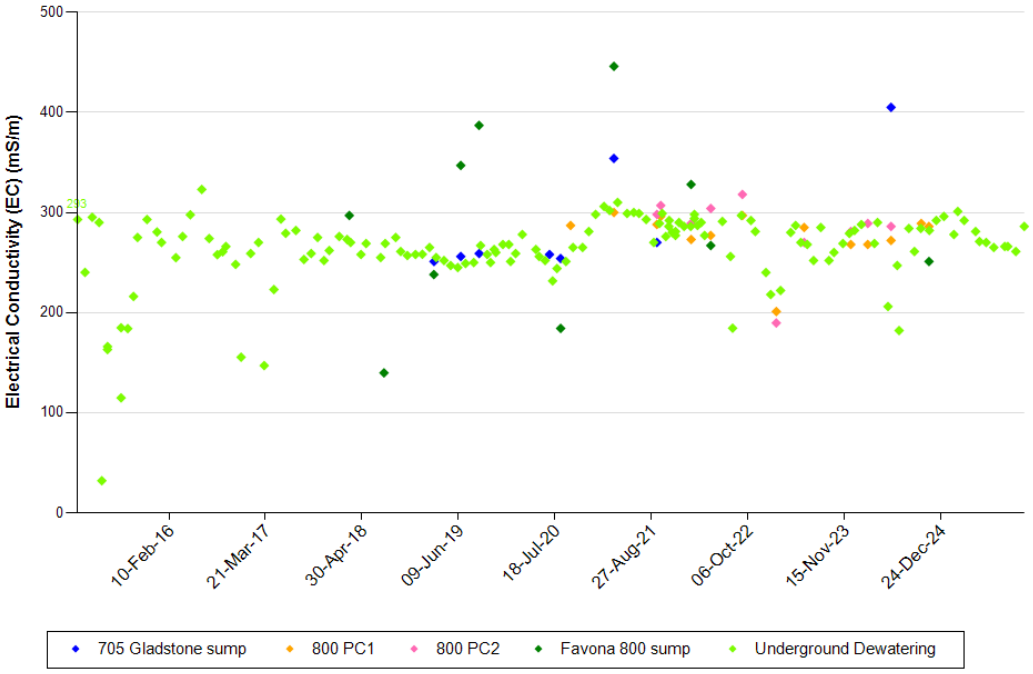


Figure 64. Underground sample sites – summaries of EC results.

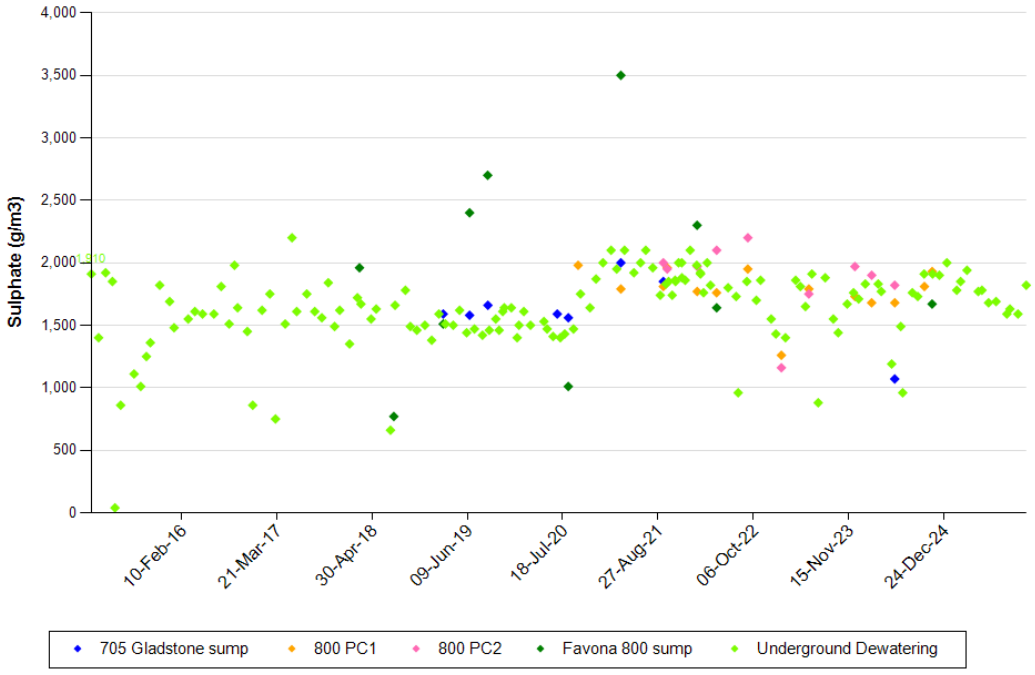


Figure 65. Underground sample sites – summaries of Sulphate results

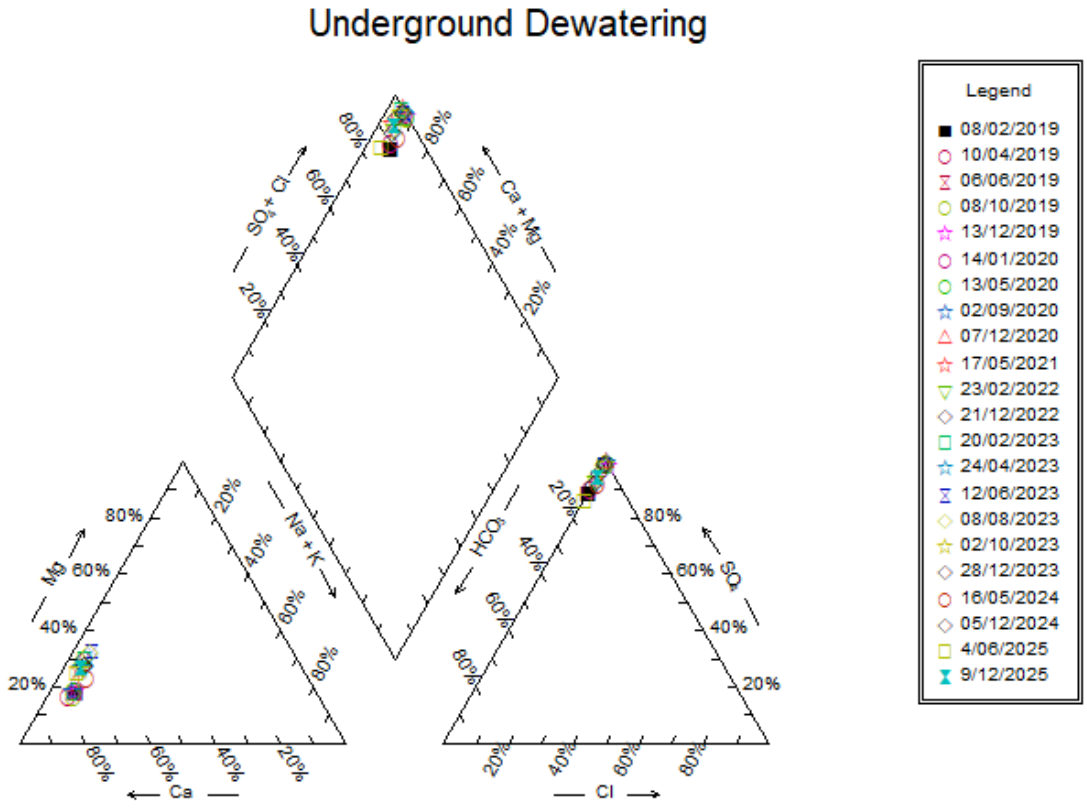


Figure 66. Martha Underground dewatering piper diagram.

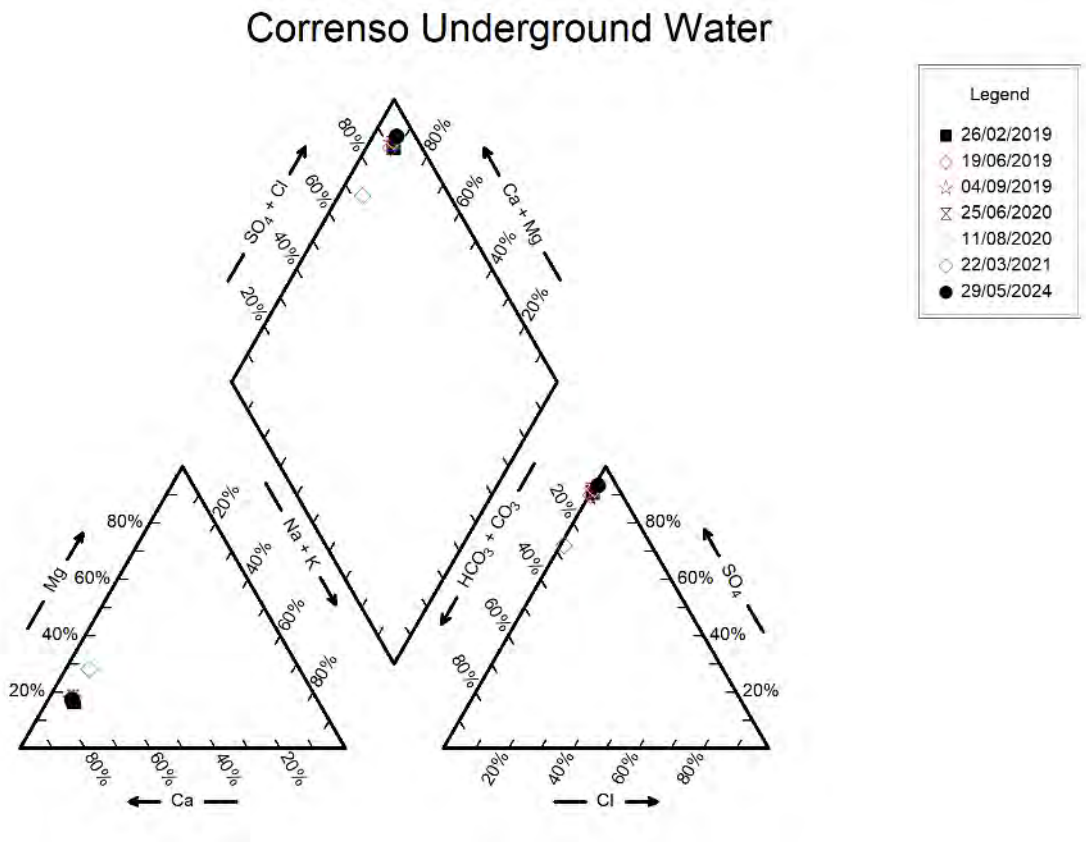


Figure 67. Correnso Underground piper trilinear diagram.

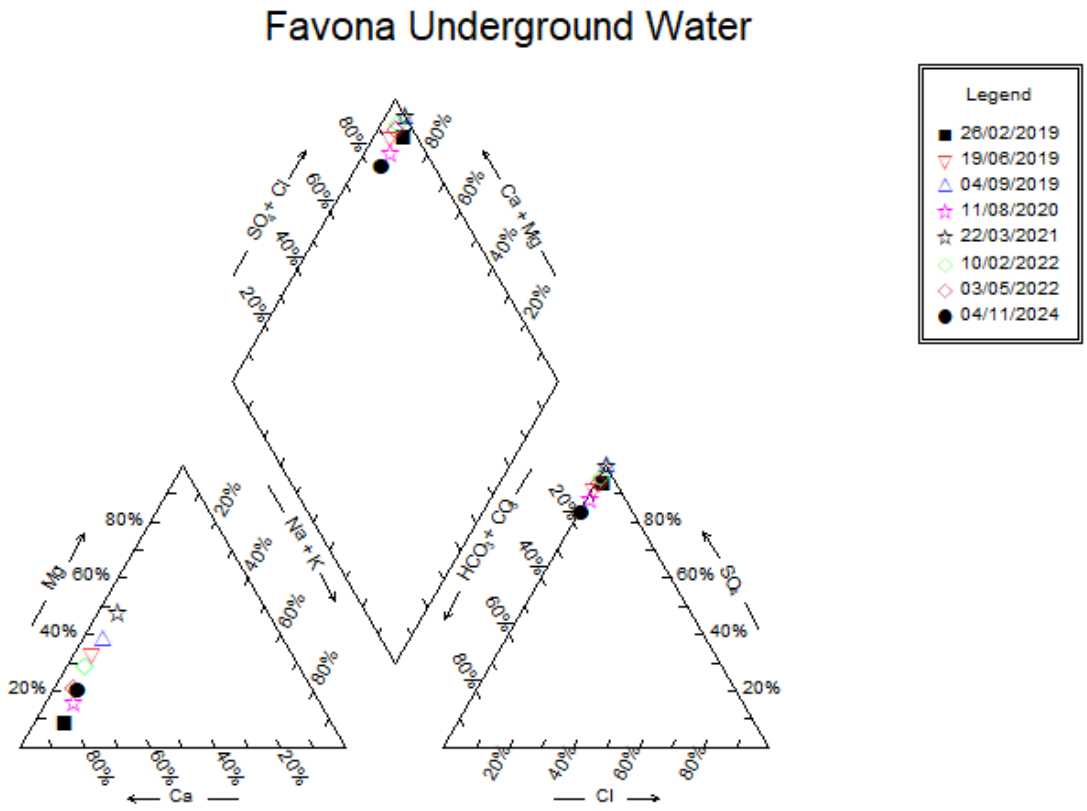


Figure 68. Favona Underground piper trilinear diagram.

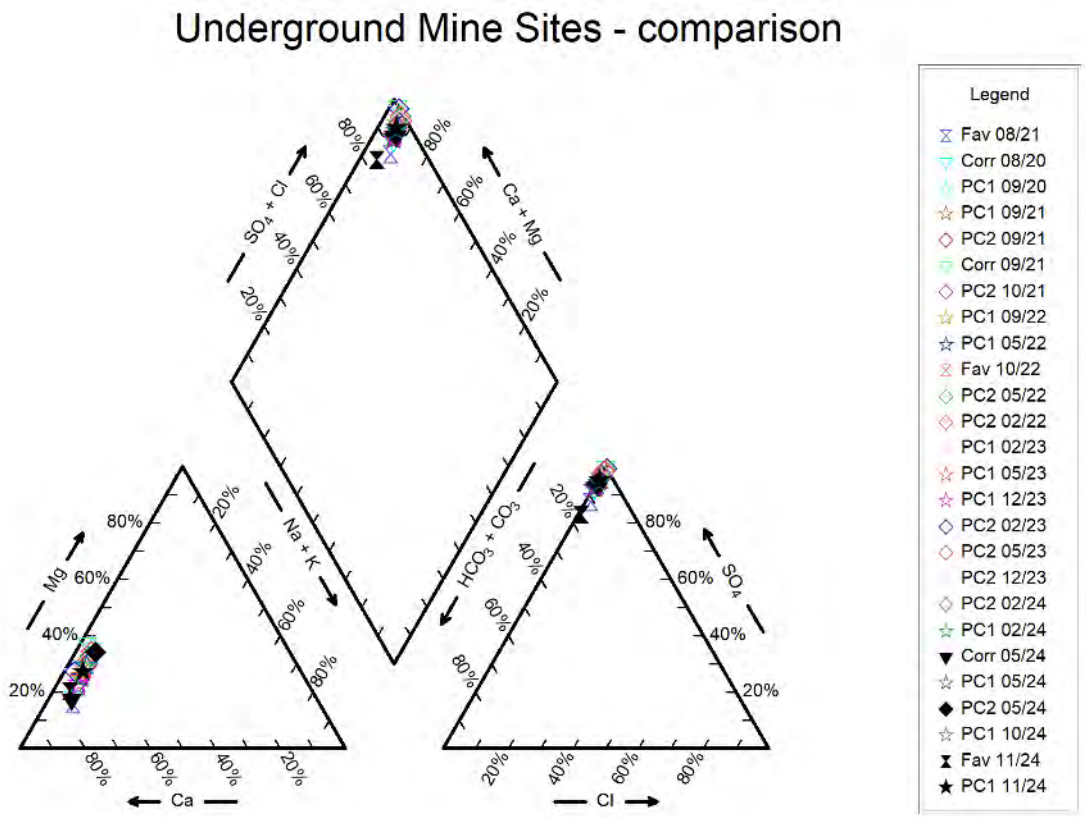


Figure 69. Underground comparison water piper trilinear diagram.

11.2 Martha Piezometer Water Quality

Two rounds of groundwater sampling (Autumn and Spring), from seven standpipe piezometers, were completed in 2025 (Figure 70). The autumn results were included in the Shallow and Deep Aquifer Report 2024. Full results of groundwater quality will continue to be presented in this five-yearly report. Summarised results for 2025 are presented below in Table 11.

Table 11. Martha Standpipe Piezometer Water Quality Results 2025.

Well ID	Geological Unit	Number of Samples	Average pH	Average EC (mS/m)	Average SO_4 (g/m^3)	Average Fe (g/m^3)	Average Mn (g/m^3)
P2-4	Alluvium	2	8.0	22.5	6.5	0.03	0.185
P8-4	Alluvium	2	7.1	14.0	3.0	5.60	0.210
BH6	Younger Volcanics	2	7.0	16.4	7.5	0.21	0.510
BH7	Younger Volcanics	1	6.3	3.0	2.0	0.07	0.010
BH9	Younger Volcanics	2	5.5	6.3	6.0	0.02	0.022
BH11	Younger Volcanics	2	5.5	6.7	11.0	0.02	0.039
BH12	Younger Volcanics	2	6.9	17.2	23.0	0.40	0.139

Figure 70. Martha Piezometer Locations for Water Quality

12 FUTURE DEWATERING PREDICTIONS

During the 2021 peer review process it was identified that future dewatering predictions should be included in this report. As a result of this recommendation, OGNZL commissioned GWS Ltd to assess the pumped groundwater volume predictions.

To date, the MUG dewatering model (GWS, June 2022) that was developed based on the historic mining records (1898 to 1951) has been used to provide predicted groundwater inflows. The model uses annualised average groundwater inflow rates and as such provides values that represent stabilised mine inflows. The analytical model does not consider the inflow to the underground as a result of rainfall infiltration via the Marha Pit, nor the contribution from Favona dewatering of circa 1,570m3/d.

Of note is that the model relies on past mining activities that developed the Martha vein system and limited surrounding extents. It did not consider the extent of lateral development currently undertaken by modern mining, nonetheless the model appears to remain reasonably accurate with respect to stabilised inflows volumes.

The same analytical model has been used to predict future groundwater inflow volumes and indicates a dewatering requirement of 3,905m^3/d to lower the groundwater level in MUG to 550 mRL. At this time OGNZL expect that depth of dewatering will be reached in 2027. The combined stabilised dewatering volumes from the underground from MUG and Favona in the coming 1-2 years is therefore 5,500m^3/d (not including peak inflows due to rainfall or additional lateral development in other areas). At this time, the main limitation to advancing the depth of mine dewatering remains the underground pumping capacity.

Based on historic mine dewatering records, groundwater inflows below 550 m RL are expected to lower. That is interpreted to be the result of reducing vein width and lower rockmass permeability in the andesite host rock. The records and analytical model indicate stabilised groundwater inflows to MUG of around 2,100m^3/d. Including Favona inflows, the future requirements for underground dewatering are therefore 3,600m^3/d.

13 IMPROVEMENT ACTIVITIES

Works that have been undertaken during 2025 to improve environmental performance include:

- Continued with the closure related groundwater quality baseline monitoring program.
- Ongoing review of the piezometer network to assess effectiveness.
- Completed the Conceptual Groundwater Model

Proposed improvement activities to be undertaken in 2026 include:

- Complete the numerical groundwater model to assist with predicting dewatering impacts post closure.
- Installation of a new multilevel piezometer located north of the Martha Pit as recommended in the 2025 Peer Review.

14 PREDICTED POST CLOSURE EFFECTS

Following the cessation of mining, pumping in MUG will cease and groundwater levels will recover at a natural rate of inflow, and is proposed to be augmented with additional water from the Ohinemuri River once the lower mine levels have flooded.

While the Martha East ore bodies were once hydrologically separated from Waihi East ore bodies prior to mining, the construction of the low-level Trio Incline and high-level Trio Decline from the Favona mine to the Trio Mine will result in a combined water level rise within both systems once groundwater level recovers above 823 mRL.

Once refilling of the underground workings has occurred, the Martha Pit will then fill to form a lake. The Martha Mine Lake is planned to discharge to the Mangatoetoe Stream from an outfall structure at the western end of the lake at an elevation engineered at 1104.6 mRL as shown in Figure 71. That elevation will then dictate the shallow groundwater elevation (i.e. water table) throughout the wider Waihi area and will control the potential groundwater discharge points.

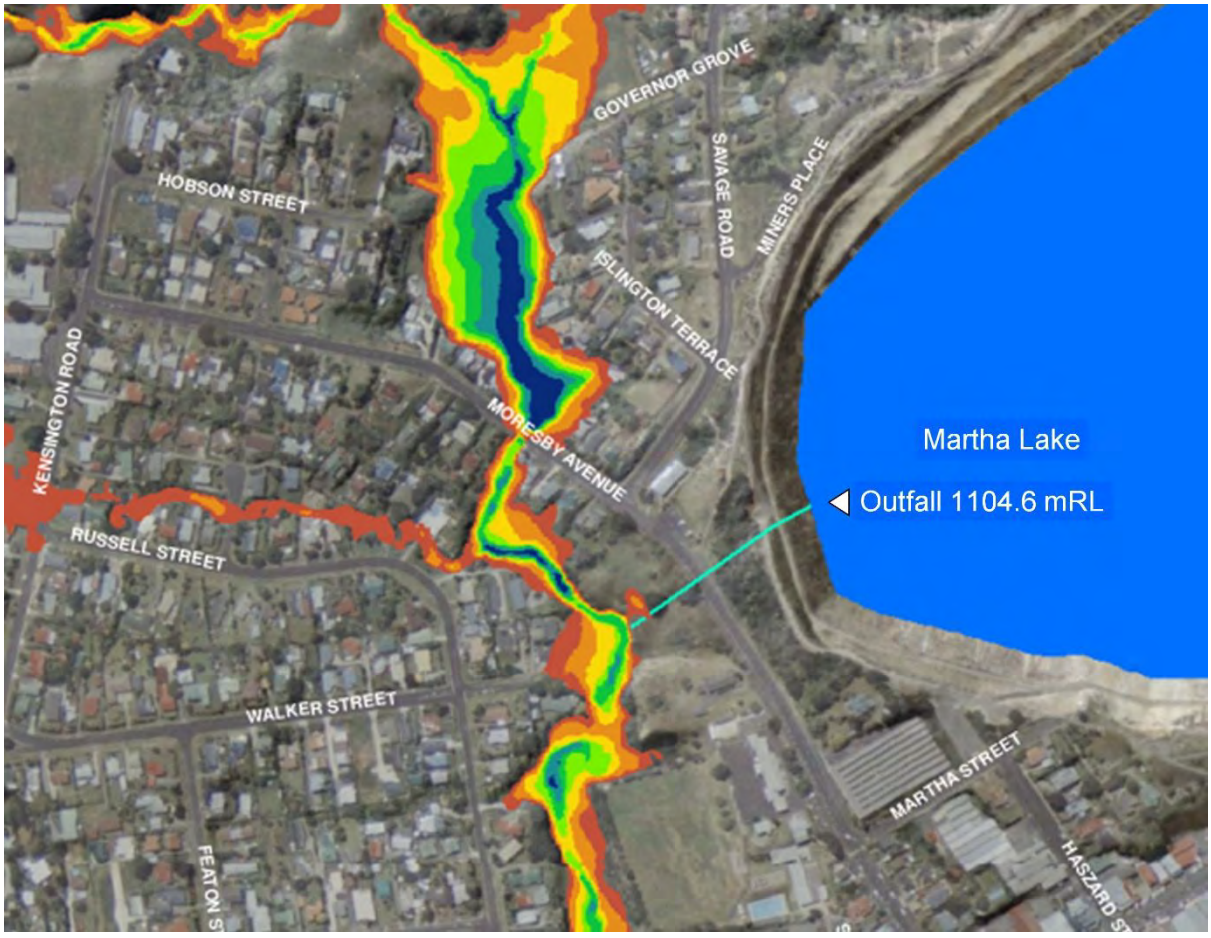


Figure 71. Proposed Martha Lake Outfall Location

There are two pathways in the system that are at elevations lower than the proposed Martha Mine Lake level that may allow some discharge from the groundwater system. These are:

- Natural pathways through the younger volcanic rocks from the exposure of these rocks in the eastern pit wall to outcrops in the Eastern Stream;
- Existing historical workings at Union Hill;

14.1 Natural Pathways

Figure 72 shows the approximate extent of the outcrop of younger volcanic rocks in the pit and the approximate location of the 1104.6 mRL contour around Martha and Union Hills. Areas below this

level may provide possible discharge zones for mine waters where geology permits. Figure 72 shows that most of the Waihi urban area would be above Martha Lake level. Those parts of town below lake surface elevation are indicated to be relatively distant from the Lake.

Figure 72. Approximate Location of 1104.6 mRL Contour

14.2 Historical Workings

The historical adit elevations and shaft collar elevations on Union Hill are shown in Figure 73 and indicate that several historical adits and shafts are at elevations below 1104.6 mRL. That information suggests that two shafts and three adits would be below the inferred recovered groundwater elevations in the veins and workings below Union Hill.

There is some residual uncertainty as to whether discharge from former workings will, in fact, occur following groundwater level recovery given recent mine developments. Mitigation could include plugging of adits, the location and design of which will be part of the closure planning process and written into the Rehabilitation and Closure Plan.

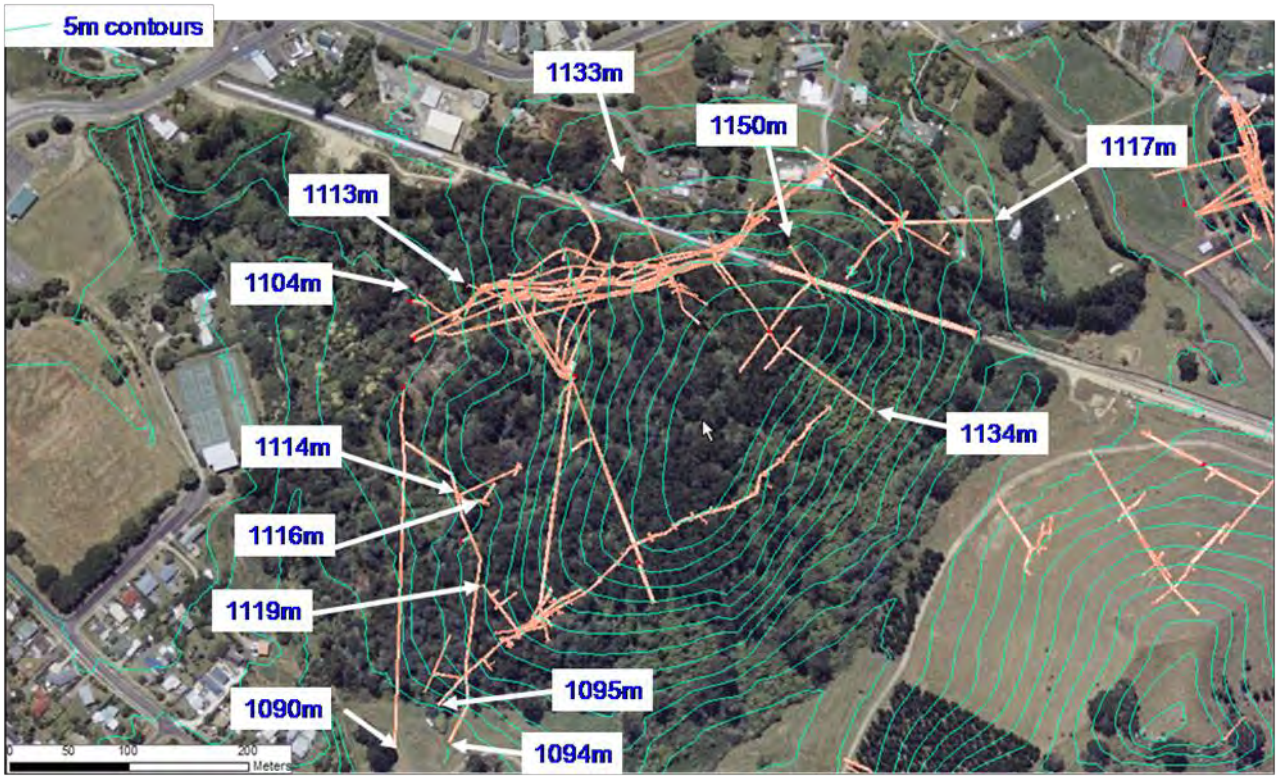


Figure 73. Locations and elevations of Union Hill Workings

15 REVIEW RECOMMENDATIONS 2025

This section summarises the review recommendations from the Peer Reviewer (David Whiting) and Hauraki District Council (Peter Fuller), on the 2024 report, and how they have been or are going to be addressed. Note that no comments were received from the Waikato Regional Council.

15.1 Peer Reviewer

Table 12. 2025 Peer Review preliminary comments and actions.

PR Ref	Report Sec Ref	Comment	Action
5.2	2	The CRD plot in Figure 1 is not updated to the end of 2024. There should be a rapid drop in the CRD trend in 2024 indicating below long-term average monthly rainfall occurring. The text in this section should be updated to present this declining trend in the CRD.	The CRD plot and text has been updated accordingly.
5.3	6.11	Pneumatic piezometers WC201-1 – WC201-3 within the andesite located west of Martha Pit have risen 11 to 43 m compared to previous year to an elevation between 1107 to 1111 m RL. This is visible on time series plots on Figure 18 “Andesite water level trends”. The Peer Reviewer queries if this is an instrument error in early 2023? - see below within the red circle on the plot.	This was due to a calculation error in the spreadsheet and has been corrected. Refer to Figure 22.
5.5	6.2.2	Figure 15 – This hydrograph is very busy and not easy to decipher due to the numerous piezometer levels provided on the plot with water levels of several piezometers displayed with the same colour. The plot does show some piezometer water levels which are shown on Figure 16, namely P107, P108, P109, P110, P114, P115 and P116. As the Young Volcanics water levels are linked to determining mining impacts and settlement trends it may be prudent to break up onto two hydrographs. Possibly one plot for piezometers near the Martha Pit and a second plot for piezometers located further afield. Alternatively, for Figure 15 remove the water levels (P107- P110 and P114 - P116) which are shown in Figure 16.	The water levels for P107- P110 and P114 - P116 have been removed from Fig. 19 (prev. Fig. 15).
5.6	6.2.3	In the fourth paragraph the Peer Reviewer suggest stating that P123 tip 1 identifies a shallow perched system in the andesite. Also suggest adding text that sub-horizontal drains in the pit wall is likely to have contributed to dewatering in the andesite and little to no water pressure measured in tip 2 and tip 3.	Updated accordingly
		Suggest in the last paragraph to change the last sentence from “P123 has four sensor tips in the andesite and is shown in Figure 17” to “P123 has four sensor tips in the andesite with the shallowest sensor in the upper andesite shown on Figure 17”. Also suggest adding a further sentence stating “P122 is located in Waihi south of Martha Pit and three sensors in the andesite are dry with deepest at 933 mRL, although the shallowest sensor tip in the younger volcanics is saturated with a pressure at 1101 mRL. Both these piezometers P122 and P123 are discussed in more detail in Section 6.2.4.”	Updated accordingly

PR Ref	Report Sec Ref	Comment	Action
		Figure 17. “Upper andesite water level contours” The piezometer P122 is missing on the contour plan. Suggest adding the water level label of upper andesite (P122-3) for future reporting on the plan. For 2024 reporting it would be 1032 mRL (dry).	Dry piezometers are not shown on the contour plans because the actual water level is unknown.
5.7	6.2.4	Section 6.2.4 “Martha Groundwater Assessment” Project Martha piezometer P122 sensor tip 2 is listed in Table 4 as at the base of the young volcanics. The stratigraphy colour coding of Figure 22 “P122 vibrating wire piezometer” needs to be modified to show the colour coding of young volcanics extend down to 1060 mRL.	Figure 26 (prev. Fig. 22) has been updated accordingly.
5.8	6.2.5	Formatting issue with caption referencing	Corrected
5.9	11.2	The Peer Reviewer suggests Figure 3 from the Shallow and Deep Aquifer Report 2024 is included in this section to show locations of shallow and deep bores sampled (although updated with the additional piezometer locations sampled, i.e. BH7 and BH11 and dewatering bores 800- PC1 and 800-PC2 on the Figure.	Refer to Figure 70. Note that 800-PC1 and 800-PC2 are not included as they are no longer operational and were not sampled in 2025.
5.11	16.1	Section 16.1 “Dewatering” in Conclusions Fourth paragraph states “Water levels in the young volcanic materials and overlying alluvium has not responded to the significant dewatering of the underlying vein-hosted andesite”. This statement is not strictly true with respect to the young volcanics in parts. As evident in the case of P122 the VWP sensor 2 tip at the base of the young volcanics is dry and has been dewatered alongside the underlying andesite. Although the upper section of the younger volcanic units is still saturated, indicated by sensor 1 tip, which indicates poor vertical connectivity of successive volcanic sequence layering of rhyolite pyroclastics (ignimbrite flows and tuffs). There has been identified a sandy ignimbrite layer at the base of the young volcanics which is interpreted by GWS to drain into underlying shallow workings in places. Therefore the Peer Reviewer suggest this statement amended going forward with reporting to “Water levels in the young volcanics and overlying alluvium has not responded to the significant dewatering of the underlying vein-hosted andesite, except adjacent to Martha Pit and in minor places where the basal ignimbrite layer may show evidence of dewatering. Although upper layers of the Young volcanics remain saturated due to poor vertical connectivity (for example at P122 location).	Statement amended accordingly.

Table 13. 2024 Peer Review Report recommendations and actions.

PR Ref	Report Ref	Recommendation	Action
8.1		There is currently no table within the D & S report which lists the purpose(s) of individual piezometers in the network, such that the reader appreciates their importance for groundwater monitoring/management. **The Peer Reviewer recommends a table is included in the annual D & S report (Appendix) going forward which list the purpose (s) of the piezometers in the Waihi network. This table would be updated with any changes in the purpose of piezometers each year during annual reporting.** Note, change in purposes of piezometers may come about during rewatering of underground at closure.	Added as Appendix G
8.3	Fig. 18	**The Peer reviewer recommends that the WC201 pneumatic piezometer is assessed to determine whether this measurement error can be rectified to provide reliable monitoring data. If this is not possible then replace with a new multilevel vibrating wire piezometer with sensors installed in the upper and deeper andesite.**	The sharp level increase in early 2023 was due to a calculation error in the spreadsheet and has been corrected. Refer to Figure 22.
8.4		**The Peer Reviewer recommends additional multilevel piezometer (s) are installed in the andesite north of the Martha Pit.**	Budgeted for in 2026
8.5		**The Peer Reviewer suggests replacing the andesite piezometer P8-1 along strike of the Martha vein system in the future to track depressurization.**	To be considered for 2027 budget
8.6	6.2.4	**OGNZL have indicated from further correspondence in December 2025 that P122-2 is located at the base of the young volcanics and the colour coding of P122 hydrograph in the D & S report is incorrect. The recorded dry conditions at P122-2 indicate dewatering of the deeper young volcanics by shallow underground mining, although the top part of the sequence is unaffected with a stable groundwater level (P122-1).**	Figure 26 (prev. Fig. 22) has been updated to correct the colour coding.
	16.1	In the Conclusion (section 16.1) of the D & S report, OGNZL state "Water levels in the young volcanic materials and overlying alluvium have not responded to the significant dewatering of the underlying vein-hosting andesite". **This statement is not strictly true if the dry P122-2 sensor is located in the basal young volcanics and the seepage observed underground through the Rex vein system observed by GWS is interpreted to originate from the basal sandy ignimbrite layer of the young volcanics. The Peer Reviewer requests the wording in this statement is changed to reflect probable localised dewatering of the basal section of young volcanics from shallow underground mining.**	Adopted proposed wording from the Preliminary Comments (item 5.11 above)

PR Ref	Report Ref	Recommendation	Action
8.11	6.2.2	Figure 15 “Groundwater level trends – deeper young volcanics near underlying andesite contact” This hydrograph is very busy and not easy to decipher due to the numerous piezometer levels provided on the plot with water levels of several piezometers displayed with the same colour. The plot does show some piezometer water levels which are shown on Figure 16, namely P107, P108, P109, P110, P114, P115 and P116. As the Young Volcanics water levels are linked to determining mining impacts and settlement trends it may be prudent to break up onto two hydrographs. Possibly one plot for piezometers near the Martha Pit and a second plot for piezometers located further afield. Alternatively, for Figure 15 remove the water levels (P107 - P110 and P114 - P116) which are shown in Figure 16.	The water levels for P107- P110 and P114 - P116 have been removed from Figure 19 (prev. Fig. 15).
	6.2.3	Figure 17 “Upper andesite water level contours” The piezometer P122 is missing on the water level contour plan. Suggest adding the water level label of upper andesite (P122-3) for future reporting on the plan. For 2024 reporting it would be 1032 mRL (dry).	Dry piezometers are not shown on the contour plans because the actual water level is unknown.
	6.2.3	The andesite standpipe piezometer P7-1 is near the Ohinemuri River and the groundwater level is depressed at 1003 m RL which is about 80 m lower than the nearest andesite piezometer GLD04 which has a water level at 1086 mRL. The base of the standpipe piezometer is at 988 mRL. Reviewing past D & S reports indicate the water level is persistently at 1002 – 1003 mRL. **The Peer Reviewer queries whether this piezometer is showing persistent depressurisation from mining of the Trio-Union Amaranth vein system which is along strike to the north.**	Figure 21 (prev. Fig. 17) has been updated accordingly.
	11.2	Section 11.2 “Martha piezometer water quality” **The Peer Reviewer suggests a Figure which shows the locations of shallow and deep bores sampled is presented in this section. This would include proposed or new andesite bores that are currently been planned for sampling proposes to take in response to those predictions”.**	Refer to Figure 70

15.2 Hauraki District Council

Table 14. Hauraki District Council recommendations and actions

Report Ref	Recommendation	Action
Pg 11	The graph (Cumulative Rainfall Departure) does not appear to include all the rainfall data for 2024 and therefore it probably follows that the CRD plot for 2024 is incomplete?	Fig. 1 (prev. Fig. 1A) was updated in the revised 2024 report and now includes 2025 rainfall data.
Pg 11	Perhaps the three graphs relating to rainfall could be labelled Figs 1(a), 1(b) and 1(c)?	The three rainfall graphs now each have separate captions (Fig.1, Fig.2, Fig. 3).
Pg 20	The rainfall data for 2024 in Fig. 6 appears to be different to that in Fig 1. Is the data in Fig. 6 daily rather than monthly rainfall and if so, should the label in Fig. 6 be changed?	Fig. 9 (prev. Fig. 6B) was updated in the revised 2024 report to show daily rainfall on the secondary vertical axis. Note that Fig. 6A and Fig. 6B now each have separate captions (Fig. 8 and Fig.9).
Pg 41	In Section 6.2.4 on Upper Rex Monitoring, the second paragraph refers to the trigger event in Piezometer P113A. The comment that the level change trigger in the lowest piezometer tip was not a significant anomaly because it was in Andesite has no justification in its current form. There needs to be some statement as to why that conclusion was reached, such as "That level change is considered highly unlikely to have any effect on the surface groundwater system because it has not influenced the water levels in the two piezometers nearer the surface". This same comment is also in the Executive Summary and in Section 10 on page 88, and similarly I think they need to be revised.	The following statement was added to the revised 2024 report: This level change occurred at a piezometer tip located in the Andesite and is considered highly unlikely to have any effect on the surface groundwater system because it has not influenced the water levels in the two piezometers nearer the surface. The Executive Summary and Section 10 were also updated accordingly. Note that as this related to a 2024 trigger event and has not been included in this 2025 report.
Pg 41	With the trigger that occurred in P114, a comment about water levels being restored after the resin injection and the monitoring system was reinstated would be reassuring and proof that the sealing had been successful. As above, that should be carried over to the Executive Summary and Section 10.	The revised 2024 report was updated to say that the P114 water level had been stable since the monitoring system was reinstated.

Report Ref	Recommendation	Action
		The Executive Summary and Section 10 were also updated accordingly. Note that as this related to a 2024 trigger event and has not been included in this 2025 report.
Pg 41	Paragraph 6 refers to water levels for the upper Andesite piezometer in P111 being recorded as below the depth of the tip. That must surely be an inferred result rather than a recorded one or have I misunderstood something here?	That statement regarding water levels being recorded below the depth of the tip was incorrect and was updated in the revised 2024 report. Noting this did not change the fact that the P111 upper Andesite tip is considered to be dry.
Pg 42	Where piezos are dry, it would be helpful for the reader if graphs for those were shown as a broken line rather than it being solid.	Actioned – dry piezos are represented as a dotted line in the relevant charts.
Pg 61	Fig. 41 is very difficult to decipher and the only Figure in the report with North pointing to the left. Fig. 50 (on pg 80) is much clearer and seems to be showing the same information. Do you need both?	Fig. 41 has been removed from this report.
Pg 74	A short statement describing the marks involved in each tilt calculation would be helpful. Something like “each tilt result is recorded next to the second of the two marks used in its calculation” might suffice.	Statement added to the revised 2024 report and can be found in this report in Section 8.
Pg 75	Many of the calculated tilts are between marks along strike of the Rex vein and in the future when the Rex marks are incorporated into the overall array, it would be helpful to have additional tilts calculated between marks; R02/34BE, R03/34BE,34BE/R04, R03/R05, R05/2.04B and 2.04B/R06. The recording of the tilt values would need to differ from the sequence in Table 9 because some marks are used multiple times.	This was addressed in the May 2025 Tilt Report that was issued after the 2024 Dewatering and Settlement Report. The Rex marks have been incorporated into the Martha area and can be found in Table 9b of this report.

16 RESOURCE CONSENT EVALUATION

Comments on compliance with all conditions of the Martha, Favona, Trio, Correnso and Project Martha consents, including any reasons for non-compliance or difficulties in achieving conformance with the consent conditions, are summarised below in Table . Note that the Correnso/Golden Link take 124860 has been superseded by Project Martha Water Permit 139551.

Table 14. Favona, Trio, Correnso, SUPA, Project Martha consent condition compliance assessment.

Description	**Consent (Condition)**	**Compliance**	**Comment**
Favona Dewatering and Settlement Plan	**109742 - 109746**		
Favona groundwater take	109742 (3)	Full	Favona discharge plumbed into main dewatering line, new meter installed on Favona line.
Divert and discharge ground and surface water (farm run-off and intercepted groundwater) from around the (Favona) project area.	109743	Full	Non-mine run-off has been diverted to natural drainage.
Discharge waste rock and ore onto land in temporary surface stockpiles and to discharge seepage from the temporary stockpiles into ground.	109744	Full	Stockpile area design & construction. Water quality monitoring in manholes and shallow bores (the subject of a separate report – *Favona Water Quality Monitoring Annual Report.*
Discharge waste rock into land underground in the project area as backfill and to allow degraded quality groundwater to discharge from the flooded workings in the project area into the surrounding ground post closure.	109745	Full	Favona back-filling completed. Dewatering being maintained
Discharge treated mine water from the Martha Mine Water Treatment Plant to ground in association with flooding the underground mine on completion of the project.	109746	Full	Favona Water Quality Monitoring Annual Report
109742 – 109746 **Schedule 2**			
Water Management Plan	(1)	Full	Environmental Material Risk Management Plan – Water, December 2023

Description	Consent (Condition)	Compliance	Comment
Prior to exercise of this consent, the consent holder shall prepare, and submit to the Council for its written approval, a Settlement, Dewatering and Water Quality Monitoring Plan	(2)	Full	Dewatering and Settlement Monitoring Plan, June 2023
The monitoring regime shall be designed to assess the effects of: a) mine dewatering on the regional groundwater system, b) mine dewatering on settlement; c) leachate from stockpiles containing potentially acid forming material on shallow groundwater quality, and d) the discharge of degraded-quality water from the backfilled and flooded workings on groundwater quality.	(2)	Full	Defined in this document. c) Reported annually in Favona Water Quality Monitoring Report d) Combined dewatering sample taken monthly
Final details of the monitoring locations are to be agreed with the Council. The Plan shall also provide trigger limits that will initiate the implementation of contingency mitigation and/or monitoring measures and shall detail any linkages with the Martha pit operation.	(2)	Full	Section 6 Stockpile water quality bores agreed in Nov 2006
The exercise of this consent shall be in accordance with the Plan as approved by the Council. The Plan shall be reviewed, and updated as necessary, by the consent holder at least once every two years. Any updated Plan shall be promptly forwarded to the Council for approval and following approval the updated Plan shall be implemented in place of the previous version.	(2)	Full	Consent activated following approval of Plan. Combined plan, approved by WRC, May 2023
In the event of any conflict or inconsistency between the conditions of this consent and the provisions of the Settlement, Dewatering and Water Quality Monitoring Plan, then the conditions of this consent shall prevail.	(2)	Full	No inconsistency identified
In the event that a tilt greater than 1 in 1000 occurs between any two network monitoring locations, or there is a significant variance from the predicted settlement rates, the consent holder shall notify the Council in writing, within 20 working days of receiving the results of the monitoring. The consent holder shall then:	(3)	Full	Section 8 Correspondence in Tilt Reports
a) explain the cause of the non-conformance,	(3)	Full	Section 8
b) agree with the Council on the appropriate settlement contingency measures to be implemented as described,	(3)	Full	Propose ongoing monitoring
c) implement settlement contingency measures as appropriate,	(3)	Full	Not considered necessary as on company owned farmland

Description	Consent (Condition)	Compliance	Comment
d) advise the Council on the steps the consent holder proposes to take in order to prevent any further occurrence of the situation.	(3)	Full	Propose ongoing monitoring
The report shall include at least the following information:	(4)	Full	
a) volume of groundwater abstracted	(4)	Full	Section 5
b) data from monitoring undertaken during the previous year including groundwater contour plans	(4)	Full	Section 6
c) an interpretation and analysis of the monitoring data, in particular any change in the groundwater profile over the previous year, predictions of future impacts that may arise as a result of any trends that have been identified including review of the predicted post closure effects based on actual monitoring data, and what contingency actions, if any, the consent holder proposes to take in response to those predictions.	(4)	Full	Section 6 & 10
This analysis shall be undertaken by a party appropriately experienced and qualified to assess the information.	(4)	Full	WWLA & OGNZL staff
d) any contingency actions that may have been taken during the year.	(4)	Full	Section 10
e) comment on compliance with all conditions of this consent including any reasons for non-compliance or difficulties in achieving conformance with the conditions of this consent.	(4)	Full	This section
Trio Dewatering and Settlement Plan - General conditions	**121416 - 121418, 121446 & 121447**		
Prior to exercise of this consent, the consent holder shall prepare, and submit to the Council for its written approval, a Settlement, Dewatering and Water Quality Monitoring Plan	Schedule 1 (5)	Full	Combined plan Approved by WRC May 2023
The monitoring regime shall be designed to assess the effects of: i) dewatering on the regional groundwater system, ii) dewatering on settlement; iii) the discharge of degraded-quality water from the backfilled and flooded workings on groundwater quality.	Schedule 1 (5)	Full	Defined in plan iii) No significant flooded workings as yet
Final details of the monitoring locations are to be agreed with the Council. The Plan shall also provide trigger limits that will initiate the implementation of contingency mitigation and/or monitoring measures and shall detail any linkages with the Martha pit operation.	Schedule 1 (5)	Full	Defined in approved Plan

Description	Consent (Condition)	Compliance	Comment
The exercise of this consent shall be in accordance with the Plan as approved by the Council. The Plan shall be reviewed, and updated as necessary, by the consent holder. Any updated Plan shall be promptly forwarded to the Council for written approval and following approval, the updated Plan shall be implemented in place of the previous version.	Schedule 1 (5)	Full	Consent activated following approval of Plan Jul 2014
In the event of any conflict or inconsistency between the conditions of this consent and the provisions of the Settlement, Dewatering and Water Quality Monitoring Plan, then the conditions of this consent shall prevail.	Schedule 1 (5)	Full	No inconsistency identified
Dewatering and Settlement Monitoring Report. The Report shall, as a minimum, provide the following information:	Schedule 1 (6)	Full	
i) volume of groundwater abstracted	Schedule 1 (6)	Full	Section 5
ii) data from monitoring undertaken during the previous year including groundwater contour plans	Schedule 1 (6)	Full	Section 6
iii) an interpretation and analysis of the monitoring data, in particular any change in the groundwater profile over the previous year, predictions of future impacts that may arise as a result of any trends that have been identified including review of the predicted post closure effects based on actual monitoring data, and what contingency actions, if any, the consent holder proposes to take in response to those predictions.	Schedule 1 (6)	Full	Section 6 & 10
This analysis shall be undertaken by a party appropriately experienced and qualified to assess the information.	Schedule 1 (6)	Full	WWLA & OGNZL staff
iv) any contingency actions that may have been taken during the year.	Schedule 1 (6)	Full	Section 10
v) comment on compliance with all conditions of this consent including any reasons for non-compliance or difficulties in achieving conformance with the conditions of this consent.	Schedule 1 (6)	Full	This section
Monitoring - Tilt:	Schedule 1 (7)	Full	
In the event that a tilt greater than 1 in 1000 occurs between any two network monitoring locations, installed in accordance with the Settlement, Dewatering and Water Quality Monitoring Plan required pursuant to condition 2 above, or there is a significant variance from the predicted settlement rates, the consent holder shall notify the Council in writing, within 20 working days of receiving the results of the monitoring. The consent holder shall then:	Schedule 1 (7)	Full	Section 8
i) explain the cause of the non-conformance,	Schedule 1 (7)	Full	Section 10

Description	Consent (Condition)	Compliance	Comment
ii) agree with the Councils on the appropriate settlement contingency measures to be implemented,	Schedule 1 (7)	Full	Propose ongoing monitoring
iii) implement settlement contingency measures as appropriate,	Schedule 1 (7)	Full	Not considered necessary
iv) advise the Councils on the steps the consent holder proposes to take in order to prevent any further occurrence of the situation.	Schedule 1 (7)	Full	Propose ongoing monitoring
The consent holder shall provide to the Council an annual Dewatering and Settlement Monitoring Report. The Report shall, as a minimum, provide the following information:	Schedule 1 (7)	Full	This report
a) The volume of groundwater abstracted;	Schedule 1 (7)	Full	Section 5
b) The data from monitoring undertaken during the previous year, including groundwater contour plans (derived from the data) in respect of the piezometer network;	Schedule 1 (7)	Full	Section 6
c) An interpretation and analysis of the monitoring data, in particular any change in the groundwater profile over the previous year, predictions of future impacts that may arise as a result of any trends that have been identified including review of the predicted post closure effects based on actual monitoring data, and what contingency actions, if any, the consent holder proposes to take in response to those predictions. This analysis shall be undertaken by a party appropriately experienced and qualified to assess the information;	Schedule 1 (7)	Full	Annual Report reviewed by WWLA and Engineering Geology
d) Any contingency actions that may have been taken during the year; and	Schedule 1 (7)	Full	Section 10
e) Comment on compliance with Conditions 27 to 34 of this consent including any reasons for non-compliance or difficulties in achieving conformance with the conditions of consent.	Schedule 1 (7)	Full	This section
Golden Link Project Area Groundwater Take – General conditions	**124860**		
Monitoring - Abstraction Volume 4.The consent holder shall monitor the volume of water abstracted on a weekly basis and shall report this to the Waikato Regional Council on a quarterly basis.	(4)	Full	Section 5
Dewatering and Settlement Monitoring Plan 5. Prior to the exercise of this consent, the consent holder shall prepare, and submit to the Council for its written approval, a Dewatering and Settlement Monitoring Plan. The purpose of this Plan is to monitor and assess the effects of the activities on land settlement and the groundwater hydraulic regime, and also to detail the contingency measures that will be actioned should groundwater or surface settlement triggers be exceeded.	(5)	Full	Latest plan June 2023

Description	Consent (Condition)	Compliance	Comment
The Plan shall, as a minimum, provide an overall description of the groundwater and settlement monitoring system and the measures to be adopted, including contingency measures, to meet the objectives of the groundwater and settlement management system, as proposed in the consent application. The monitoring regime shall be designed to assess the effects of:			
(i) dewatering on the regional groundwater system; and (ii) dewatering on settlement; and (iii) the discharge of degraded quality water from the backfilled and flooded workings on groundwater quality.	(5)	Full	Defined in plan iii) No significant flooded workings as yet
Monitoring locations are to provide appropriate resolution of surface tilt relative to the scale of surface infrastructure and final details are to be agreed with the Councils. The Plan shall also provide trigger limits that will initiate the implementation of contingency mitigation and/or monitoring measures and shall detail any linkages with the Martha pit operation.	(5)	Full	Defined in plan
The exercise of this consent shall be in accordance with the Plan as approved by the Council. The Plan shall be reviewed and updated as necessary by the consent holder. Such updated Plans shall relate to the Correnso Mine or to any new mine within Area L. Any updated Plan shall be promptly forwarded to the Council for written approval and following approval, the updated Plan shall be implemented in place of the previous version. In the event of any conflict or inconsistency between the conditions of this consent and the provisions of the Dewatering and Settlement Monitoring Plan, then the conditions of this consent shall prevail.	(5)	Full	Plan June 2023
Dewatering and Settlement Monitoring Report 6.The consent holder shall provide to the Councils an annual Dewatering and Settlement Monitoring Report. The Report shall, as a minimum, provide the following information:	(6)		This report
a) The volume of groundwater abstracted;	(6)	Full	Section 5
(i) The data from monitoring undertaken during the previous year, including groundwater contour plans (derived from the data) in respect of the piezometer network;	(6)	Full	Section 6
(ii) An interpretation and analysis of the monitoring data, in particular any change in the groundwater profile over the previous year, predictions of future impacts that may arise as a result of any trends that have been identified including review of the predicted post	(6)	Full	Section 6 & 10

Description	Consent (Condition)	Compliance	Comment
closure effects based on actual monitoring data, and what contingency actions, if any, the consent holder proposes to take in response to those predictions. This analysis shall be undertaken by a party appropriately experienced and qualified to assess the information;			
(iii) Any contingency actions that may have been taken during the year; and	(6)	Full	Section 10
(iv) Comment on compliance with condition 5 of this consent including any reasons for non-compliance or difficulties in achieving conformance with the conditions of consent. The report shall be forwarded in a form acceptable to the Councils.	(6)	Full	Section 16
Monitoring - Tilt 7. In the event that a tilt greater than 1 in 1000 occurs between any two network monitoring locations installed in accordance with the Dewatering and Settlement Monitoring Plan required pursuant to condition 5 of this consent, and such tilt is caused by the de-watering and/or there is a significant variance from the predicted settlement rates, the consent holder shall notify the Councils in writing, within 20 working days of receiving the results of the monitoring. The consent holder shall then engage in a process with the Councils:	(7)	Full	Section 8
(i) explain the cause of the non-conformance,	(7)	Full	Section 10
(ii) Propose appropriate settlement contingency measures for discussion with Councils and agree with the Councils on the appropriate settlement contingency measures and the timing for their implementation as described,	(7)	Full	Propose ongoing monitoring
(iii) implement agreed settlement contingency measures as appropriate within the agreed time limit,	(7)	Full	Not considered necessary
(iv) advise the Councils on the steps the consent holder proposes to take in order to prevent any further occurrence of the situation.	(7)	Full	Propose ongoing monitoring
Monitoring – Water Quality 8. The consent holder shall monitor throughout the period of operation, the chemistry of the groundwater, pit run-off and pit discharge water abstracted from the open pit. The monitoring data is to be used to correlate these inflows with pit lake water quality predictions, and to provide a database for input into the closure plans. The sampling parameters and frequencies shall be described in the Martha Extended Project dewatering consent (unless agreed otherwise with the Waikato Regional Council) with the results forwarded to the Waikato Regional Council on an annual basis.	(8)	Partial	Pit sampling limited, dewatering sampled monthly. Favona and Correnso Underground WQ measured separately. Underground dewatering from Project Martha bores commenced.
Other Water Users	(9)	Full	

Description	Consent (Condition)	Compliance	Comment
9. If, in the opinion of the Waikato Regional Council, the exercise of this consent adversely affects stock, domestic or other water supplies, then the consent holder shall, at its own cost, be responsible for providing to the owner of those water supplies an alternative equivalent water supply, to the satisfaction of Waikato Regional Council. The consent holder shall be responsible for making an alternative water supply available within 12 hours of being directed to do so by the Waikato Regional Council.			
Project Martha – Common Conditions	**202.2018.00000857.001**		
Dewatering and Settlement Monitoring Plan 14. The objectives of the groundwater and settlement management system shall be to ensure that dewatering operations do not give rise to surface instability and differential settlement beyond that authorised by this consent. 15. Two months prior to dewatering below 700 m RL (mine datum), the consent holder shall prepare, and submit to the Councils for their certification, a Dewatering and Settlement Monitoring Plan. The purpose of the Dewatering and Settlement Monitoring Plan is to monitor and assess the effects of the activities on land settlement and the groundwater hydraulic regime, and also to detail the contingency measures that will be actioned should groundwater or surface settlement triggers be exceeded. 16. The Plan shall, as a minimum, provide an overall description of the groundwater and settlement monitoring system and the measures to be adopted, including contingency measures, to meet the objectives of the groundwater and settlement management system set out in Condition 14 of this schedule. The monitoring regime shall be designed to assess the effects of: a. Dewatering on the regional groundwater system; and b. Dewatering on settlement. 17. Monitoring locations are to provide appropriate resolution of mine inflows and pumping, groundwater levels (both for shallow and deep aquifers) and ground surface tilt relative to the scale of surface infrastructure, throughout the area within the maximum extent of the groundwater cone of depression and particularly in the areas above and adjacent to the mining activities provided for in this consent. Final details are to be agreed with the Councils, but are to include additional piezometers and extensometers located along the line of upper level workings in the Rex Orebody. The Dewatering and Settlement Monitoring Plan shall also provide groundwater and settlement trigger limits that will initiate the implementation of contingency mitigation and / or monitoring measures and shall detail any linkages with the operation of the Martha Pit and Martha Underground Mine.	(14) (15) (16) (17)	Full	Dewatering and Settlement Monitoring Plan approved June 2023 (Conditions 14-18)

Description	Consent (Condition)	Compliance	Comment
18. The exercise of this consent shall be in accordance with the Dewatering and Settlement Monitoring Plan as certified by the Councils. The Dewatering and Settlement Monitoring Plan shall be reviewed and updated as necessary by the consent holder. Any updated Dewatering and Settlement Monitoring Plan shall be promptly forwarded to the Councils for certification, and following this process, the updated plan shall be implemented in place of the previous version.	(18)		
19. In the event that a tilt greater than 1 in 1,000 occurs between any two network monitoring locations installed in accordance with the Dewatering and Settlement Monitoring Plan required pursuant to Condition 15 of this schedule, or there is a significant variance from the predicted settlement rates, the consent holder shall notify the Councils in writing within 20 working days of receiving the results of the monitoring. The consent holder shall then: a. Explain the cause of the non-conformance; b. Propose appropriate settlement contingency measures to the Councils and the timing of implementation thereof by the consent holder; c. Implement settlement contingency measures as appropriate within the agreed time limit; and d. Advise the Councils on the steps the consent holder proposes to take in order to prevent any further occurrence of the situation.	(19)	Full	Notification of tilts greater than 1:1000 provided in Tilt Report No non-conformances
20. The consent holder shall as a matter of urgency, advise the Councils of any significant anomalies identified by the regular reading of groundwater levels in the piezometer network. Such advice is to include an explanation of the anomalous results and actions proposed to address any issues identified. This report is to be provided to the Councils within 10 working days of the anomalous results being identified. A “significant anomaly” is defined as a drop in groundwater level greater than the seasonal variation in piezometers within the alluvium and younger volcanic rocks and a drop of 15 m or more in the recordings from piezometers tapping the upper 50 m of Andesite over a one month period.	(20)		No significant anomalies identified
Dewatering and Settlement Monitoring Report 22. The consent holder shall provide to the Councils (within one month of an agreed anniversary date) an annual Dewatering and Settlement Monitoring Report. The report shall, as a minimum, provide the following information:	(22)	Full	This report
a. The volume of groundwater abstracted;	(22)	Full	Section 5

Description	Consent (Condition)	Compliance	Comment
b. The data from monitoring undertaken during the previous year, including groundwater contour plans (derived from the data) in respect of the piezometer network;	(22)	Full	Section 6
c. An interpretation and analysis of the monitoring data, in particular any change in the groundwater profile over the previous year, predictions of the future impacts that may arise as a result of any trends that have been identified including review of the predicted post closure effects based on actual monitoring data, and what contingency actions, if any, the consent holder proposes to take in response to those predictions, this analysis shall be undertaken by a party appropriately experienced and qualified to assess the information;	(22)	Full	Sections 6, 7 and 10
d. Any contingency actions that may have been taken during the year; and	(22)	Full	Section 10
e. Comment on compliance with Conditions 14 to 21 of this schedule including any reasons for non-compliance or difficulties in achieving conformance with the conditions of consent.	(22)	Full	This section
f. The report shall be forwarded in a form acceptable to the Councils.			
Project Martha Groundwater take permit	**139551**		
Dewatering Level **1.** The exercise of this consent shall not result in groundwater lowering to a level below 500mRL.	(1)	Full	Groundwater level not lowered below 500 mRL.
MONITORING **2.** Upon commencement of this consent, the consent holder shall monitor the volume of water abstracted on a weekly basis and shall report this to the Waikato Regional Council.	(2)	Full	Abstraction volumes reported to Council via Hyquest
3. Upon the first exercise of this consent the consent holder must telemeter – via a telemetry system developed after liaison with the Waikato Regional Council to ensure that the telemetry system is compatible with the Waikato Regional Council telemetry system standards and data protocols – continuous 15 minute values of: gross take volume (in units of cubic metres). The data must be reported once daily to the Waikato Regional Council via the telemetry system. There must be 96 values, respectively, per daily report. When no water is being taken the data must specify the gross take volume and calculated net take volume as zero.	(3)	Full	As above.

Description	Consent (Condition)	Compliance	Comment
4. The consent holder shall monitor the chemistry of the water abstracted under this consent. Prior to the commencement of this consent the sampling parameters and frequencies shall be agreed with the Waikato Regional Council, with the results forwarded to the Waikato Regional Council on an annual basis. The consent holder may change the sampling parameters and frequencies with the agreement of the Waikato Regional Council.	(4)	Full	Appendix E
OTHER WATER USERS **5.** If, in the opinion of the Waikato Regional Council, the exercise of this consent adversely affects any existing stock, domestic or other water supplies, then the consent holder shall, at its own cost, be responsible for providing to the owner of those water supplies an alternative equivalent water supply, to the satisfaction of Waikato Regional Council. The consent holder shall be responsible for making an alternative water supply available within 12 hours of being directed to do so by the Council.	(5)	N/A	
MONITORING OF THE SHALLOW AND DEEP AQUIFERS 6. The consent holder shall upon commencement of this consent and at five yearly intervals thereafter, provide a report to the Waikato Regional Council commenting on the effect the groundwater take and dewatering activity is having on the deep and shallow aquifers under the Martha Pit and immediate surrounds. The report shall as a minimum, provide the following information: (a) The nature of the geology under the Martha Pit and immediate surrounds; (b) Comment on the existing groundwater chemistry for the deep and shallow aquifers; (c) Comment on the groundwater levels in the deep and shallow aquifers; and (d) Provide details of any wetland areas and any other known aquatic ecological values that are dependent on the surface contribution of shallow and deep groundwater outflows. Taking into account all of this information (and any other relevant data) the consent holder shall provide comment on the effects the dewatering activity is having on the shallow and deep aquifers under the Martha Pit and immediate surrounds.	(6)	Full	Provided to Waikato Regional Council in July 2024
Favona Underground Mine HDC Land Use Consent	**85.020.326.E**		

Description	Consent (Condition)	Compliance	Comment
Settlement and De-watering Monitoring Report 39.The consent holder shall provide to the Council an annual Settlement and De-watering Monitoring Report. The report shall include at least the following information:	(39)		This report
a) The volume of groundwater abstracted;	(39)	Full	Section 5
b) The data from monitoring undertaken during the previous year, including groundwater contour plans (derived from the data) in respect of the piezometer network;	(39)	Full	Section 6
c) An interpretation and analysis of the monitoring data, in particular any change in the groundwater profile over the previous year, predictions of future impacts that may arise as a result of any trends that have been identified including review of the predicted post closure effects based on actual monitoring data, and what contingency actions, if any, the consent holder proposes to take in response to those predictions. This analysis shall be undertaken by a party appropriately experienced and qualified to assess the information;	(39)	Full	Section 6 & 10
d) Any contingency actions that may have been taken during the year; and	(39)	Full	Section 10
e) Comment on compliance with Conditions 33 - 38 of this consent including any reasons for non-compliance or difficulties in achieving conformance with the conditions of consent. The report shall be forwarded in a form acceptable to the Council.	(39)	Full	Section 15

17 CONCLUSIONS

17.1 Dewatering

Monitoring of the groundwater levels and dewatering, ground surface settlement, ground surface tilt, and water quality in and around the Martha, Favona, Trio, Correnso, SUPA and Project Martha operations was undertaken by OGNZL during 2025 in accordance with the consent conditions and the approved monitoring plan.

By the end of 2025 the underground groundwater levels had been lowered to a maximum depth of approximately 641 mRL.

Groundwater levels remained stable in the Martha area during 2025, with an increase in piezometric levels in response to seasonal rainfall. No triggers for a decrease in groundwater level were reached during the monitoring period.

At Favona the underground water level was maintained at around 800 mRL. As observed in previous years, this dewatering has maintained a steep but localised depression of the groundwater (contour pattern) along the NE-SW trending vein structure. Water levels in the young volcanics and overlying alluvium has not responded to the significant dewatering of the underlying vein-hosted andesite, except adjacent to Martha Pit and in minor places where the basal ignimbrite layer may show evidence of dewatering. Although upper layers of the Young volcanics remain saturated due to poor vertical connectivity (for example at P122 location). Minor or no response has been seen in wells monitoring the upper layers of the andesite rock body. Response is only evident in deeper wells constructed in the andesite rock mass that intercept structures connected to the vein systems.

17.2 Settlement and Tilt

Settlement monitoring, to assess any ground surface movement effects from groundwater changes, was conducted by OGNZL in May/June and November/December 2025. These settlement survey results indicated that 94.6% (302/319) of marks were within the predicted settlement ranges, based on the Project Martha predicted settlement. Of the greater-than-predicted settlements, five were above or near the Favona Underground Mine. The other twelve exceedances are generally associated with sites that are considered to be affected by unstable ground or soil creep due to proximity to stream banks or drains. At all these locations no visible effects were noted nearby, and shallow piezometers have not shown any abnormal changes.

Variable settlement was measured across the Waihi Township settlement monitoring network through the 2025 monitoring period. This is considered to be a response to ongoing dewatering of structures within the deeper andesite of the Martha groundwater system. No widespread ongoing dewatering effects were observed in the young volcanic or upper andesite rock that would give rise to such widespread settlement.

Settlement continues to be observed in marks near and overlying the Favona Mine, although the total amount of settlement is similar to previous years. The deep monitoring wells connected to the Favona vein system are the only wells showing dewatering changes consistent with this settlement, indicating the settlement is likely to be a response to dewatering of the deeper structures of the Favona vein system and/or to changes in the rock mass volume associated with mining at Favona. Tilt is also apparent between marks near and overlying the Favona Mine which is occurring on farmland owned by OGNZL (and therefore is not expected to be an issue).

17.3 Groundwater Quality

Some elevated trace metal results were measured during laboratory testing of underground water samples during the 2025 monitoring period. However, this is expected, and all underground water is currently collected and treated.

18 DEFINITIONS

Term	Definition
CEPA	Correnso Extensions Project Area
CRD	Cumulative Rainfall Departure
HDC	Hauraki District Council
MDDP	Martha Drill Drives Project
OGNZL	OceanaGold New Zealand Ltd
VWP	Vibrating Wire Piezometer
WRC	Waikato Regional Council
WWLA	Williamson Water & Land Advisory

19 REFERENCES

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Engineering Geology Ltd, 2010: Proposed Trio Development Project – Assessment of Ground Settlement. Technical Report for Newmont Waihi Gold, June 2010.

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URS, 2003: Favona Underground Mine Assessment of Groundwater Issues. Favona Underground Project (Document) 9, 19 March.

URS 2008; Martha Pit Lake – An Assessment of Water Balance and Water Quality. Technical Report for Newmont Waihi Gold, September 2008.

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URS, 2009: Favona Temporary Stockpile – Water Quality Report.

WWLA, 2024: Martha Underground (MUG) and Wharekirauponga Underground (WUG) Dewatering Rate Predictions. Technical Memo for OGNZL, September 2024.

Appendix A Relevant Consent Conditions

Extract from conditions of Waikato Regional Council Resource Consents 109742 to 109746 (Favona), pertaining to Dewatering and Settlement:

SCHEDULE TWO – GENERAL CONDITIONS

The granting of consents (109742 to 109746 inclusive) is subject to the following conditions, which shall apply to each individual consent.

Water Management Plan

1. Prior to exercise of this consent, the consent holder shall prepare, and submit to the Council for its written approval, a Water Management Plan describing the water management system to be applied across the project area, with emphasis on management of stormwater including water storage options, decline and mine dewatering, and stockpile runoff.

   The consent holder shall exercise this consent in accordance with the approved Water Management Plan.

   The Plan shall be reviewed at least annually by the consent holder. Any updated Plan shall be promptly forwarded to the Council for approval and following approval the updated Plan shall be implemented in place of the previous version.

   The Plan may form part of the Water Management Plan associated with consent numbers 971311, 971318-971320, W1742 and W1743.

   In the event of any conflict or inconsistency between the conditions of this consent and the provisions of the Water Management Plan, then the conditions of this consent shall prevail.

Settlement, Dewatering and Water Quality Monitoring Plan

2. Prior to exercise of this consent, the consent holder shall prepare, and submit to the Council for its written approval, a Settlement, Dewatering & Water Quality Monitoring Plan. The purpose of this Plan is to monitor and assess the effects of the activities on land settlement, the groundwater hydraulic regime and on water quality, and also to detail the contingency measures that will be actioned should groundwater or surface settlement triggers be exceeded.

   The Plan shall, as a minimum, provide an overall description of the groundwater and settlement monitoring system and the measures to be adopted, including contingency measures, to meet the objectives of the groundwater and settlement management system, as proposed in the consent application. The monitoring regime shall be designed to assess the effects of:

   a) mine dewatering on the regional groundwater system,
   b) mine dewatering on settlement;
   c) leachate from stockpiles containing potentially acid forming material on shallow groundwater quality, and
   d) the discharge of degraded-quality water from the backfilled and flooded workings on groundwater quality.

   Final details of the monitoring locations are to be agreed with the Council. The Plan shall also provide trigger limits that will initiate the implementation of contingency mitigation and/or monitoring measures and shall detail any linkages with the Martha pit operation.

   The Plan shall be consistent with the recommendations included in the reports to the Council entitled;

   - *"Proposed Favona Underground Mine – Review of Groundwater Assessment" dated October 2003 and prepared by Pattle Delamore Partners; and*
   - *"Technical Review of Water Quality and Geochemistry Issues - Favona Underground Project", dated October 2003 and prepared by GEOKEM.*

   The exercise of this consent shall be in accordance with the Plan as approved by the Council. The Plan shall be reviewed, and updated as necessary, by the consent holder at least once every two years. Any updated Plan shall be promptly forwarded to the Council for approval and following approval the updated Plan shall be implemented in place of the previous version.

In the event of any conflict or inconsistency between the conditions of this consent and the provisions of the Settlement, Dewatering & Water Quality Monitoring Plan, then the conditions of this consent shall prevail.

3. In the event that a tilt greater than 1 in 1000 occurs between any two network monitoring locations, installed in accordance with the Settlement, Dewatering & Water Quality Monitoring Plan required pursuant to condition 2 above, or there is a significant variance from the predicted settlement rates, the consent holder shall notify the Council in writing, within 20 working days of receiving the results of the monitoring. The consent holder shall then:

   a) explain the cause of the non-conformance,
   b) agree with the Council on the appropriate settlement contingency measures to be implemented as described,
   c) implement settlement contingency measures as appropriate,
   d) advise the Council on the steps the consent holder proposes to take in order to prevent any further occurrence of the situation.

Settlement, Dewatering & Water Quality Monitoring Report

4. The consent holder shall provide to the Council (with a copy provided to the Hauraki District Council) an annual Settlement, Dewatering & Water Quality Monitoring Report. The report shall include at least the following information:

   a) the volume of groundwater abstracted,
   b) the data from monitoring undertaken during the previous year including groundwater contour plans (derived from the data) in respect of the piezometer network,
   c) an interpretation and analysis of the monitoring data, in particular any change in the groundwater profile over the previous year, predictions of future impacts that may arise as a result of any trends that have been identified including review of the predicted post closure effects based on actual monitoring data, and what contingency actions, if any, the consent holder proposes to take in response to those predictions. This analysis shall be undertaken by a party appropriately experienced and qualified to assess the information,
   d) any contingency actions that may have been taken during the year,
   e) comment on compliance with all conditions of this consent including any reasons for non-compliance or difficulties in achieving conformance with the conditions of this consent.

   The report shall be forwarded in a format acceptable to the Council.

Extract from conditions of Hauraki District Council Resource Consent 85.020.326.E (Favona), as pertaining to Dewatering and Settlement:

Settlement, Dewatering & Water Quality Monitoring Report

39. The consent holder shall provide to the Council an annual Settlement and De-watering Monitoring Report. The report shall include at least the following information:

    a) The volume of groundwater abstracted;
    b) The data from monitoring undertaken during the previous year including groundwater contour plans (derived from the data) in respect of the piezometer network;
    c) An interpretation and analysis of the monitoring data, in particular any change in the groundwater profile over the previous year, predictions of future impacts that may arise as a result of any trends that have been identified including review of the predicted post closure effects based on actual monitoring data, and what contingency actions, if any, the consent holder proposes to take in response to those predictions. This analysis shall be undertaken by a party appropriately experienced and qualified to assess the information;
    d) Any contingency actions that may have been taken during the year;
    e) Comment on compliance with Conditions 33 – 38 of this consent including any reasons for non-compliance or difficulties in achieving conformance with the conditions of this consent.

    The report shall be forwarded in a format acceptable to the Council.

Extract from conditions of Hauraki District Council Resource Consent 97/98-105, pertaining to Dewatering and Settlement:

3.30 Settlement

a) The consent holder shall prepare a Dewatering and Settlement Monitoring Plan. The purpose of this Plan is to monitor and assess the effects of dewatering on land settlement and the effects of the mining activities on the subsurface hydraulic regime. The Dewatering and Settlement Monitoring Plan shall address at least the following:

i) An overall description of the groundwater and settlement monitoring system and the measures to be adopted to meet the objectives of the groundwater and settlement monitoring system.

ii) Details of the piezometer network proposed to monitor the effects of pit dewatering on the aquifers under Waihi township.

Any monitoring bores additional to the existing piezometer network shall be installed and operational prior to the exercising of this consent.

iii) Details of the settlement monitoring network proposed to monitor the extended zone which has been, or is likely to be, affected by settlement caused by mine dewatering.

Any settlement monitoring network locations additional to the existing monitoring locations shall be installed and operational prior to exercising this consent.

iv) Details of the survey of facilities in the Waihi township considered by the consent holder to be potentially "at risk" of damage from ground settlement caused by mine dewatering. The survey to be completed shall include collection of information about the facility's location, the nature of construction materials, the nature of sensitive equipment that might be potentially "at risk", and the sensitivity of this equipment to ground settlement caused by mine dewatering and/or tilt.

This survey shall be completed prior to exercise of the Waikato Regional Council consent number 971286.

v) A settlement contingency plan to include mitigation measures to be implemented in the event that ground settlement caused by mine dewatering induces a tilt that exceeds 1 in 1000 between any two network monitoring locations spaced no less than 25 metres apart. The settlement contingency plan shall particularly address those facilities identified by the consent holder as being potentially "at risk" of damage from ground settlement caused by mine dewatering.

vi) A dewatering contingency plan that describes the steps the consent holder shall implement in the event that dewatering results in adverse impacts on affected aquifer systems and associated groundwater supplies used for domestic, stock or other purposes.

In detailing the monitoring programmes the consent holder shall provide information on the monitoring methods proposed, the parameters to be monitored, and the calibration and maintenance of monitoring equipment.

In the event of any conflict or inconsistency between the conditions of this consent and the provisions of the Dewatering and Settlement Monitoring Plan, then the conditions of Waikato Regional Council consent number 971286 shall prevail.

b) The Dewatering and Settlement Monitoring Plan shall be submitted to Hauraki District Council for approval at least one month prior to the exercise of this consent. The Hauraki District Council shall consult with the Waikato Regional Council prior to approving the Dewatering and Settlement Monitoring Plan. The consent holder shall review and update (as necessary) the Plan and shall provide promptly such updated Plan to the Hauraki District Council annually for approval.

c) If in the opinion of Hauraki District Council the dewatering adversely affects land or facilities, then the consent holder shall at its own cost be responsible for reinstating the facilities to an equivalent standard to the reasonable satisfaction of Council.

d) The consent holder shall measure and record the daily volume of water abstracted from the pit.

e) The consent holder shall undertake monthly water level monitoring of the piezometer network in accordance with the Dewatering and Settlement Monitoring Plan.

f) The consent holder shall monitor ground settlement at a minimum of six monthly intervals in accordance with the Dewatering and Settlement Monitoring Plan.

g) In the event that a tilt greater than 1 in 1000 occurs between any two network monitoring locations spaced no less than 25 metres apart, and such tilt is caused by mine dewatering, or there is a significant variance from the predicted settlement rates described in the evidence of Dr Semple (Table 5, Figure 8 dated 13 November 1997 as presented to the Joint Hearing Committee – attached hereto as Appendix C), the consent holder shall notify the Hauraki District Council and the Waikato Regional Council, in writing, within 20 working days of receiving the results of the monitoring. The consent holder shall then:

- explain the cause of the non-conformance,
- agree with the Hauraki District Council and Waikato Regional Council on the appropriate settlement contingency measures to be implemented as described,
- implement settlement contingency measures as appropriate,
- advise the Councils on the steps the consent holder proposes to take in order to prevent any further occurrence of the situation.

h) The consent holder shall provide to the Hauraki District Council and the Waikato Regional Council an annual dewatering and settlement monitoring report. The report shall include at least the following information:

- The data from monitoring undertaken during the previous year including ground water contour plans (derived from the data) in respect of the piezometer network.
- Identification of any environmentally important trends in settlement and dewatering behaviour.
- Interpretation and analysis of any change in ground water profile over the previous year, any contingency actions that may have been taken during the year, predictions of future impacts on other bore users that may arise as a result of any trends that have been identified, and what contingency actions, if any, the consent holder proposes to take in response to those predictions.
- A comparison of the settlement survey data with that predicted in Table 5 and Figure 8 (dated 13 November 1997) by Dr Semple of Woodward Clyde (NZ) Ltd as provided in evidence to the Joint Hearing Committee.
- Comment on compliance with this condition.
- A summary and analysis of complaints relevant to this condition.
- Any reasons for non-compliance or difficulties in achieving conformance with this condition.
- Any works that have been undertaken to improve environmental performance or that are proposed to be undertaken in the forthcoming year to improve environmental performance in relation to activities permitted by this condition.

The report shall be forwarded in a format acceptable to the Hauraki District Council.

(Note: This condition is complementary to Waikato Regional Council consent number 971286).