

Appendix 25

Whale Tail 2022 Thermal Monitoring Report



WHALE TAIL MINE

Thermal Monitoring Report 2022

In Accordance with
Project Certificate No. 008, T&C 14

Prepared by:
Agnico Eagle Mines Limited – Meadowbank Division

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APPENDIX A: WHALE TAIL THERMAL MONITORING DATA

1 INTRODUCTION

Agnico Eagle Mines Limited – Meadowbank Division (Agnico Eagle) is developing the Whale Tail Mine (Project), a satellite deposit located on the Amaruq property, to continue mine operations and milling at Meadowbank Mine.

This document presents the Thermal Monitoring Report including the following mine facilities and natural locations as described in the Thermal Monitoring Plan:

- Whale Tail Waste Rock Storage Facility (WRSF)
- Water management facilities including Whale Tail Dike, Mammoth Dike, IVR Dike, WRSF Dike, and the Whale Tail and IVR Attenuation Ponds
- Whale Tail Pit and IVR Pit

The Thermal Monitoring Report provides the instrumentation data and their interpretation. Refer to the Thermal Monitoring Plan for a general description of the different facilities, the anticipated impact of operation of the facilities on the permafrost, and the general guidelines that are used to define instrumentation needs for each facility.

2 AVAILABLE DATA

There are currently 71 active thermistors at the Whale Tail Mine site.

The location, installation summary, and status of all the thermistors installed within the Whale Tail Mine site are presented in the table in Appendix A. Figure 1 shows locations of active thermistors. Data are collected from the thermistors by data loggers every three hours or by using manual readout units.

Results of active thermistors are presented in Appendix A.

3 THERMAL MONITORING RESULT

This section presents a summary of the expected thermal effects as well as interpretation of the instrumentation data gathered for the reporting period.

3.1 WASTE ROCK STORAGE FACILITY

3.1.1 Expected Thermal Effects on Permafrost

Construction of the WRSF on the permafrost is expected to result in aggradation of permafrost into the pile. The permafrost under the pile would remain, but temperatures in the upper permafrost zone are expected to increase gradually until a thermal equilibrium is established with the active zone and zero-amplitude zone moving upward and being located within the waste rock pile. Convective cooling conditions often occur in waste piles and would potentially offset some of the temperature increase in the permafrost.

The waste rock pile itself is expected to freeze back with time and have an active layer formed on the upper portion (Okane 2019b). Climate change in the long term is expected to extend the depth of the active layer in the pile, but the thick waste rock pile will constitute a protection to the underlying permafrost. If heat generation occurs associated with the oxidation of sulphide-bearing minerals within the pile, the process of freeze-back would be delayed and, depending on the location of the heat generation source, the upper portion of the permafrost foundation could be impacted.

3.1.2 Thermal Monitoring Results

For the thermistors installed in the foundation of the WT WRSF, the instrumentation data is showing thermal behaviour along the expected trend (permafrost aggradation).

The instruments installed at mid-elevation in the PAG of the first bench are covered in waste rock and lots of beads have been lost especially in the NAG. The available data indicate that the active layer did not reach the PAG waste rock.

For the instruments located in the second instrumented cross section installed at 40 m above the ground elevation on top of the second bench, only just over a year of data has been collected so it is too early to assess the extent of the active layer. The 2023 Thermal Monitoring Report will assess this as two years of data will have been collected allowing enough time for the instruments to stabilize and show trends.

3.2 WATER MANAGEMENT FACILITIES

3.2.1 Expected Thermal Effects on Permafrost

The Whale Tail Dike is constructed within the lake where talik is anticipated to exist. The construction of the Whale Tail Dike is expected to have a cooling effect on the lake ground underneath the dike due to exposure to lower dike temperature than lake water. Minimal effects to the permafrost at the abutment areas are expected.

Following lake dewatering and the beginning of operations, areas downstream of the Whale Tail Dike are expected to freeze back progressively, and the upstream area of the dike is expected to remain unfrozen.

After the dike is breached in the final stages of closure, the Whale Tail Lake will be restored, causing frozen zones located downstream of the dike to thaw, progressively restoring the original lake talik.

The other dewatering dike areas are expected to have similar thermal impacts on the permafrost associated with construction, operation, and closure of the dikes.

The WRSF Dike will periodically contain a pond formed from runoff water flowing at the toe of the WRSF facility. Depending on pond depth and operational conditions there would be an impact with possible thawing of a shallow upper permafrost zone underlying the pond. However, due to the operational pond level that is normally maintained low to reduce the hydraulic gradient, this issue is unlikely.

The talik zone under the Whale Tail Attenuation Pond would remain. The surrounding areas to the pond would freeze back progressively after dewatering but would restore to talik condition after breaching of the dewatering dikes and flooding of the area.

As for the IVR Attenuation Pond, with the maximum water elevation of the pond above the former lake elevation, some minor localized thawing of the permafrost is expected to occur in areas never exposed to water before outside of the dike footprint.

3.2.2 Thermal Monitoring Results

Mammoth Dike

The instrumentation data are showing thermal behaviour along the expected trend at Mammoth Dike with an active layer contained in the rockfill shell and the foundation and key trench are in permafrost condition.

WRSF Dike

A degradation of the thermal condition in the key trench of WRSF Dike was observed in the summer of 2019 leading to seepage. In 2022, the instruments show that the foundation and key trench remained frozen all year long with signs of permafrost aggradation which indicate that the mitigation measures implemented in 2020 continue to be successful. The active layer is contained within the rockfill.

Whale Tail Dike

The trend of permafrost degradation at the abutments did not progress laterally in 2022 according to the instruments; however, observations in the field in 2022 indicated increased effects from permafrost degradation on both the abutments. The effects of degradation in the form of settlement can be seen on the upstream and downstream of the West abutment and downstream of the East abutment. This signifies that the thermal regime following the dike construction and the South Whale Tail Channel commissioning has not yet reached a steady state.

The thermistors show that limited freeze back is happening in deep bedrock in some areas (0+142, 0+200, 0+260, 0+360, 0+407, 0+520, 0+607).

IVR Dike D-1

The thermistors installed in IVR Dike D-1 show that there is a 2m active layer contained within the rockfill portion or in the overburden, while the key trench, filters system, and bedrock remained in permafrost for the entire 2022 period.

3.3 OPEN PIT

3.3.1 Expected Effects on Permafrost

Whale Tail Pit will be excavated through an upper closed talik zone and underlying permafrost. During operations of the pit, the talik zone is expected to freeze back progressively and the lower permafrost zone surrounding the pit walls will, in general, experience a reduction in temperature other than at a shallow active zone adjacent to the pit walls subjected to seasonal thawing during summer.

Upon closure and subsequent flooding of the Whale Tail Pit, permafrost areas underneath the pit lake are expected to gradually thaw. Thermal assessments have indicated this process would take hundreds of years (Golder, 2018). The pit lake would eventually reduce the permafrost depth in the pit surrounding ground, but this process could take significantly longer time (in the order of 10,000 years) to complete.

IVR Pit is excavated through permafrost and will not be re-flooded so the mining activities are not expected to impact the thermal regime of that area.

3.3.2 Thermal Monitoring Results

Thermistors were installed in 2020 in the talik zone near the south wall of the Whale Tail Pit. Through the year 2021 until their dismantling in August 2021 it was possible to observe a freezing of the upper bedrock area.

The previous thermistors installed in the IVR area are no longer functioning due to mining activity in the sector but were showing permafrost conditions until they stopped working. A deep thermistor has been installed in 2020 in that area (IVR long TH) and shows permafrost conditions down to 500 m below ground surface, to El. 9600 m (mining datum).

APPENDIX A – WHALE TAIL THERMAL MONITORING DATA

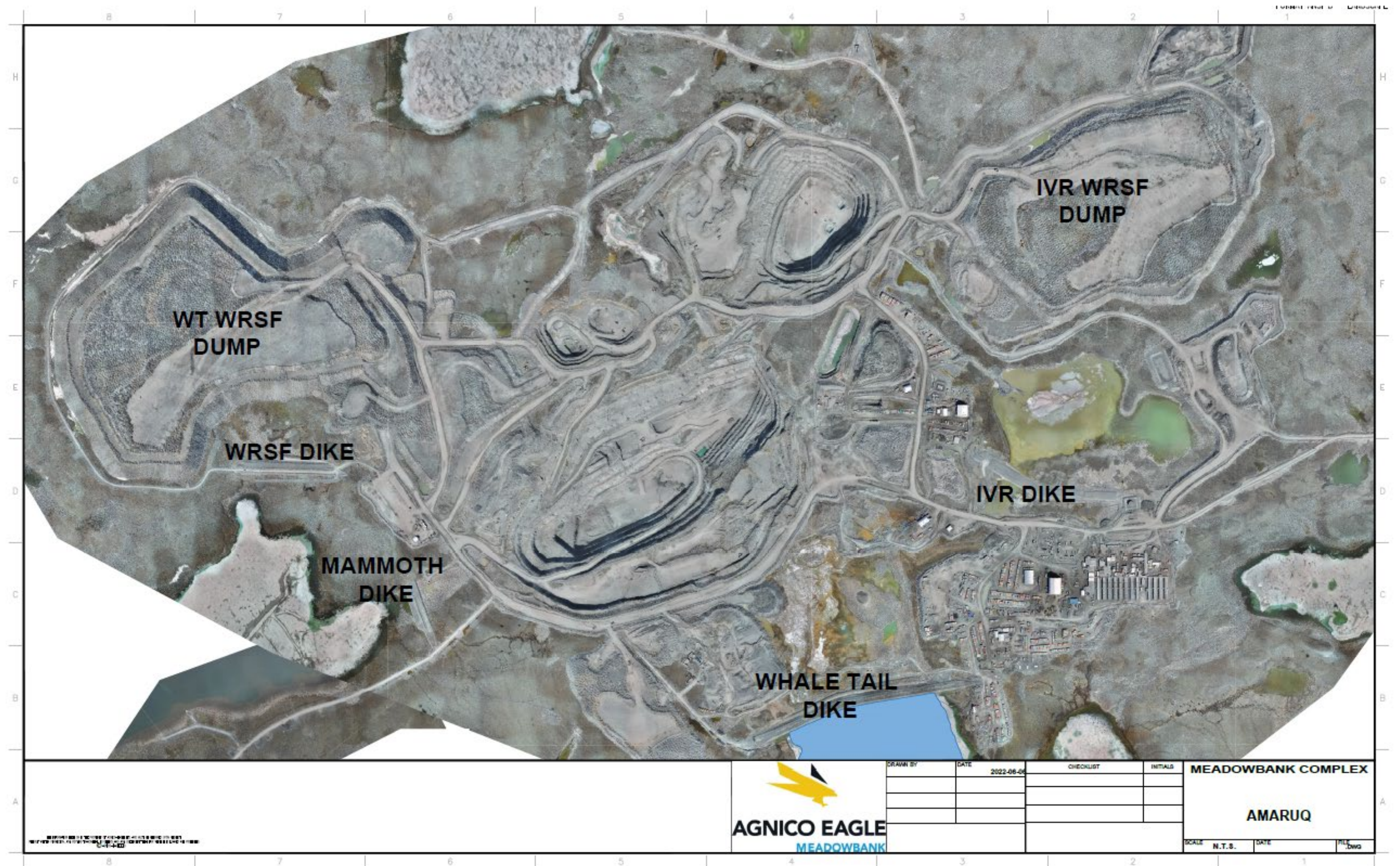


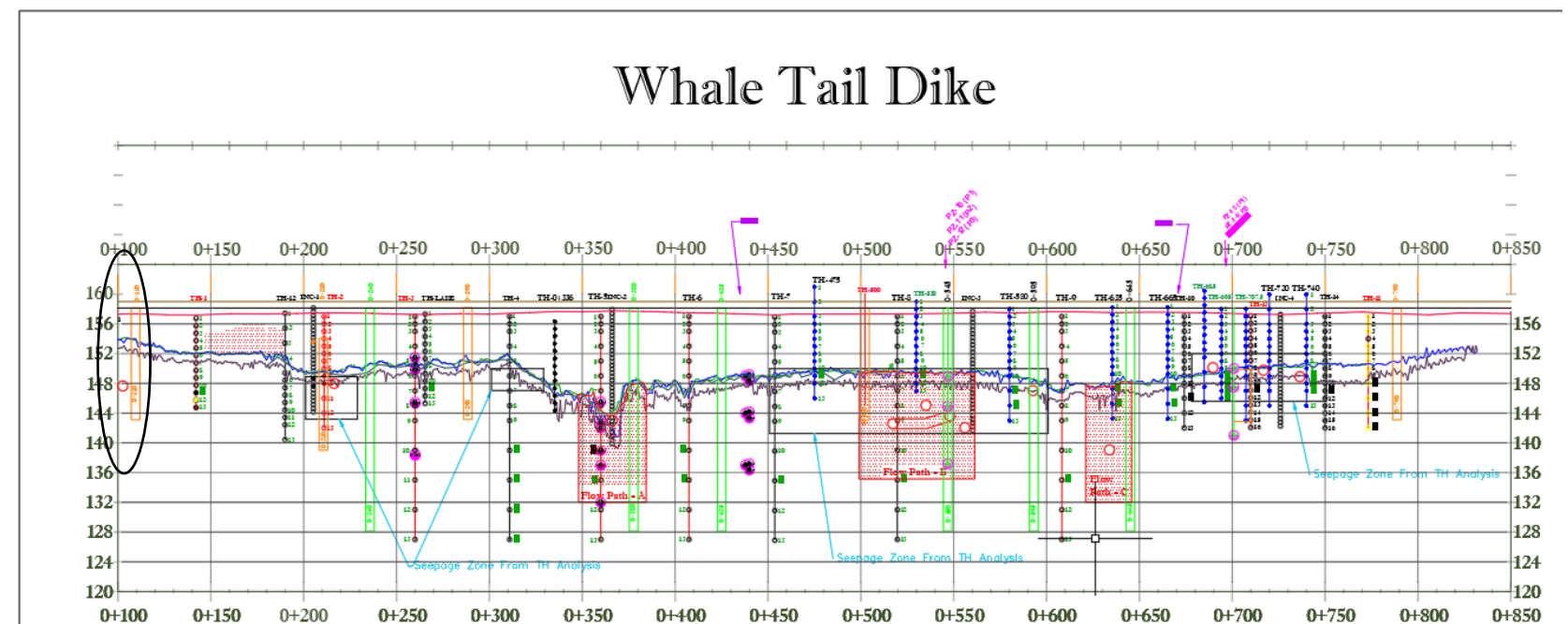
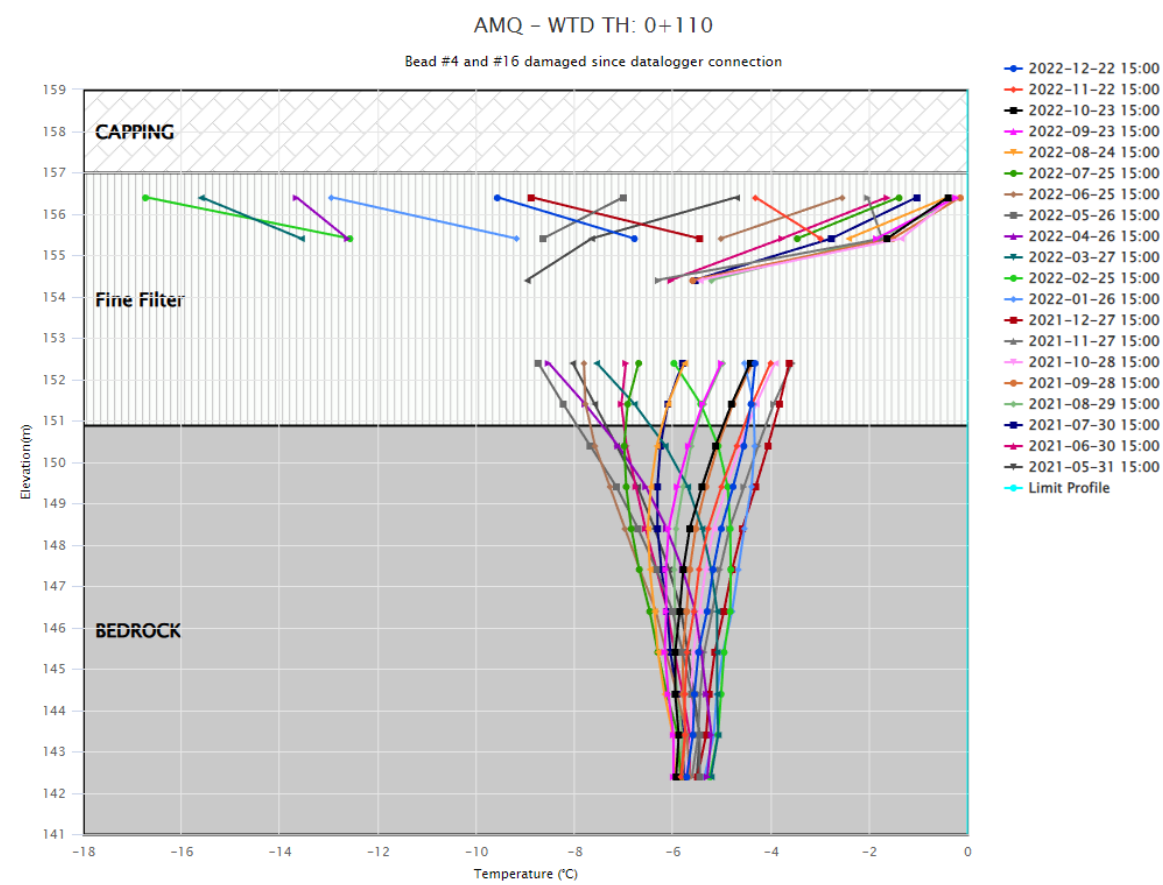
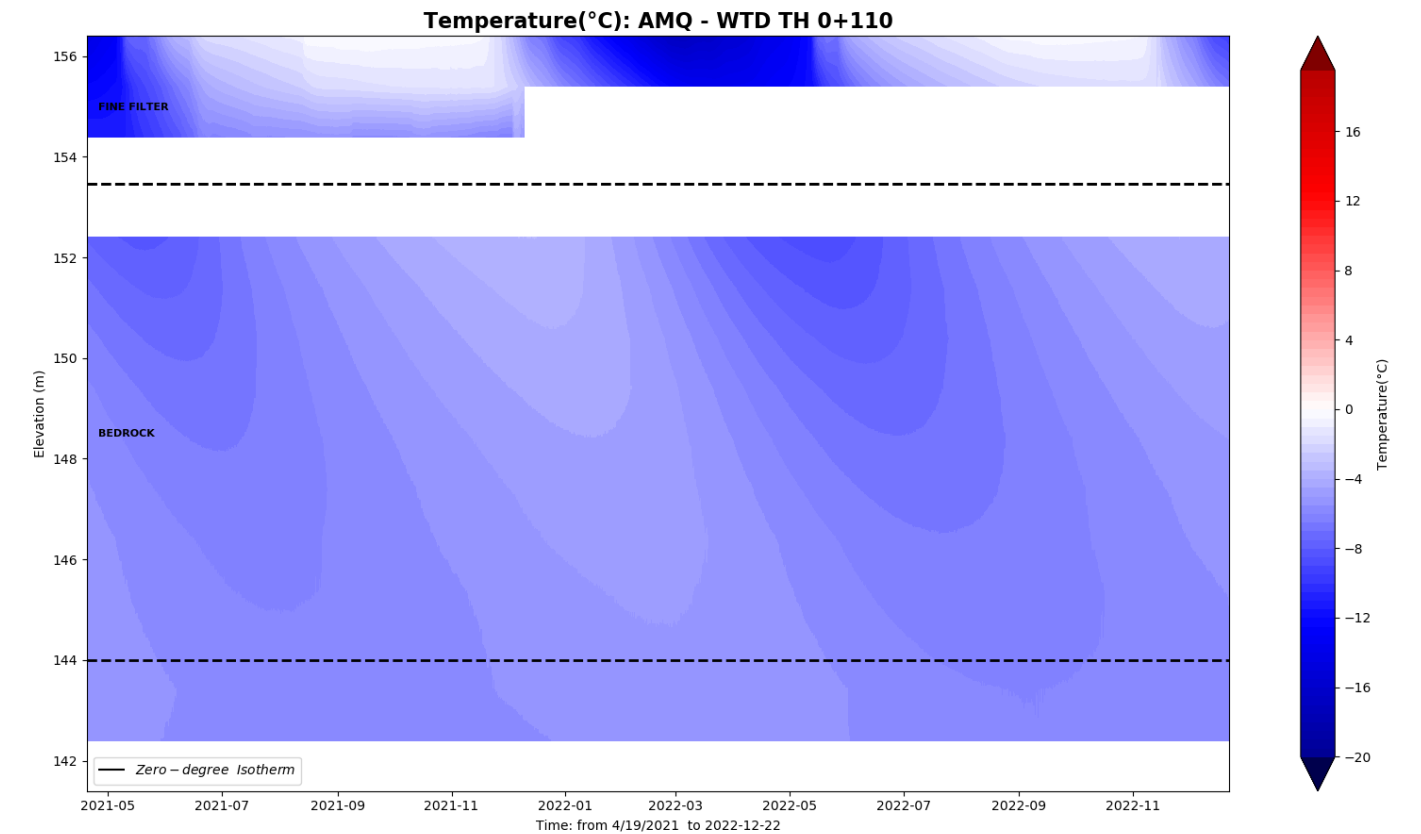
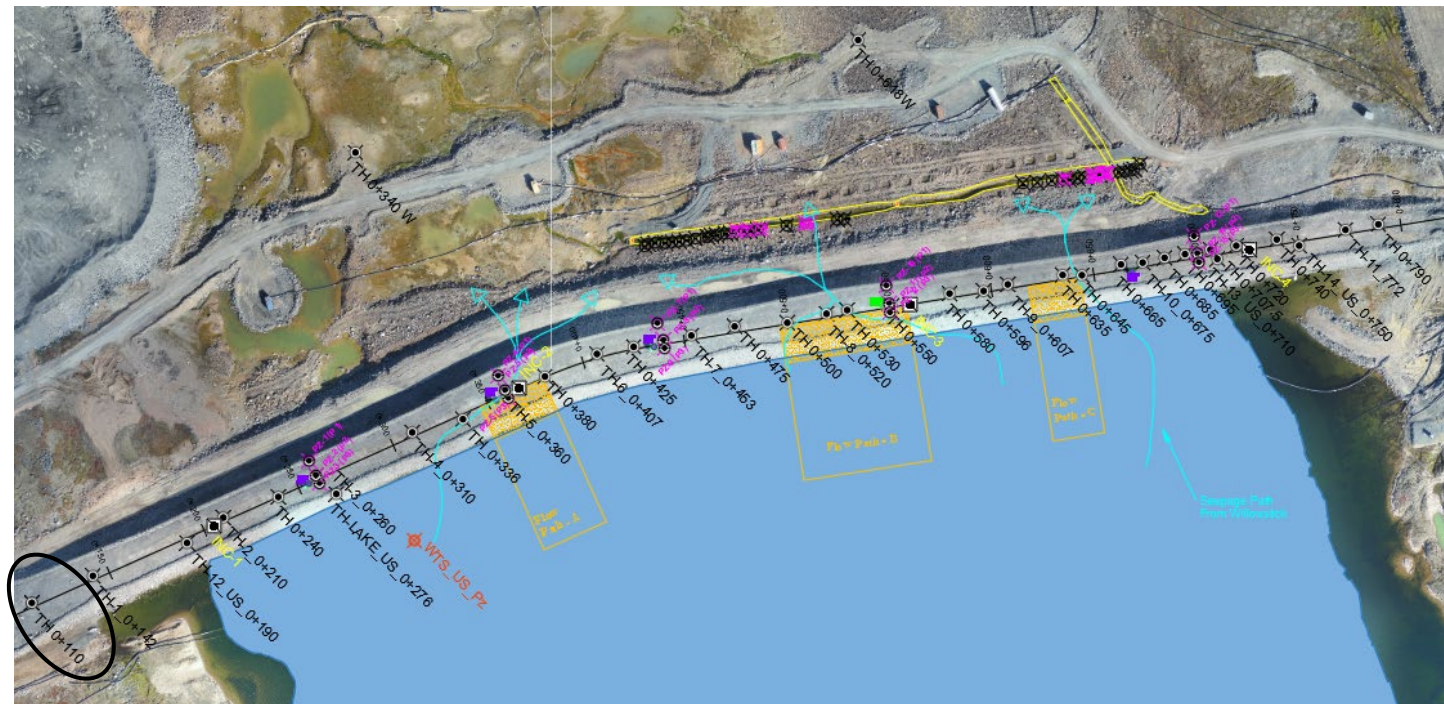
TABLE 1: Instruments Coordinates

Line #	Name	Area	Easting (X)	Northing (Y)	Elevation (Z)	Azimuth	Dip	Installed	Active (Y) or (N)
1	WTD 0+110	WTD	607090.500	7254625.000	156.40		-90	2020	Y (13/16) beads
2	WTD 0+142	WTD	607119.94	7254637.98	156.75		-90	2018	Y (10/13) beads
3	WTD 0+190 U/S	WTD	607165.34	7254653.83	157.42		-90	2018	Y (10/13) beads
4	WTD 0+210	WTD	607182.85	7254666.19	157		-90	2018	Y
5	WTD 0+240	WTD	607209.40	7254676.80	158.1		-90	2020	Y
6	WTD 0+260	WTD	607227.51	7254686.28	157		-90	2018	Y (11/13) beads
7	WTD 0+276 U/S	WTD	607237.2	7254677.3	157		-90	2018	Y
8	WTD 0+310	WTD	607237.98	7254707.09	157		-90	2018	Y
9	WTD 0+336 U/S	WTD	607298.44	7254713.45	157		-90	2018	Y
10	WTD 0+340 DS West	WTD	607246.597	7254841.993	149.6		-90	2020	Y
11	WTD 0+360	WTD	607318.81	7254727.15	157		-90	2018	Y (10/13) beads
12	WTD-0+380	WTD	607338.0	7254734.4	157.1		-90	2020	Y
13	WTD 0+407	WTD	607363.08	7254744.86	157		-90	2018	Y (11/13) beads
14	WTD-0+425	WTD	607380.8	7254380.8	158.5		-90	2020	Y
15	WTD 0+453	WTD	607408.60	7254753.72	157		-90	2018	Y (12/13) beads
16	WTD 0+475	WTD	607429.5	7254758.2	161		-90	2020	Y
17	WTD 0+500	WTD	607454.9	7254759.9	157.1		-90	2020	Y
18	WTD 0+520	WTD	607473.78	7254764.22	157		-90	2018	Y (12/13) beads
19	WTD 0+530	WTD	607483.77	7254766.00	159		-90	2020	Y
20	WTD 0+550	WTD	607505.20	7254768.00	157.9		-90	2020	Y
21	WTD 0+580	WTD	607533.163	7254773.95	158		-90	2020	Y
22	WTD 0+596	WTD	607549.60	7254775.20	157.8		-90	2020	Y
23	WTD 0+607	WTD	607561.24	7254778.35	157		-90	2018	Y (9/13) beads
24	WTD 0+618 DS East	WTD	607548.9	7254905.6	152.1		-90	2020	Y (9/16) beads
25	WTD 0+635	WTD	607587.7	7254782.9	158.3		-90	2020	Y
26	WTD 0+645	WTD	607597.30	7254782.8	158.6		-90	2020	Y
27	WTD 0+665	WTD	607617.0	7254788.0	158.3		-90	2020	Y
28	WTD 0+675	WTD	607262.31	7254788.86	157		-90	2018	Y
29	WTD 0+685	WTD	607636.9	7254791.2	160.5		-90	2020	Y
30	WTD 0+695	WTD	607646.7	7254792.9	157.5		-90	2020	Y
31	WTD 0+707.5	WTD	607659.0	7254795.1	158		-90	2020	Y
32	WTD 0+710 U/S	WTD	607662.32	7254790.63	157		-90	2018	Y (15/16) beads
33	WTD 0+720	WTD	607671.5	7254797.1	160		-90	2020	Y
34	WTD 0+740	WTD	607691.0	7254800.0	160		-90	2020	Y
35	WTD 0+750	WTD	607701.81	7254797.04	157		-90	2018	Y (15/16) beads
36	WTD 0+772 U/S	WTD	607724.15	7254804.63	157		-90	2018	Y (3/13) beads
37	WTD 0+790	WTD	607740.0	7254807.3	157.2		-90	2020	Y (14/16) beads

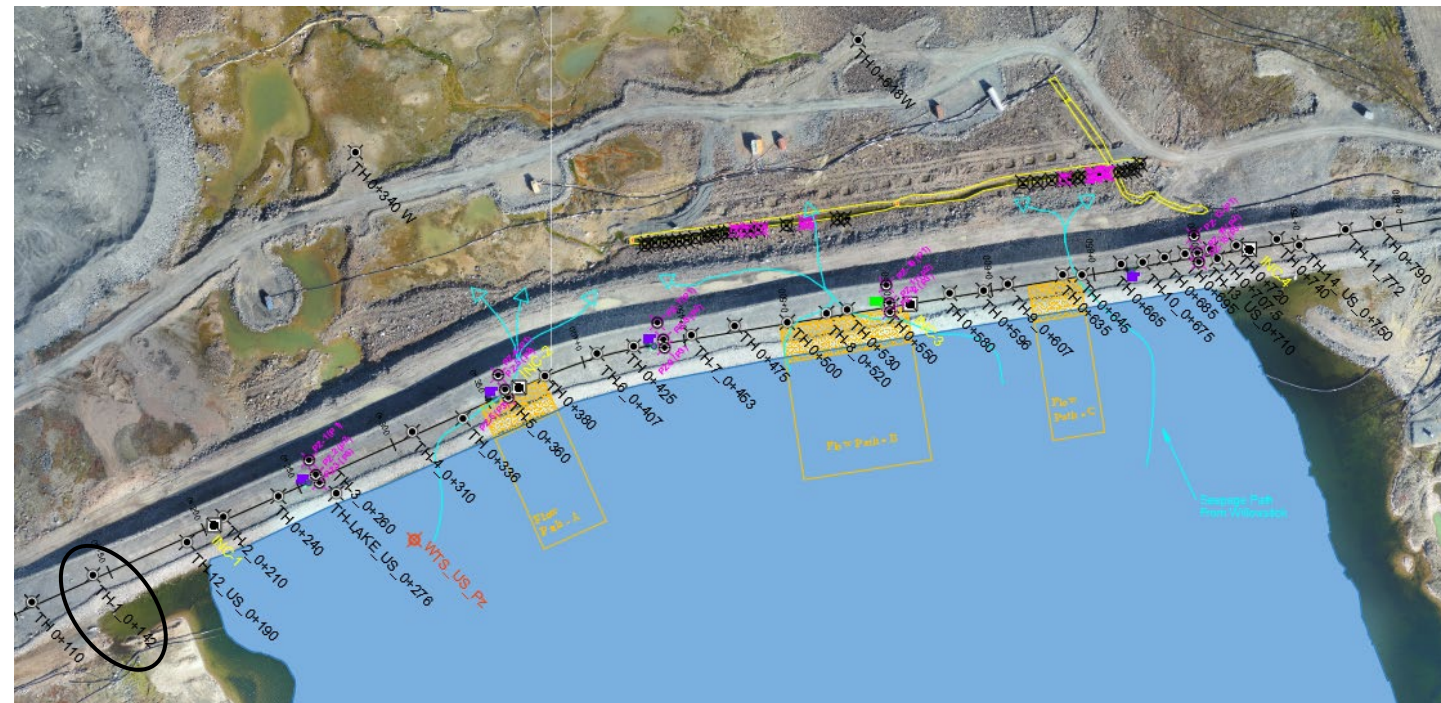
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38	WT WRSF TH01	WRSF	615797.25	7238129.77	161.546		-90	2019	Y
39	WT WRSF TH02	WRSF	615861.49	7238133.24	162.053		-90	2019	N (since 2020)
40	WT WRSF TH03	WRSF	615814.31 to 615799.6	7238118.6 to 7238117	162.744 to 162.042		0	2019	Y (9/16) beads)
41	WT WRSF TH04	WRSF	615813.38 to 615797.7	7238134.1to 7238132.8	162.138 to 161.619		0	2019	Y (8/16) beads)
42	WT WRSF TH05	WRSF	615860.9 to 615800.3	71238133.3 to 7238126	162.202		0	2019	Y (9/16) beads)
43	WT WRSF TH06	WRSF	-	-	-		-	2021	NOT INSTALLED
44	WT WRSF TH07	WRSF	14041.823/822.075(AMQ)	14051.510/8232.486(AMQ)	199.6		0	2021	Y
45	WT WRSF TH08	WRSF	14029.392/14039.081(AMQ)	8227.543/8238.974(AMQ)	199.7		0	2021	Y
46	WT WRSF TH09	WRSF	14035.675/14189.86(AMQ)	8224.663/8407.910 (AMQ)	200.2		0	2021	Y
47	WT WRSF TH10	WRSF	14259.183 (AMQ)	8479.248 (AMQ)	199.484-195.386		-37	2021	Y
48	WT WRSF TH11	WRSF	14259.183	8479.249	198.637-168.637		0	2021	Y
49	WT WRSF TH12	WRSF	14241.323/14231.698 (AMQ)	8481.427/8469.988 (AMQ)	200.2		0	2021	Y
50	WT WRSF TH13	WRSF	14521.240/14241.576 (AMQ)	8471.614/8460.159 (AMQ)	200.1		-90	2021	Y
51	WT WRSF TH14	WRSF	14245.84/14101.278	8476.032/8304.453	200.2		0	2021	Y
52	WT WRSF TH15	WRSF	14254.017/14248.950	8481.414/8477.225	200.2		-37	2021	Y
53	WT WRSF TH16	WRSF	14259.183	8479.248	167.637-152.637		-90	2021	Y
54	MD-TH01	MD	Slope	Slope	-		Slope	2019	Y
55	MD-TH02	MD	605926.19	7255102.52	154.9		-90	2019	Y
56	MD-TH03	MD	605926.74	7255102.6	154.9		-90	2019	Y
57	WRSFD TH01	WRSF Dike	Slope	Slope	-		Slope	2019	Y
58	WRSFD TH02	WRSF Dike	605416.44	7255526.7	159.07		-90	2019	Y
59	WRSFD TH03	WRSF Dike	605414.98	7255545.01	155.29		-90	2019	Y
60	WRSFD TH04	WRSF Dike	605387.14	7255524.47	158.15		-90	2019	Y
61	WRSFD TH05	WRSF Dike	605428.59	7255566.21	153.63		-90	2019	Y
62	WRSFD TH06	WRSF Dike	605435.56	7255544.29	155.35		-90	2019	Y
63	WRSFD TH07	WRSF Dike	605466.94	7255541.78	155.13		-90	2019	Y
64	WRSFD TH08	WRSF Dike	605384.991	7255544.818	159.886		-90	2019	Y (11/16) beads
65	WRSFD TH09	WRSF Dike	605425.1	7255546.038	160.037		-90	2019	Y
66	PSW DH2 TH	Pit South Wall	606998.837	7255127.783	149.02		-90	2020	N
67	PSW DH3 TH	Pit South Wall	607016.336	7255140.383	148.041		-90	2020	N
68	PSW DH6 TH	Pit South Wall	607058.391	7255184.293	148.181		-90	2020	N
69	PSW DH7 TH	Pit South Wall	607070.111	7255198.772	148.734		-90	2020	N
70	PSW DH10 TH	Pit South Wall	607142.218	7255272.101	150.109		-90	2020	N

<i>Line #</i>	<i>Name</i>	<i>Area</i>	<i>Easting (X)</i>	<i>Northing (Y)</i>	<i>Elevation (Z)</i>	<i>Azimuth</i>	<i>Dip</i>	<i>Installed</i>	<i>Active (Y) or (N)</i>
71	PSW DH11 TH	Pit South Wall	607155.955	7255287.46	151.241		-50	2020	N
72	PSW DH12 TH	Pit South Wall	607168.065	7255293.87	151.934		-50	2020	N
73	PSW DH13 TH	Pit South Wall	606980.7	7255276.8	145.398		-90	2020	N
74	PSW DH14 Th	Pit South Wall	606937.5	7255411.5	130.761		-90	2020	N
75	AMQ15-324	WT PIT	606496.8	7254995.2	161.79	323.41	-55.46	2015	N
76	AMQ17-1233	IVR	606778.0	7256254.0	162.0	252.71	-59.06	2017	N
77	AMQ17-1337	IVR	607078.0	7256522.0	x				
78	V651A	IVR	607624.208	7256122.348	10163.28		-69	2019	Y
79	BH-T2	IVR	607850.8	7255563.9	164.303		-90	2019	N
80	BH-4	IVR	608048	7255442	163.982		-90	2019	N
81	IVR D1 TH1	IVR D1	607909.036	7255508.205	164.486		Liner	2021	Y
82	IVR D1 TH2	IVR D1	607908.144	7255506.309	164.895		-90	2021	Y
83	IVR D1 TH3	IVR D1	607912.603	7255515.354	165.1		90	2021	Y
84	IVR D1 TH4	IVR D1	607906.637	7255503.624	165.76		90	2021	Y
85	IVR D1 TH5	IVR D1	607899.06	7255512.94	159.666		Key Trench	2021	Y
86	IVR D1 TH6	IVR D1	607923.8	7255480.4	162.08		90	2021	Y
87	IVR D1 TH7	IVR D1	607930.032	7255525.355	162.12		90	2021	Y

WTD-TH 0+110

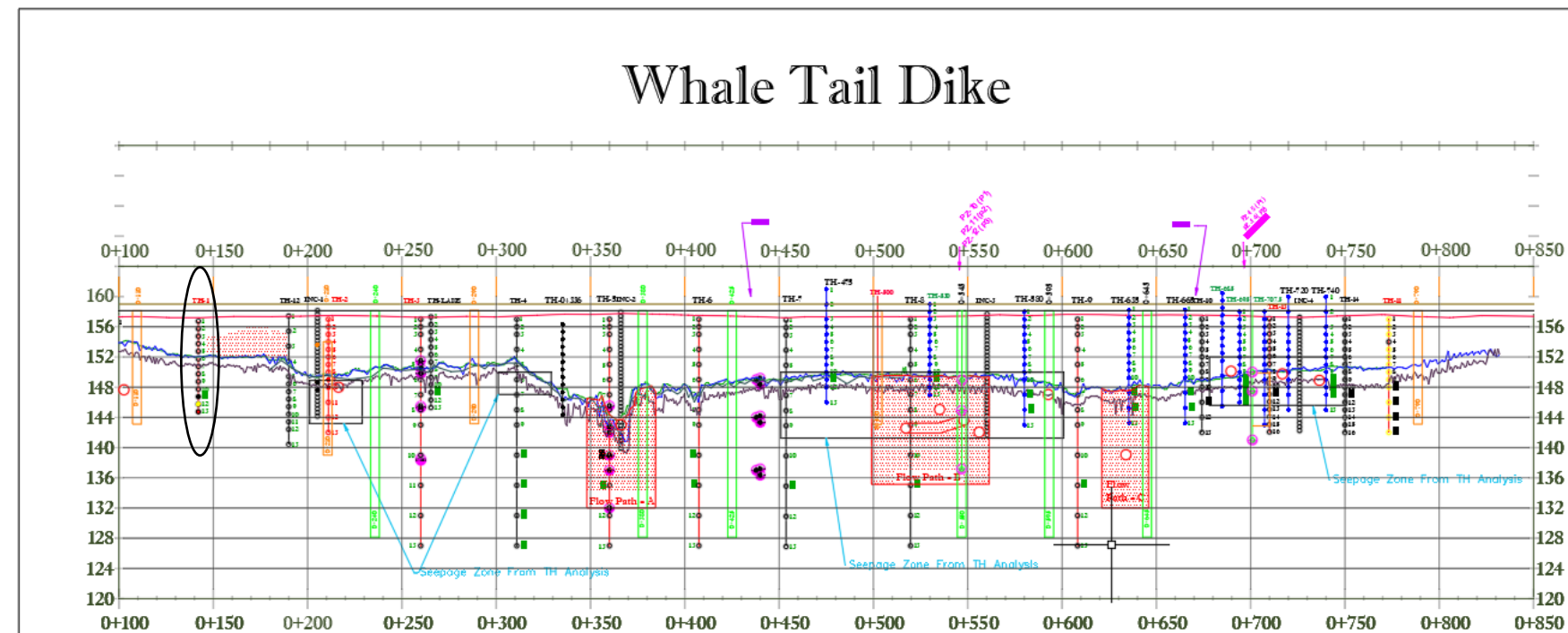
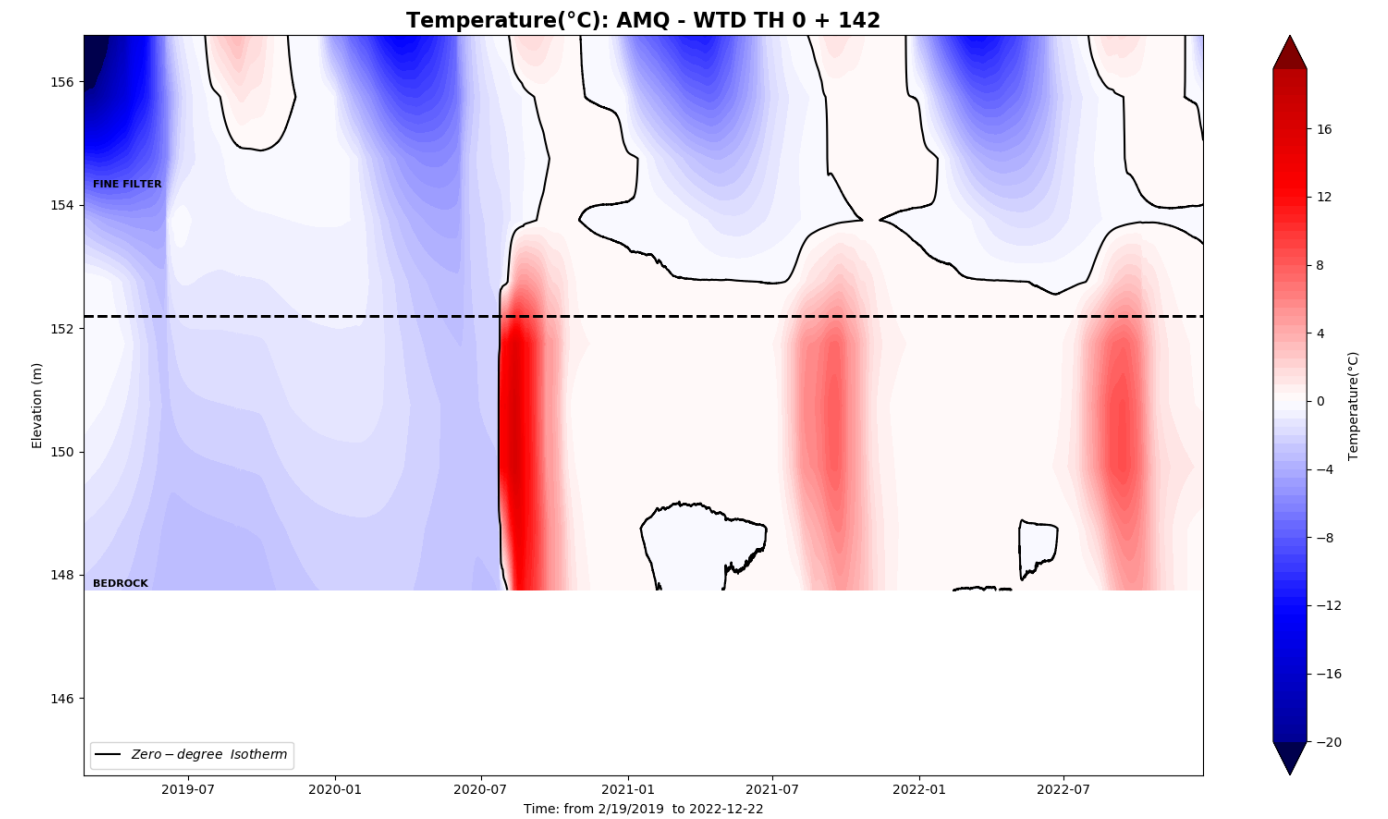
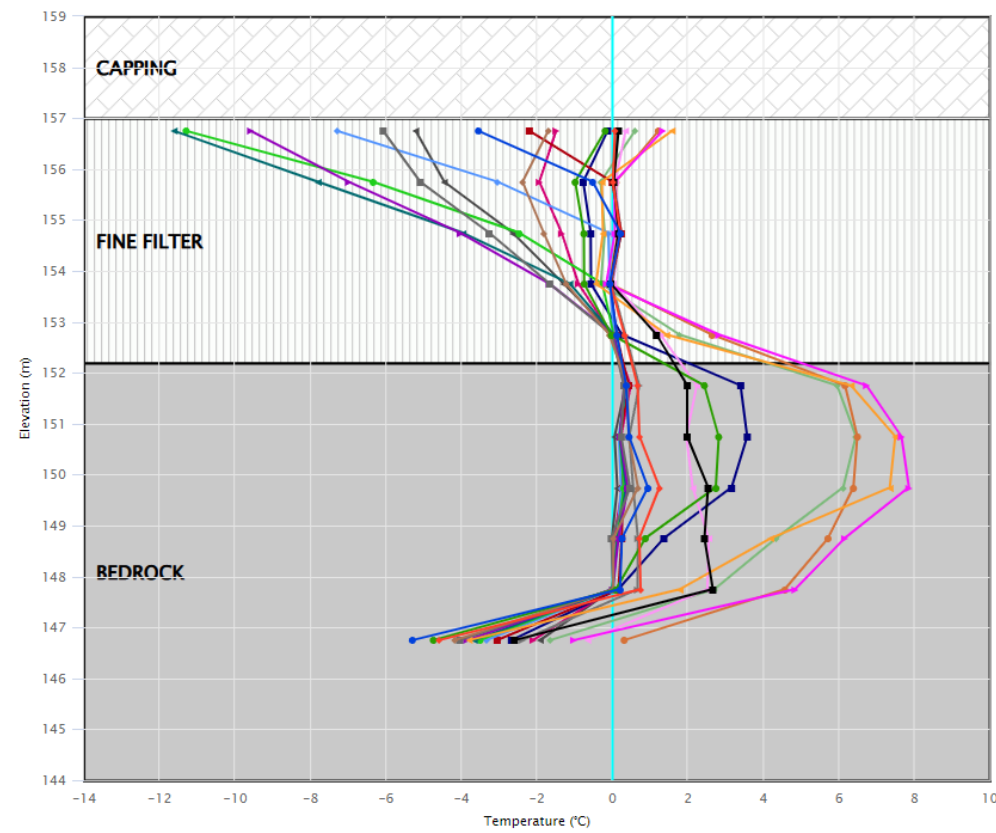


WTD-TH 0+142

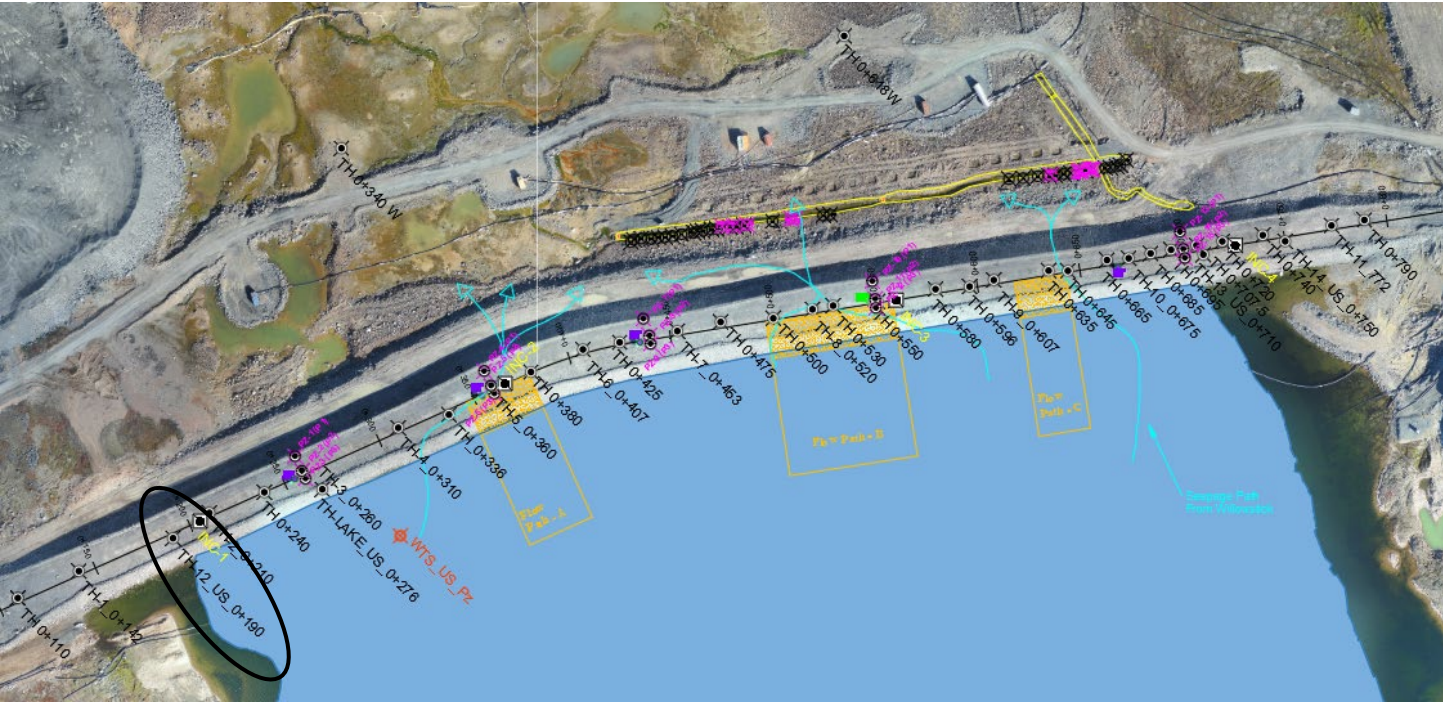


AMQ - WTD TH: 0+142

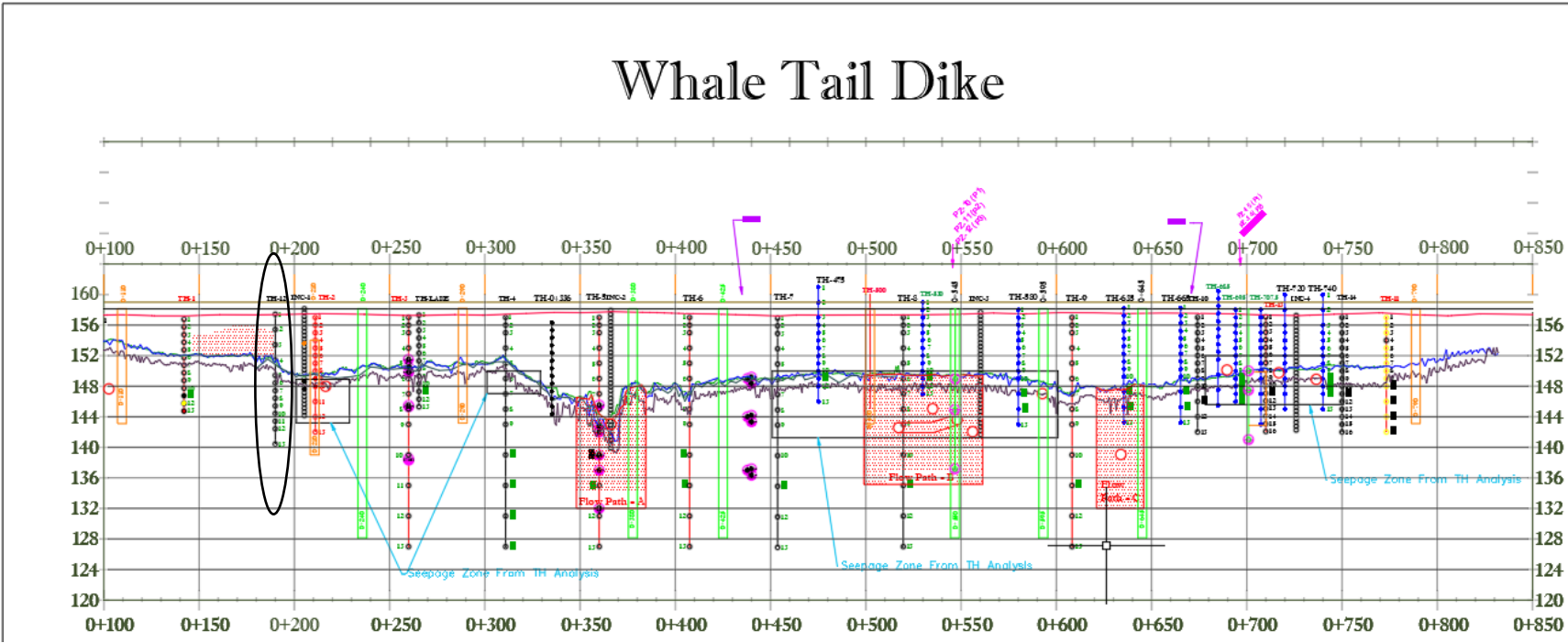
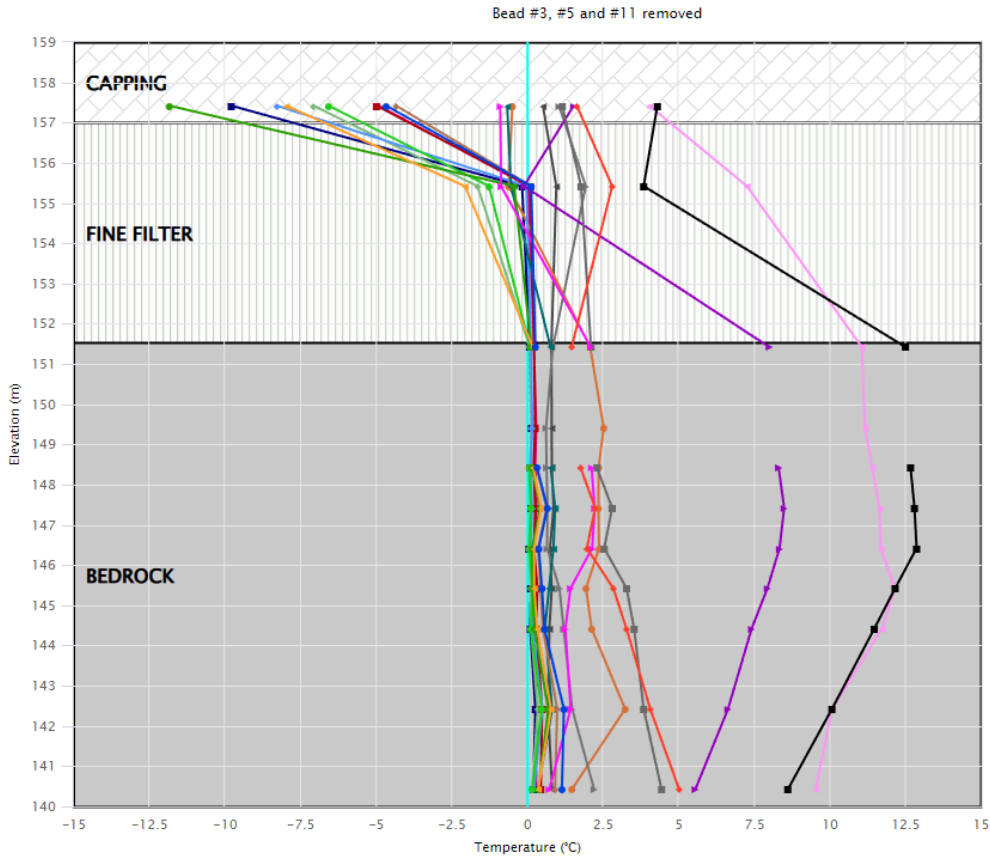
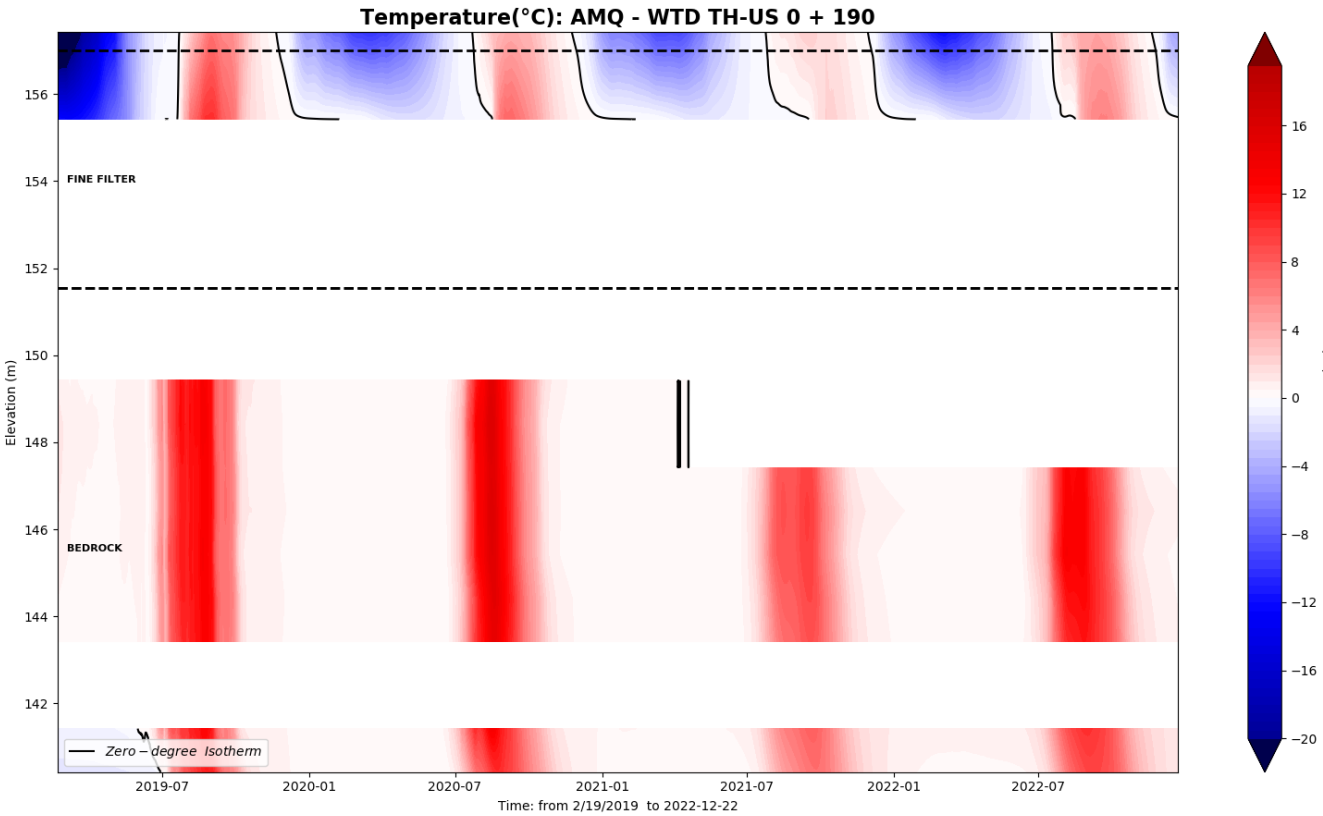
Bead #12 and #13 removed



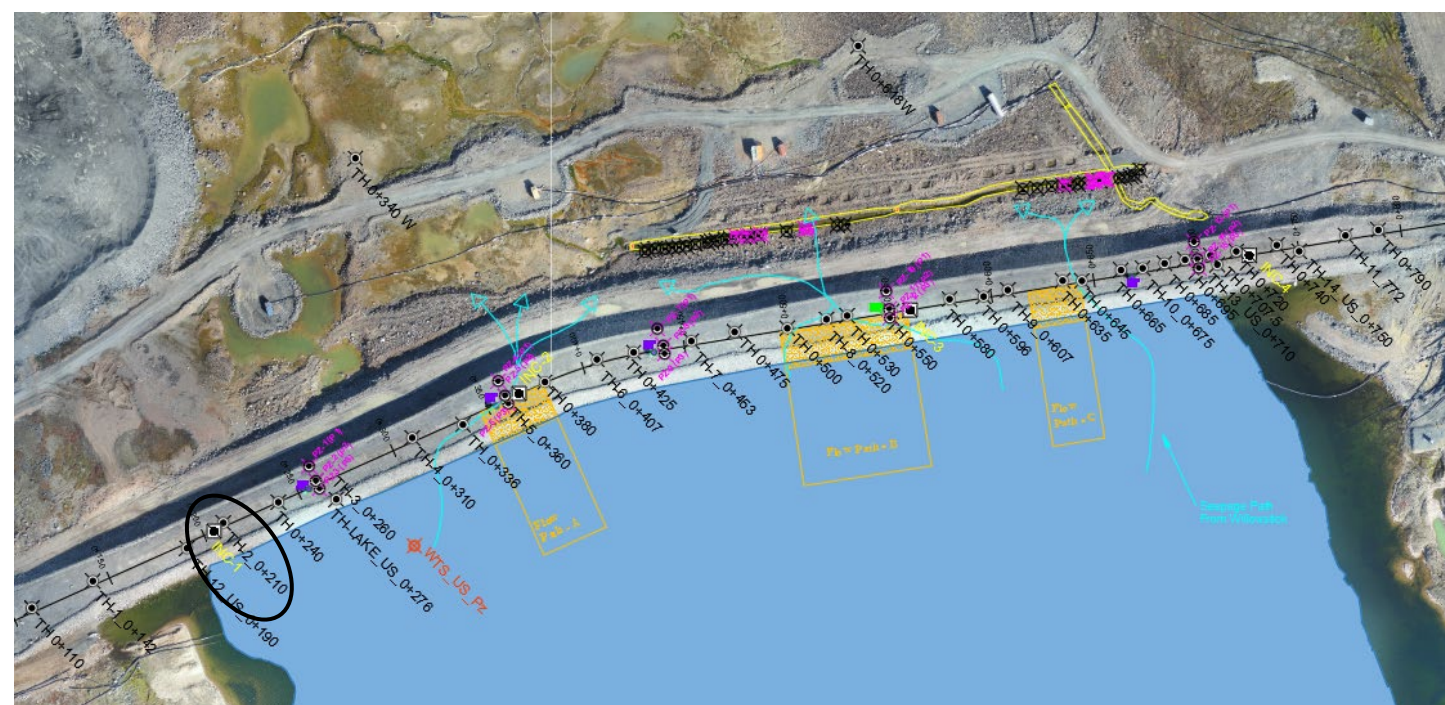
WTD-TH 0+190 U/S



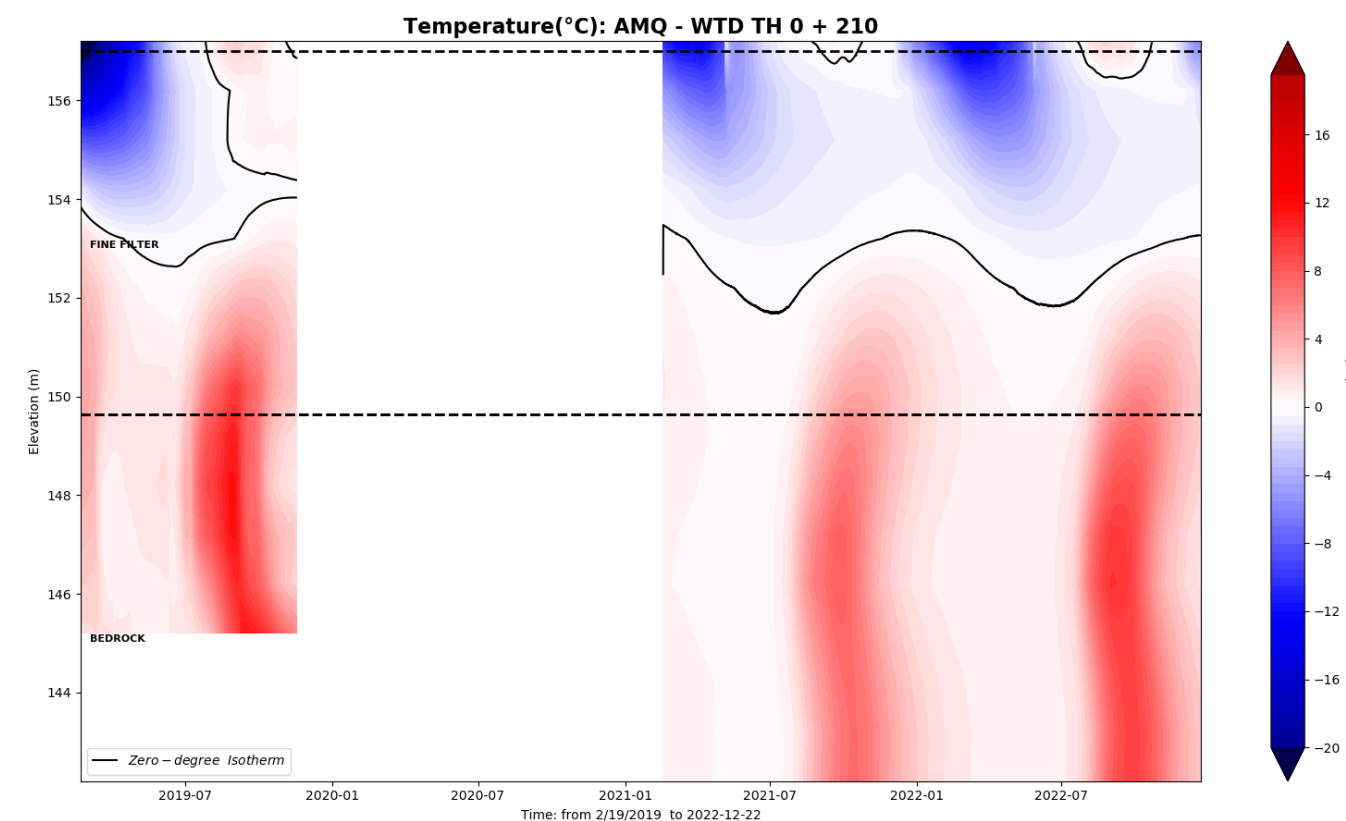
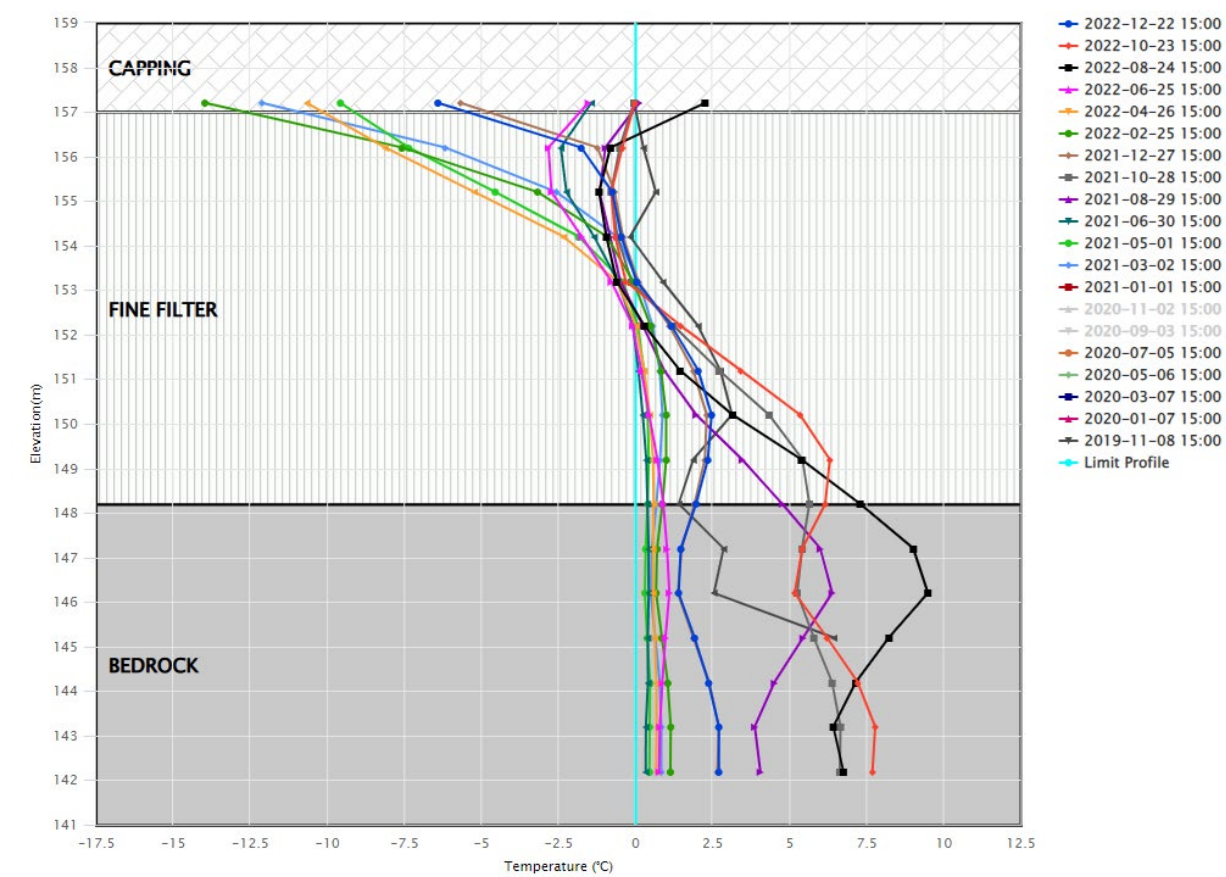
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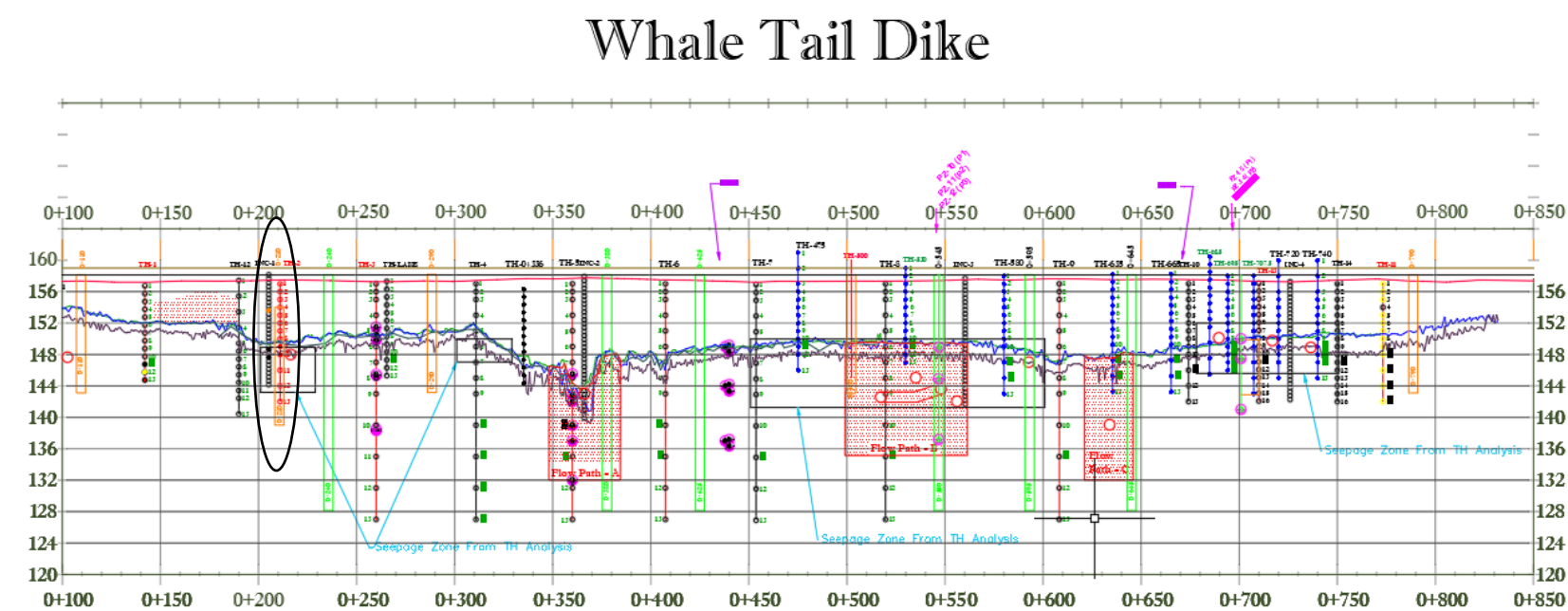
WTD-TH 0+210



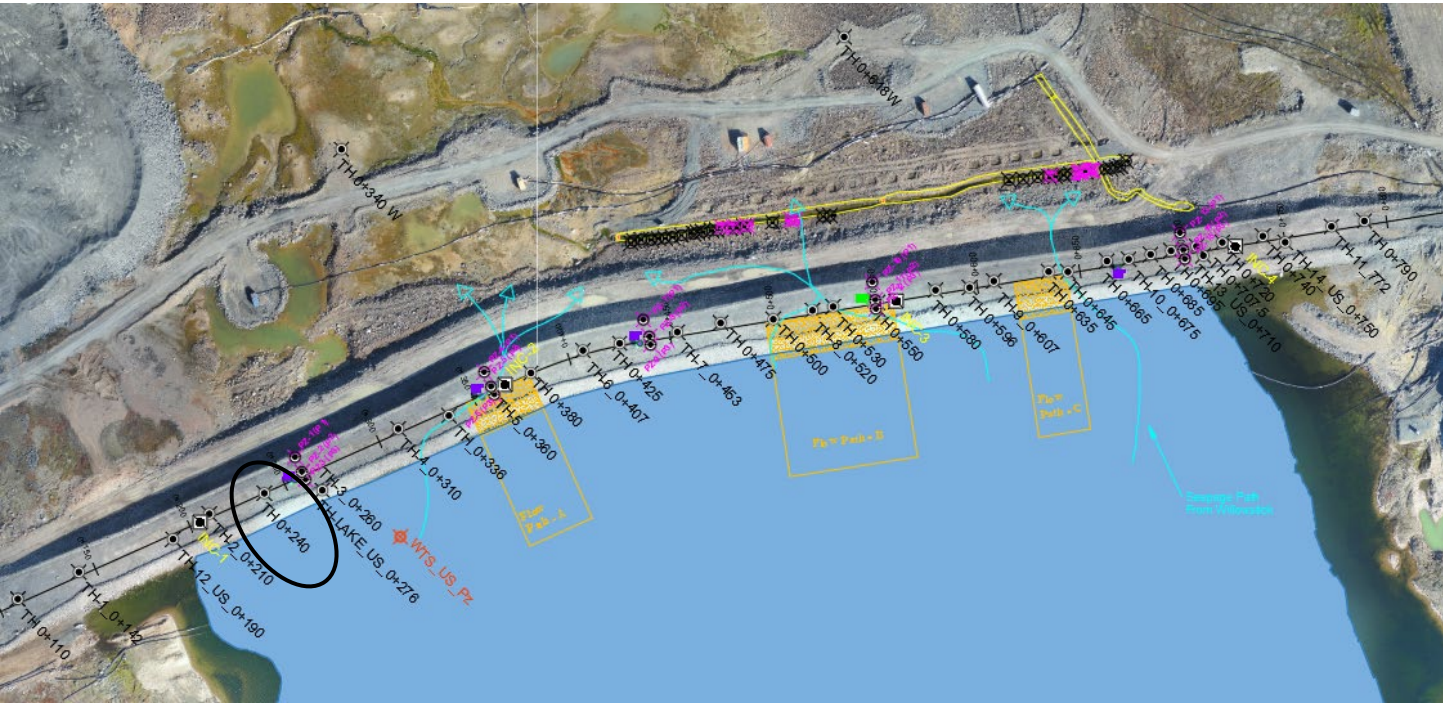
AMQ - WTD TH: 0+210_R



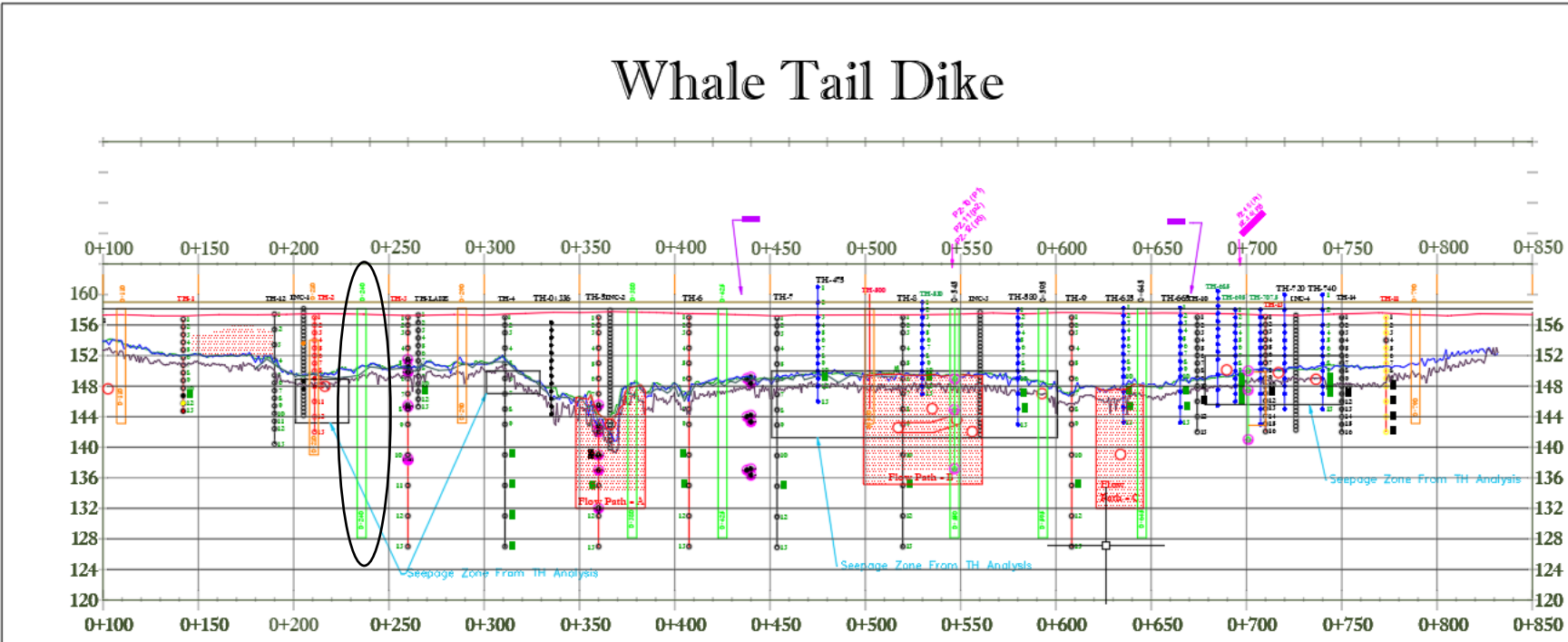
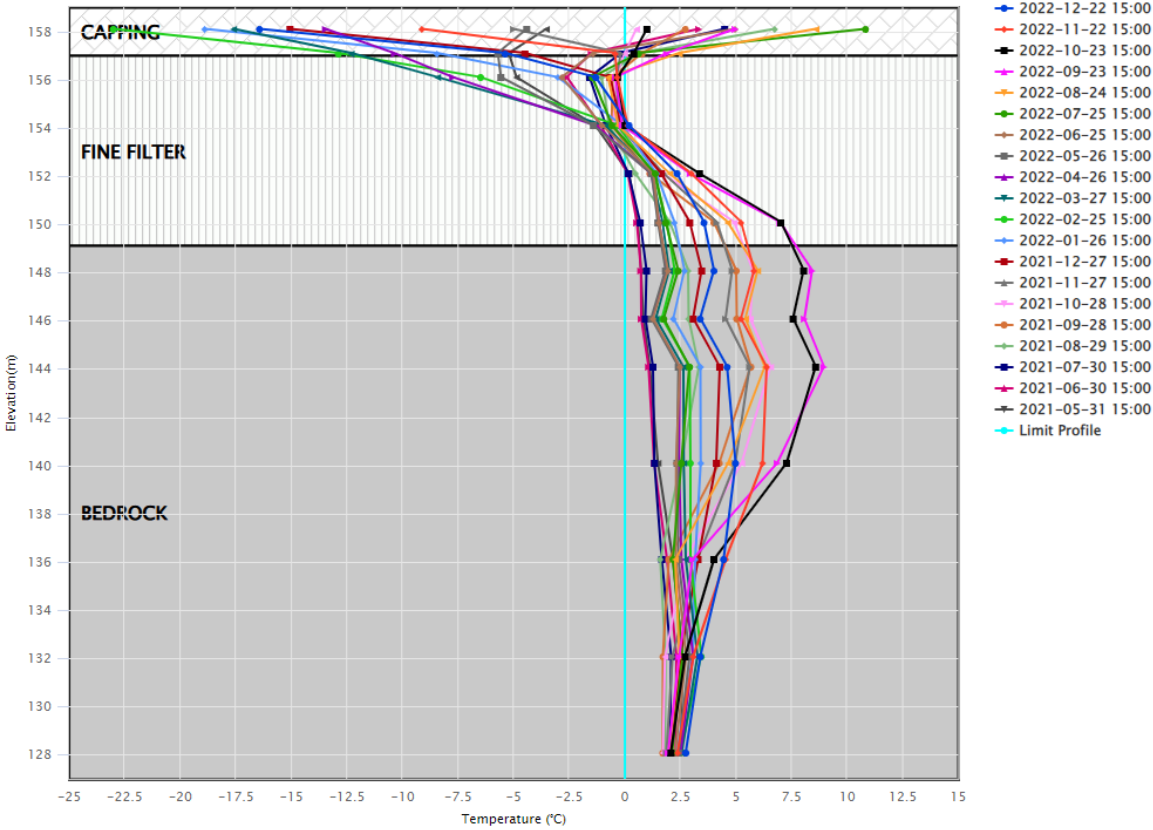
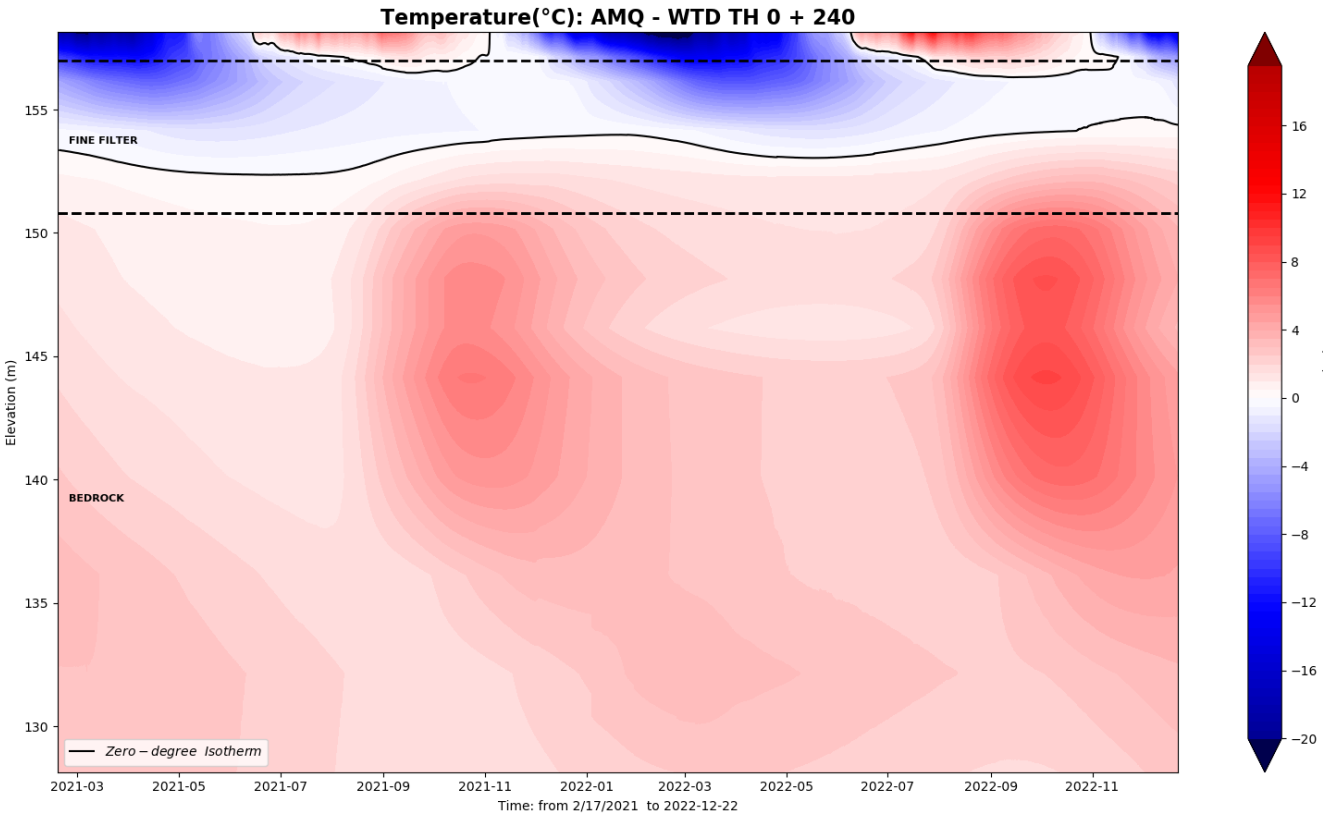
Thermistor string damaged by drilling. No dataset between Oct 2019 and February 2021. TH replaced



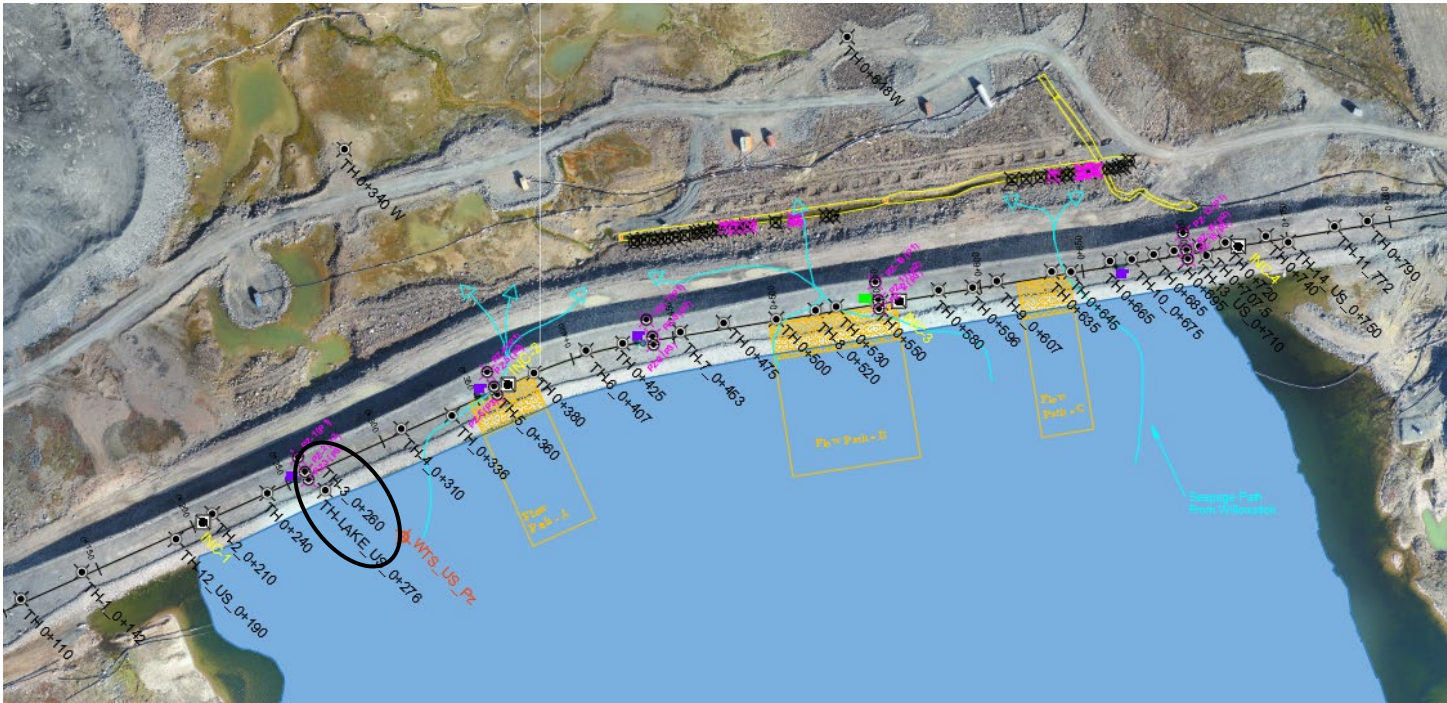
WTD-TH 0+240



AMQ - WTD TH: 0+240

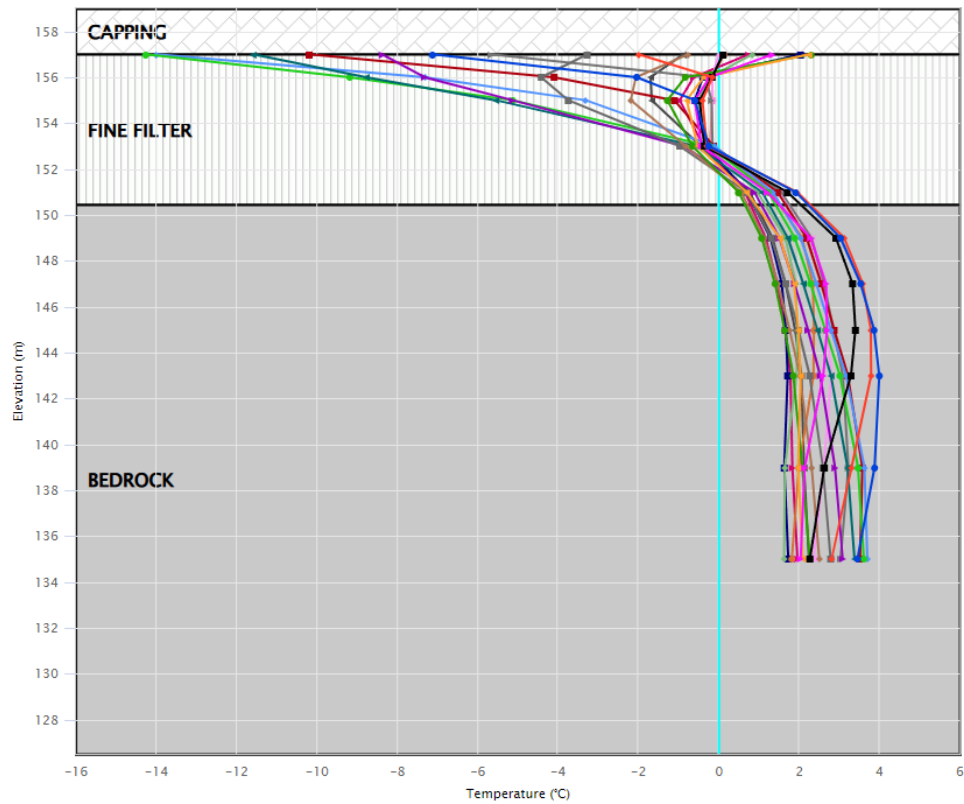


WTD-TH 0+260

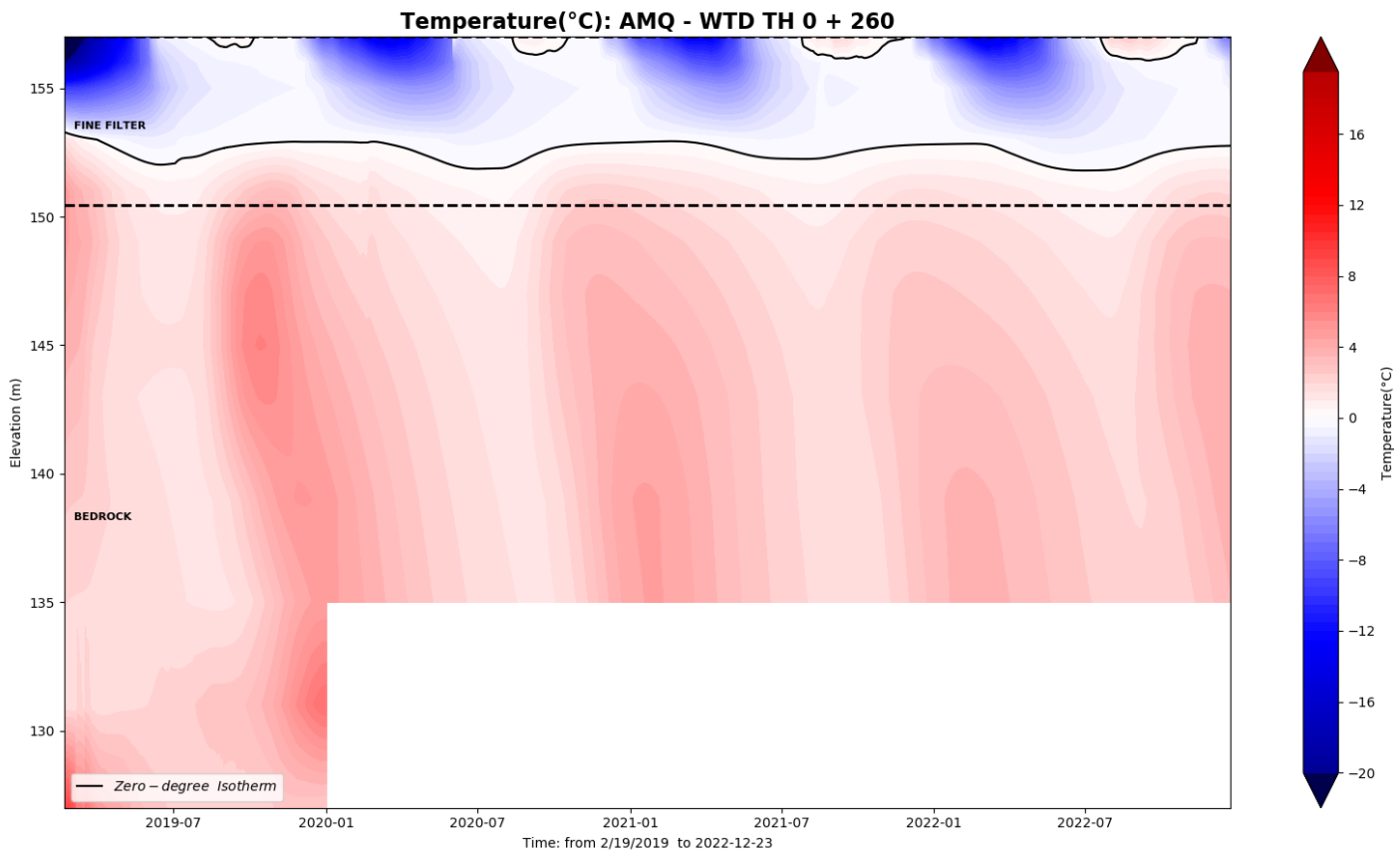


AMQ - WTD TH: 0+260

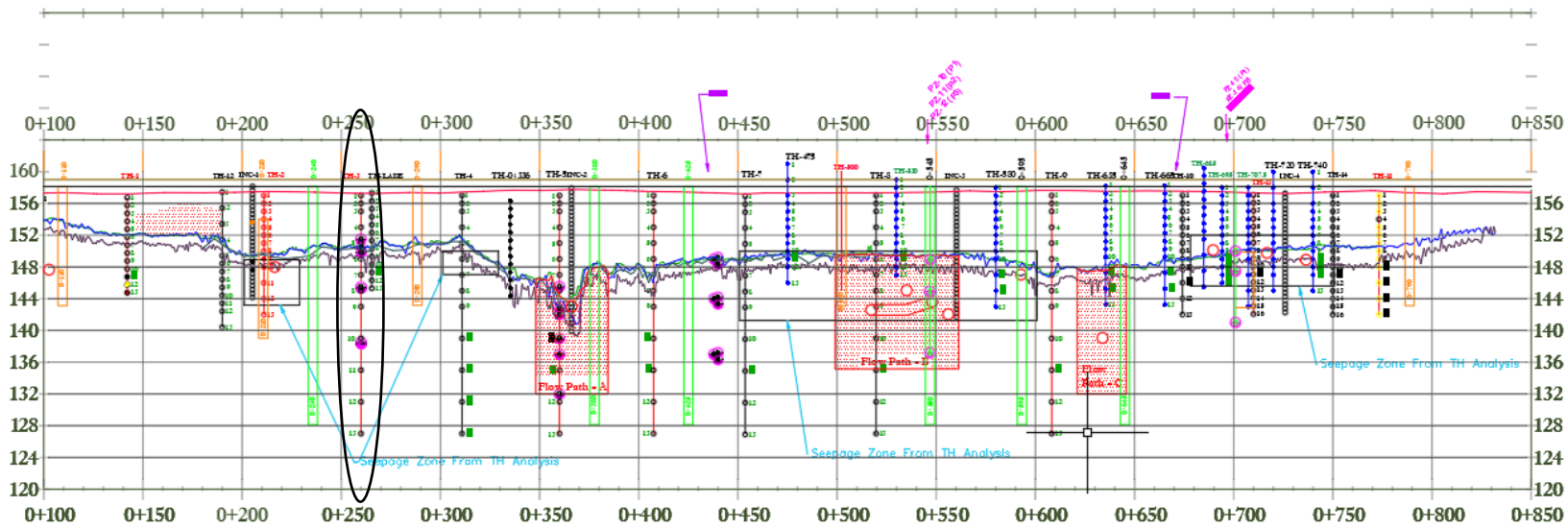
Bead #12 and #13 removed



- 2022-12-23 09:00
- 2022-11-25 09:00
- 2022-10-28 09:00
- 2022-09-30 09:00
- 2022-09-02 09:00
- 2022-08-05 09:00
- 2022-07-08 09:00
- 2022-06-10 09:00
- 2022-05-13 09:00
- 2022-04-15 09:00
- 2022-03-18 09:00
- 2022-02-18 09:00
- 2022-01-21 09:00
- 2021-12-24 09:00
- 2021-11-26 09:00
- 2021-10-29 09:00
- 2021-10-01 09:00
- 2021-09-03 09:00
- 2021-08-06 09:00
- 2021-07-09 09:00
- Limit Profile



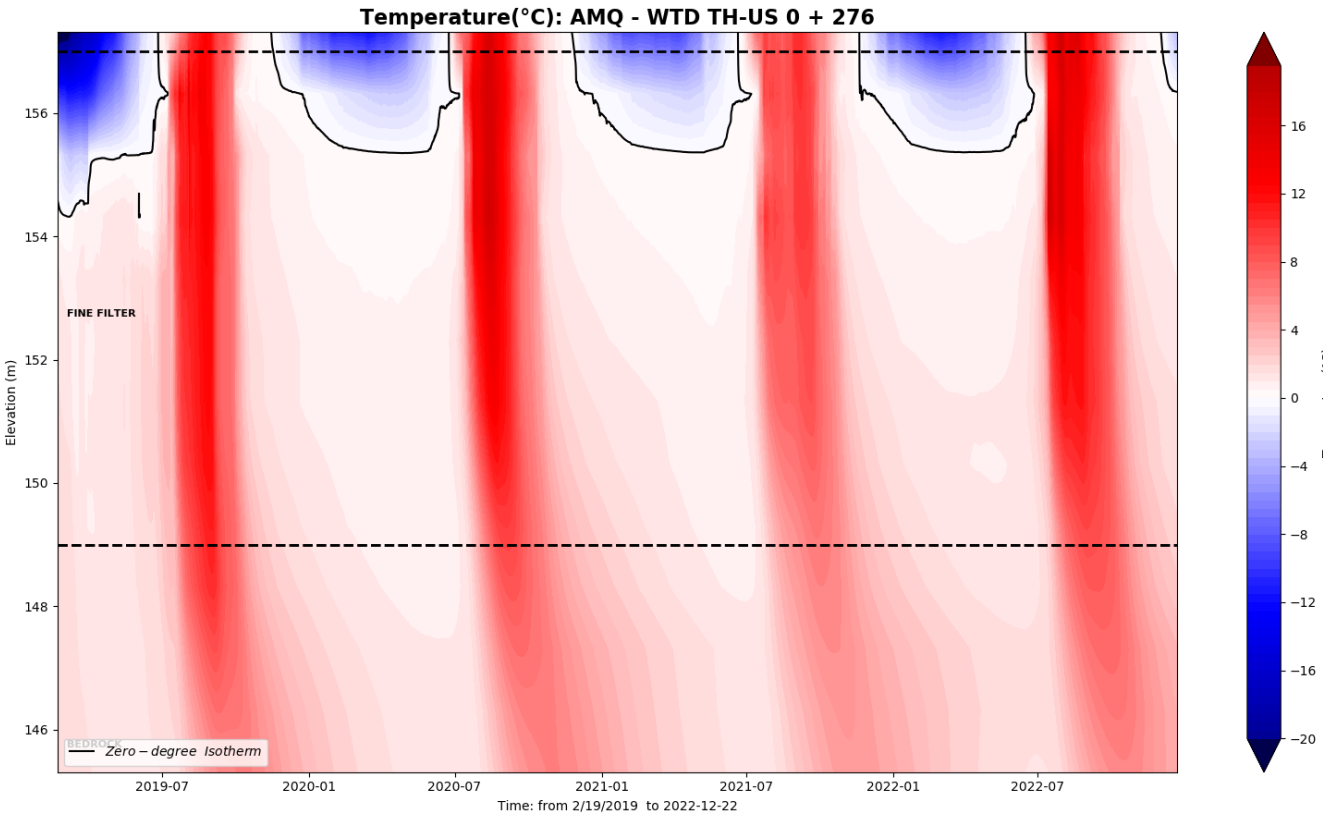
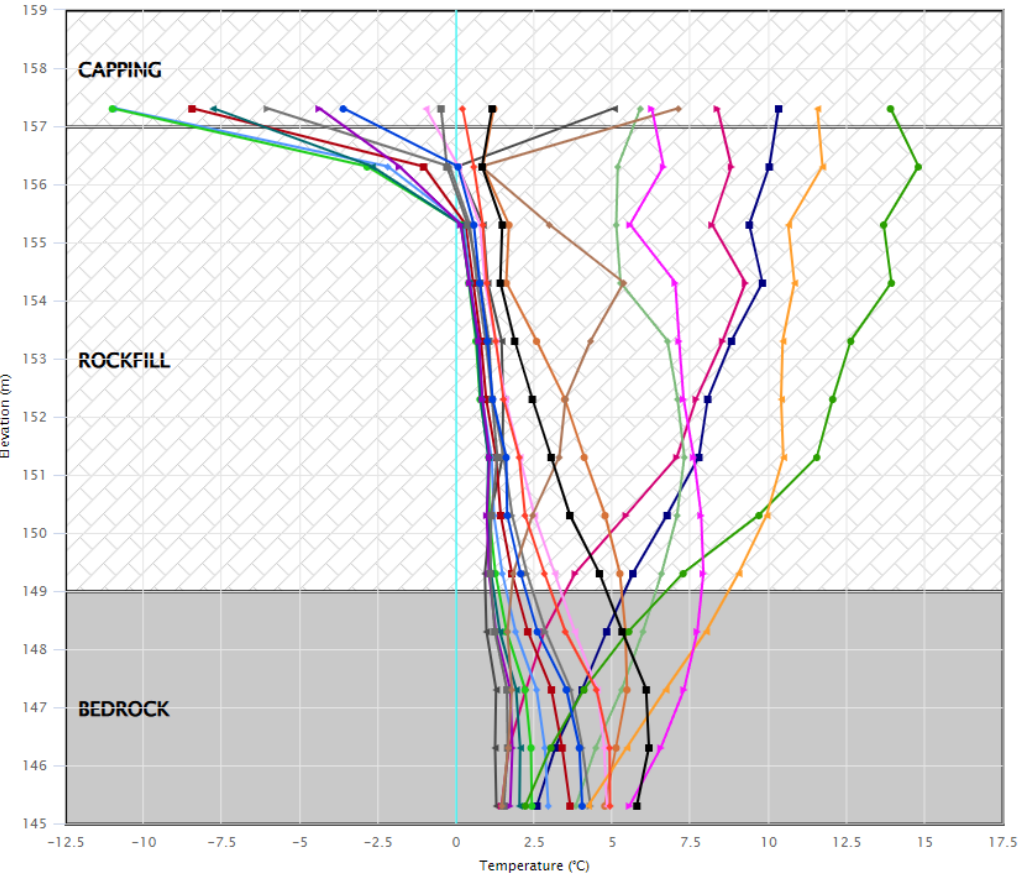
Whale Tail Dike



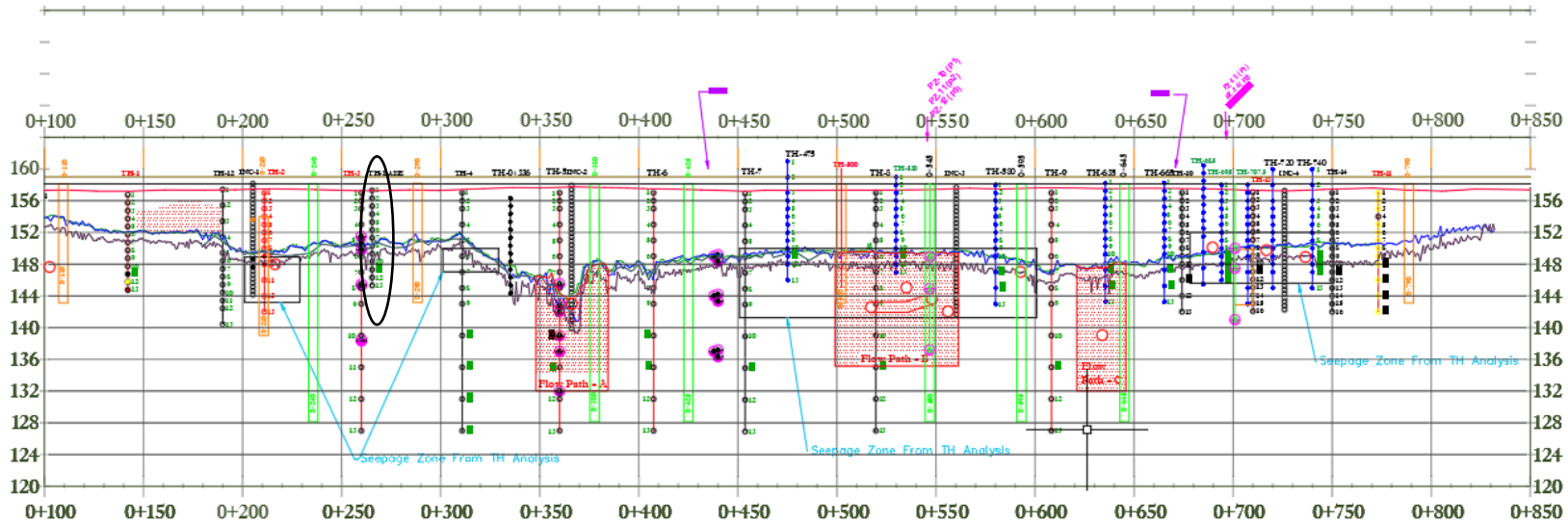
WTD-TH 0+276 U/S



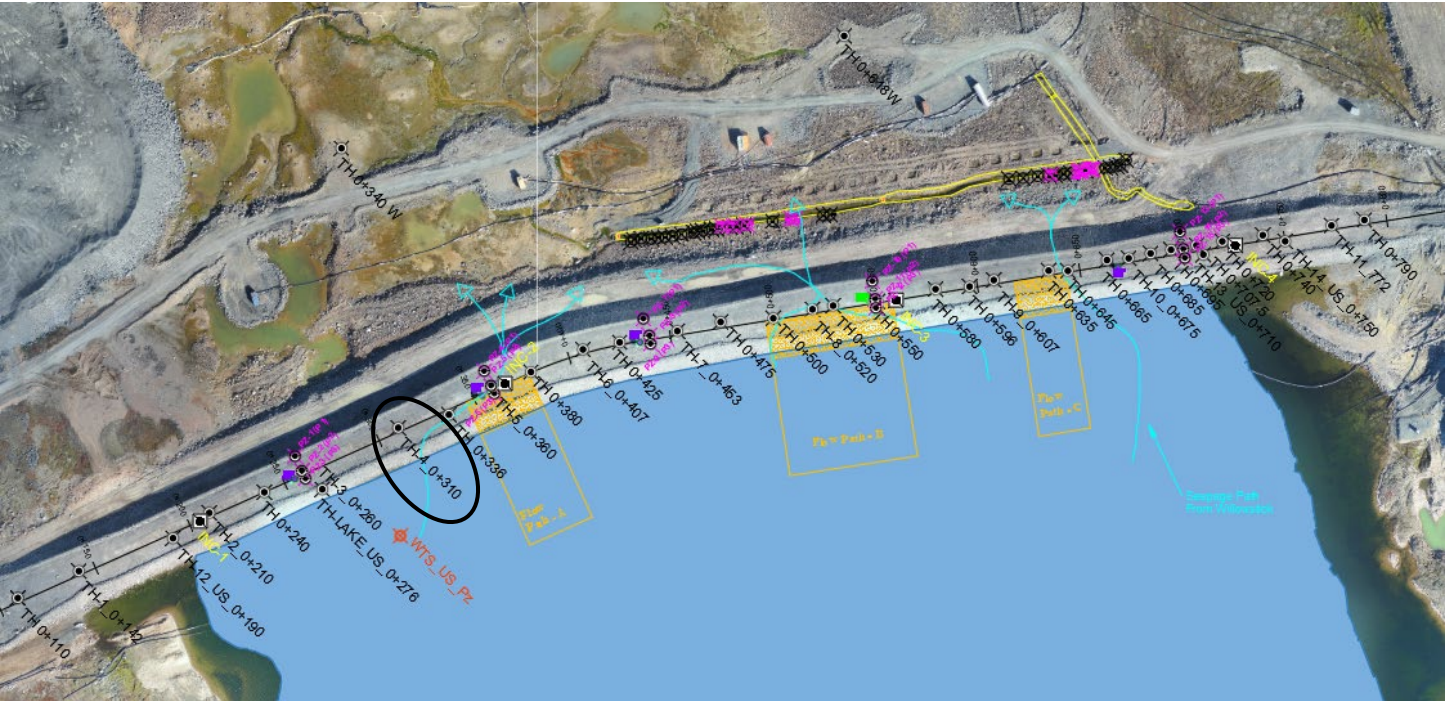
AMQ - WTD TH_US: 0+276



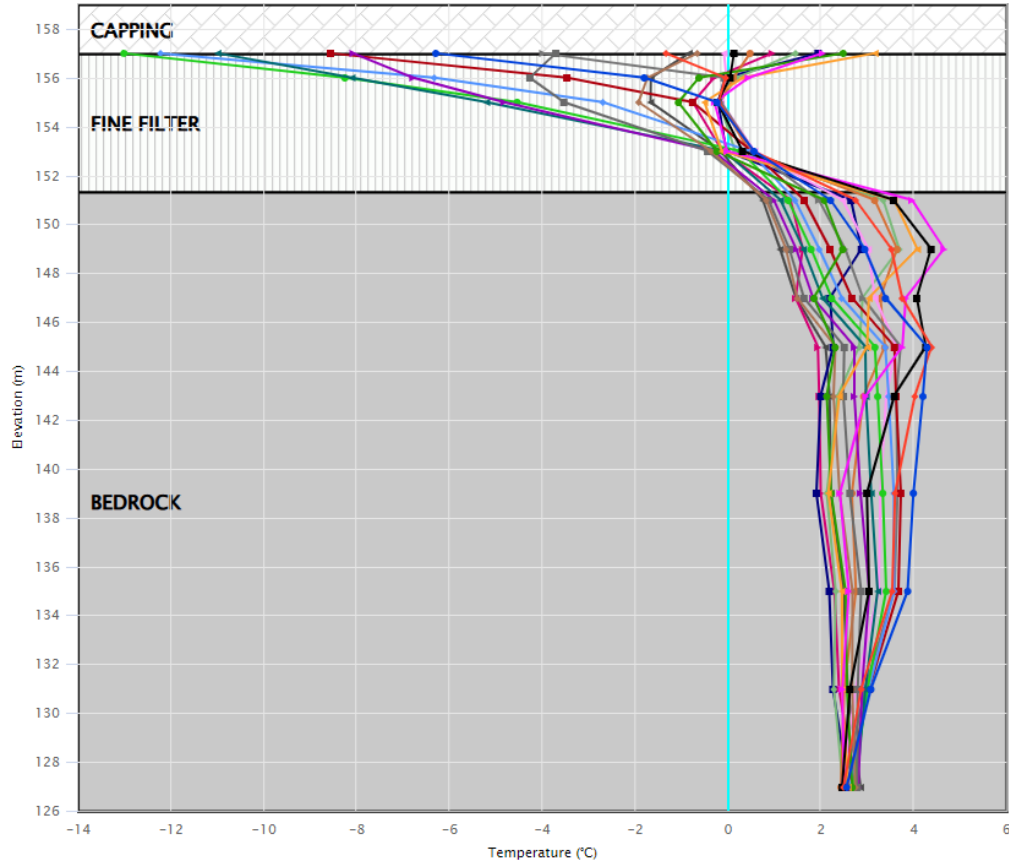
Whale Tail Dike



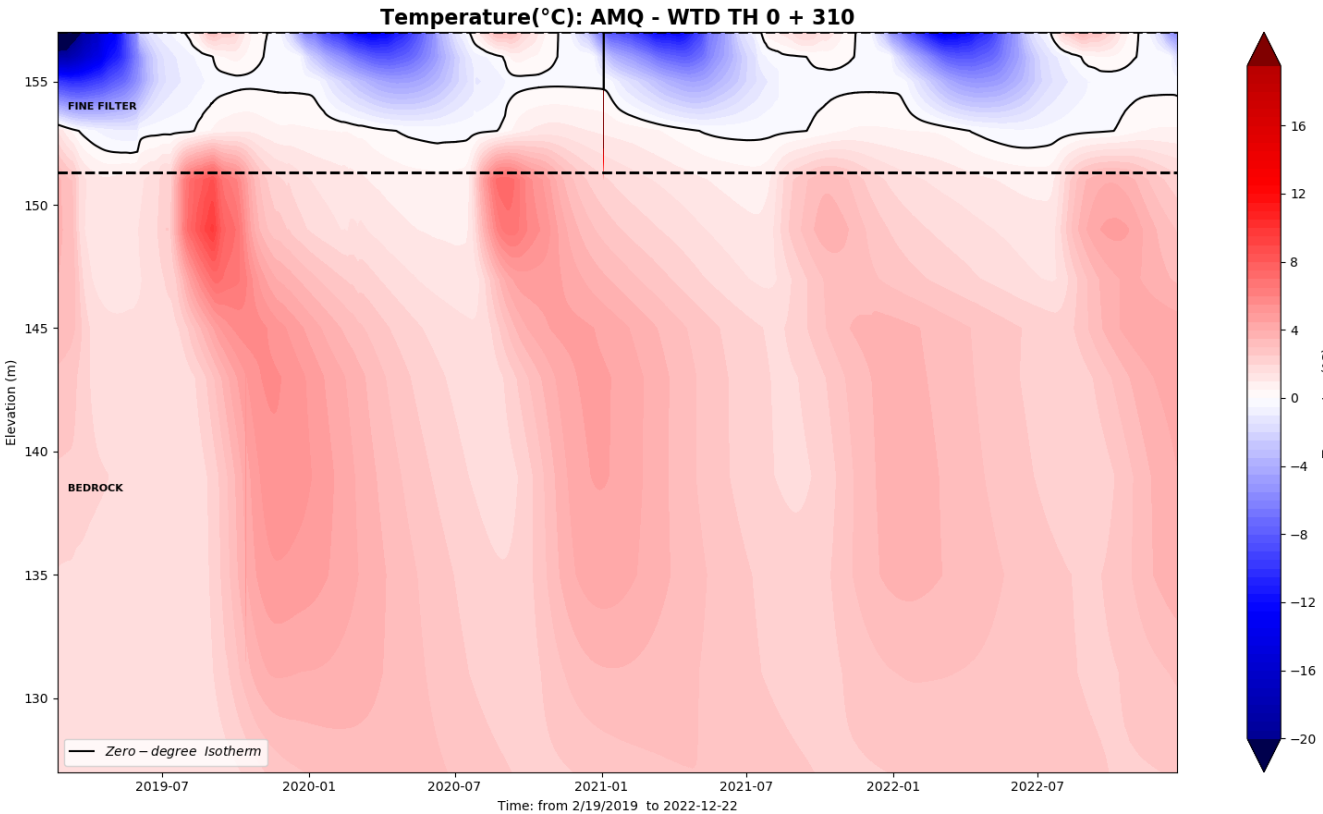
WTD-TH 0+310



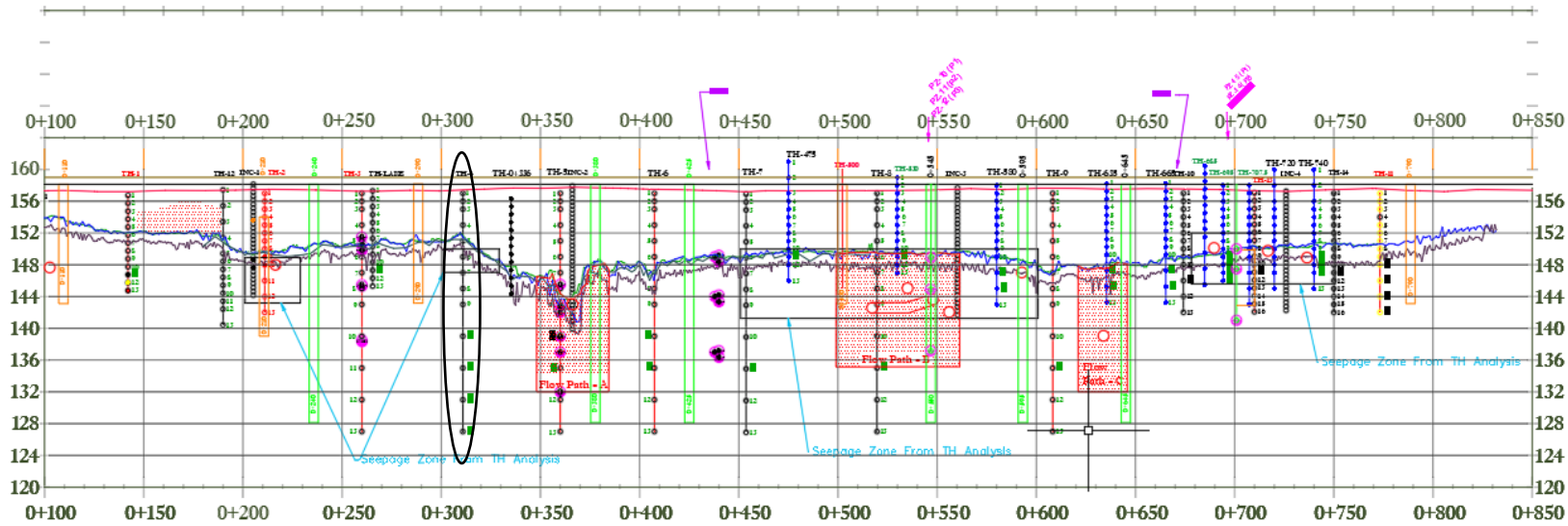
AMQ - WTD TH: 0+310



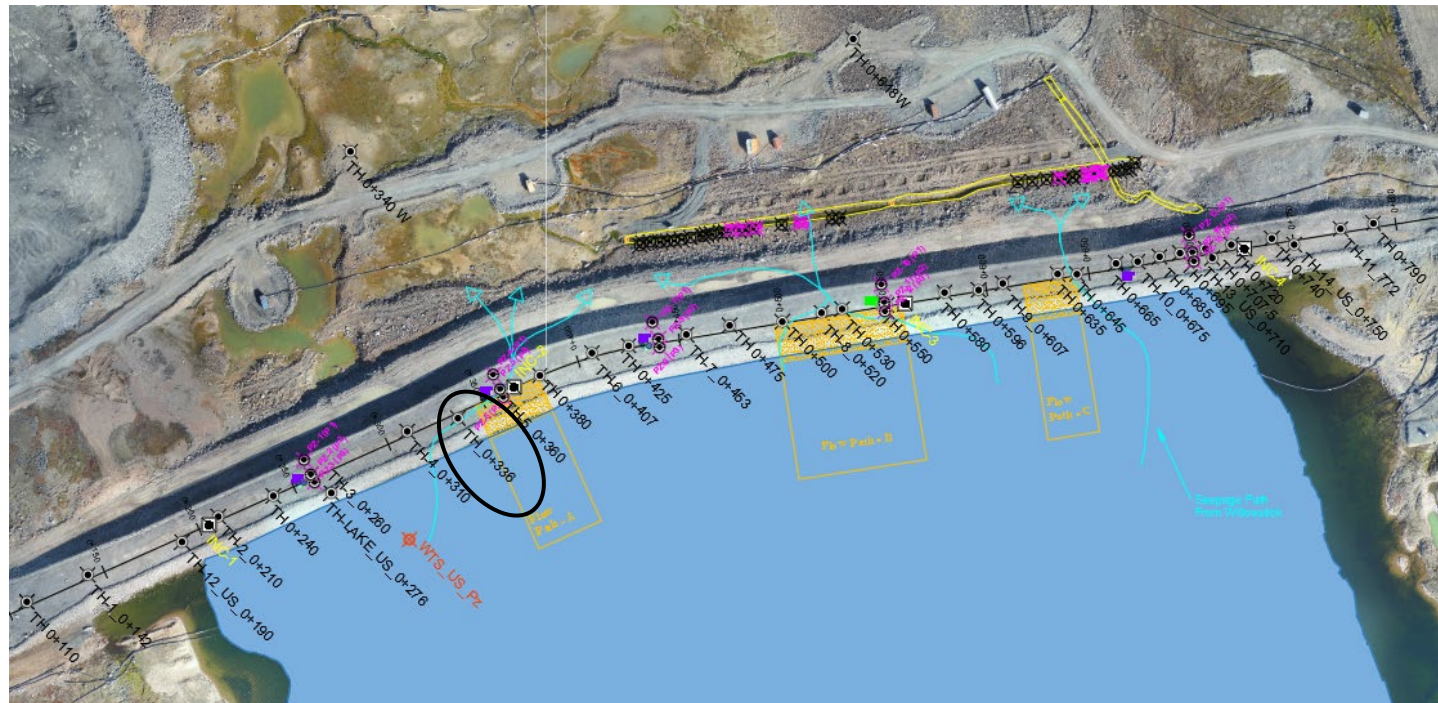
- 2022-12-23 09:00
- 2022-11-25 09:00
- 2022-10-28 09:00
- 2022-09-30 09:00
- 2022-09-02 09:00
- 2022-08-05 09:00
- 2022-07-08 09:00
- 2022-06-10 09:00
- 2022-05-13 09:00
- 2022-04-15 09:00
- 2022-03-18 09:00
- 2022-02-18 09:00
- 2022-01-21 09:00
- 2021-12-24 09:00
- 2021-11-26 09:00
- 2021-10-29 09:00
- 2021-10-01 09:00
- 2021-09-03 09:00
- 2021-08-06 09:00
- 2021-07-09 09:00
- Limit Profile



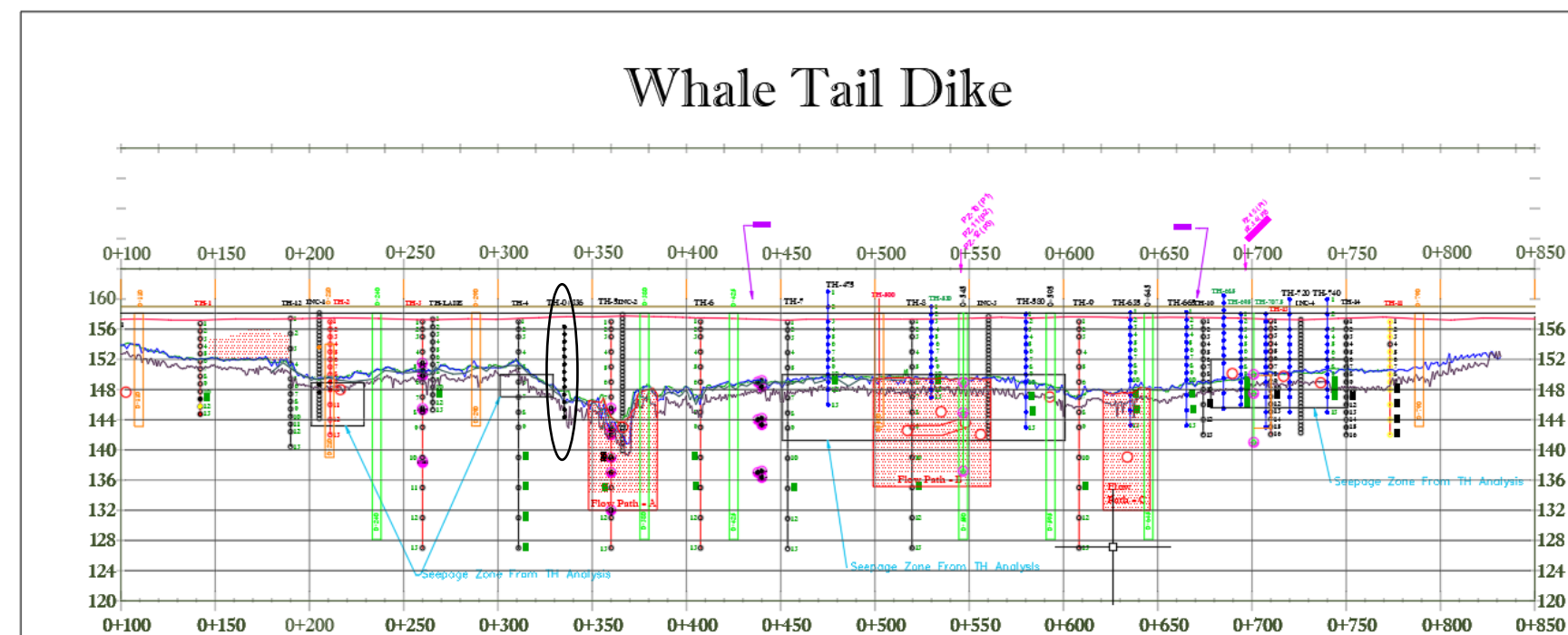
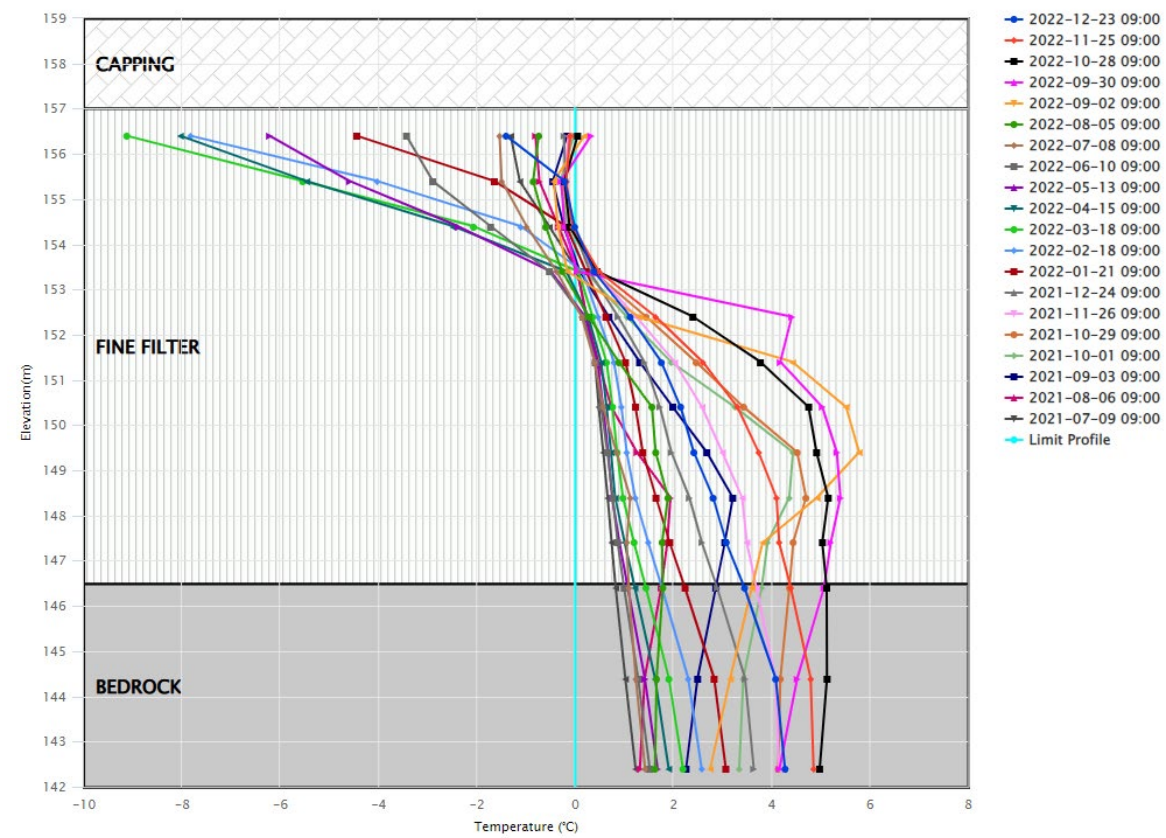
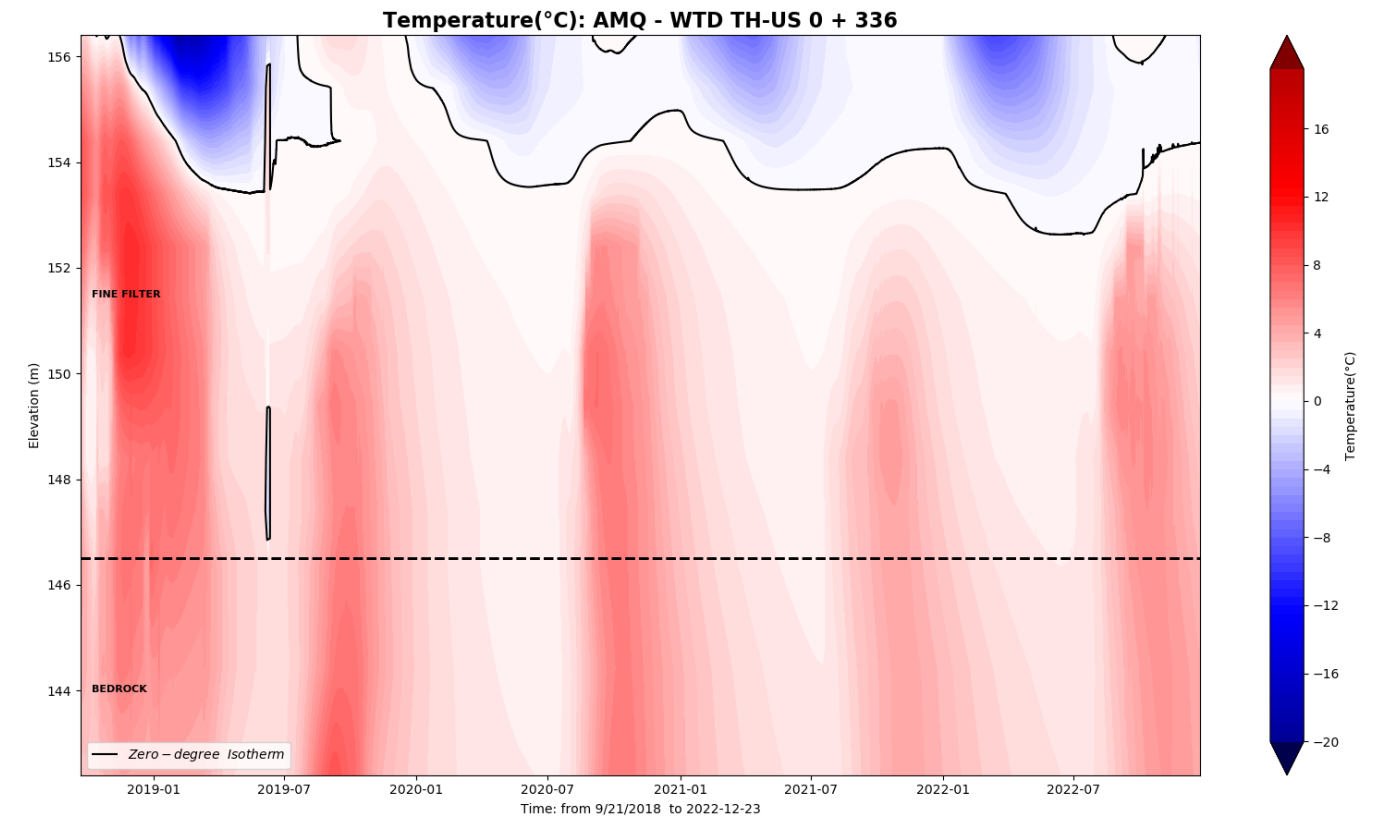
Whale Tail Dike



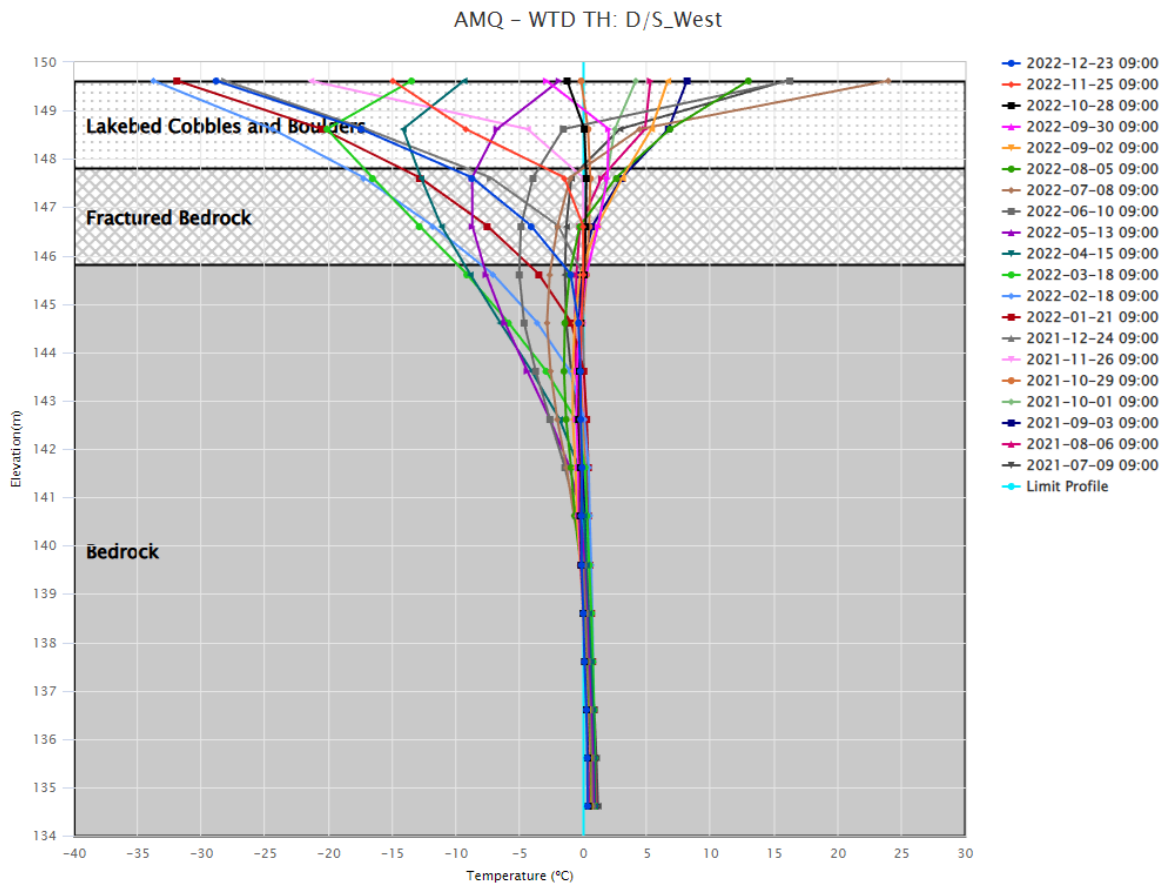
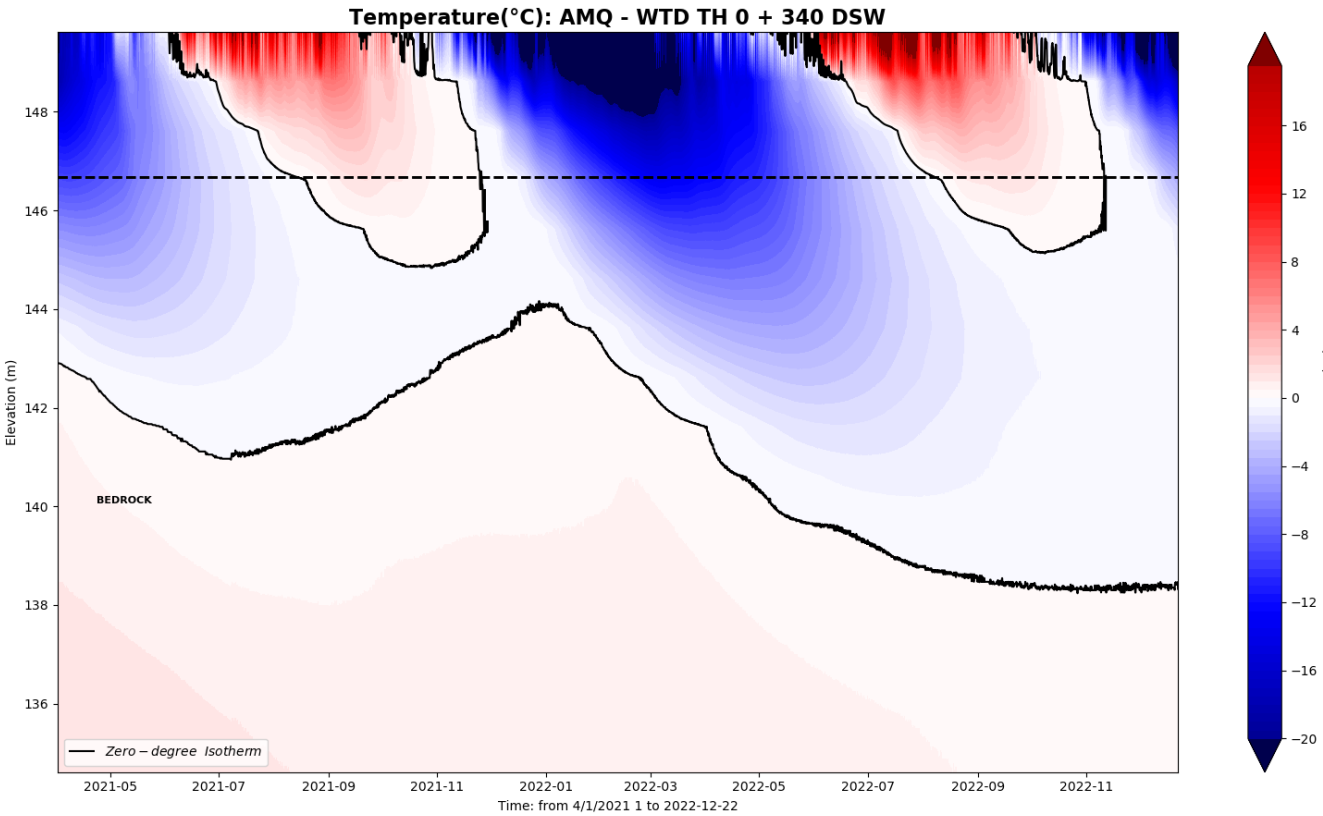
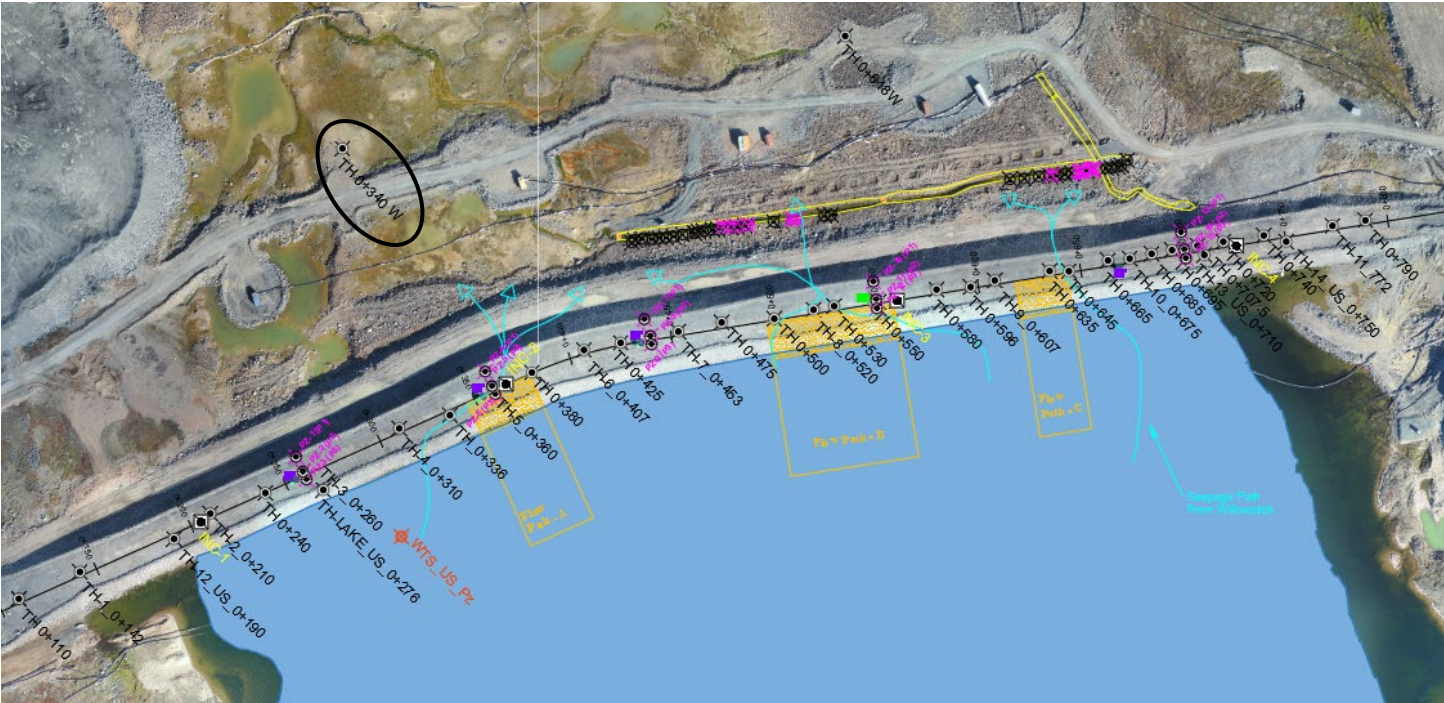
WTD-TH 0+336 U/S



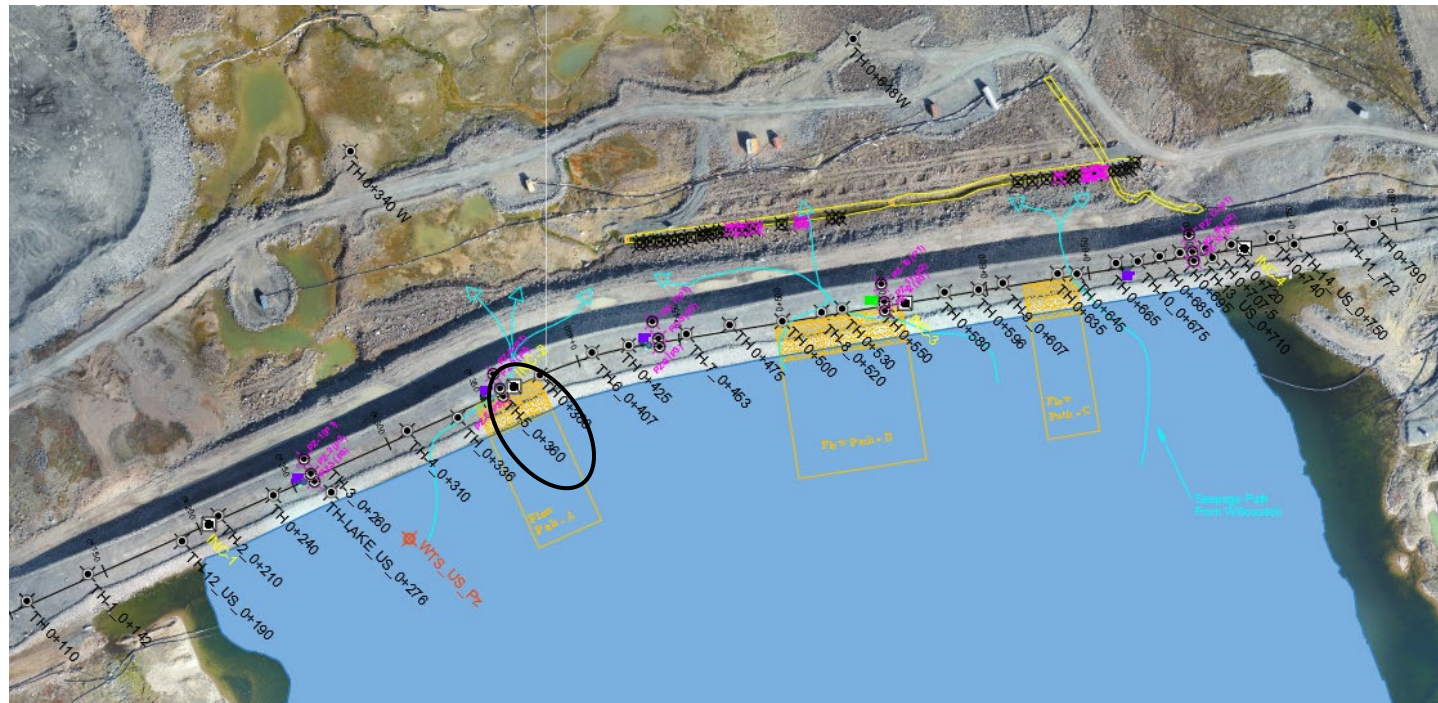
AMQ - WTD TH_US: 0+336



WTD-TH 0+340 DSW

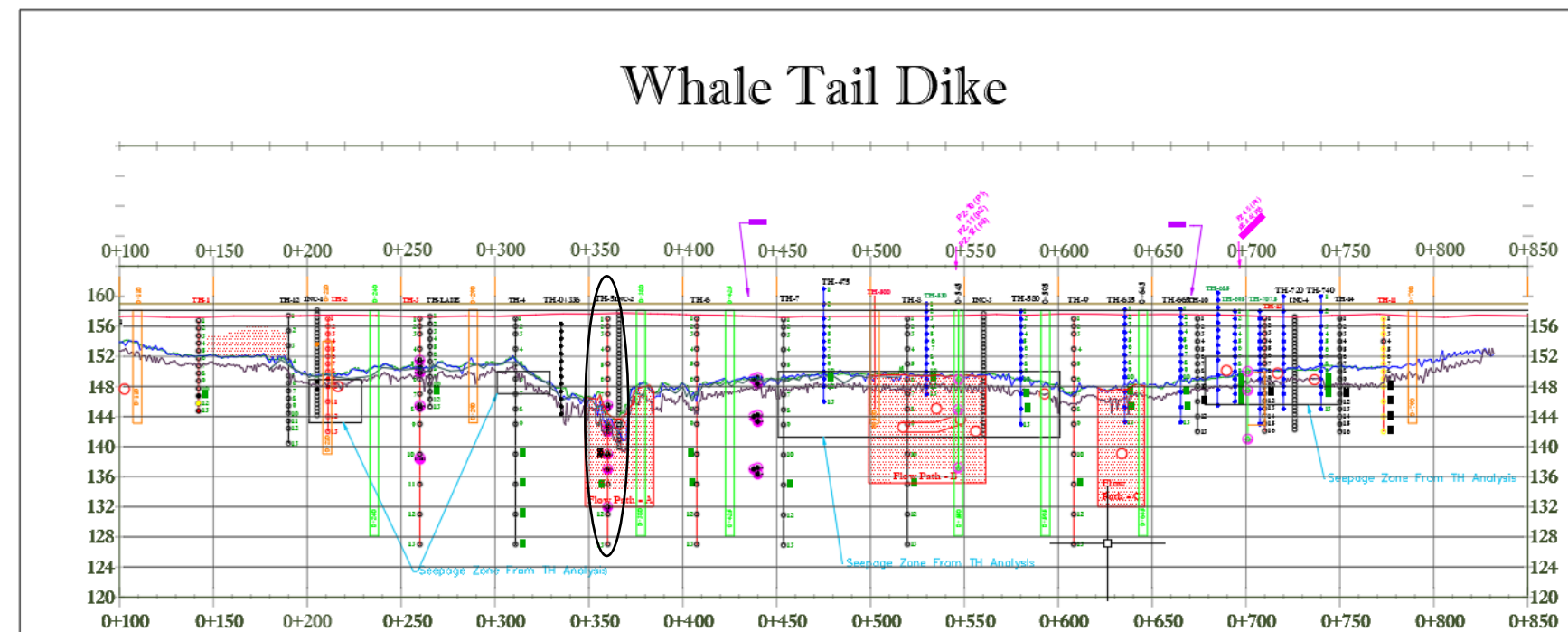
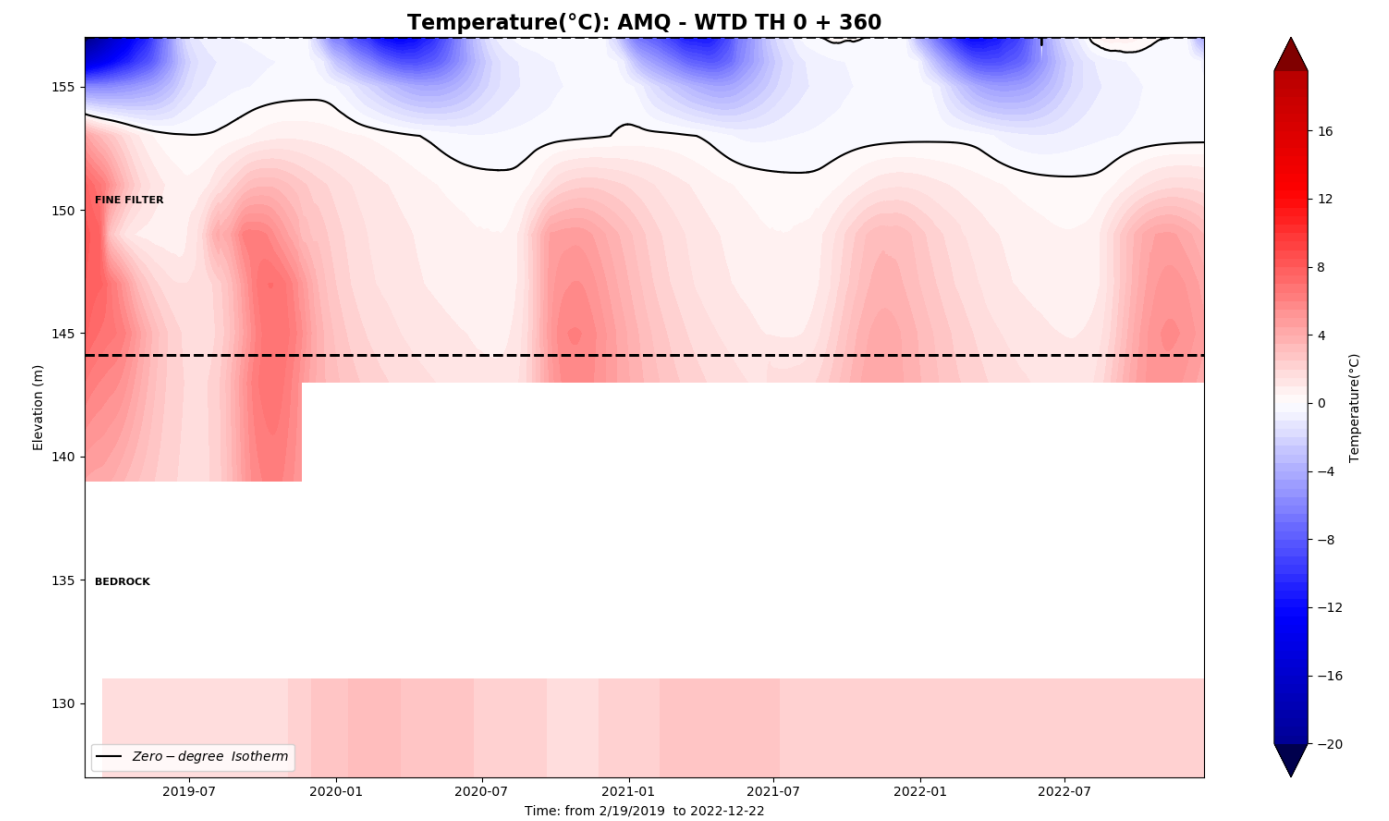
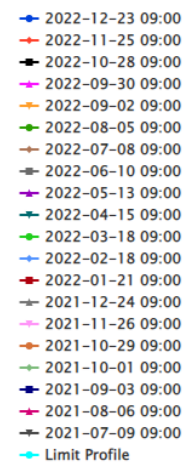
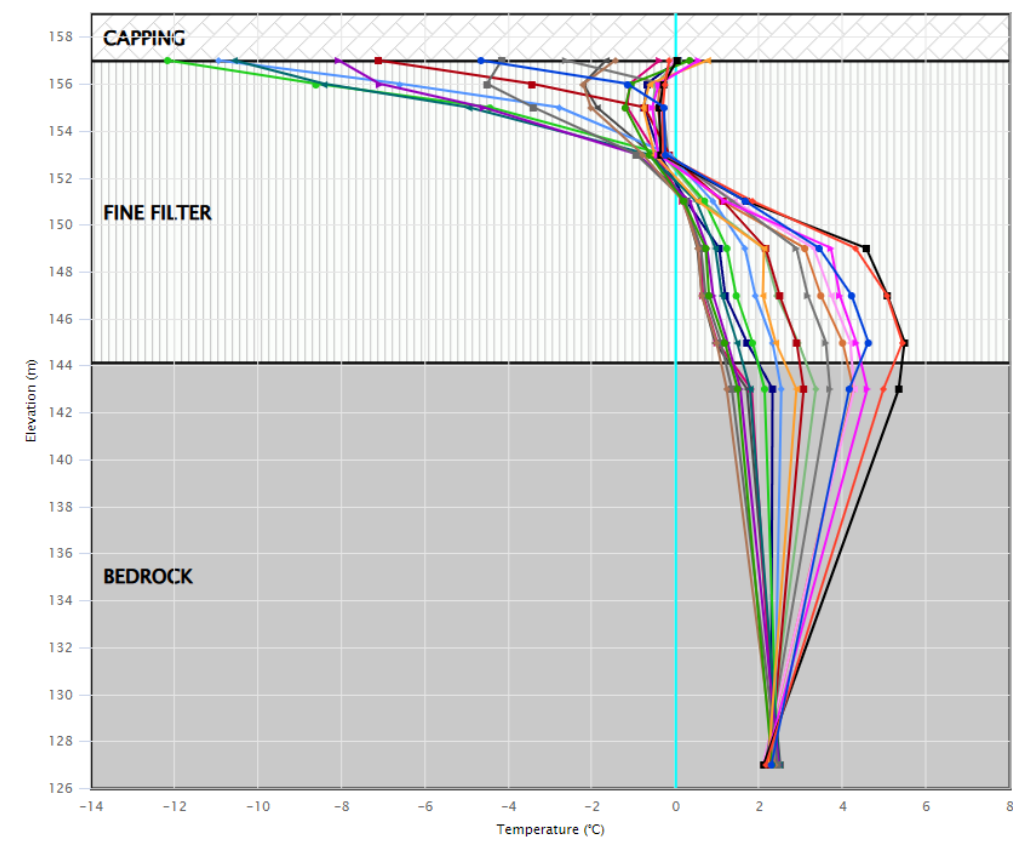


WTD-TH 0+360

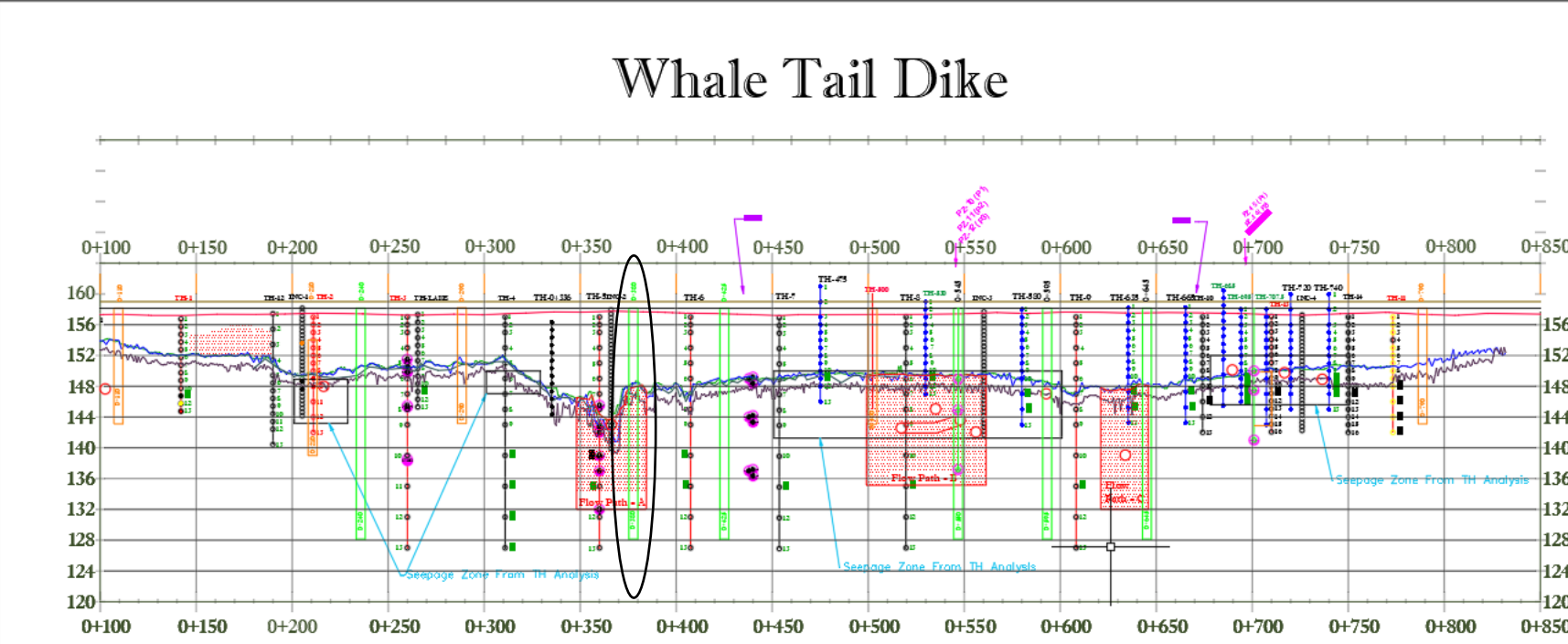
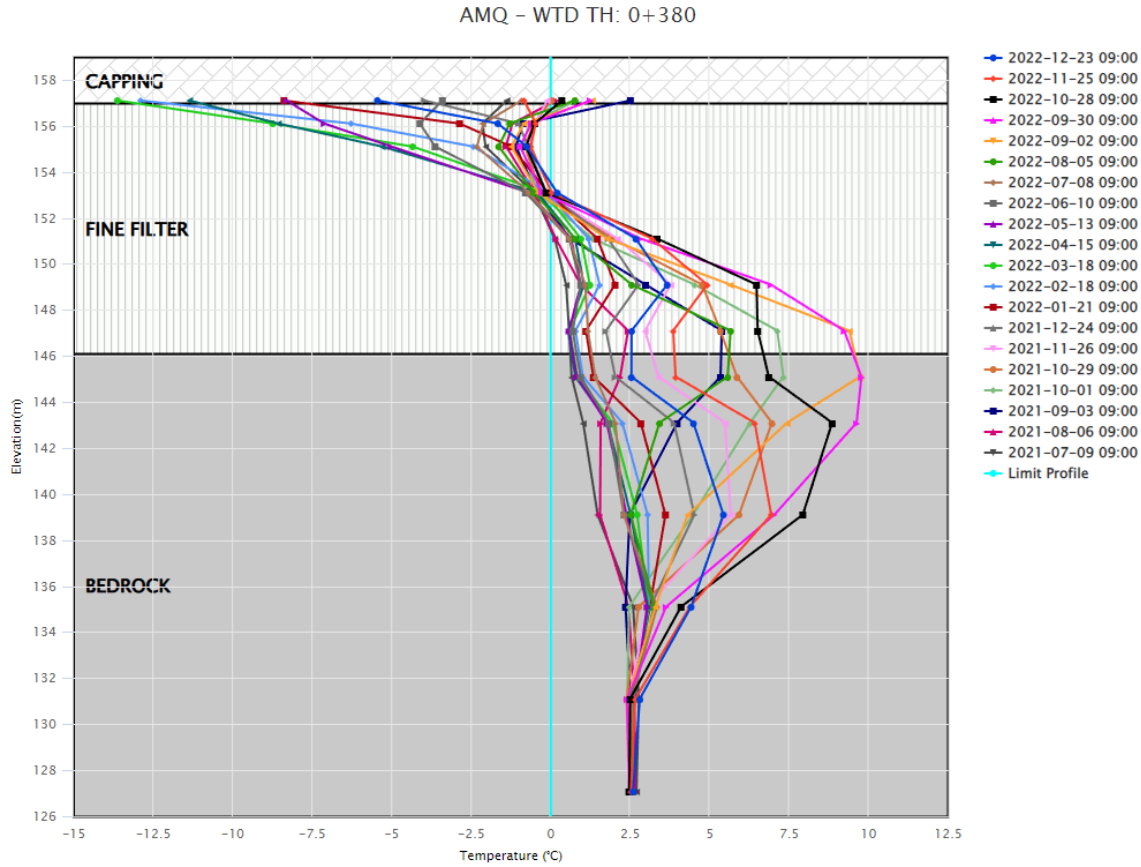
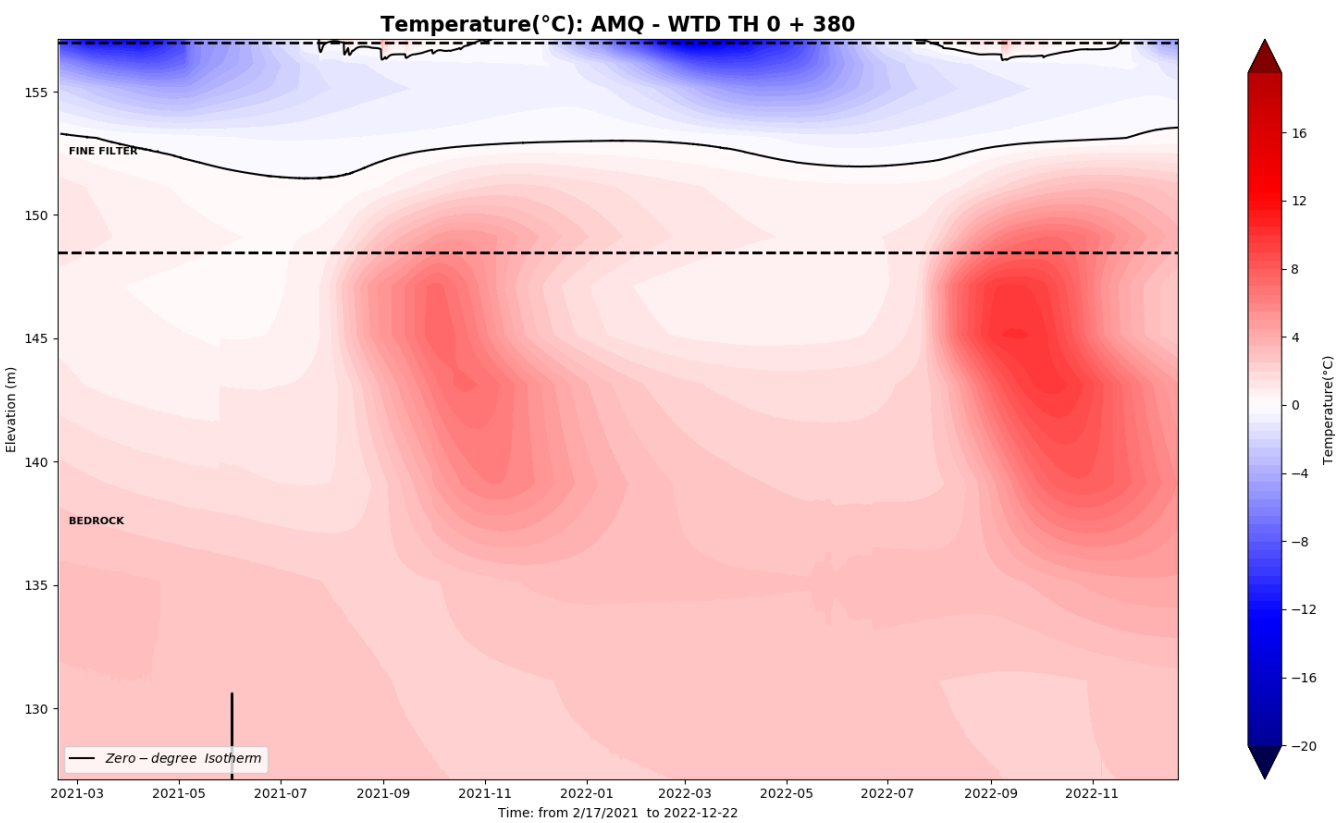


AMQ - WTD TH: 0+360

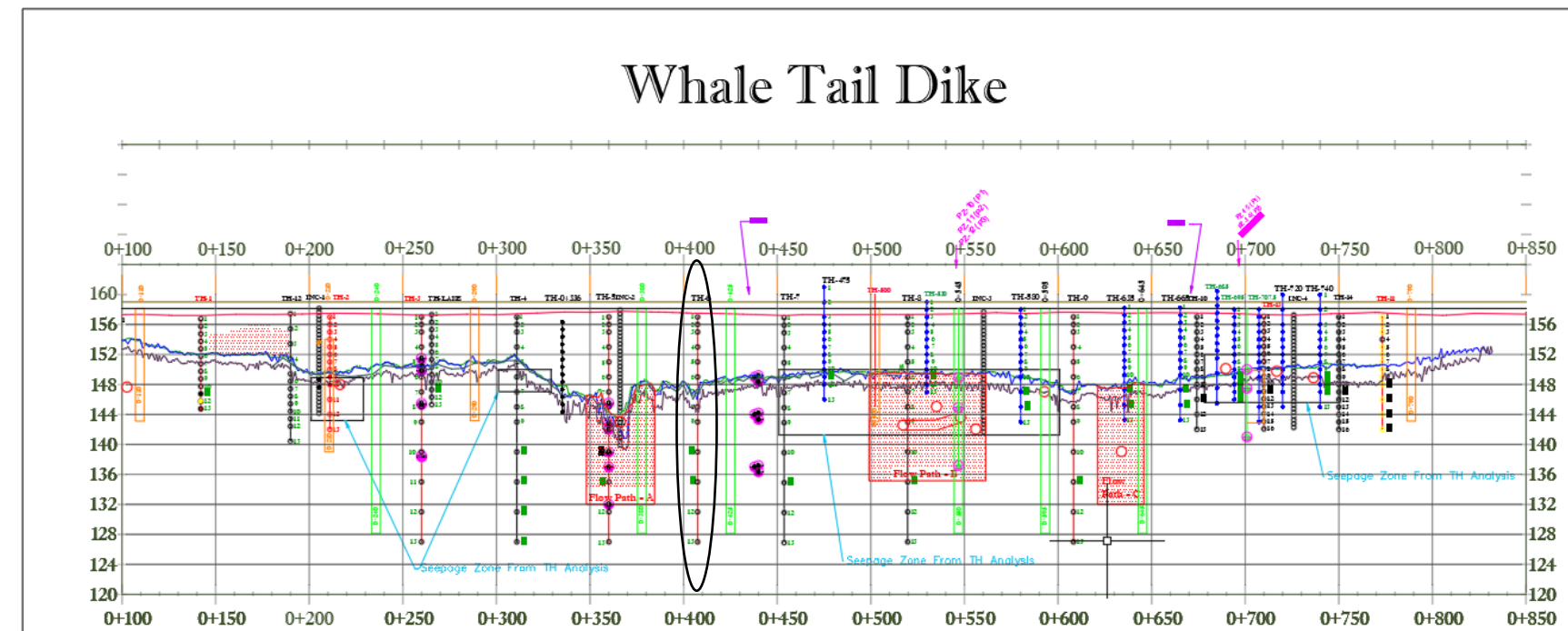
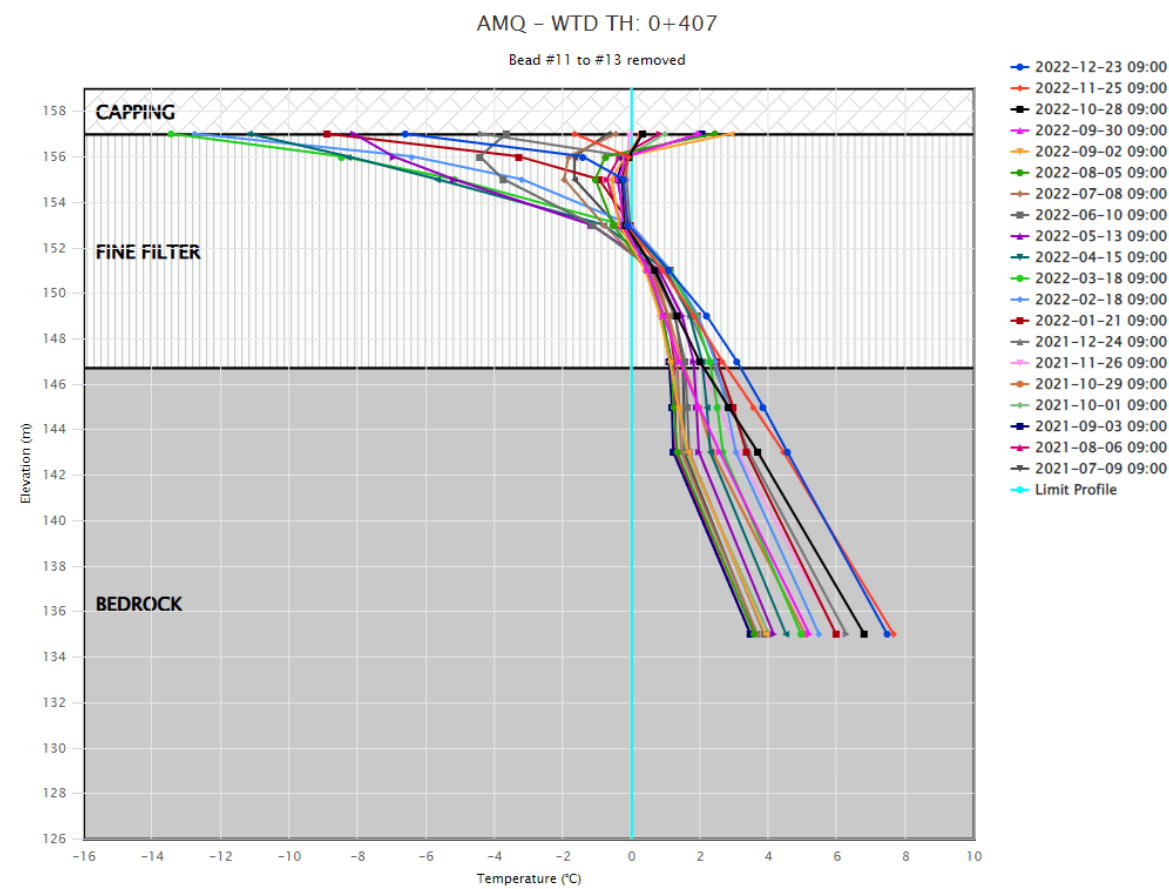
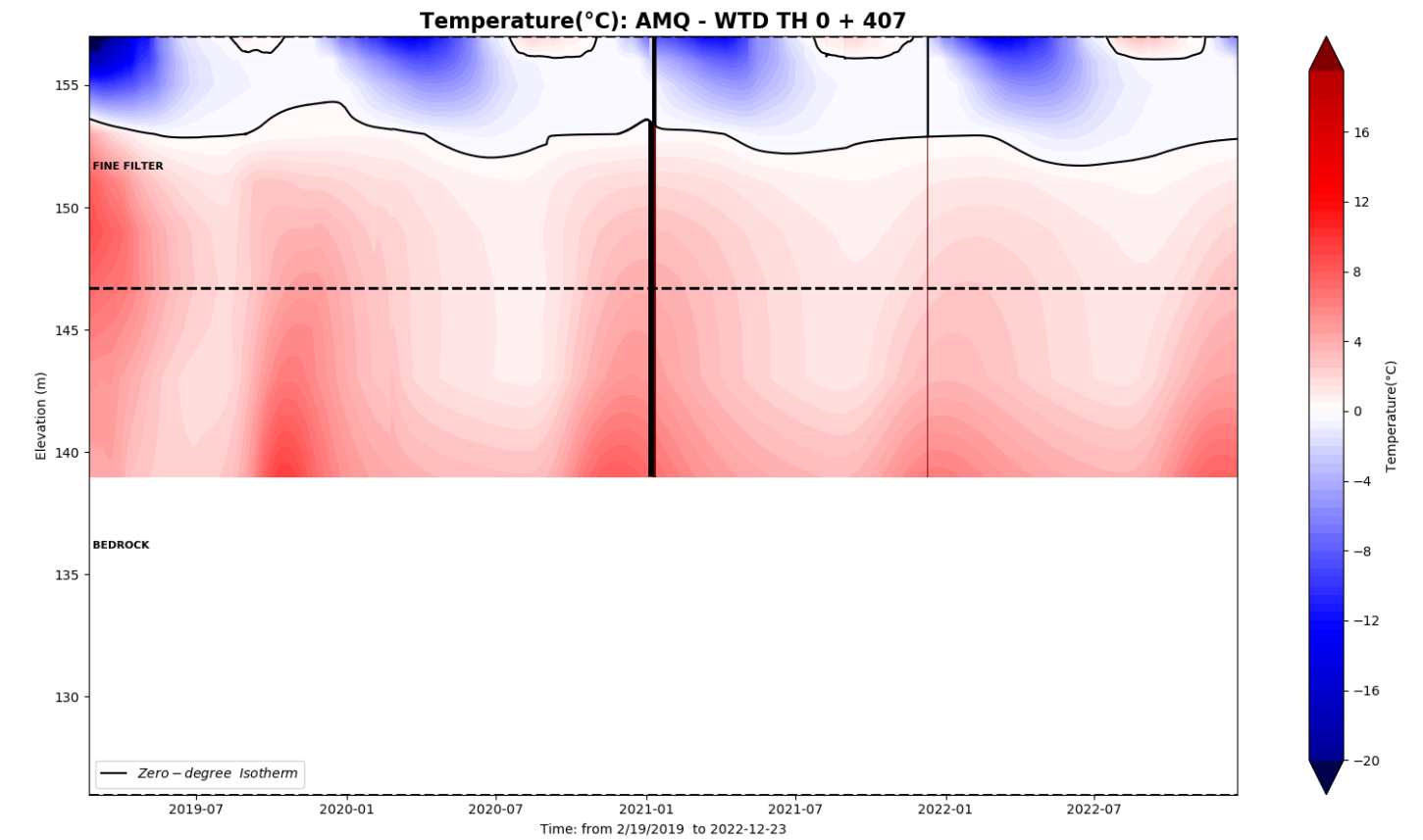
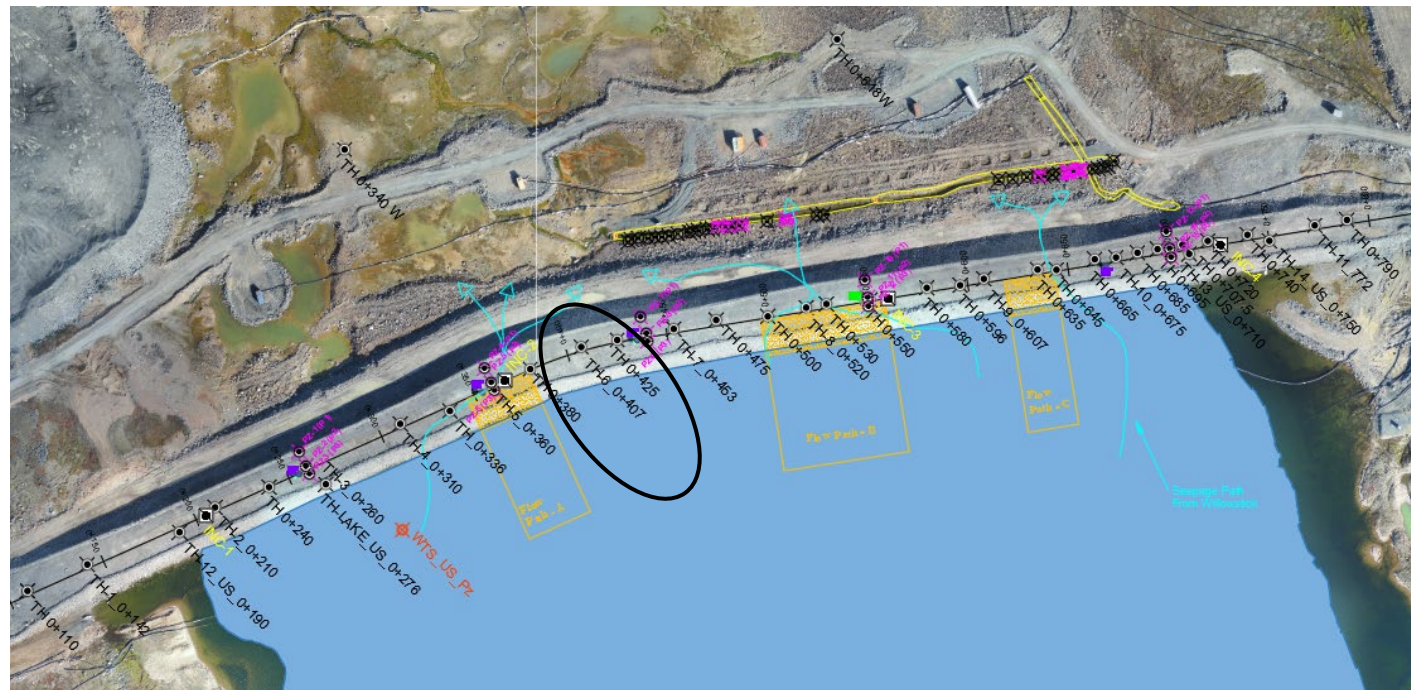
Bead #10 to #12 removed



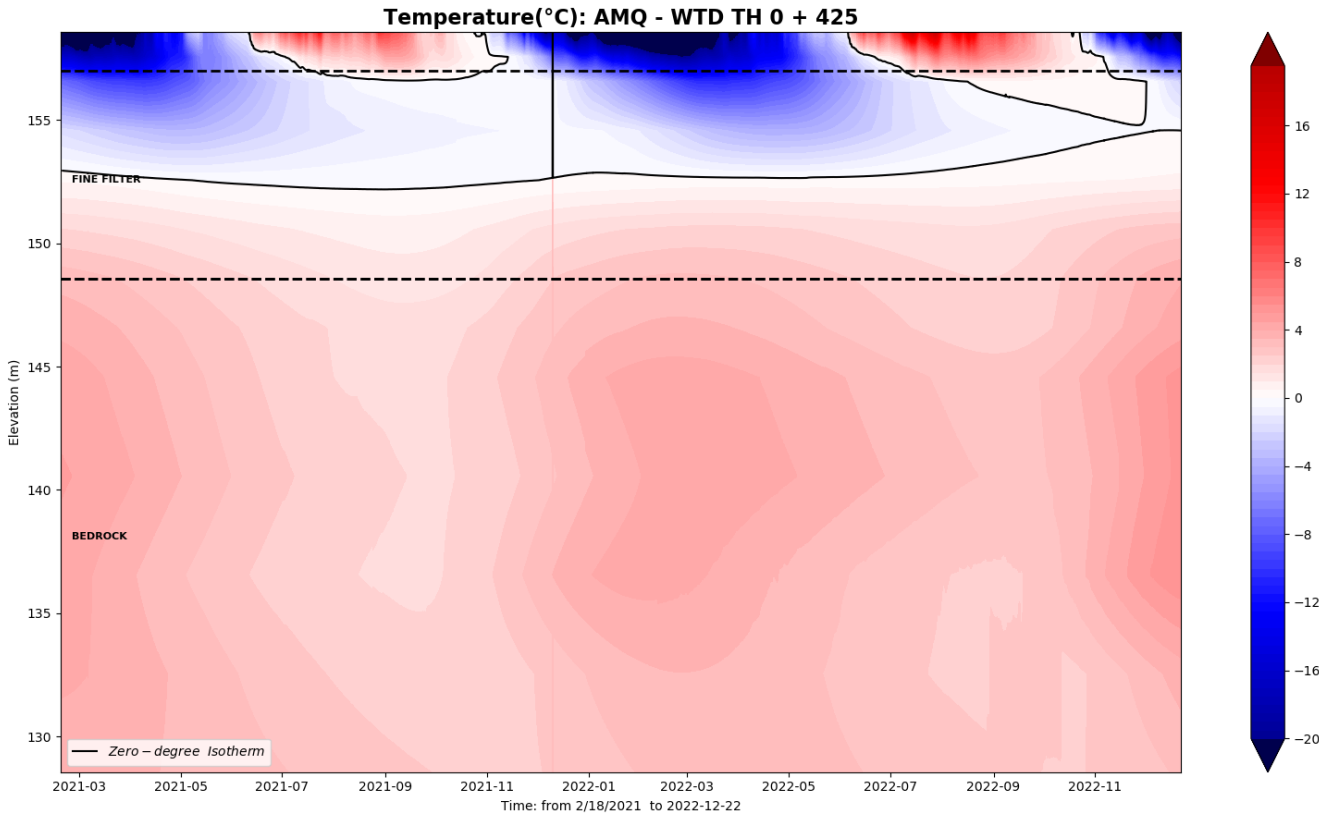
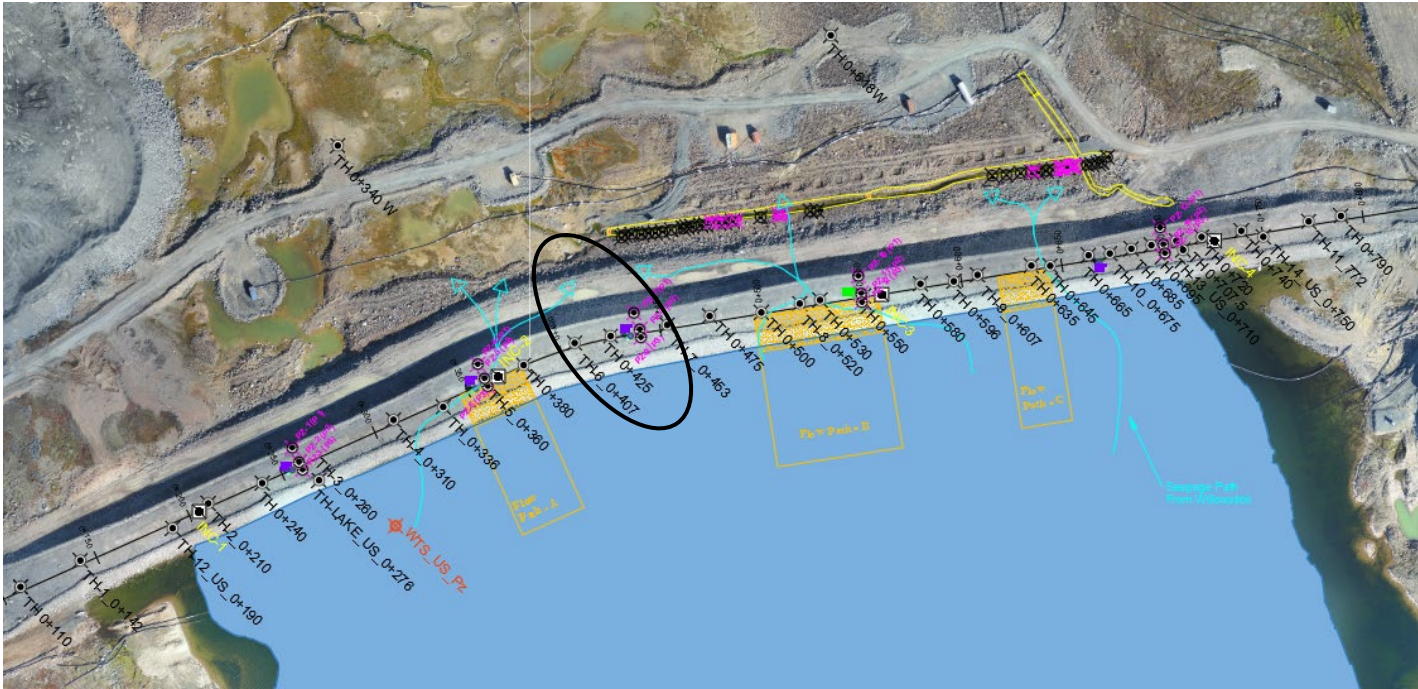
WTD-TH 0+380



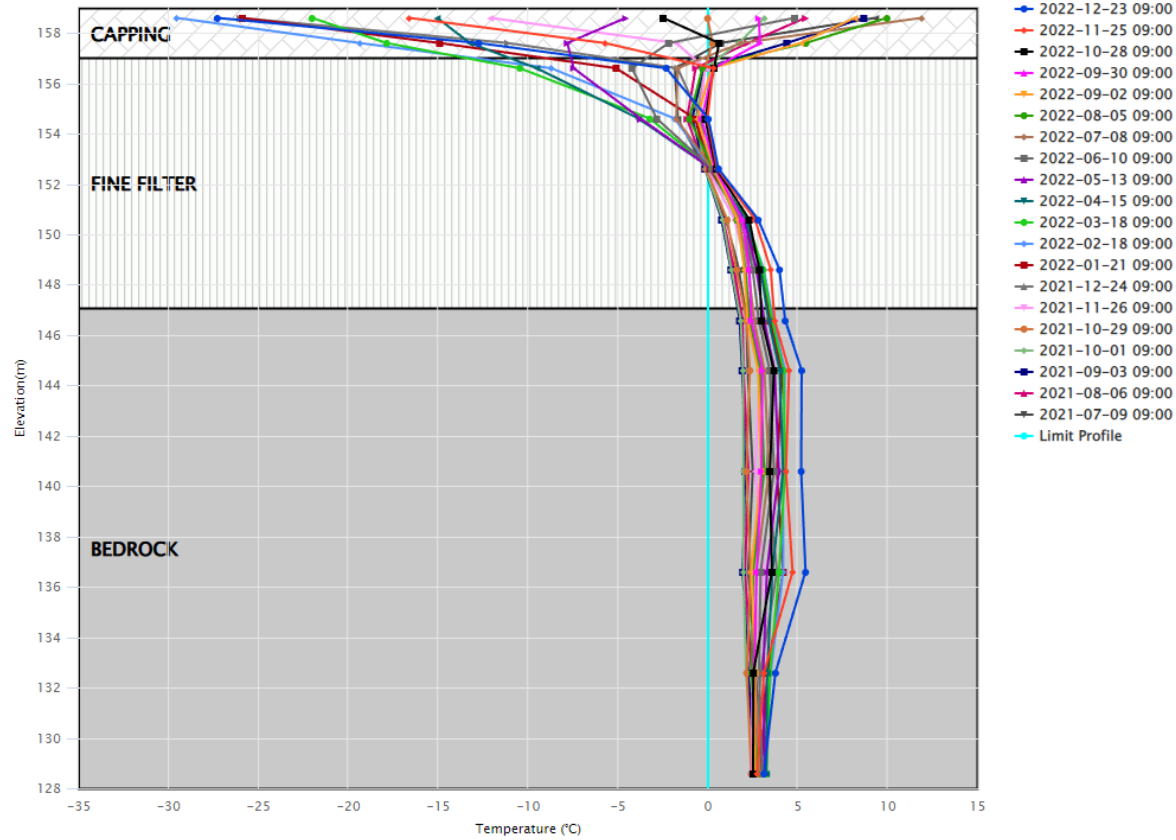
WTD-TH 0+407



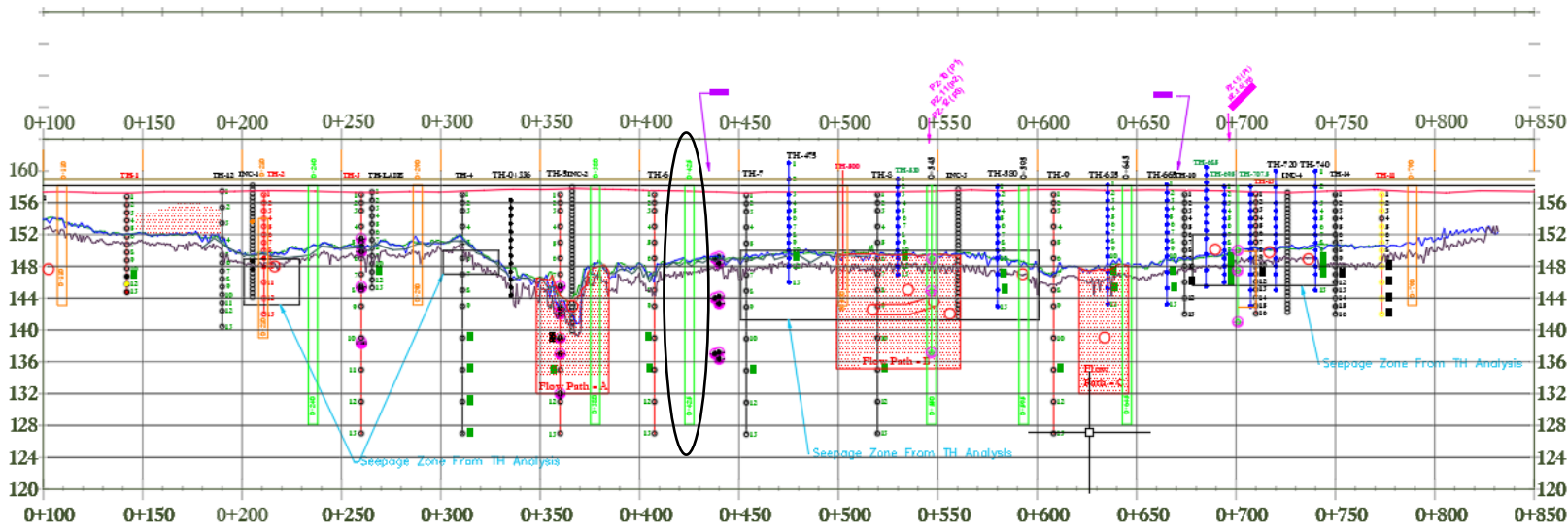
WTD-TH 0+425



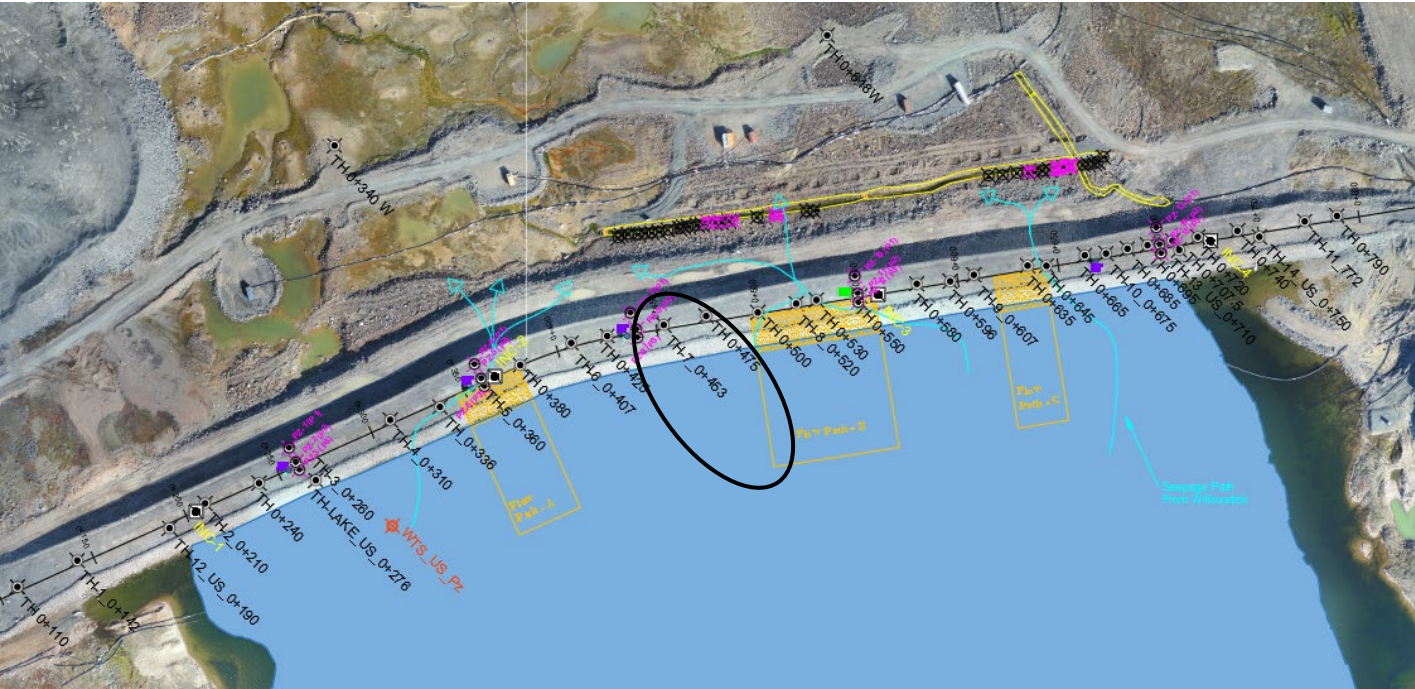
AMQ – WTD TH: 0+425



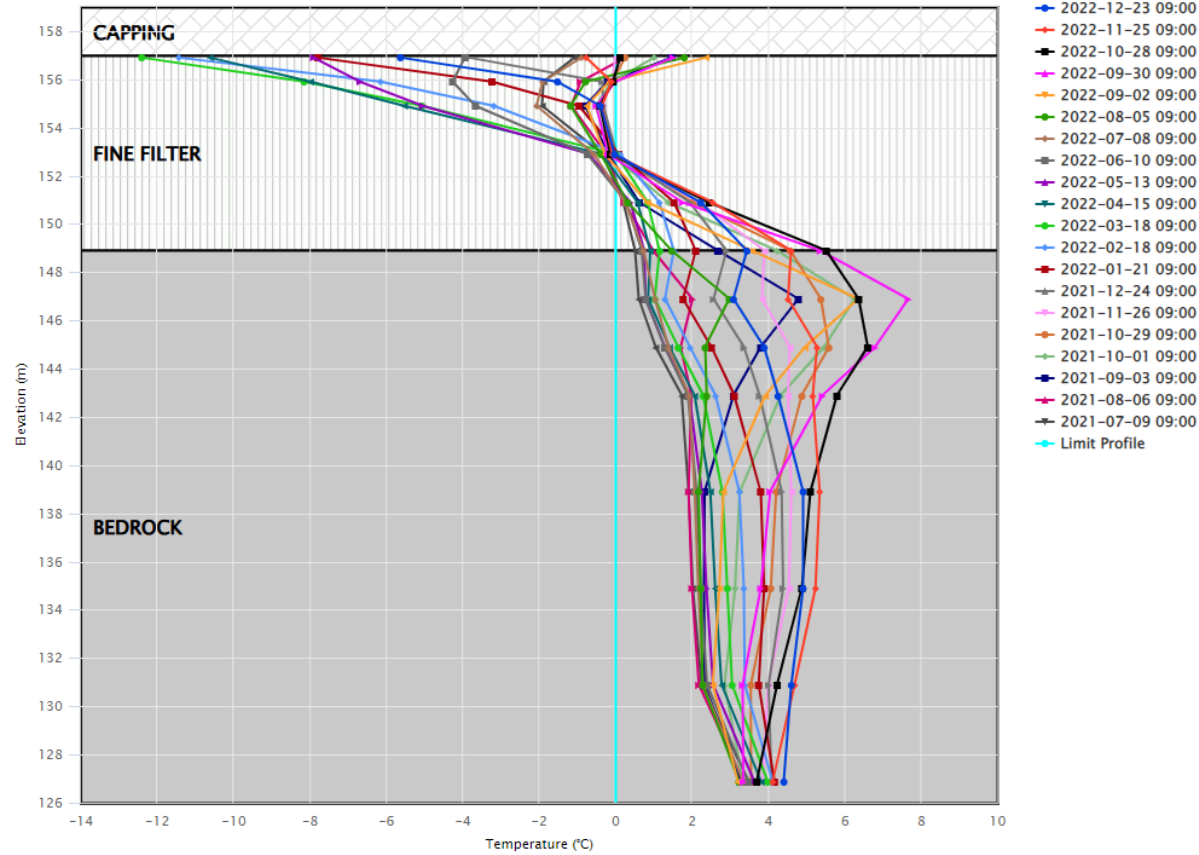
Whale Tail Dike



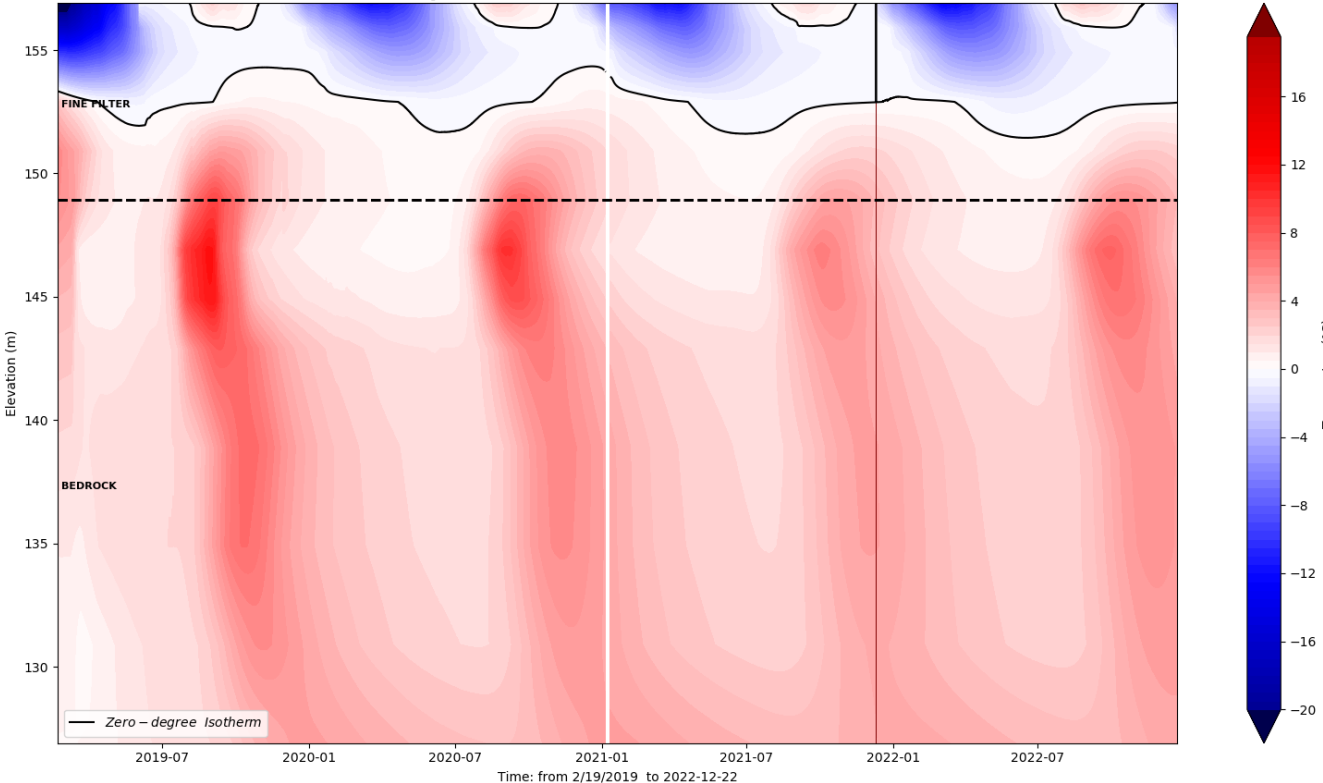
WTD-TH 0+453



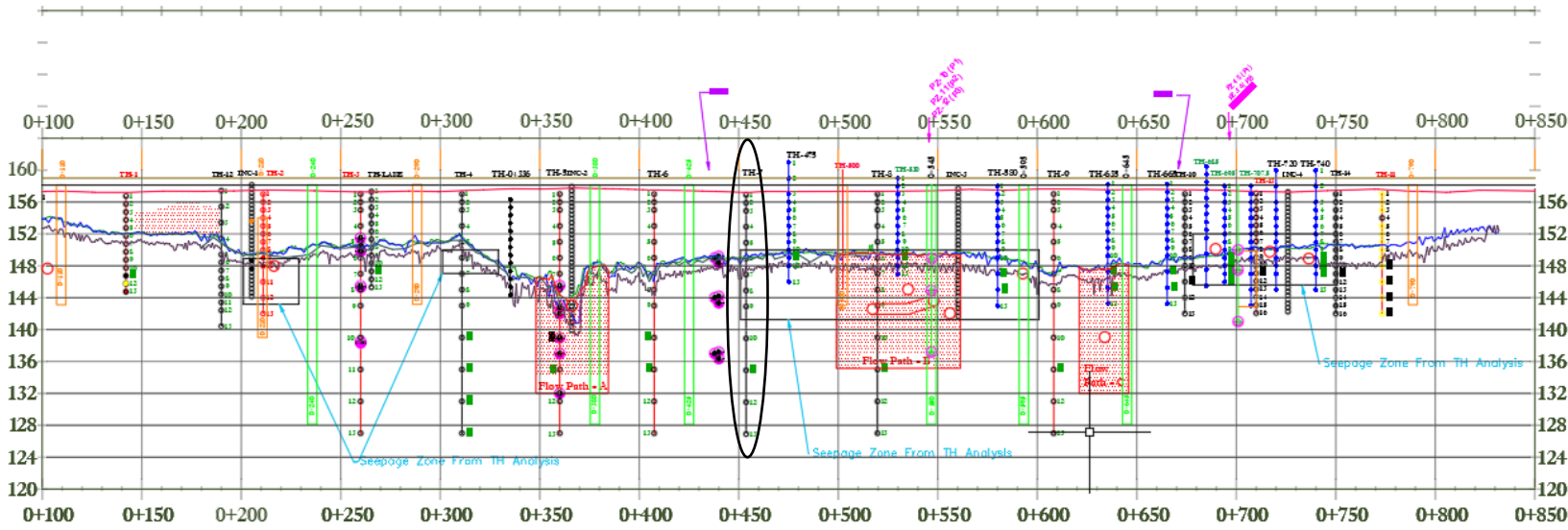
AMQ - WTD TH: 0+453



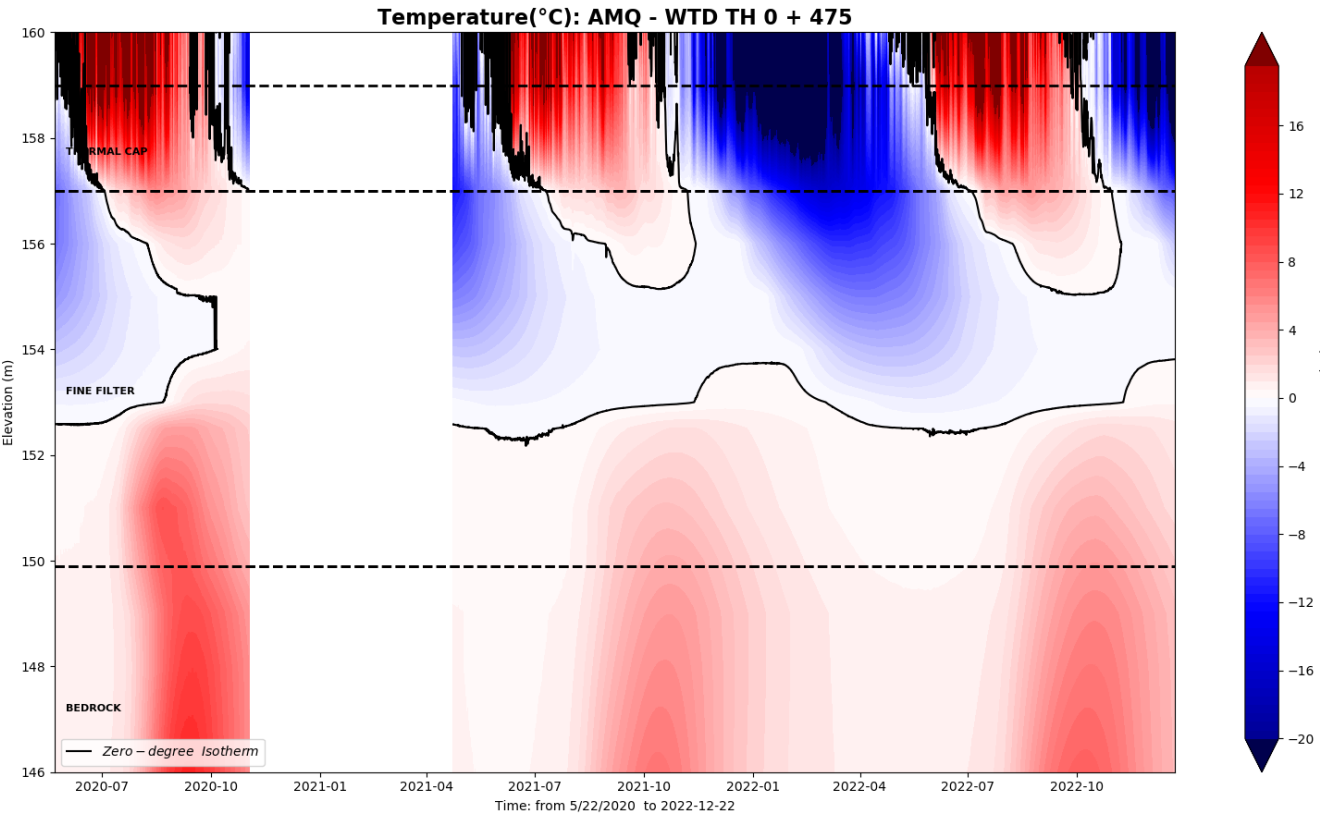
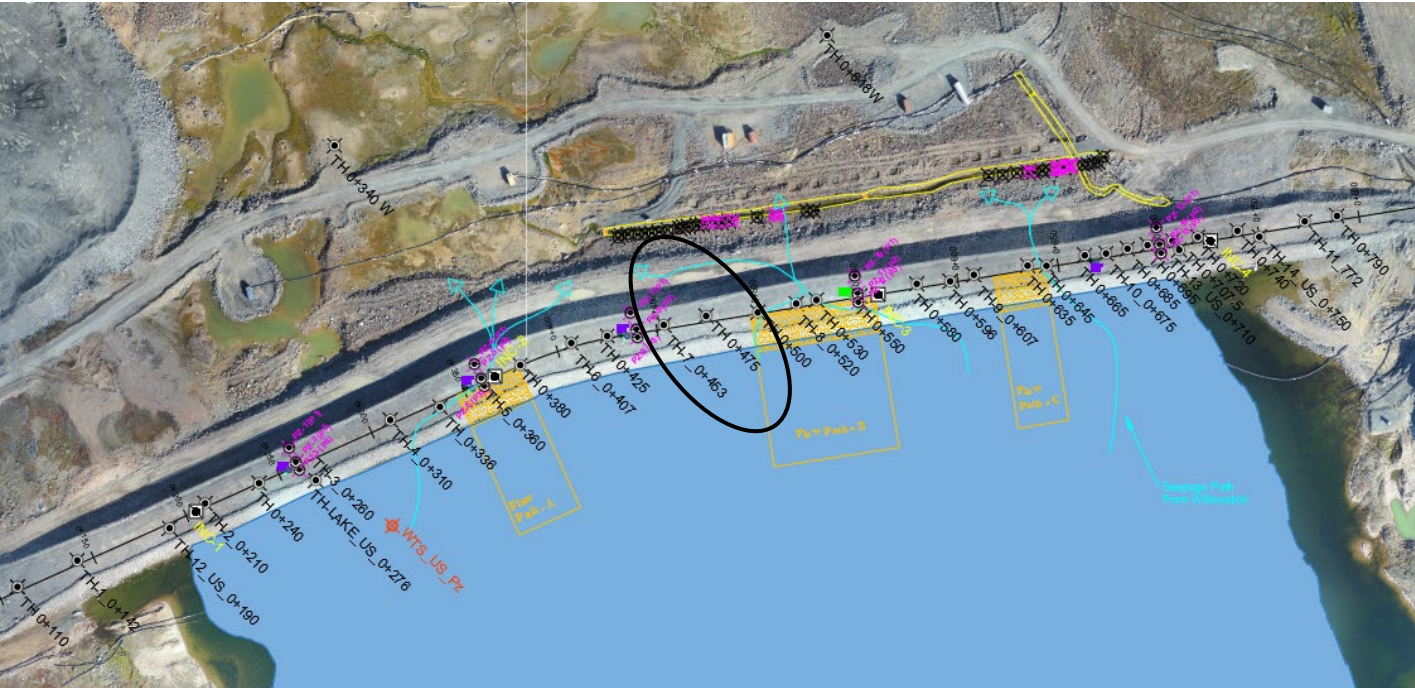
Temperature(°C): AMQ - WTD TH 0 + 453



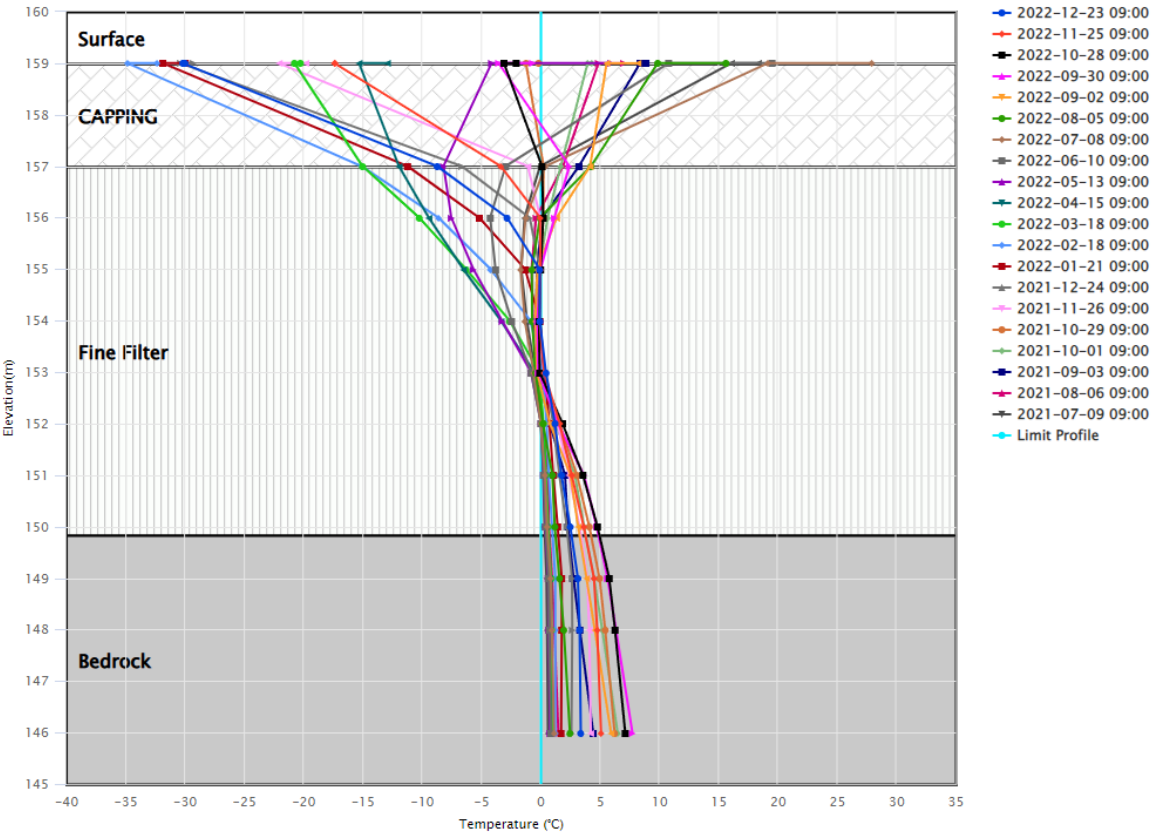
Whale Tail Dike



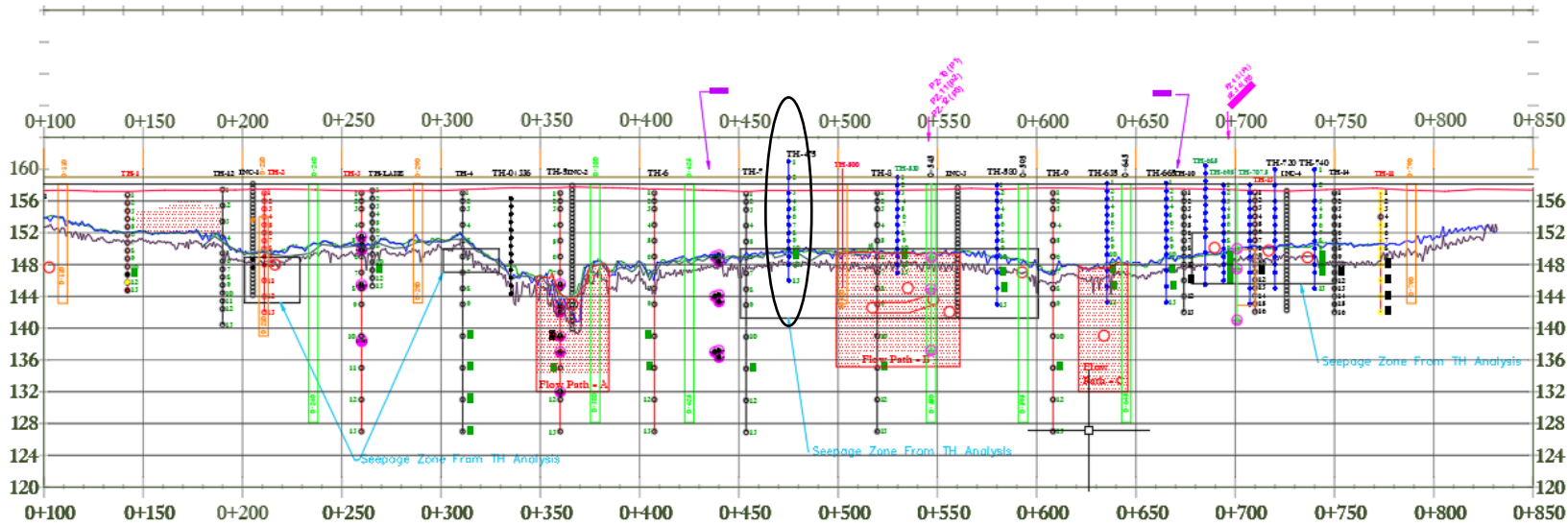
WTD-TH 0+475



AMQ - WTD TH: 0+475_T



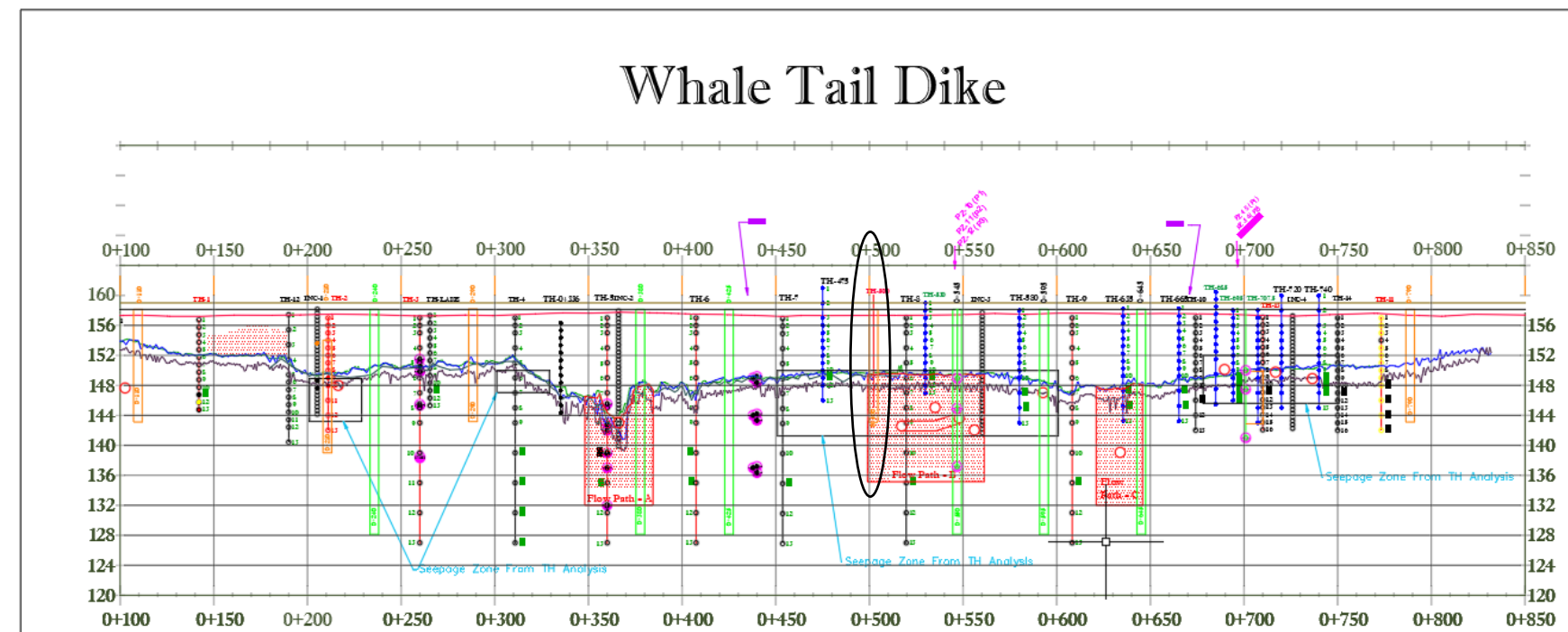
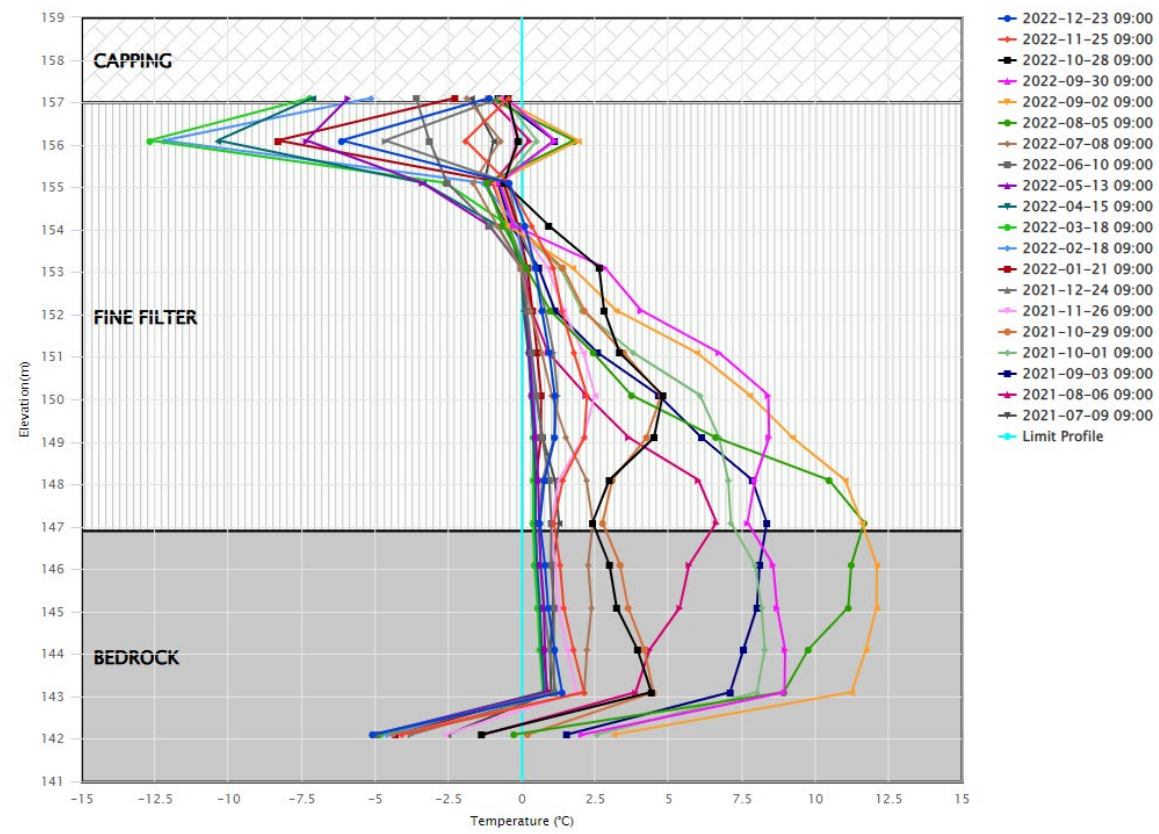
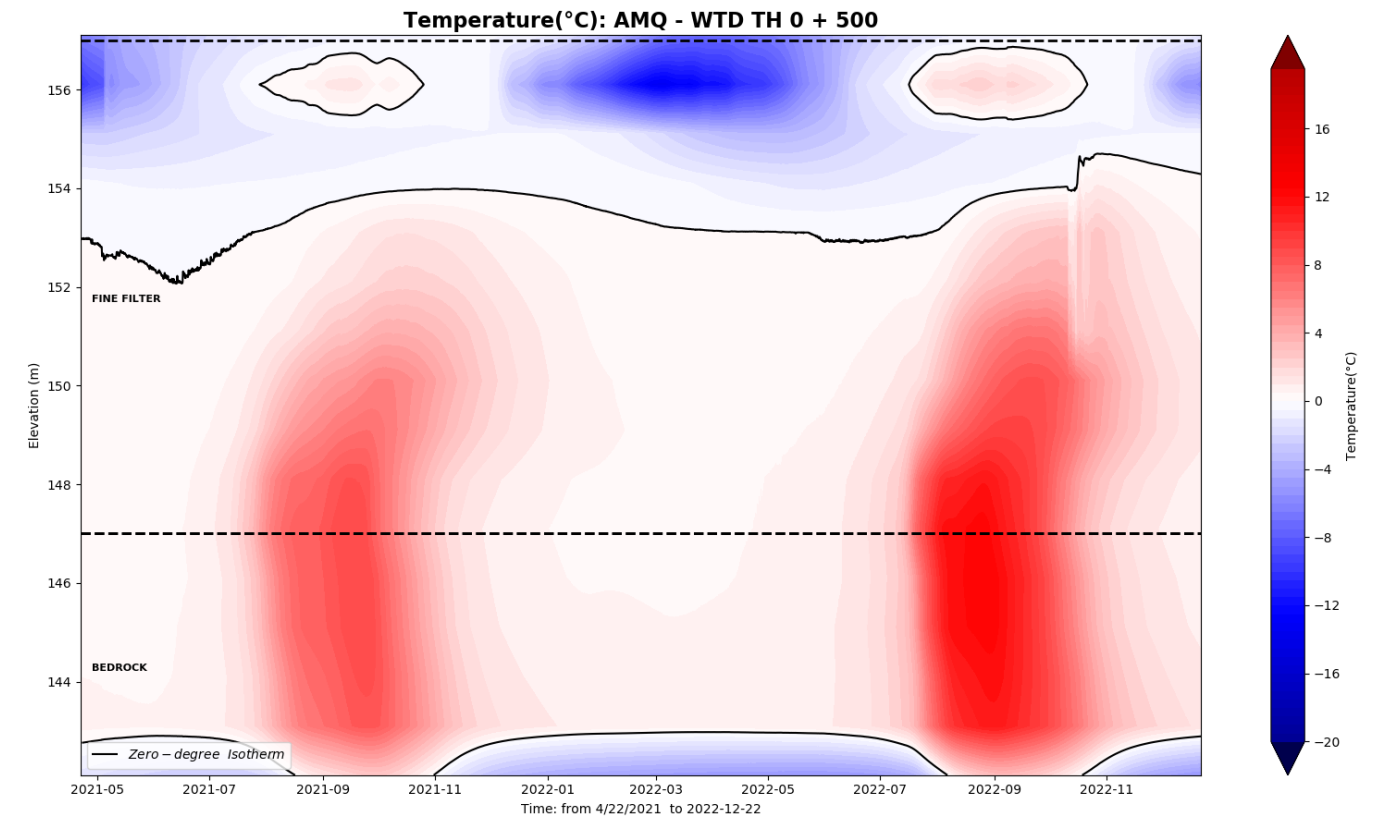
Whale Tail Dike



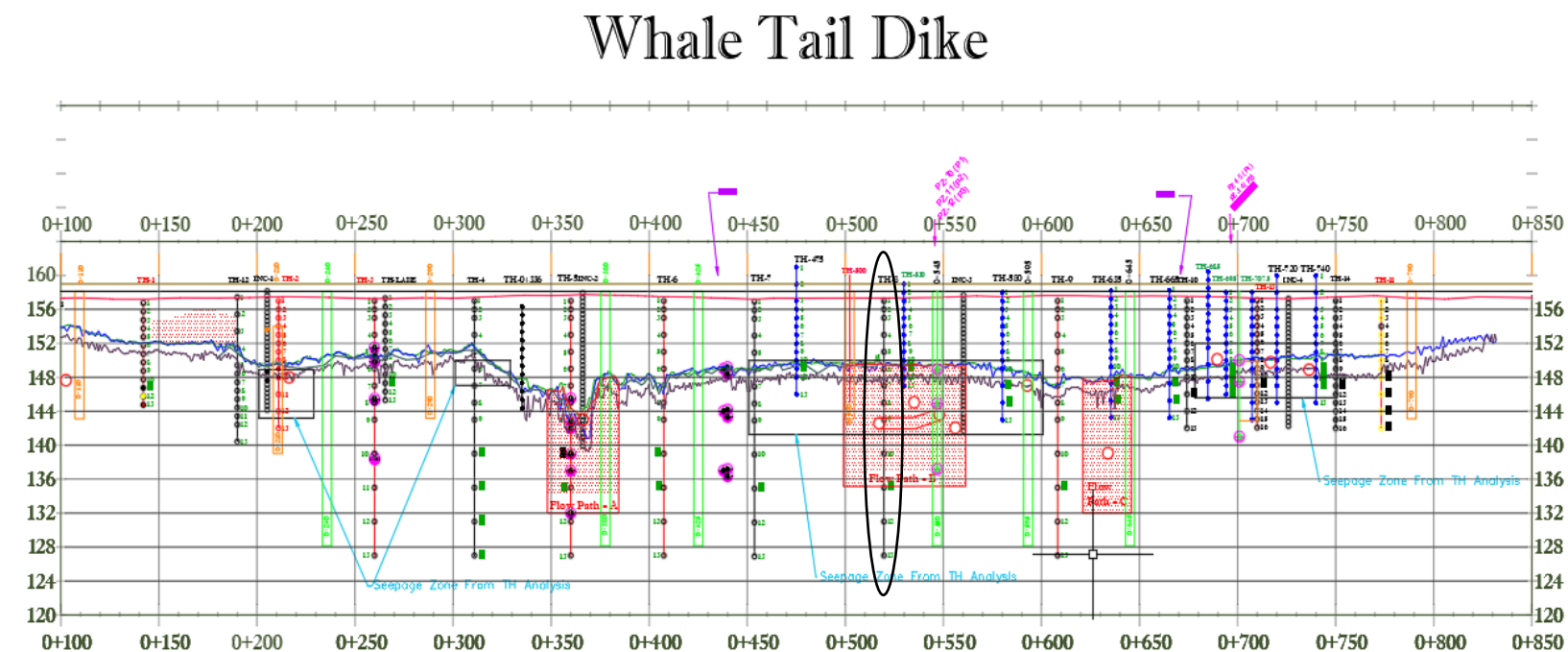
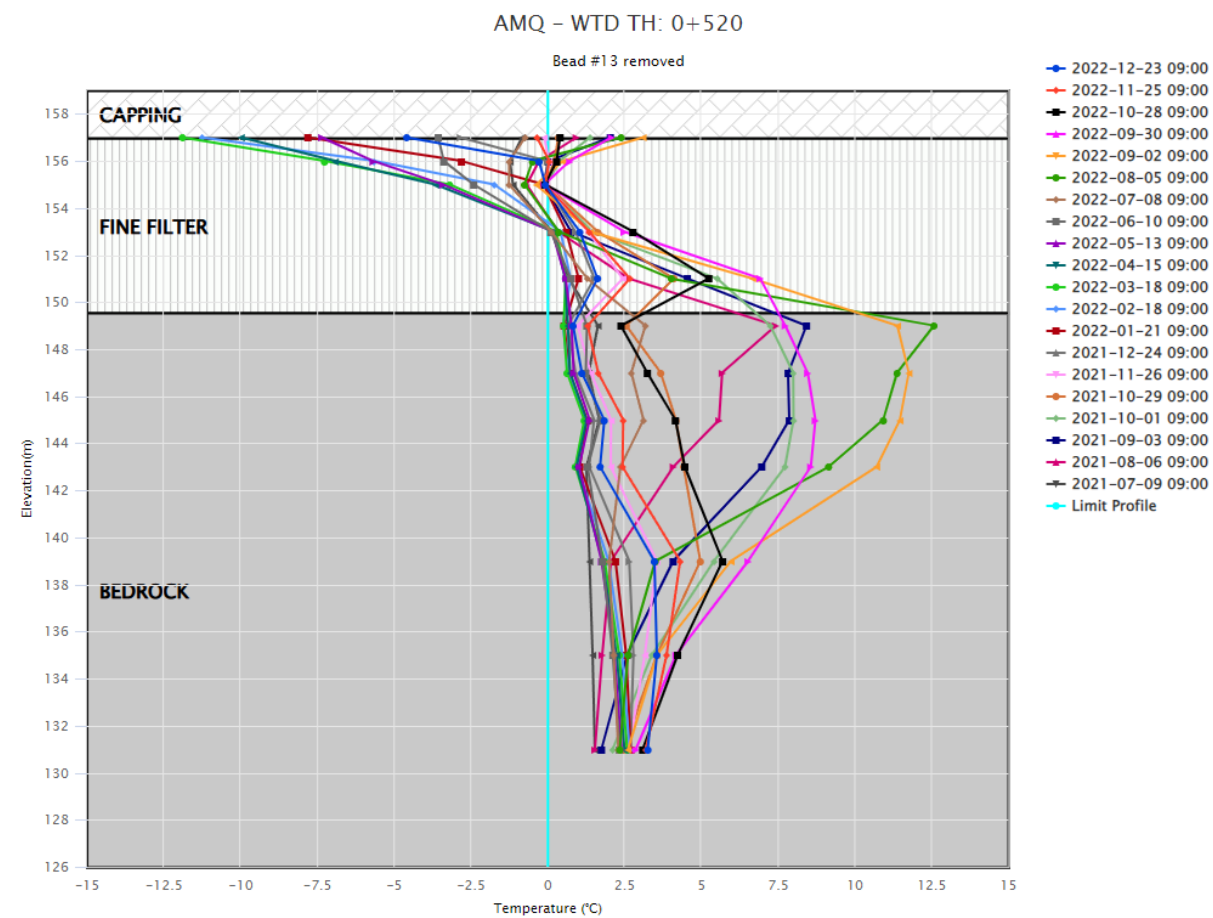
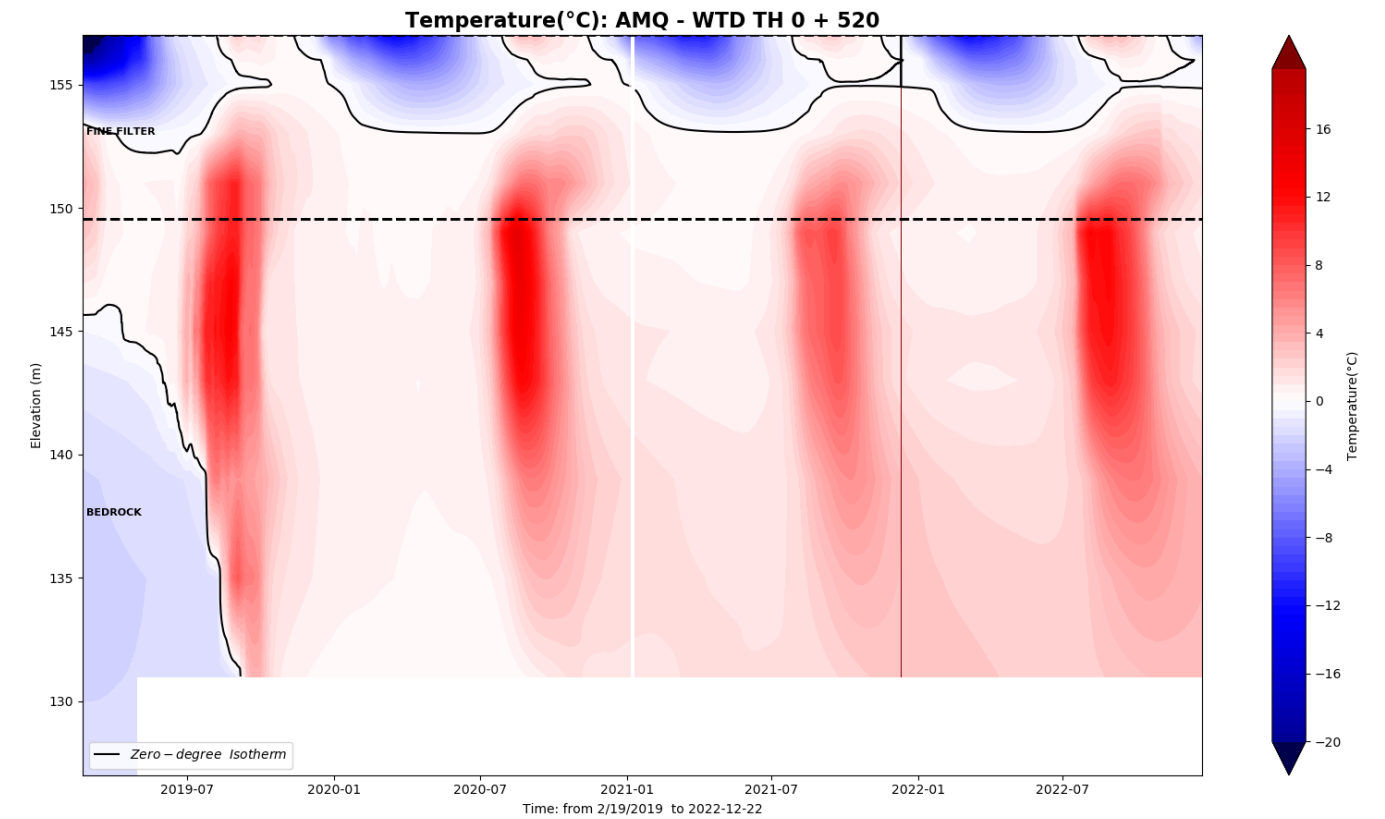
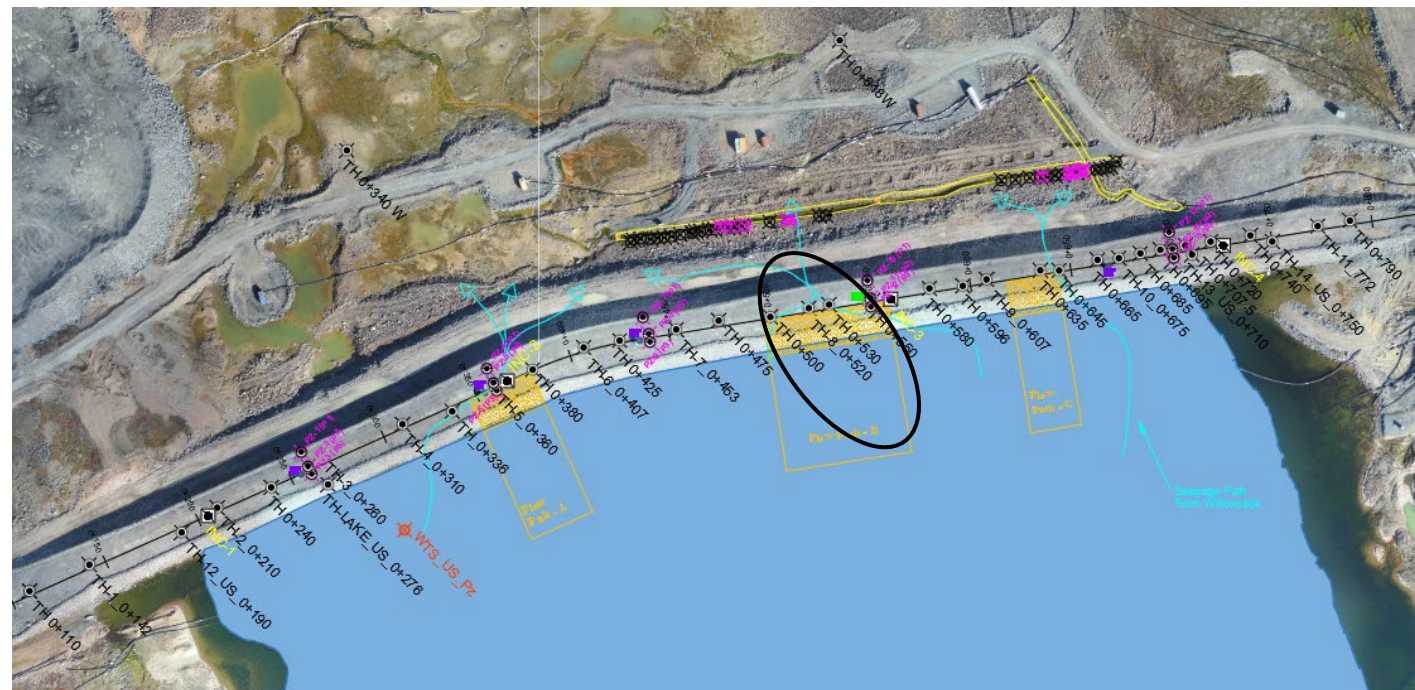
WTD-TH 0+500



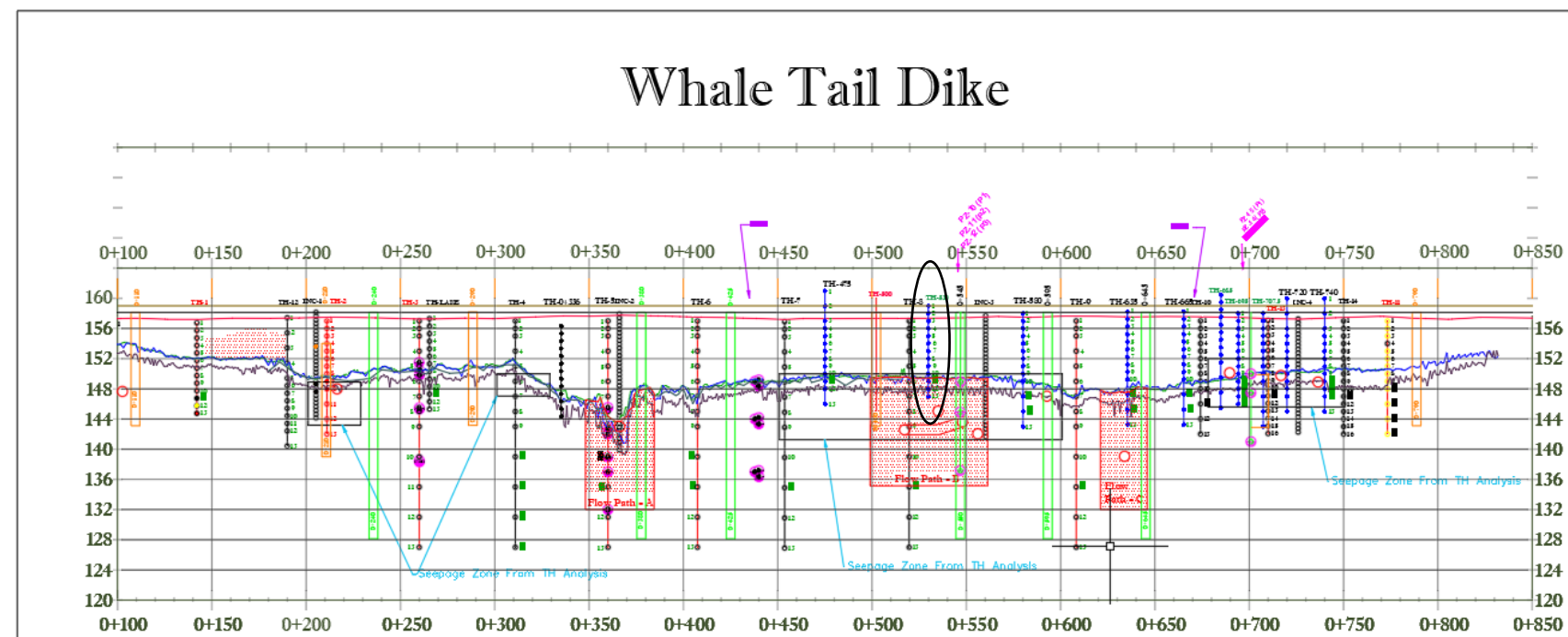
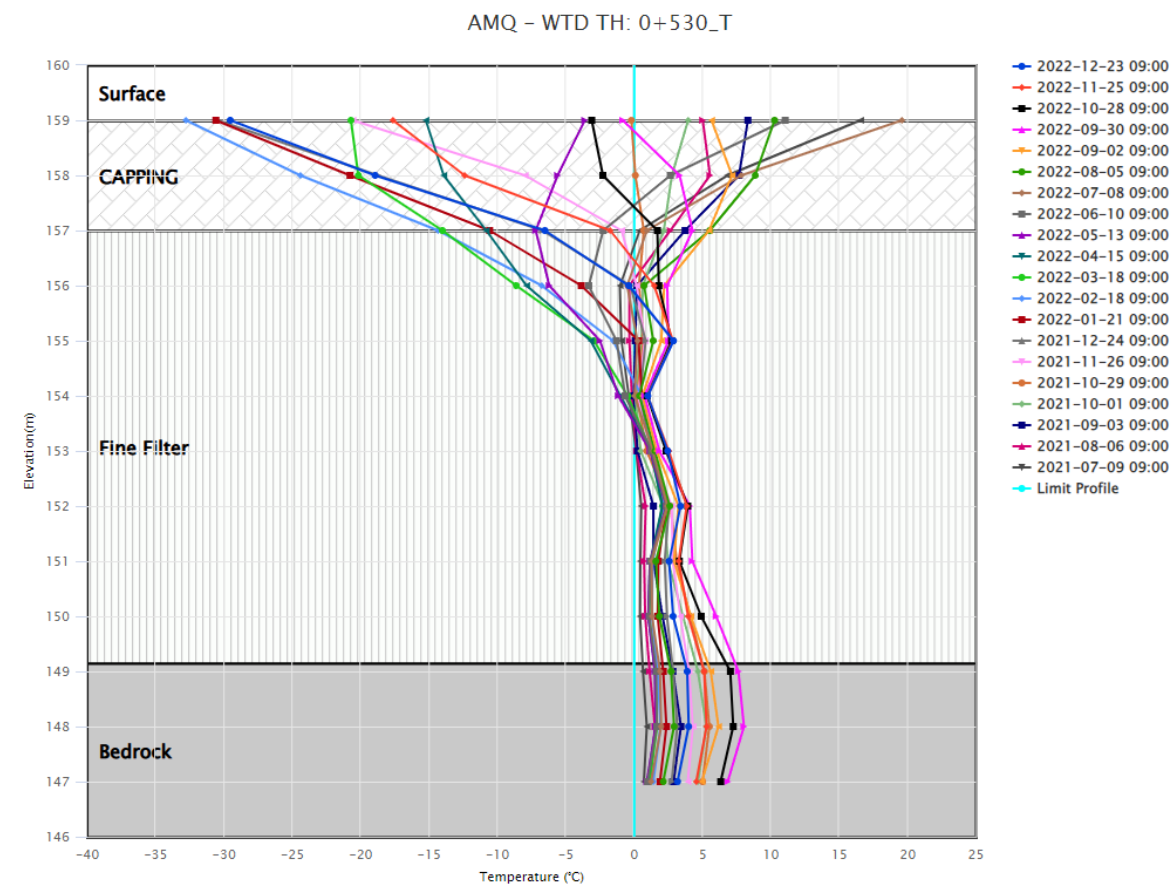
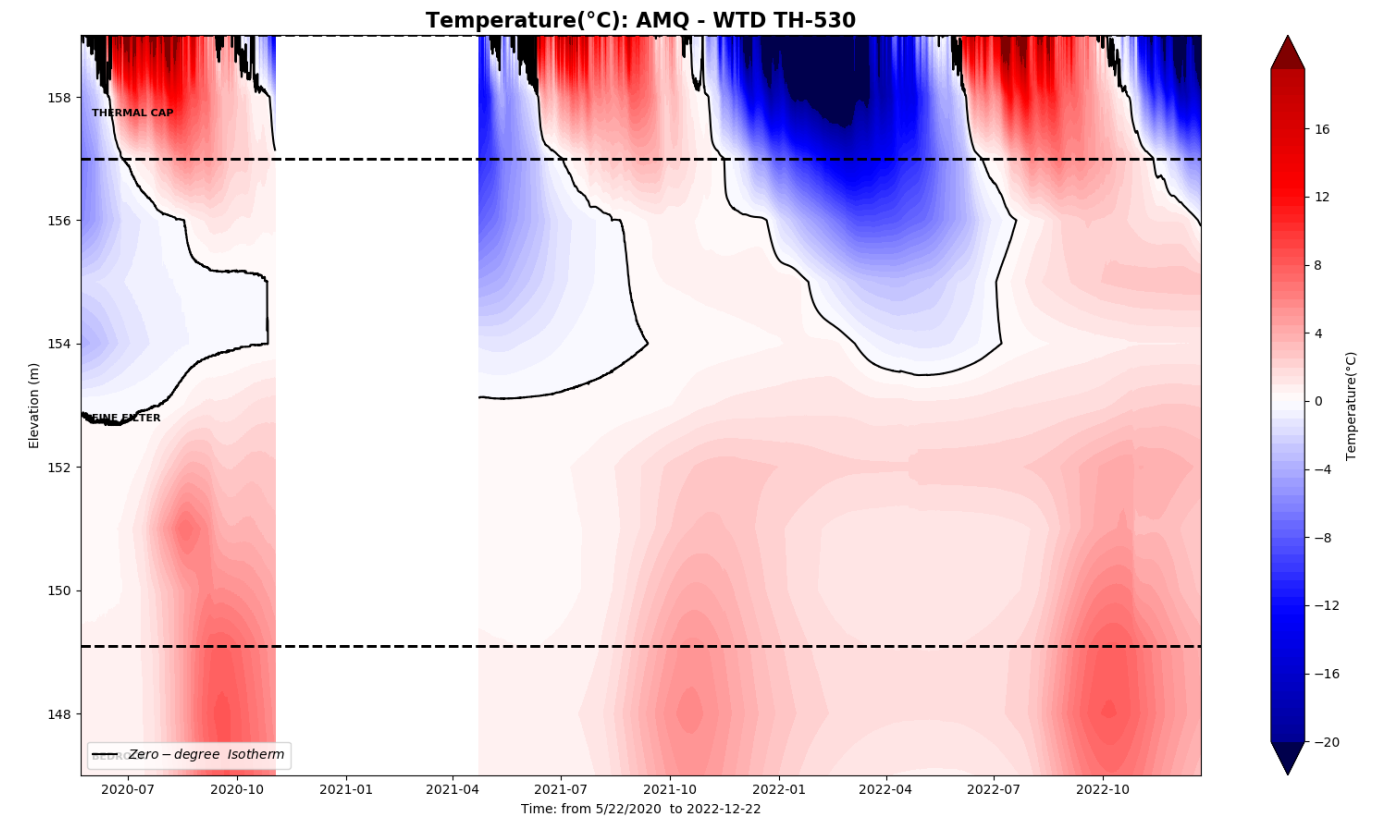
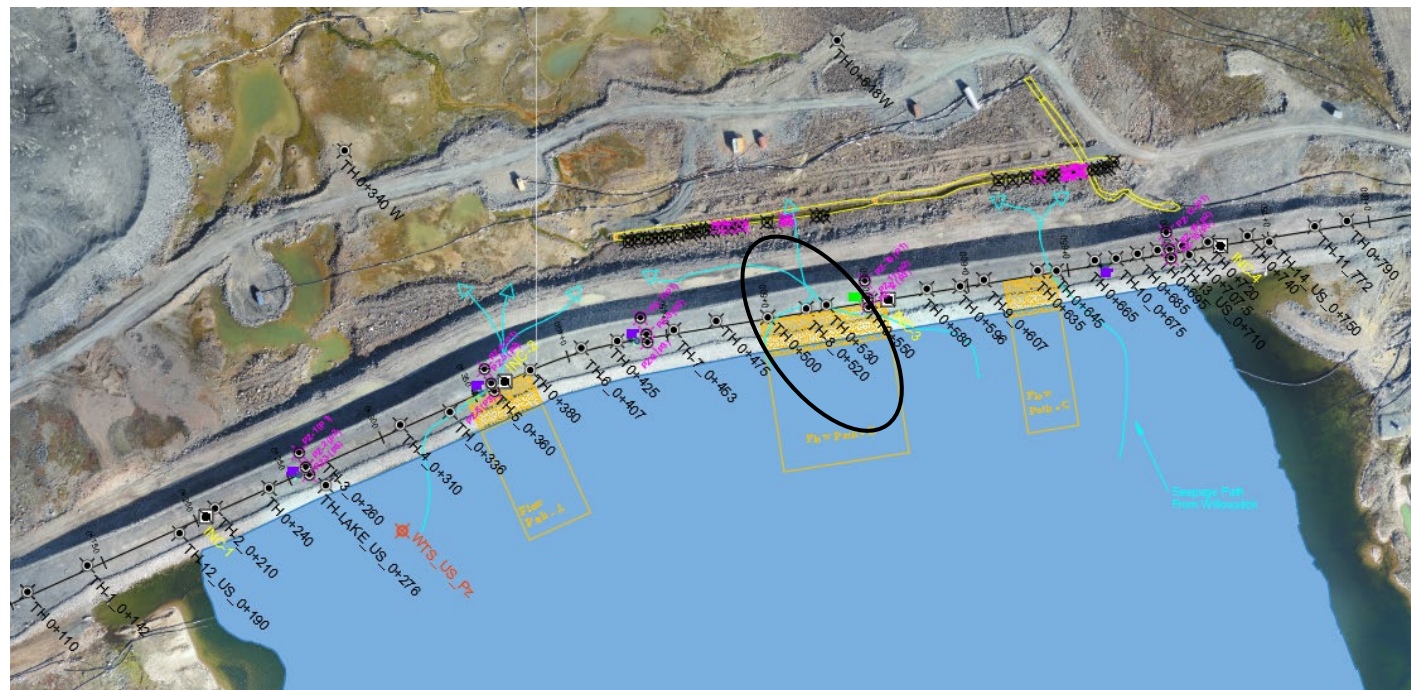
AMQ - WTD TH: 0+500



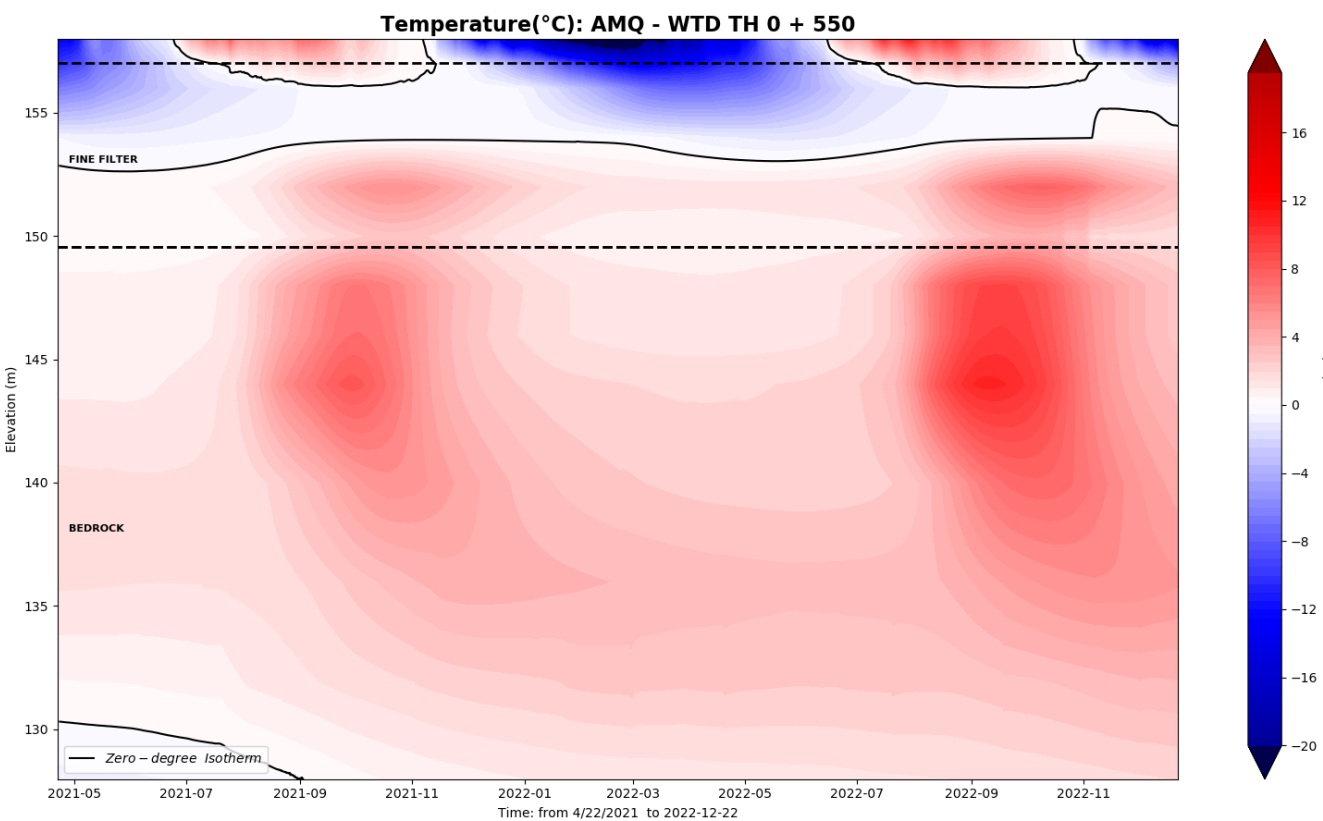
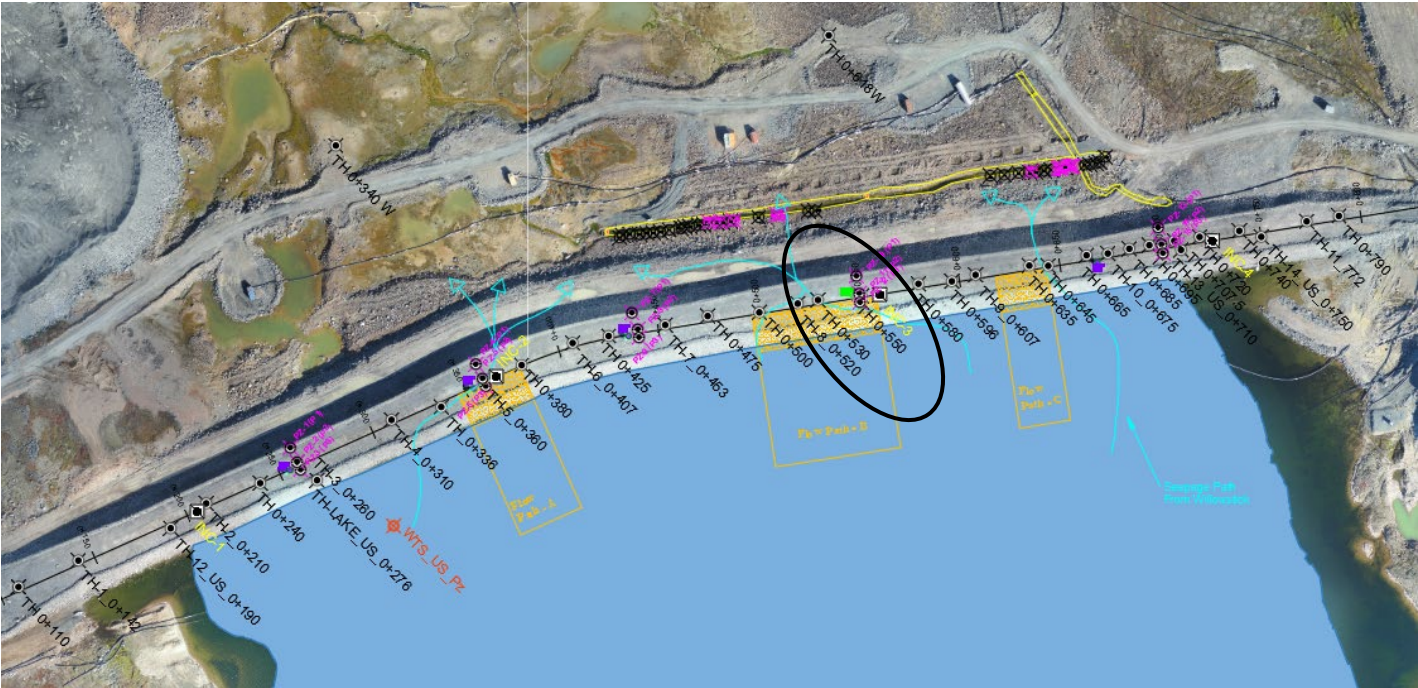
WTD-TH 0+520



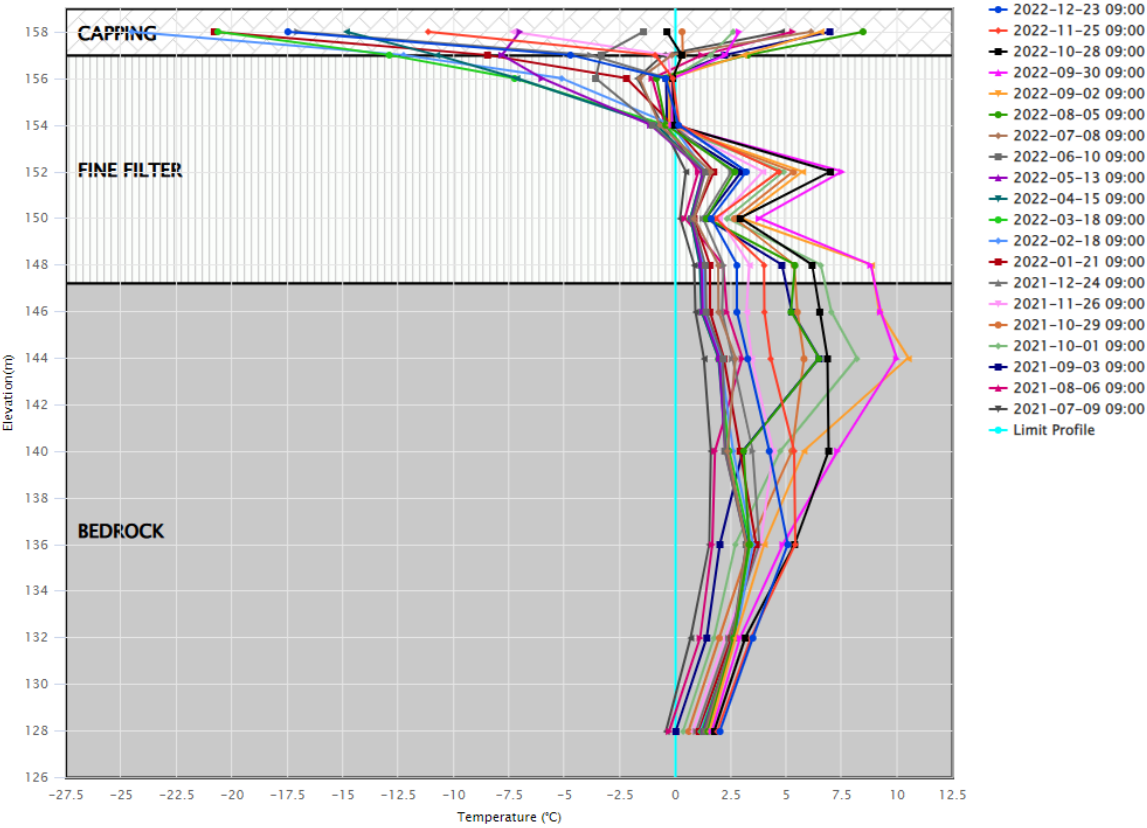
WTD-TH 0+530



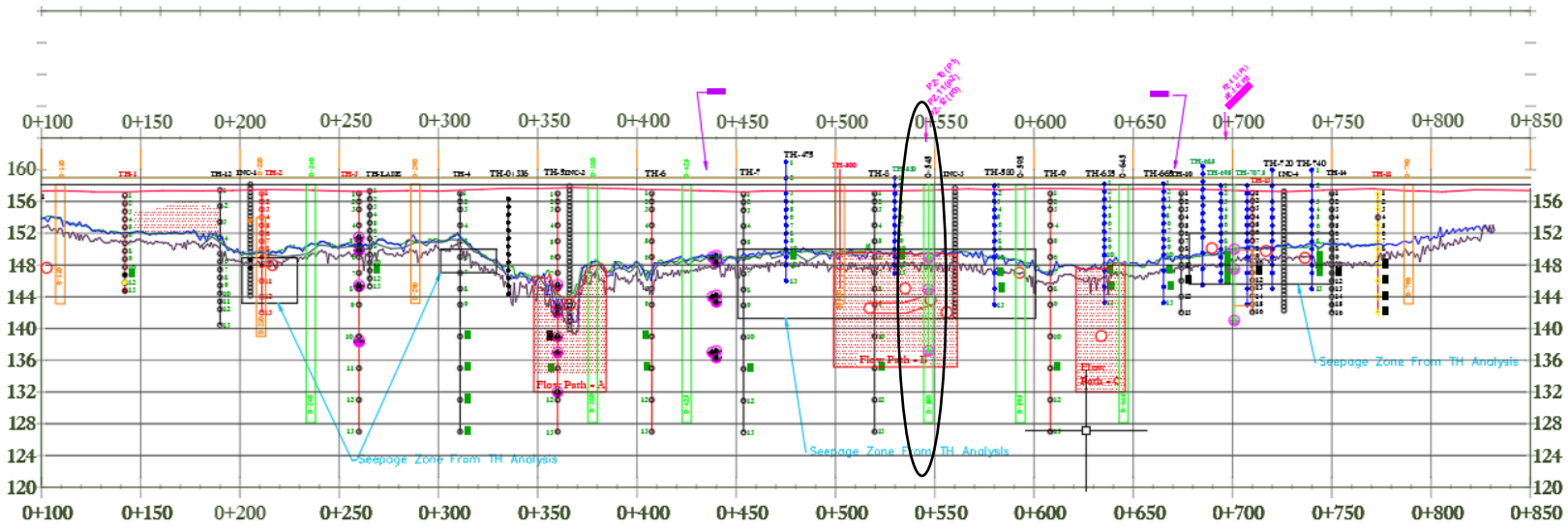
WTD-TH 0+550

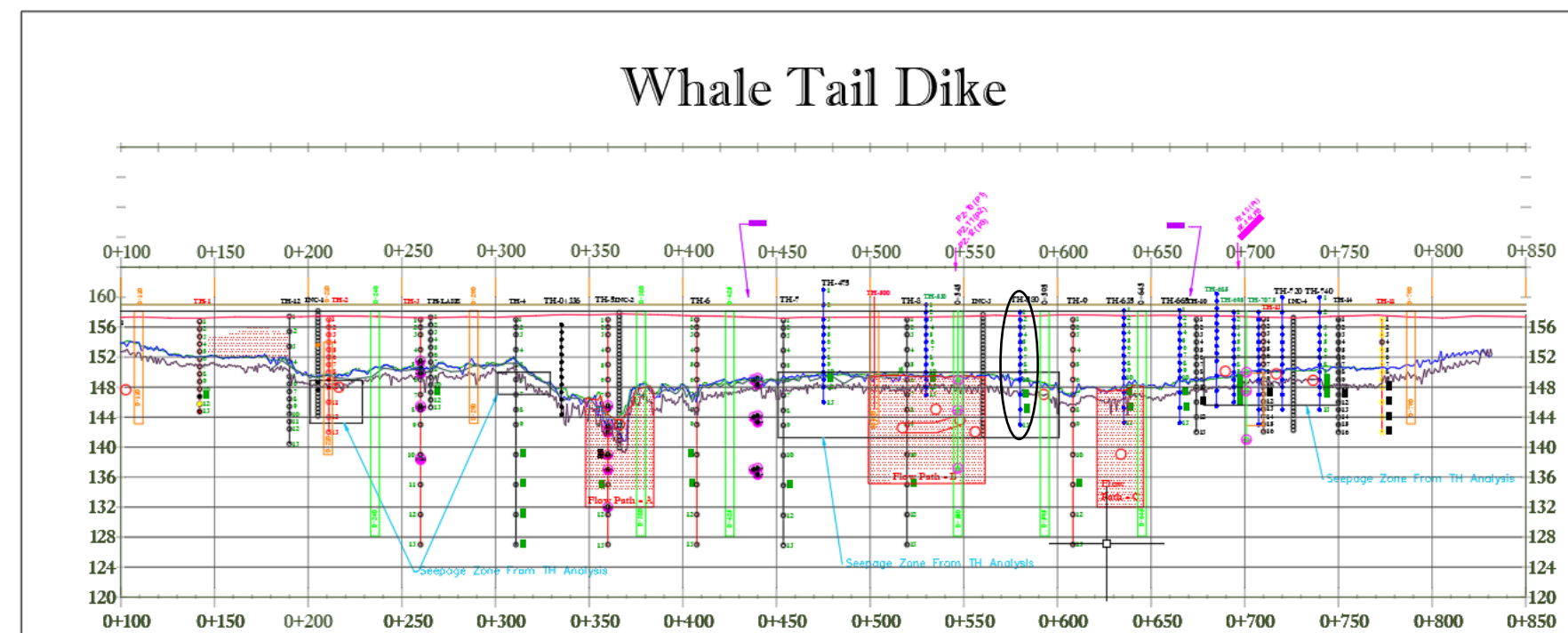
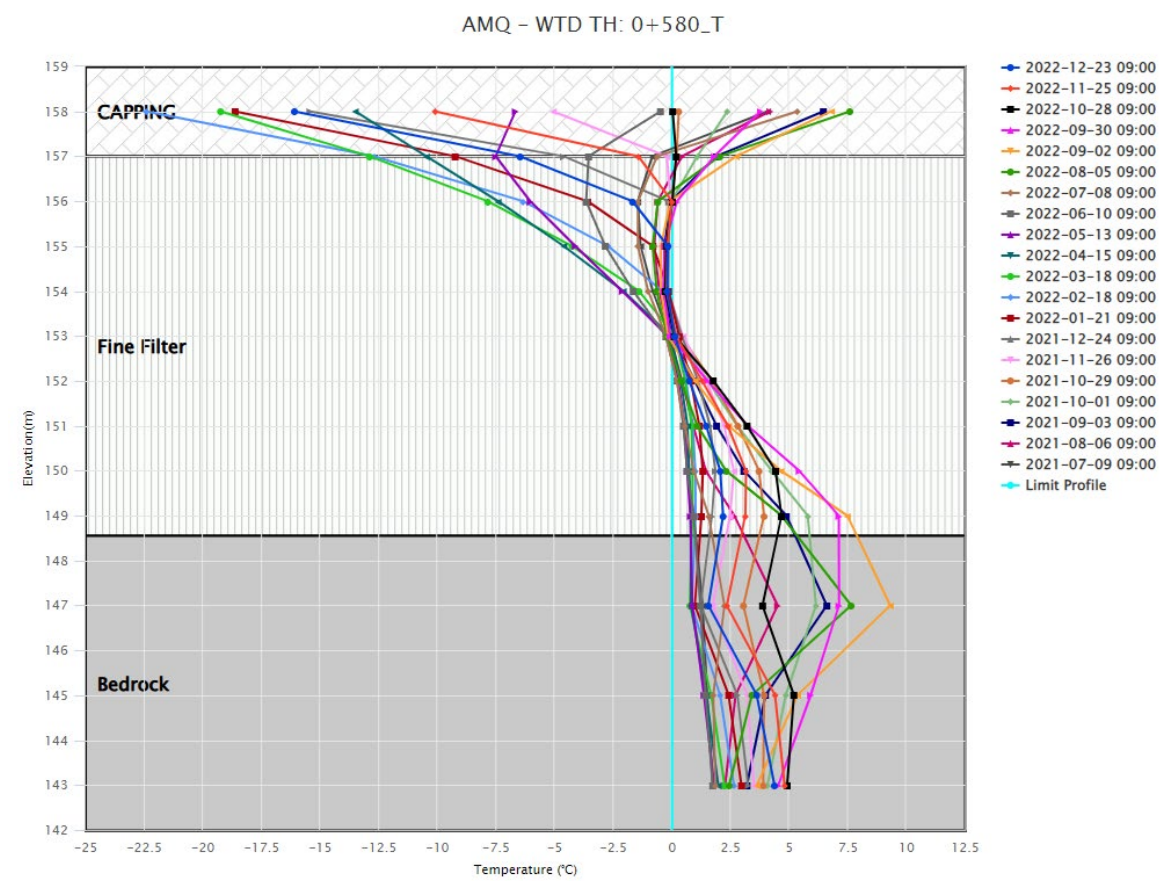
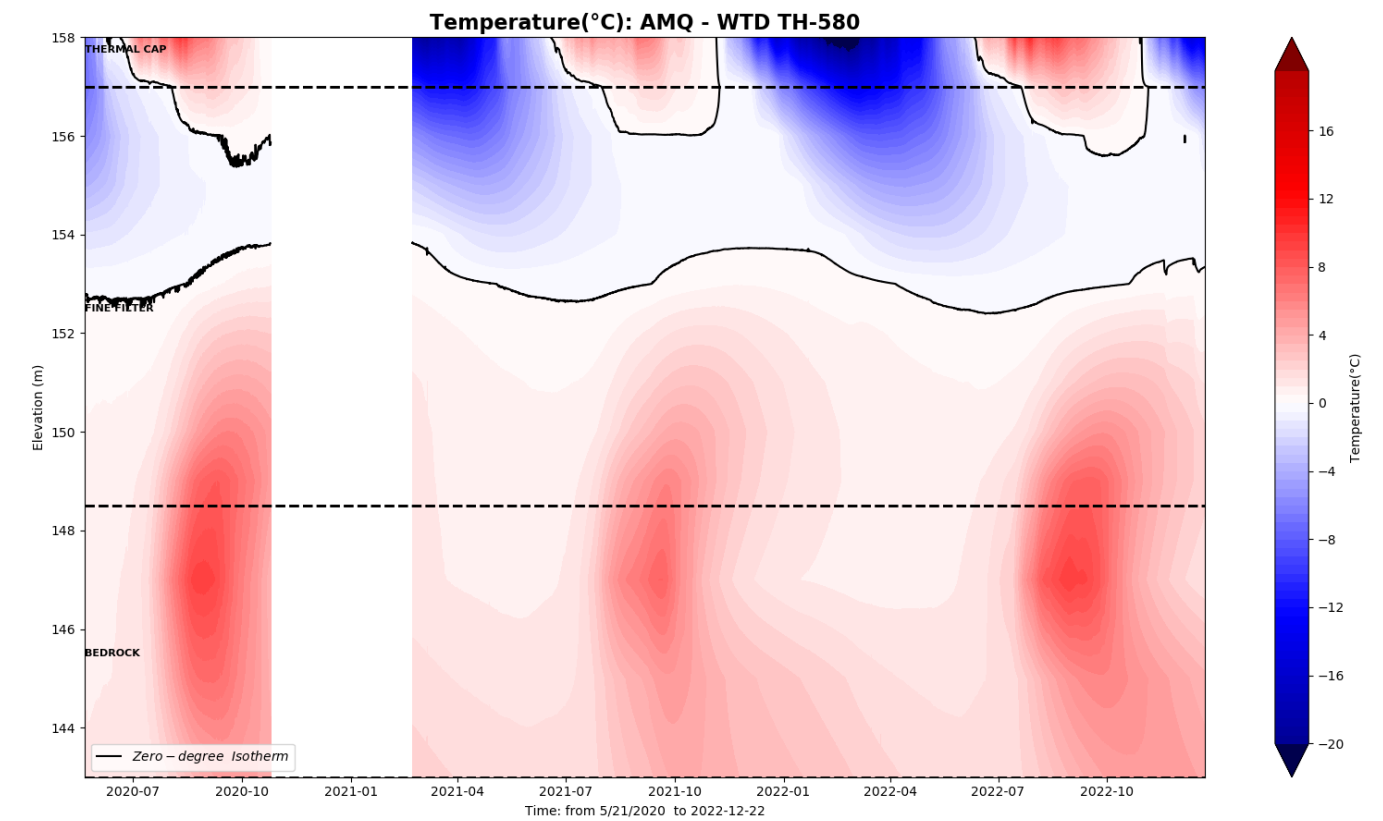


AMQ – WTD TH: 0+550



Whale Tail Dike

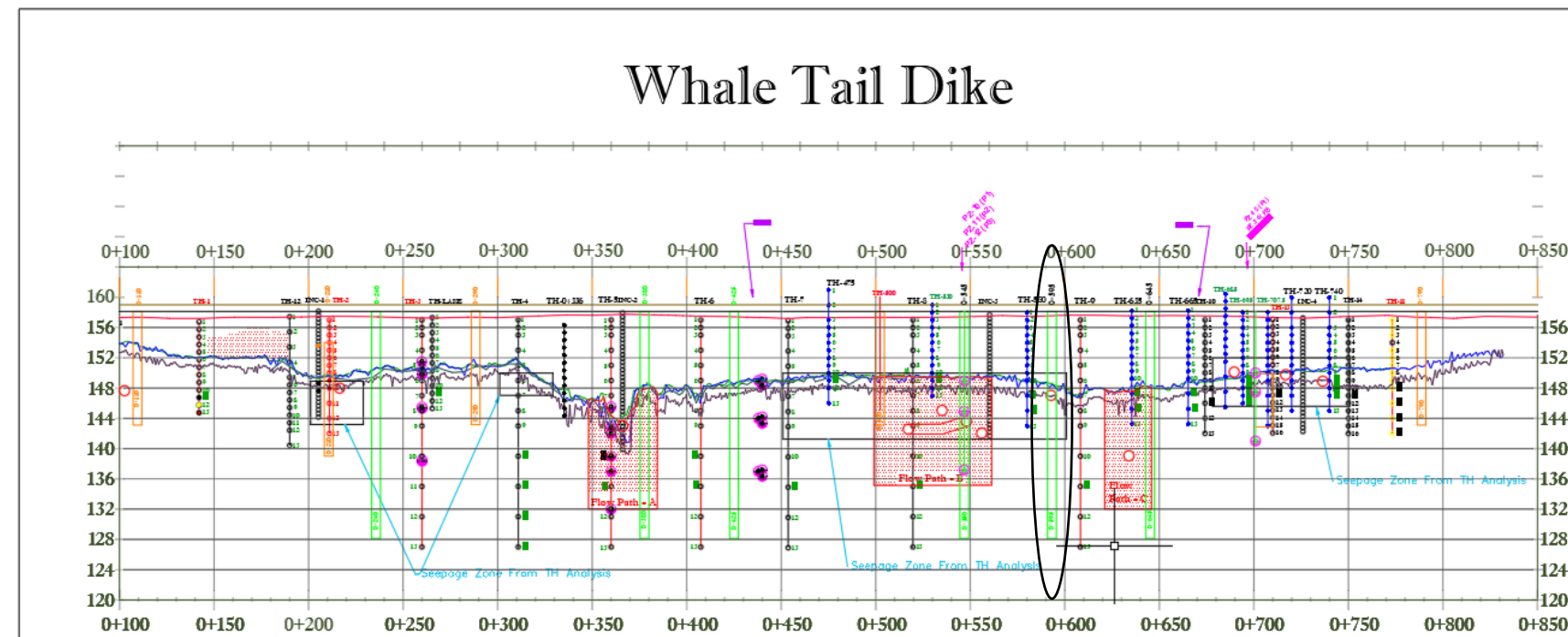
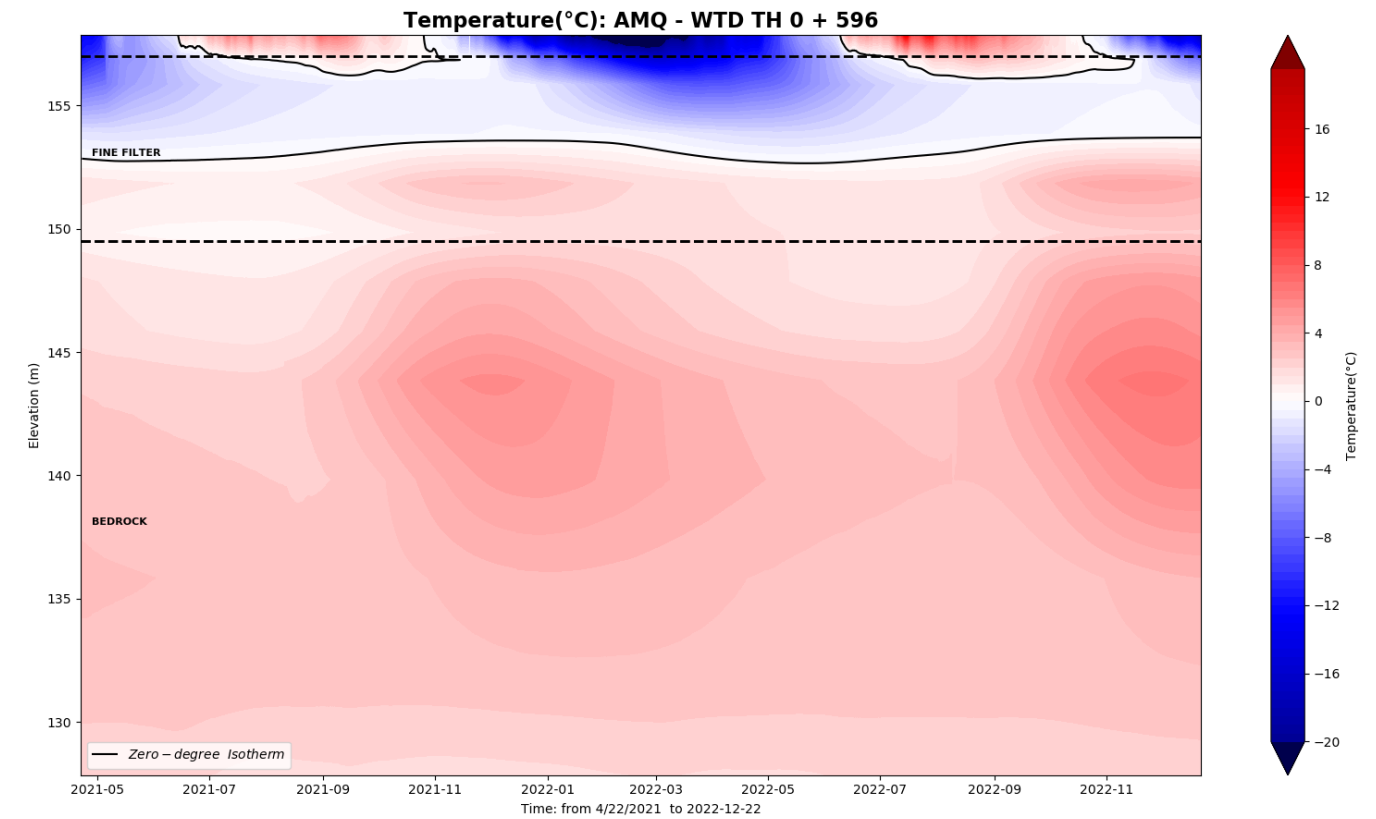
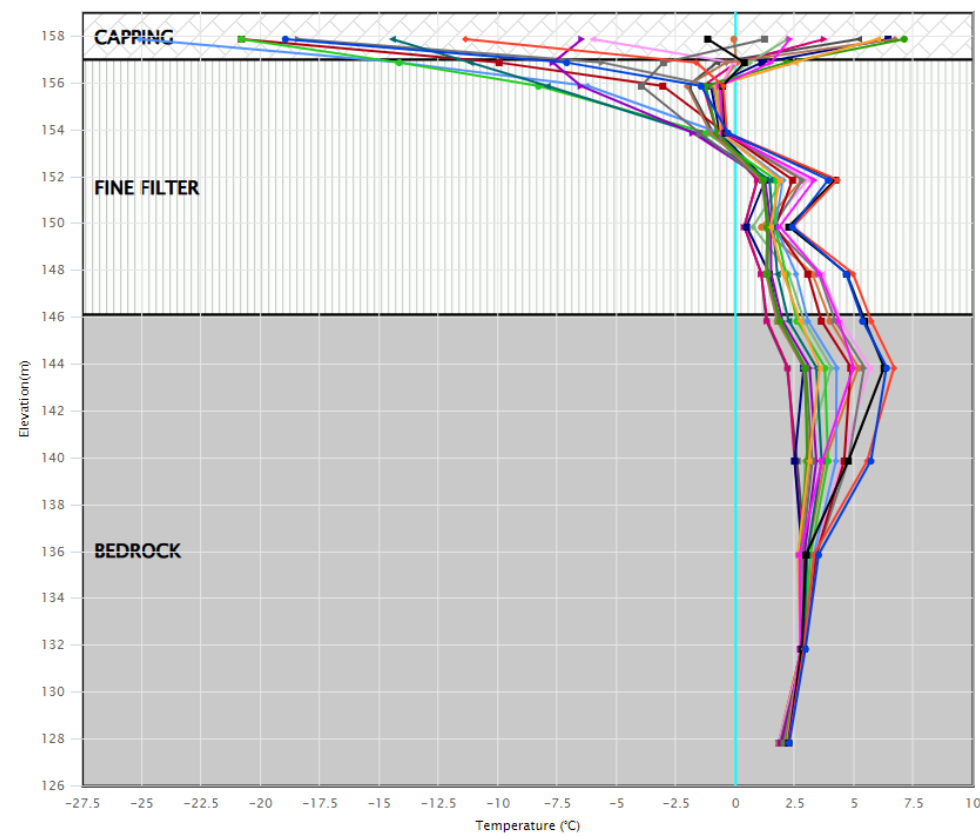




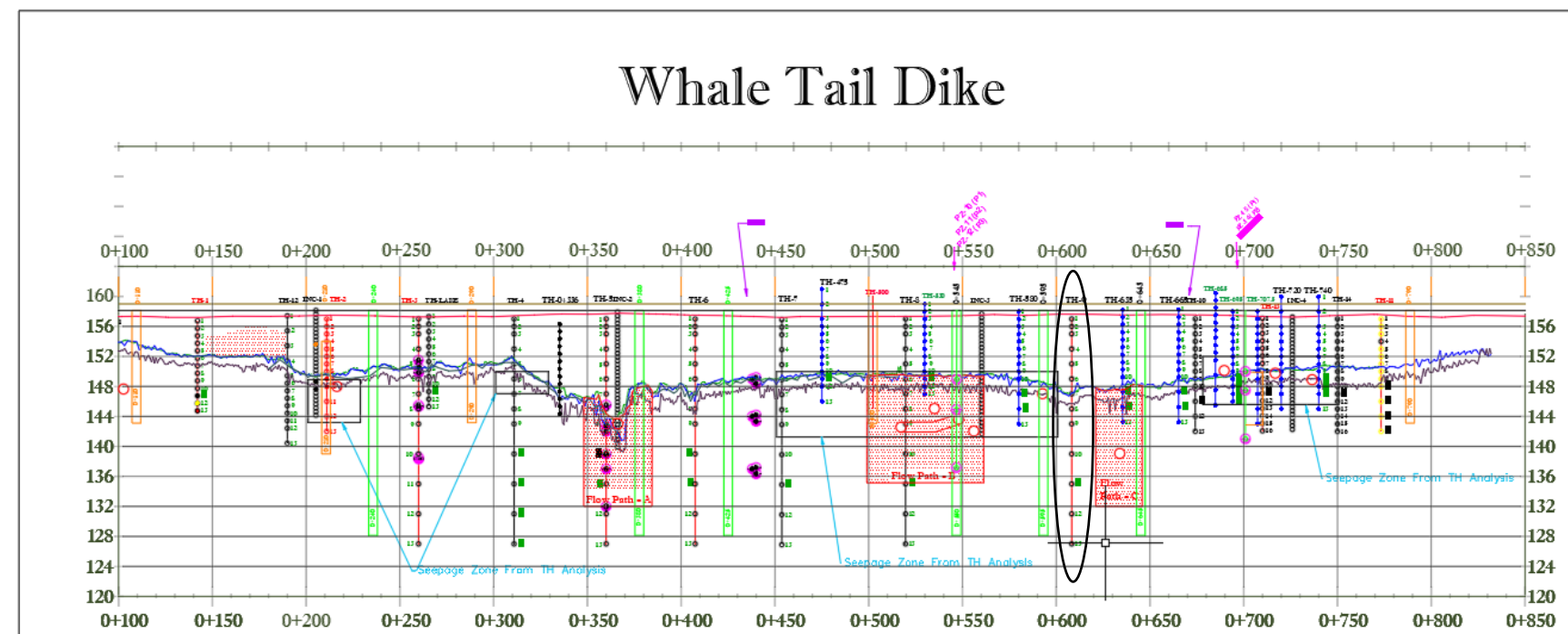
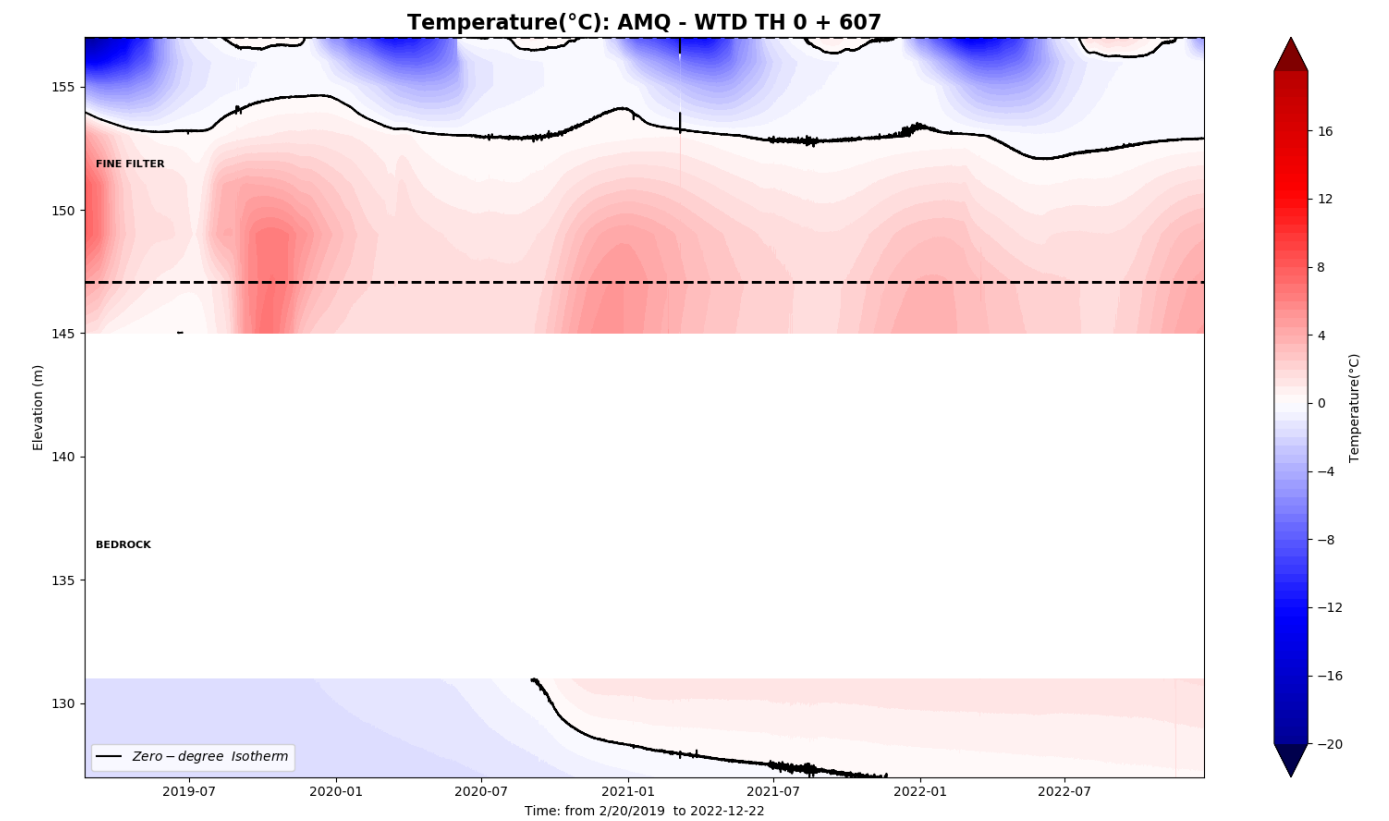
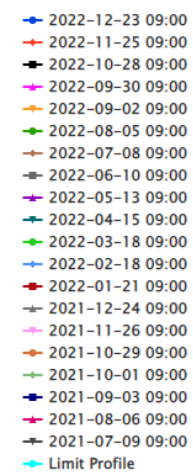
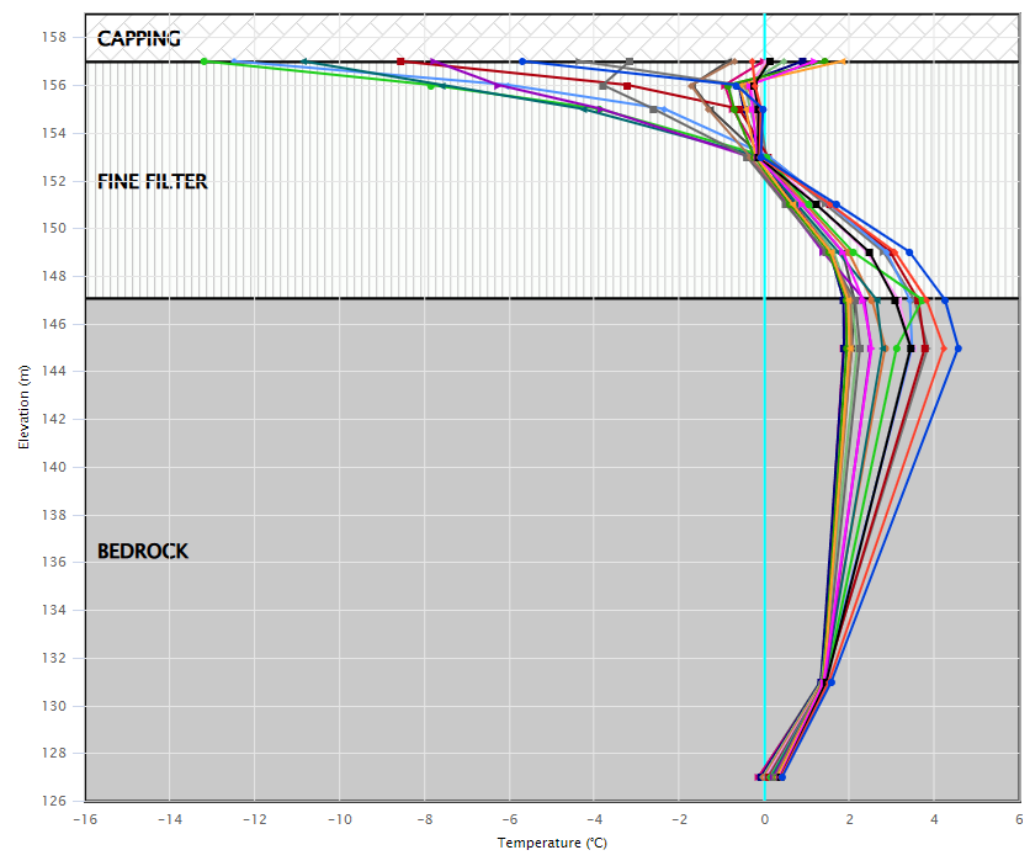
WTD-TH 0+596



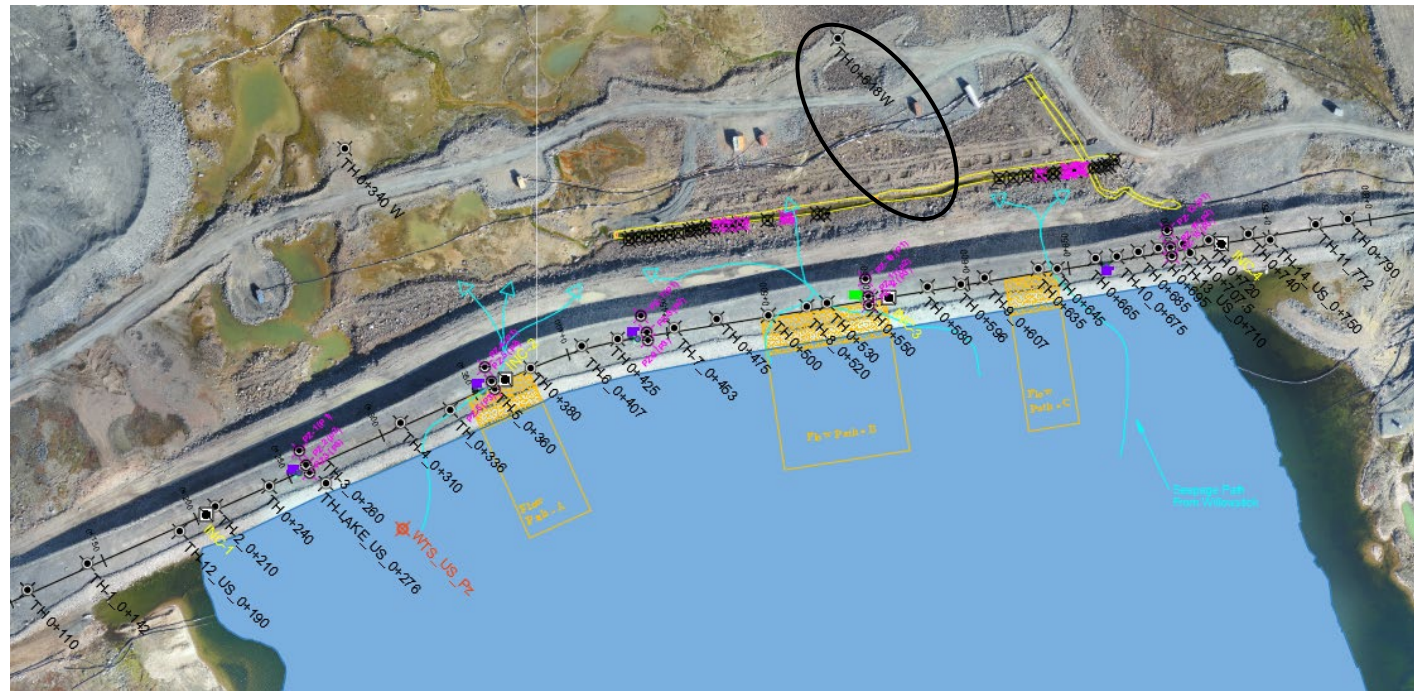
AMQ - WTD TH: 0+596



Beads # 9,10 and #11 removed.

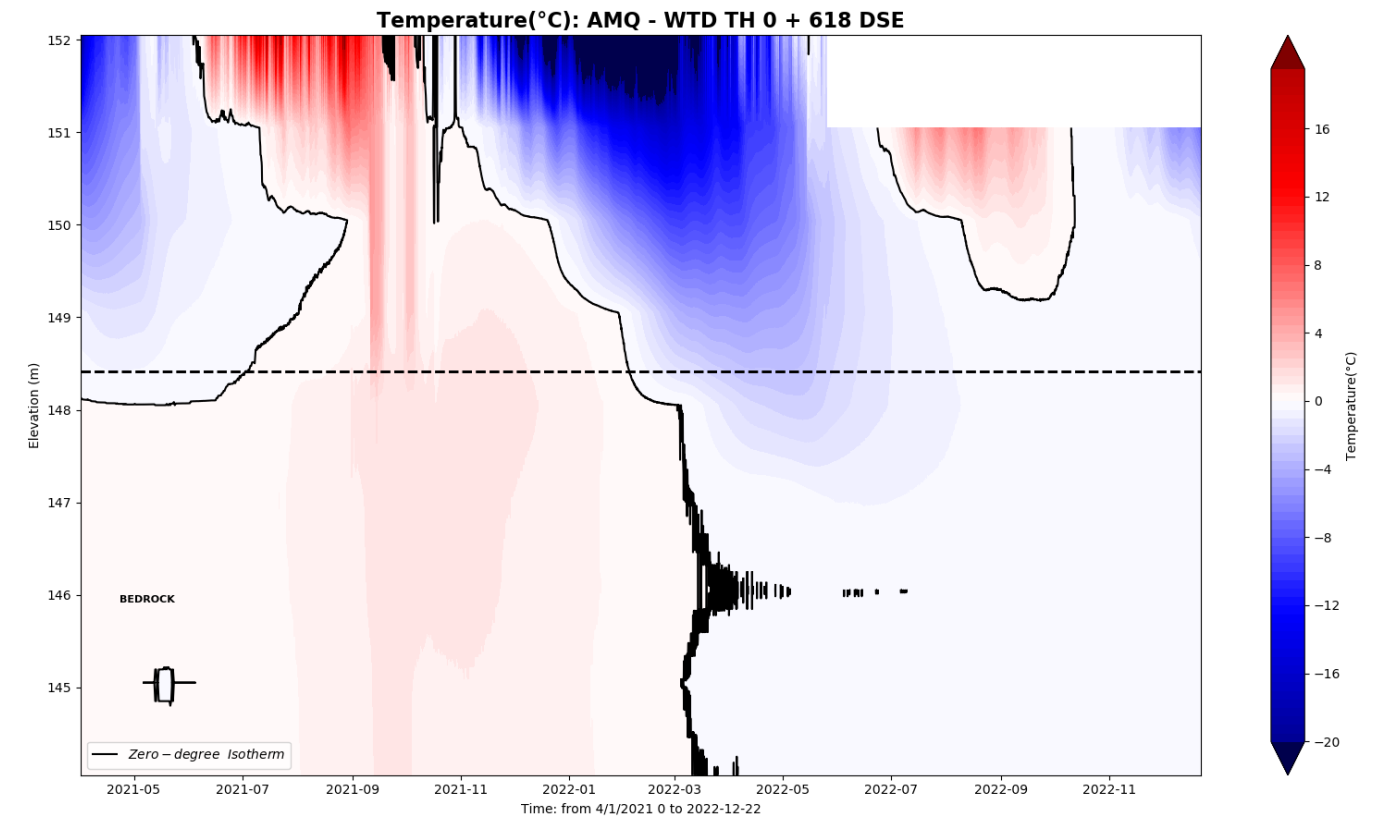
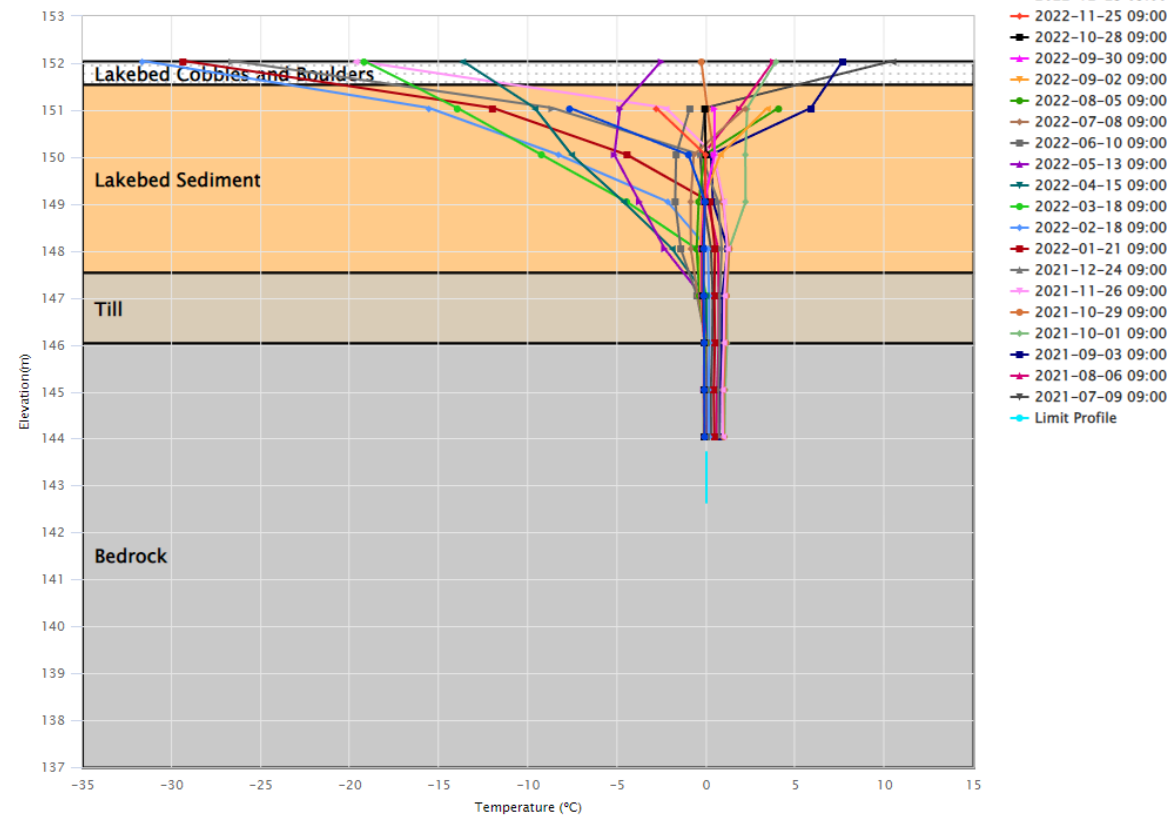


WTD-TH 0+618 DSE

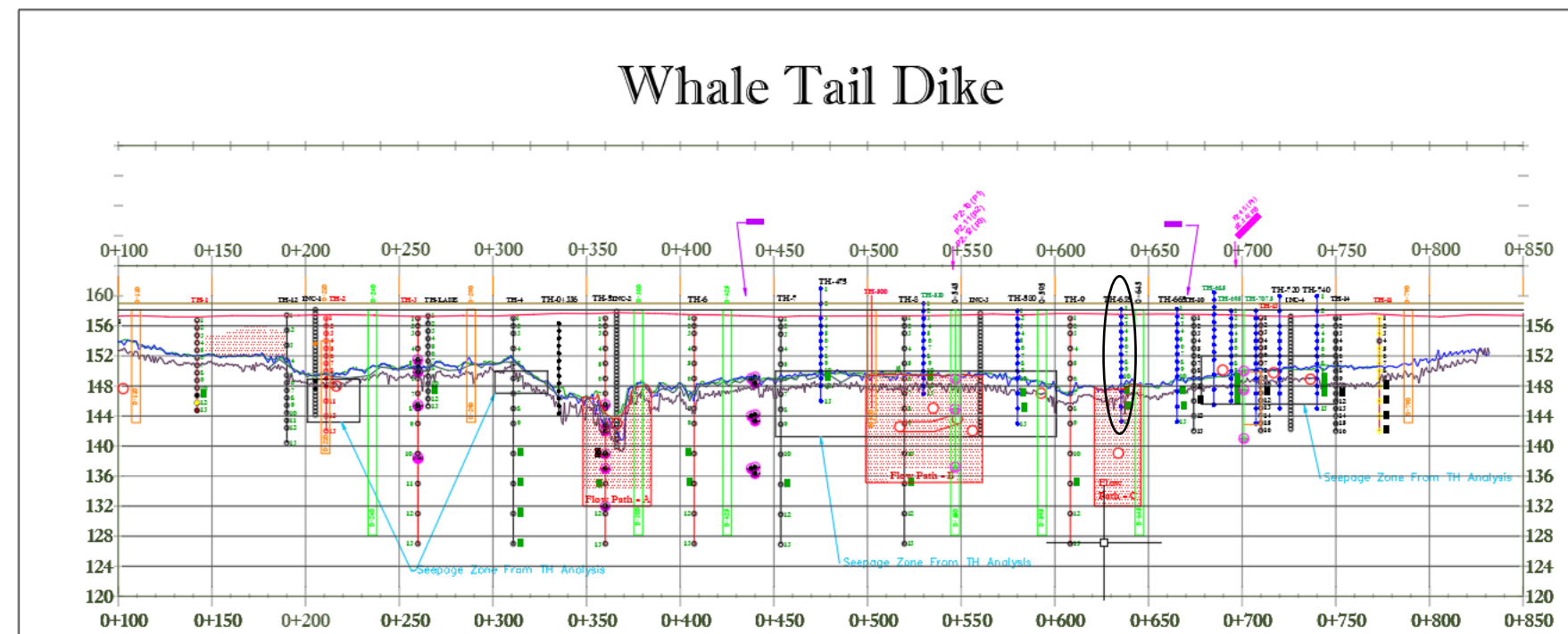
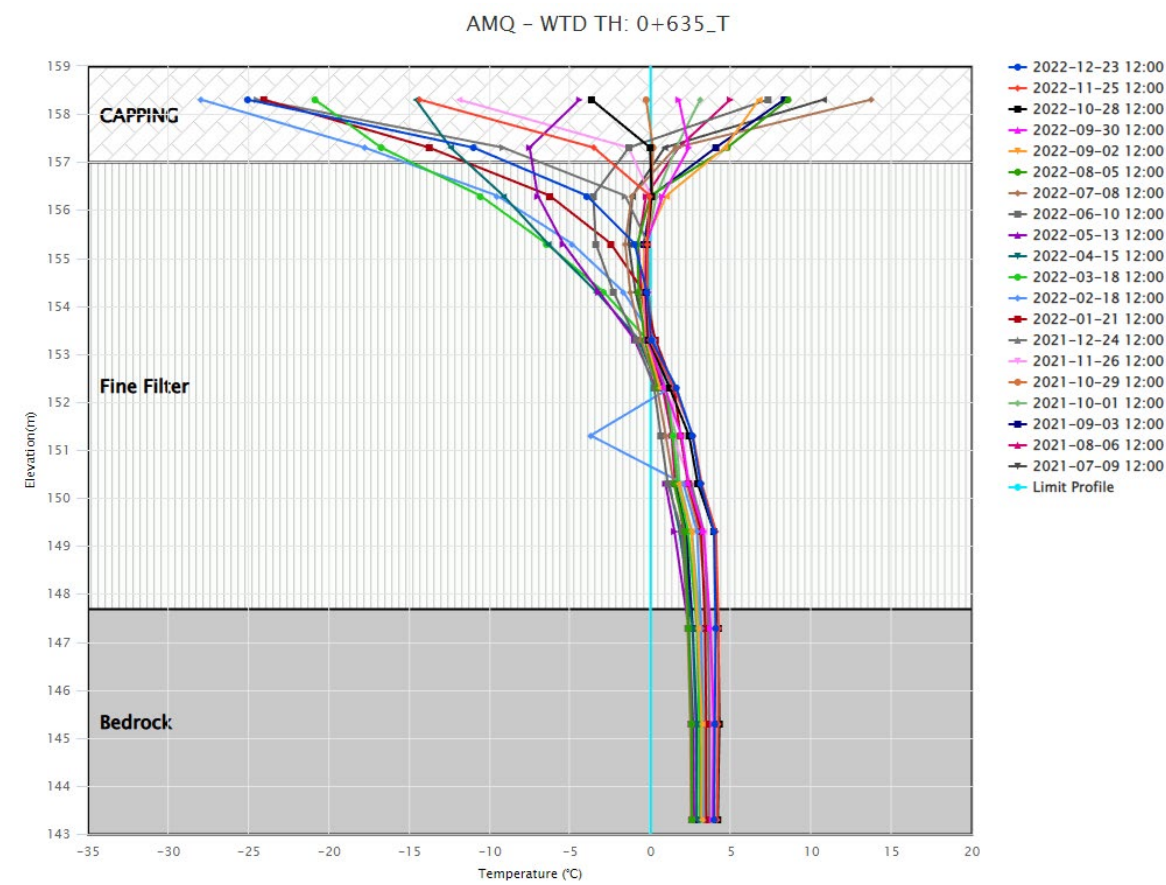
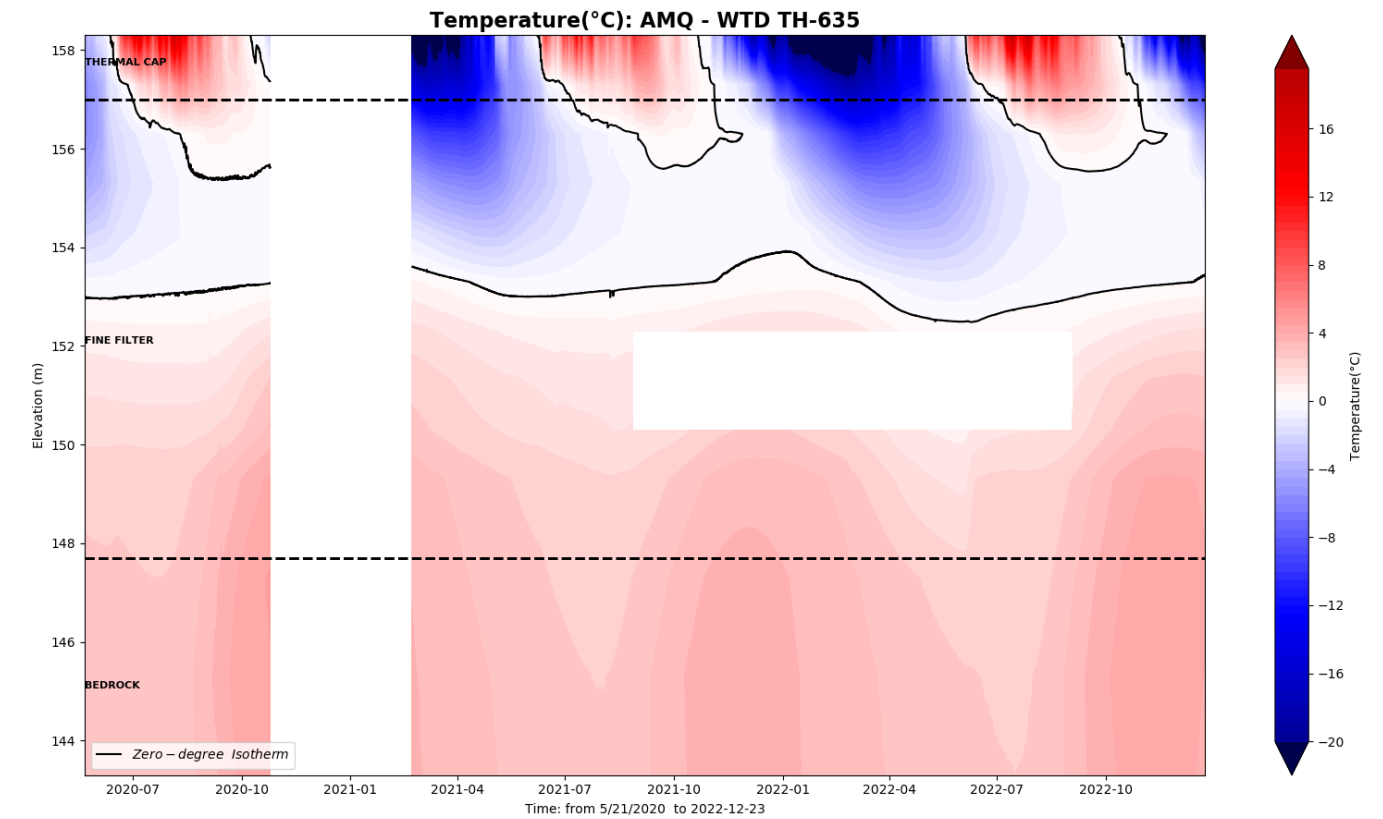
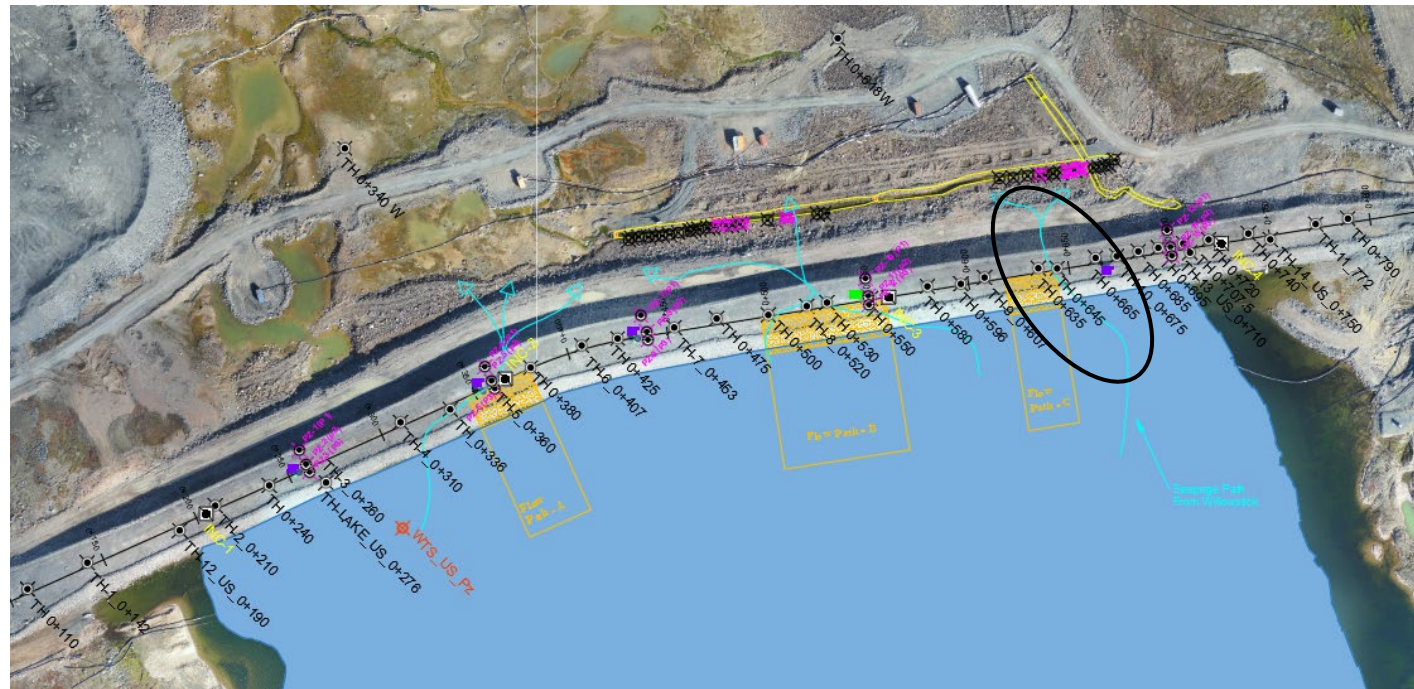


AMQ – WTD TH: D/S_East

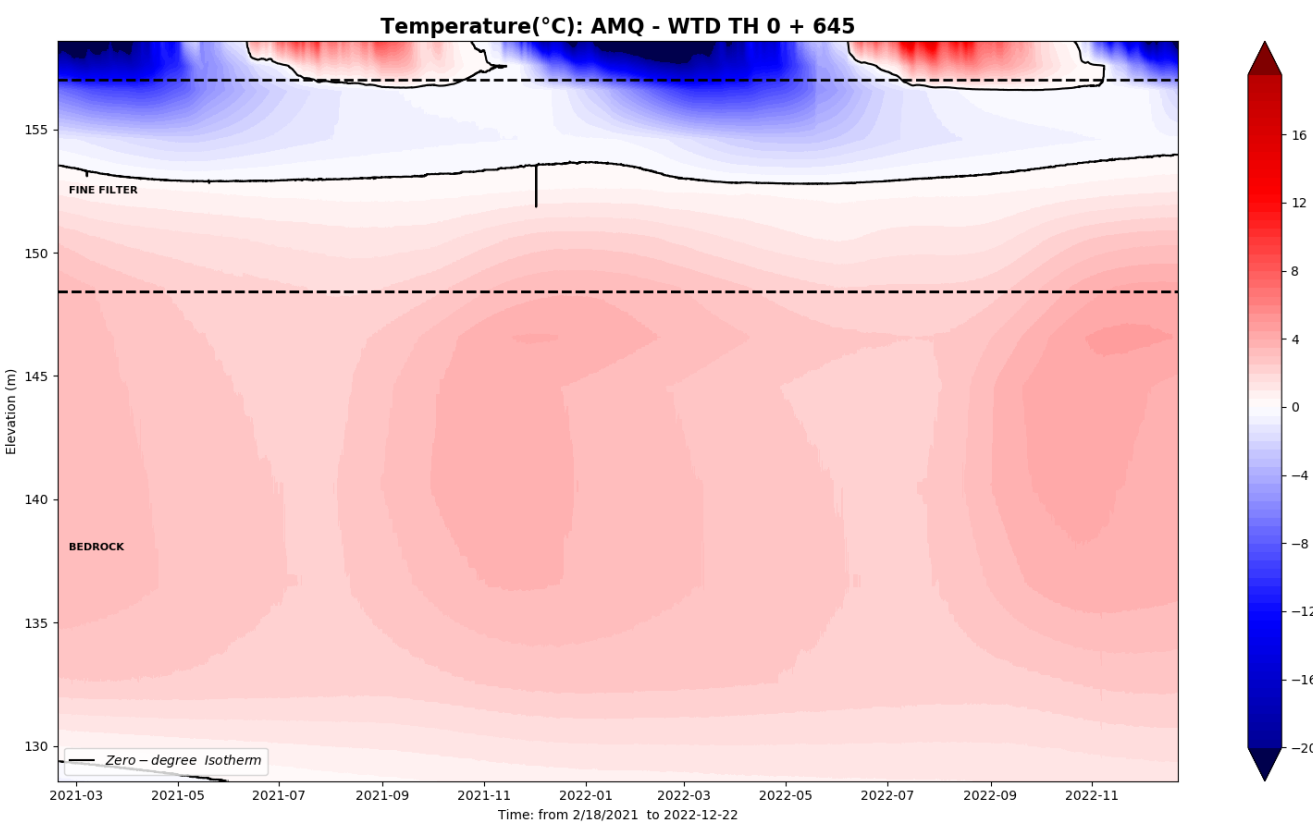
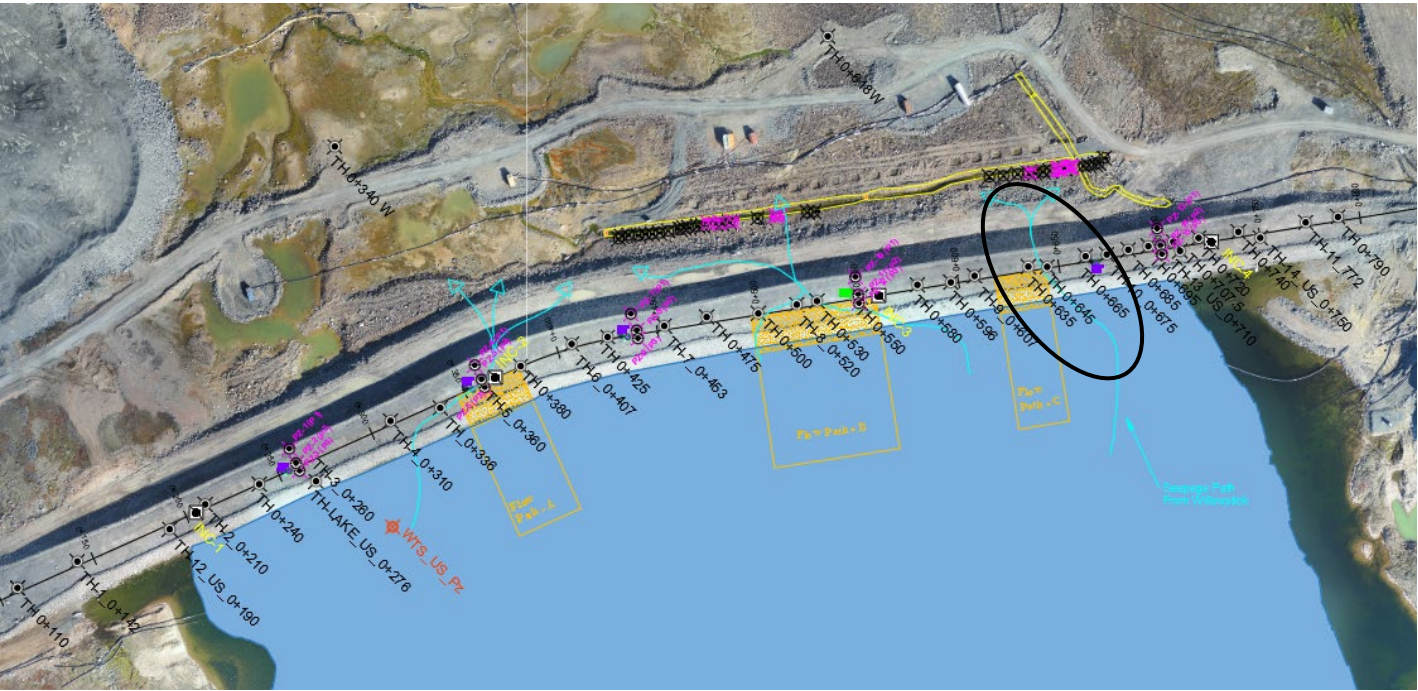
Beads #10 to #16 are damaged.



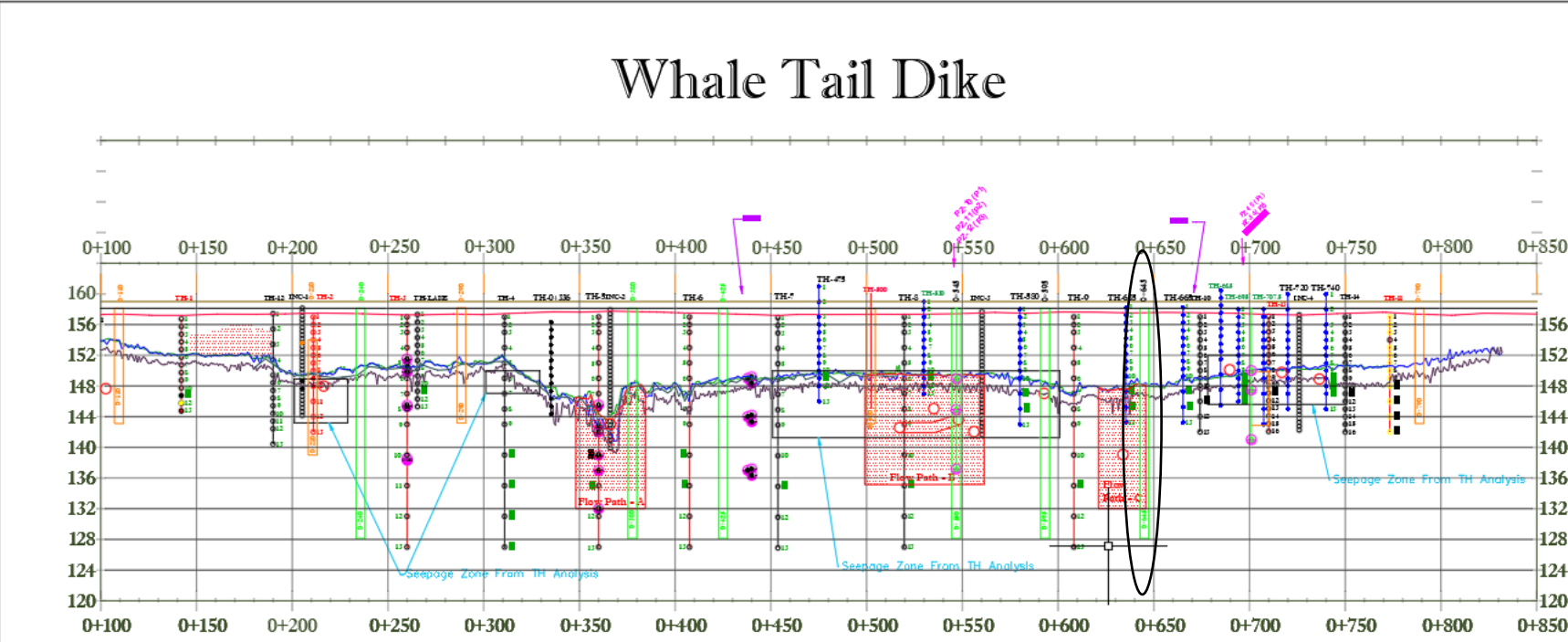
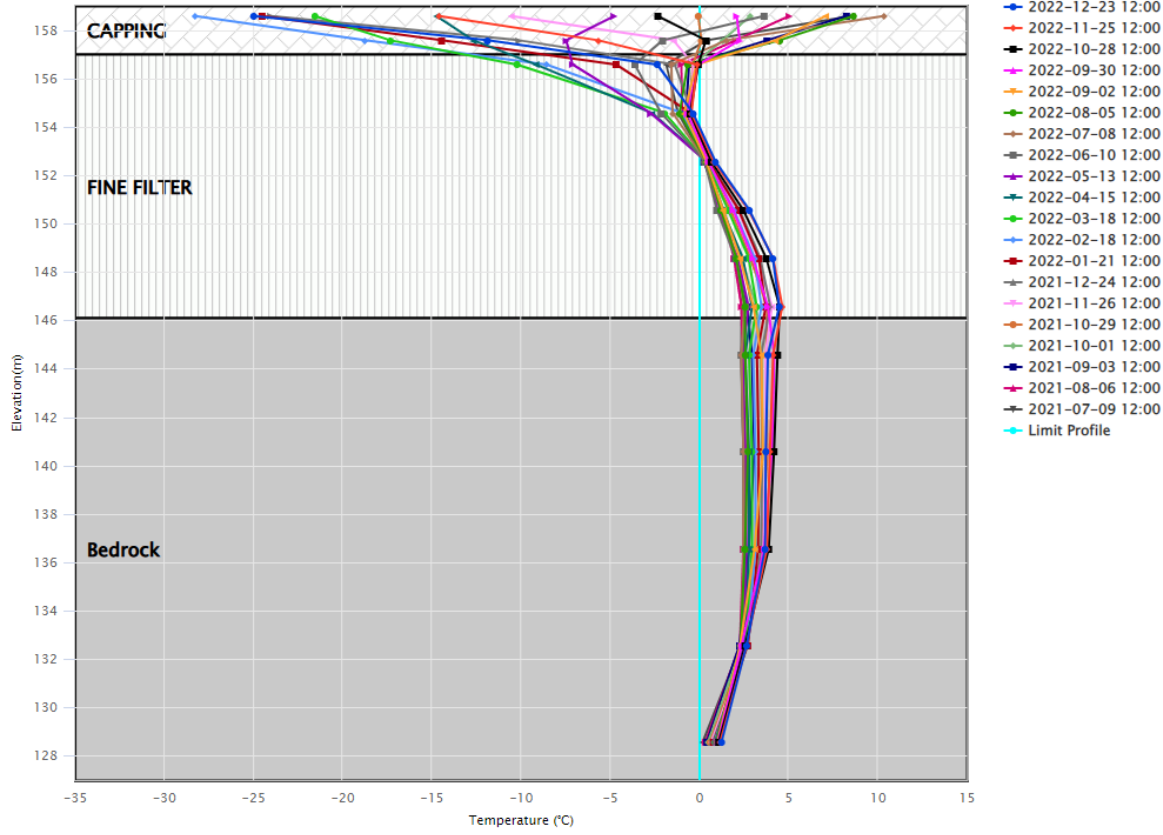
WTD-TH 0+635



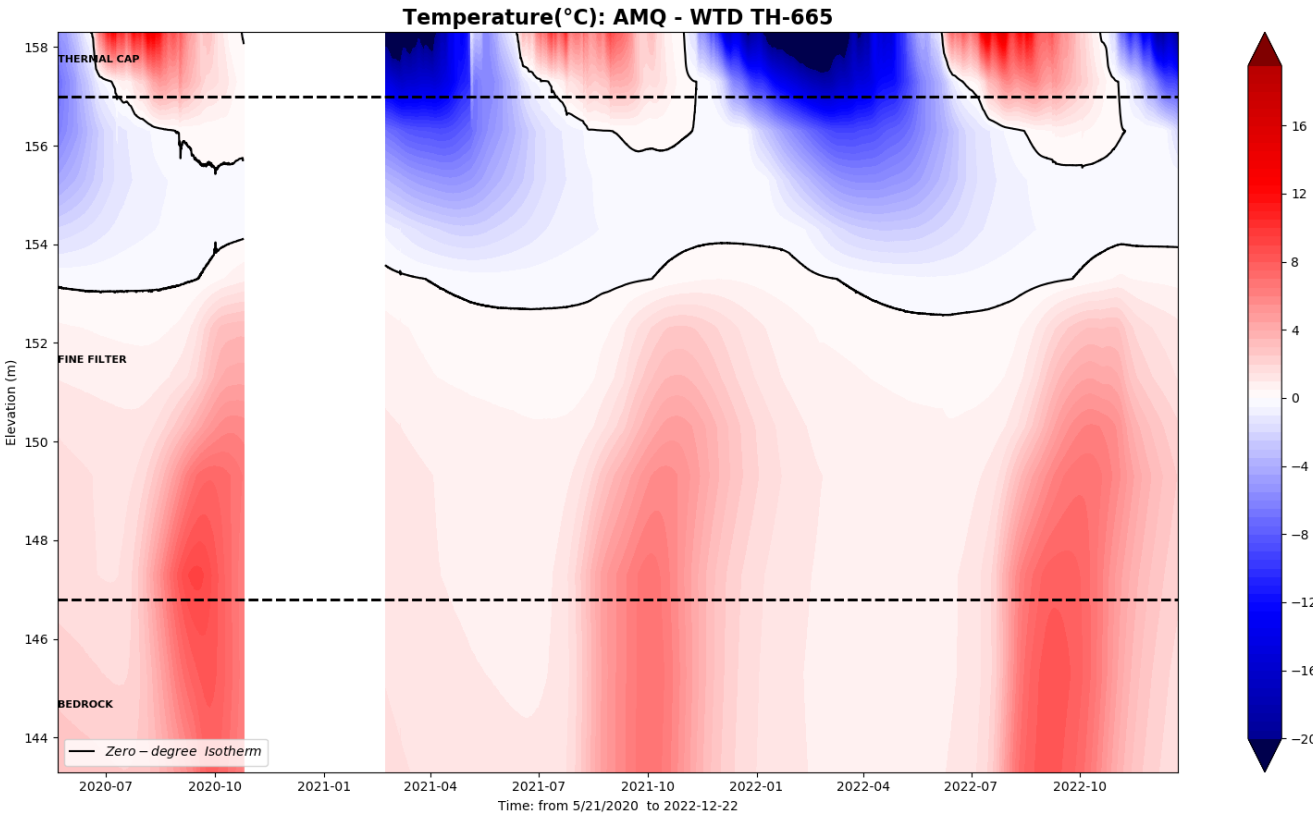
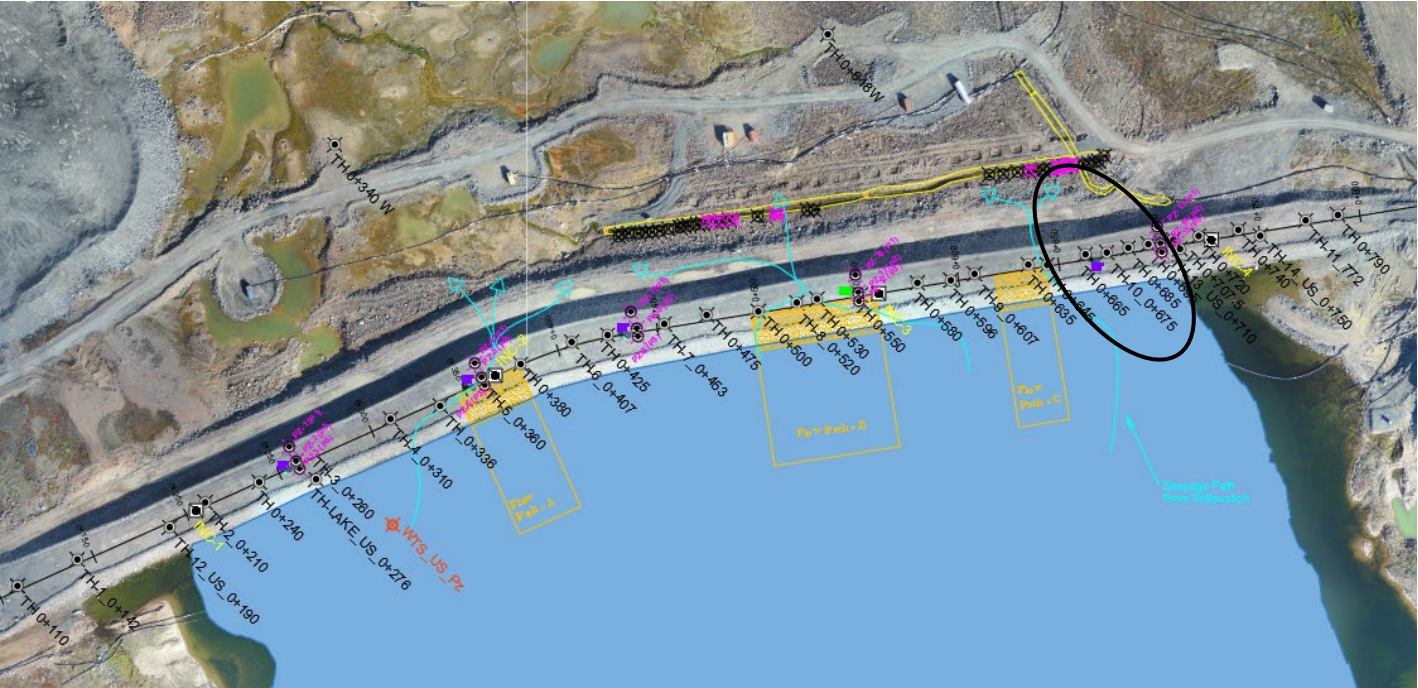
WTD-TH 0+645



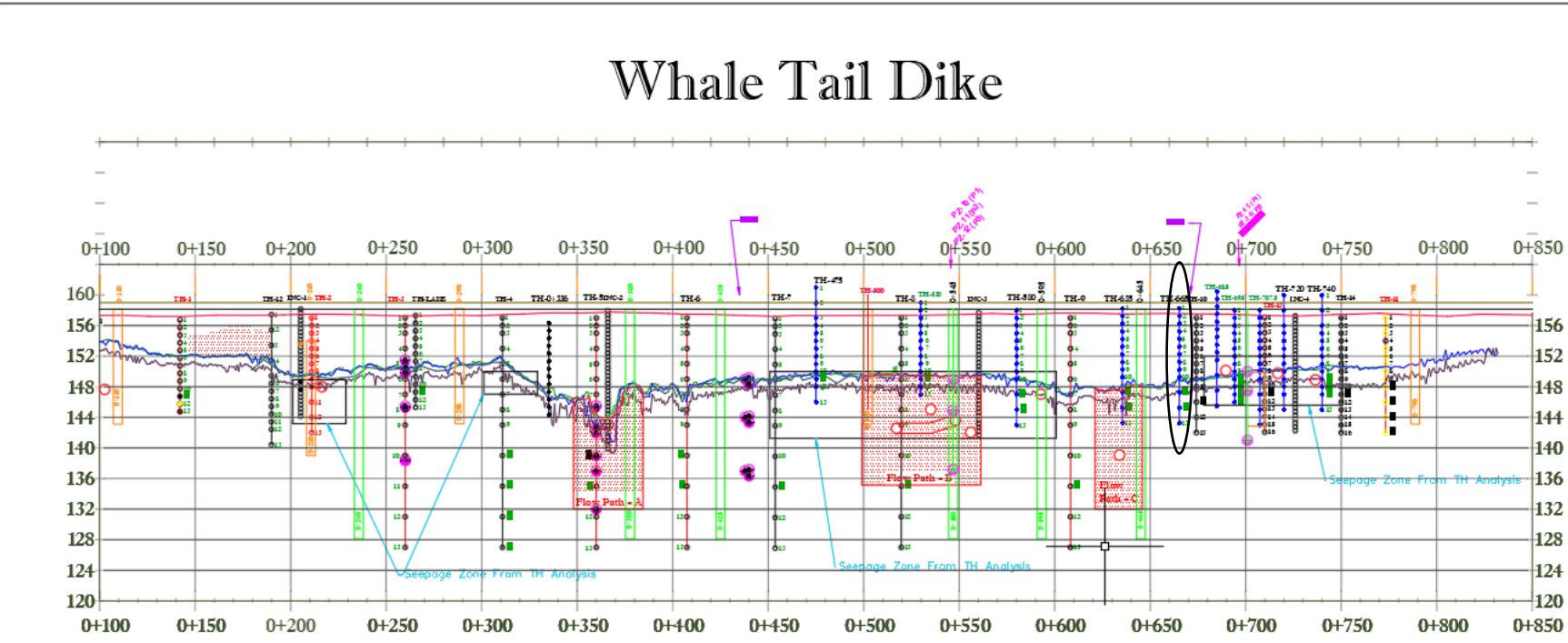
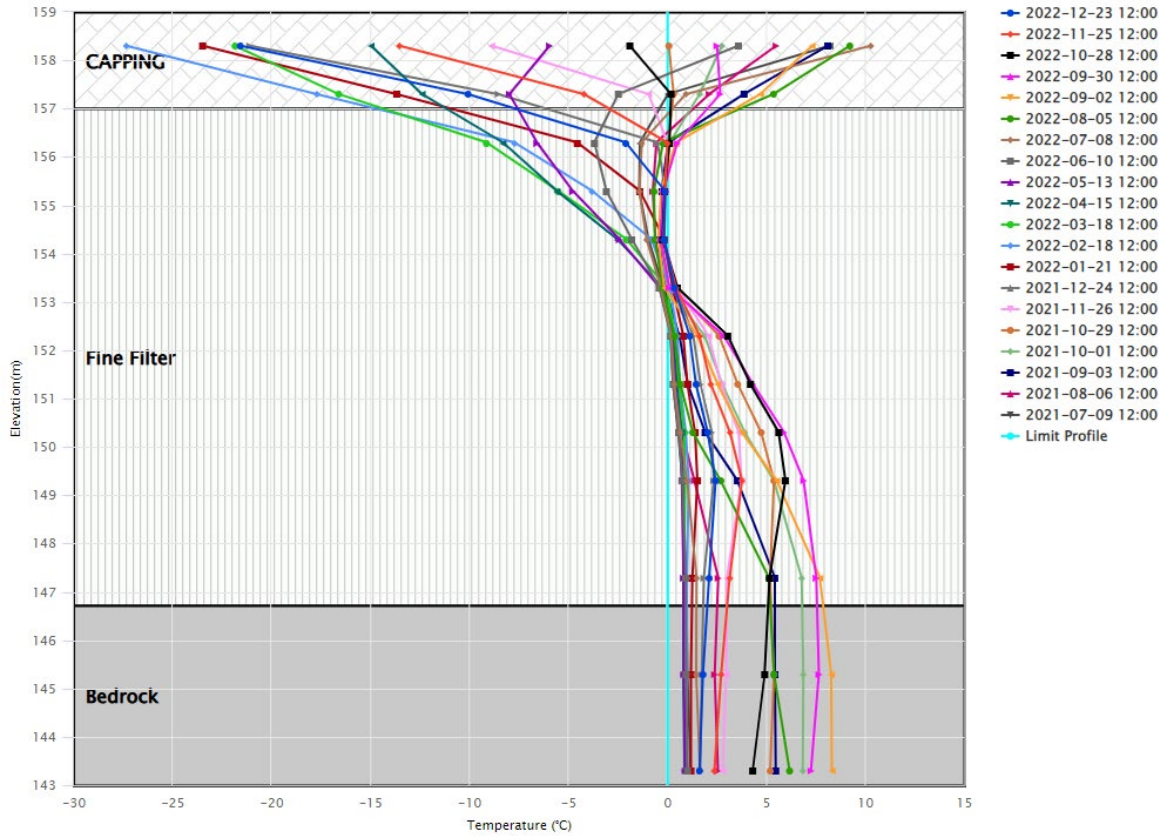
AMQ – WTD TH: 0+645



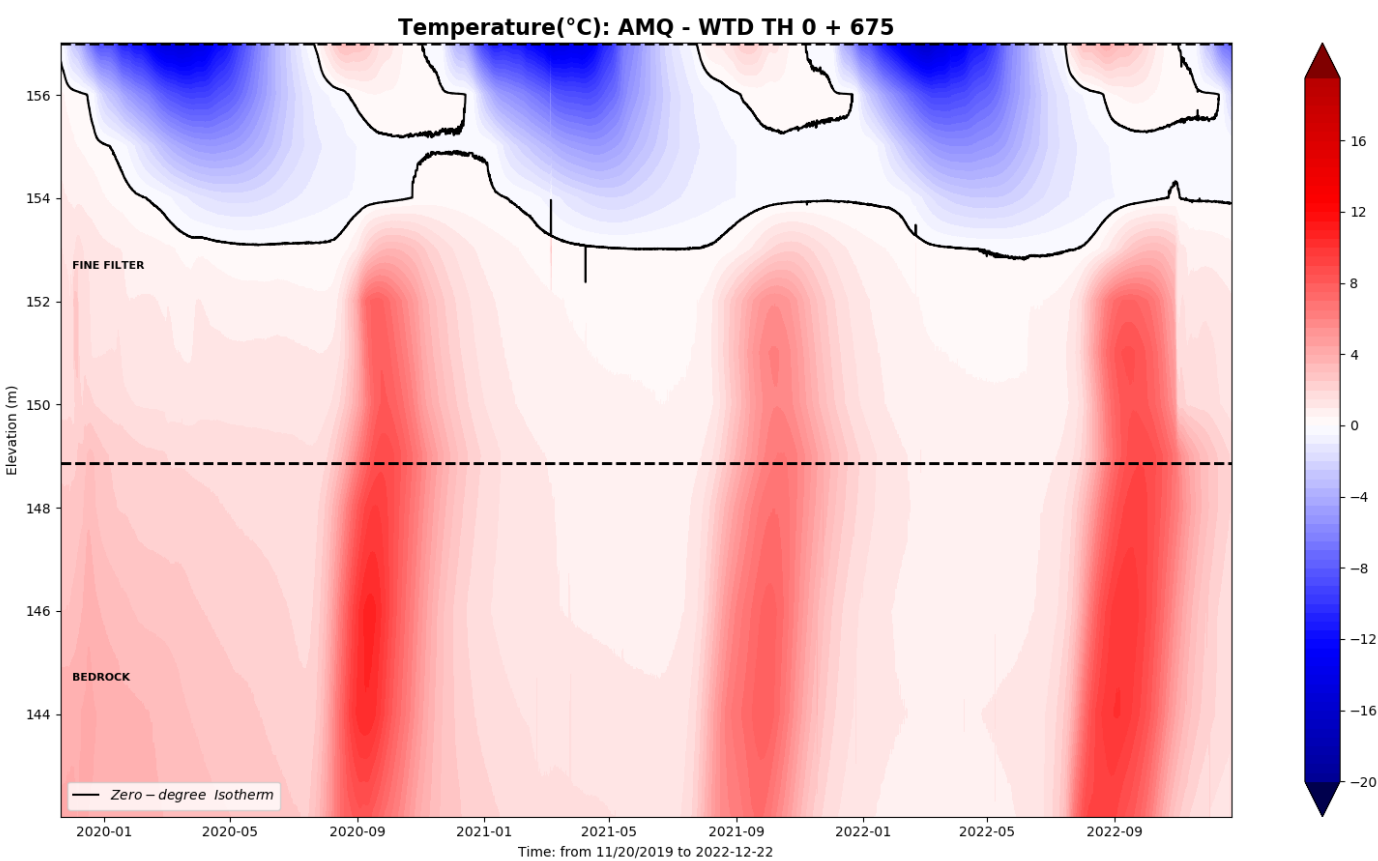
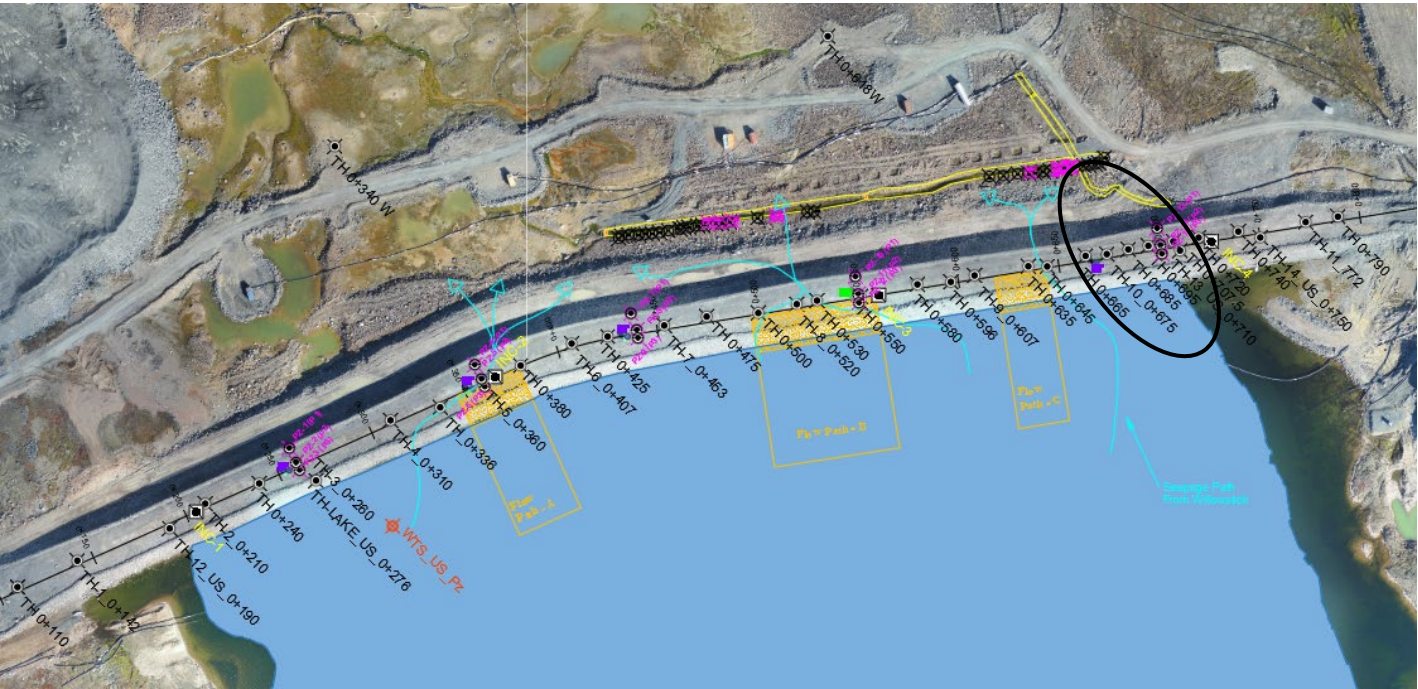
WTD-TH 0+665



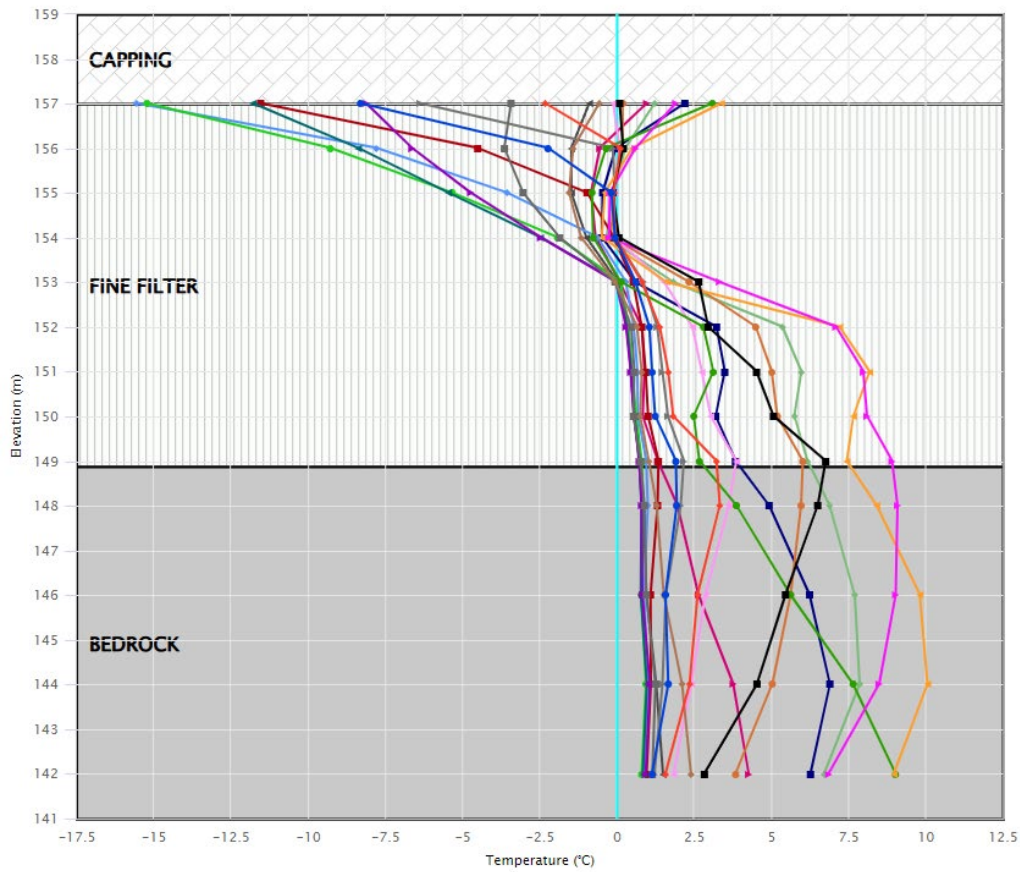
AMQ - WTD TH: 0+665_T



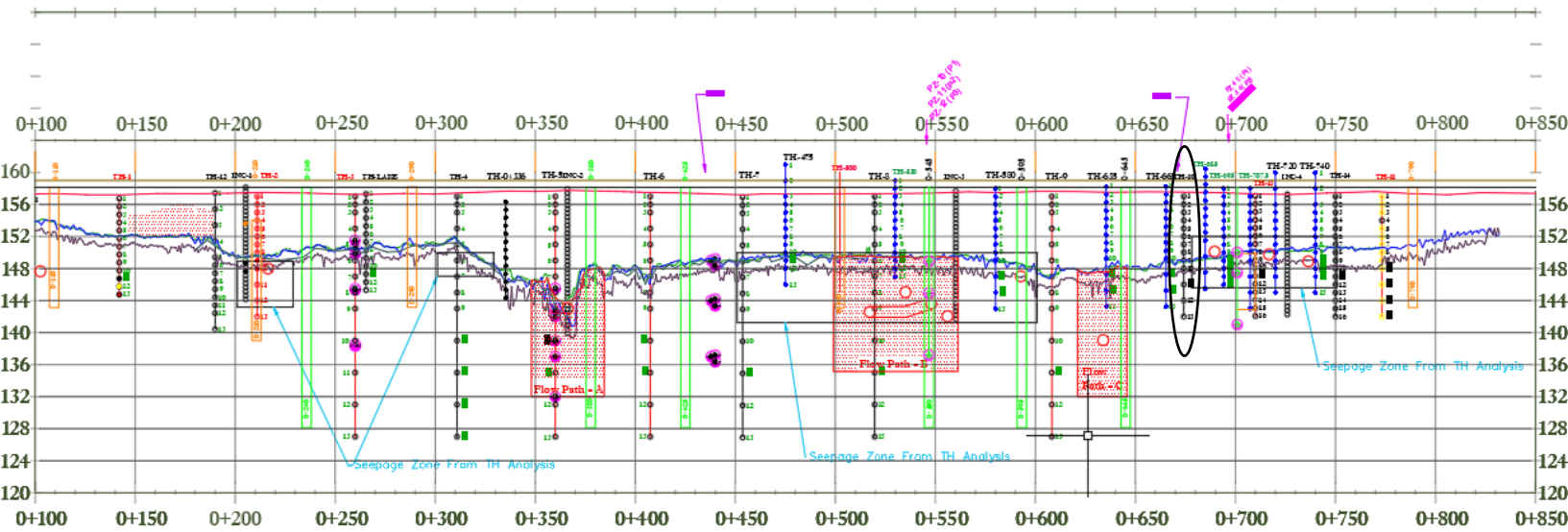
WTD-TH 0+675



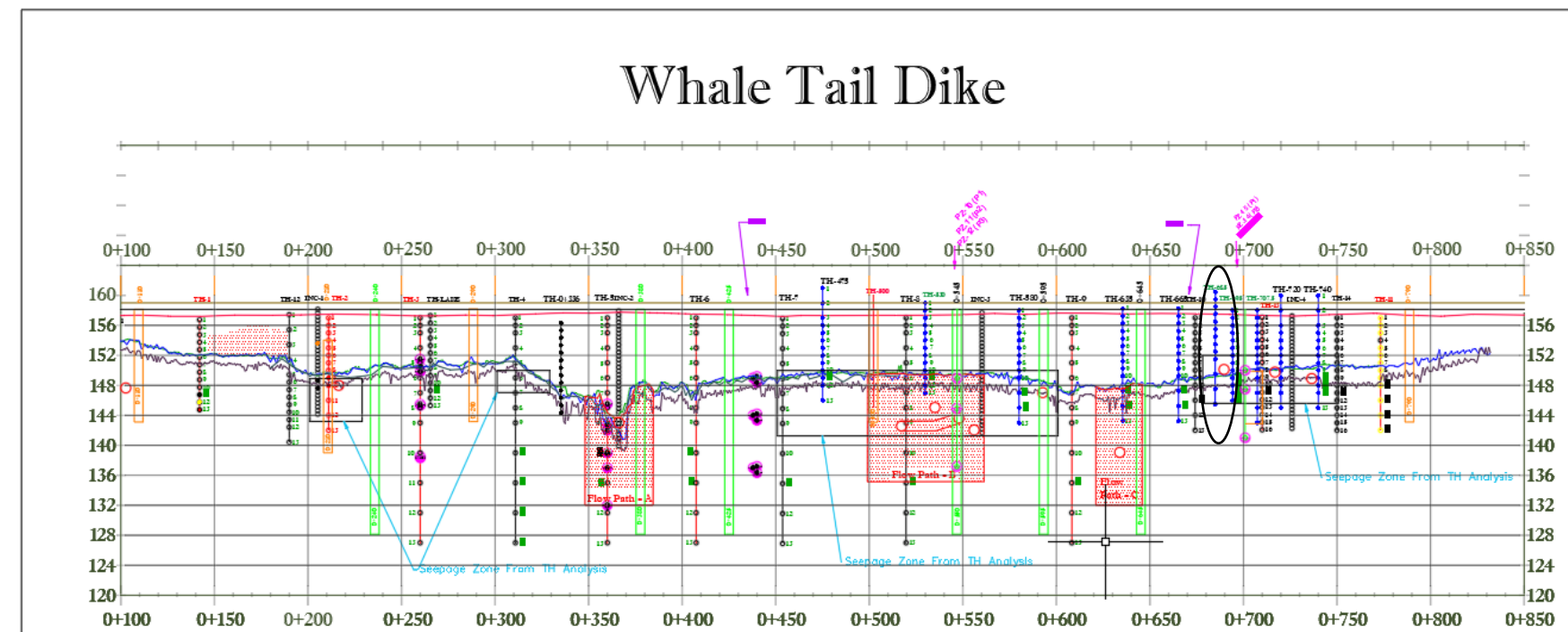
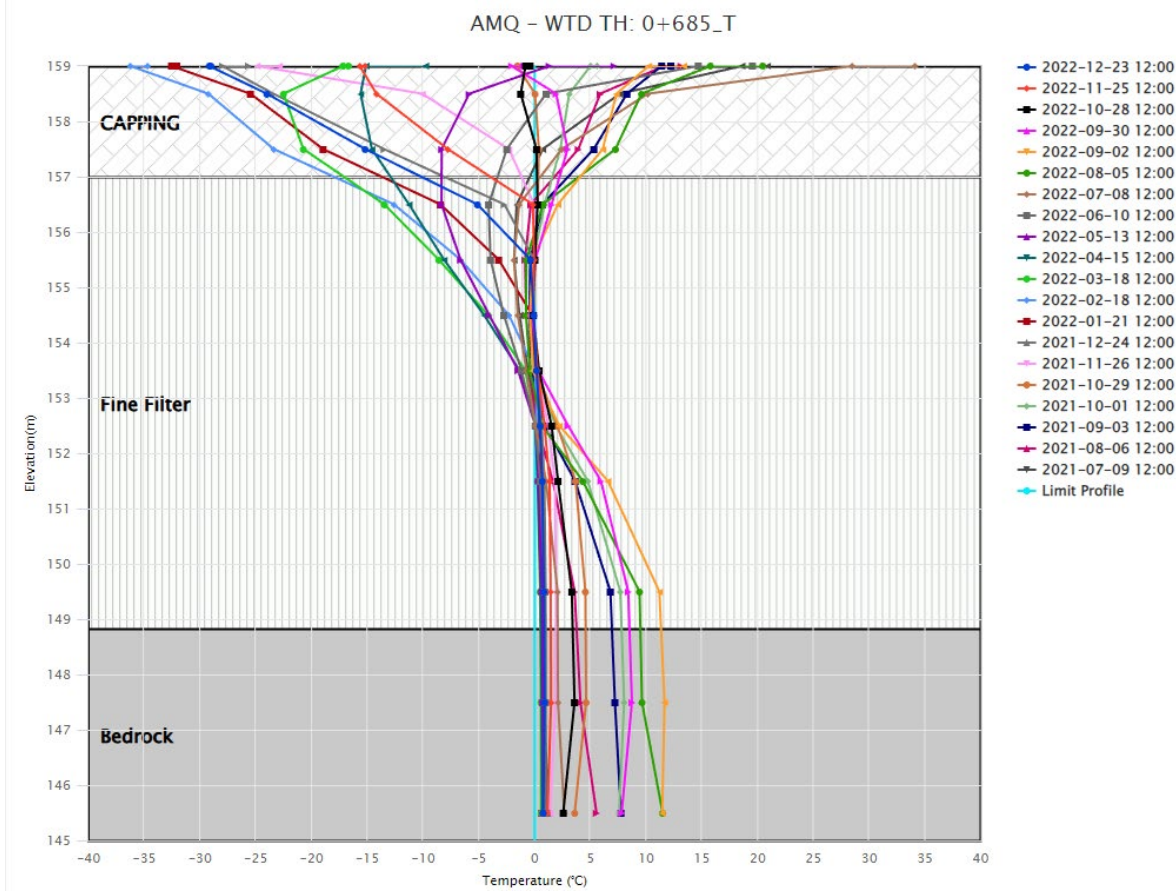
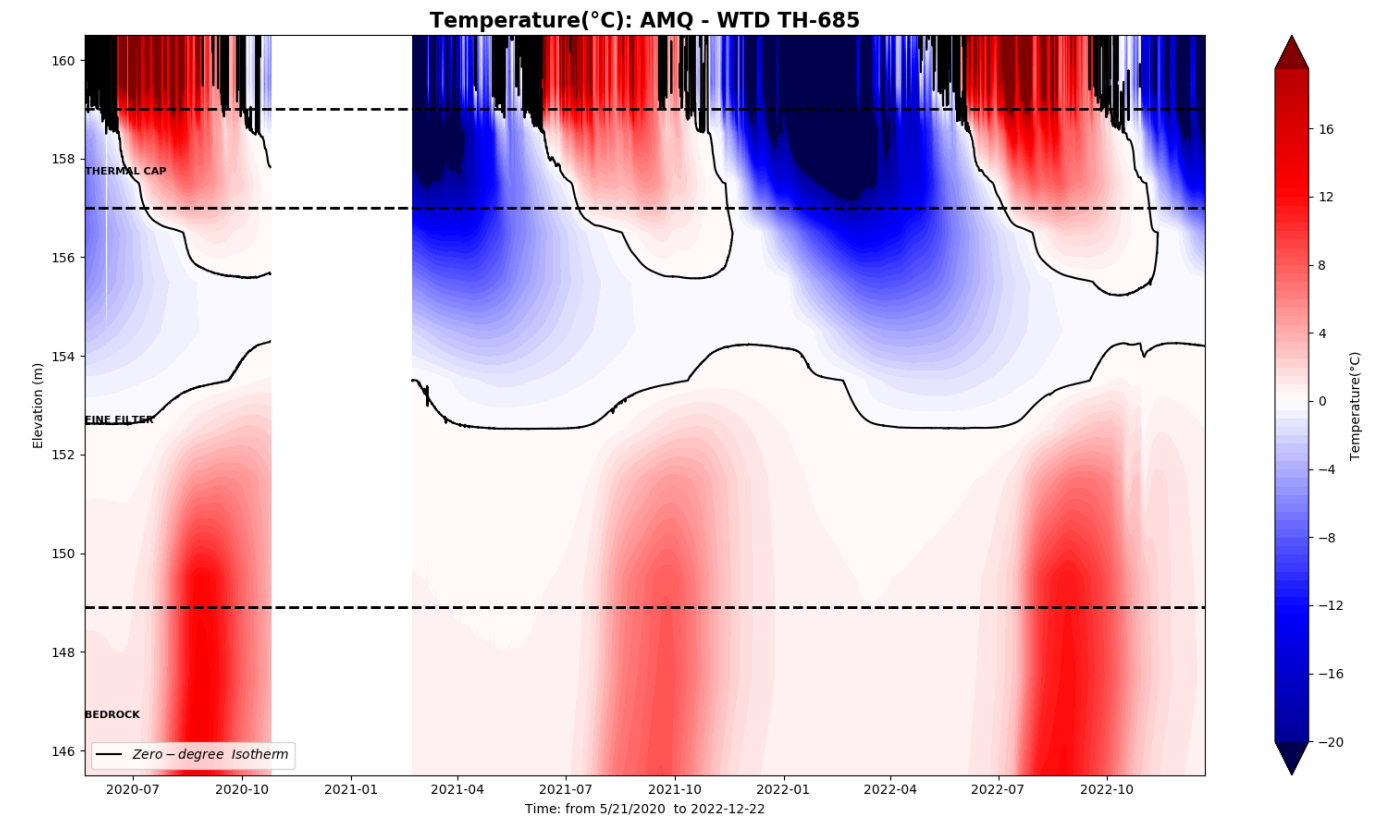
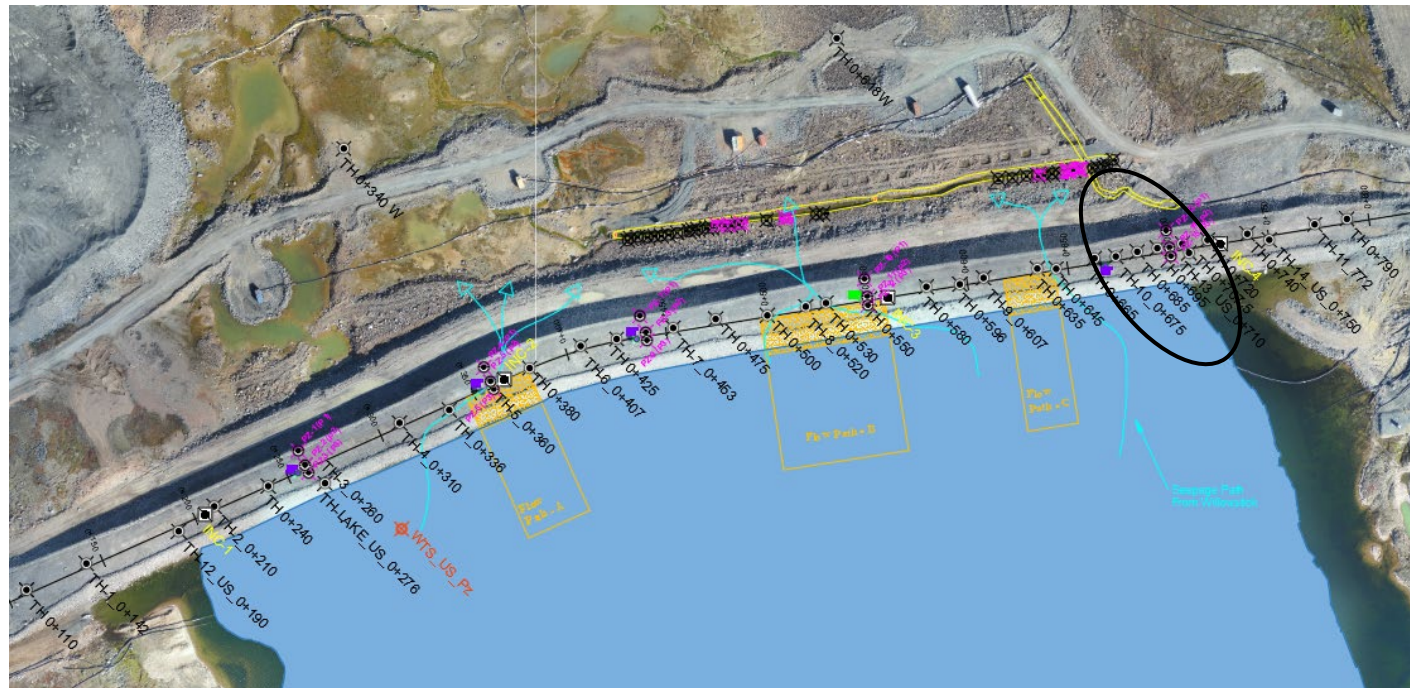
AMQ - WTD TH: 0+675



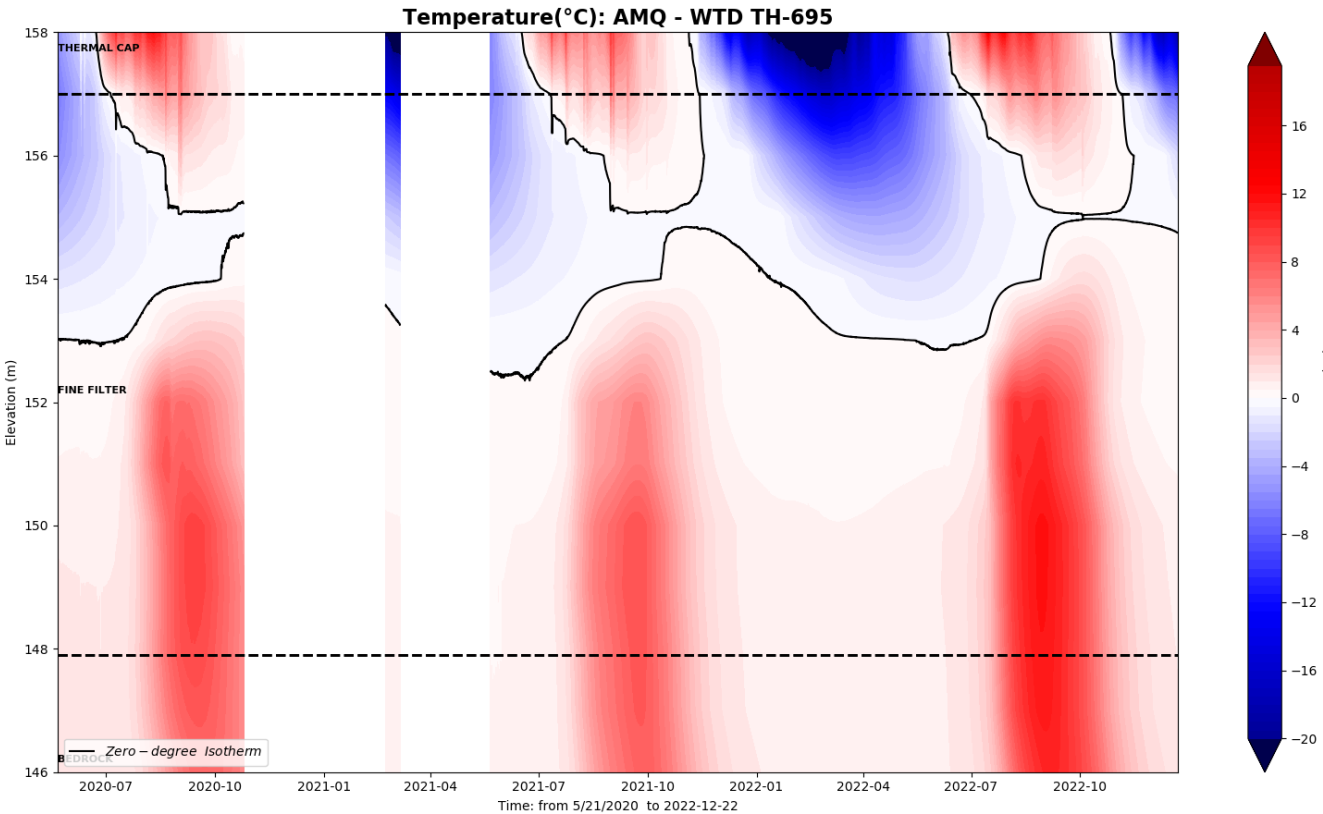
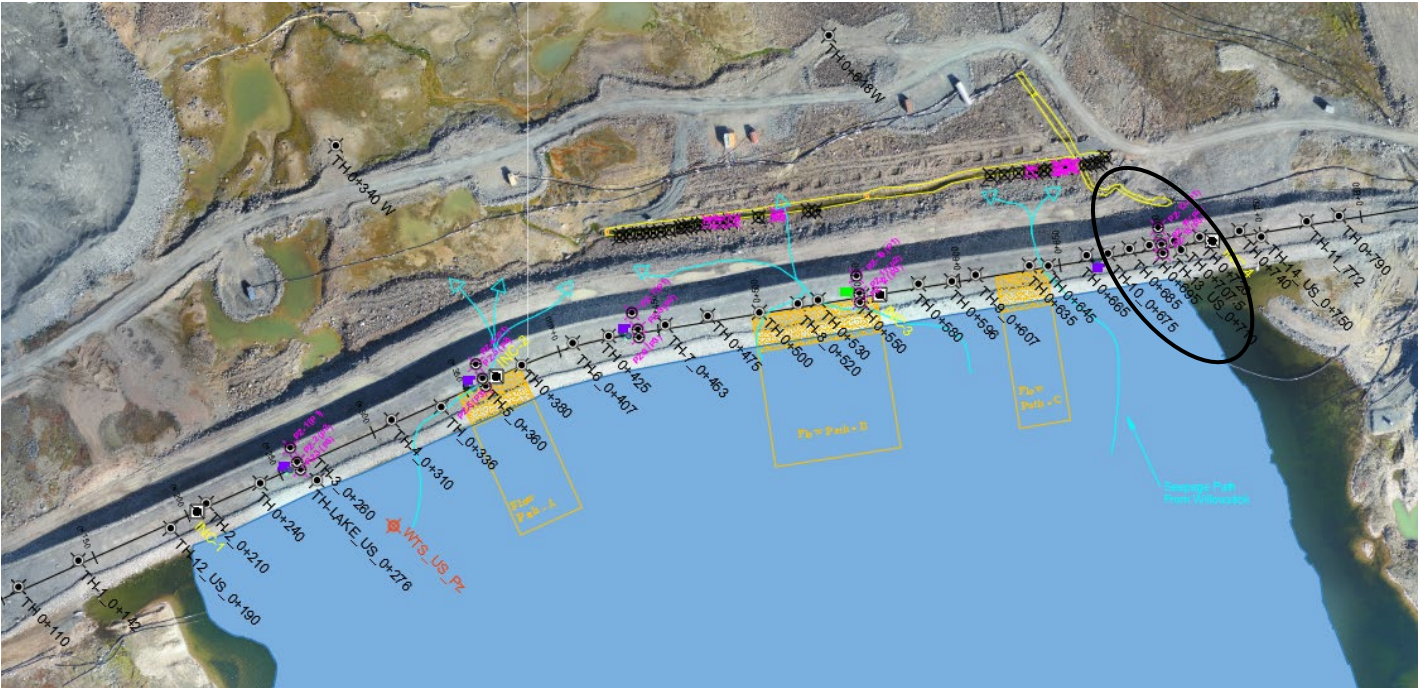
Whale Tail Dike



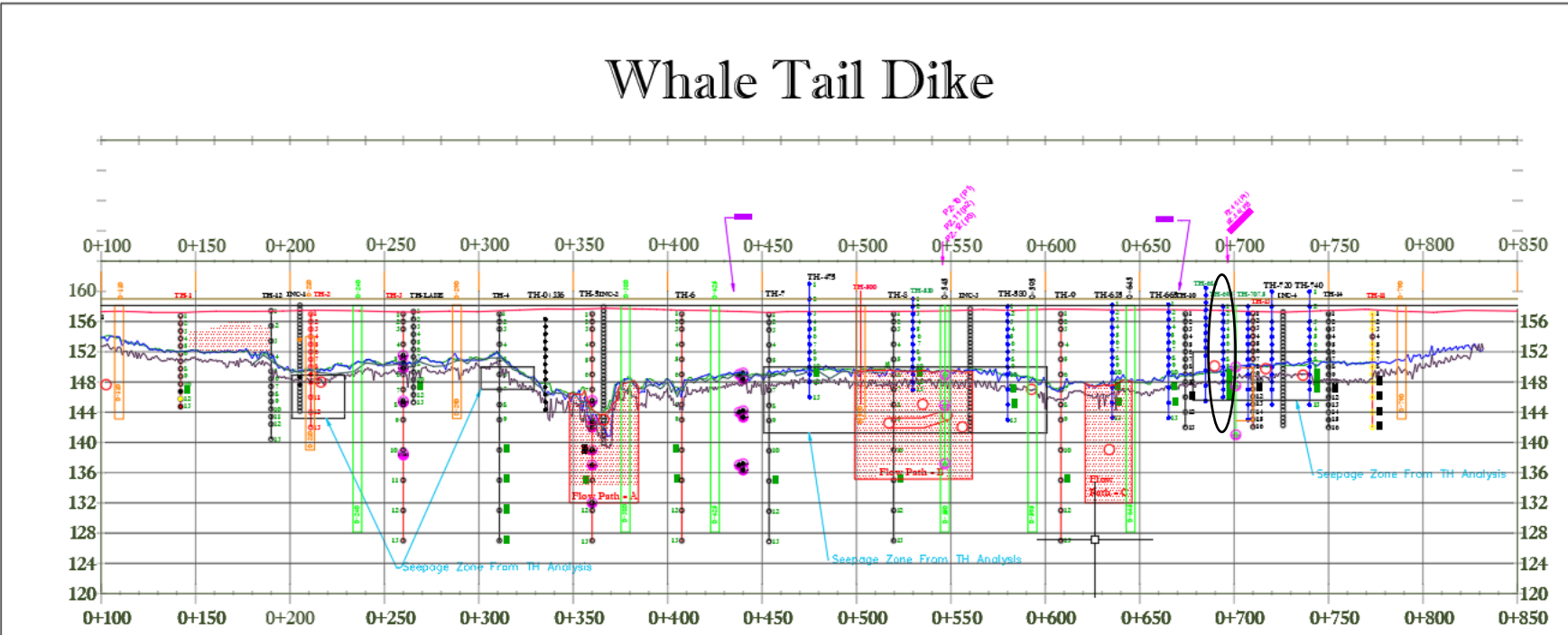
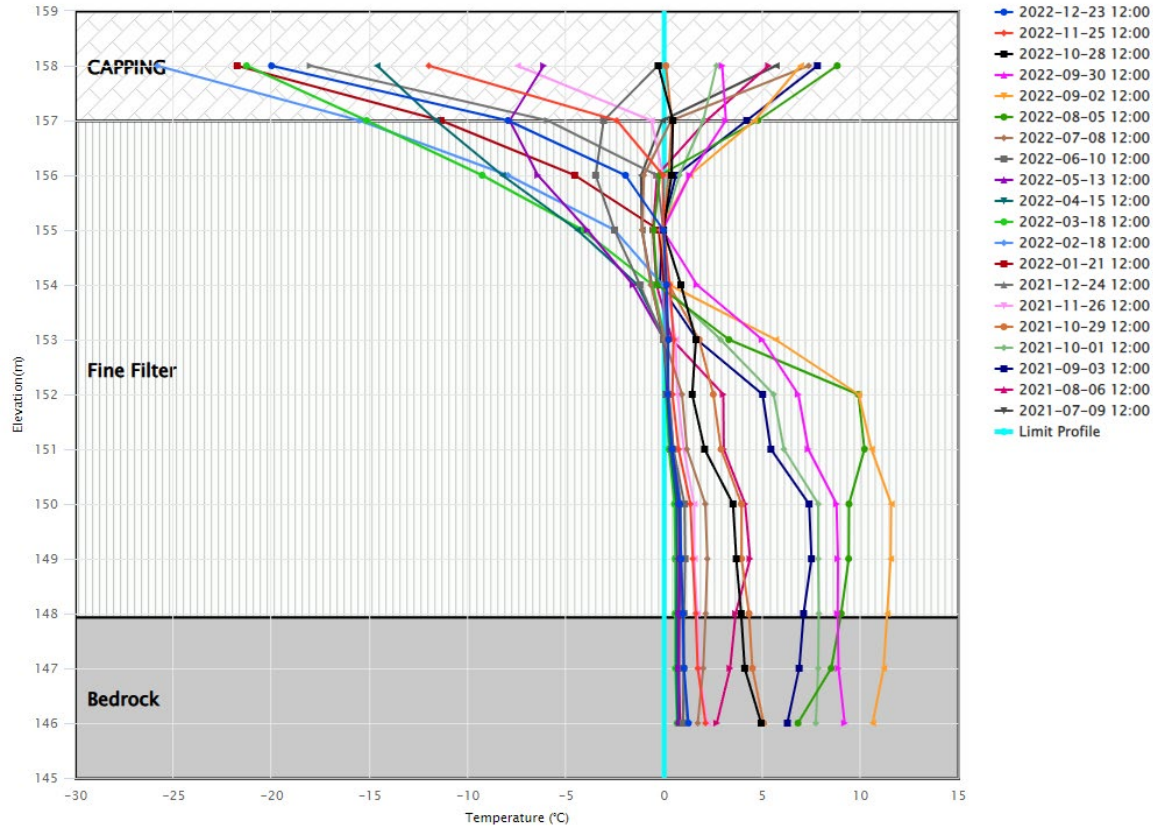
WTD-TH 0+685



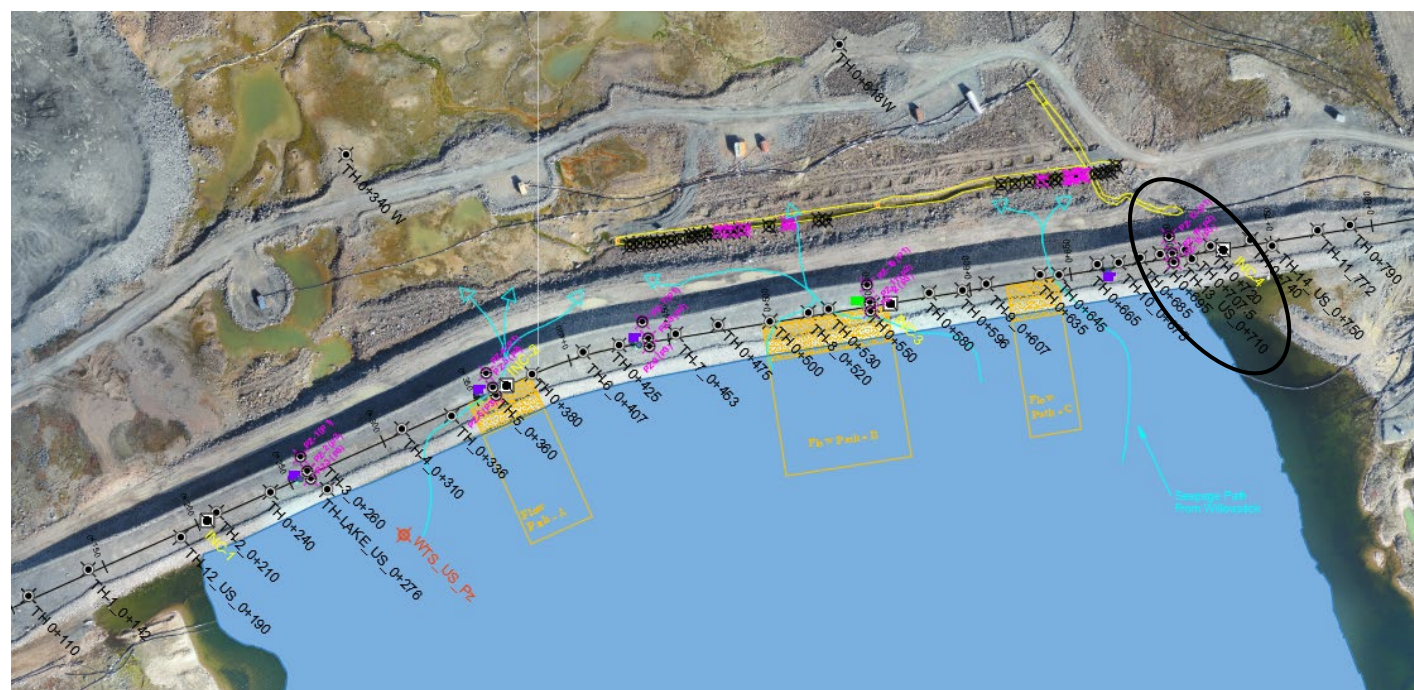
WTD-TH 0+695



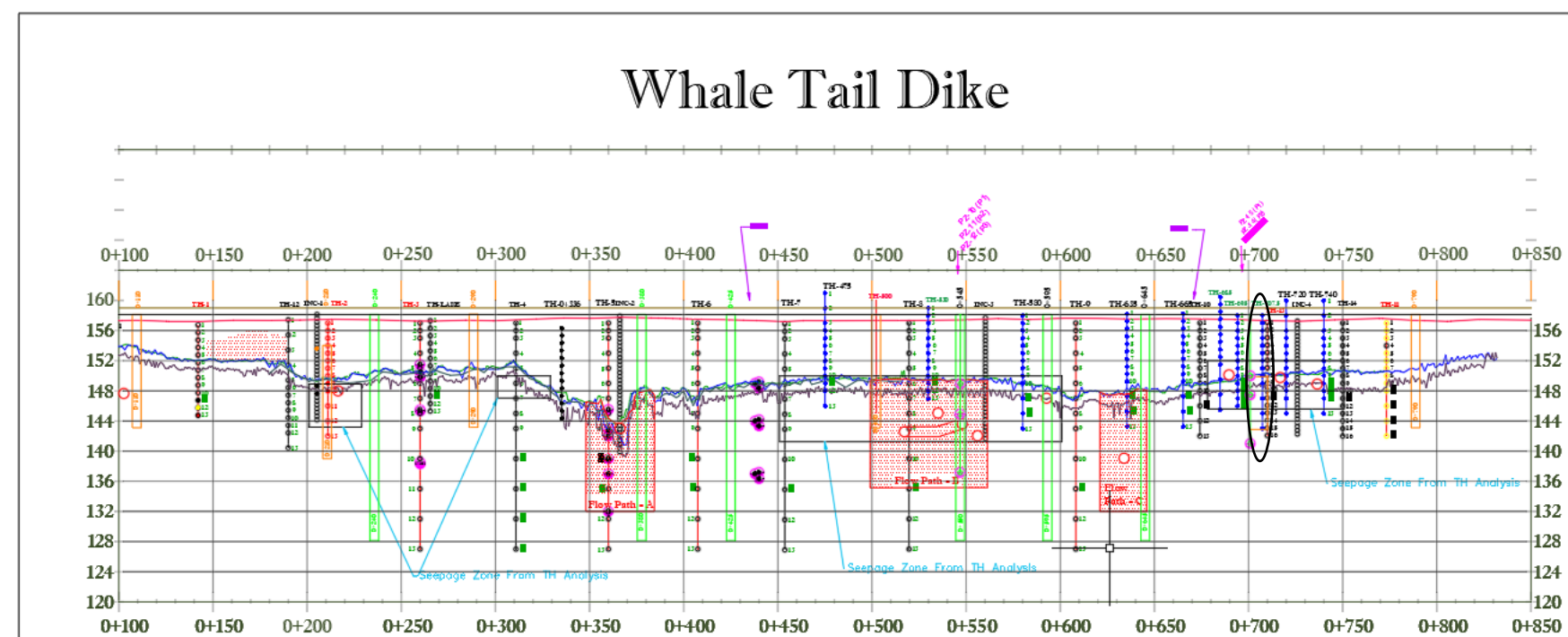
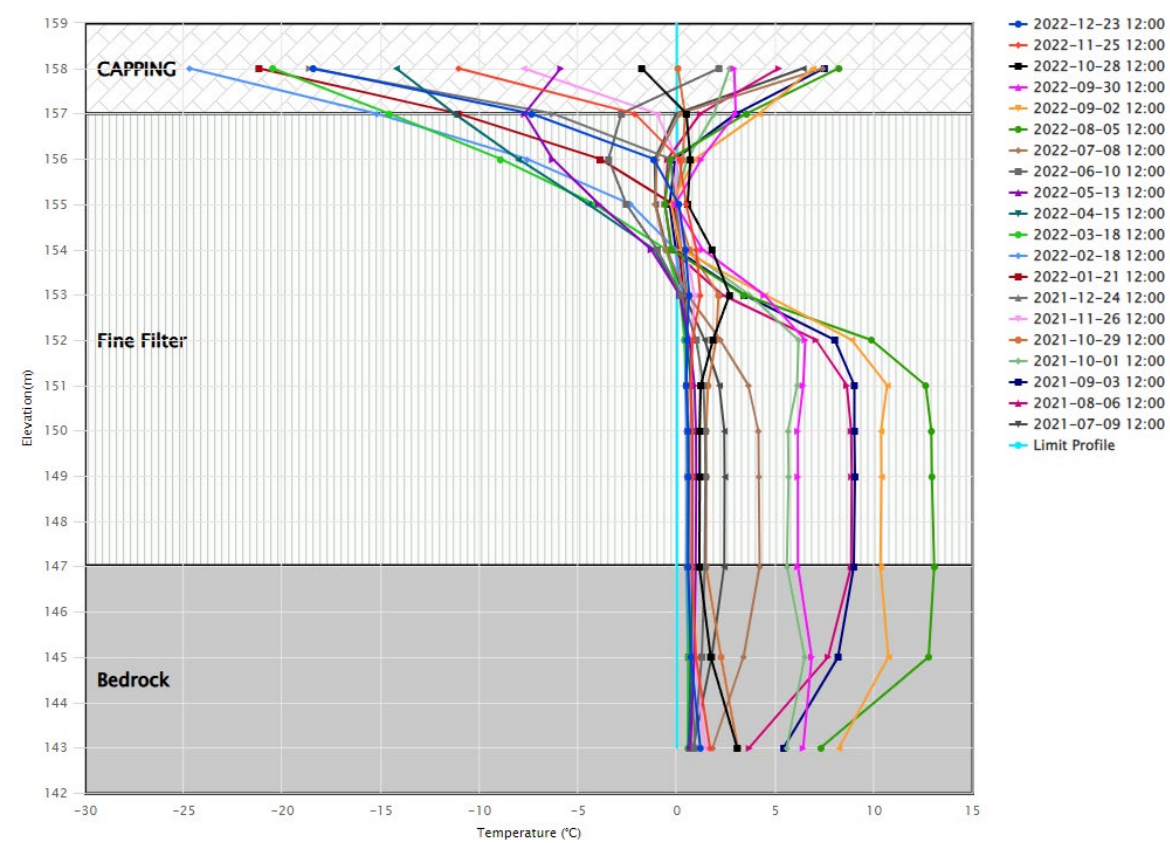
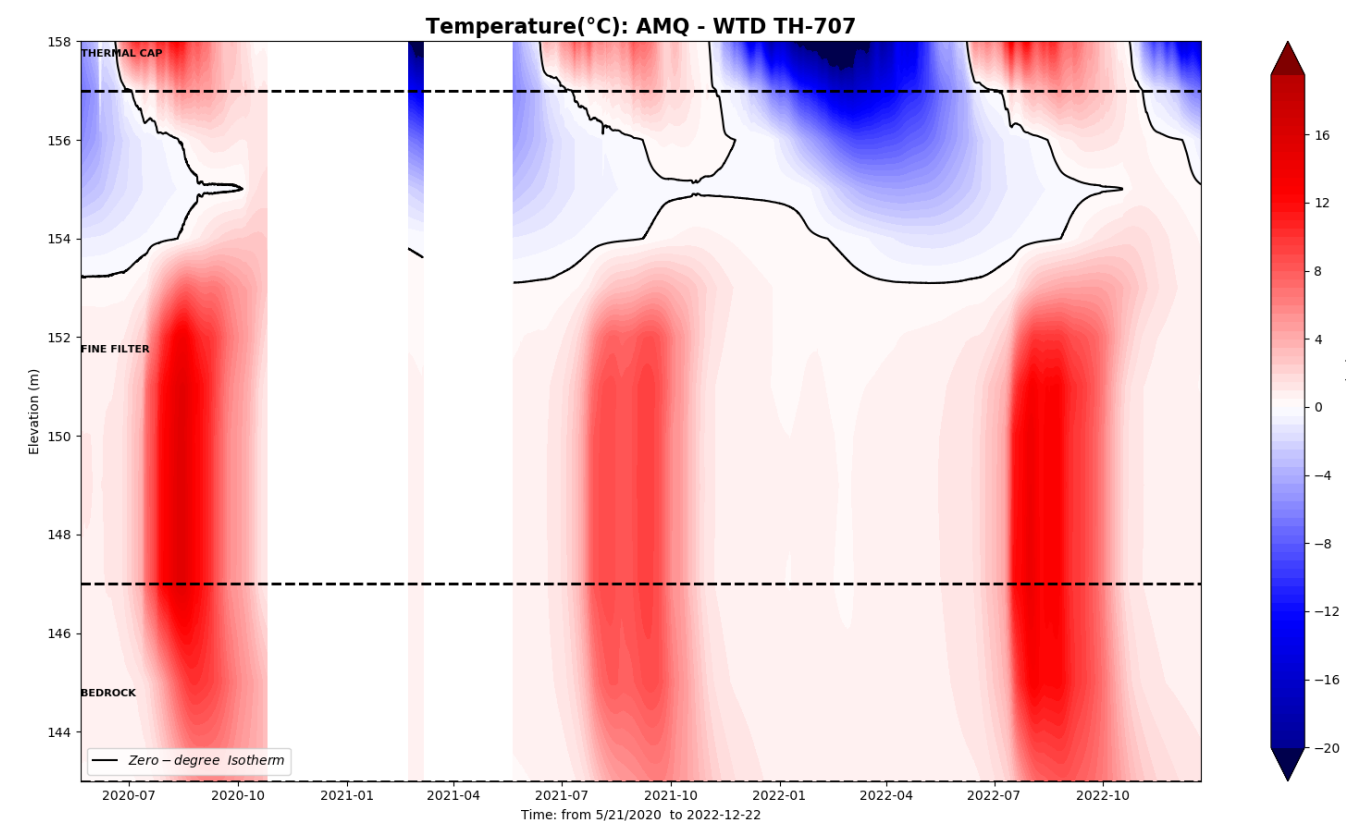
AMQ - WTD TH: 0+695_T

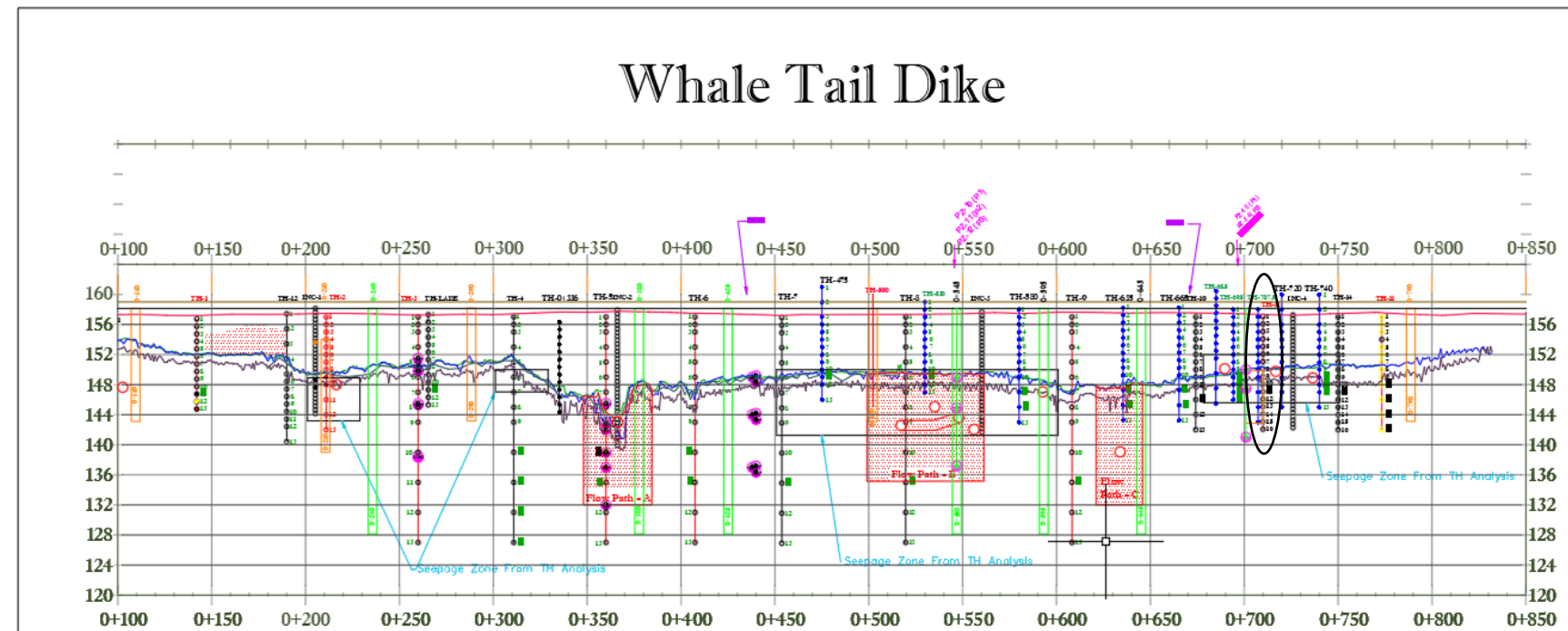
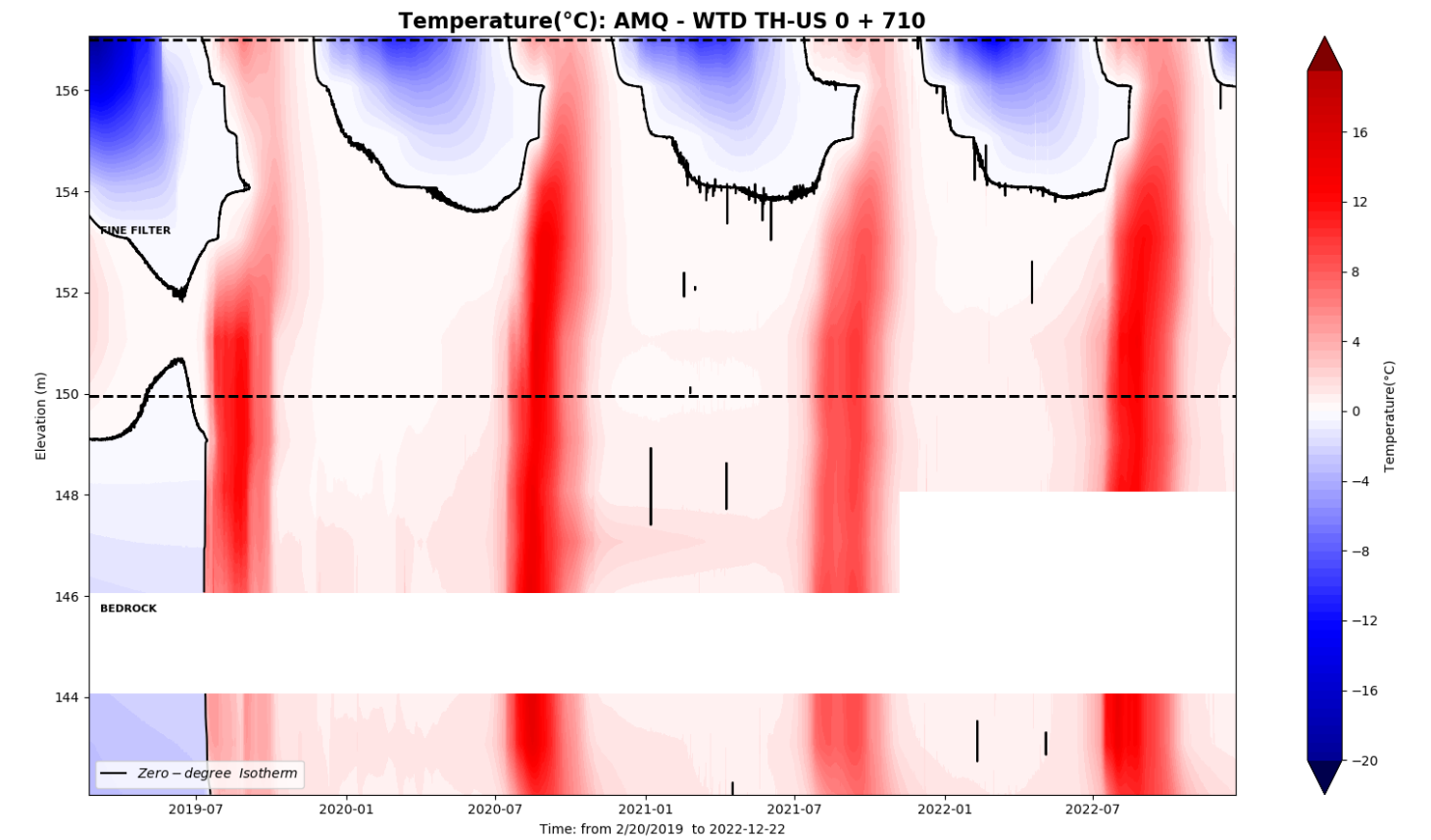


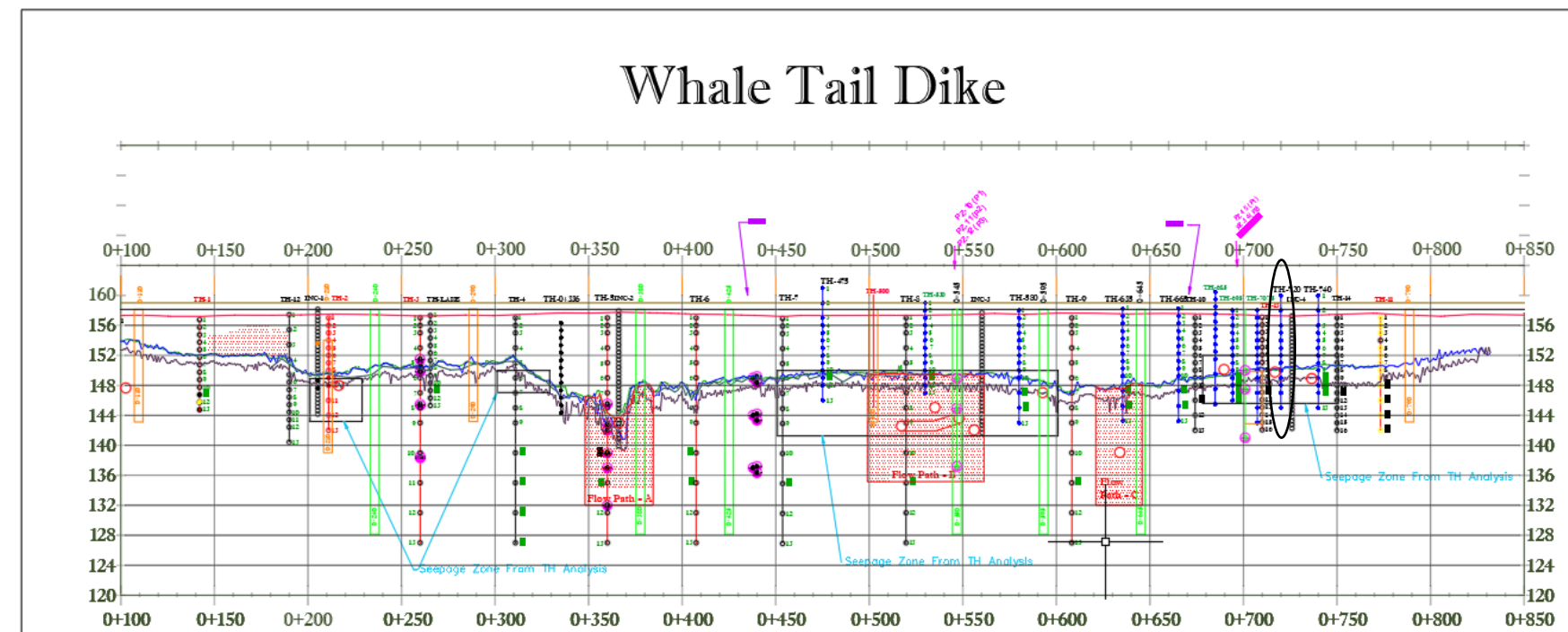
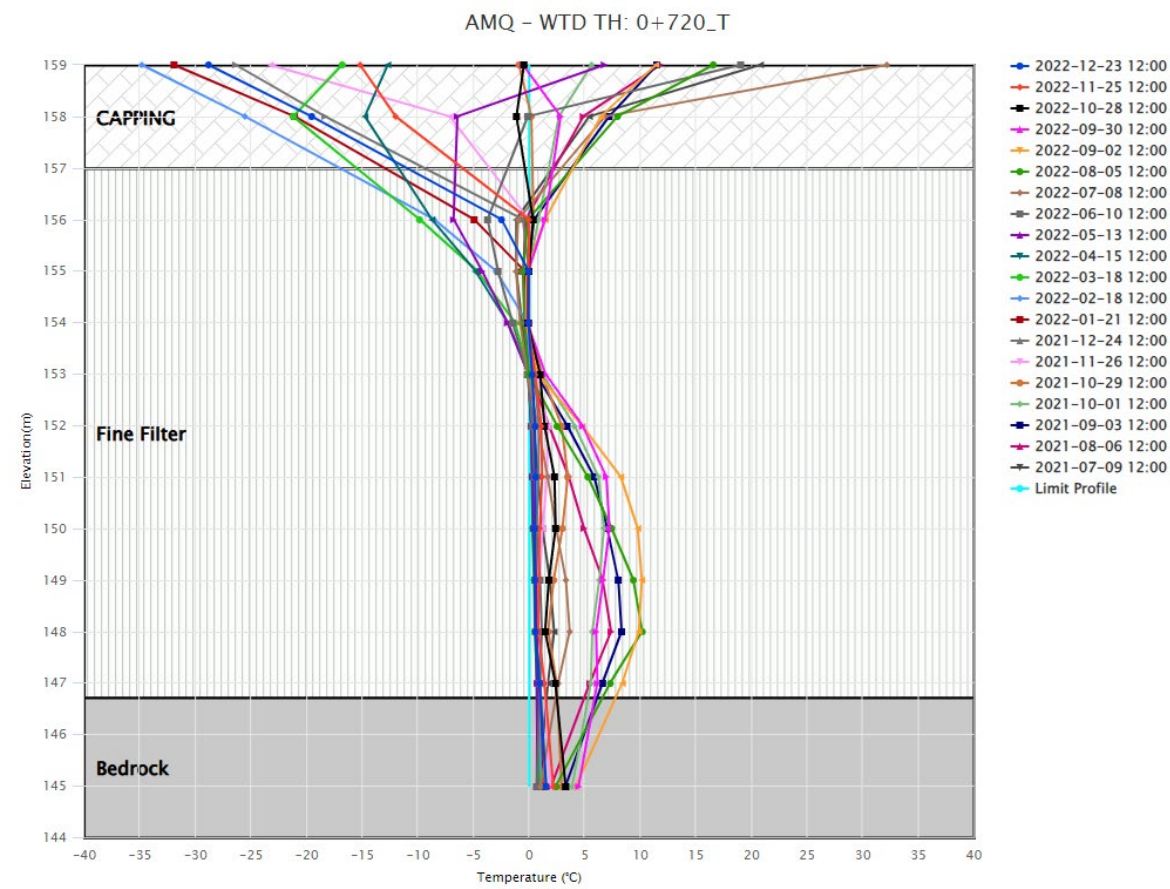
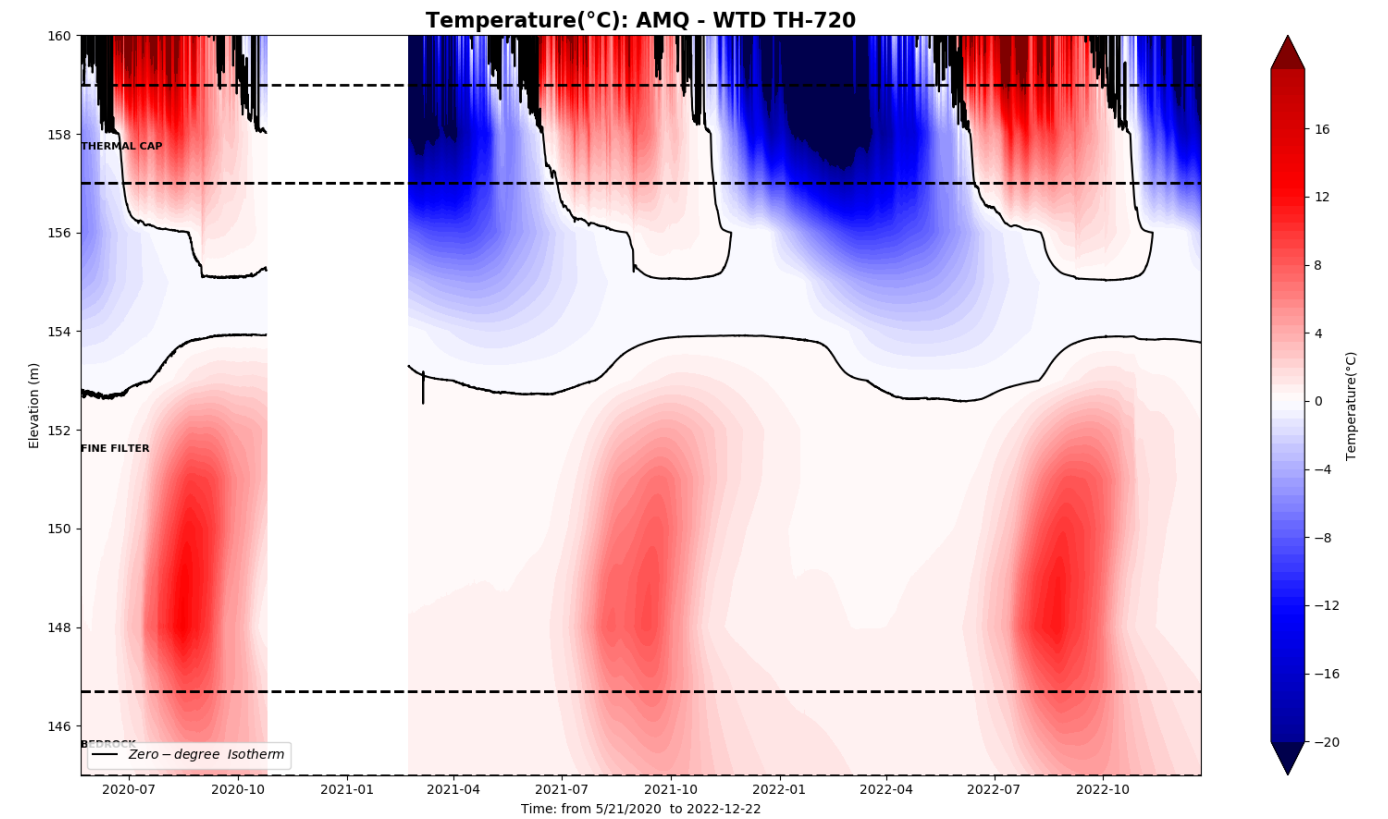
WTD-TH 0+707



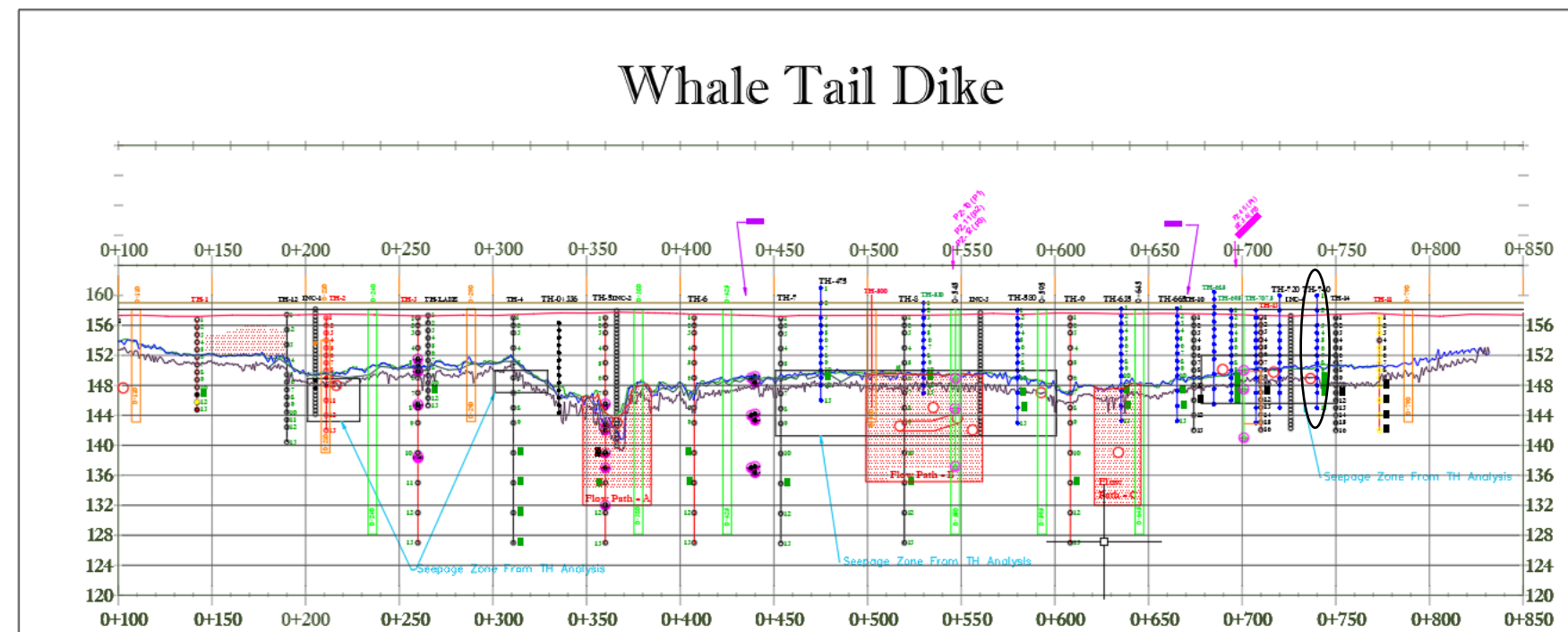
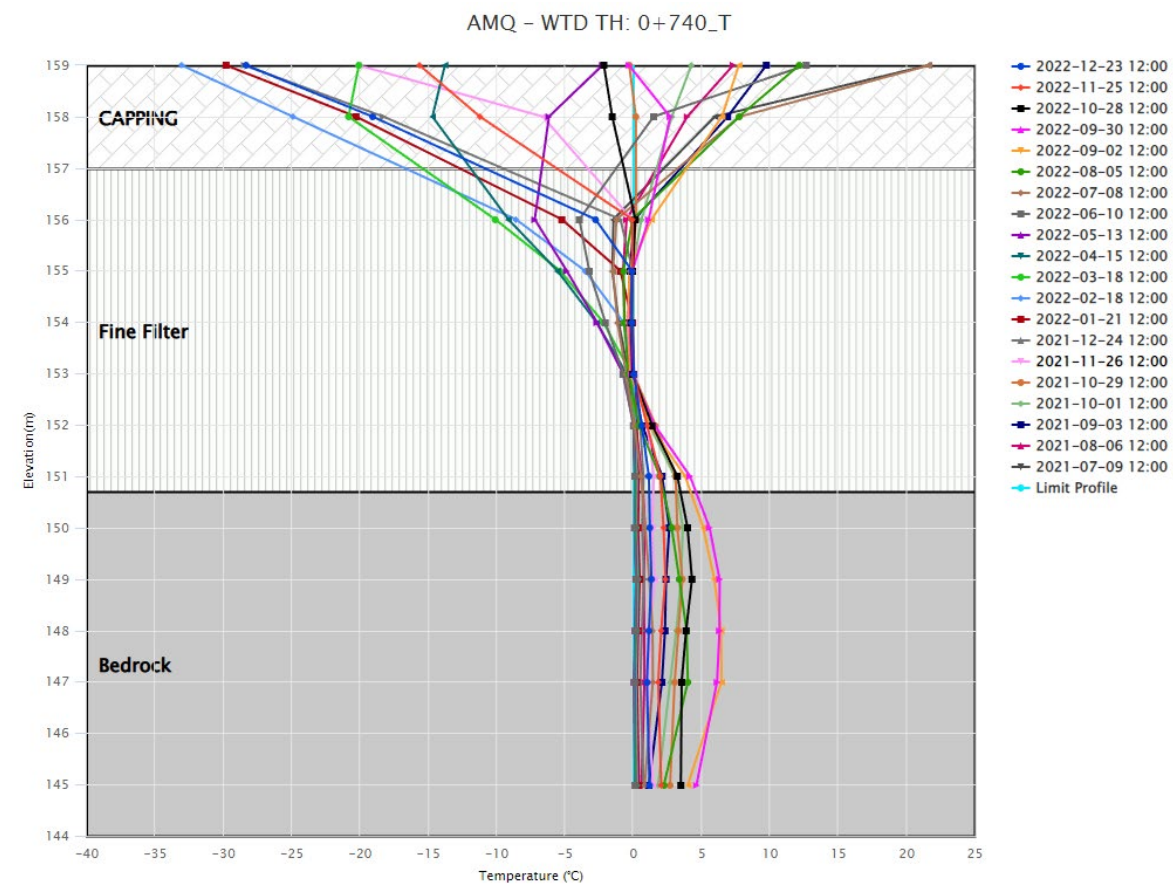
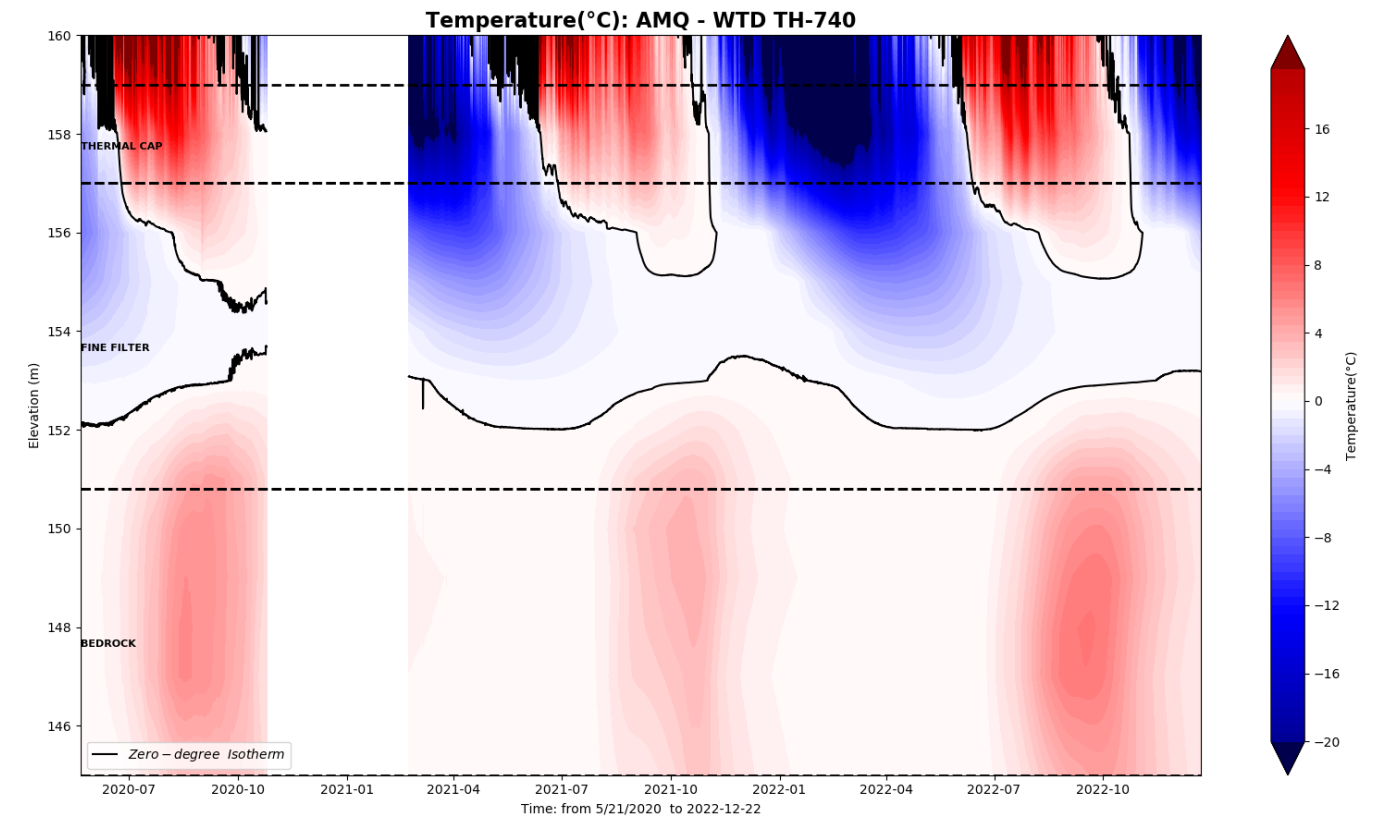
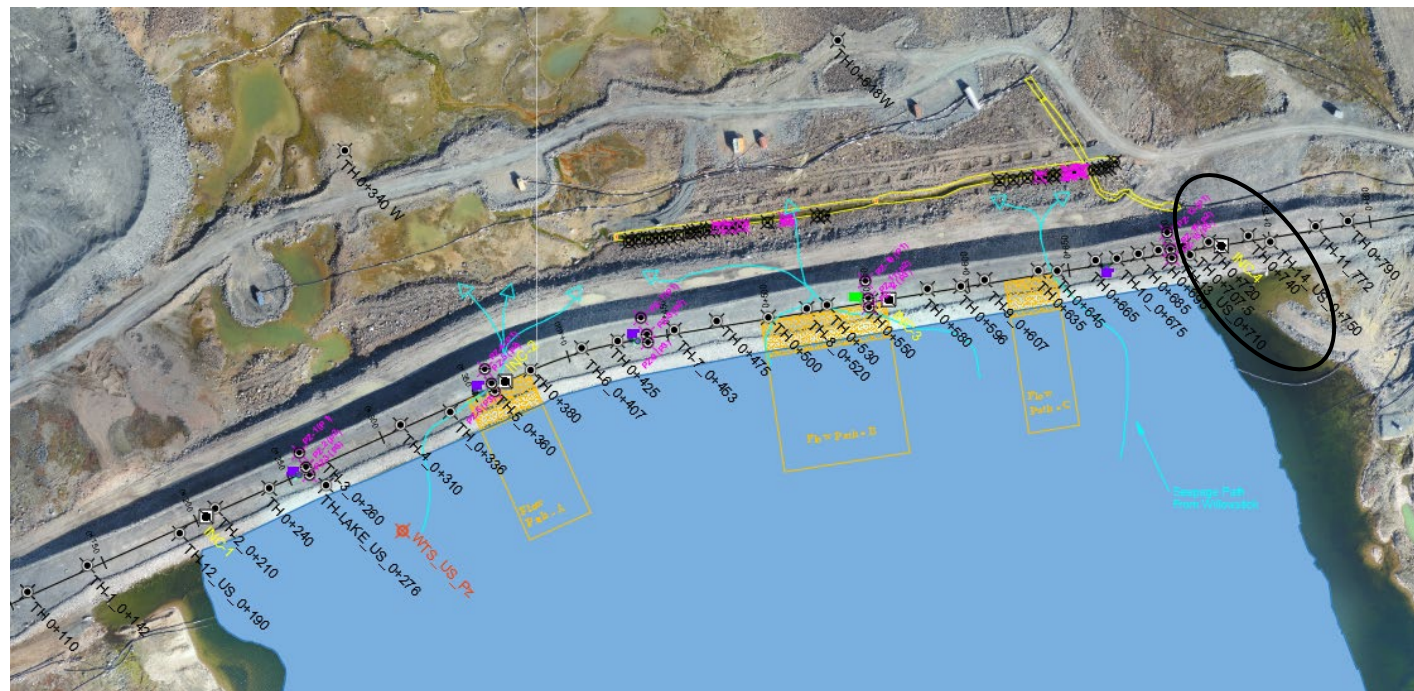
AMQ - WTD TH: 0+707_T



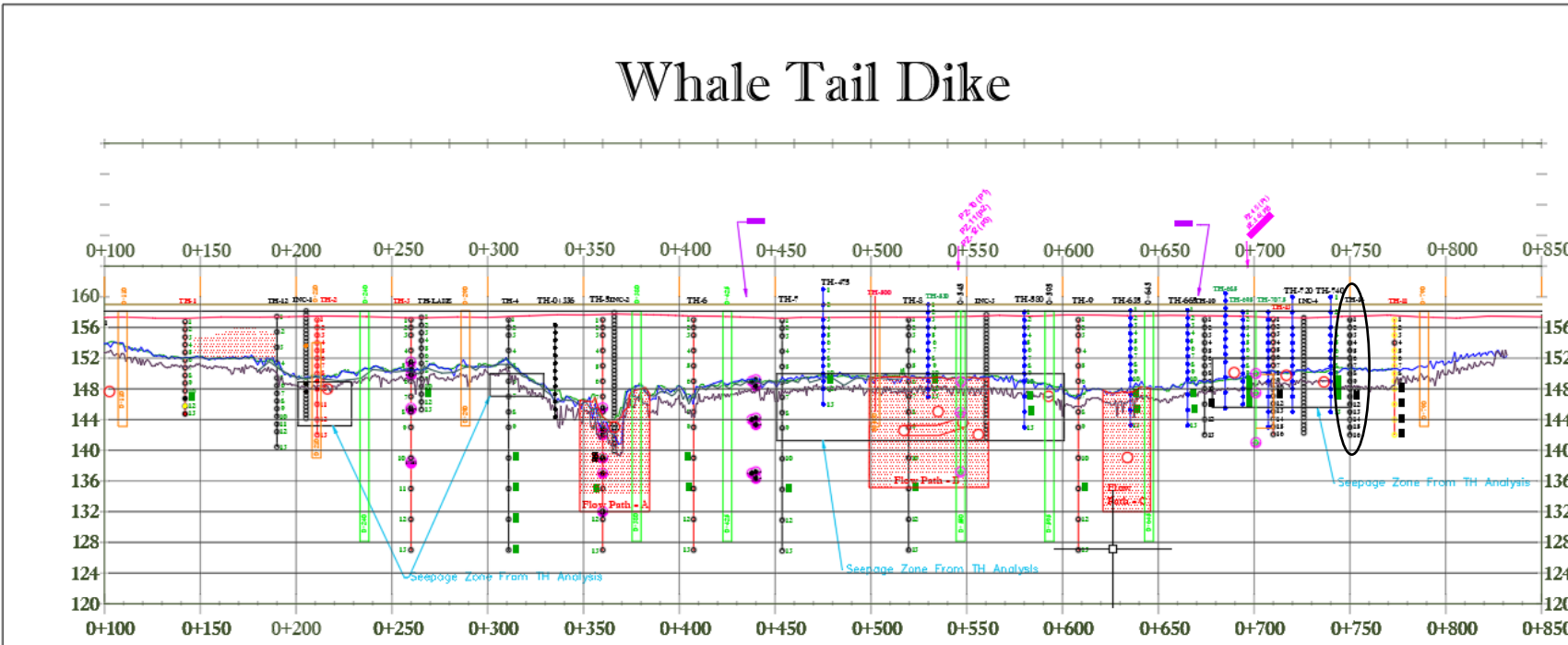
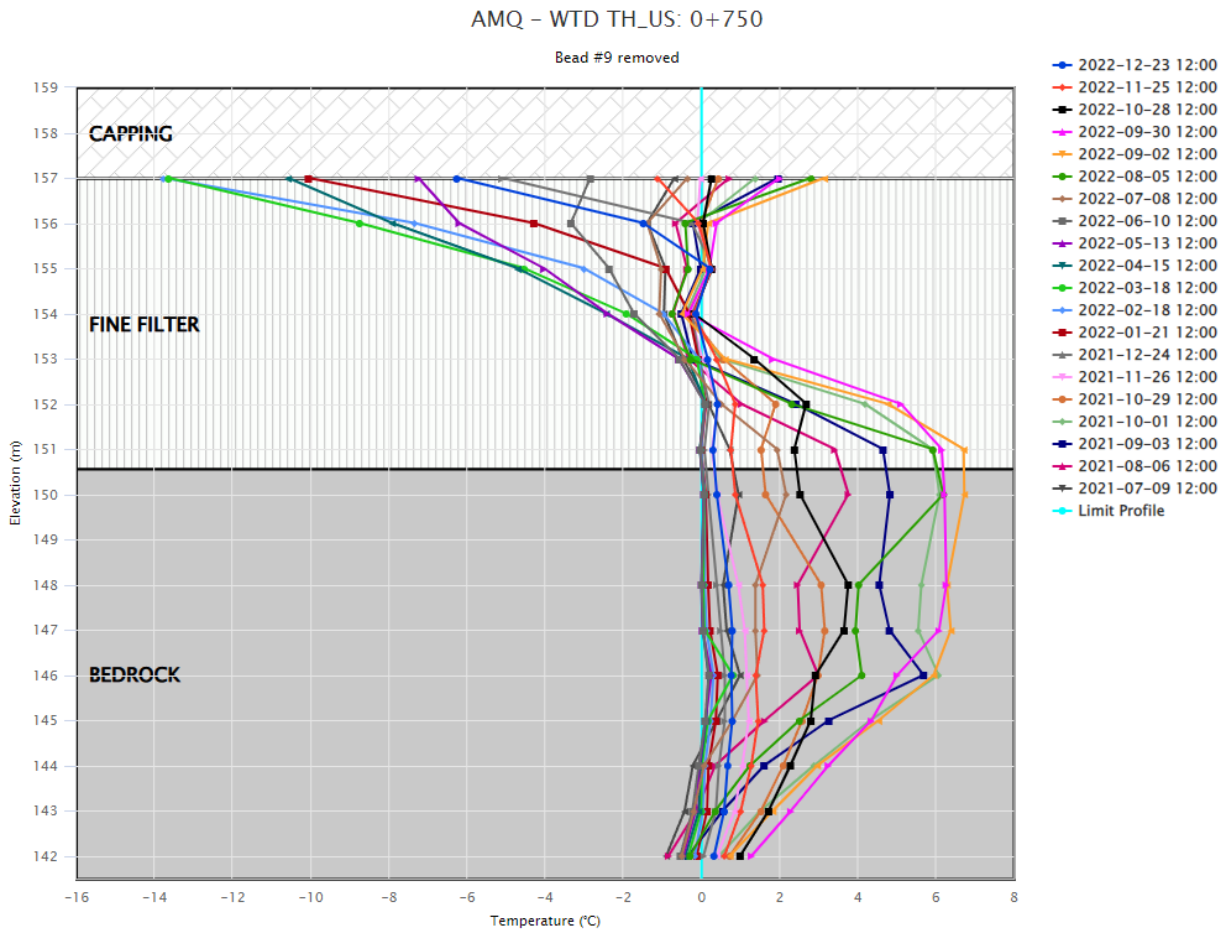
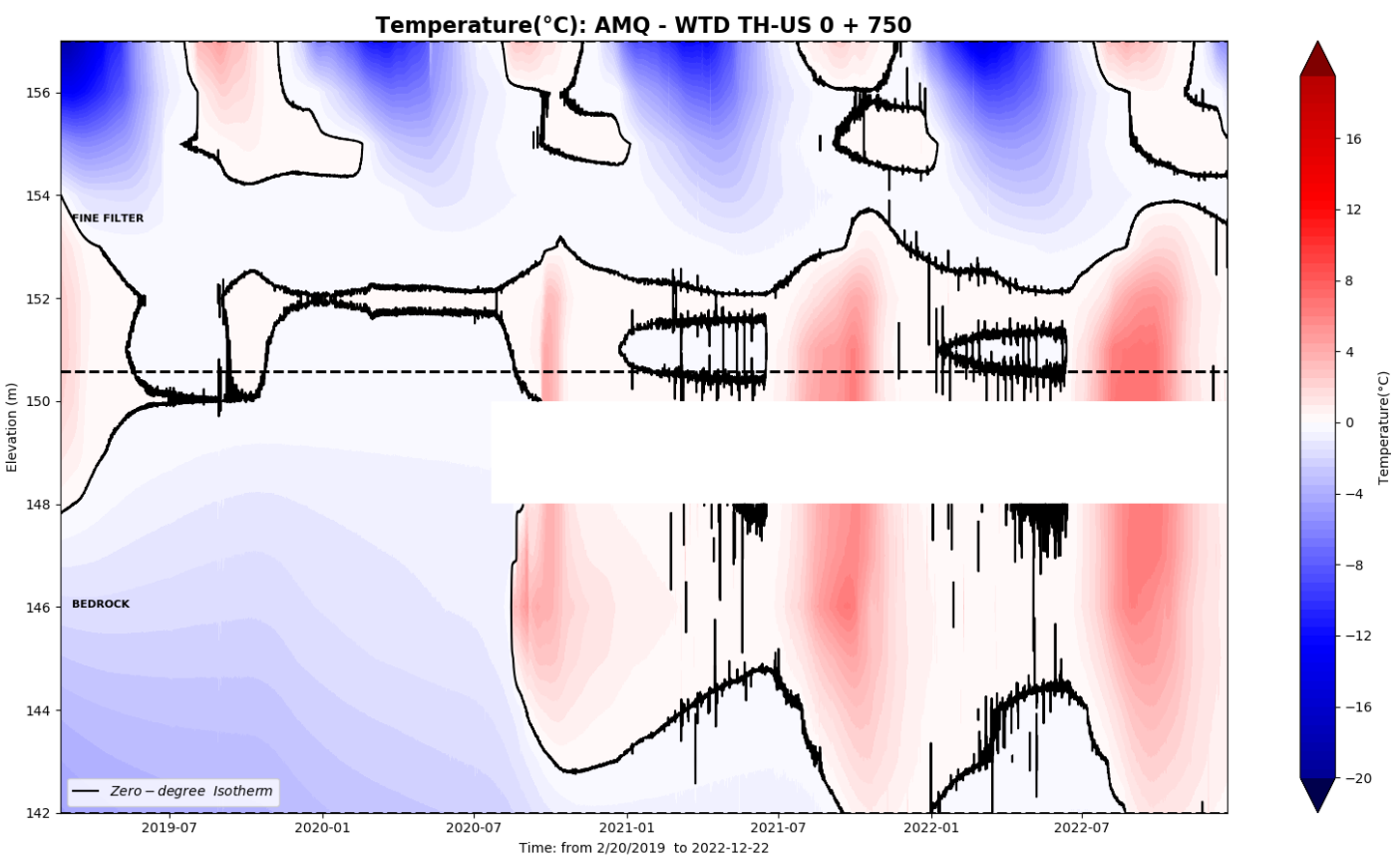
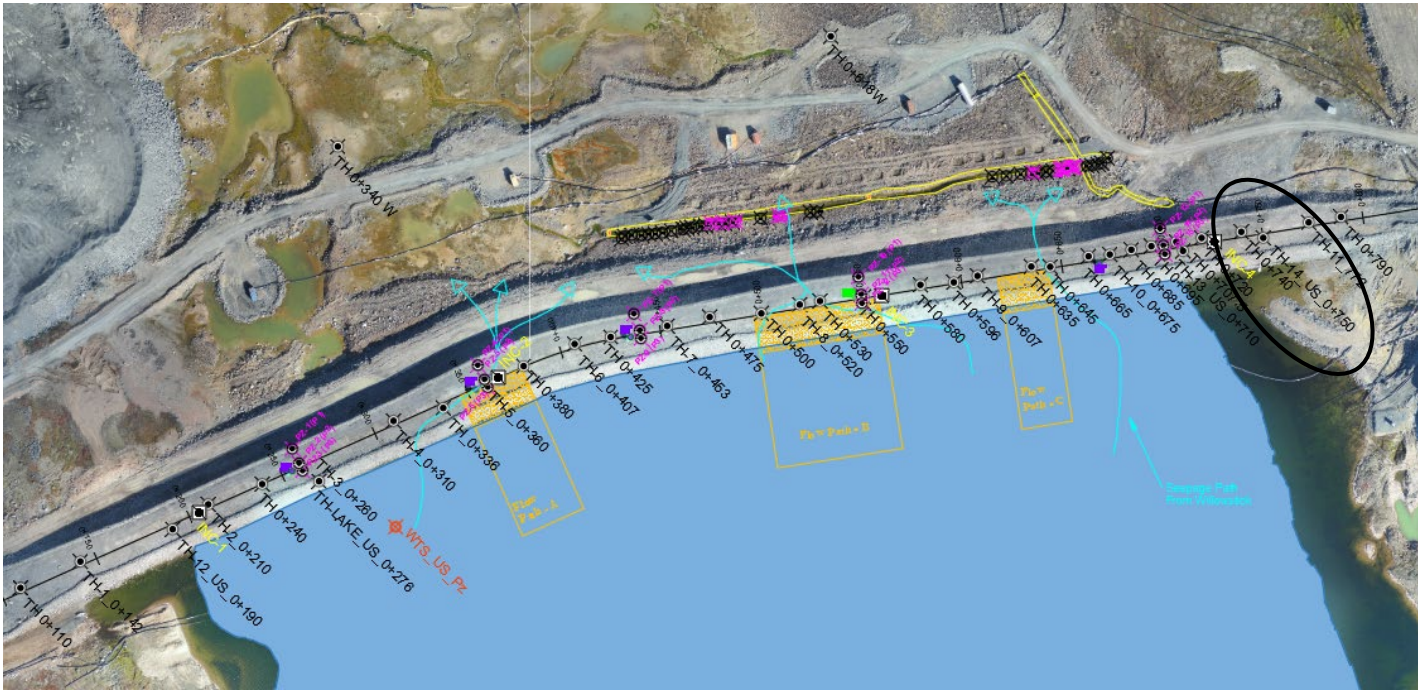




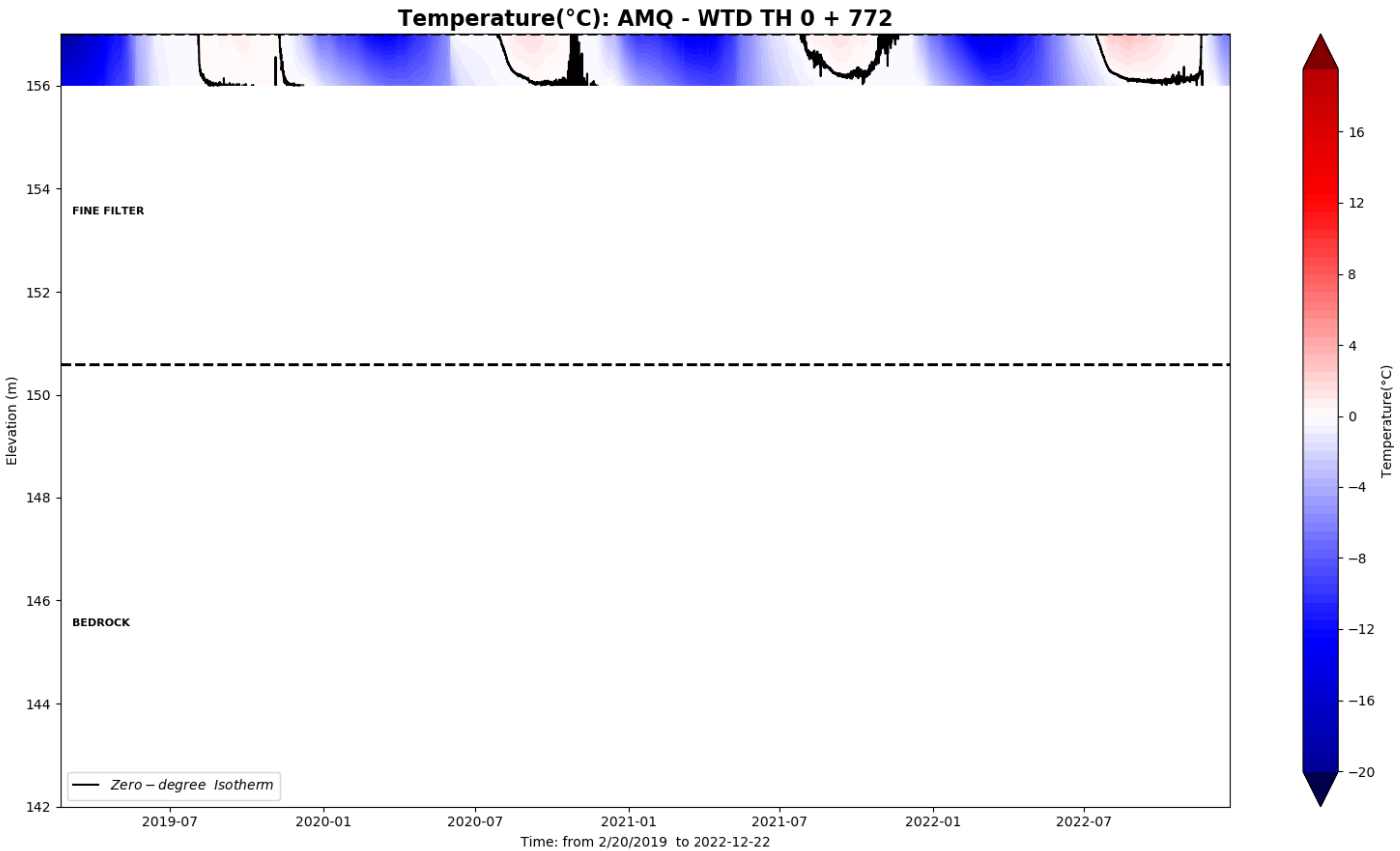
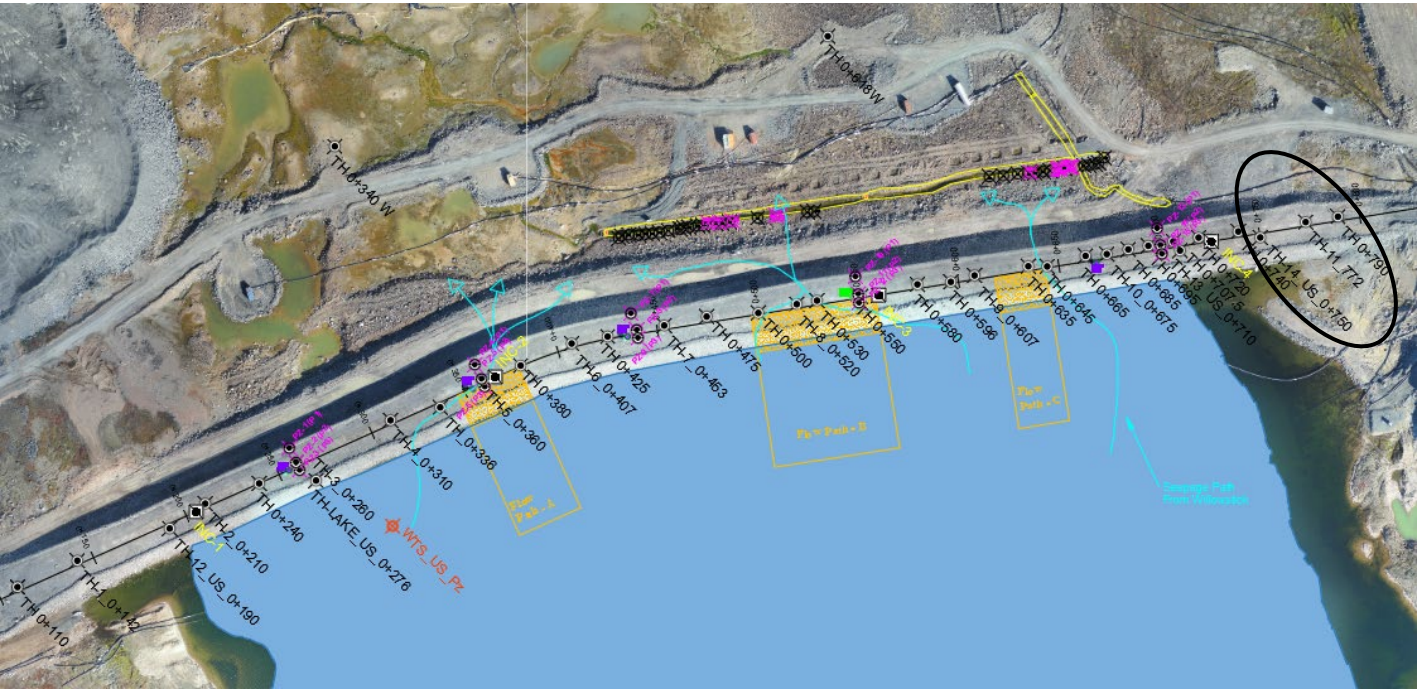
WTD-TH 0+740



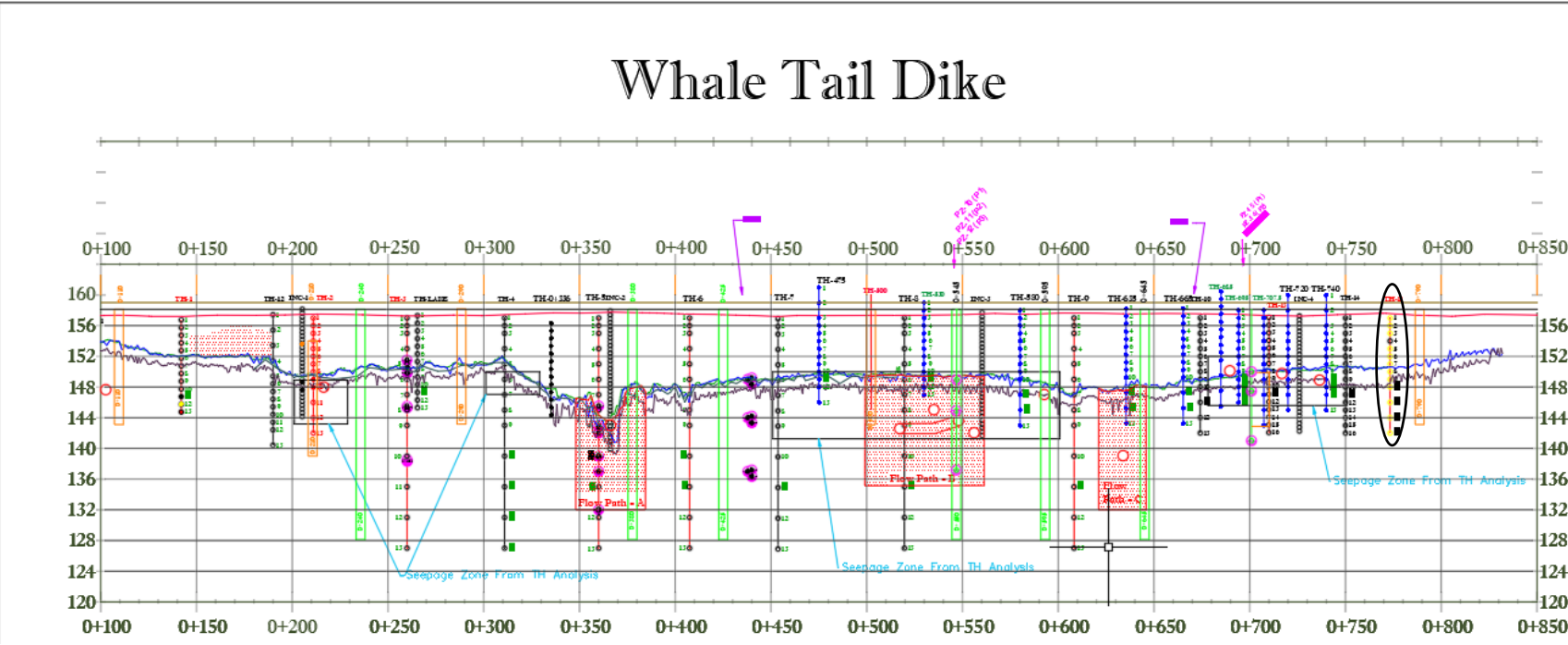
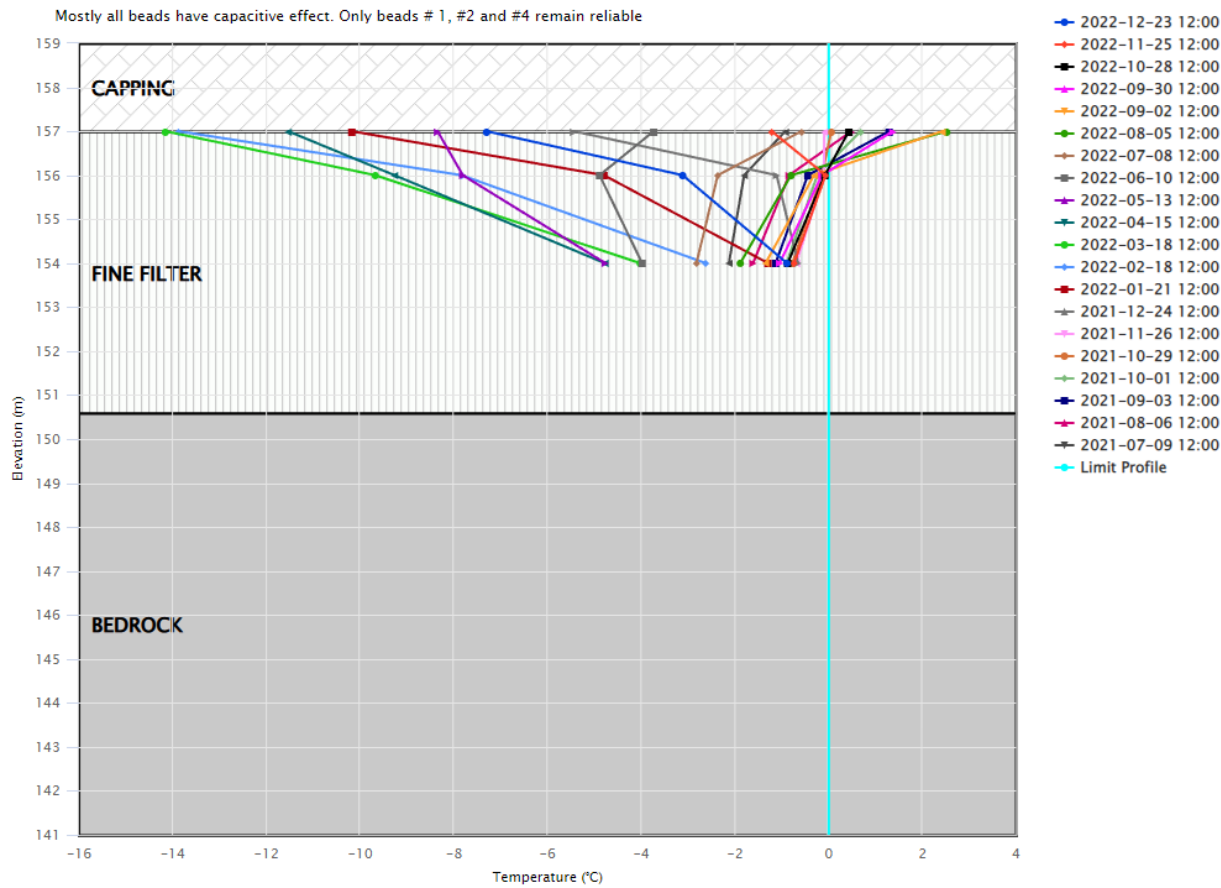
WTD-TH 0+750



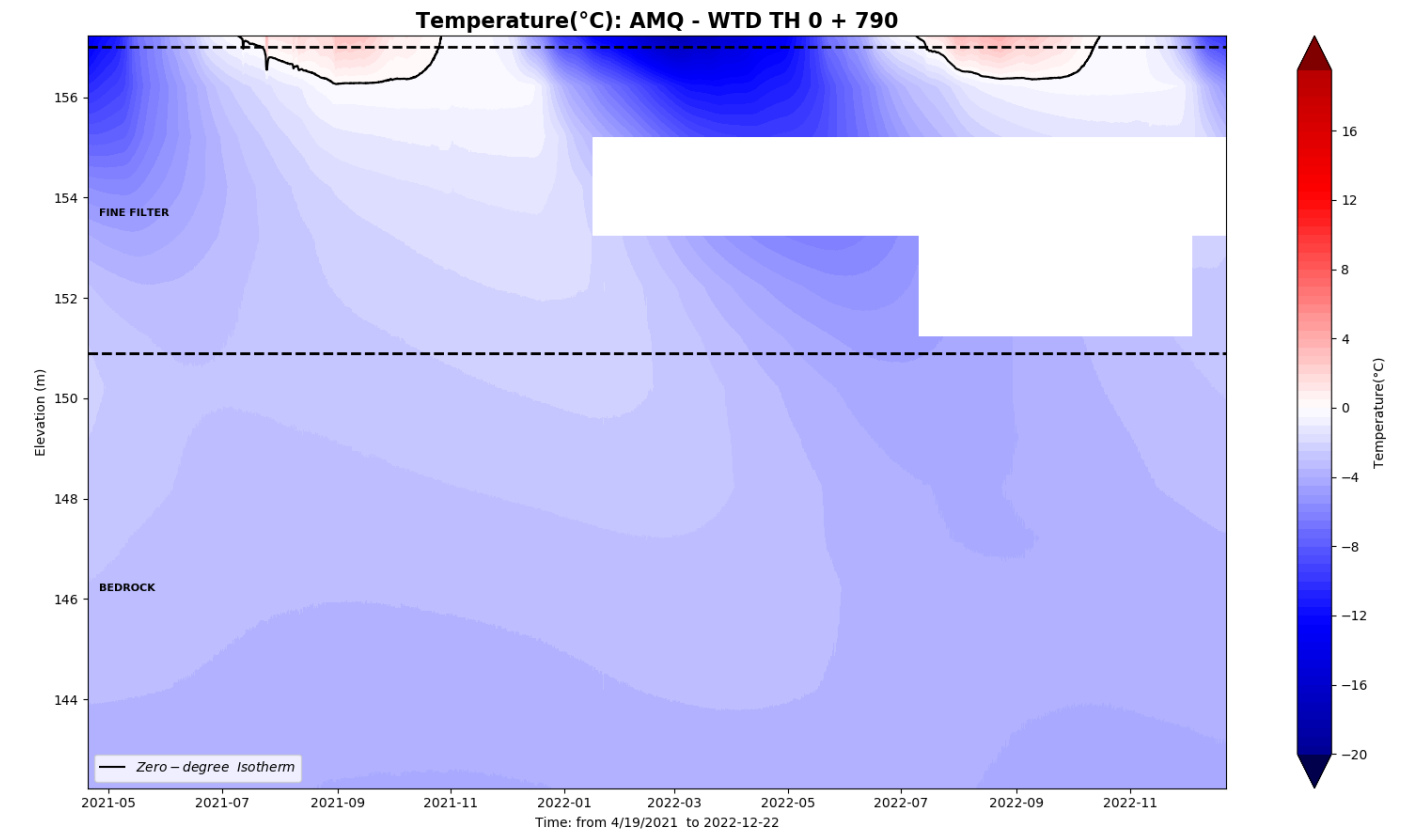
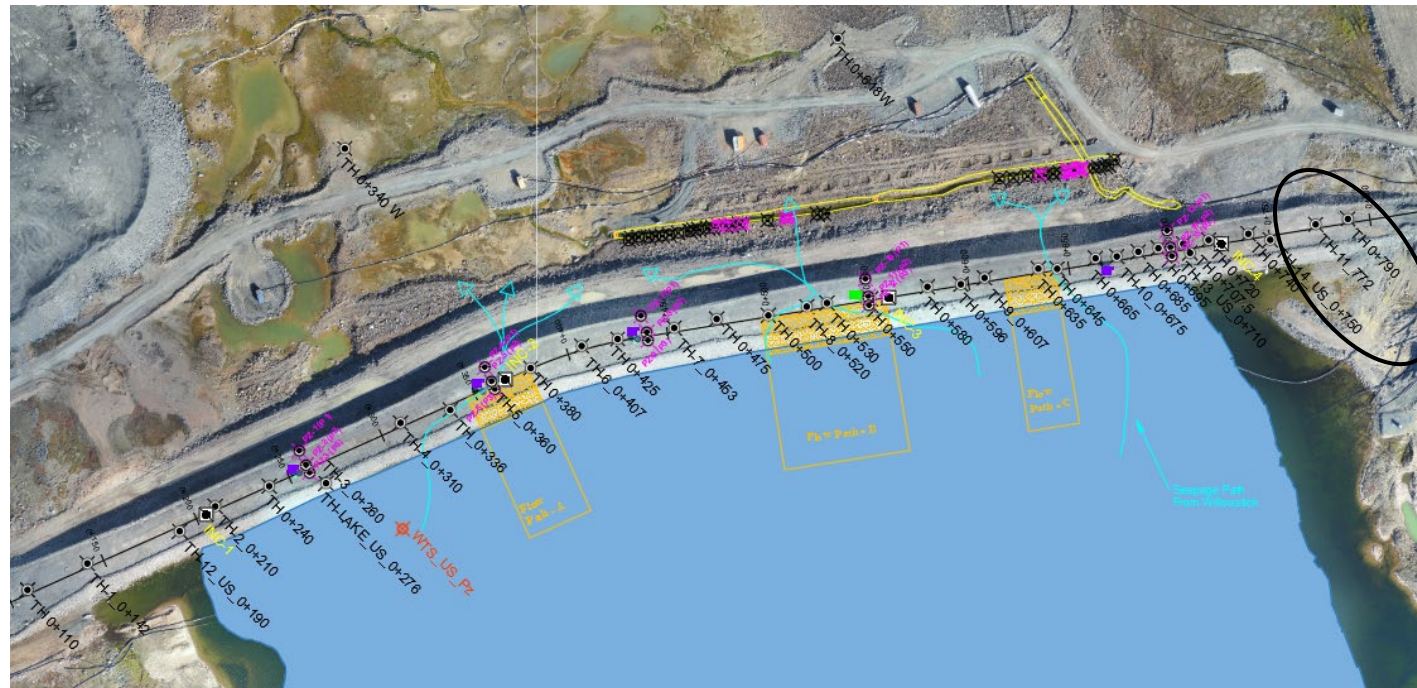
WTD-TH 0+772 U/S



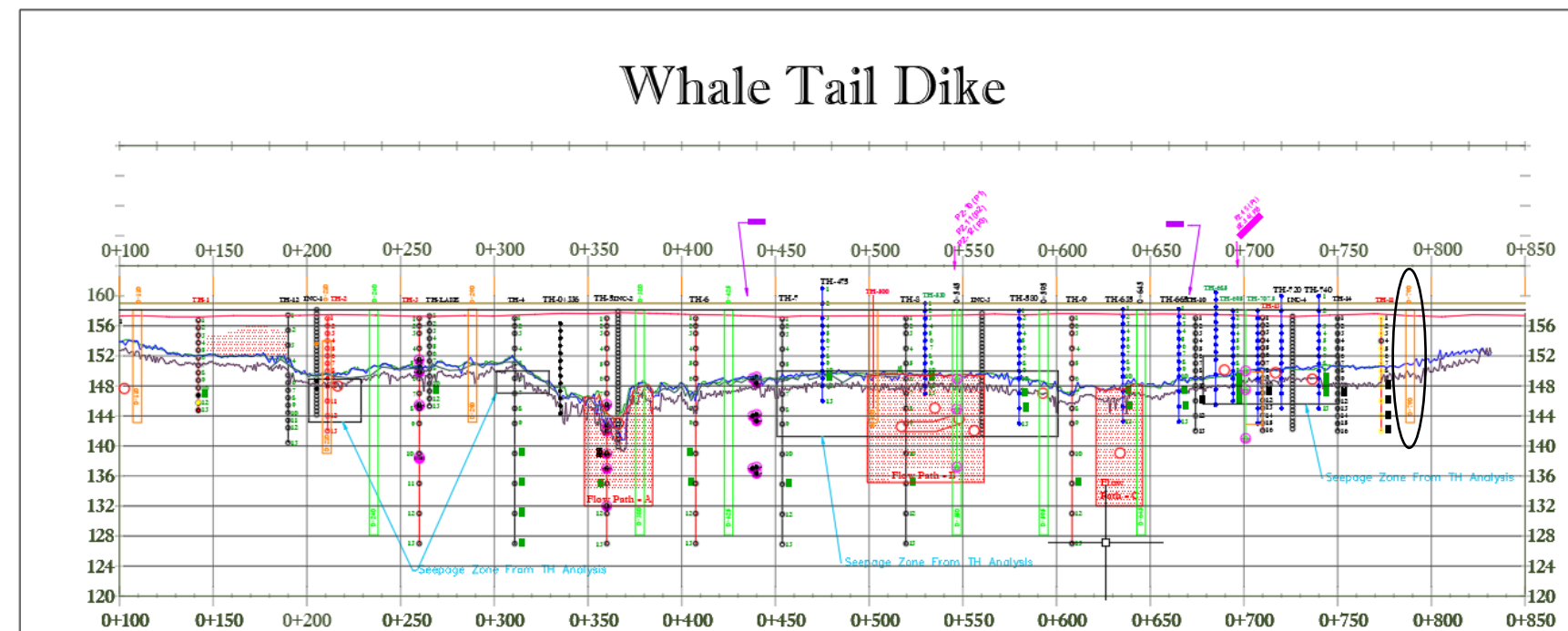
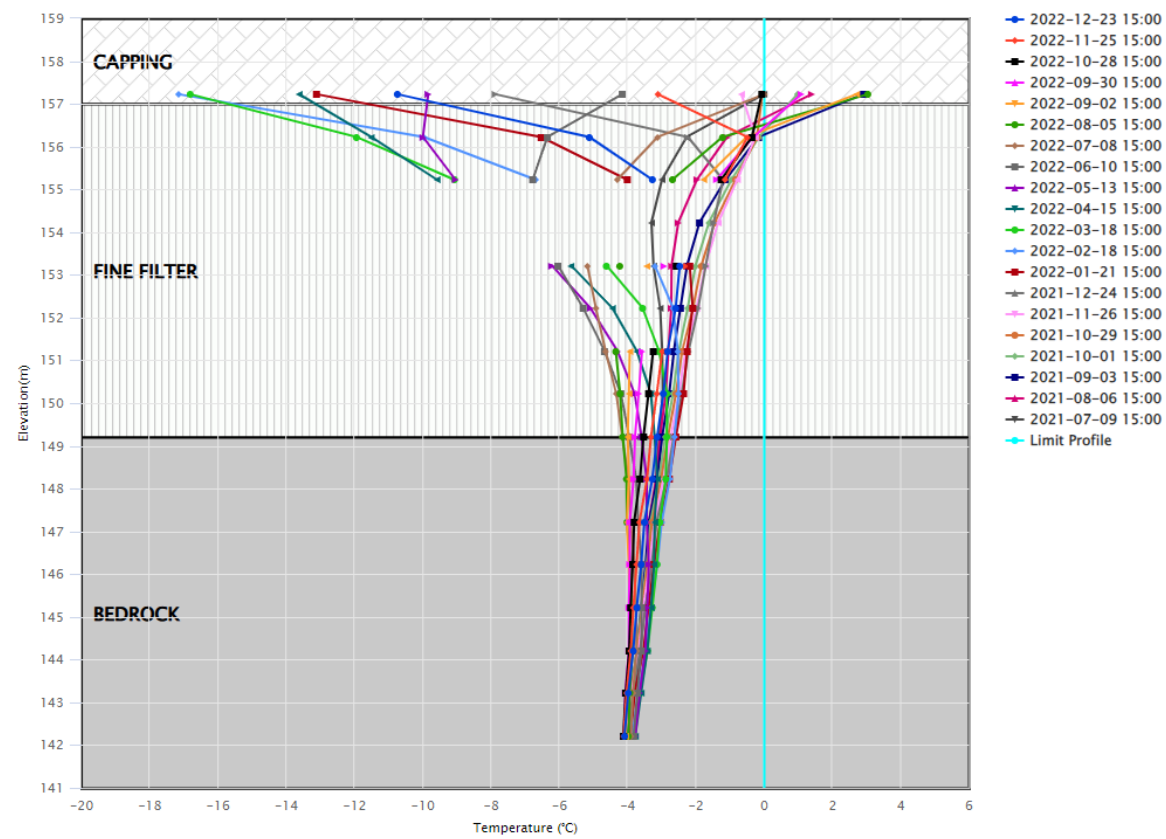
AMQ - WTD TH: 0+772



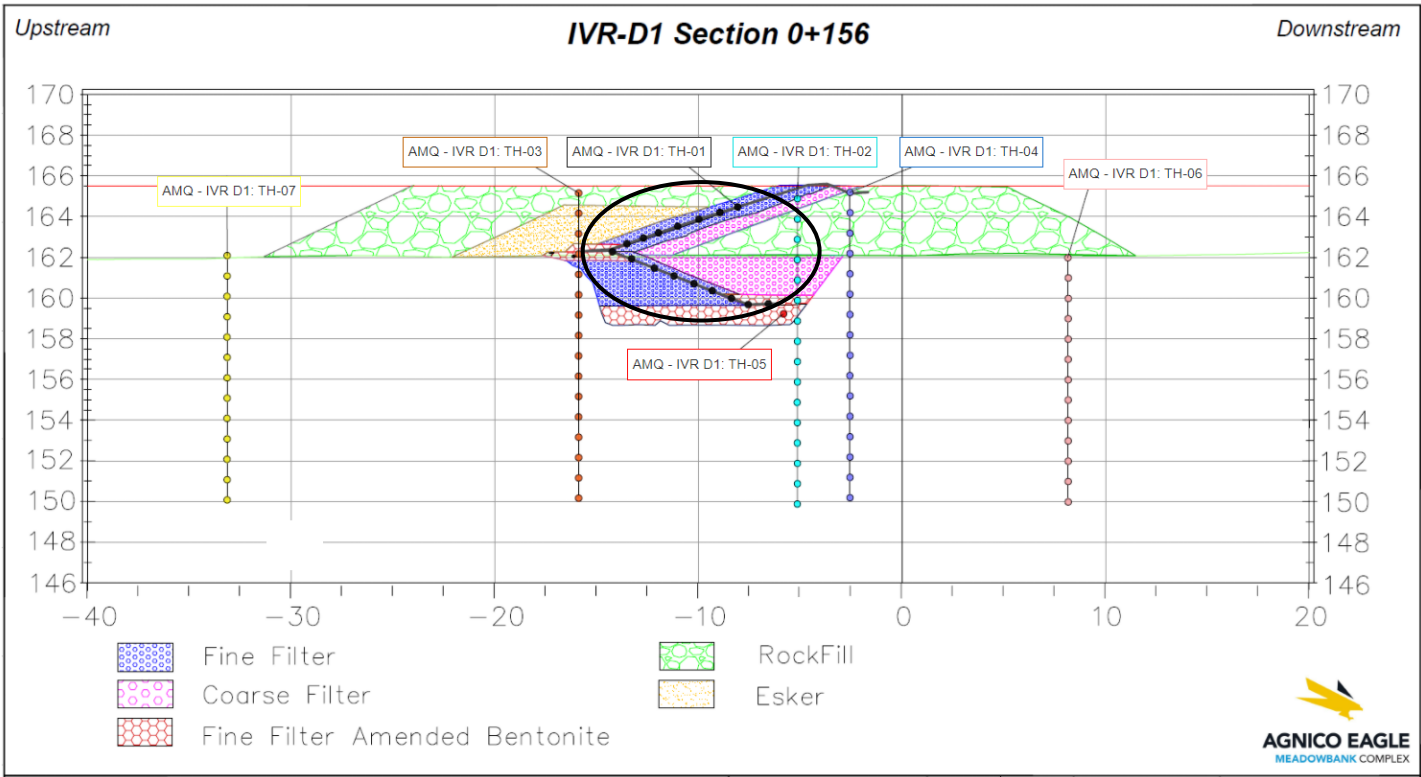
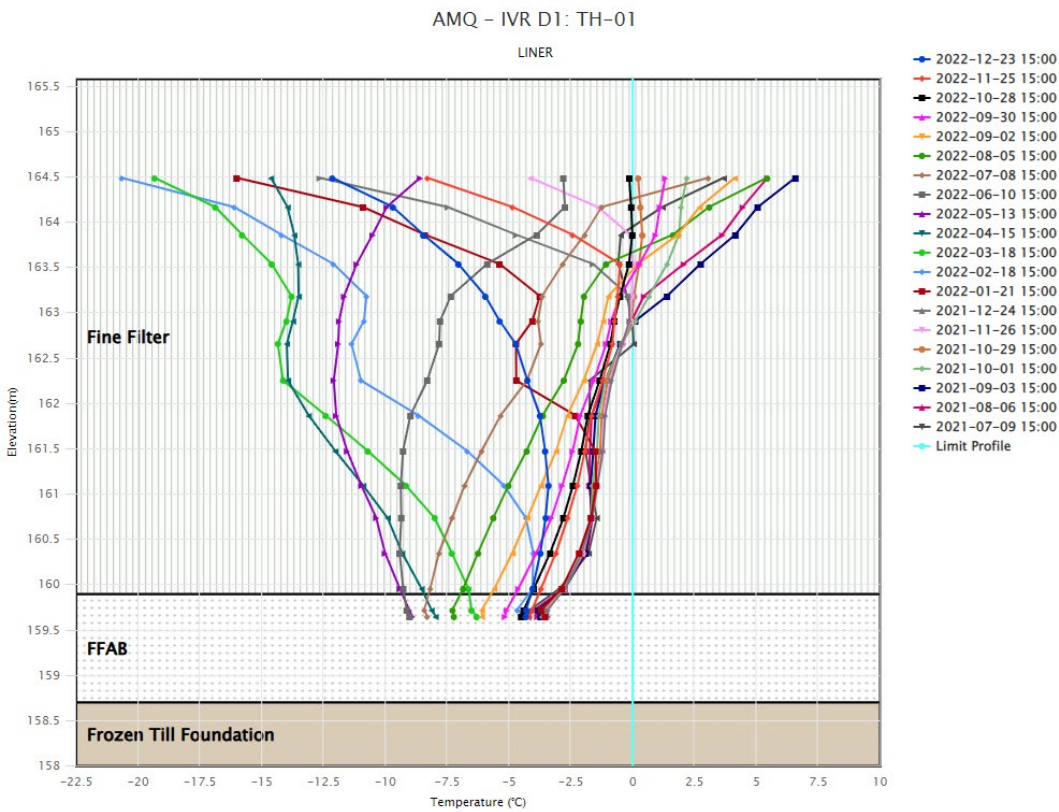
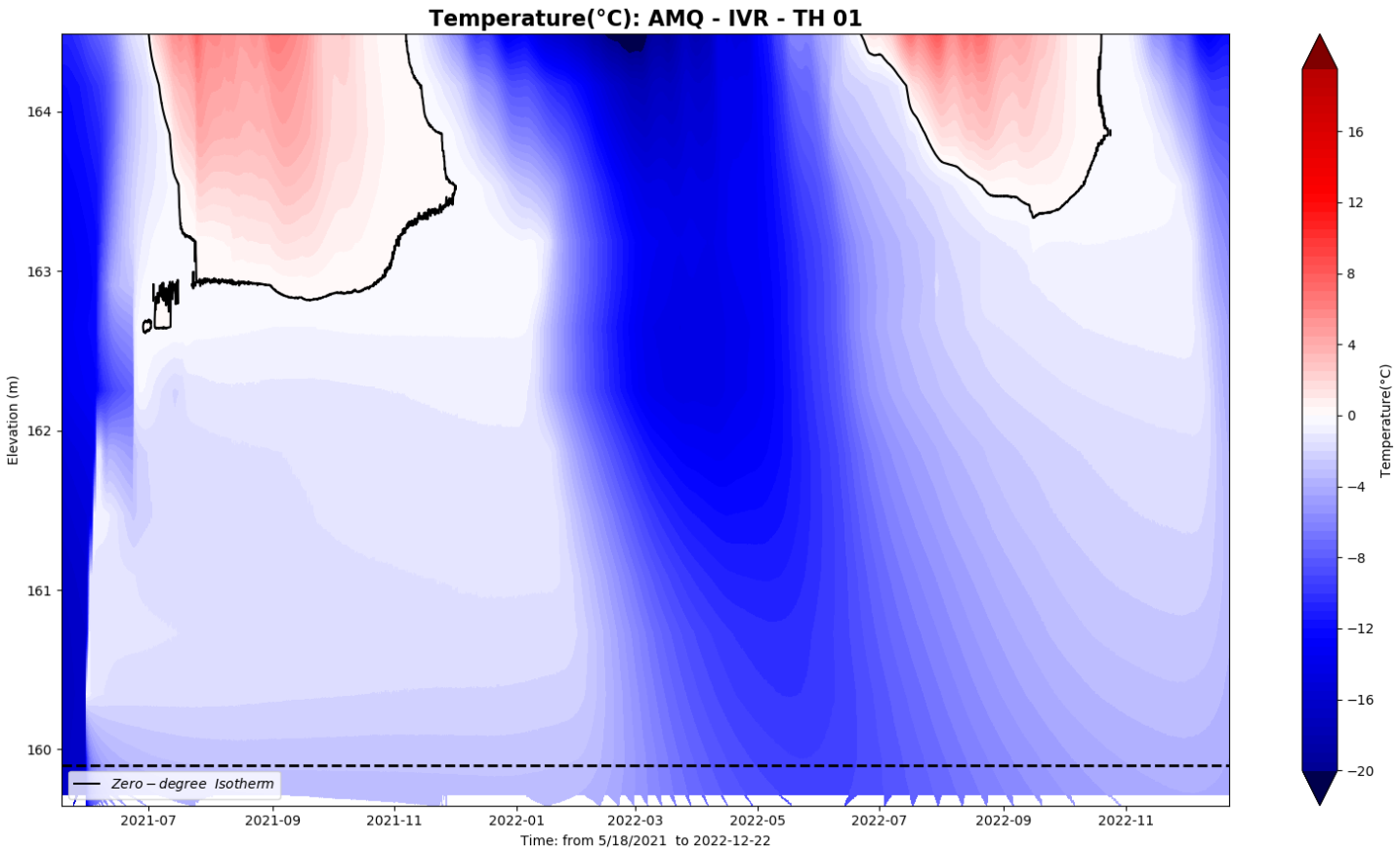
WTD-TH 0+790



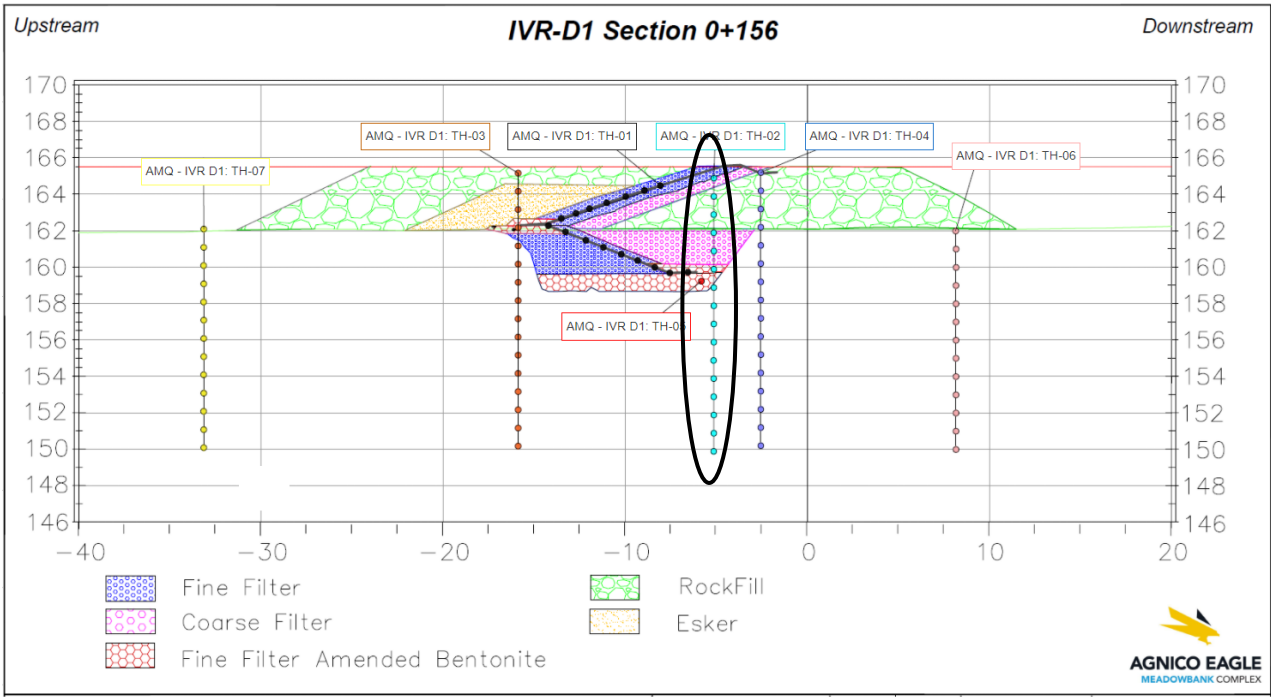
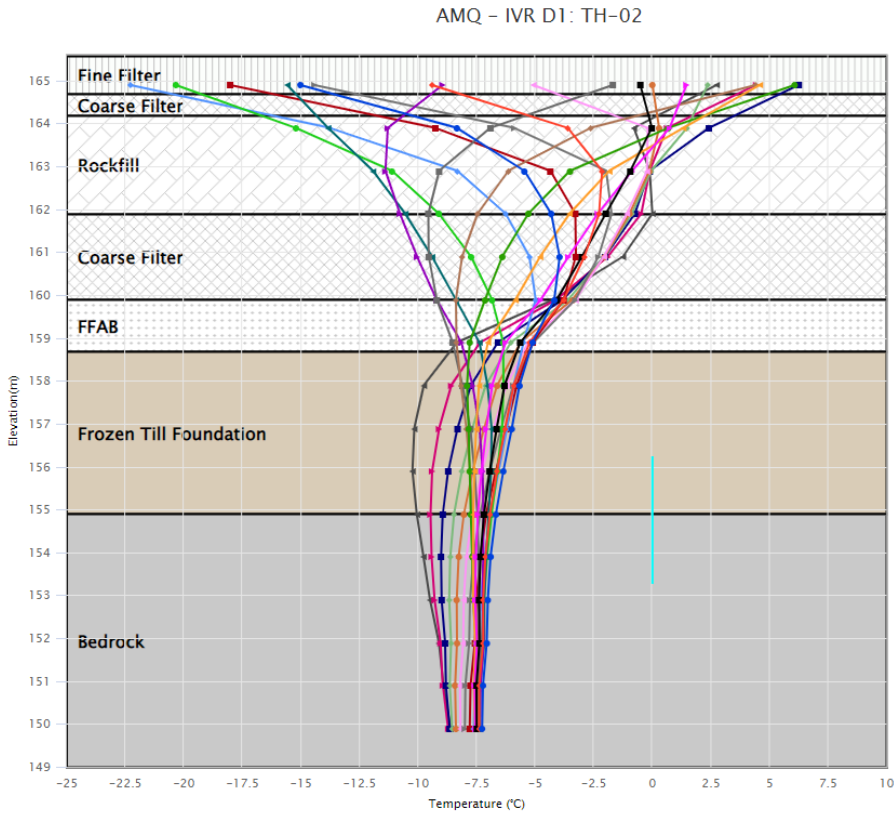
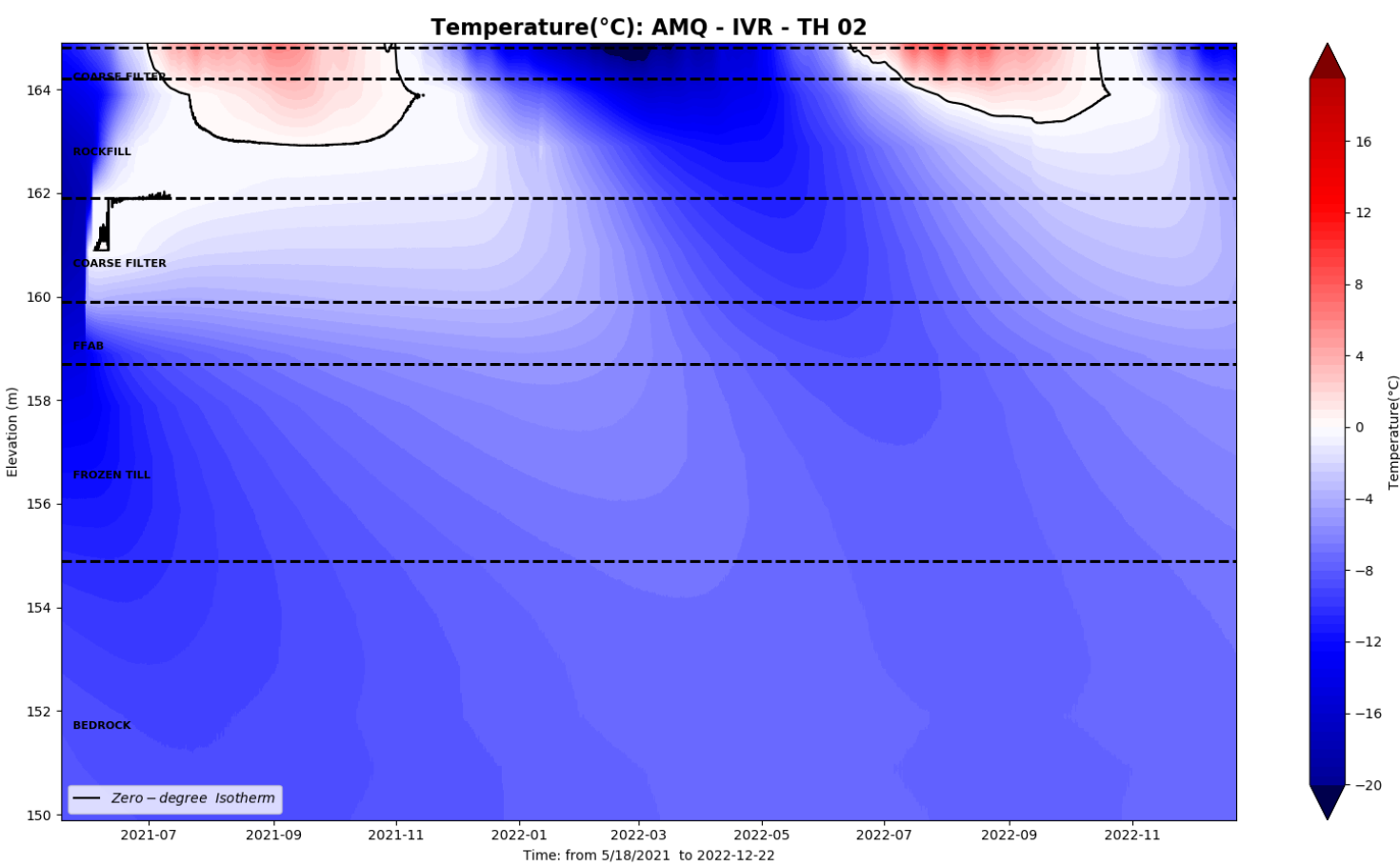
AMQ - WTD TH: 0+790



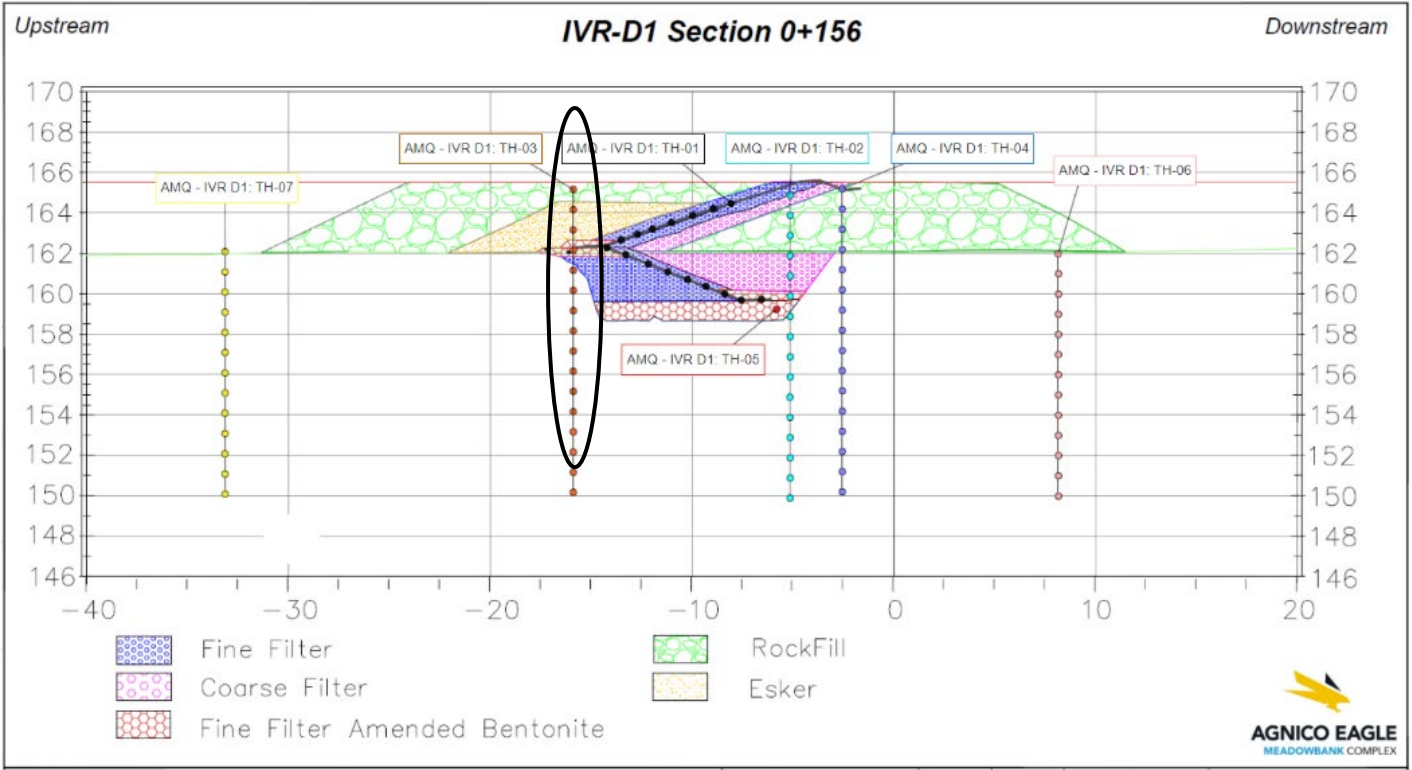
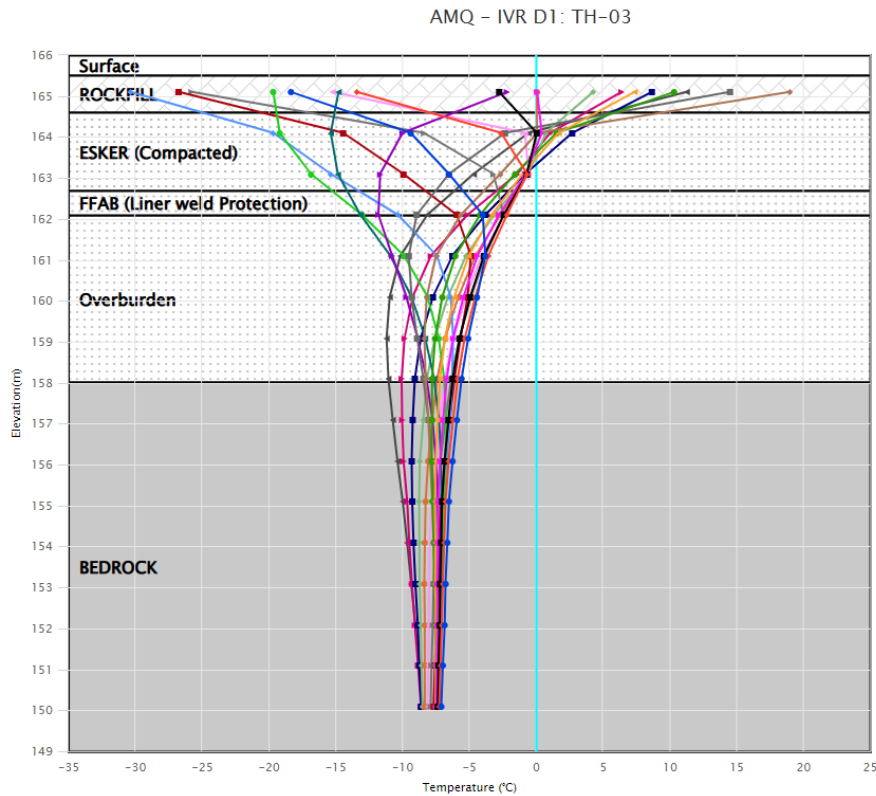
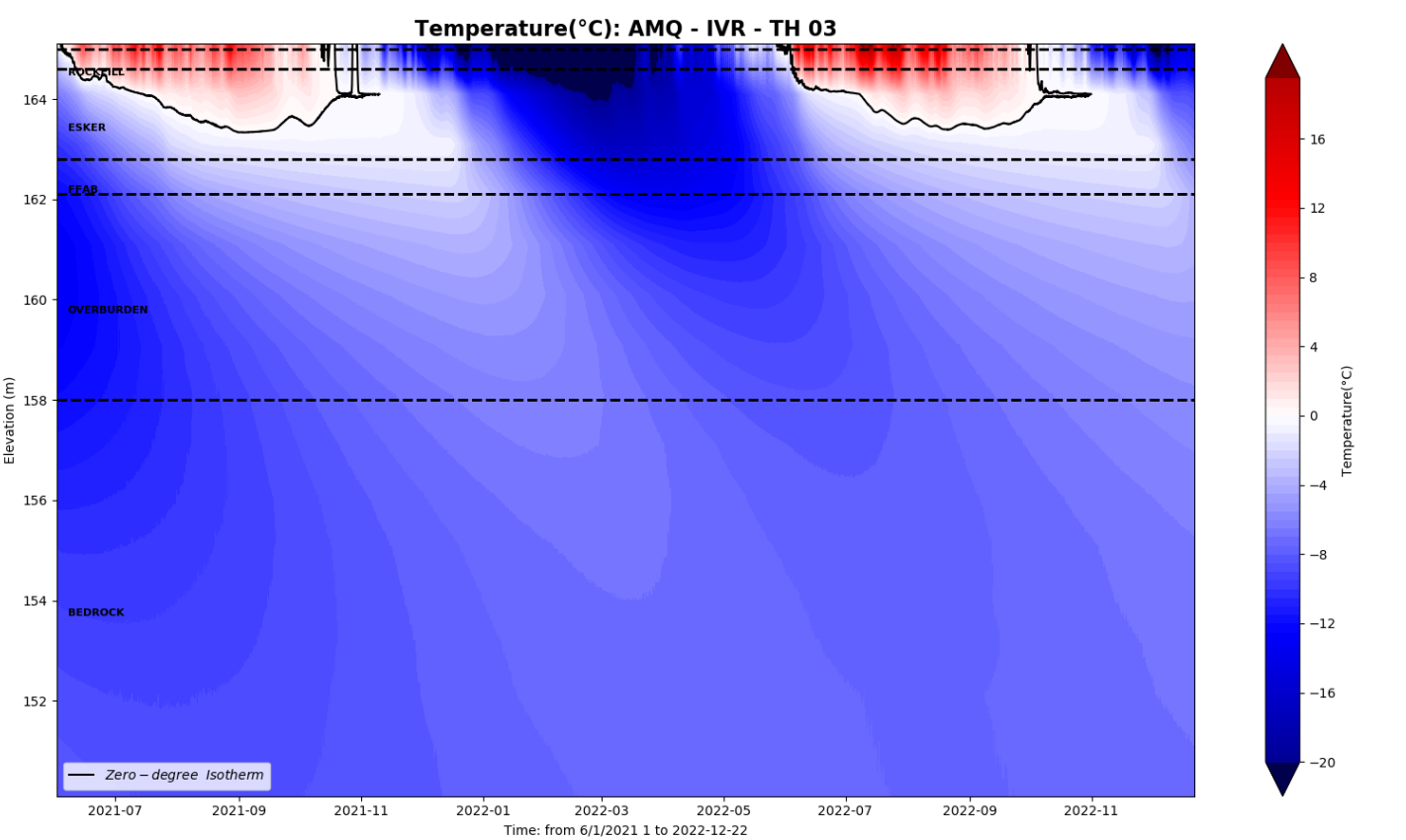
IVR-D1-TH1



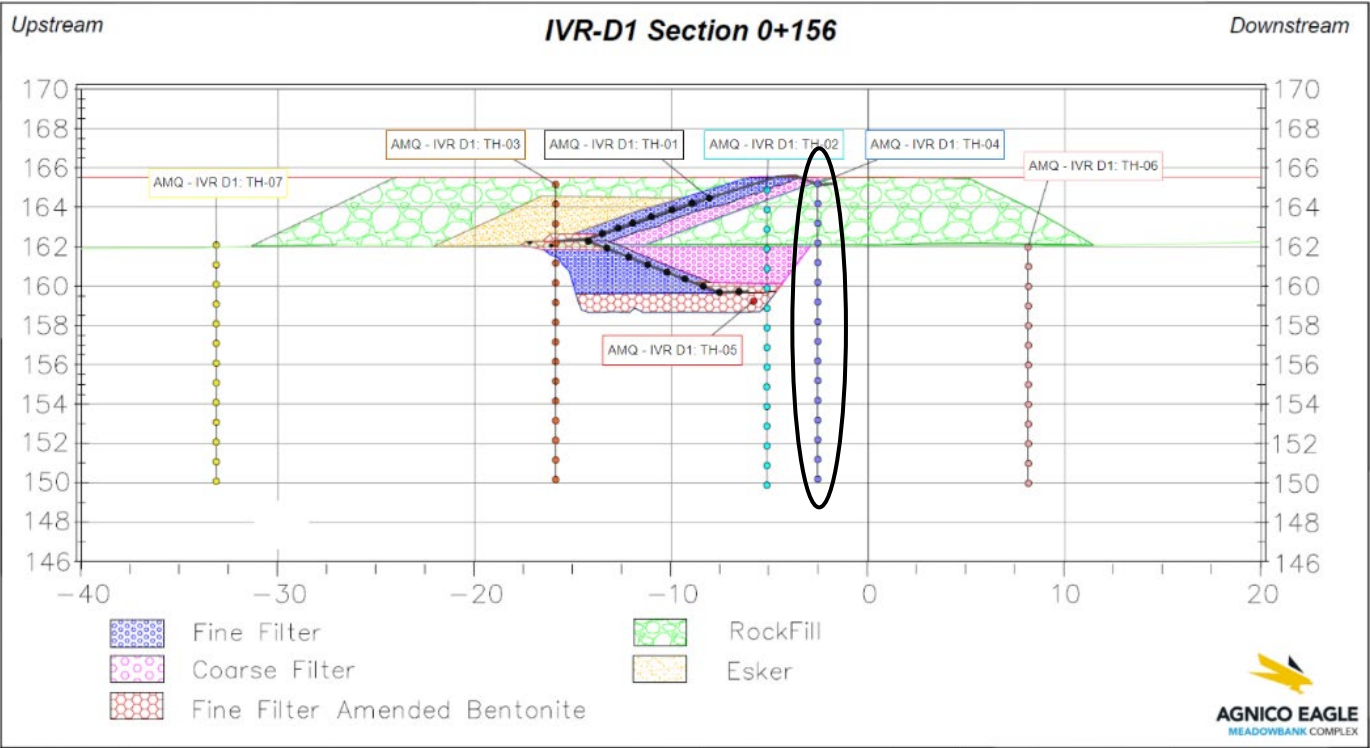
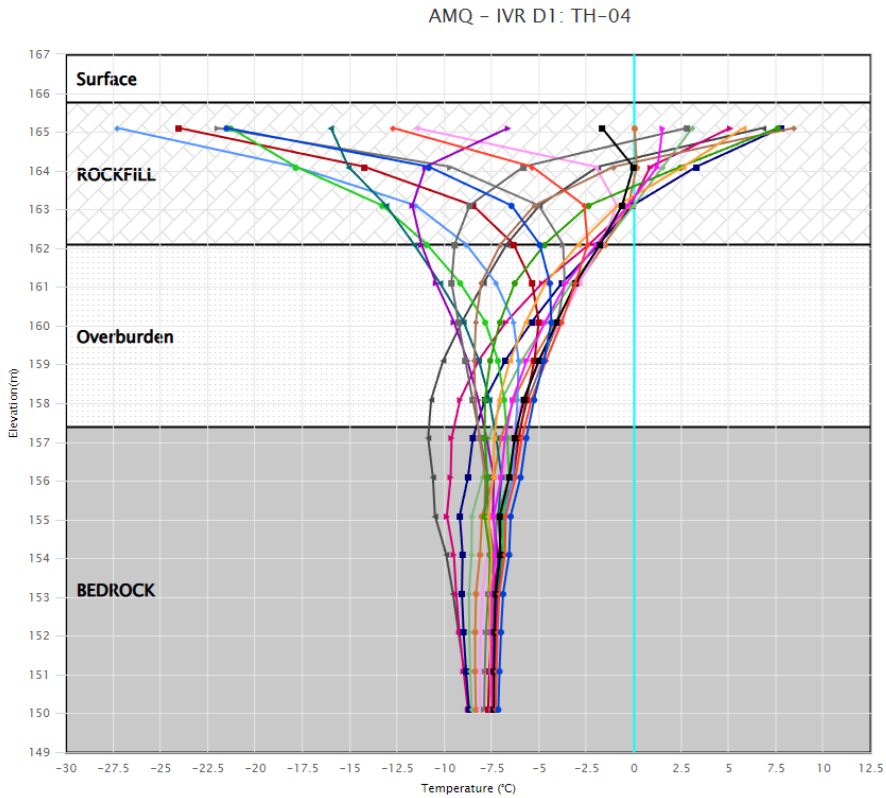
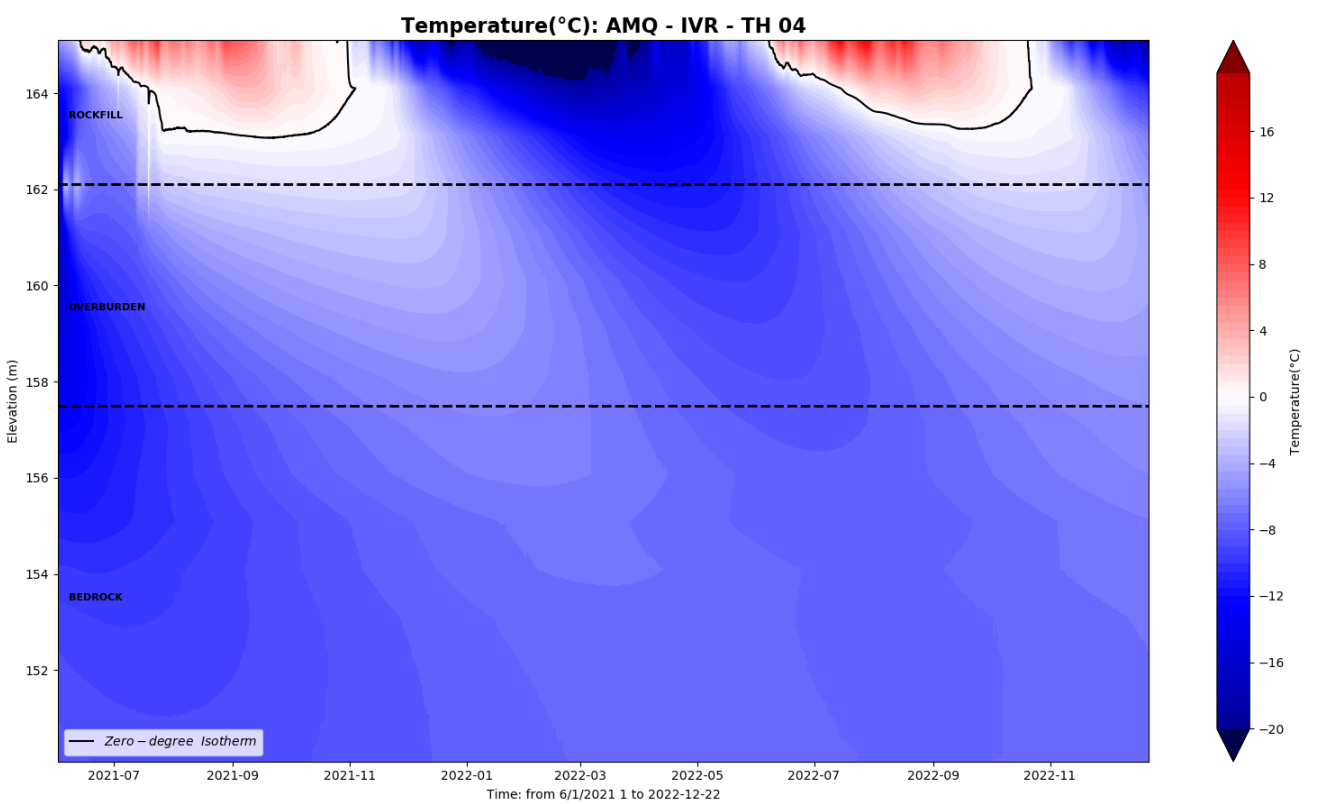
IVR-D1-TH2



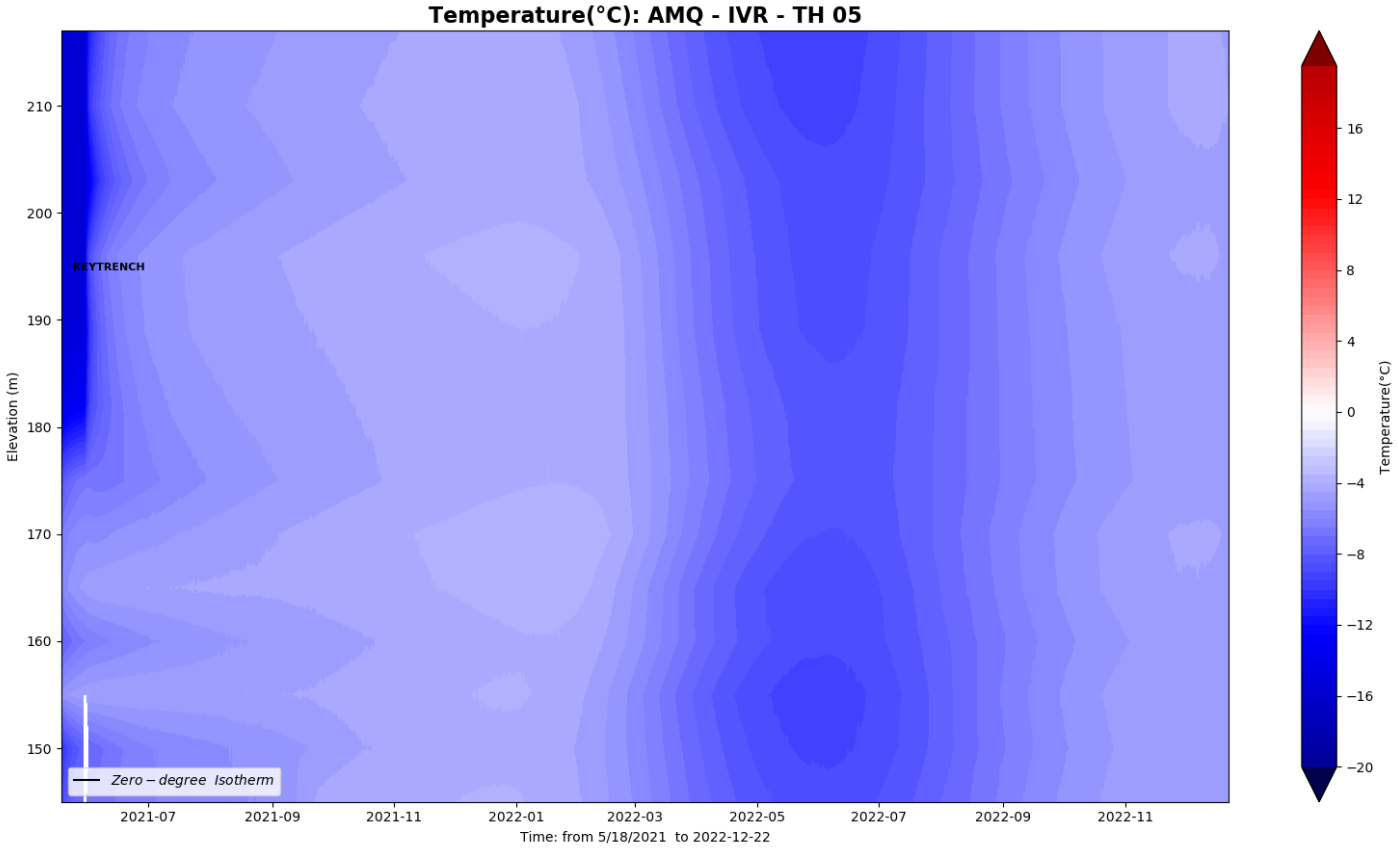
IVR-D1-TH3



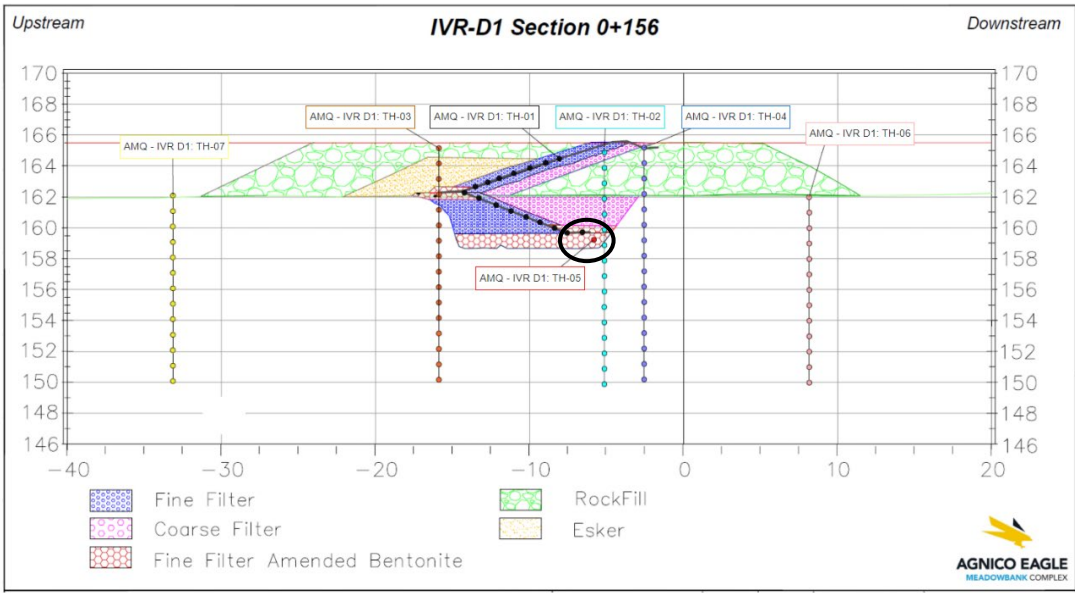
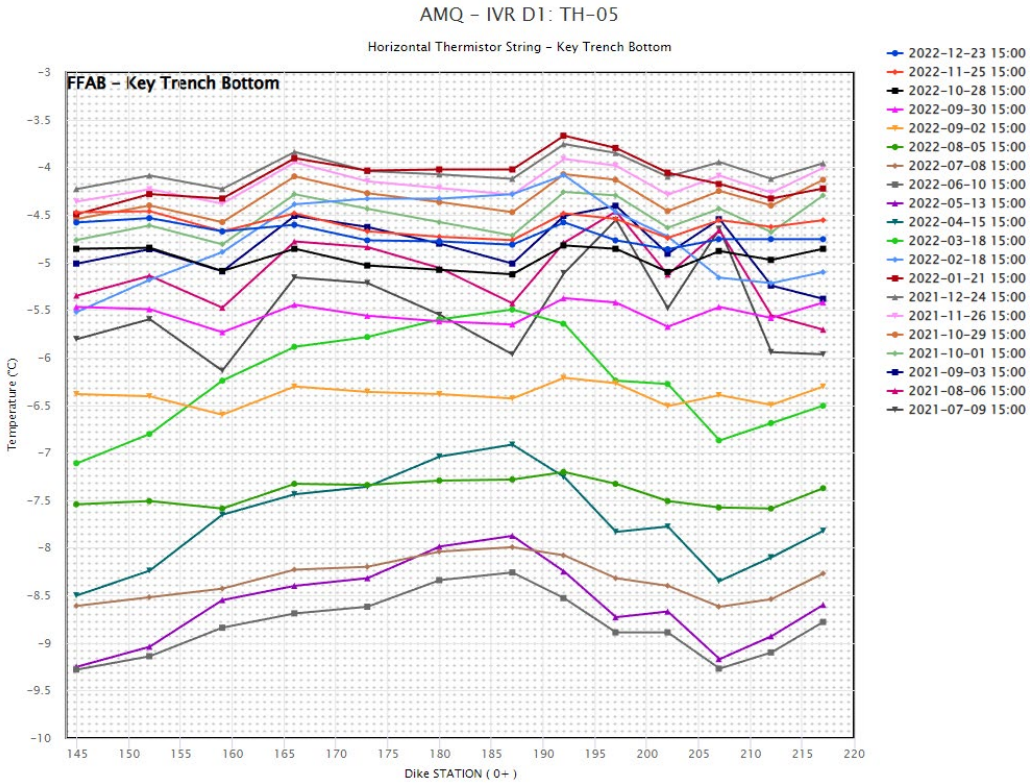
IVR-D1-TH4



IVR-D1-TH5



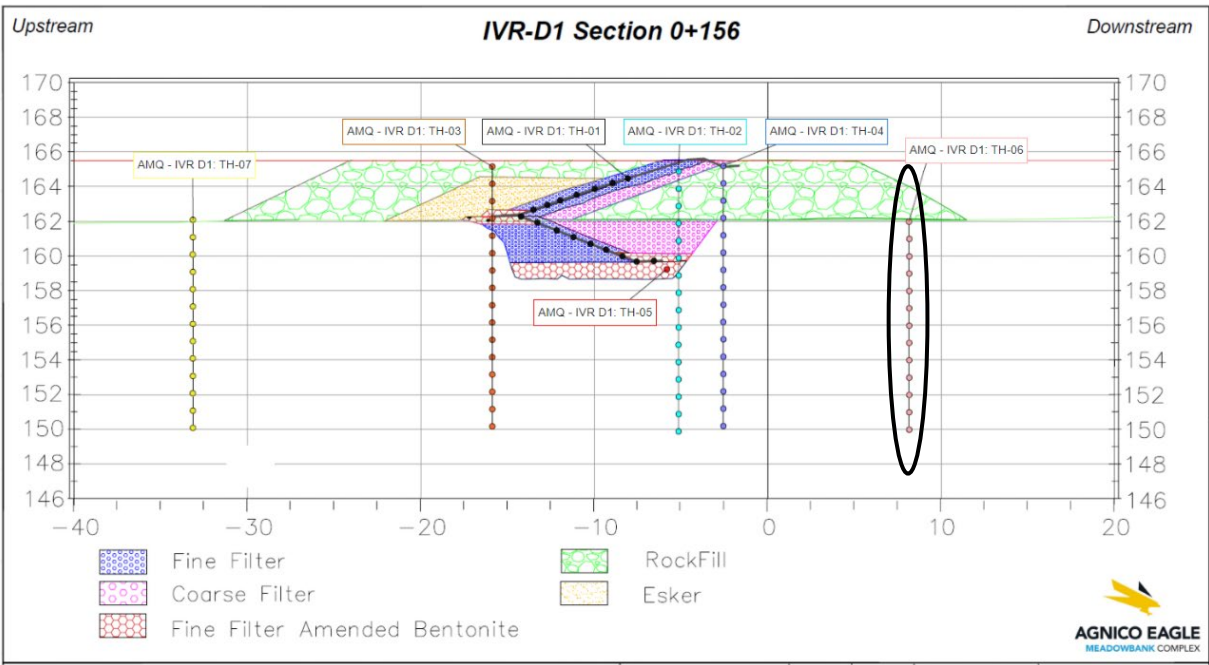
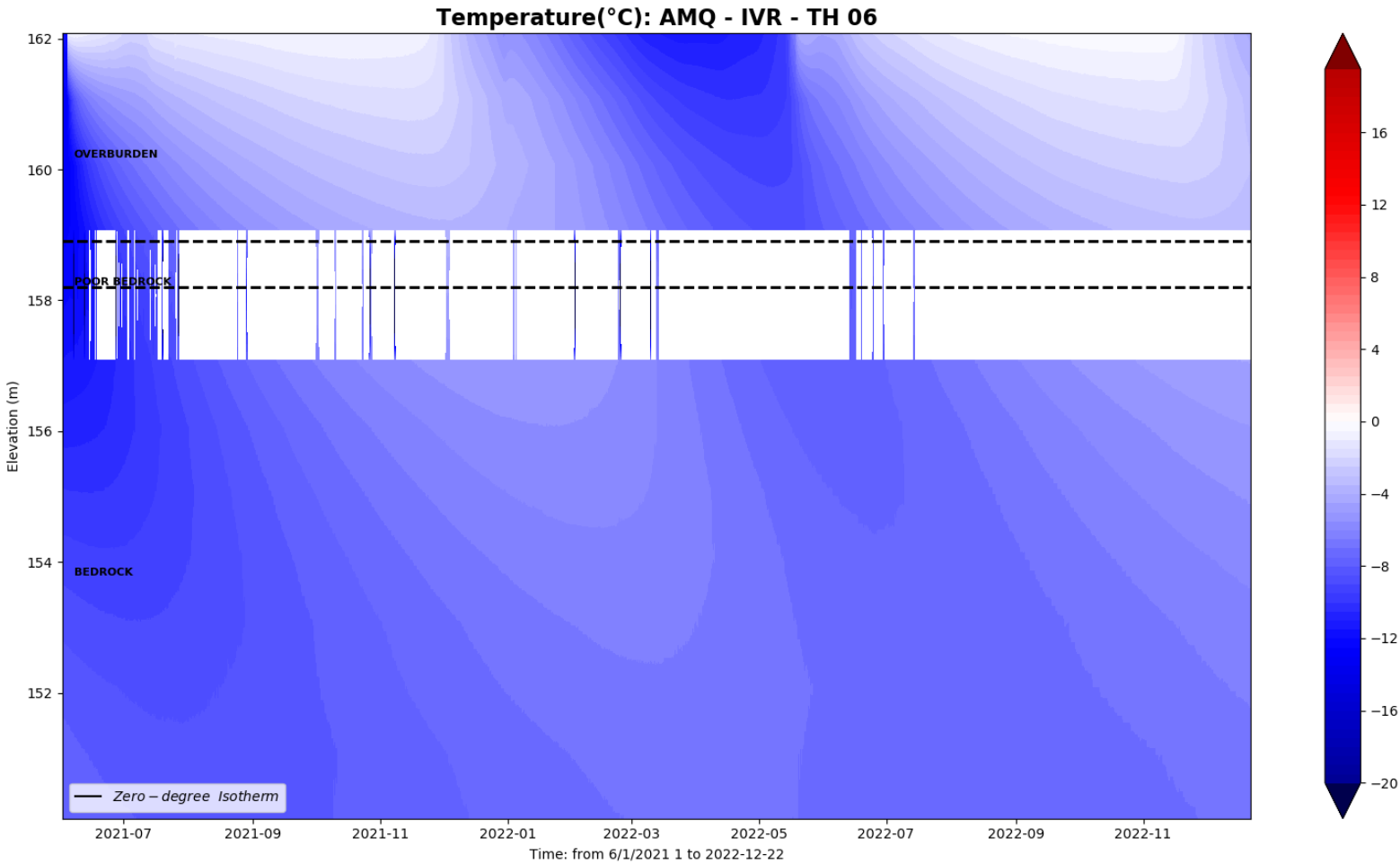
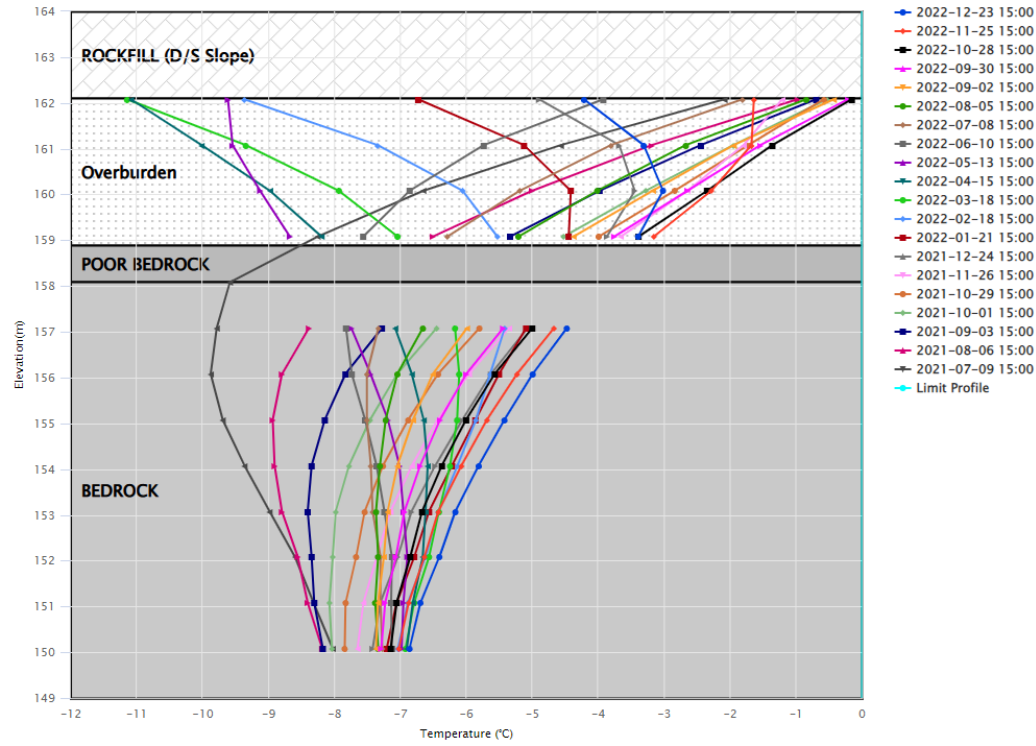
NOTE: This TH is horizontal and in Keytrench and must be reflected this way when reading the thermal graph



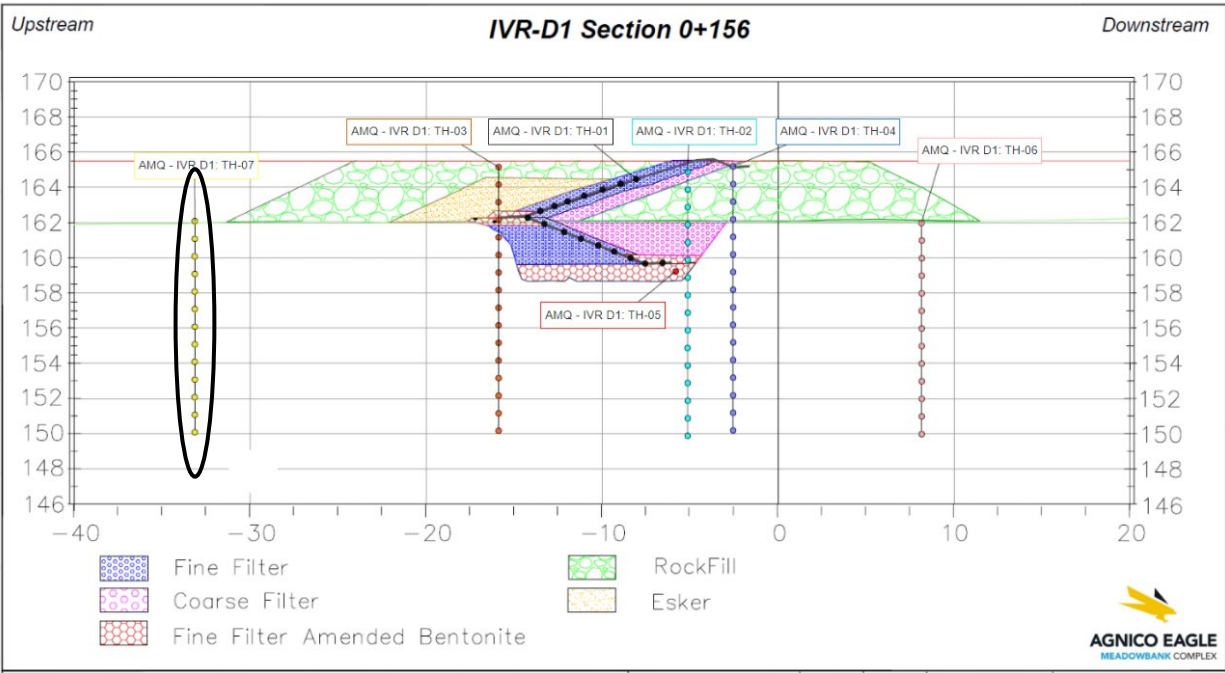
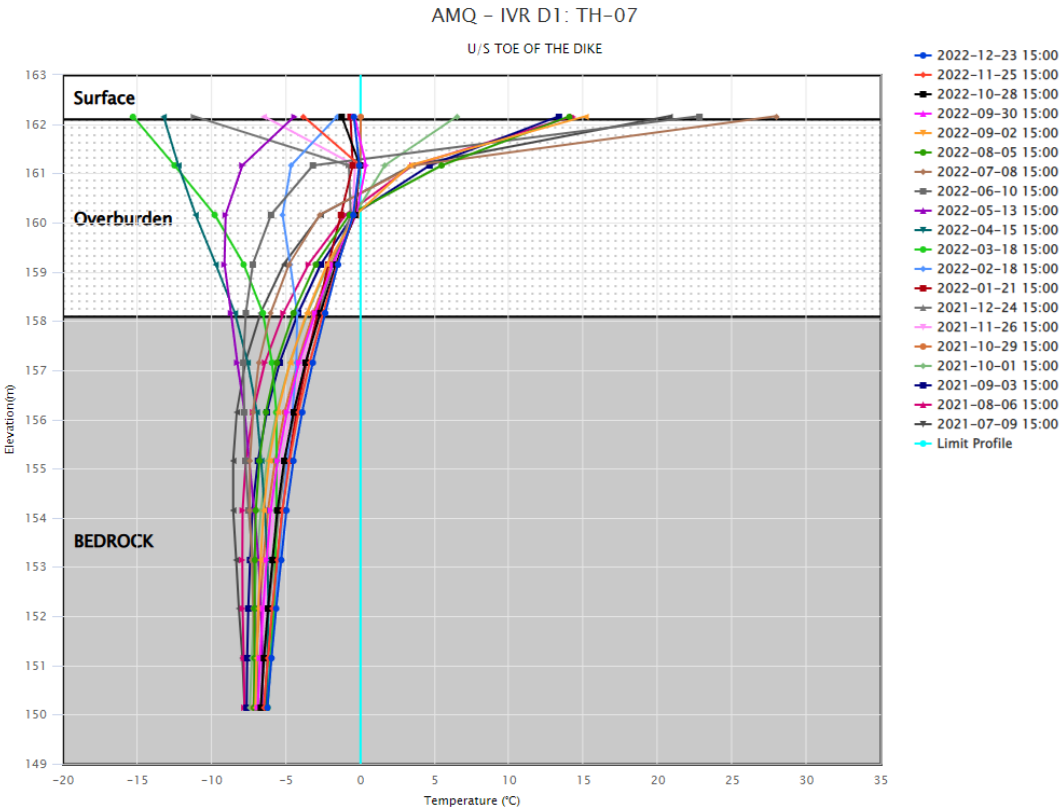
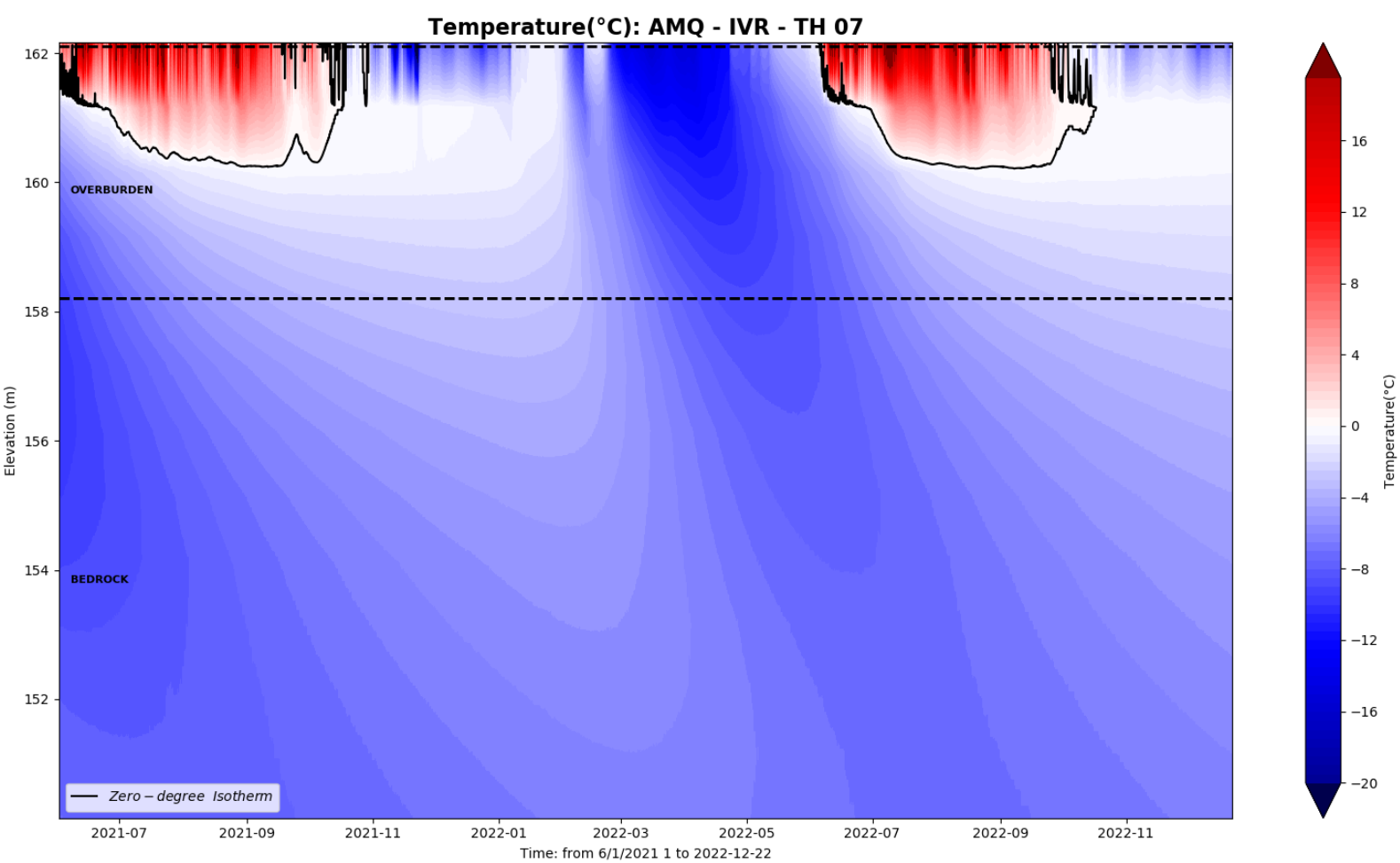
IVR-D1-TH6



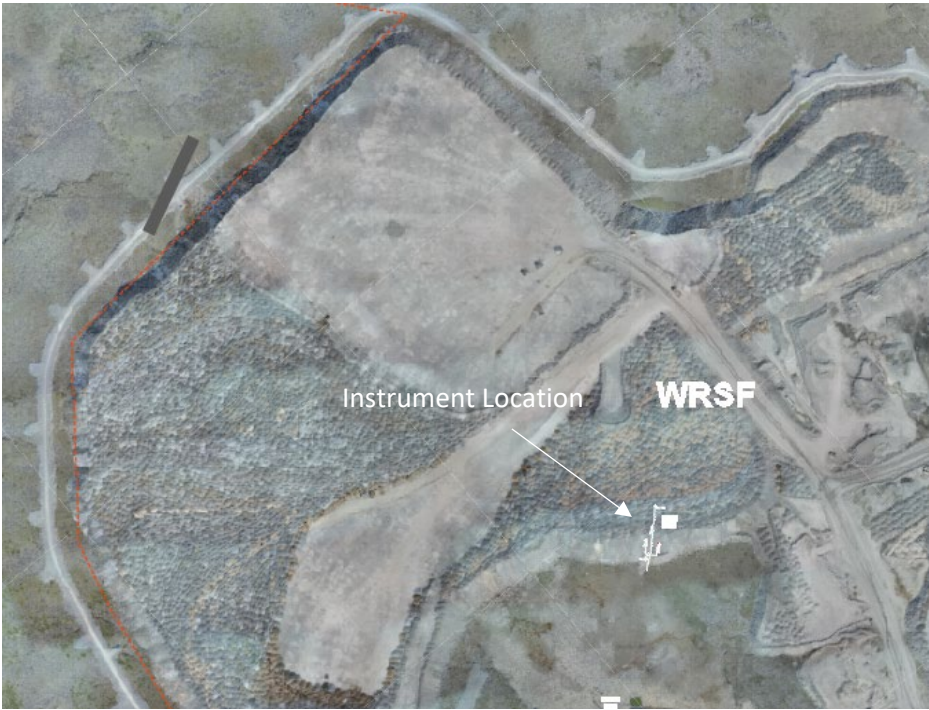
AMQ - IVR D1: TH-06



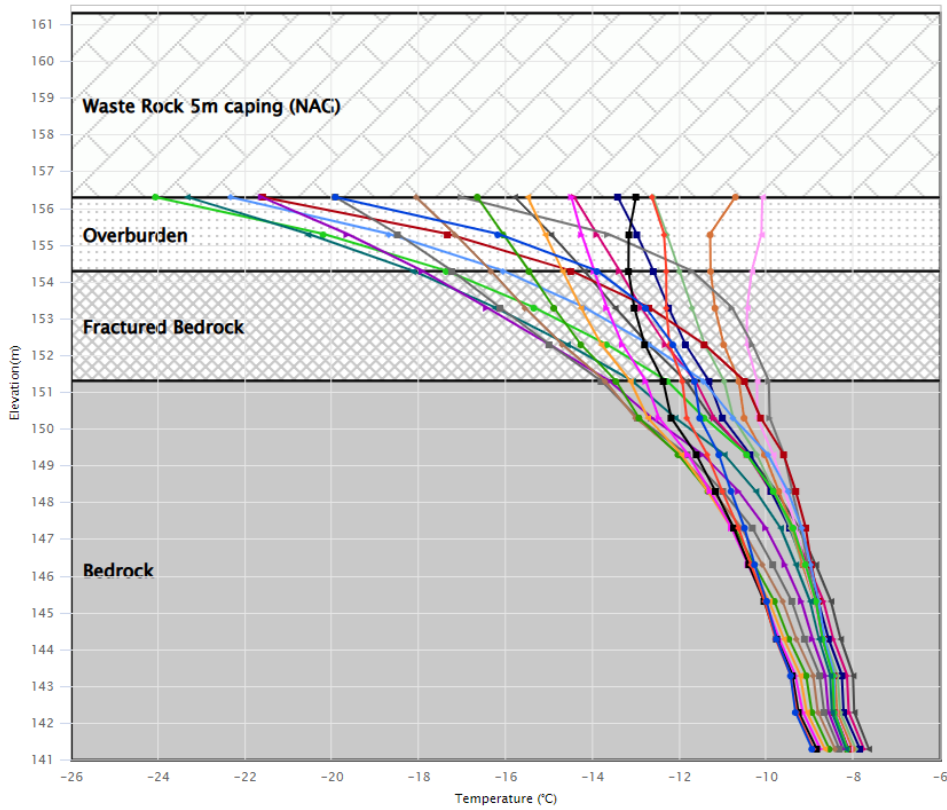
IVR-D1-TH7



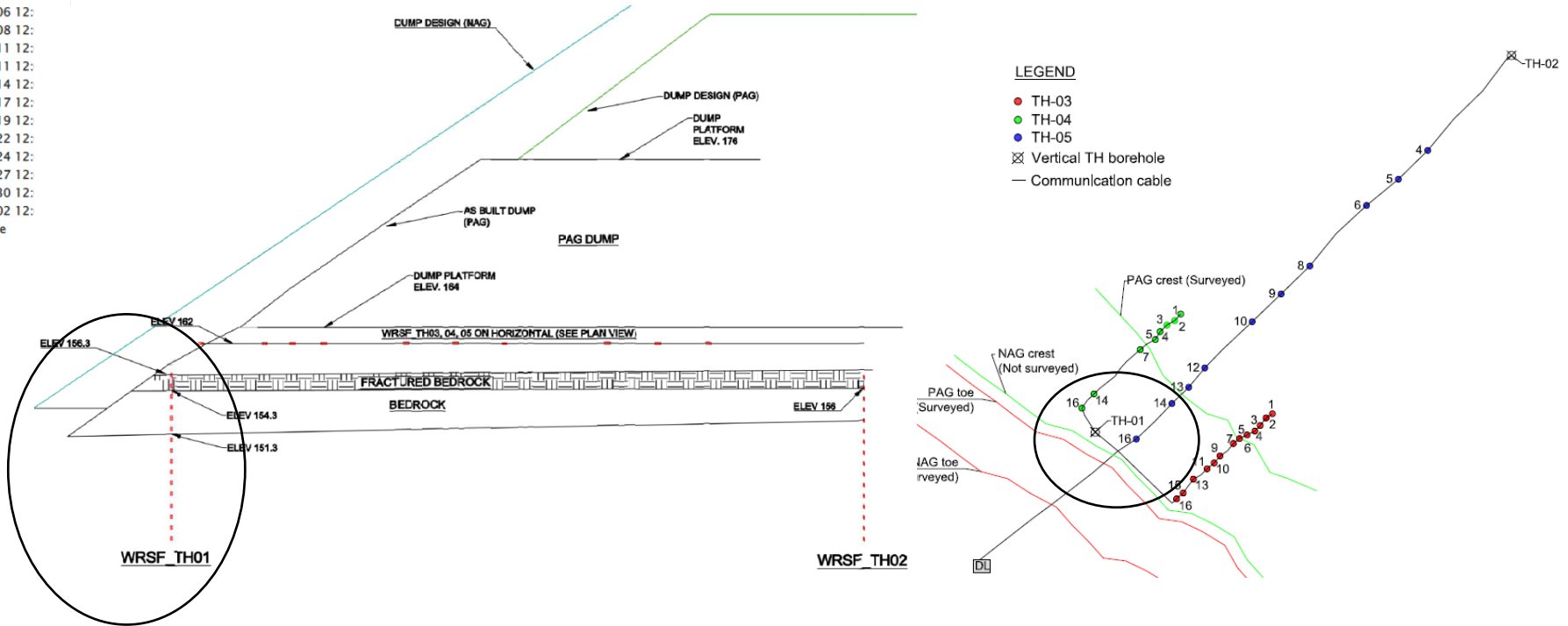
WT WRSF TH1



AMQ - WRSF - WT_TH_01



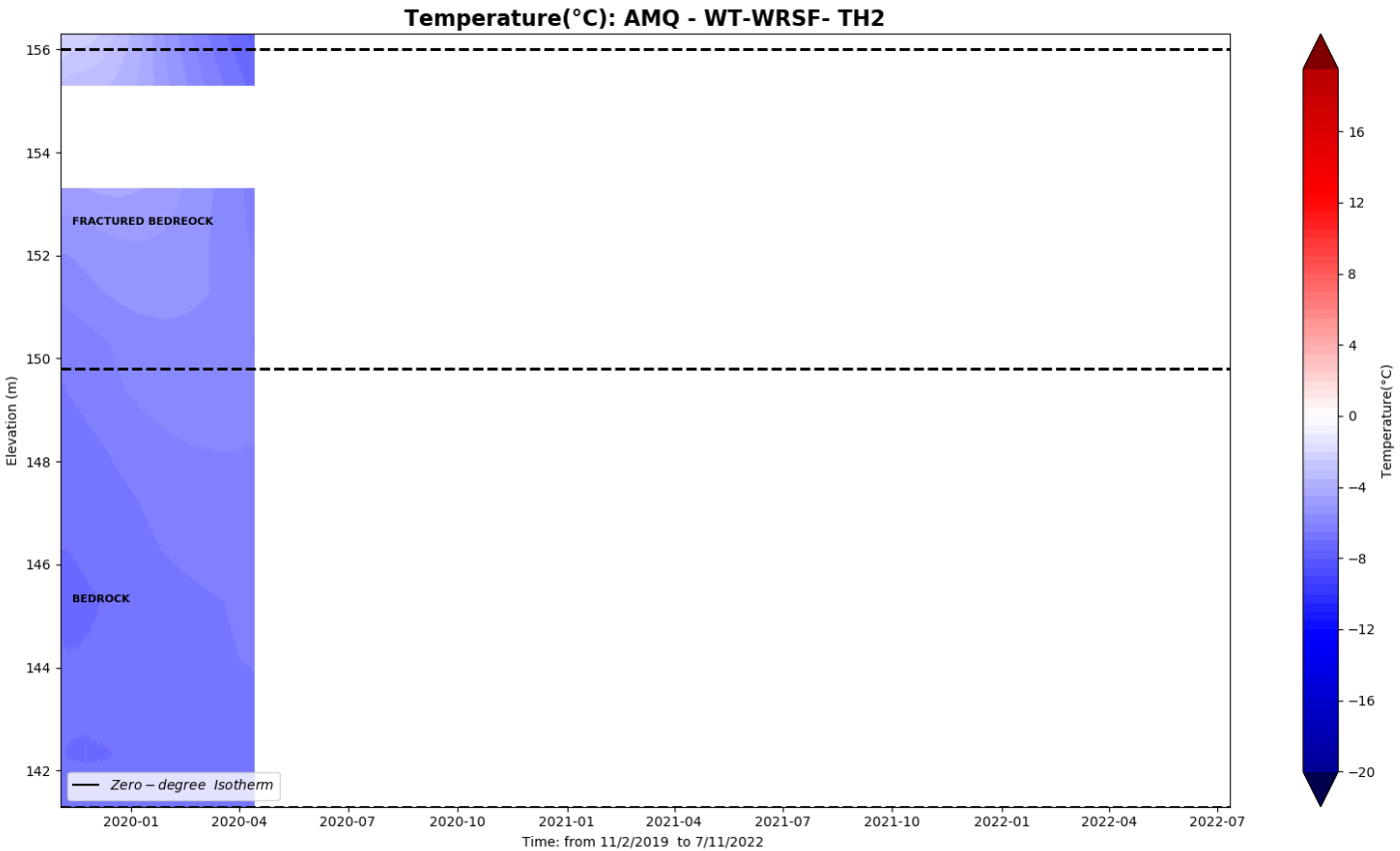
- 2022-12-16 12:00
- 2022-11-18 12:00
- 2022-10-21 12:00
- 2022-09-23 12:00
- 2022-08-26 12:00
- 2022-07-29 12:00
- 2022-07-01 12:00
- 2022-06-03 12:00
- 2022-05-06 12:00
- 2022-04-08 12:00
- 2022-03-11 12:00
- 2022-02-11 12:00
- 2022-01-14 12:00
- 2021-12-17 12:00
- 2021-11-19 12:00
- 2021-10-22 12:00
- 2021-09-24 12:00
- 2021-08-27 12:00
- 2021-07-30 12:00
- 2021-07-02 12:00
- Limit Profile



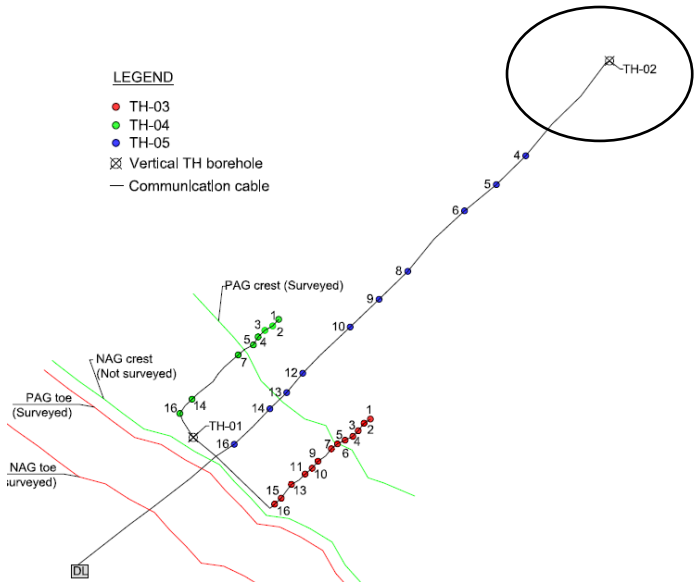
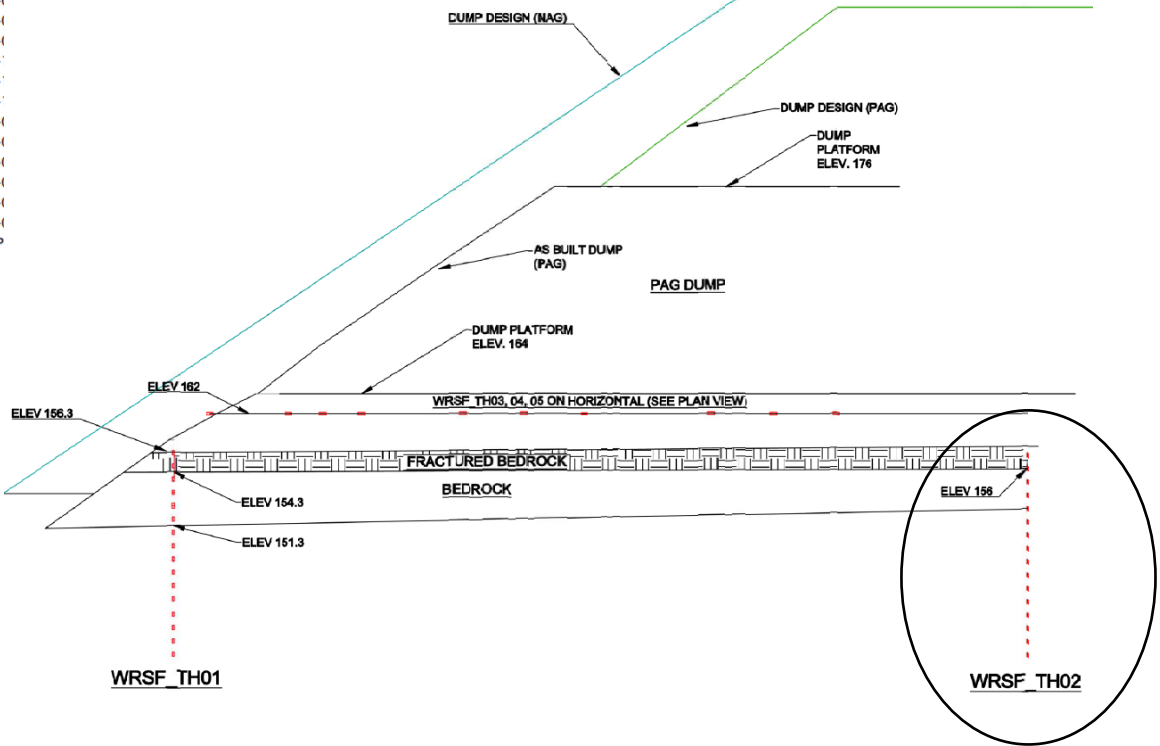
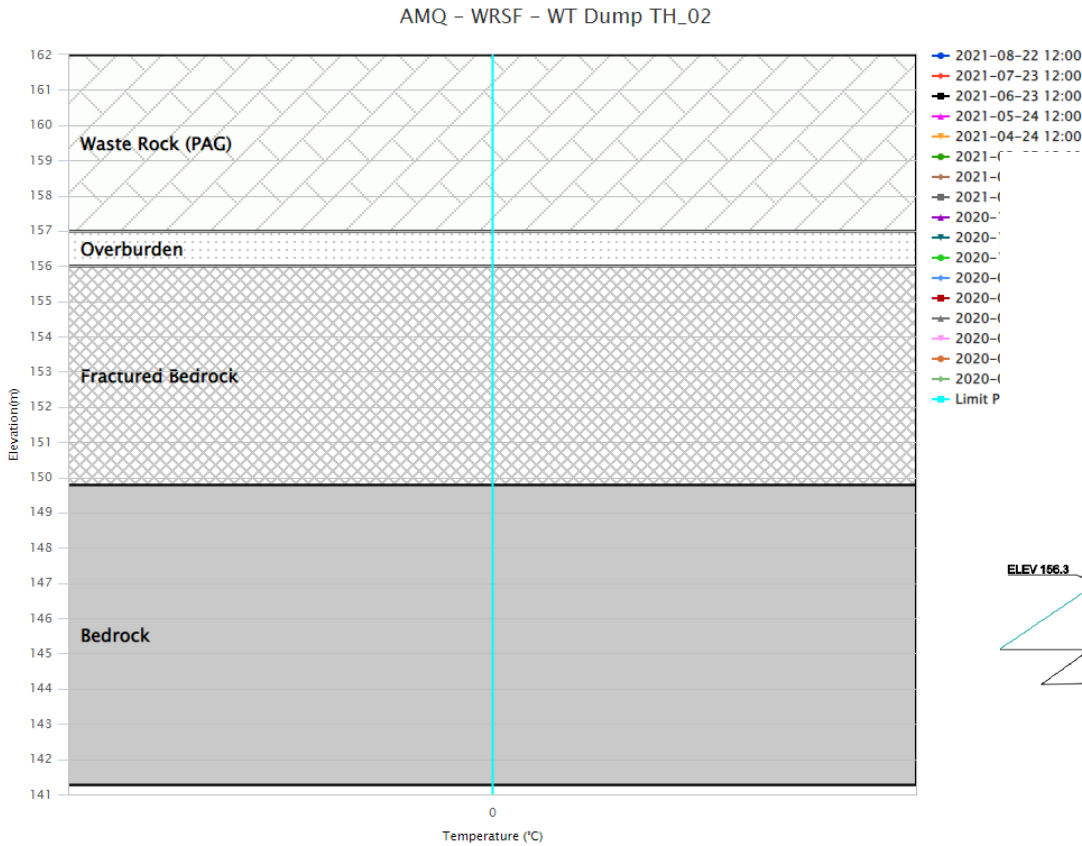
WT WRSF TH2



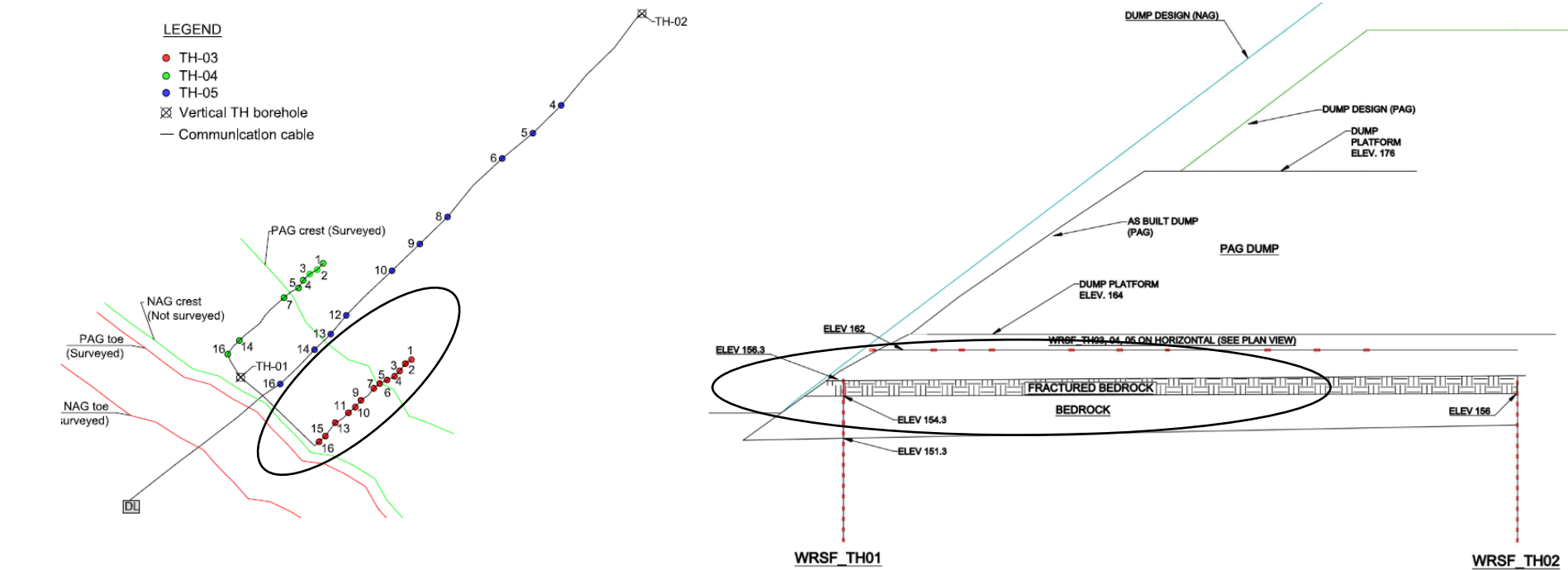
Last data May 2020



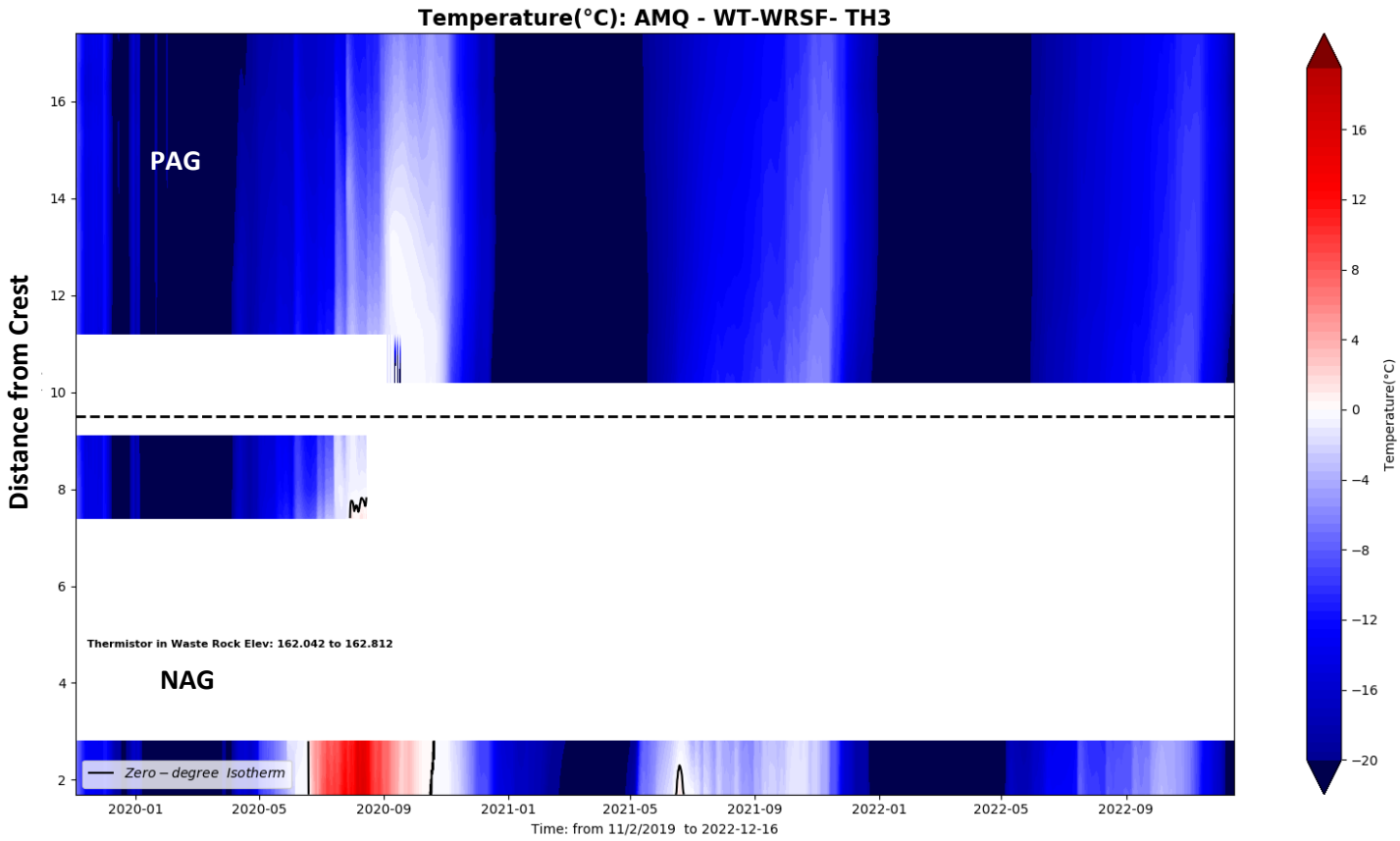
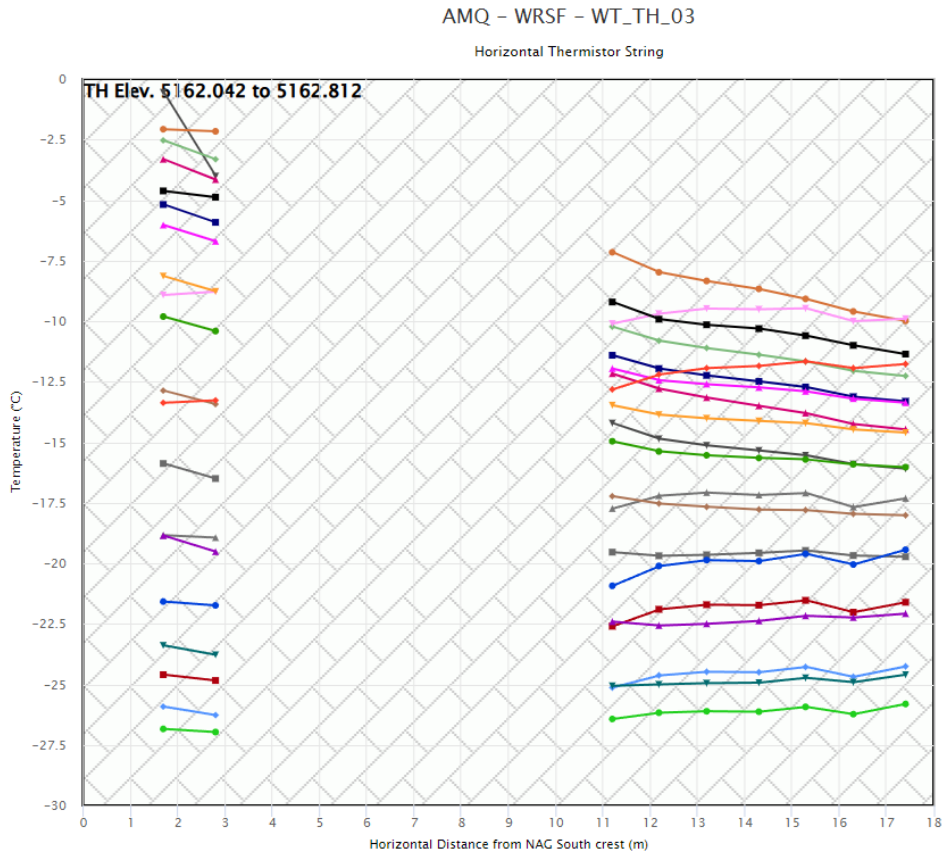
Last data May 2020



WT WRSF TH3

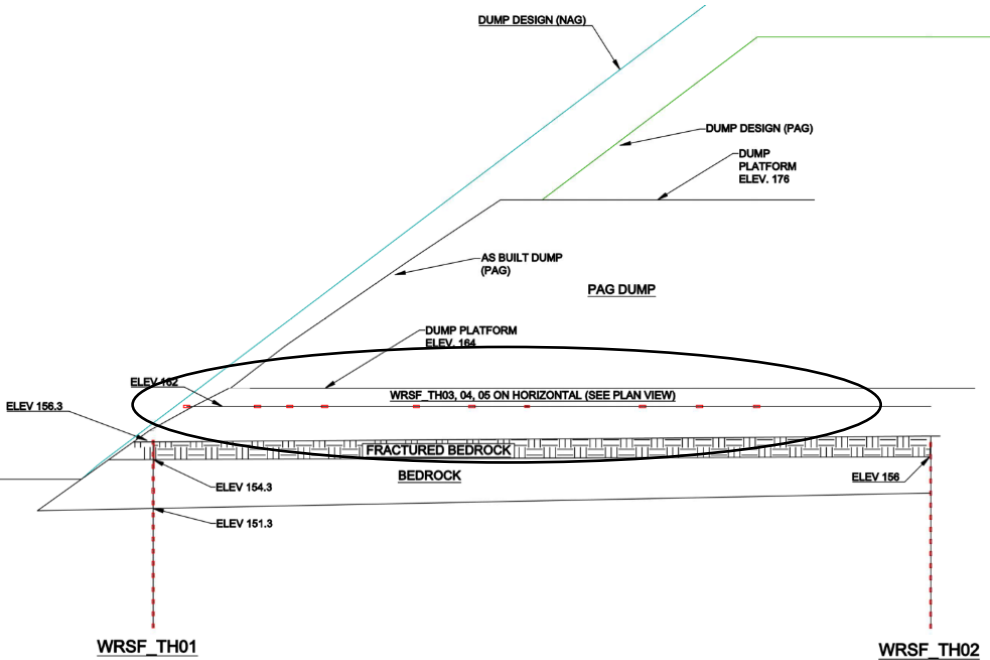
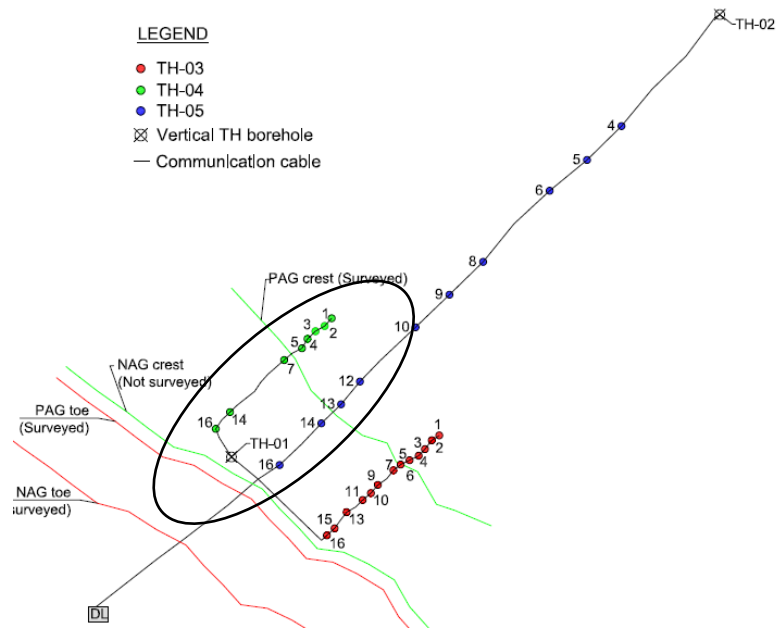
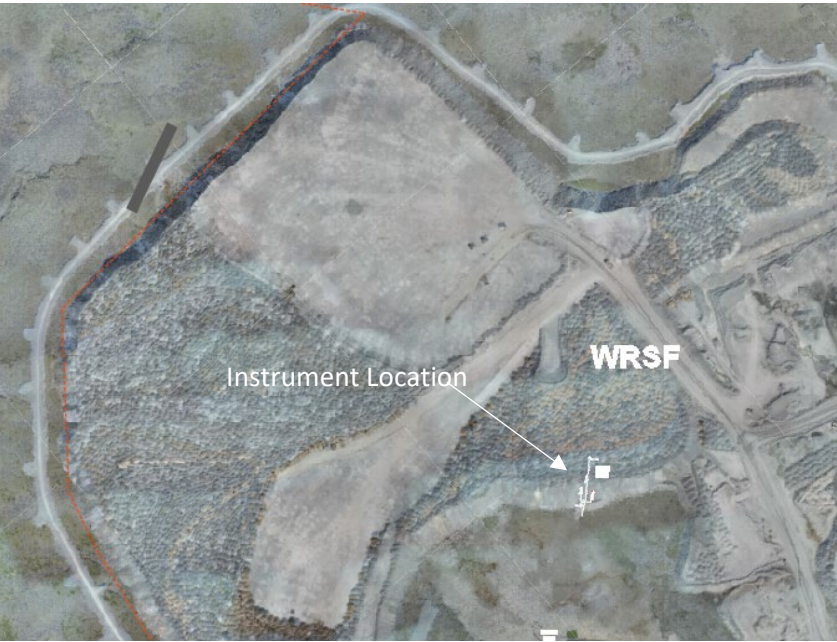


Thermistor in Waste Rock Elevation 162.042 to 162.812.



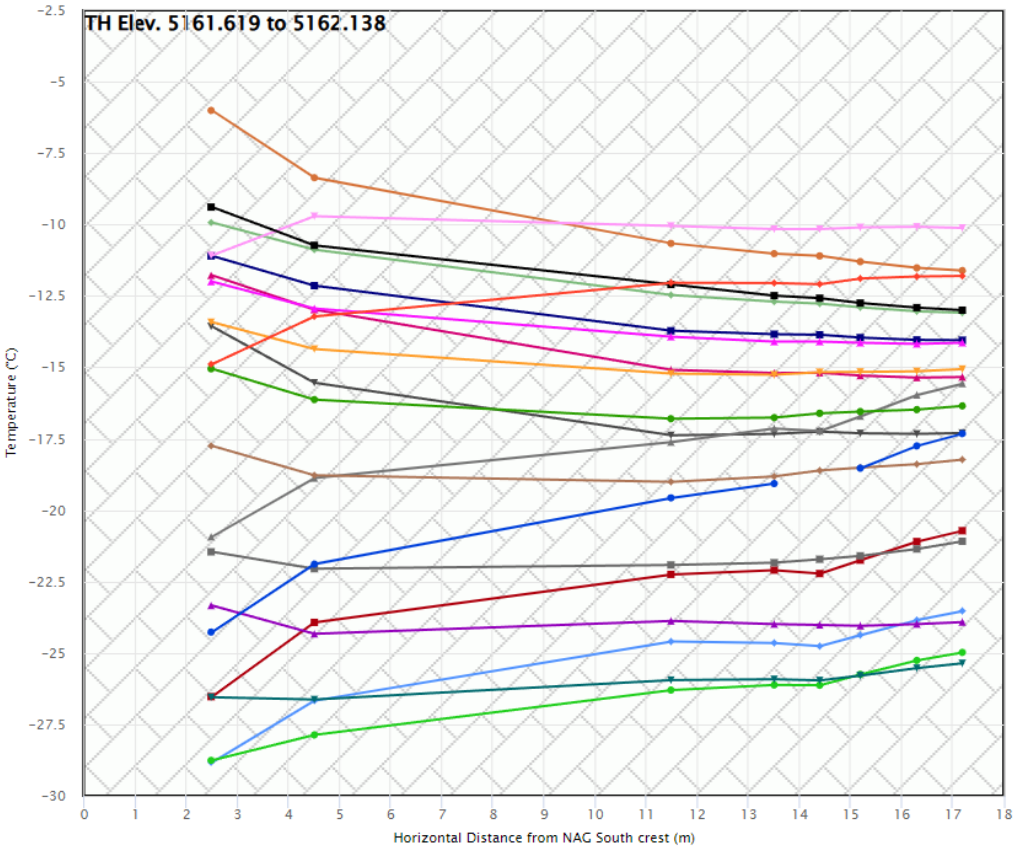
This instrument is installed horizontally and chart needs to be read accordingly
Beads 3 to 10 are not working

WT WRSF TH4

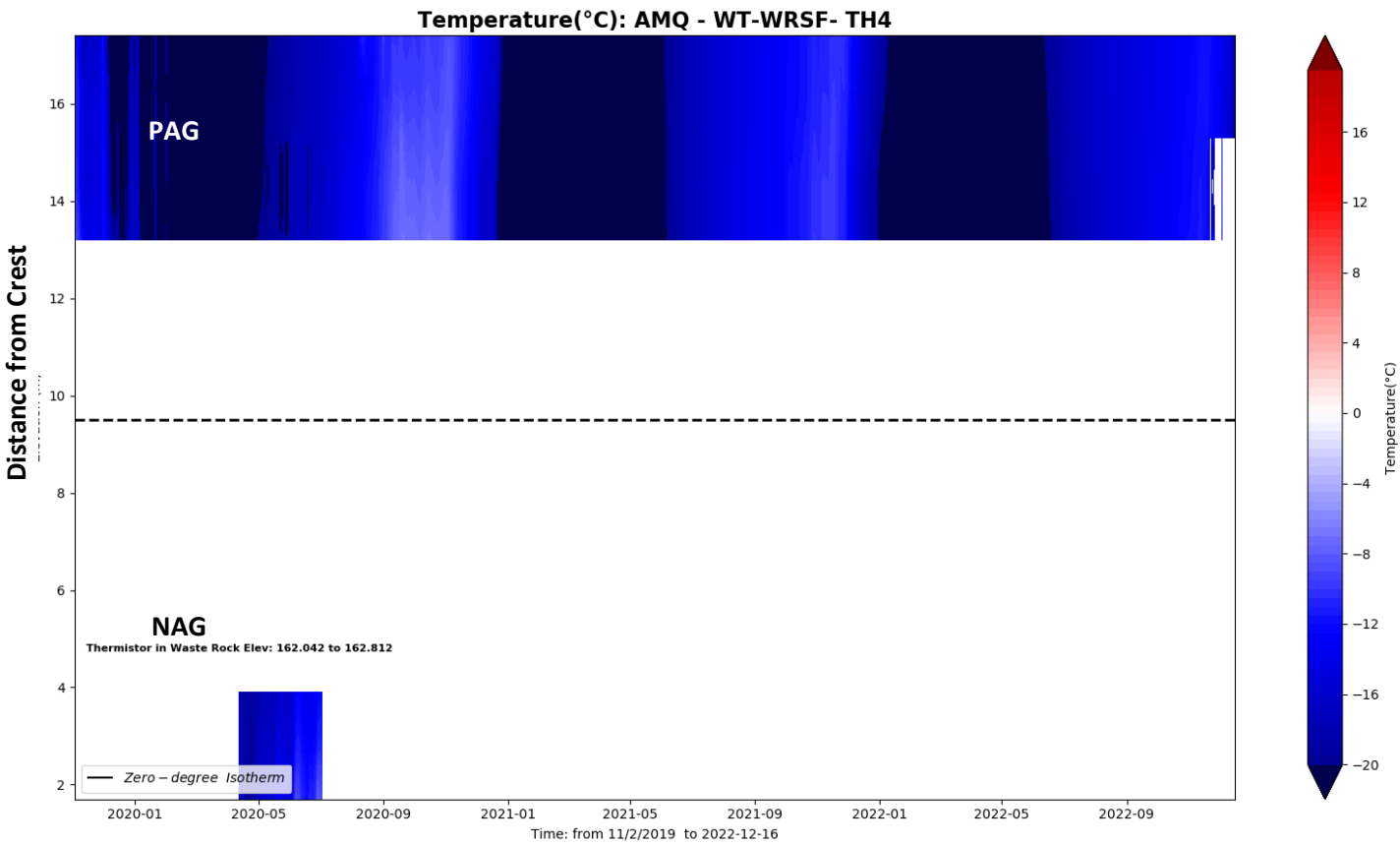


AMQ - WRSF - WT_TH_04

Horizontal Thermistor String



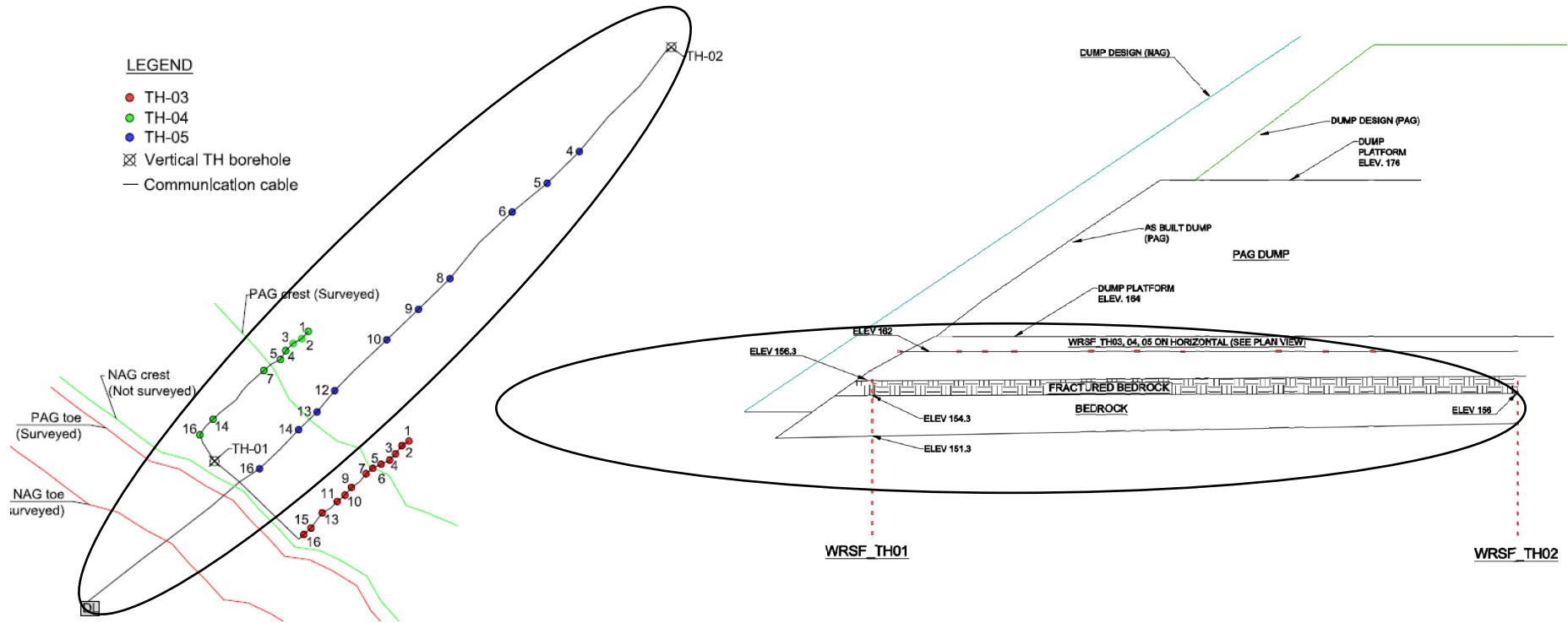
- 2022-12-16 12:00
- 2022-11-18 12:00
- 2022-10-21 12:00
- 2022-09-23 12:00
- 2022-08-26 12:00
- 2022-07-29 12:00
- 2022-07-01 12:00
- 2022-06-03 12:00
- 2022-05-06 12:00
- 2022-04-08 12:00
- 2022-03-11 12:00
- 2022-02-11 12:00
- 2022-01-14 12:00
- 2021-12-17 12:00
- 2021-11-19 12:00
- 2021-10-22 12:00
- 2021-09-24 12:00
- 2021-08-27 12:00
- 2021-07-30 12:00
- 2021-07-02 12:00



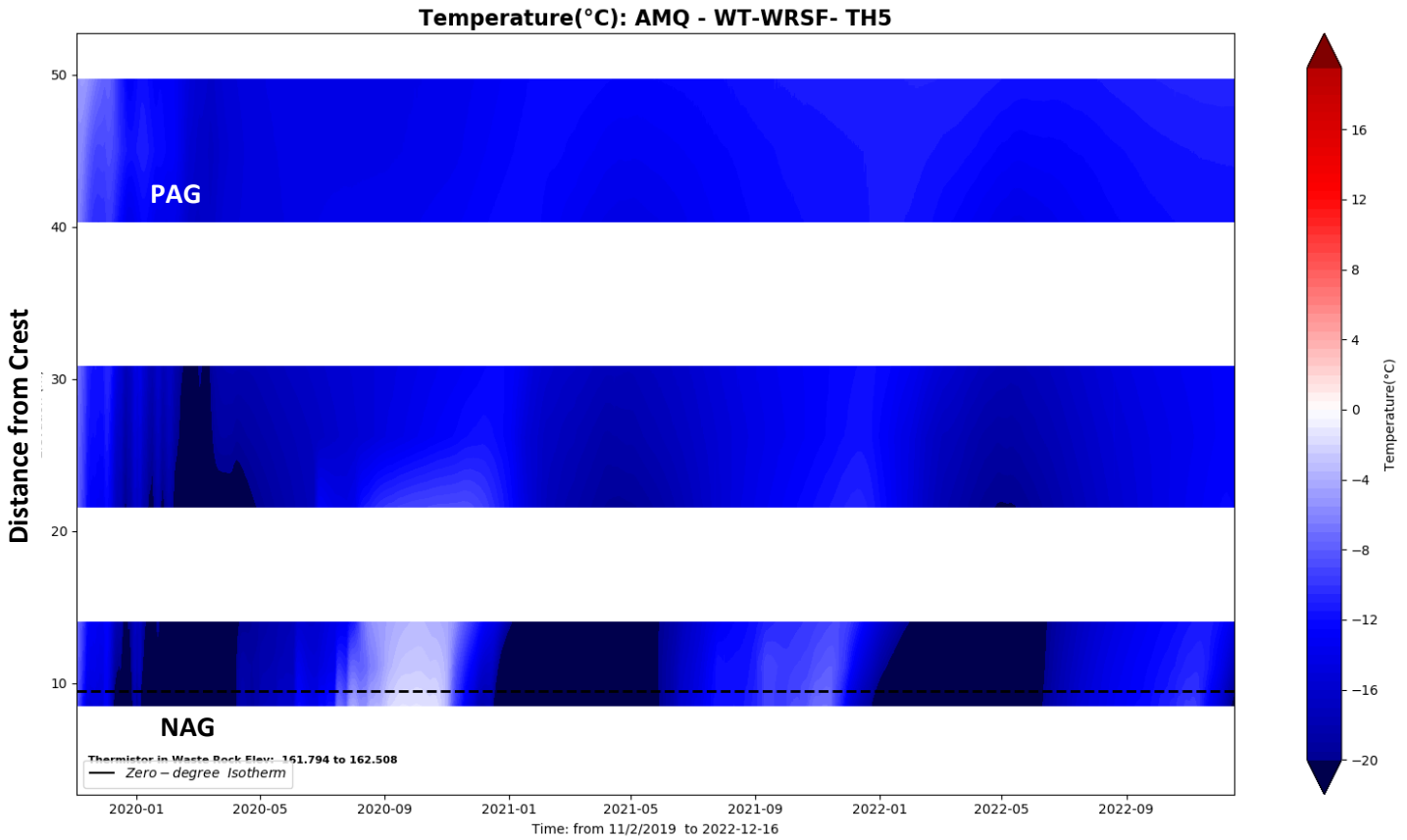
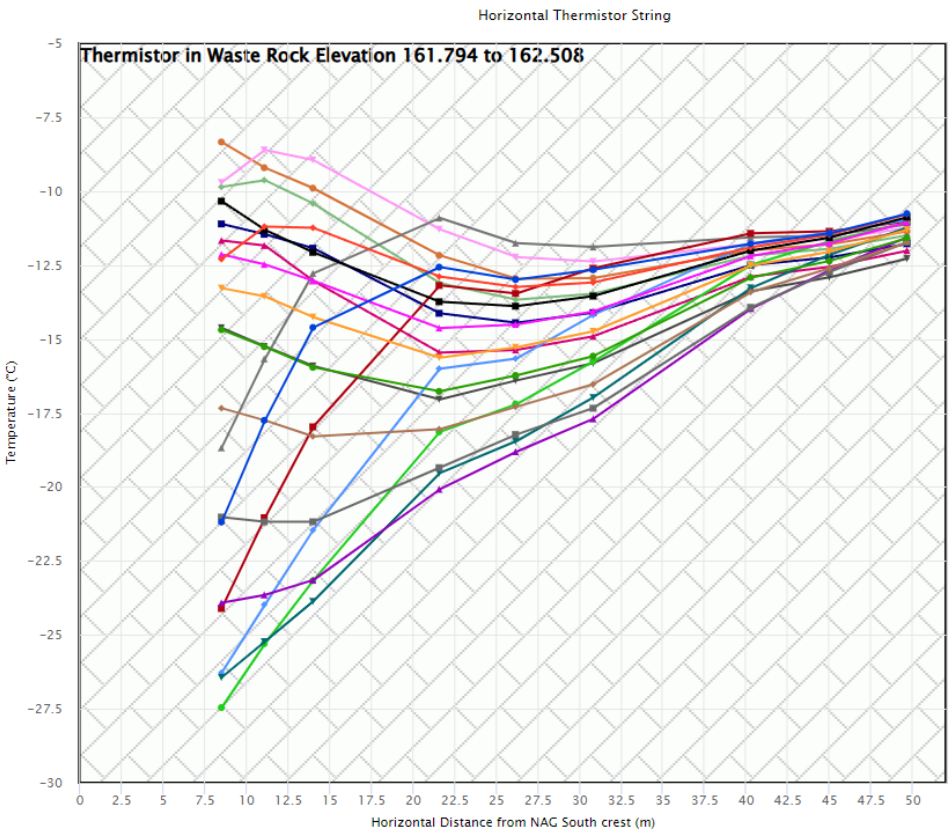
This instrument is installed horizontally and chart needs to be read accordingly

Beads 3 to 10 are not working

WT WRSF TH5

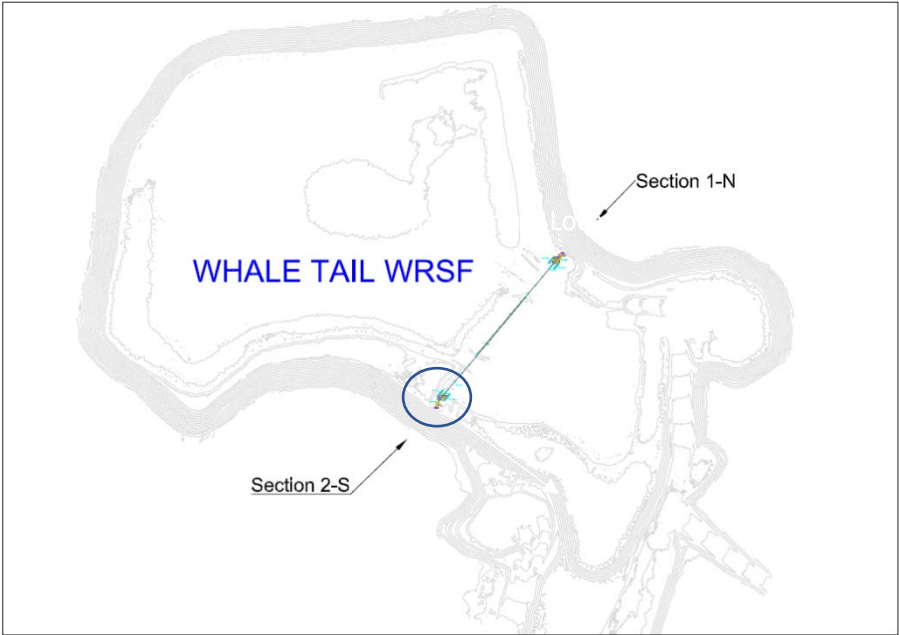


AMQ - WRSF - WT_TH_05

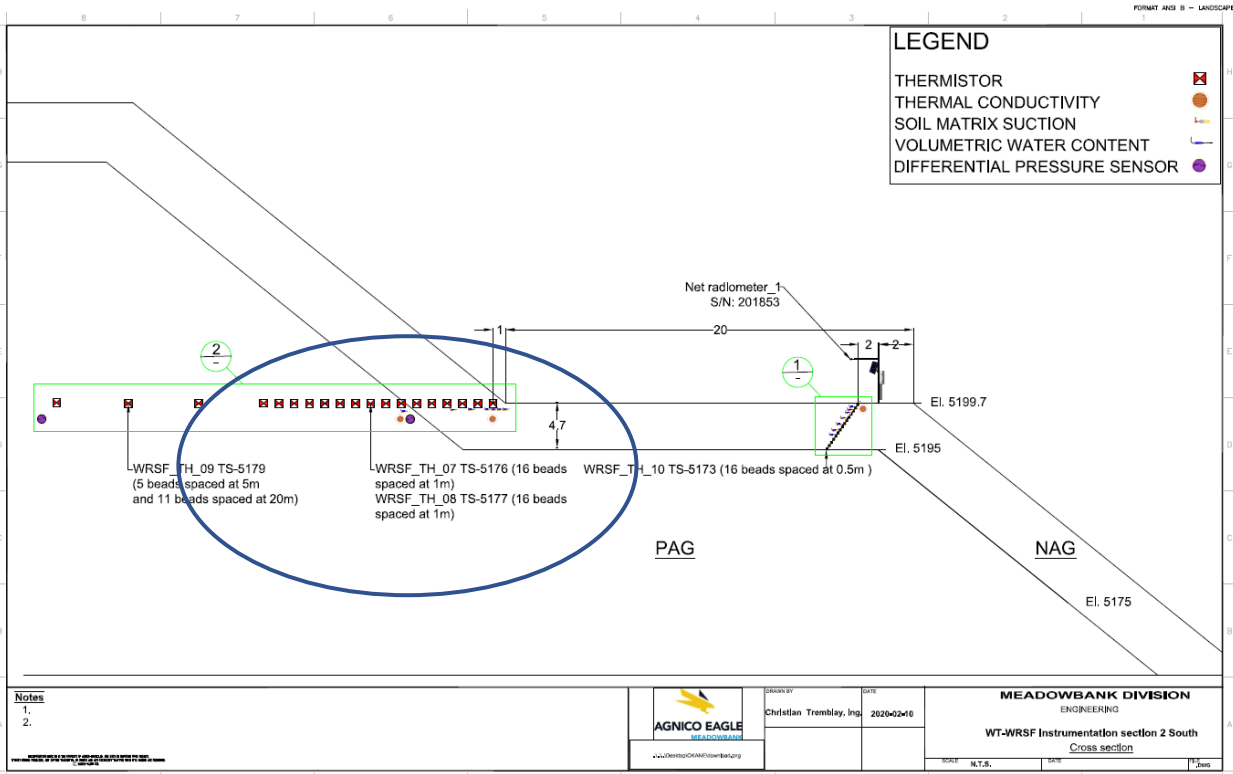


This instrument is installed horizontally and chart needs to be read accordingly

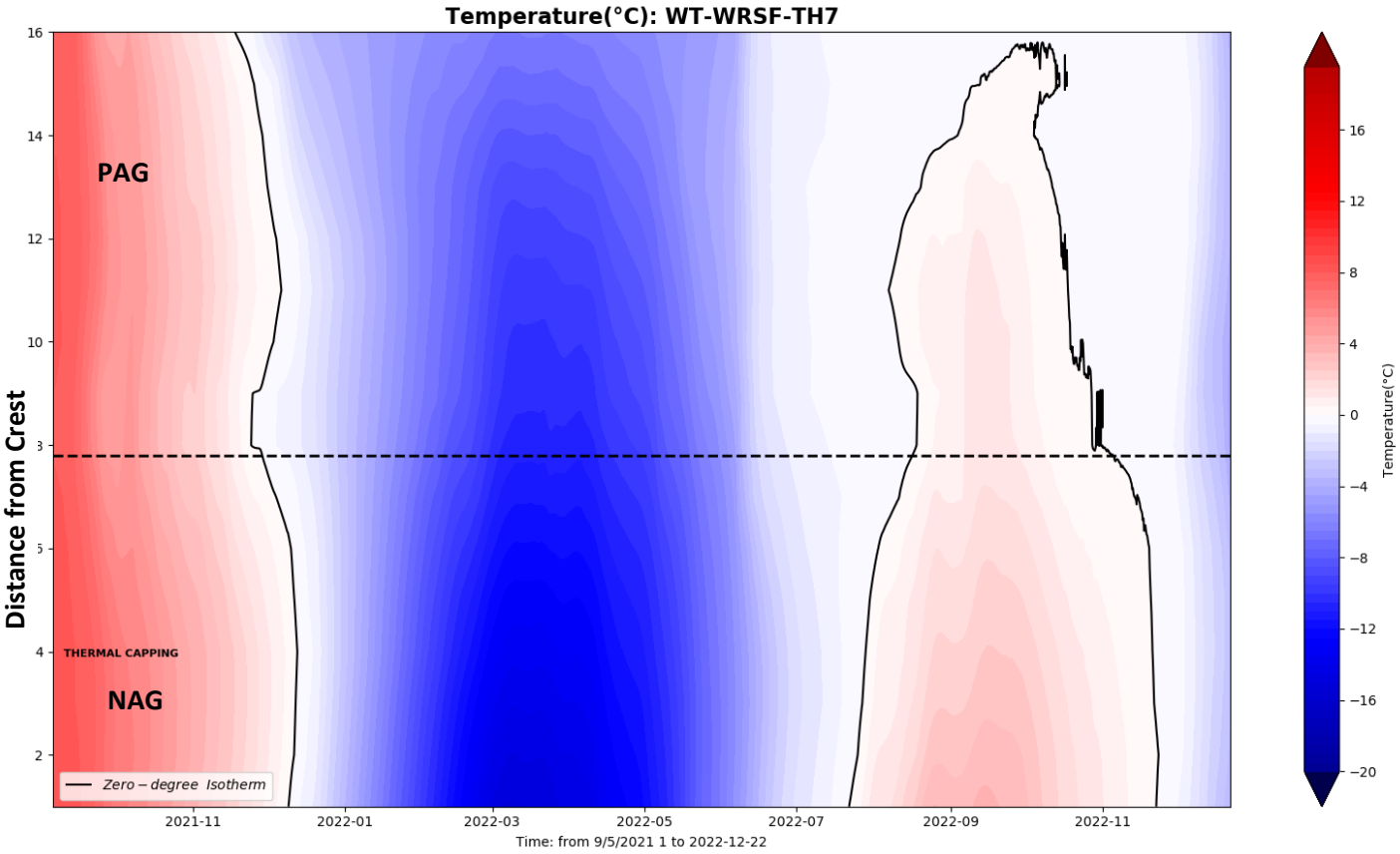
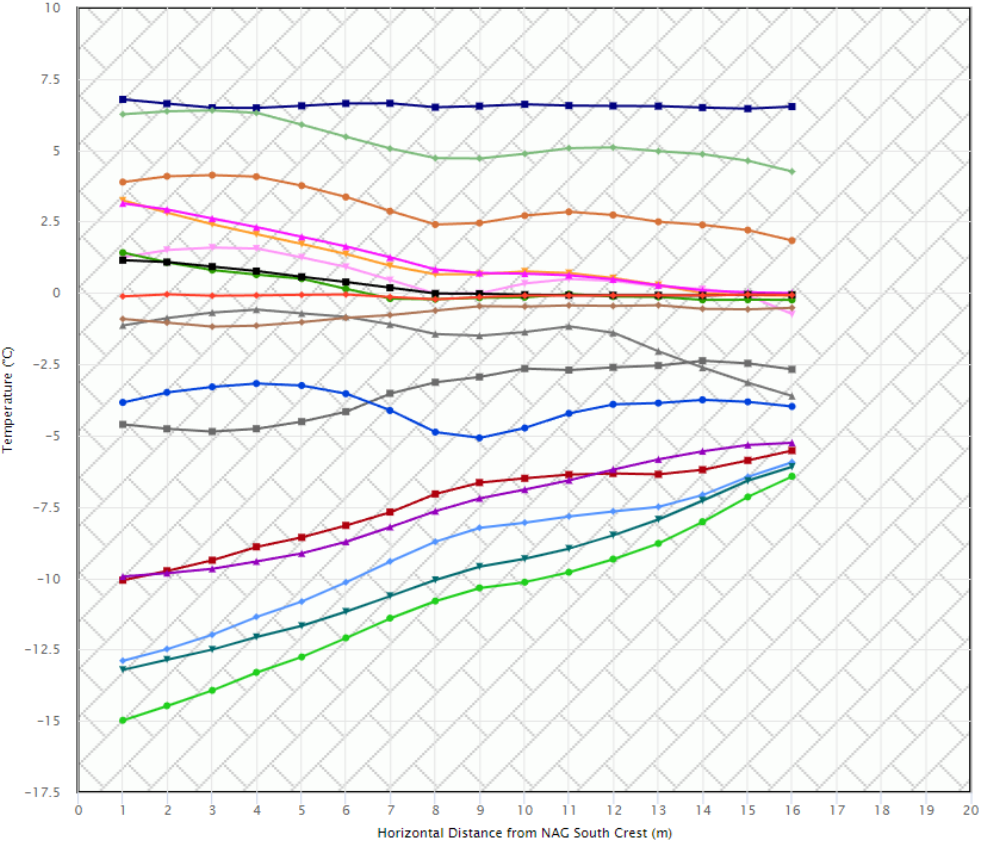
WT WRSF TH07



There was no data from Dec 20 to Feb 2 due to loss of battery power in the instrument.

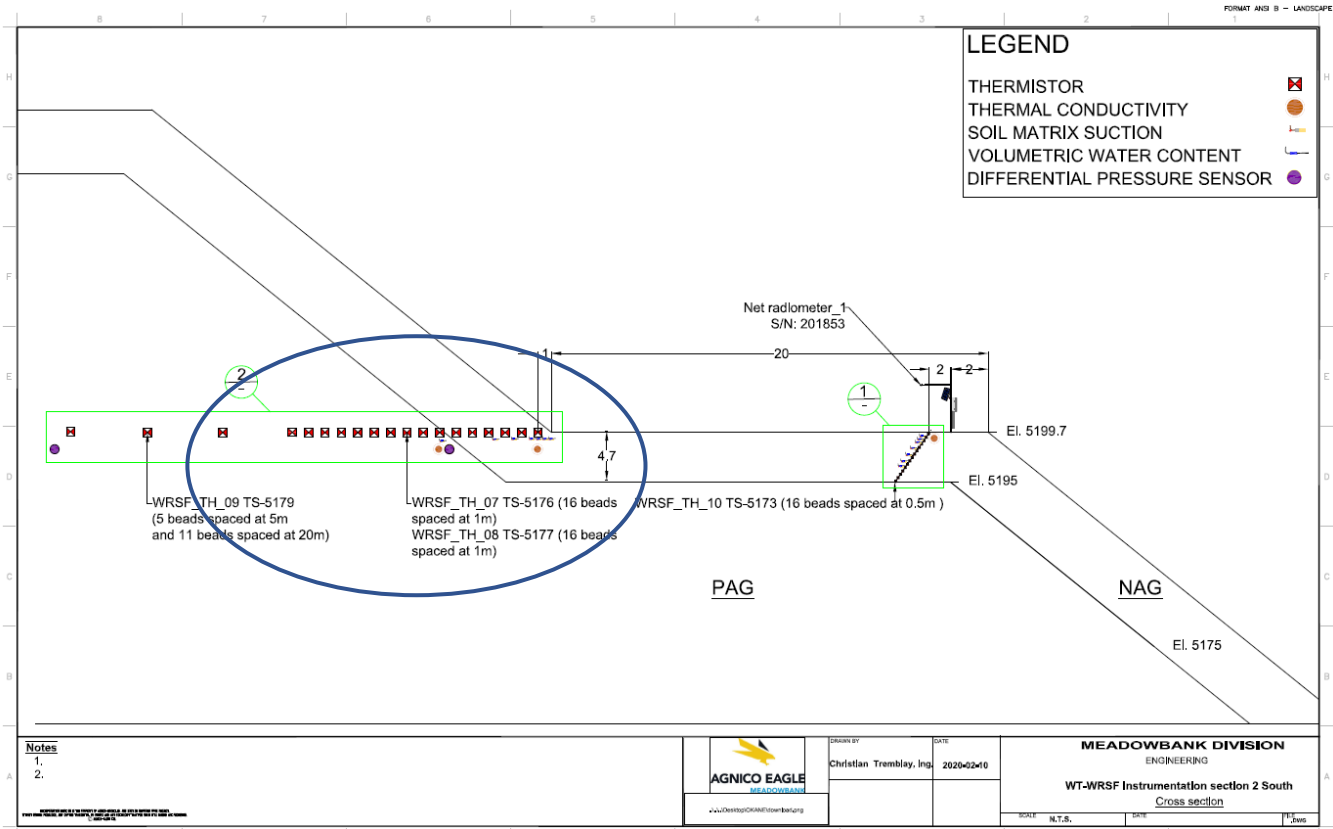
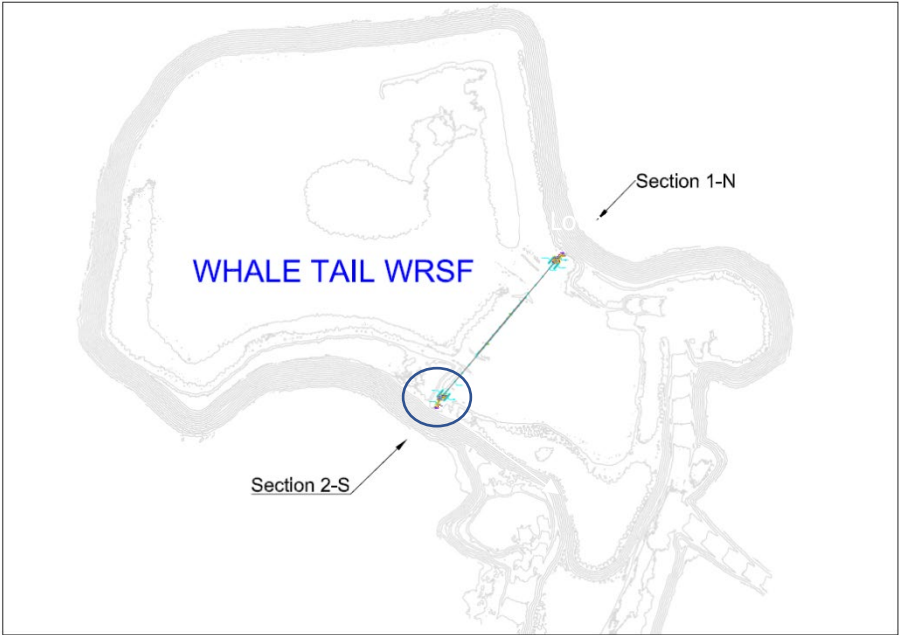


AMQ – WRSF – WT_TH_07

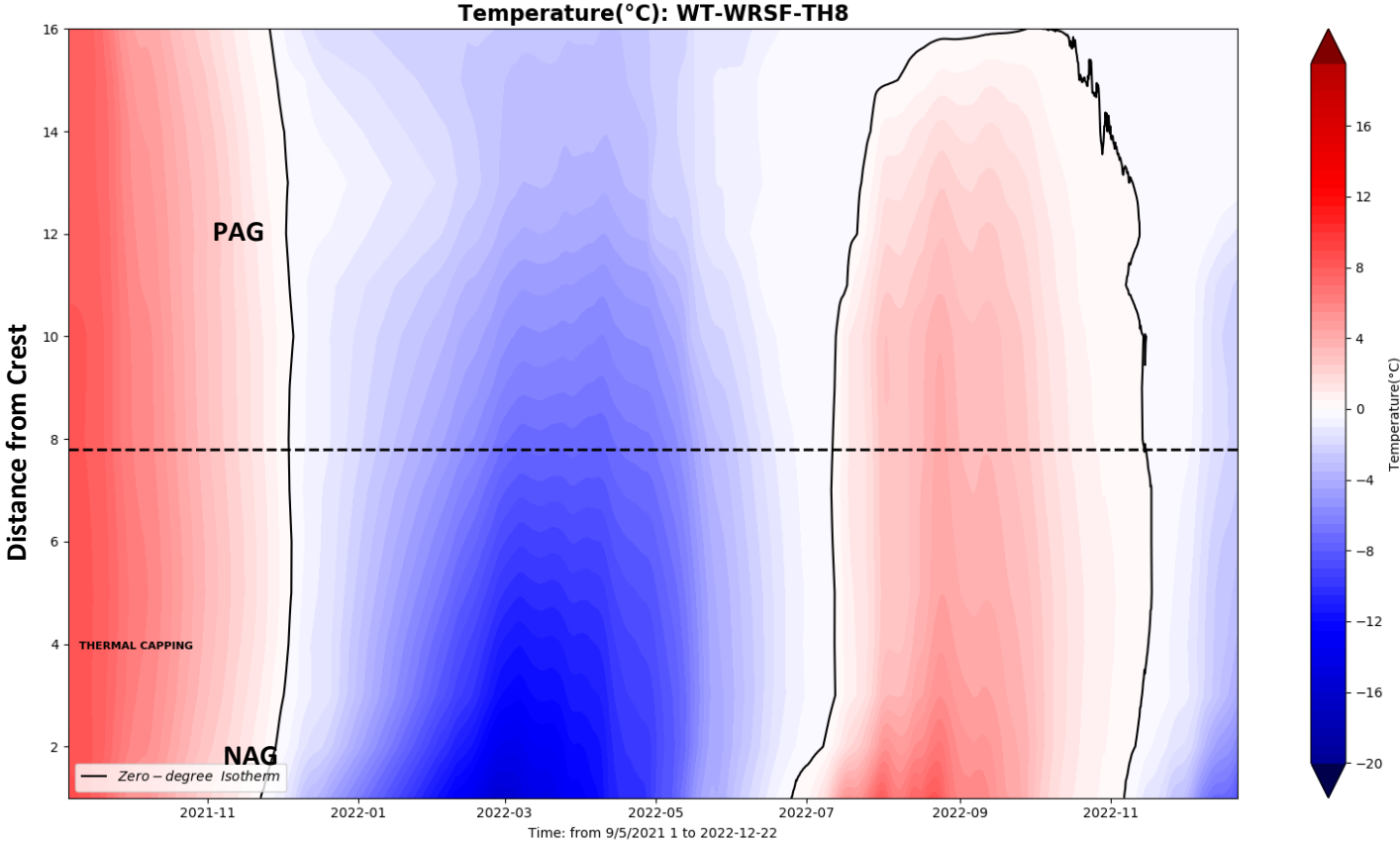
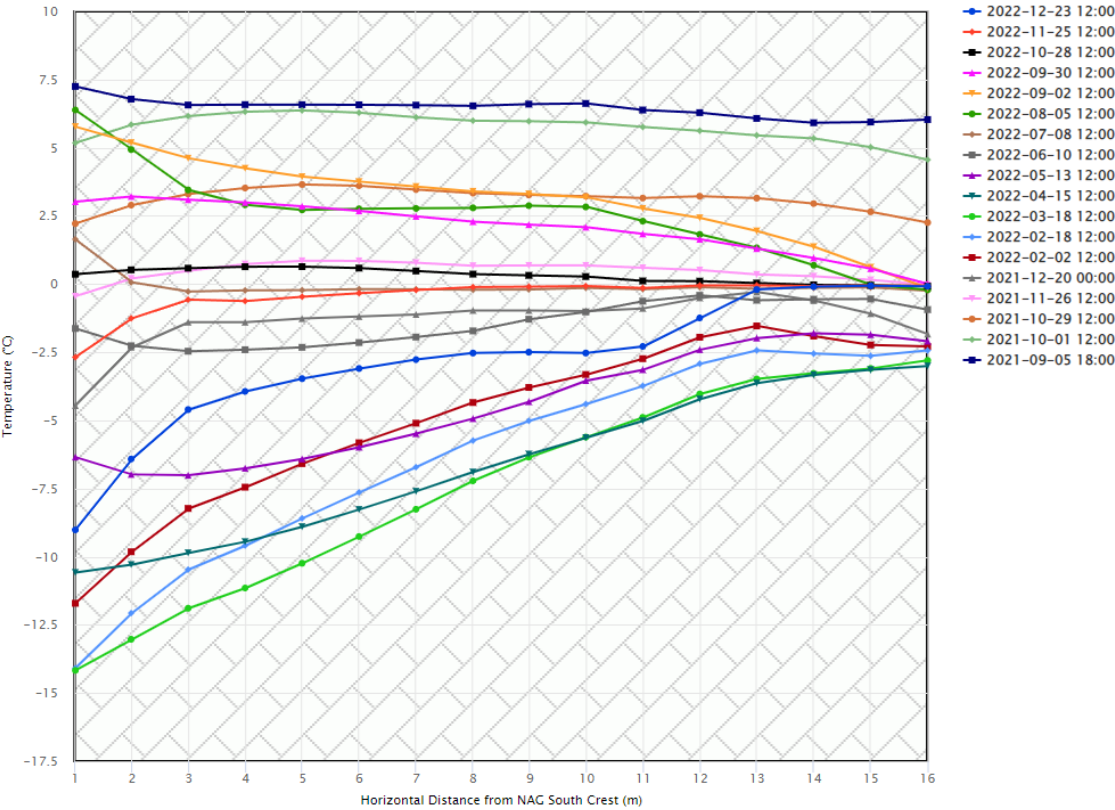


This instrument is installed horizontally and chart needs to be read accordingly

WT WRSF TH08

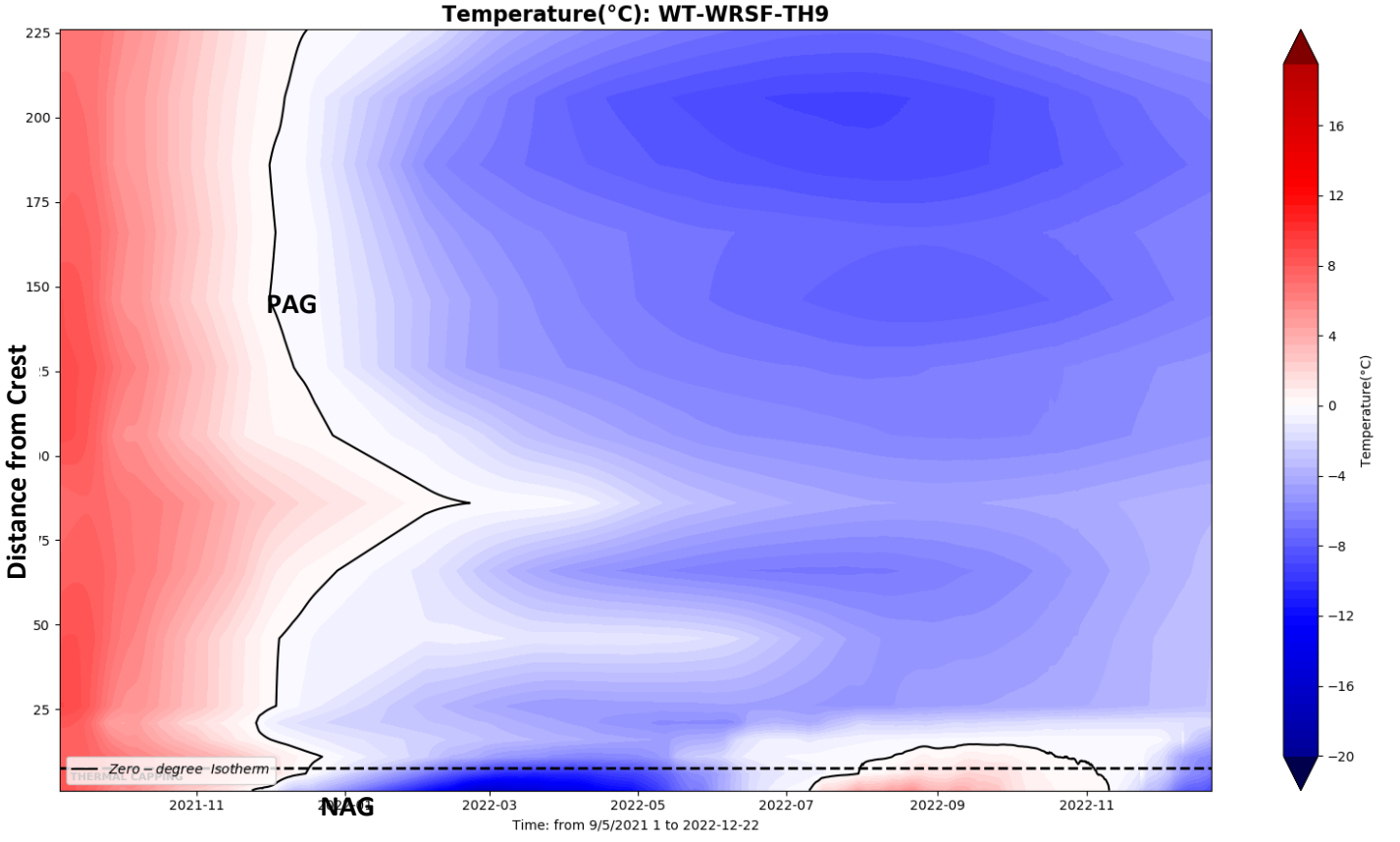
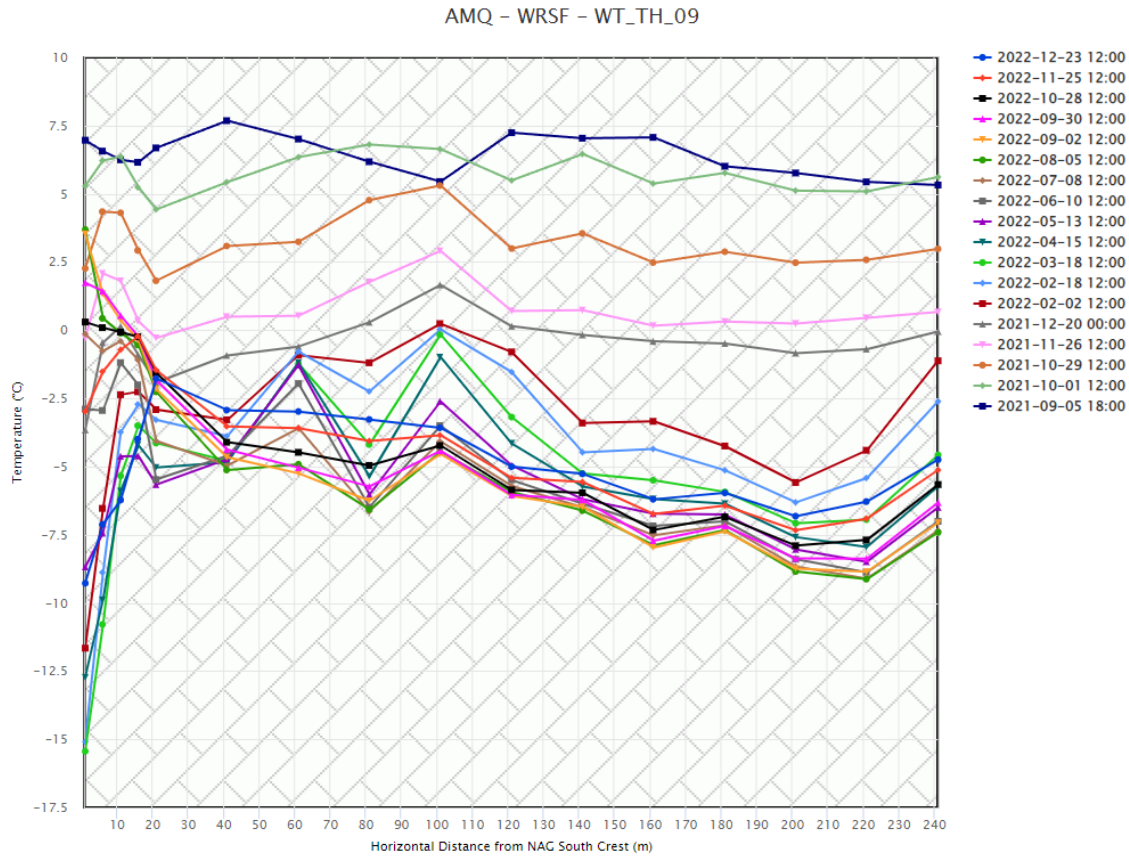
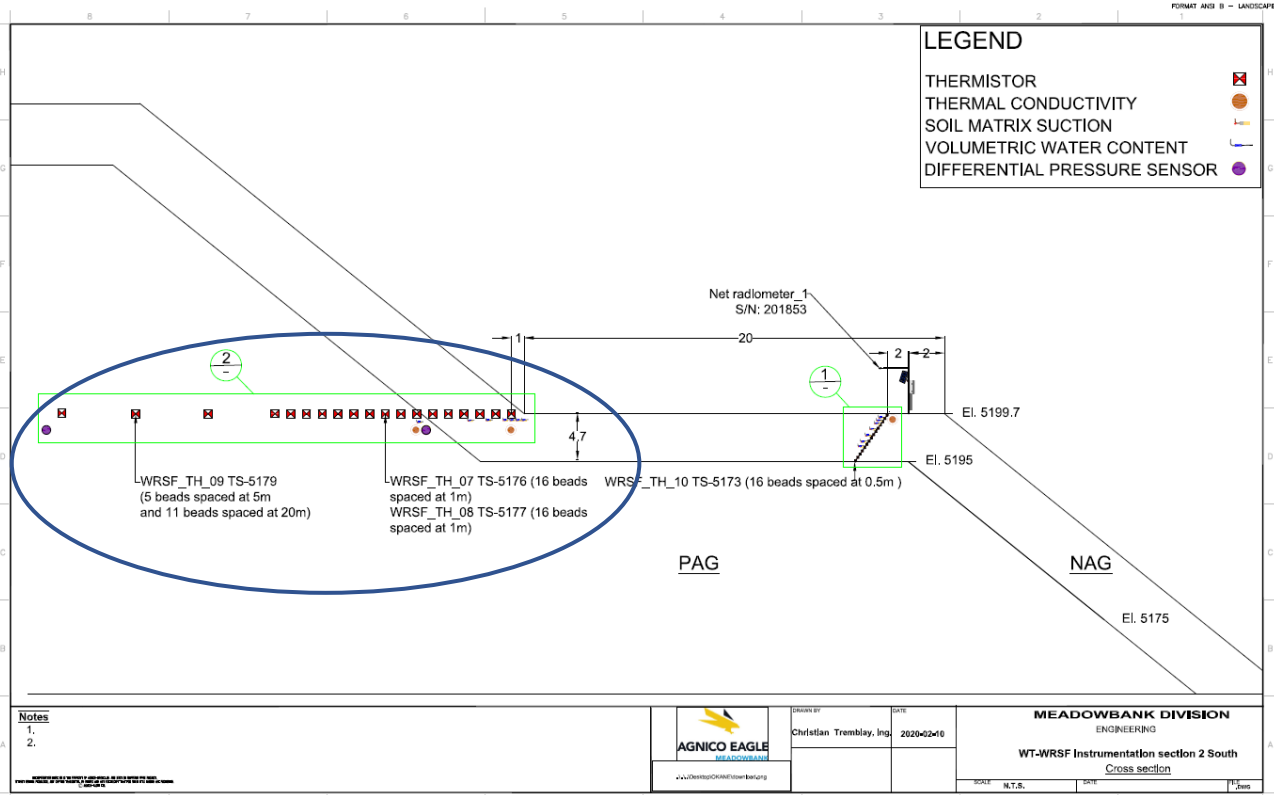
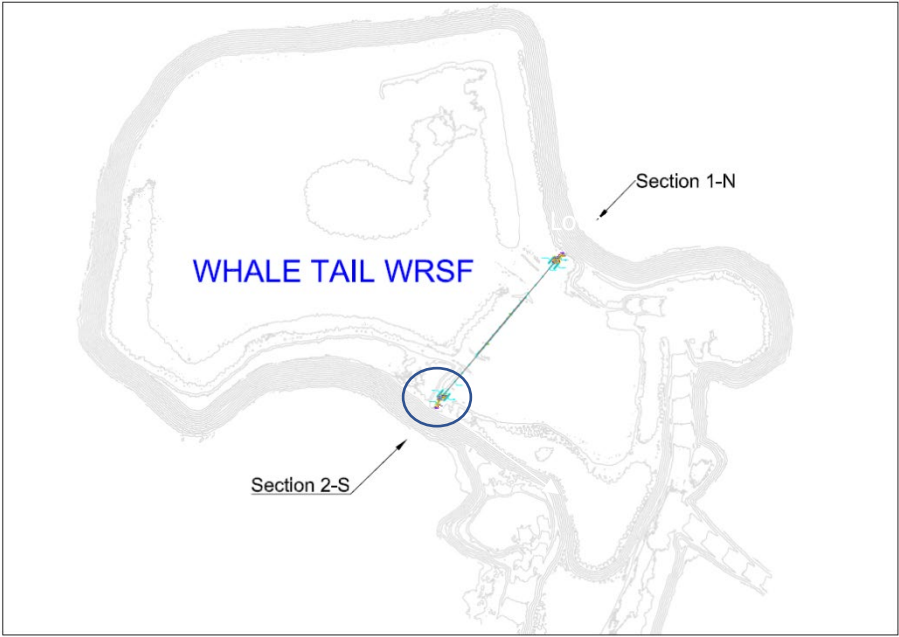


AMQ - WRSF - WT_TH_08



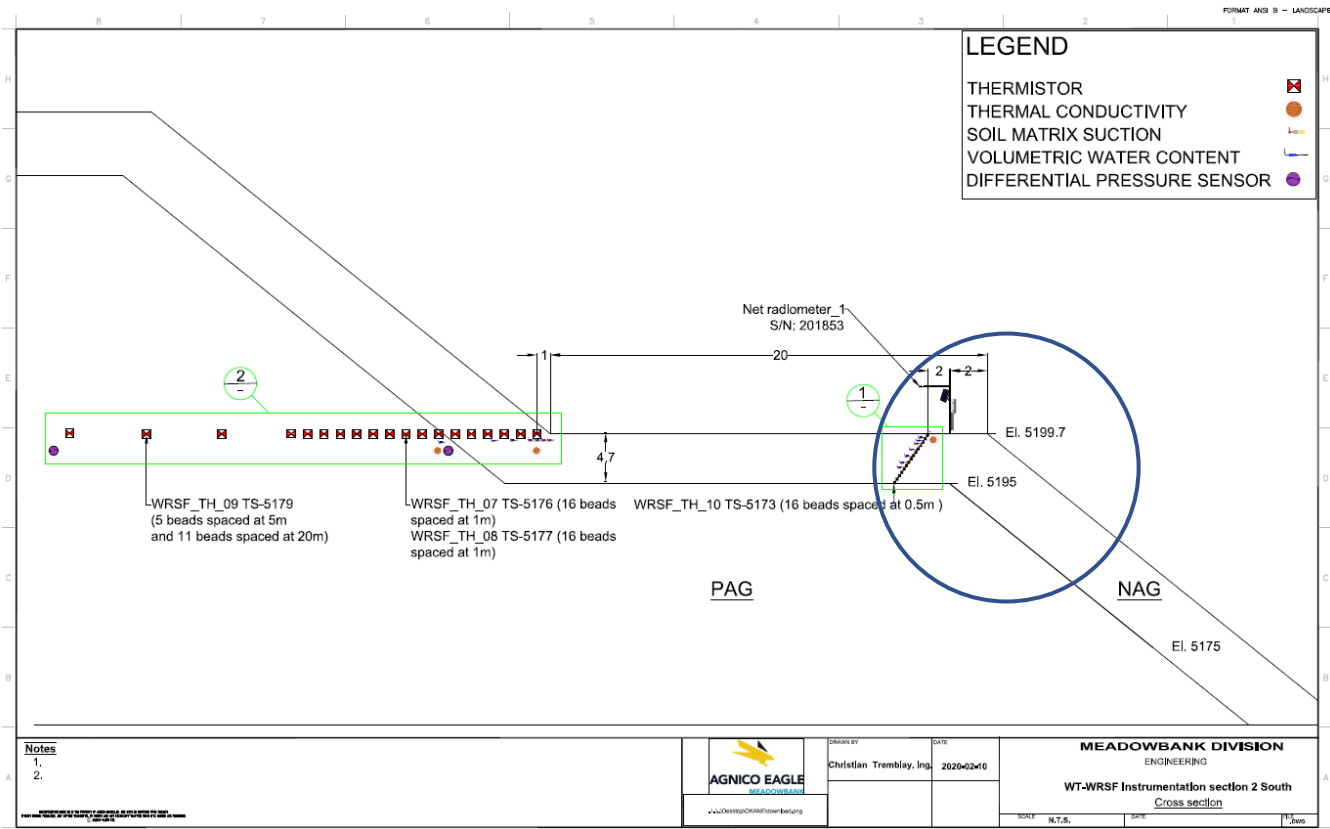
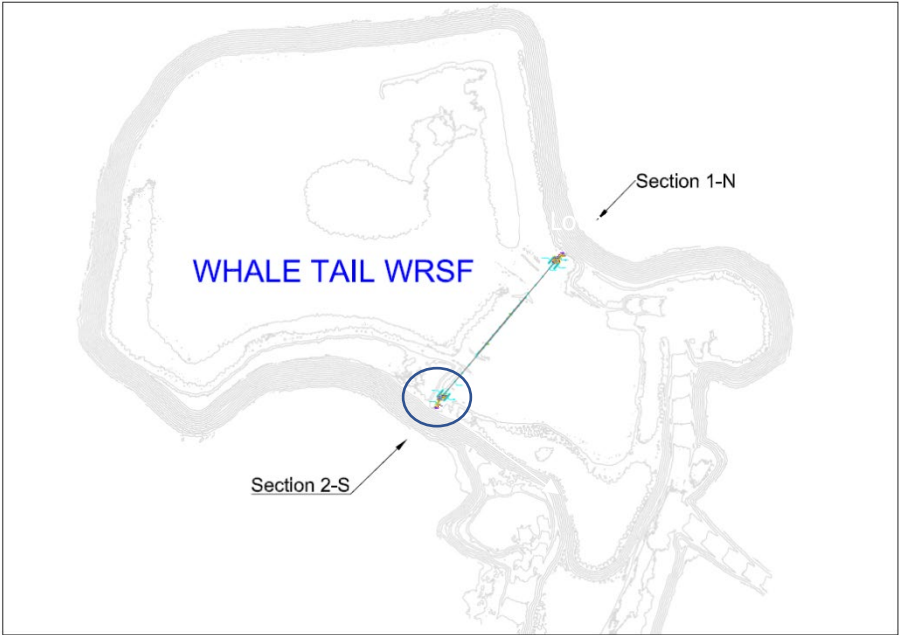
This instrument is installed horizontally and chart needs to be read accordingly

WT WRSF TH09

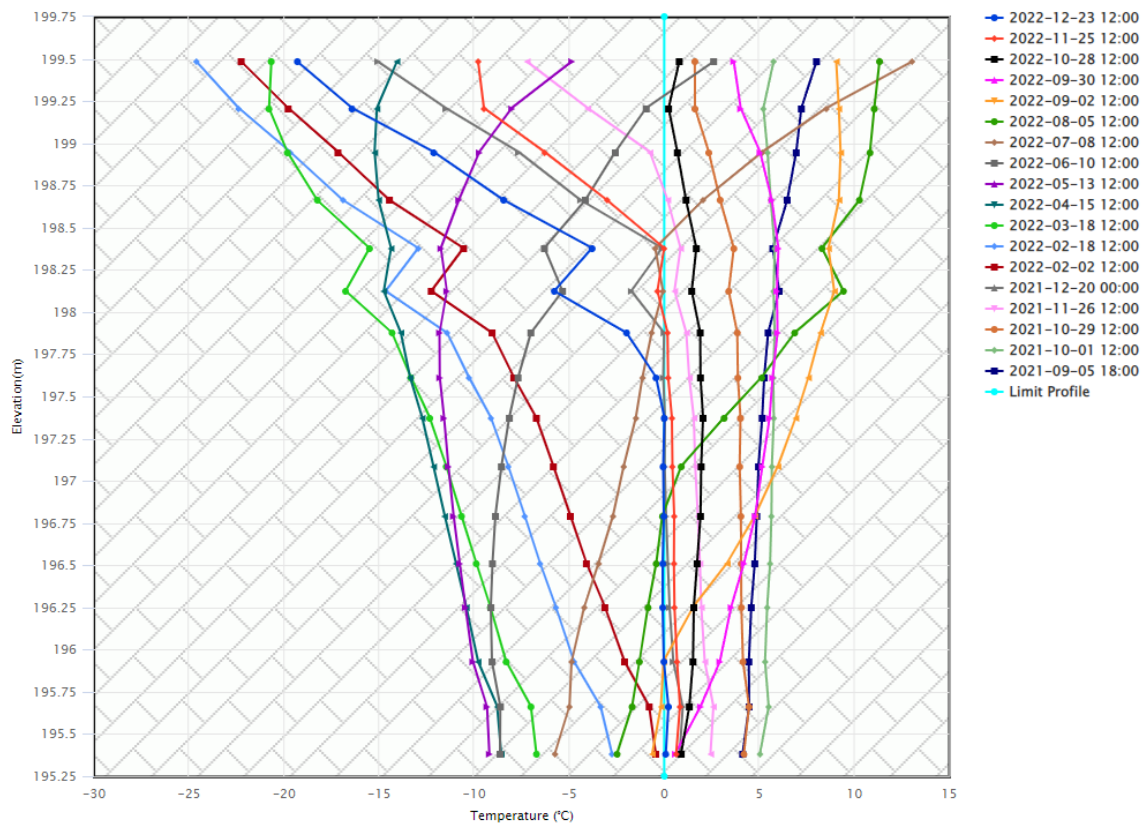


This instrument is installed horizontally and chart needs to be read accordingly

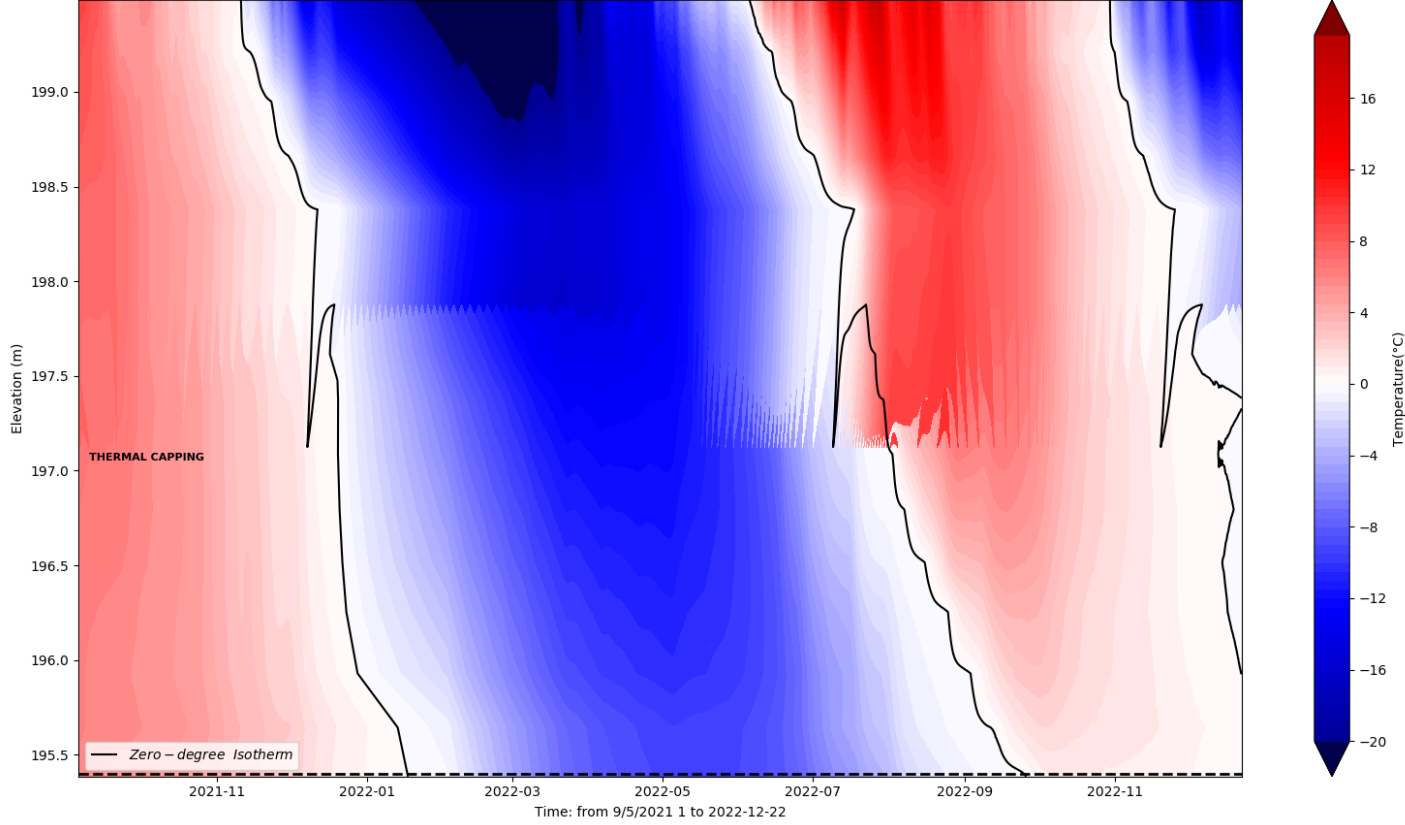
WT WRSF TH10



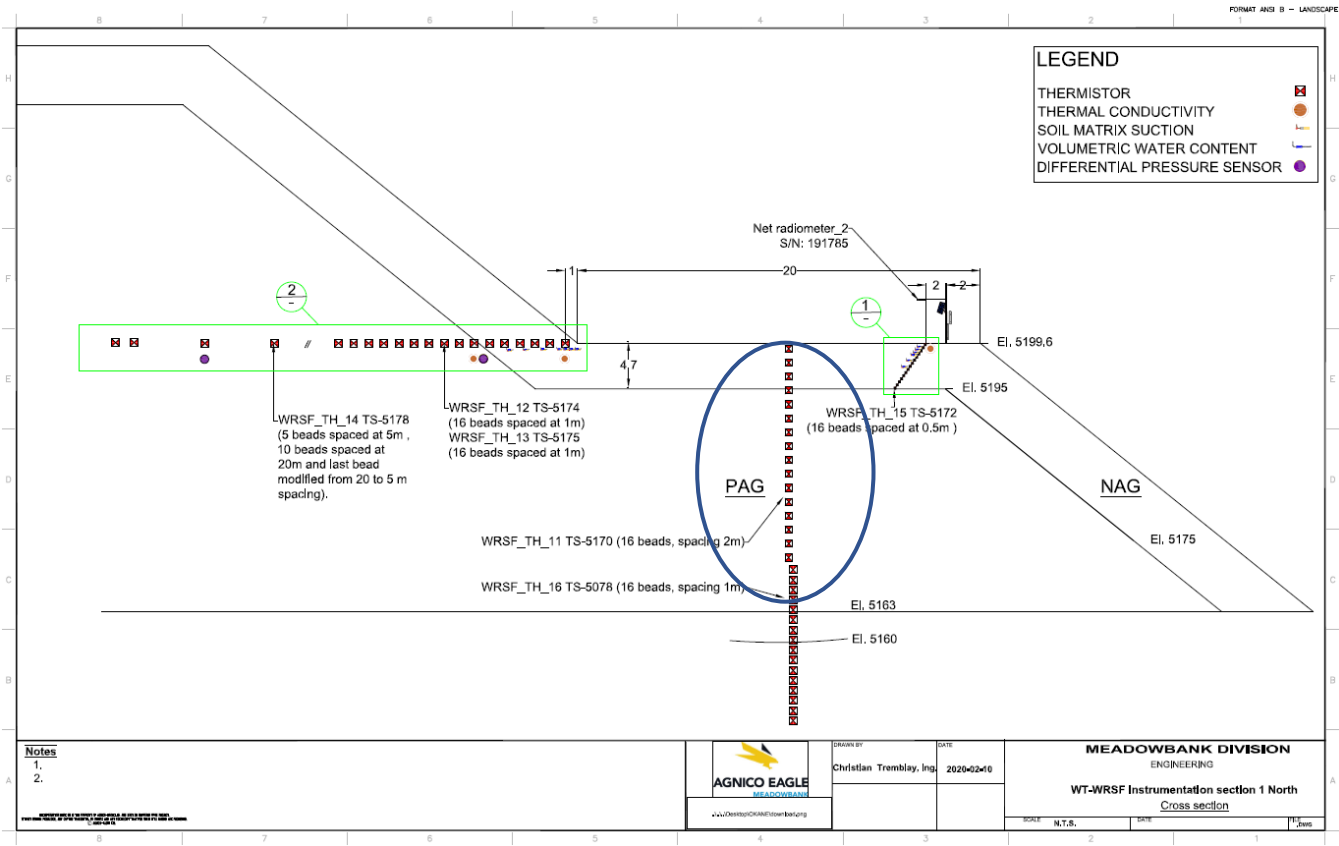
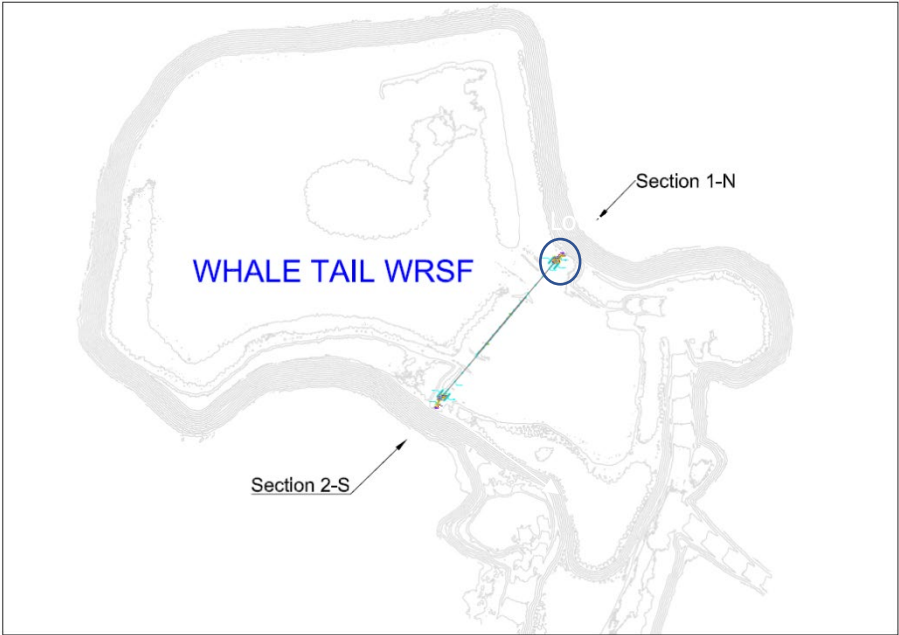
AMQ – WRSF – WT_TH_10



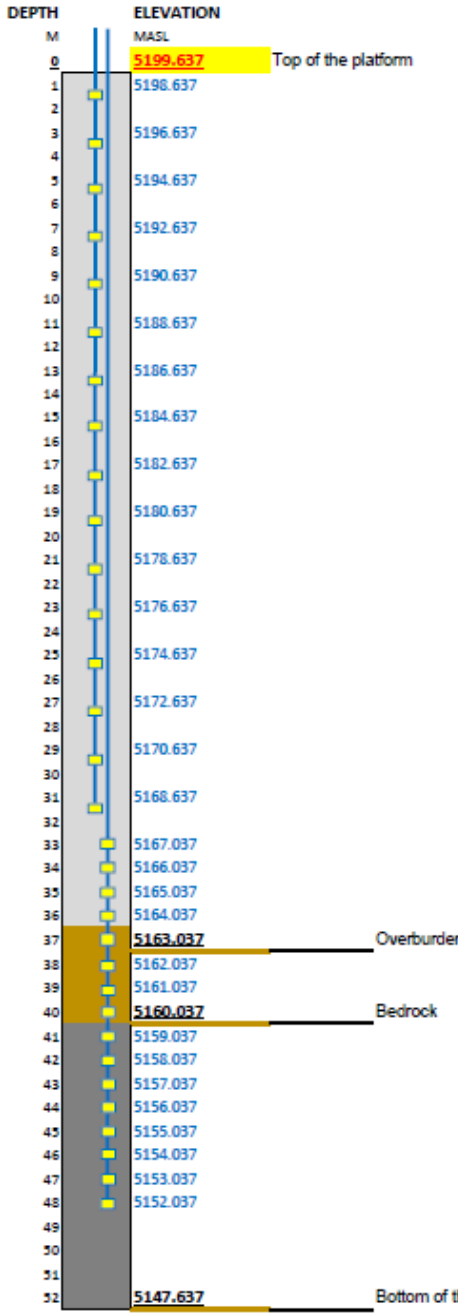
Temperature(°C): WT-WRSF-TH10



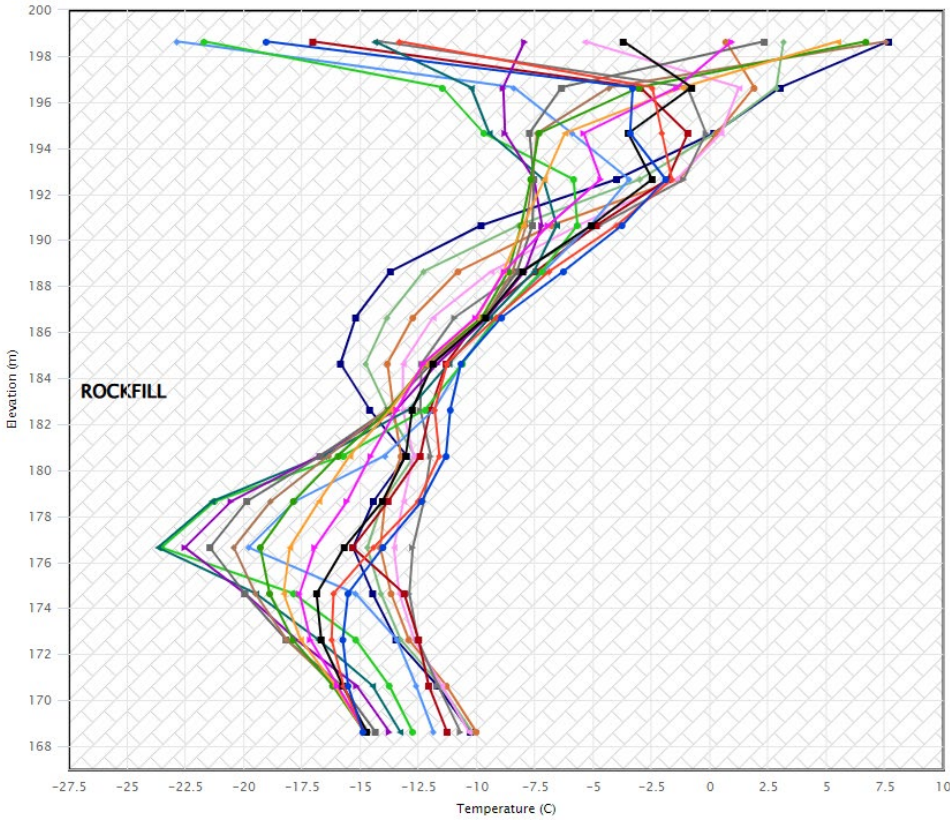
WT WRSF TH11



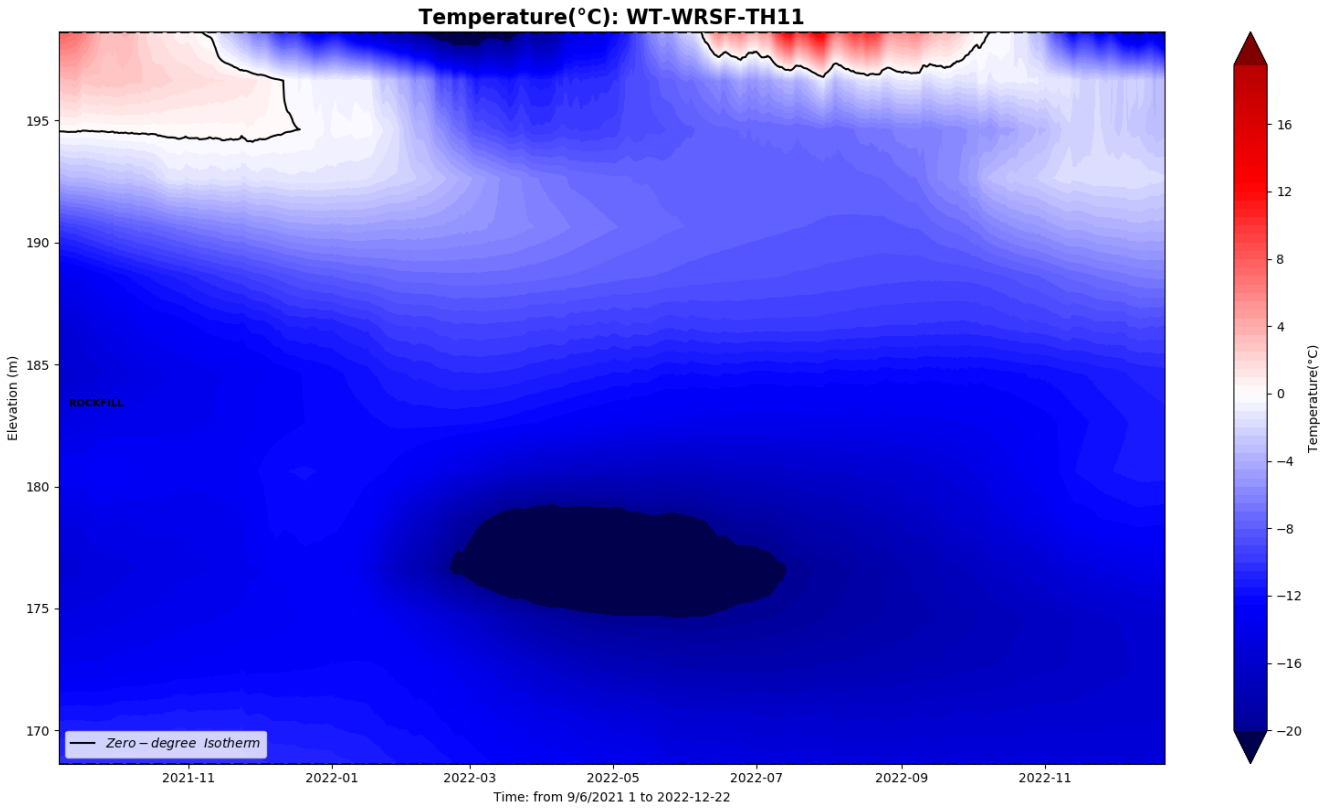
TH-11 & TH-16	
String # :	RST 5170 & 5078
Drill Hole Coordinates	
Northing	8479.2480
Easting	14259.1830
Elevation	5199.637



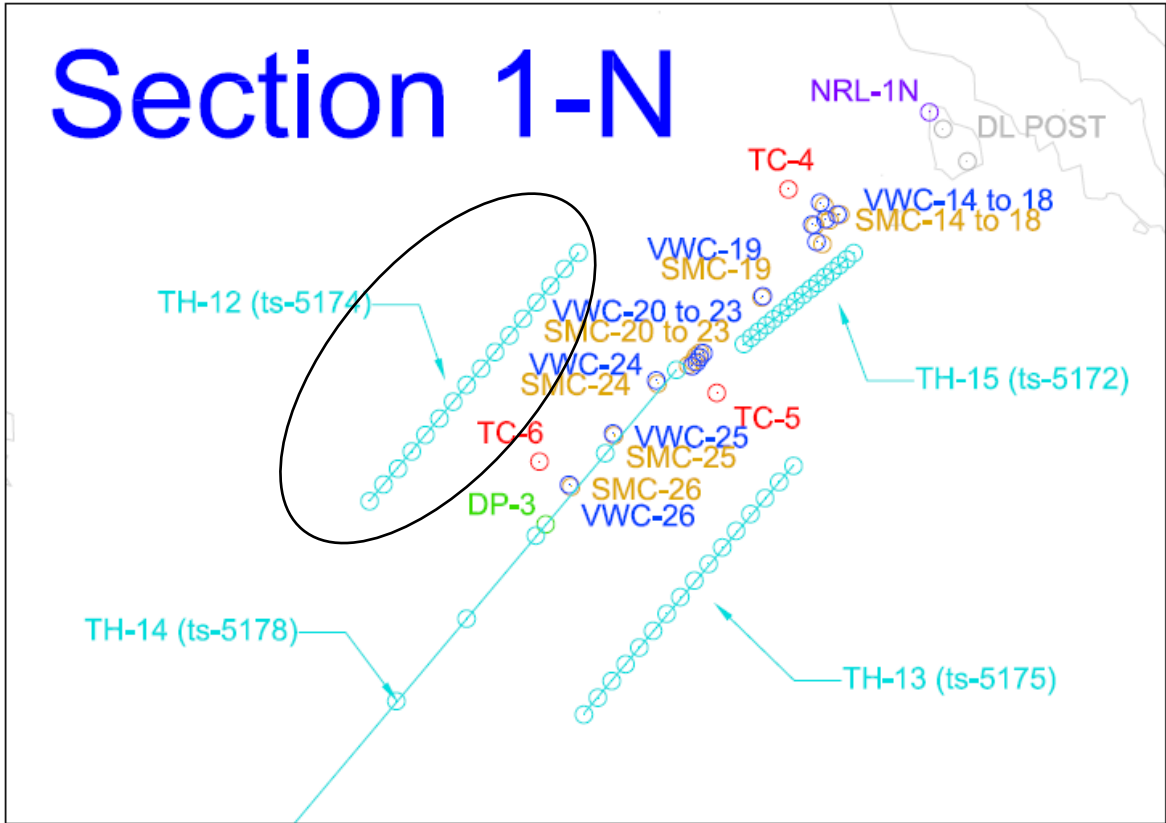
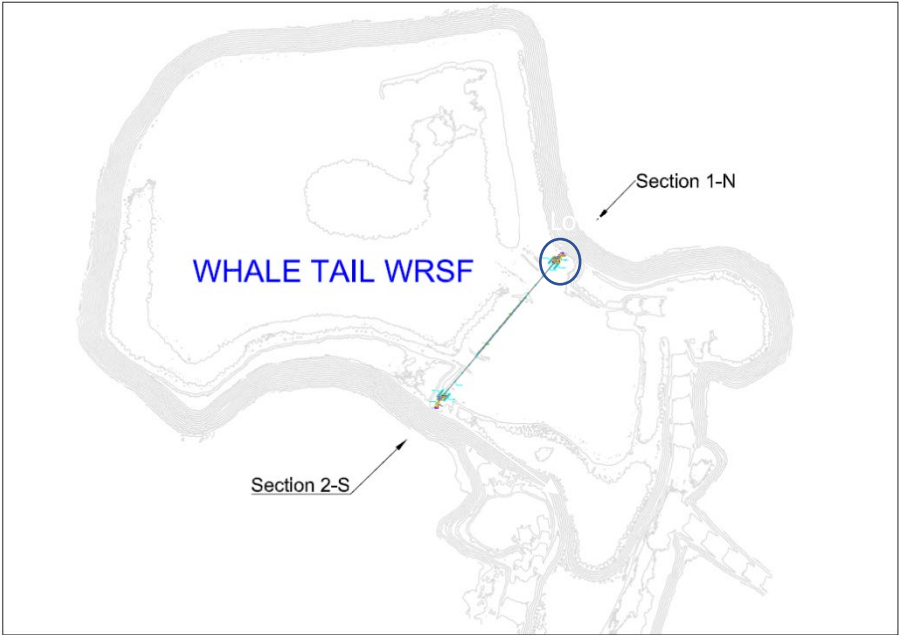
AMQ - WRSF - WT_TH_11



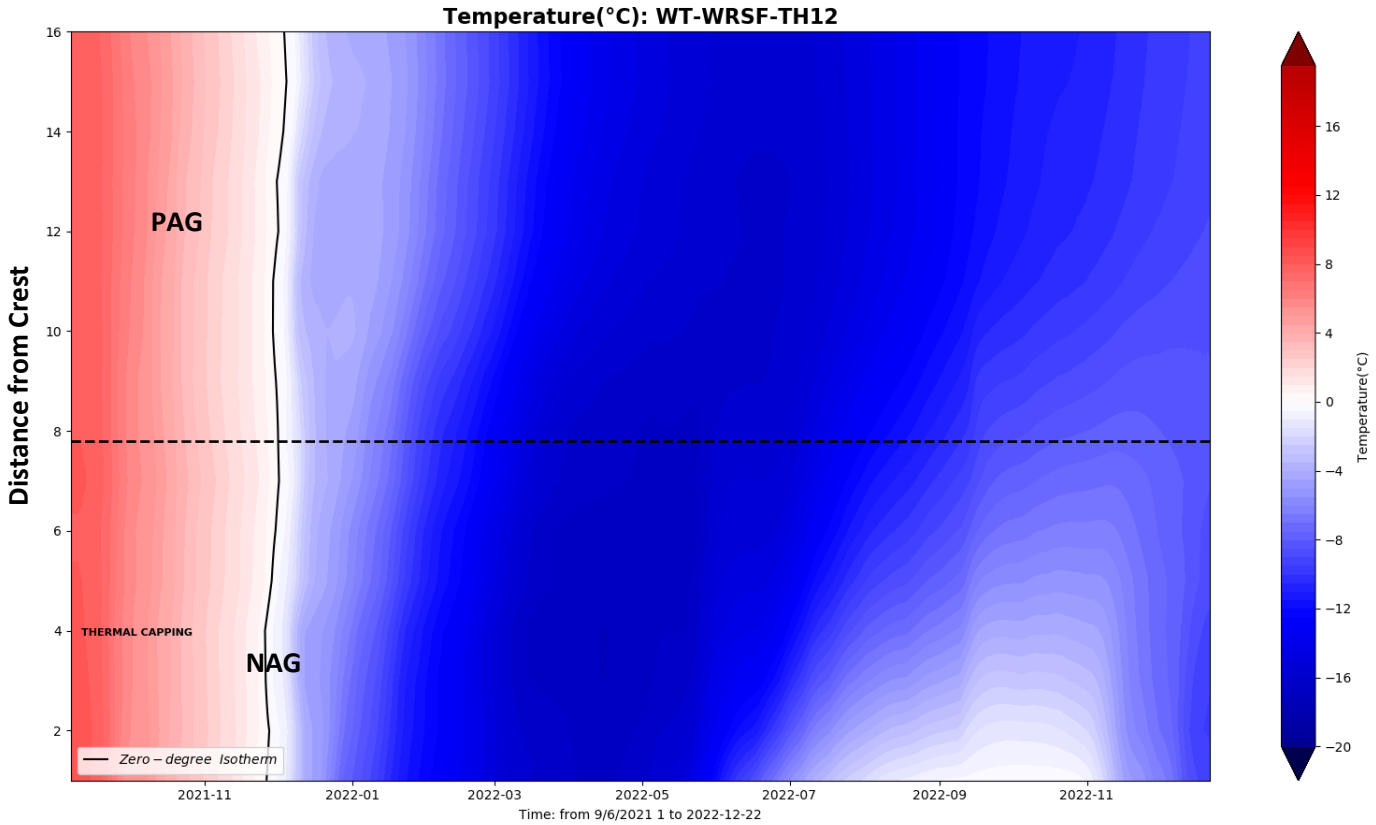
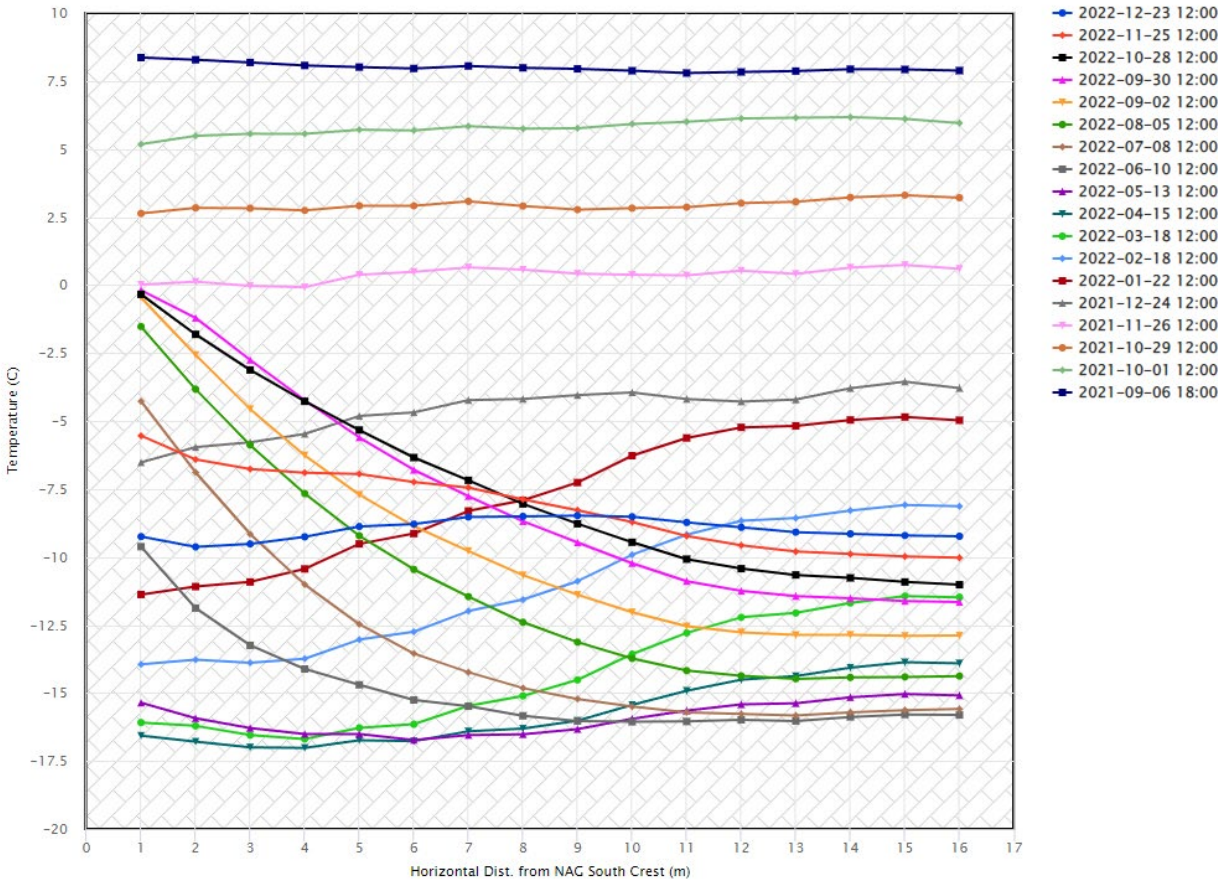
- 2022-12-23 12:00
- 2022-11-25 12:00
- 2022-10-28 12:00
- 2022-09-30 12:00
- 2022-09-02 12:00
- 2022-08-05 12:00
- 2022-07-08 12:00
- 2022-06-10 12:00
- 2022-05-13 12:00
- 2022-04-15 12:00
- 2022-03-18 12:00
- 2022-02-18 12:00
- 2022-01-22 12:00
- 2021-12-24 12:00
- 2021-11-26 12:00
- 2021-10-29 12:00
- 2021-10-01 12:00
- 2021-09-06 18:00



WT WRSF TH12

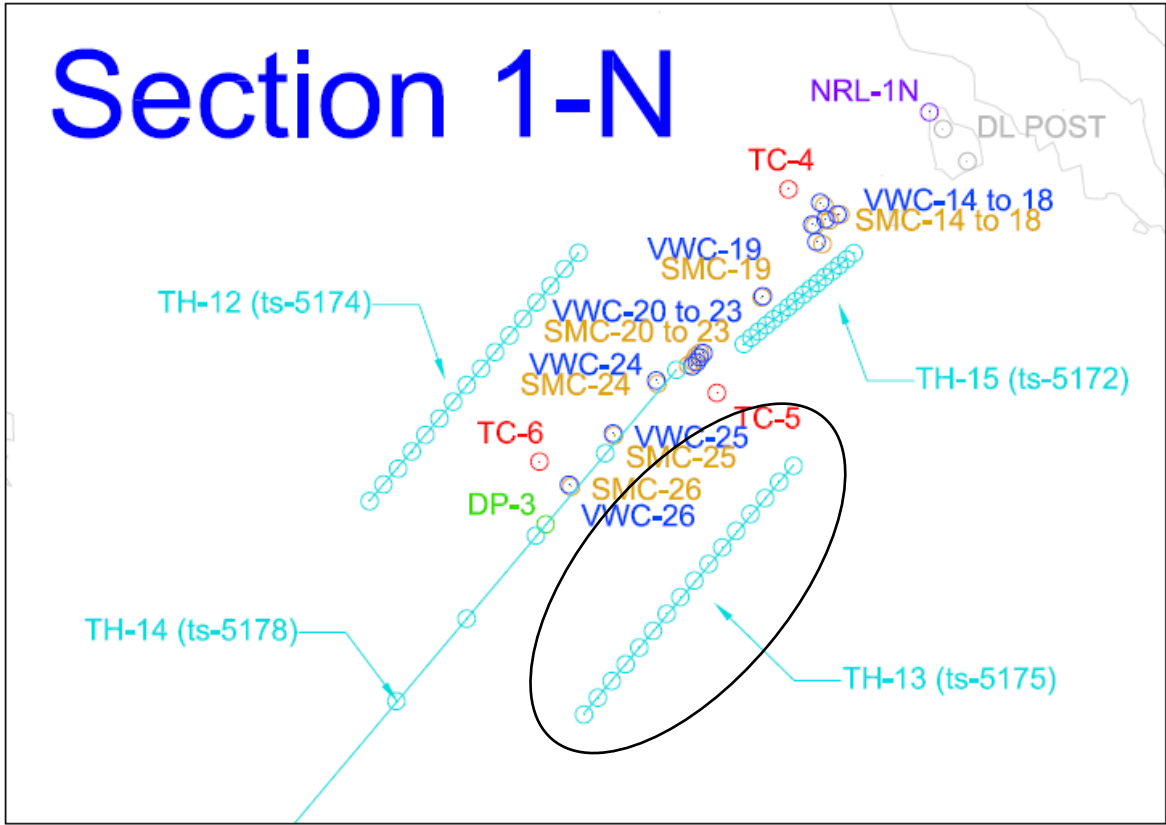
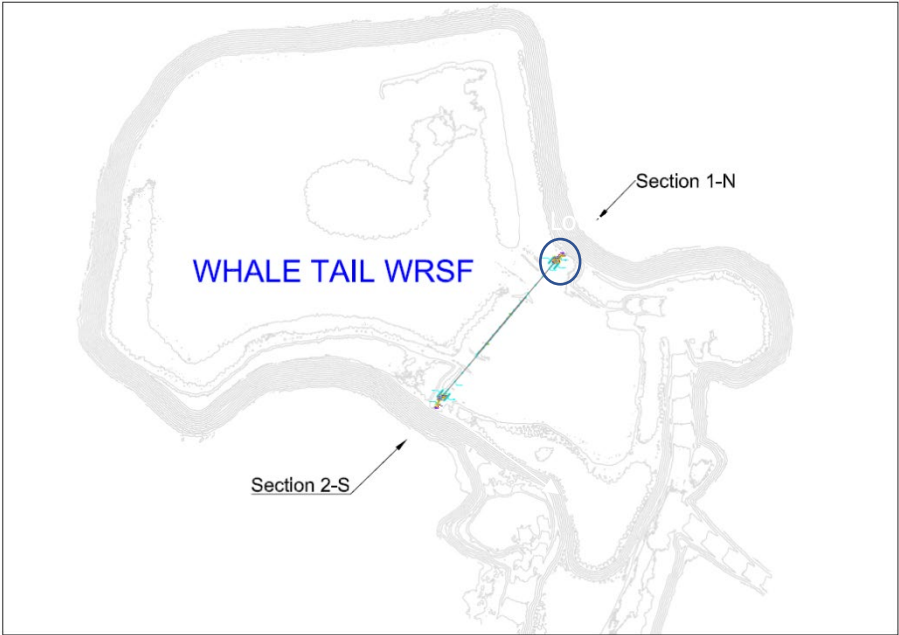


AMQ – WRSF – WT_TH_12

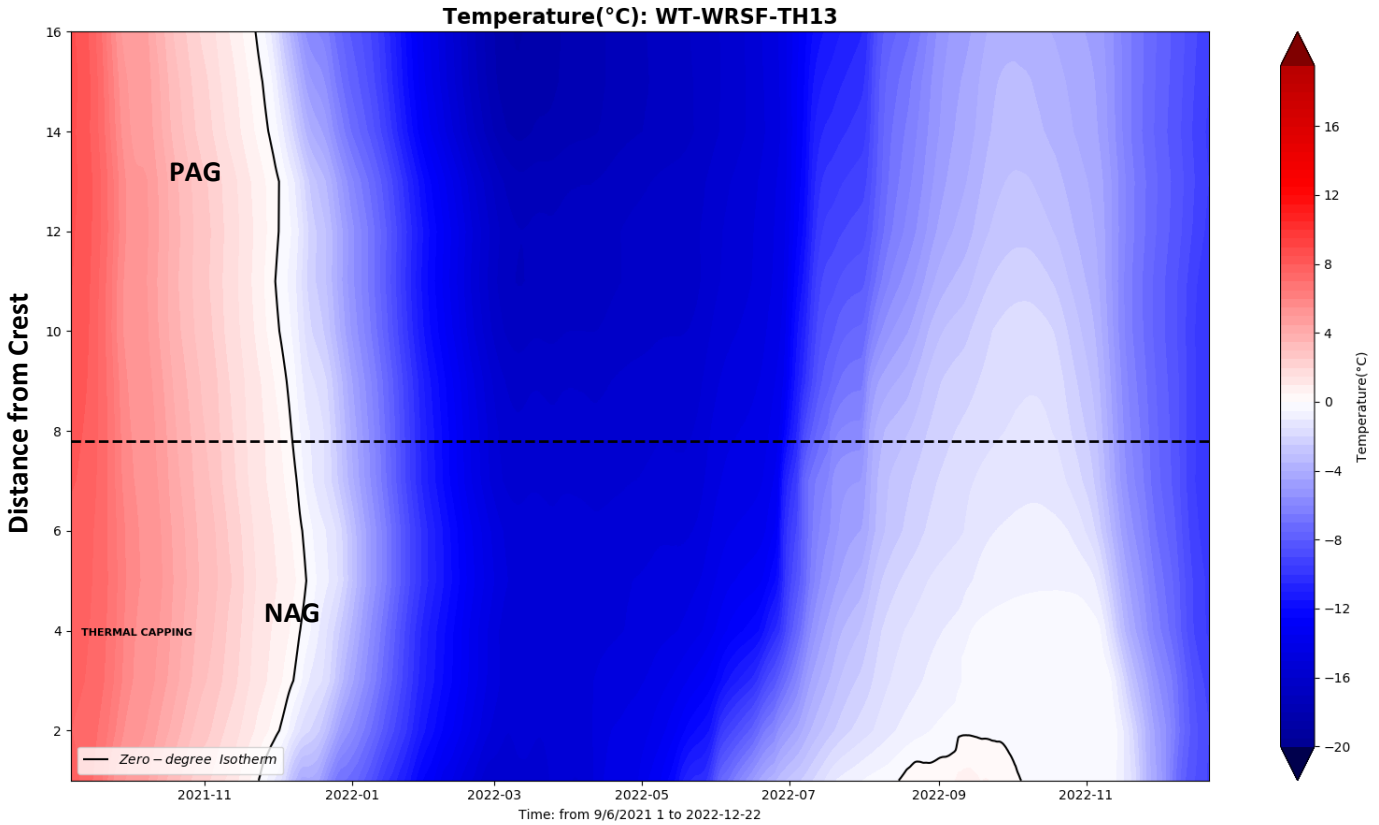
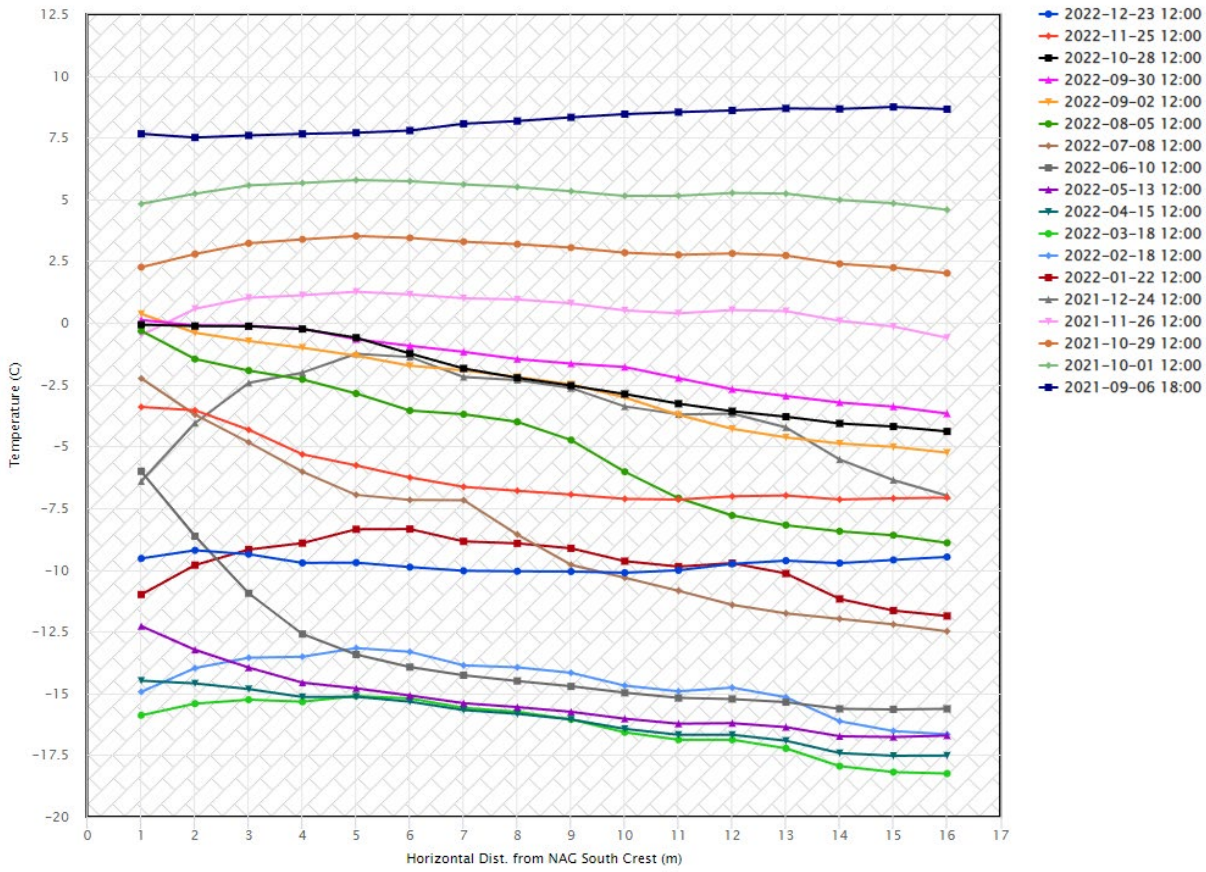


This instrument is installed horizontally and chart needs to be read accordingly

WT WRSF TH13

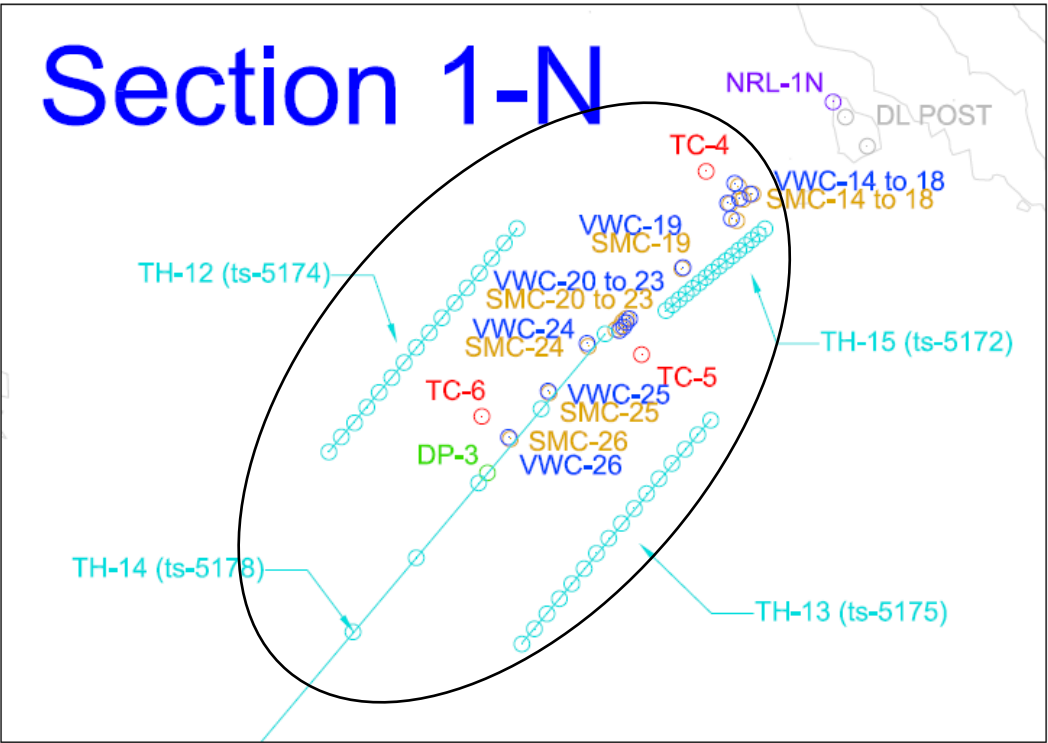
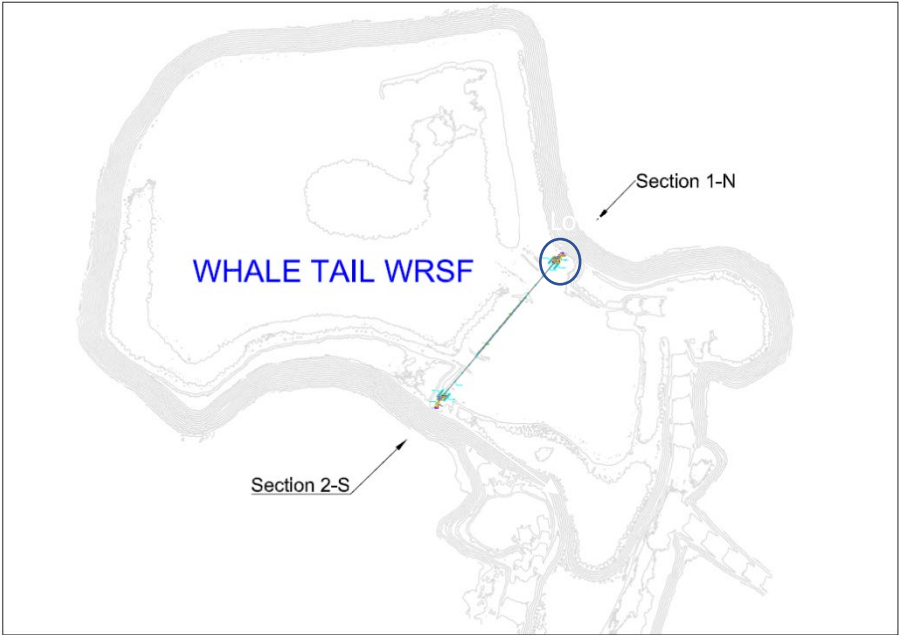


AMQ - WRSF - WT_TH_13

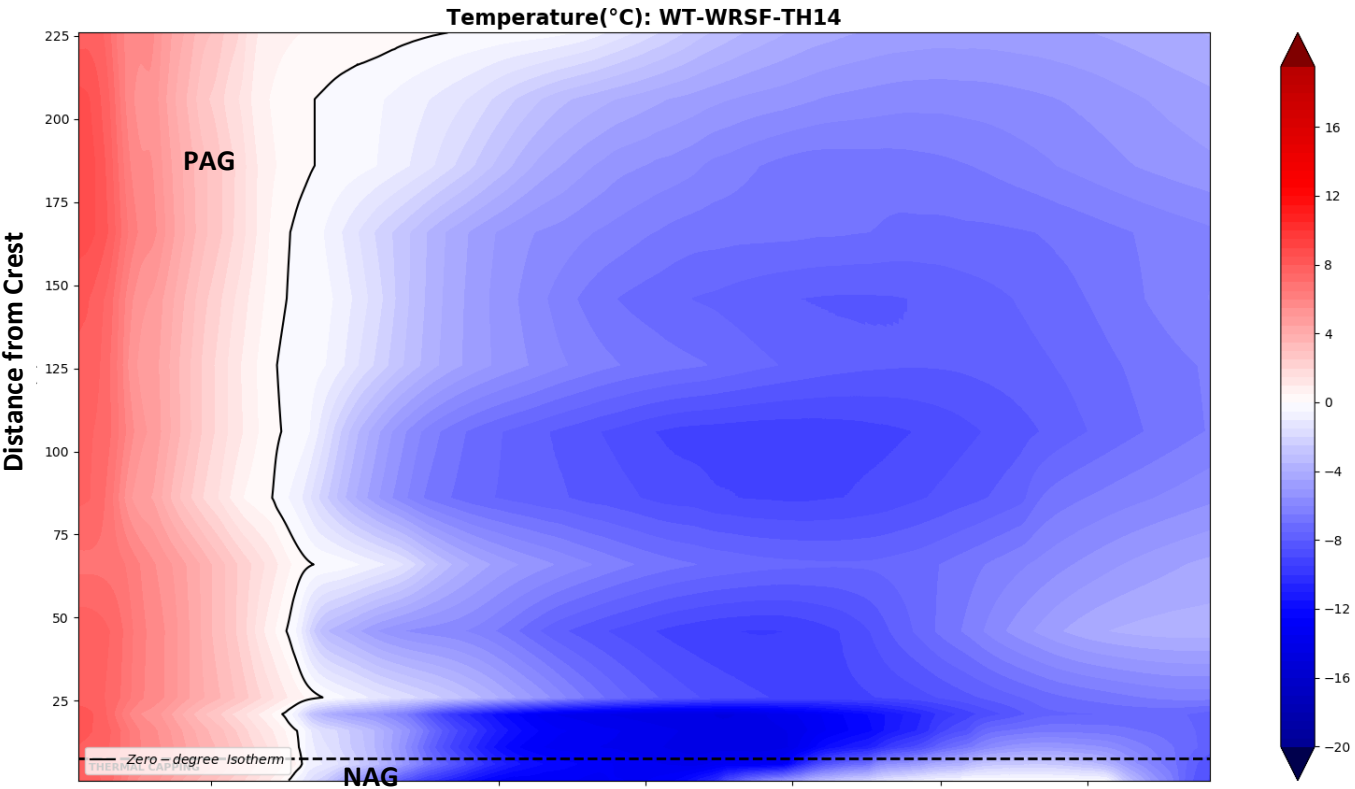
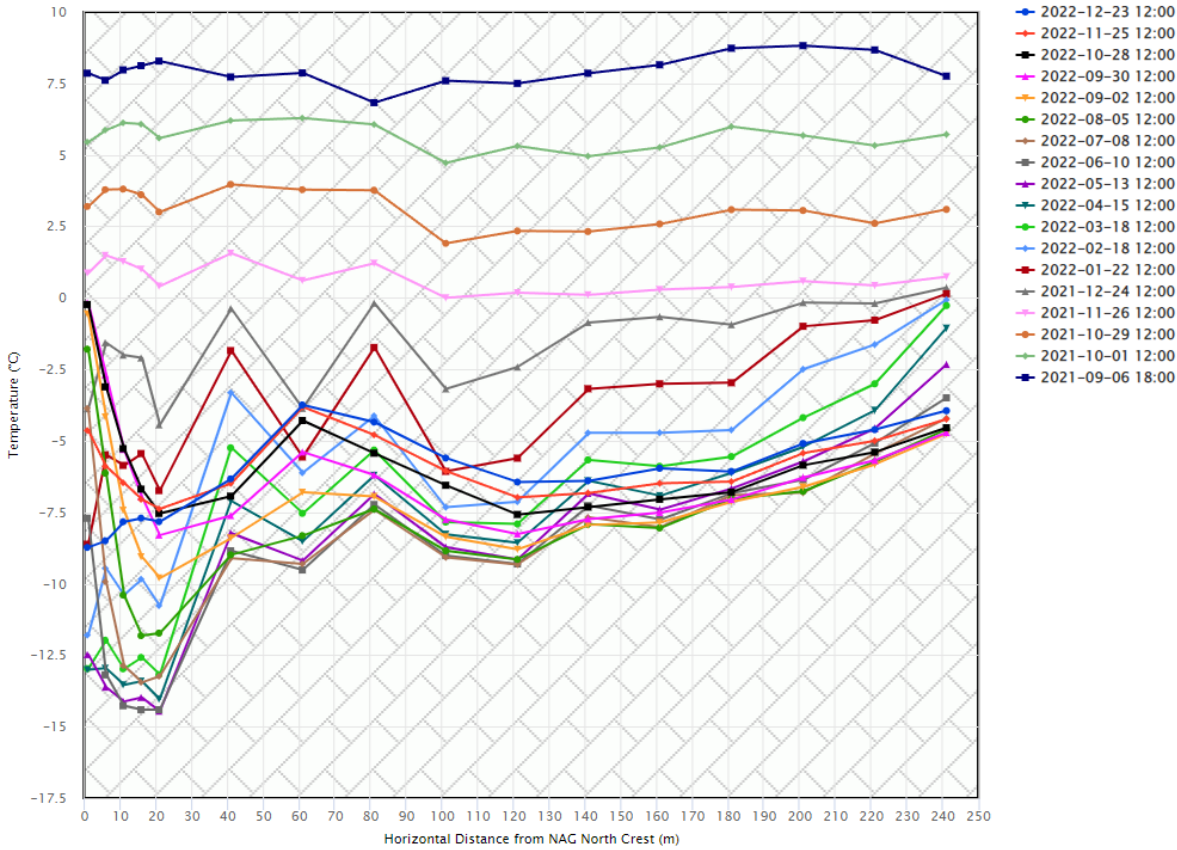


This instrument is installed horizontally and chart needs to be read accordingly

WT WRSF TH14

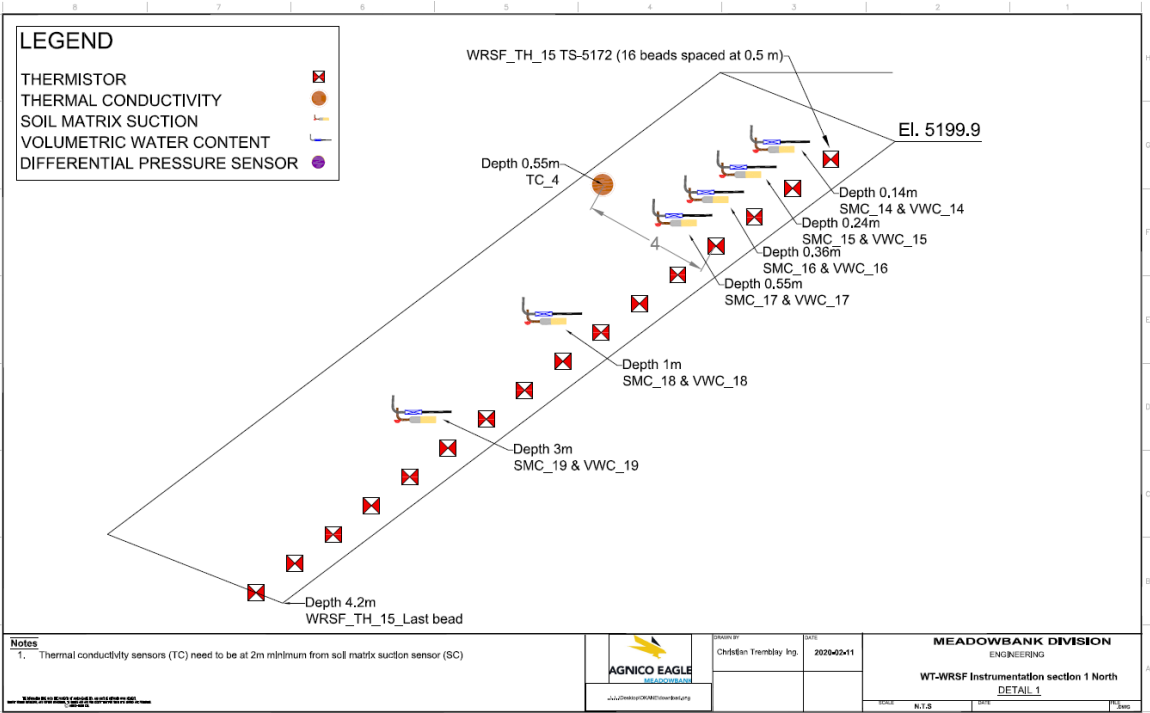
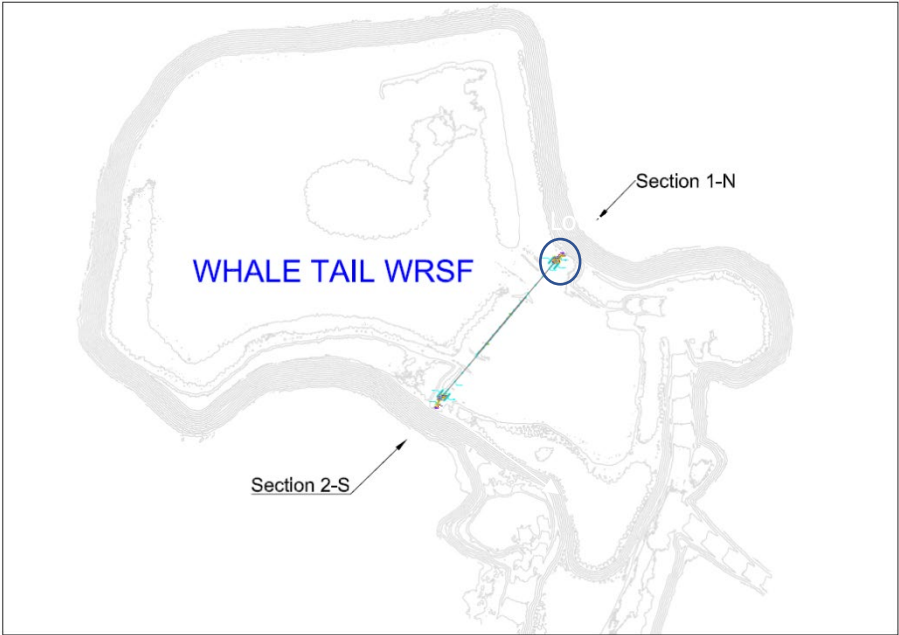


AMQ - WRSF - WT_TH_14

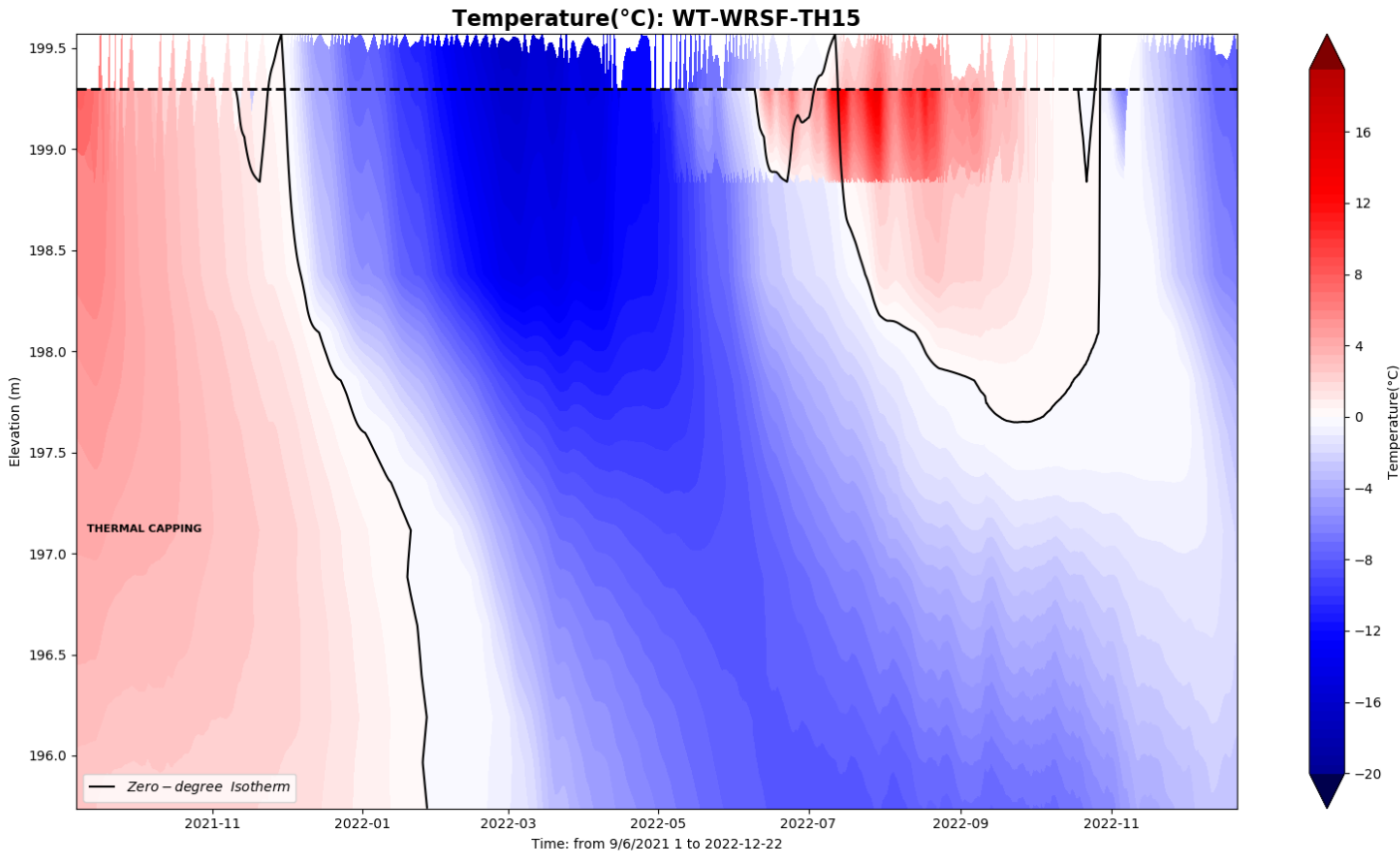
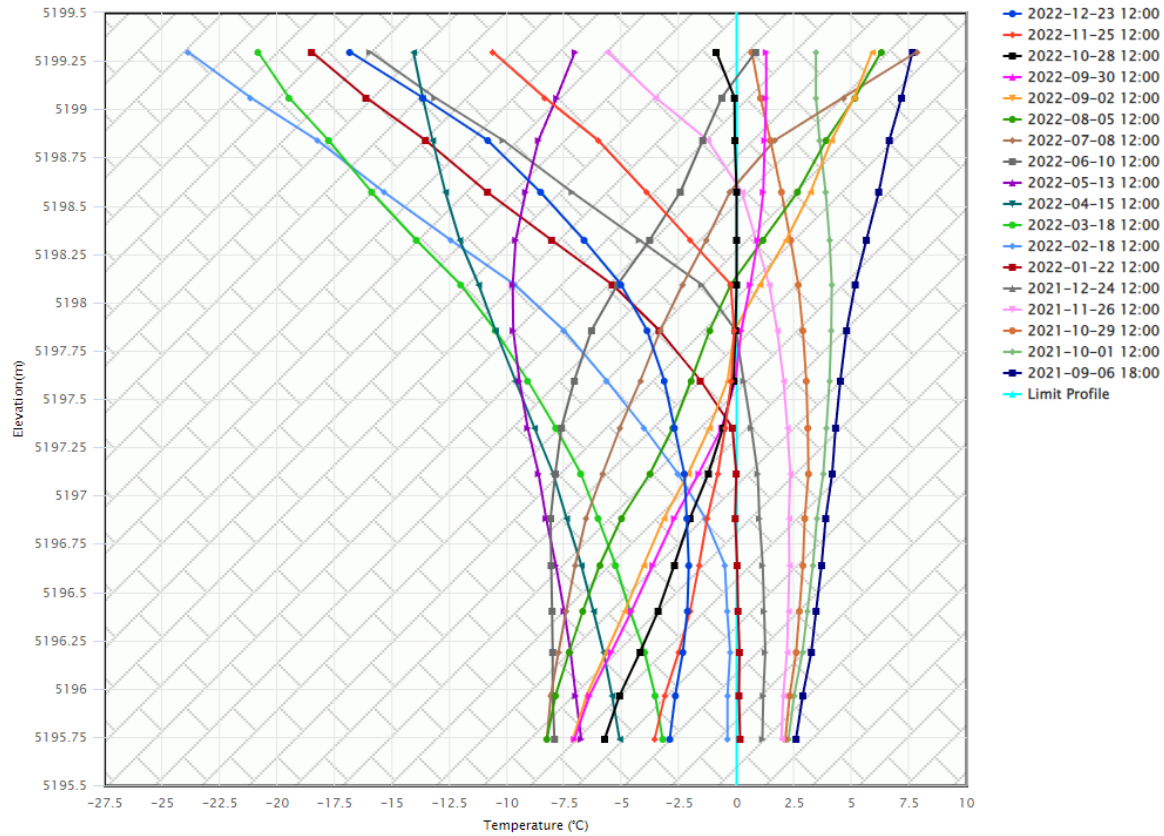


This instrument is installed horizontally and chart needs to be read accordingly

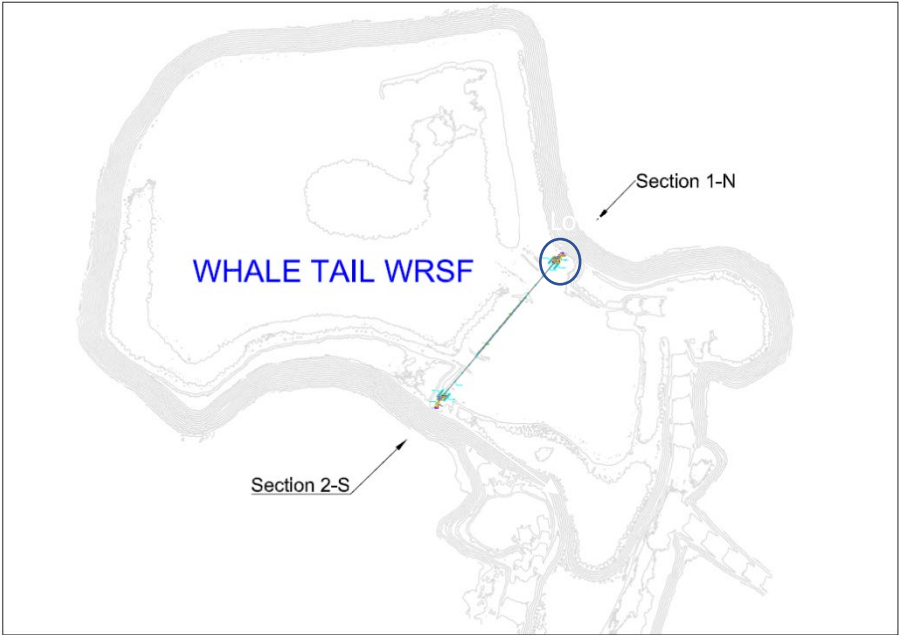
WT WRSF TH15



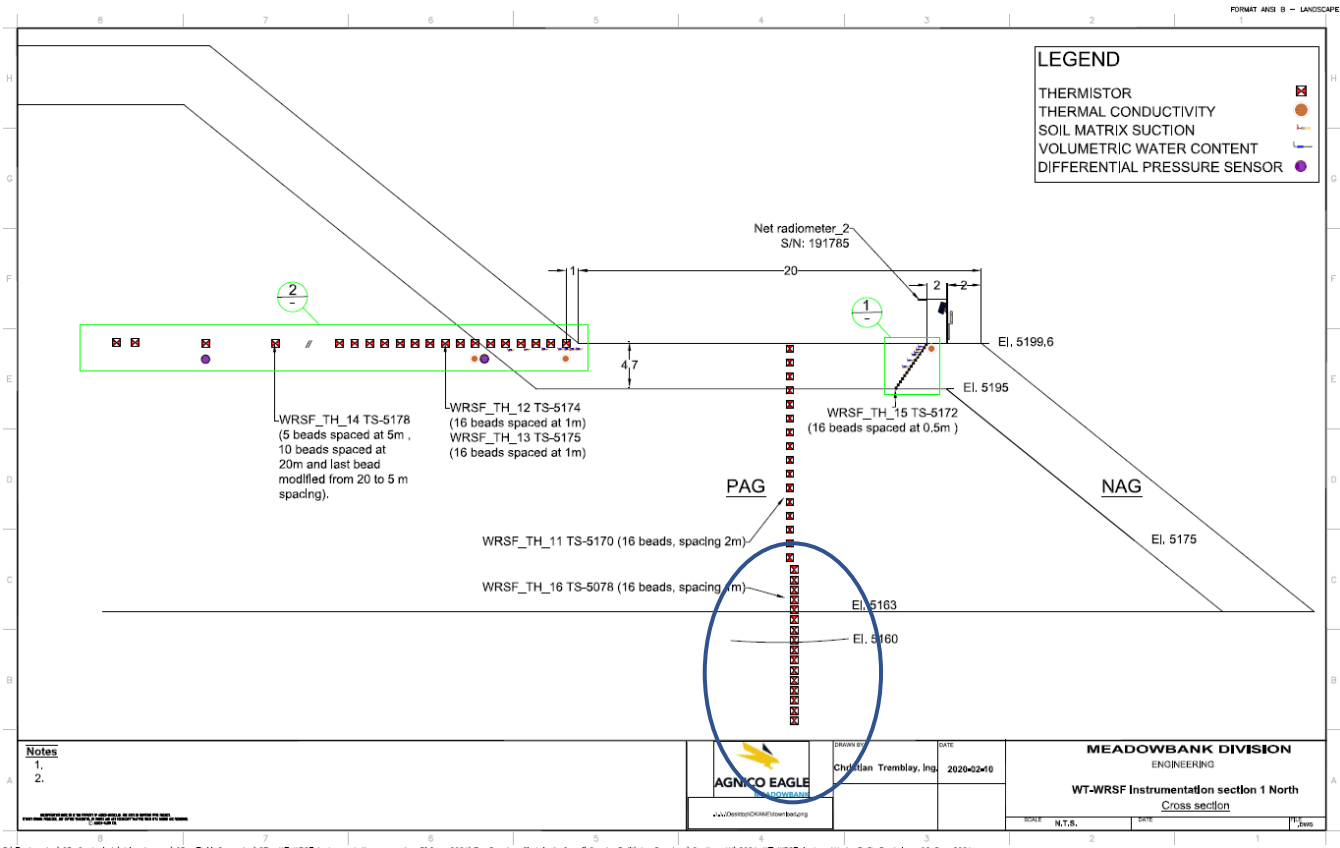
AMQ - WRSF - WT_TH_15



WT WRSF TH16



There was no data from Dec 20 to Feb 2 due to loss of battery power in the instrument.

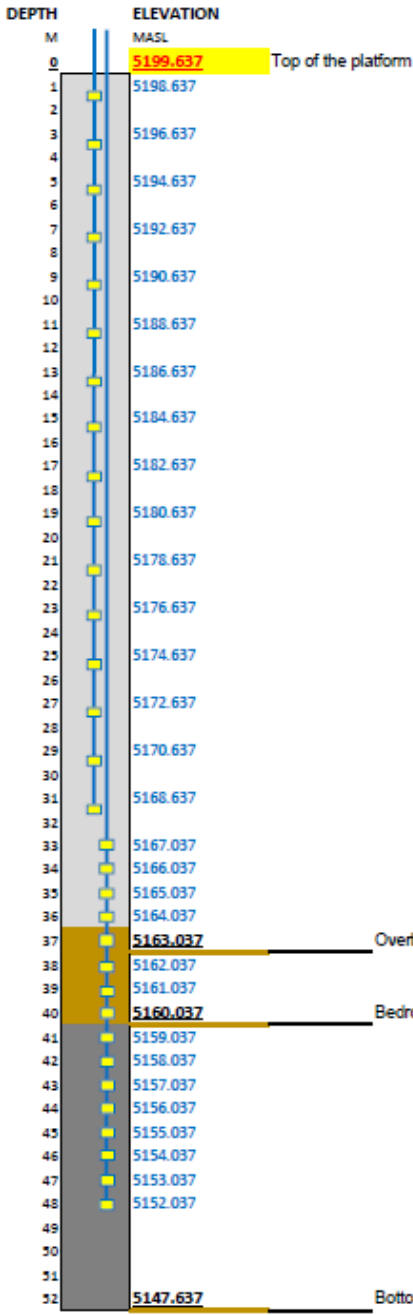


TH-11 & TH-16

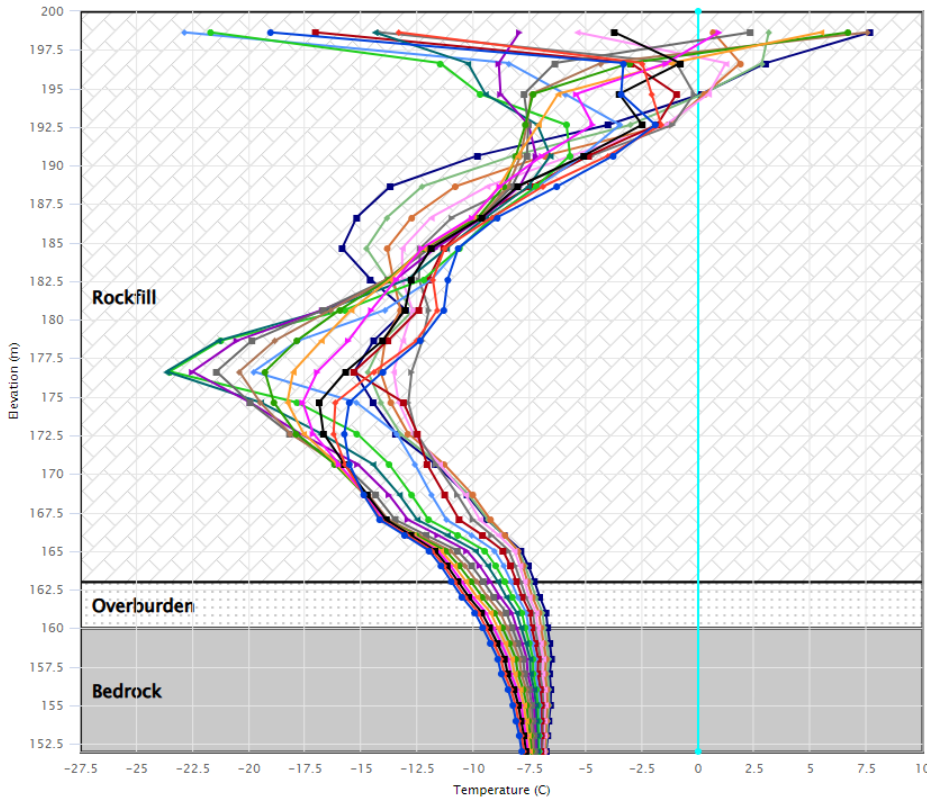
String #: RST 5170 & 5078

Drill Hole Coordinates

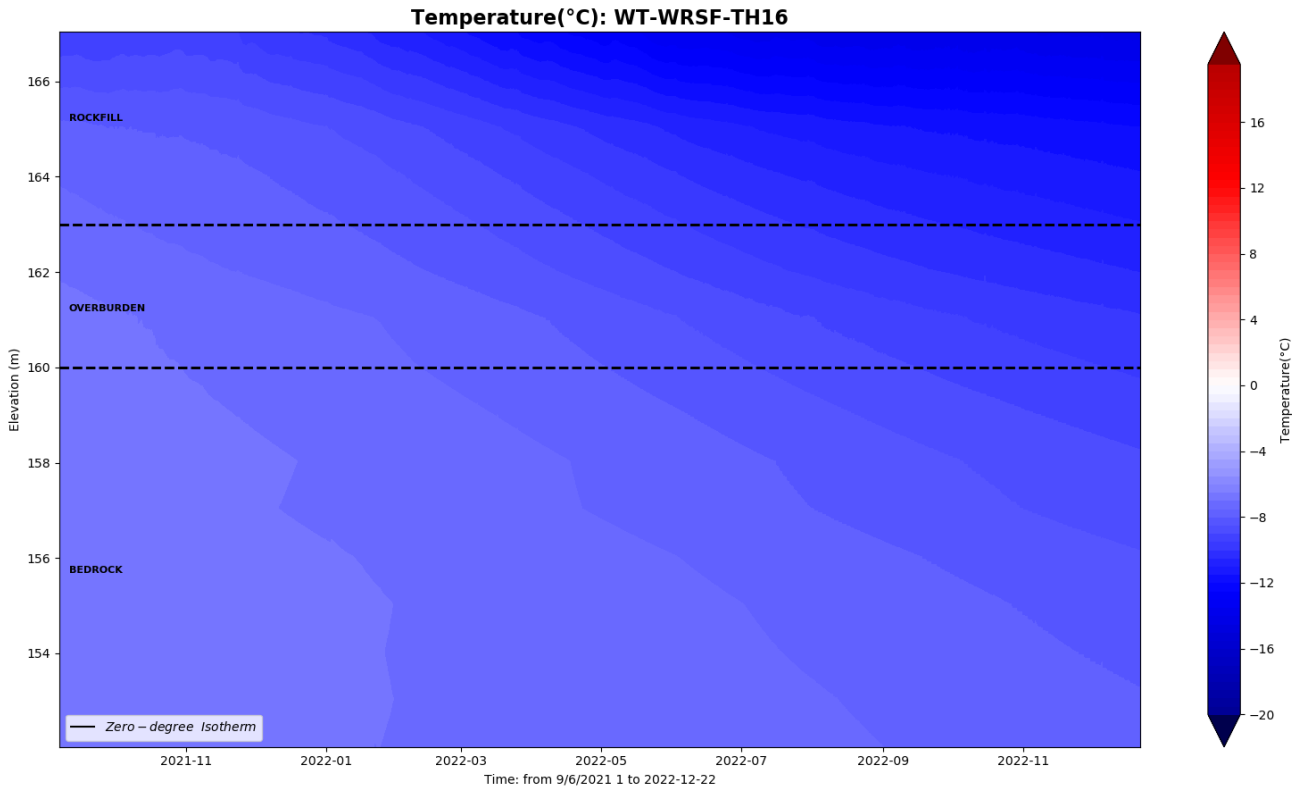
Northing	8479.2480
Easting	14259.1830
Elevation	5199.637



AMQ – WRSF – WT_1N Vertical TH_11 & 16



- 2022-12-23 12:00
- 2022-11-25 12:00
- 2022-10-28 12:00
- 2022-09-30 12:00
- 2022-09-02 12:00
- 2022-08-05 12:00
- 2022-07-08 12:00
- 2022-06-10 12:00
- 2022-05-13 12:00
- 2022-04-15 12:00
- 2022-03-18 12:00
- 2022-02-18 12:00
- 2022-01-22 12:00
- 2021-12-24 12:00
- 2021-11-26 12:00
- 2021-10-29 12:00
- 2021-10-01 12:00
- 2021-09-06 18:00
- Limit Profile



MD TH01

