Night-lite PR02 Allmand 17-5604
compressor Sullair 900 x 1150
Skytrac CAT TH514B 19-1202

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Mariska Beauregard

Drill #: TC65 9928 J

Date: 5-11-19

Day ☐
Night ☒

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T 647.5 *		5,31	4,30	2,50		11,45	0,4		BR: 11,1m (11,7m max)
S-650,5	11,95	5,32	4,30	2,75		10,67	0,4	0,58	BR: 11,2m
T-653,5	11,7	5,32	4,29	2,49		10,97	0,4	0,43	BR: 11,3m
P-656,5	11,9	5,31	4,38	2,14		11,71	0,4		BR: 11,4m (0,19m in the bedrock)
T-659,5	11,5	5,30	4,32	2,28		9,9	0,4	0,6	BR: 10,9m

* finish the hole begin by the day shift

Borehole No.: T665.5
Elevation: _____

Borehole Field Report

Client: F. GILBERT
Project / Site: AMARUQ / WHALE TAIL DYKE
Project No.: 1204392 B1

Date start: 2019-11-06
Date Finish: 2019-11-06
Inspector: Hugues Potvin

DIAMETER OF HOLE — OVERBURDEN: _____ BEDROCK: _____
DEPTH OF HOLE: _____
WATER LEVEL: _____ DATE: _____
PROBE No.: _____ TIME: _____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: SÉBASTIEN
DRILL: _____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
~1.5m 0 - 20 mm ↓									
									PRESENCE OF A BLOC APPROXIMATIVE DEPTH OF 210 TO 246 cm
~2.10m BLOC ↓									
~2.46m 0 - 20 mm									
~9.3m PRESENCE OF CONCRETE AT 9.3m									

Remarks: THE HOLE WAS DRILLED UNTIL THE DEPTH OF APPROXIMATELY 9.3m / THE WELDING BETWEEN THE 2 CASING WAS BROKEN AT THIS DEPTH → MUST BE DRILLED AT THE NIGHT SHIFT

Checked By: _____ DATE: _____

Borehole Field Report

Borehole No.: T 647,5
Elevation:

Client: Groupe Gilbert - KCS
Project / Site: Amerrey - Whale tail Bike
Project No.: 1204932-B1

Date start: 5 novembre 2019
Date Finish:
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11,48
DEPTH OF HOLE: 11,7
WATER LEVEL: 8,6 DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TC65 9728

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
see remark →									For the beginning intervention of the hole look for the rapport complet by Hugues Potvin 05-11-19 Bayshipt Weather -30°C Cloudy and showing a little 9,3m is the end of the hole for the day shift We could only reach 0,2m in the bedrock, we are at the maximum depth of the borehole.
9,3m									
11,28m	Bedrock								
11,7m	end of the borehole								

Remarks:
The bedrock was supposed to be at 11,1m and we reach it to 11,48m. There is presence of a lot water since 9,3m until the end of the borehole. The bedrock is competent.

Checked By: DATE:

PAGE _____ OF _____

GHD

Borehole No.: S-650.5
Elevation:

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - Whale tail Dike
Project No.: 11204932-B1

Date start: 05-11-19
Date Finish:
Inspector: Mariska Beauregard

DIAMETER OF HOLE OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Bobby Gagne
DRILL: TC65 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							weather - 30°C Cloudy and snowing a little
1@2m Rockfill 0-20mm									
6.5m									the concrete here is hard and really compacted
8.7m Concrete									
concrete mixed									In that hole there is very a small presence of water
10.67m Bedrock									
10.97m end of the borehole									

Remarks: The bedrock was supposed to be at 11.2m but we reach it at 10.97m in a competent rock

Checked By: _____ DATE: _____

Borehole Field Report

Borehole No.: T6535
Elevation: ____

Client: Groupe Gilbert - BCS
Project / Site: Aménag - Whale Tail Bike
Project No.: 1120932-B1

Date start: 05-11-19
Date Finish: ____
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG5 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0.4m on the top							- weather -30°C cloudy and snowing a little.
1@2 Rockfill 0-20 mm									
4.8 0-20 mm mixed with concrete									In the middle the concrete tells more dense.
9.0 presence of water									the water was present more and more until the end of the borehole.
10.97 Bedrock									
11.27 end of the borehole									

Remarks: The bedrock was supposed to be at 11,3m but we reach it at 10.97m in a competent rock.

Checked By: ____ DATE: ____

PAGE _____ OF _____

Borehole No.: T-1505
Elevation: _____

Borehole Field Report

Client: Groupe Gilbert - RCJ
Project / Site: Amaruq - Whale tail Pike
Project No.: 11204932 - B1

Date start: 05-11-19
Date Finish: _____
Inspector: Marjska Beauregard

DIAMETER OF HOLE — OVERBURDEN: _____ BEDROCK: _____
DEPTH OF HOLE: _____
WATER LEVEL: _____ DATE: _____
PROBE No.: _____ TIME: _____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagne
DRILL: TG95 9728

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		T 0.4m to the top							weather -30°C Cloudy and snowing a little
1@2 Rockfill 0-20 mm ↓									
6 concrete									the concrete is dense in this spot!

Remarks: _____

Checked By: _____ DATE: _____

Field Report

Client: F. GILBERT	**Date:** 2019-10-06 DAY SHIFT
Site: AMAPUP, WHALE TAIL DYKE	○ Excavation Bed Ver. ○ Sampling
Project: WHALE TAIL DYKE	○ Concrete ○ Reinforcing Steel
Project No.: 11204392-B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◉ Other: BOREHOLE CHECK

I have: ☒ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-23 °C

Field Results:

- NO DRILLING IN THE MORNING
- HOLE S-665.5 WAS COMPLETED TODAY, HOLE T-665.5 WAS COMPLETED UNTIL THE DEPTH OF 9.3m BUT MUST BE DRILLED AGAIN AT THE NIGHT SHIFT BECAUSE OF A WELDING ROPER BETWEEN TWO CASING.

Corrective actions to be taken:

Site Representative: _____ Inspector: HUGUES PORTIN

From: _____ Signature*: Hugues Portin

Time on site (hrs): _____

Travel time (hrs): _____

Project Manager: _____ Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Hughes Potvin

Drill #:

Date: 2019-11-06

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
5-662.5	11.0	5.31	4.37	2.0		10.70	0.40	0.26	B.R.: 10.7 m, PRESENCE OF WATER (SEE A BIS m)
T-665.5		5.31	~~4.37~~						B.R.: 10.7 m

NB: HOLE T-665.5 MUST BE DRILLED AGAIN AT THE NIGHT SHIFT BECAUSE THE WELDING BETWEEN THE FIRST AND THE SECOND CASING WAS BROKEN, DURING THE DRILLING...

Borehole No.: S-6625
Elevation:

Borehole Field Report

Client: E. GILBERT
Project / Site: AMAP-UP - WHALE TAIL DYKE
Project No.: 1120439 2-B1

Date start: 2019-11-06
Date Finish: 2019-11-06
Inspector: HUGUES POTVIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.70
DEPTH OF HOLE: 11.00
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: JÉRÉMY
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCKFILL									
0 - 30 mm									
								MB	WE SEE WATER AT ABOUT 8.50 m AFTER A SPOT TO WELDING (WHEN WE PUT A PL)
10.70m BEDROCK									
11.00m END OF HOLE									

≈ 1.5 m

Remarks: BEDROCK EXPECTED AT 11.7 m

Checked By: ____ DATE: ____

Field Report

Night shift

Client: Groupe Gilbert - KCT	**Date:** 06 MM - 11 - 19
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling
Project: Whale tail Bike	○ Concrete ○ Reinforcing Steel
Project No.: 11204932-B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◉ Other:

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-23°C

Field Results:

Tonight, the job was done well! No time lose.

We did 6 boreholes and set up one for the day shift.

Corrective actions to be taken:

Site Representative: François Collard
From: Qanairtuuq Sana

Inspector: Maryska Beauregard
Signature*:
Time on site (hrs): 12R
Travel time (hrs):
Mileage (km):

Project Manager: Daniel Poirault, GHD

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maryska Beaurepard

Drill #: TCG5 9928

Date: 06-11-19

Day ☐ Night ☑

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-665,5	10,9	5,31	4,30	1,69		10,16	0,4	-0,44	BR: 10,2m water at 9m
P-668,5	11,2	5,32	4,30	1,98		10,64	0,4	-0,26	BR: 10,5 water at 9,5m (little)
T-611,5	12,7	5,32	4,29	3,49		11,78	0,4	-0,63	BR: 11,7 No water show up
S-614,5	11,9	5,32	4,31	2,67		10,94	0,4	-0,66	BR: 11,2 Presence of water at 9,6m
T-617,5	11,7	5,31	4,30	2,49		10,96	0,4	-0,44	BR: 11,0 water at 9,5m
P-620,5	11,8	5,31	4,37	2,52		11,35	0,4	-0,15	BR: 11,1 water at 9m
T-623,5*		5,32							

NB: the hole isn't drill, we set up the first casing for the day shift.

Borehole No.: T-665
Elevation:

Borehole Field Report

Client: Groupe Gilbert - KGT
Project / Site: Amaruq - Whale tail Pike
Project No.: 1126932-B1

Date start: 06-11-19
Date Finish: 06-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.16
DEPTH OF HOLE: 10.46
WATER LEVEL: 9 DATE: 6-11-19
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC45 #28

STRATIGRAPHY	Depth (feet / metres)	State	SAMPLE Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Hole made by day shift until 9.6m								weather -23°C cloudy and snowing a little bit.
								we have to drill down the middle until the 9.6m made by the day shift
								With no casing in the hole it wasn't easy to do it
9m Presence of water								
9.61m								end of the drilling by the day shift
10.16m bedrock								(see Hagues Form borehole field report for more information)
10.46m end of the borehole								

Remarks:
The bedrock was expected at 9.2m and we could reach it at 10.16m in a competent rock.
Presence of water from 9m to 10.46 m.

Checked By: ____ DATE: ____

Borehole No.: P-668.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Imaruq - Whale tail Lake
Project No.: 1204932-B1

Date start: 06-11-19
Date Finish: 06-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.64
DEPTH OF HOLE: 10.94
WATER LEVEL: 9.5 DATE: 06-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ⊡ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG65 9728

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level									This hole isn't easy because the green shelter is a approximately 0.5m distance and at this station there are a lot of big rocks. We work slowly and safety first.
1@2 Rockfill									
0-20 mm ↓									Weather -23°C Cloudy and Snowing a little bit.
6 Concrete									The concrete was mixed with 0-20 mm
9.5 presence of water									the water was present in the end of borehole.
10.64 bedrock									
10.94 end of borehole									

Remarks: the bedrock was expected at 10.5m and we reach it at 10.64m.

Checked By: ____ DATE: ____

Borehole No.: T-bh1.5
Elevation: _____

Borehole Field Report

Client: Groupe Gilbert - RCS
Project / Site: Amaruq - Whale Tail Dike
Project No.: 1120-1732-B1

Date start: 06-11-19
Date Finish: 06-11-19
Inspector: Marjeska Beauregard

DIAMETER OF HOLE — OVERBURDEN: _____ BEDROCK: 11,78
DEPTH OF HOLE: 12,08
WATER LEVEL: no water DATE: 06-11-19
PROBE No.: _____ TIME: _____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TOGS 9128

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ground level	0	0							weather -23°C cloudy and snowing a little bit.
1@2 Rockfill									
2,5 concrete (presence of) mixed with 0-20mm									most of the times, the concrete was mixed with the 0-20 mm. But sometimes the concrete was more dense and hard to drill.
11,78 Bedrock									
12,08 end of borehole									

Remarks: The bedrock was reach at the depth expected (± 0,08m) in a competent rock with no water.

Checked By: _____ DATE: _____

Borehole No.: S-614,5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KGT
Project / Site: Amarrig - Whale tail Bike
Project No.: 1120932-B1

Date start: 06-11-19
Date Finish: 06-11-19
Inspector: Maryska Beauregard.

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.94
DEPTH OF HOLE: 11.24
WATER LEVEL: 9.6 DATE: 06-11-19
PROBE No.: ____ TIME: ____

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Bobby Gagné
DRILL: TG95 9928

STRATIGRAPHY	Depth feet	Depth metres	State	SAMPLE Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0,4m to the top							Weather - 23°C cloudy and snowing a little bit
1@2 Rockfill 0-20mm ↓									
4									
6.5 Presence of concrete									
9.6 presence of water									
10.94 Bedrock									
11.24 end of borehole									

Remarks: The bedrock was expected at 11,2m but we reach it sooner, at 10.94m.

Checked By: ____ DATE: ____

Borehole Field Report

Borehole No.: T-07.5
Elevation:

Client: Groupe Gilbert - KCT
Project / Site: Amaruq - Whale tail Pike
Project No.: 1120932-B1

Date start: 06 11-19
Date Finish: 06 - 11-19
Inspector: Marjska Beauregard

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 10.94
DEPTH OF HOLE: 11.24
WATER LEVEL: 9.5 DATE: 07-11-19
PROBE No.: TIME:

SAMPLE
SS Split spoon
ST Shelby tube
RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TC 65 9138

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ground level									weather -23°C Cloudy the snow stop.
1(@2 Rockfill 0-20 mm									
7 concrete									
9.5 presence of water									The section between the water and the bedrock from 9.5 to 10.96 m
10.94 Bedrock									
11.24 end of borehole									

Remarks: The bedrock was expected at 11,2m but we reach it at 10.96m in a competent rock. There are presence of water a little bit before the bedrock.

Checked By: DATE:

PAGE ____ OF ____

Borehole No.: R-620.5
Elevation:

Borehole Field Report

Client: Groupe Gilbert - BCS
Project / Site: Amaruq - Whale tail Dike
Project No.: 1120432-B1

Date start: 06-11-19
Date Finish: 06-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 11.35
DEPTH OF HOLE: 11.65
WATER LEVEL: 9.0 DATE: 07-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC65 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0.4m to the top							weather -23°C Skawing++ strong wind +
1@2 Rockfill 0-20 mm ↓									
6.5 Concrete									the concrete was mixed with the 0-20 mm
9 presence of water									
11.35 Bedrock									
11.65 end of borehole									

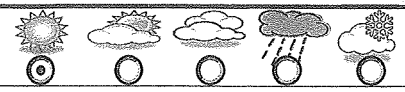
Remarks: the bedrock was expected at 11.1m and we reach it at 11.35m in a competent rock.

Checked By: ____ DATE: ____

Field Report

Client: F-GILBERT	**Date:** 2019-11-07 DAY SHIFT
Site: AMARUQ	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring
Project: WHALE TAIL DYKE	◉ Other: BOREHOLE CHECK
Project No.: 12-0439-31	

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?



-24 °C + wind

Field Results:

BOREHOLES P-633.5, S-636.5, P-639.5 AND P-632.5. WE REACH BEDROCK IN THE 3 FIRST BOREHOLES.

→ WE DON'T REACH BEDROCK IN BOREHOLE P-639.5 (OR BEDROCK IS SO SOFT THAT IS NOT POSSIBLE TO MAKE THE DIFFERENCE WITH 0-30 mm)

Corrective actions to be taken:

Site Representative: _____ Inspector: HUGUES POTVIN

From: _____ Signature*: _____

Time on site (hrs): _____

Travel time (hrs): _____

Project Manager: _____ Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Hugues Potvin

Drill #: DCG5 9928

Date: 07-11-19

Day [X] Night [ ]

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-623,5	12,12	5,32	4,36	2,9		11,82	0,40	—	B.R.: 11,5 m, WATER SEE AT 9,5 mm AFTER A STOP.
T-626,5	11,80	5,32	4,37	3,2		11,50	0,40	0,61	B.R.: 11,5 m, WATER SEE AT 9,5 m AFTER A STOP.
T-629,5	12,20	5,31	4,36	2,90		11,99	0,40	—	B.R.: 11,5 m, WATER SEE AT 9,5 m AFTER A STOP
P-632,5	12,39	5,31	4,37	3,10		NO	0,40	—	B.R.: 11,52 m, WATER SEE AT 9,5 m AFTER WELDING ---

PAGE ____ OF ____

Borehole No.: T683-15
Elevation:

Borehole Field Report

Client: FI GILBERT
Project / Site: AMARUQ, WHALE TAIL DYKE
Project No.: 1120739Z-B1

Date start: 2019-11-07
Date Finish: 2019-11-07
Inspector: HUGUES POTVIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 11.82 m
DEPTH OF HOLE: 12.12 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: JEREMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
≥1.5 m									
0 - 30 mm									
								MB	WE SEE WATER AT 9.5 m AFTER A STOP + AM.
11.82 m									BEDROCK
12.12 m									END OF HOLE

Remarks: BEDROCK EXPECTED AT 11.50 m

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: S-676-S
Elevation: ____

Borehole Field Report

Client: F. GILBERT
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1704392-B1

Date start: 2019-11-07
Date Finish: 2019-11-07
Inspector: HUGUES POTVIN

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 11.50 m
DEPTH OF HOLE: 11.80 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: JÉRÉMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCKFILL									
11.5 m									
0 - 30 mm									
								MB	WB SEE WATER AT APPROXIMATELY 11.5 m DEPTH, AFTER A STOP FOR WELDING. + AIR.
11.50 m BEDROCK									
11.80 m END OF HOLE									

Remarks: BEDROCK EXPECTED AT 11.5 m

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-622.5
Elevation: ____

Borehole Field Report

Client: E.GILBERT
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1704397-B1

Date start: 2019-11-07
Date Finish: 2019-11-07
Inspector: HUGUES POTVIN

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 11.99 m
DEPTH OF HOLE: 12.30 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: JÉRÉMY INDST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
1.5 TO 2.0 m									
0 - 30 mm ↓									
								X	WE SEE WATER AT APPROXIMATELY 8.5 m AFTER A STOP FOR WELDING, WHEN WE PUT AIR IN THE HOLE
11.99 m BEDROCK									
12.30 m END OF HOLE									

Remarks: BEDROCK EXPECTED AT 11.5 m DEPTH

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-6325
Elevation:

Borehole Field Report

Client: F.GILBERT
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1120439-B1

Date start: 2019-11-07
Date Finish:
Inspector: HUGUES POTVIN

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: N/V
DEPTH OF HOLE: 12.39 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: JEREMY WEST
DRILL: 2019-11-07
2019-11-07

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
0 - 30 mm									
								NMS	WE SEE WATER AT APPROXIMATELY 8.50 m DEPTH, AFTER WELDING STOP.
END OF HOLE									

≈ 8.50 m

12.39 m

Remarks: BEDROCK EXPECTED AT 11.52 m.
WE DON'T REACH THE BED ROCK.

Checked By: ____ DATE: ____

Field Report

Night Shift

Client: Groupe Gilbert - KCS	**Date:** 07-11-19
Site: Amaruq -	○ Excavation Bed Ver. ○ Sampling
Project: Whale tail Bike	○ Concrete ○ Reinforcing Steel
Project No.: 112049320 - B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◉ Other: Borehole

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-23°C

Field Results:

At the start of the shift, we begin by finish the hole P-632,5 (drilling only to reach 0.4m on the top).

After that we discover that the drill is broken (2 hoses). So, we are stand-by until the mecanic came here to fix it. — from 7:15 to 8:45. —

Tonight, the strong wind makes it very difficult to work, and it intensified during the night.

We start the Role P-596,5, only the first casing. The rest will be done by the day shift.

Corrective actions to be taken:

Site Representative: Dale Burton
From: Qanaittuaq Sana

Inspector: Maryska Beauregard
Signature*:

Time on site (hrs): 12h
Travel time (hrs): —
Mileage (km): —

Project Manager: Daniel Pedneault, GHD

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maryska Beauregard

Drill #: TCG5 9968

Date: 07-11-19

Day ☐ Night ☒

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-635,5	12,03	5,32	4,33	2,78		11,42	0,4	-31	BR: 11,34 no water
S-638,5	11,44	5,31	4,37	2,16		10,79	0,4	-41	BR: 10,92 presence of water at 9.4m
T-641,5	11,36	5,30	4,36	2,10		10,71	0,4	-0,35	BR: 10,85 presence of water at 10m
P-596,5	12,10	5,31							BR: 10,80 (will be done by dayshift)

NB. P-596.5 in the first 5,3m there is only rock fill & 0-20mm (small presence of water on the casing)

Borehole No.: T-635,5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - Whale tail Bike
Project No.: 1204932-B1

Date start: 07-11-19
Date Finish: 07-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 11.42
DEPTH OF HOLE: 11.72
WATER LEVEL: No water DATE: 07-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC45 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Ground level		0,4m to the top							weather -23°C Cloudy and strong wind
1@2 Rockfill									
0-20 mm ↓									
6									
Concrete mixed									
10 Concrete dense									
11.42 Bedrock									
11.72 end of borehole									

Remarks: The bedrock was expected at 11,34m and we reach it at 11,42m in a competent rock.

No water appears in the borehole.

Checked By: ____ DATE: ____

Borehole No.: S-638,5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - RCT
Project / Site: Amaruq - Whale tail Bike
Project No.: 1204932-B1

Date start: 07-11-19
Date Finish: 07-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC65 9928

STRATIGRAPHY	Depth (feet / metres)	SAMPLE: State	SAMPLE: Type and No.	SAMPLE: Recup.	SAMPLE: Blows 6" / 15cm or RQD	SAMPLE: Penetration index	TESTS: Type and No.	DESCRIPTION OF SAMPLES
ground level	0,4m to the top							weather -23°C cloudy and strong wind.
Rockfill								
1.02 0-20 mm								
9.4 presence of water								The presence of the water is small. There is no concrete in the borehole.
10.79 Bedrock								
11.09 end of borehole								

Remarks: The bedrock is where is supposed to be (± 0,13m) in a competent rock and a very small presence of water.

Checked By: ____ DATE: ____

Borehole No.: T-641.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - Whale tail Dike
Project No.: 1120493 2-B1

Date start: 07-11-19
Date Finish: 07-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG65 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Ground level			0,4 m to the top						weather -23°C Strong wind +++
Rockfill									This is particulary difficult to see the dust of the drilling (the wind is too strong) So, I estimated what I think a see during the drilling.
1.02 0-20 mm									On the dike we are barely able to stand right next to the drill. The wind moves us easily.
± 7 Concrete									
10 presence of water									
10.71 Bedrock									
11.01 end of borehole									

Remarks: The bedrock is reach where it was expected (±0,14m) in a competent rock and a presence of water.

Checked By: ____ DATE: ____

Field Report

Client: F. GILBERT - KCJ	**Date:** 2019-11-08 DAY SHIFT
Site: AMARUQ - WHALE TAIL DYKE	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring
Project: WHALE TAIL DYKE	◉ Other: BOREHOLE CHECK + WIND
Project No.: 11204932 B1	

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-32 °C

Field Results:

- BOREHOLES P-5965, T-5995, S-6035 AND T-6055 WERE COMPLETED. WE REACH BEDROCK ONLY AT BOREHOLE T-6055*

- WATER IS PRESENT IN ALL BOREHOLES, WE SEE IT AT ABOUT 0.5 m WHEN WE RESTART AFTER A STOP TO WELDING*

Corrective actions to be taken:

Site Representative: Dale Burton
From: Qamanittuaq Sara
Inspector: HUGUES POTVIN
Signature*: Hugues Potvin
Time on site (hrs):
Travel time (hrs):
Project Manager: Daniel Pedneault, GHD
Mileage (km):

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: HUGUES POTVIN

Drill #: TCG5 9928

Date: 2019-11-08

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
P-5~~96.5~~	13.1	5.31	4.36	2.80		NO	0.40	NO	BR: 10.5m) SEE WATER 9.5m AFTER WELDING CHAIN STUD
T-579.5	11.9	5.21	4.37	2.70		NO	0.40	NO	BR: 10.0) SEE WATER AT 9.5m AFTER WELDING STOP
~~[illegible]~~									
S-602.5	12.3	5.31	4.36	3.10		NO	0.40	NO	BR: 11.6m / WATER SEE AT 10.5m AFTER STOP + AIR
T-605.5	12.9	5.31	4.37	3.6		12.12	0.40	0.43	BR 12.0) WATER SEE AT ≥ 10.5m AFTER WELDING STOP

P-596-5

PAGE ____ OF ____

Borehole No.: ~~P-596-5~~

Elevation: ____

Borehole Field Report

Client: F. GILBERT

Project / Site: AMARUQ - WHALE TAIL DYKE

Project No.: 1120 4932 B1

Date start: 2019-11-08

Date Finish: 2019-11-08

Inspector: HUGUES POTVIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: NU

DEPTH OF HOLE: 12.10 m

WATER LEVEL: ____ DATE: ____

PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: JEREMY WEST

DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
1 TO 2 m									
0 – 30 m									
									MINE SUB WATER AT ≥ 25 m AFTER WELDING AND PUT AIR.
12.10 m									
END OF HOLE									

Remarks: BEDROCK EXPECTED AT 10.5 m

Checked By: ____ DATE: ____

Borehole No.: P-5995
Elevation: ____

Borehole Field Report

Client: F. GILBERT
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1120493Z-B1

Date start: 2019-11-08
Date Finish: 2019-11-08
Inspector: HUGUES PATRIN

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: NU
DEPTH OF HOLE: 11.9m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: JEREMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
~1.15m — 0-20 mm									
								MB:	WATER SPC
11.9m — END OF HOLE									

Remarks: ____

Checked By: ____ DATE: ____

Borehole No.: S-6025
Elevation: ____

Borehole Field Report

Client: F. GILBERT
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1120493Z-B1

Date start: 2019-11-08
Date Finish: 2019-11-08
Inspector: HUGUES POIRIER

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: NU
DEPTH OF HOLE: 12.3m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: ISAIAH WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCKFILL									
1.5 to 2m									
0 - 30 mm									
									NB: WATER (GREY, WITH CONCRETE?), SAT AT 2.15m
									AFTER WELDING AND START WITH AIR
12.3m									
END OF HOLE									

Remarks: BEDROCK EXPECTED AT 11.60m

Checked By: ____ DATE: ____

Borehole No.: T-60515
Elevation: ____

Borehole Field Report

Client: F. GILBERT
Project / Site: AMAPUS - WIDDLE TAIL DYKE
Project No.: 1120493?? B1

Date start: 2019-11-08
Date Finish: 2019-11-08
Inspector: AUGUES POTVIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 12.12m
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: JEREMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
2.05m — 0 - 20 mm									
									NB: WATER SEEP AT ~8.5 m AFTER A STOP FOR WELDING. WHEN WE PUT AIR
12.12m — BEDROCK									
12.47m — END OF HOLE									

Remarks: BEDROCK EXPECTED AT 12.0 m DEPTH

Checked By: ____ DATE: ____

Field Report

Night shift

Client: Groupe Gilbert - KCS	**Date:** 08-11-19
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling
Project: Whale tail Bike	○ Concrete ○ Reinforcing Steel
Project No.: 11204932-B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◉ Other: Borehole

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-30°C

Field Results:

Tonight, we are stand-by after the lunch break.
The visibility on the bike is not optimum and very limited.
Alex autorized us to stay in the meeting room.

Corrective actions to be taken:

Site Representative: Alex Baily
From: Qamanittuaq Sana

Inspector: Maryska Beauregard
Signature*:

Time on site (hrs): 12h
Travel time (hrs): —
Mileage (km): —

Project Manager: Daniel Pedneault, GHD

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maryska Beauregard

Drill #: TCG 5 9928

Date: 08-11-19

Day ☐
Night ☒

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
P-536,5	10,24	5,21	4,32	1,11		9,59	0,4	-0,35	BR: 9,45 Presence of water at 8m
T-539,5	10,13	5,31	4,37	0,85		9,57	0,4	-0,26	BR: 9,60 Presence of water at 7,5m
S-542,5	11,41	5,31	4,36			8,67	0,4	-0,30	BR: 9,59 No water
T-545,5	11,08	5,32	4,36			8,82	0,4	+0,16	BR. 9,46 No water (some ice)

Borehole No.: T-5395
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - Whale tail Pike
Project No.: 1120932-B1

Date start: 08-11-19
Date Finish: 08-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.57
DEPTH OF HOLE: 9.87
WATER LEVEL: 7.5 DATE: 08-11-19
PROBE No.: ____ TIME: ____

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Bobby Gagné
DRILL: TG 5 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level									Weather - 30°C Sunny & Sunny wind
Rockfill									
1@2									
0 - 20 mm									
± 6									
± 7 Presence of concrete dense									
7.5 water									presence of water at 7.5m until the end of the borehole but it was not much
0 - 20 mm mixed with concrete									
9.57 Bedrock									
9.87 end of borehole									

Remarks: The maximal depth is 10.13m and the bedrock is where it was expected (± 0,03m) in a competent rock.

Checked By: ____ DATE: ____

Borehole Field Report

Borehole No.: P-536,5
Elevation: ____

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - Whale Tail Lake
Project No.: 1120432-B1

Date start: 08-11-19
Date Finish: 08-11-19
Inspector: Maryska Barnegard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.59
DEPTH OF HOLE: 9.87
WATER LEVEL: 5 DATE: 08-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TC45 7928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ground level		0.4m to the top							weather -30°C snowing & strong wind
Rockfill									
1.620									
0-20 mm									
5 presence of water									The presence of the water was small and seems equally until the end of borehole.
8.0									
concrete									
9.59 Bedrock									
9.87 end of borehole									

Remarks: The maximum depth is 10.24m & the bedrock is reach where it was expected (± 0.14m) in a competent rock.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: S-542,5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCT
Project / Site: Amarug - Whale tail Bike
Project No.: 1204932 - B1

Date start: 08-11-19
Date Finish: 08-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.67
DEPTH OF HOLE: 8.97
WATER LEVEL: No Water DATE: 08-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Cagné
DRILL: TC45 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level									Weather: -30°C Shaving & Strong wind.
		0,4m on the top							
1@2 Rockfill									
0-20 mm									No trace of water.
6 Concrete									
									The concrete from 7m to the bedrock is mixed.
7 mixed.									
8.67 Bedrock									
8.97 end of borehole									

Remarks:
The bedrock is reach sooner than expected, about 0,92m difference. The rock is competent.

Maximal dept is 11.41m

Checked By: ____ DATE: ____

Borehole No.: T-5455
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - Whale Tail Dike
Project No.: 1204932-B1

Date start: 08-11-19
Date Finish: 08-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.67
DEPTH OF HOLE: 8.97
WATER LEVEL: ice @ 6 DATE: 08-11-19
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG5 9728

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		T 0.4m on the Top							Weather: -30°C, Snowing & strong wind. The wind is getting stronger each hours. It begin to be hard to work right now.
Rockfill									
1@2									
4.5									
concrete									
6									The soil here is really not solid. This is really easy to drill. We think this is red and maybe 5-20 mm or something like that. (Really hard to see the dust because the wind is pretty strong tonight).
8.67 Bedrock									
8.97 end of borehole									
Maximal depth 11.08m									

Remarks: The bedrock is supposed to be at 9.46m but we reach it much sooner at 8.67m (difference of 0.79m). The rock is not really competent in this borehole.

Checked By: ____ DATE: ____

Field Report

Client: F. GILBERT	**Date:** 2019-11-09 DAY SHIFT
Site: AMARUQ - WHALE TAIL DYKE	○ Excavation Bed Ver. ○ Sampling
Project: ~~H-004398-B~~ WHALE TAIL DYKE	○ Concrete ○ Reinforcing Steel
Project No.: 11204398-B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◉ Other: BOREHOLE CHECK + WIND

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-23 °C

Field Results:

- BOREHOLES P-5485, T-5515 AND S-5545 COMPLETED.
- ALL BOREHOLES REACH THE BEDROCK
- NOTE THE PRESENCE OF CONCRETE IN BOREHOLE S-5545 (SEE BOREHOLE FIELD REPORT)

Corrective actions to be taken:

Site Representative: _____ Inspector: HUGUES PUTMAN

From: _____ Signature*: Hugues Putman

Time on site (hrs): _____

Travel time (hrs): _____

Project Manager: _____ Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: H UOUBS Patrick

Drill #:

Date: 2019-11-09

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
P-549.5	11.3	5.31	4.37	2.14		9.85	0.40	1.16	BRK 9.6m NO WATER
T-551.5	11.2	5.32	4.37	1.90		9.87	0.40	1.00	SEE WATER AT 8.70 m
S-554.5	11.44	5.31	4.37	2.10		10.00	0.40	1.05	SEE WATER AT 9.30 m

PAGE ____ OF ____

Borehole No.: P-5485
Elevation:

Borehole Field Report

Client: F-GIL BEFT
Project / Site: AMAR-UQ - WHALE TAIL DYKE
Project No.: 1120439Z B1

Date start: 2019-1709
Date Finish: 2019-1709
Inspector: HUGUES POIRIER

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.185m
DEPTH OF HOLE: 10.76m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: JIMMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
~1.5m 0-70 mm									
									NO WATER
9.185m BEDROCK									
10.76m END OF HOLE									

Remarks: BIA EXPECTED AT 9.6m

Checked By: ____ DATE: ____

Borehole No.: T-551.5
Elevation: ____

Borehole Field Report

Client: FGILBERT
Project / Site: MMARVIK - WHITE TAIL DYKE
Project No.: 1204392 - B1

Date start: 2019-11-09
Date Finish: 2019-11-09
Inspector: HUGUES POTVIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.87m
DEPTH OF HOLE: 10.20m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: JBPROMY WBS
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
0 - 30 mm									
								MS1	WATER SEE AT APPROXIMATELY 9.7m DEPTH AFTER PUT AIR
9.87m BED ROCK									
10.20m									

Remarks: ____

Checked By: ____ DATE: ____

Borehole Field Report

Borehole No.: S-55415
Elevation: _____

Client: EGIBBCAT
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1130439?-?01

Date start: 2019-11-09
Date Finish: 2019-11-09
Inspector: HUGHES PERRY

DIAMETER OF HOLE — OVERBURDEN: _____ BEDROCK: 10.0 m
DEPTH OF HOLE: 10.35 m
WATER LEVEL: _____ DATE: _____
PROBE No.: _____ TIME: _____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: JBR-BMY WEST
DRILL: _____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCKFILL									
1.5 TO 7.0m — 0 - 70 mm									
~7.4m — PRESENCE OF CONCRETE									
9.0?m — BLUE?									
~9.24m — 0-70mm									
10.0m — BEDROCK									
10.35m — END OF HOLE									

Remarks: _____

Checked By: _____ DATE: _____

Field Report

Night shift

Client: Groupe Gilbert - KCS	Date: 09-11-19
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring ◉ Other: Borehole
Project: Whale tail Bike	
Project No.: 11204932-B1	

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-39 °C

Field Results:

After the hole P-557,5, we deplace all the materials to the new flags. From 8:15 to 9:05.

The rod fall at the moment that we want to put it down. No one was hurt! After that, we are very prudent & check 2 times to make sure the wire is put safely.

About 4:00, we have to call the mecanic because the hoses aren't in a good place. If we move the drill, we could broke them. (It takes 30 minutes to fix).

The hole S-518,5 will be finish by the day shift. (3rd casing only).

Corrective actions to be taken:

Site Representative: Alex Bailey
From: Qamanittuaq Sana
Project Manager: Daniel Pednault, GHD

Inspector: Maryska Beauregard
Signature*:
Time on site (hrs): 12h
Travel time (hrs): —
Mileage (km): —

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maryska Beauregard

Drill #: TC45 9928

Date: 09-11-19

Day ☐ Night ☒

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-557,5	11,25	5,30	4,31	2,04		10,13	0,4	-0,87	BR: 9,6 Presence of water at 8m
T-509,5	10,8	5,32	4,35	1,53		10,62	0,4	Ø	BR: 9,4 Presence of water at 9m
P-512,5	10,95	5,31	4,36	1,68		10,20	0,4	-0,45	BR: 9,4 Presence of water at 9,5m
T-515,5	10,99	5,31	4,37	1,71		10,09	0,4	-0,60	BR: 9,37 Presence of water at 9m
S-518,5	11,30	5,31	4,34	2,05*			0,4		BR: 9,45 not finish

* The 3rd casing of S-518,5 (2,05m) isn't in the borehole because we didn't have time to do it. It will be done by the day shift.

Borehole No.: T-557.5
Elevation: _____

Borehole Field Report

Client: Groupe Gilbert - KCT
Project / Site: Amaruq - Whale tail Bike
Project No.: 1120493 2-B1

Date start: 09-11-19
Date Finish: 09-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: _____ BEDROCK: 10.13
DEPTH OF HOLE: 10.53
WATER LEVEL: 8.0 DATE: 09-11-13
PROBE No.: _____ TIME: _____

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Bobby Gagné
DRILL: TC45 9128

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level									Weather -39°C Cloudy & strong wind But tonight we are able to work easily and see everything surround us. Last night was pretty crazy!
Rockfill									
1@2									
0-20 mm									
7									
concrete dense									
8 presence of water									
concrete mixed									
10.13 bedrock									
10.53 end of borehole									

Remarks: The maximal depth is 11.25m and the bedrock is reach 0,53m where it was expected. The rock is competent; water is presente until the end of borehole.

Checked By: _____ DATE: _____

Borehole No.: T-509.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq Whale tail dike
Project No.: 1120932-B1

Date start: 09-11-19
Date Finish: 09-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.62
DEPTH OF HOLE: 10.80
WATER LEVEL: 9.0 DATE: 09-11-19
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
[] RC Rock core

DRILLER: Bobby Cragne
DRILL: TG65 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level									weather -39°C Cloudy & Wind Snow begin 9:30.
Rockfill									
1(@2									
0-20 mm									
6.5									
concrete mixed.									Sometimes the concrete was more dense.
9.0 presence of water									
9.4 not competent bedrock.									At 9.4m we thought that we were in the bedrock, but the rock is really not competent. So we decide to try to reach it and we were able just before the rock competent
10.62 Bedrock									
10.80 end of borehole									

Remarks: The maximum depth is 10.8m and the bedrock was expected at 9.4m but the rock wasn't competent the competent bedrock at 10.62m

Checked By: ____ DATE: ____

Borehole No.: P5125
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert – KCJ
Project / Site: Amaruq - Whale tail Bike
Project No.: 1120493 2-B1

Date start: 09-11-19
Date Finish: 09-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10,2
DEPTH OF HOLE: 10,5
WATER LEVEL: 9,5 DATE: 09-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; [ ] RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TG45 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ground level		0							Weather -39°C
									~9.4m on the top
Rockfill									
		1,02							
0-20 mm ↓									
		7.2							
concrete ↓ mixed									
presence of water		9.5							
bedrock		10.2							
end of borehole		10.5							

Remarks: The maximal depht is 10.95m. The bedrock was expected at 9.4m but we actually reach it at 10.2 m, in a competent rock.

Checked By: ____ DATE: ____

Borehole No.: T-515.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCT
Project / Site: Amaruq - Whale tail Bike
Project No.: 1120432-B1

Date start: 09-11-19
Date Finish: 09-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Bobby Gagne
DRILL: TC45 9728

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Ground level									weather -39°C
				T 0.4m on the top					
Rock fill									
1.62									
0-20 mm									
7.8 concrete									
9 presence of water									
10.09 bedrock									
10.39 end of borehole									

Remarks: The maximal depth is 10.99 & the bedrock was 0.72m after the depht expected, the rock is competent.

Checked By: ____ DATE: ____

Borehole No.: S-518,5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCT
Project / Site: Amaruq - Whale tail Bike
Project No.: 1120493-2-B1

Date start: 09-11-13
Date Finish: ____
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 8,94
WATER LEVEL: no water DATE: 09-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TCG5 9788

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ground level			T	0,4m	on the top				weather -39°C
Rockfill									
0-20 mm ↓									
Concrete									
end of drilling									Day shift will do it.

1@2
6.5
8,94

Remarks: The maximal depht is 11,3m & we thought that the bedrock was at 8.64m (0,81 m sooner) but it appears that it wasn't bedrock. We didn't have time to finish it.

Checked By: ____ DATE: ____

Field Report

Client: F. GILBERT	**Date:** 2019-11-10
Site: AMARUQ - WHALE TAIL DYKE	○ Excavation Bed Ver. ○ Sampling
Project: WHALE TAIL DYKE	○ Concrete ○ Reinforcing Steel
	○ Compaction ○ Structural Steel
Project No.: 11206393-B1	○ Asphalt ○ Vibration Monitoring
	◎ Other: BOMB HOLE CHECK

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-24 °C

Field Results:

- WE COMPLETE BOREHOLE S-5185 (START AT THE NIGHT SHIFT).

- DUE TO THE MALFUNCTION OF THE HAMMER, BOREHOLE T-5315 WAS DEPLACED (A CASING OF ABOUT 5.0 m DEPTH AT BEST AT THE ORIGINAL LOCATION).
→ BOREHOLE P-534.5 MUST BE DEPLACED TO AT THE NIGHT SHIFT FOR THE SAME REASON (HAMMER MALFUNCTION).

→ BOREHOLE T-5315 WAS COMPLETED

* 4 BOREHOLES WERE SURVEY WITH THE INCLINOMETER *

Corrective actions to be taken:

Site Representative: _____ Inspector: HUGUES POTVIN

From: _____ Signature*: Hugues Potvin

Time on site (hrs): _____

Project Manager: _____ Travel time (hrs): _____

Mileage (km): _____

By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: HUGUES POTVIN

Drill #:

Date: 2019-11-10

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
S-518-5	11.3	SEE NIGHT SHIFT	2.18			2.00	0.40	1.31m	B.R. EXPECTED AT 9.5m, WATER SPILL AFTER AIR AT 2.00m
T-521-5	11.0	5.31	4.36	1.70		9.60m	0.40	1.04	B.R. EXPECTED AT 9.41m SPILL OR WATER AT 9.5m

Borehole Field Report

Borehole No.: S-5185
Elevation: ____

Client: EGIL BEAT
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1120439Z-B1

Date start: 2019-10-09 NIGHT SHIFT
Date Finish: 2019-10-10 DAY SHIFT
Inspector: HUGHES PERRIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ~ 10.3m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: BOMBAY + JALBAMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
SEE DAY SHIFT									
~10.0 BEDROCK									* WATER SPILL AFTER PUT AIR AT ~ 10.0 m
~10.3m									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-5715
Elevation: ____

Borehole Field Report

Client: EGIL RUDT
Project / Site: AMAP-UG - WHALE TAIL DUMP
Project No.: 1204392-B1

Date start: 2019-11-10
Date Finish: 2019-11-10
Inspector: AVOUBS PATRIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: JEREMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
NUCKPILL (BOWL AT 2.0'5 m)									MSI A BOWL AT 2.0'5 m
(.5 TO 2 m) 0 – 20 mm									
960 m BEDROCK									
993 END OF HOLE									

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Client: Groupe Gilbert - KCJ	**Date:** 10-11-19
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling
Project: Whale tail Bike	○ Concrete ○ Reinforcing Steel
Project No.: 1120493-B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◎ Other:

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-29°C

Field Results:

± 4:00 Am: the air hose is broke. we call the mecanic. we are Stand-by until the end of the shift, he need to change the hose. So, we clean our place and prepare the material for the day shift.

We came to the Sana building about 5:30 pm.

Corrective actions to be taken:

Site Representative: Alex Boily
From: Qarmanitlibeq Sana

Inspector: Marysia Beauregard
Signature*:

Time on site (hrs): 12h
Travel time (hrs):
Mileage (km):

Project Manager: Daniel Pedneault, GHD

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Marjolka Beauregard

Drill #: TCG5 9928

Date: 10-11-19

Day ☐ Night ☒

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
P-524,5	10,97	5,31	4,34	1,72		10,65	0,4	Ø	BR: 9,46 presence of water at 9,2m
T-527,5	11,22	5,28	4,37	1,97		9,65	0,4	-1,06	BR: 9,44 presence of water at 9m
S-530,5	10,99	5,32	4,36	1,71		9,18	0,4	-1,51	BR: 9,52 presence of water 8,5m
T-533,5	10,90	5,30	4,36	1,64					BR: 9,39 not finish *

* Only the casing 1st is drill into the ground.
the 3rd casing isn't cut but we wanted to try with the 1,51 of the last borehole.

PAGE ____ OF ____

Borehole No.: P-5245
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KGJ
Project / Site: Amaruq - Whale Tail Bike
Project No.: 1204932-B1

Date start: 10-11-19
Date Finish: 10-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.65
DEPTH OF HOLE: 10.95
WATER LEVEL: 9.2 DATE: 10-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Bobby Gagne
DRILL: TC45 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level				0.4m on the top					weather -29°C
Rockfill									
1.62									
permafrost									The soil was mixed with permafrost. A lot of ice & snow. We had the casing #1 in the hole and it was very hard to drill, it takes double time as usual.
4.5									
0 - 20 mm									
9.2 Presence of water									
10.65 Bedrock									
10.95 end of borehole.									

Remarks: The maximal depht is 10.97m and the bedrock is reach 1.19m after the depht expected.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-527,5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KGS
Project / Site: Amaruq - Whale tail Bike
Project No.: 1204932-B1

Date start: 10-11-19
Date Finish: 10-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 9,65
DEPTH OF HOLE: 9,95
WATER LEVEL: 9 DATE: 10-11-19
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TG45 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ground level		0,4m on the top							weather - 29°C
Rock fill									
1@2									
0-20 mm									
6									
concrete									
9,5									
9 presence of water									
9,65 Bedrock									
9,95 end of borehole									

Remarks: The maximal depht is 11,22m & the bedrock is reach where it was expected (difference of 0,21 m)

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: S-530.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - Whale tail Pike
Project No.: 1120493B-B1

Date start: 10-11-19
Date Finish: 10-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.18
DEPTH OF HOLE: 9.48
WATER LEVEL: 8.5 DATE: 10-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagne
DRILL: TCGS 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level									weather - 30°C
[0.4m on the Top									
Rock fill									
1@2									
0-20 mm ↓									
6									
concrete									
7									
8.5 presence of water									
9.18 Bedrock									
9.48 end of borehole									

Remarks: The maximal depth is 10.99m & the bedrock is reach 0.34m sooner than expected

Checked By: ____ DATE: ____

Field Report

Client: F. GILBERT, QUAMANITTUAQ	Date: 2019-12-11 DAY SHIFT
Site: AMARUQ, WHALE TAIL DYKE	○ Excavation Bed Ver. ○ Sampling
Project: WHALE TAIL DYKE	○ Concrete ○ Reinforcing Steel
	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
Project No.: 11204393 -B1	◉ Other: BOREHOLE CHECK + WIND

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-26 °C

Field Results:

WE WORK ON BOREHOLE T-533-S TODAY, THE BOREHOLE IS NOT FINISHED. WE HAVE REACHED THE DEPTH OF ABOUT 9.4 m.

- THE PRESENCE OF A BLOCK AT THE DEPTH OF ABOUT 4.5 m CAUSED THE LOST OF APPROXIMATELY 8.6 m OF CASING AT THE PLANNED LOCATION AND APPROXIMATELY 4.5 m AT A LOCATION NEARBY.
- WE WHERE ABLE TO CROSS THIS BLOCK WITHOUT TRAJECTORY DEVIATION AT A (3) THIRD LOCATION LOCATED NEARBY.

Corrective actions to be taken:

Site Representative: DALE BURTON
From: F. GILBERT, QUAMANITTUAQ
Project Manager: DANIEL PROMPAULT

Inspector: HUGUES POTVIN
Signature*: Hugues Potvin
Time on site (hrs): 13.0
Travel time (hrs):
Mileage (km):

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: HUGUES POTVIN

Drill #:

Date: 2019-11-11

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-533-5	10.9	5.31	4.37	1.16					MUT COMPLETED.

Borehole No.: T-533-5
Elevation:

Borehole Field Report

Client: F-GILBERT/
Project / Site: AMARUQ - WHALE-TAIL-DYKE
Project No.: 1120 4392 B1

Date start: 2019-11-10
Date Finish: NOT COMPLETED
Inspector: HUGUES PUTVIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: JÉRÉMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
ROCKFILL (PRESENCE OF SOME BOULDERS)									
~1.5 m — — — — — — —									
0 - 30 mm									
~4.5m — * BLOCK AT ABOUT 4.5 m DEPTH								¥	SEVERAL ATTEMPS WERE NEEDED TO CROSS THIS BLOCK (~4.5 m DEPTH) WITHOUT DEVIATION.
0 - 30 mm									
~9.40m — — — — — — —									
END OF DAY									

Remarks: * THE BOREHOLE IS NOT FINISHED *

NO WATER SEE TO THE DEPTH OF 9.40 m.

Checked By: ____ DATE: ____

Field Report

Night shift

Client: Groupe Gilbert - KCJ

Date: 11-17-19

Site: Amaruq

Project: Whale tail Like

Project No.: 1120433-B1

- ◯ Excavation Bed Ver.
- ◯ Concrete
- ◯ Compaction
- ◯ Asphalt
- ◉ Other: Borehole
- ◯ Sampling
- ◯ Reinforcing Steel
- ◯ Structural Steel
- ◯ Vibration Monitoring

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training

I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-32°C

Field Results:

For the station T-533,5, we drill only the 3rd casing (1.64 m) We didn't reach the bedrock so we drill to the maximal depth.

We move all the equipments for the others stations from 8:30 to 9:00

After we finished the last hole P-488.5, the bite falling into the hole. When we remove all the rods, we see only the adapter..

Corrective actions to be taken:

Site Representative: Eric Gagnon

From: Qamanittuaq Sana

Inspector: Maryska Beauregard

Signature*:

Time on site (hrs): 12h

Travel time (hrs): —

Project Manager: Daniel Pedneault, GHD

Mileage (km): —

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Marjoke Beauregard

Drill #: TC45 9928

Date: 11-11-19

Day ☐ Night ☒

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-533,5 *	10,90	5,30	4,36	1,64		∅	0,4	∅	BR: 9,39 presence of water at 9,5m
T-479,5	10,14	5,31	4,37	0,86		9,04	0,4	-0,8	BR: 9,40 presence of water at 8,9m
S-488,5	10,15	5,33	4,36			8,68	0,4	-0,31	BR: 9,38 no water
T-485,5	10,07	5,32	4,36	0,79		9,48	0,4	-0,29	BR: 9,32 presence of water at 8,5m
P-488,5	10,15	5,33	4,37	0,85		9,46	0,4	-0,39	BR: 9,37 presence of water at 8m

* The day shift wasn't able to finish the hole that we started for them. They make two others holes for this station, welding broke two times.

PAGE ____ OF ____

Borehole No.: T-533,5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - Whale tail Bike
Project No.: 1120432-B1

Date start: 11-11-19
Date Finish: 11-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: Ø
DEPTH OF HOLE: 10.90
WATER LEVEL: 9.5 DATE: 11-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TCG5 9988

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
									Weather -32°C The wind is strong & snowing.
Done by day shift, see Hugues Potvin Report for more informations (11-11-19)									
9.2 9.5 presence of a lot of water									Depth of hole they made during the day.
↓									They have made 3 holes for this station.
10.90 Depth max reach.									

Remarks: The maximal depth 10.90 m is reach & we didn't found the bedrock.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-479.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - Whale Tail Bike
Project No.: 1204932-B1

Date start: 11-11-19
Date Finish: 11-11-19
Inspector: Mareyska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: 9 DATE: 11-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; [ ] RC Rock core

DRILLER: Bobby Gagne
DRILL: TCG5 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							weather -32°C the wind is strong and snowing
Rockfill		0.4m on the top							
		1.62							we can see ice and snow in the cutting (dust made by the drill) so it's probably permafrost too.
0-20 mm ↓									
		6							
concrete (mixed in some place)									
		8.6							
presence of water		8.9							there is a lot of water at this depth.
Bedrock		9.04							
end of borehole		9.34							

Remarks: The maximal depth is 10.14m & the bedrock is reach 0.42m sooner than expected.

Checked By: ____ DATE: ____

Borehole No.: S-482.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Nivang - Whale tail Bike
Project No.: 1130432-B1

Date start: 11-11-19
Date Finish: 11-11-19
Inspector: Manyska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.68
DEPTH OF HOLE: 8.98
WATER LEVEL: no water DATE: 11-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ⊡ RC Rock core

DRILLER: Bobby Gagné
DRILL: TCG5 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							weather -32°C
									0.4m on the top
									Strong wind & snowing
Rockfill									
0-20mm									A little bit of snow in the hole.
presence of concrete		4.8							
		7							we see no water !
Bedrock		8.68							
end of borehole		8.98							

Remarks:
The maximal depth is 10.15m & we reach the bedrock 0.7m sooner than expected in a not competent rock

Checked By: ____ DATE: ____

Borehole No.: S-485,5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - Whale tail Pit Ke
Project No.: 1120932-B1

Date start: 11-11-19
Date Finish: 11-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.48
DEPTH OF HOLE: 9.78
WATER LEVEL: 8.5 DATE: 11-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC65 9728

STRATIGRAPHY	Depth (feet)	Depth (metres)	Sample State	Sample Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							Weather -32 °C
									0,4m on the top
									Strong wind & snowing.
Rockfill									We begin to have some difficulties to see surround us.
presence of permafrost									
0-20 mm									
7									
concrete									
8.5 presence of water									A lot of water.
9.48 Bedrock									
9.78 end of borehole									

Remarks: The maximal depth is 10,07m & the bedrock is reach 0,14m after the depth expected, in a competent rock.

Checked By: ____ DATE: ____

Borehole Field Report

Borehole No.: P 488,5
Elevation: ____

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - Whale tail Pike
Project No.: 1120432-B1

Date start: 11-11-19
Date Finish: ____
Inspector: Mareska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.46
DEPTH OF HOLE: 9.76
WATER LEVEL: 8 DATE: 11-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: Bobby Gagne
DRILL: TCG5 9758

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Ground Level		0							Weather -32°C
Rockfill									Strong wind & snowing
		0.4							0.4m on the top
	1&2								
0-20mm ↓ presence of permafrost.									
Concrete	7.5								
presence of water	8								The bite of the drill starting into the bedrock we use to remove all the rock we have the adaptor only.
Bedrock	9.46								
end of borehole	9.76								

Remarks: The maximal depth is 10.15 & the bedrock is reach where it was expected in a competent rock (difference of 0.11m)

Checked By: ____ DATE: ____

Field Report

DAY SHIFT

Client: F. GILBERT, TCO	**Date:** 2019-11-12
Site: AMARUQ	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring ◉ Other: BOREHOLE CHECK
Project: WHALE TAIL DYKE	
Project No.: 11208392-B1	

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-16 °C

Field Results:

BOREHOLES T-491.5, P-488.5, S-494.5, T-497.5, P-500.5. AND T-503.5 ARE COMPLETED TODAY. WE REACH THE BEDROCK IN ALL BOREHOLES. WE ALSO SEE WATER AFTER A WELDING STOP WHEN WE PUT AIR PRESSURE IN THE RODS.

NB: BOREHOLE P-488.5 WAS DRILLED NEARBY (AT THE EAST) OF IS ORIGINAL LOCATION (BECAUSE THE DRILLING BIT STAY IN THE MUD AT THE ORIGINAL POSITION)

Corrective actions to be taken:

Site Representative: DALE BURTON
From: QUAMANITTUAQ
Project Manager: DANIEL PEDNEAULT

Inspector: HUGUES POTVIN
Signature*: Hugues Potvin
Time on site (hrs): 12.0
Travel time (hrs):
Mileage (km):

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: HUGUES POTVIN

Drill #:

Date: 2019-11-12

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-491.5	10.0	5.31	4.36	0.70		9.74	0.40	—	B.R. EXPECTED AT 9.4m. WATER SEE AT ~9.5m
P-488.5	10.1	5.32	4.36	0.8		9.78	0.35	—	B.R. EXPECTED AT 9.4m. SEA WATER AT 9.30m
S-494.5	10.0	5.32	4.37	0.65		9.84	0.35	—	B.R. EXPECTED AT 9.4m, SEA WATER AT 9.0m
T-497.5	11.0	5.32	4.36	1.65		10.50	0.35	0.19	B.R. EXPECTED AT 9.5m, SEA WATER AT 9.5m
P-500.5	10.5	5.33	4.37	1.15		10.39	0.35	—	B.R. EXPECTED AT 9.5m, SEA WATER AT 9.0m
T-503.5	10.3	5.34	4.36	0.95		9.63	0.35	0.21	B.R. EXPECTED AT 9.3m. + SEA WATER AT 9.0m

Borehole Field Report

Borehole No.: T-491-5
Elevation: ____

Client: F. GILBERT, TCG
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 117 04398 - B1

Date start: 2019-11-13
Date Finish: 2019-11-13
Inspector: HUGUES POTVIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 10.0 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: SBA-EMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL, PRESENCE OF SOMES BLOCK									
1.5 - 2.5 m									
0 - 30 mm									NOTHING PARTICULAR IN THE 0-30 mm
									MEDIUM DRILLING DIFFICULTY
WATER SEEP AT 8.50 m AFTER PUT AIR (8.70) ↓									WATER SPILL AFTER PUT AIR PRESSURE AT ABOUT 8.50 m DEPTH
9.74 m BEDROCK									
10.0 m END OF HOLE									

Remarks: WE REACH THE MAXIMUM CUT, 0.25 m IN THE BEDROCK

BEDROCK WAS EXPECTED AT 9.4 m

Checked By: ____ DATE: ____

Borehole Field Report

Borehole No.: D-488-5
Elevation: ____

Client: GILBERT, +CC
Project / Site: AMAPUQ WHALE TAIL DYKE
Project No.: 1204398-B1

Date start: 2019-11-12
Date Finish: 2019-11-13
Inspector: HUGUES PUTMAN

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: ____
DEPTH OF HOLE: 10.13 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
SS Split spoon
ST Shelby tube
RC Rock core

TESTS

DRILLER: JEREMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
1.5 TO 3.0m									
0 - 3.0 mm									MEDIUM DRILLING DIFFICULTY
									MUTHING SPECIAL
SEE WATER AT 9.30m AFTER PUT AIR in CASING.									
9.30m →									
9.70m									
BED ROCK									
10.13m									

Remarks: WE REACH THE MAXIMUM CUT.

BEDROCK WAS EXPECTED AT 9.4 m

Checked By: ____ DATE: ____

Borehole Field Report

Borehole No.: S-4945
Elevation: ____

Client: F-GILBERT, TGC
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1120 4398 - B1

Date start: 2019-11-12
Date Finish: 2019-11-13
Inspector: HUGUES PUTNIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 10.0 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: SS Split spoon; ST Shelby tube; RC Rock core

DRILLER: JEREMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
0-30 mm									MEDINA DRILLING
									DIFFICULTY IN 0-30 mm
9.10 m WE SEE WATER AFTER PUT AIR IN CASING.									
9.14 m BED ROCK									
10.0 m END OF HOLE									

Remarks: WE REACH THE MAXIMUM CUT

B.R. EXPECTED AT 9.1 m.

Checked By: ____ DATE: ____

Borehole No.: T-499-15
Elevation: ____

Borehole Field Report

Client: F. GILBERT, TGC
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1204392-A1

Date start: 2019-11-12
Date Finish: 2019-11-13
Inspector: HUGUES POTVIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 10.8 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: ____
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
BACKFILL									
1.5 TO 3.0m — — — — —									
0 - 30 mm									
									* NOTHING SPECIAL *
									MB DRUM DRILLING DIFFICULTY
8.5m SEE WATER AFTER A STOP + AIR IN THE CASING									
10.5 m BEDROCK									
10.8 m END OF HOLE									

Remarks: WE MAKE 300 mm IN THE BEDROCK.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-500-5
Elevation: ____

Borehole Field Report

Client: E.GILBERT, TGL
Project / Site: AMAUD - WHALE TAIL DYKE
Project No.: 1120 4392 B1

Date start: 2019-11-12
Date Finish: 2019-11-12
Inspector: HUGUES PERRIN

DIAMETER OF HOLE: OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 10.50 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: JBAD MY MBS
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
~7.0m 0-20 mm									NOTHING SPECIAL
									MEDIUM DRILLING DIFFICULTY
~9.00m SEE WATER AFTER A STOP + AIR IN CASING									
10.30m BEDROCK									
10.50m END OF HOLE									

Remarks: WE REACH THE MAXIMUM CUT
BEDROCK EXPECTED AT 9.5m

Checked By: ____ DATE: ____

Borehole No.: T-5035
Elevation:

Borehole Field Report

Client: F-GILBERT - TGC
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1120 4392 - B1

Date start: 2019-11-12
Date Finish: 2019-11-13
Inspector: HUGUES PUMIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 9.93m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: JBRAMY WB
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
1.5 TO 2.0m — — — — — —									
0-20 mm									MOTTLED SPECIUM
									MEDIUM DENSE
									DIFFICULTY
~9.0m SEE WATER AFTER A STOP + AIR IN CASING									
9.63m									
< BEDROCK									
9.93m									
END OF HOLE									

Remarks: WB MADE 300 mm INTO THE BEDROCK.
BEDROCK EXPECTED AT 9.3m

Checked By: ____ DATE: ____

Field Report

Client: Groupe Gilbert - KCS

Site: Amaruq

Project: Whale tail Bike

Project No.: 11204932 - B1

Date: 12-11-19

- [ ] Excavation Bed Ver.
- [ ] Concrete
- [ ] Compaction
- [ ] Asphalt
- [x] Other: Borehole
- [ ] Sampling
- [ ] Reinforcing Steel
- [ ] Structural Steel
- [ ] Vibration Monitoring

I have: [x] my JSEAs [x] my PPE [x] Proper training

I see: [ ] Unexpected Hazards I need: [ ] an S-RAF?

-27°C

Field Results:

We call the mecanic 3 times for the drill.
→ Fork wasn't working anymore.
→ A bite of the rotation motor was broken.
→ The air hose had « dévissé » with the force of the drill.

4:30 AM → we are stand by for the fuel truck!
The compressor C-902 is 1/4 fuel, we didn't want/risk to have no fuel in the middle of the drilling.

Corrective actions to be taken:

Site Representative: Eric Gagnon

From: Qamanittuaq Sana

Inspector: Maryska Beauregard

Signature*:

Time on site (hrs): 12h

Travel time (hrs): —

Mileage (km): —

Project Manager: Daniel Pedneault, GHD

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maryska Beauregard

Drill #: TG5 9928 / C-902

Day ☐ Night ☒

Date: 12-11-19

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
S-506,5	10,92	5,32	4,36	1,04		9,67	0,35	-1,00	BR: 9,36 Presence of water at 7m
P-476,5	10,32	5,31	4,38	1,03		9,74	0,35	-0,33	BR: 9,45 Presence of water at 8,5m
T-473,5	10,22	5,33	4,37	0,87*		9,45	0,35	-0,47	BR: 9,34 Presence of water at 9m
P-452,5	10,90	5,32	4,36	1,57**		10,49	0,35	-0,34	BR: 10,06 Presence of water at 8,8m

* 3rd casing lenght is 0,97m, it's a cutting of an other casing.

** 3rd casing lenght is 1,80m, it's a cutting of an other casing

PAGE ____ OF ____

Borehole No.: S-506.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KGS
Project / Site: Amaruq - Whale tail Lake
Project No.: 1120493 2-B1

Date start: 12-11-19
Date Finish: 12-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.67
DEPTH OF HOLE: 9.97
WATER LEVEL: 7 DATE: 12-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TC65 9928 C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ground level		F 0,4m on the top							Weather - 27°C
Rockfill									A little bit cloudy
0-20 mm									
7 presence of water									In this borehole I see no concrete.
									The water is really present until the end of the hole.
9.67 Bedrock									
9.97 end of borehole									

Remarks: The maximal depth is 10,92m & the bedrock is reach 0,31m after the depth expected.

Checked By: ____ DATE: ____

Borehole No.: P-476.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - Kat
Project / Site: Amaruq - Whale tail Lake
Project No.: 1120493 2 - B1

Date start: 12-11-19
Date Finish: 12-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.74
DEPTH OF HOLE: 10.04
WATER LEVEL: 8.5 DATE: 12-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TCG5 #28 C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							Weather -27 °C
Rock fill		0.4m on the top							Cloudy, wind & snow
									A blizzard is start!
0-20 mm									
		6							
presence of concrete									
		7							
presence of water	8.5								
Bedrock	9.74								
End of borehole	10.04								

Remarks: The maximal depth is 10.32m & the bedrock is reach 0.29m later than expected in a competent rock.

Checked By: ____ DATE: ____

Borehole Field Report

Borehole No.: F-473,5
Elevation: ____

Client: Groupe Gilbert - KCJ
Project / Site: Amarreg - Whale tail Lake
Project No.: 1204932-B1

Date start: 12-11-19
Date Finish: 12-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.45
DEPTH OF HOLE: 9.75
WATER LEVEL: 9 DATE: 12-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC95 9728 C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0,4m on the top							weather -31°C the temperature is colder than the beginning of the shift. Cloudy, wind & snowing
Rockfill									
1 @ 2									
0-20 mm									
8 presence of concrete									there just a little presence of concrete in this hole.
9 Trace of water									
9.45 Bedrock									
9.75 end of borehole									

Remarks: The maximal depth is 10,22 & the bedrock is reach 0,11 m after the depth expected, in a competent rock.

Checked By: ____ DATE: ____

Borehole No.: PA 452.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KGS
Project / Site: Amaruq - Whale tail Bike
Project No.: 1204732-B1

Date start: 12-11-19
Date Finish: 12-11-19
Inspector: Maryse Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagne
DRILL: TC45 7758 C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Ground level		0							weather -32 °C
									Cloudy, wind ++ Snowing
Rockfill									
1.02									
0-20mm									In the first 5m, we can't see the mixed with the 0-20mm.
presence of ice - permafrost -									
5									
6.7									
concrete									
Bedrock									
End of borehole									

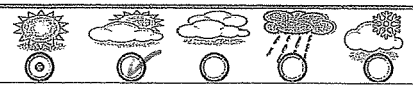
Remarks: The maximal depth is 10,90m & the bedrock

Checked By: ____ DATE: ____

Field Report

Client: FIGILBERT, TGC	**Date:** 2019-11-13 DAY SHIFT
Site: AMARUQ, WHALE TAIL DYKE	◎ Excavation Bed Ver. ◎ Sampling
Project: WHALE TAIL DYKE	◎ Concrete ◎ Reinforcing Steel
Project No.: 11135429-A1	◎ Compaction ◎ Structural Steel
	◎ Asphalt ◎ Vibration Monitoring
	◉ Other: BOREHOLE CHECK

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?



-16 °C

Field Results:

BOREHOLES P-452-15, P-368-15, T-371-15 AND S-374-15 ARE COMPLETED DURING THE DAY SHIFT. ALL THE BOREHOLES REACH THE BEDROCK.

SEE BOREHOLE FIELD REPORTS FOR MORE DETAILS

NB: THE DRILLING BIT WAS CHANGED BEFORE ~~BEGINING~~ BEGINING BOREHOLE S-374-15.

Corrective actions to be taken:

Site Representative: DALE BURTON
From: QUAMANITTUAQ

Inspector: HUGUES POTVIN
Signature*: Hugues Potvin
Time on site (hrs): 10.0
Travel time (hrs):
Mileage (km):

Project Manager: DANIEL PEDNAULT

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: HUGUES POTVIN

Drill #:

Date: 2019-11-13

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
P-452.5	10.9	5.33	4.36	1.55		9.48	0.35	1.08	B.R. EXPECTED AT 10.4 m
P-360.5	19.0	5.33	4.36	4.36	4.36	15.13	0.35	2.63	B.R EXPECTED AT 14.7 m SEE WATER AT 9.0 m (AIR IN CASING)
T-371.5	14.0	5.32	4.36	4.37		12.55	0.35	0.80	B.R: EXPECTED AT 13.4 m SEE WATER AT 9.20 (AIR IN CASING)
S-374.5	11.9	5.33	4.37	2.55		11.09	0.35	0.46	B.R. EXPECTED AT 11.3 m

Borehole No.: BH-459.5
Elevation: ____

Borehole Field Report

Client: E-GILBERT / TGC
Project / Site: AMARUP, WHALE TAIL DUMP
Project No.: 1120439.2 - B1

Date start: 2019-11-13
Date Finish: 2019-11-15
Inspector: HUGUES POTVIN

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: ____
DEPTH OF HOLE: 9.78 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
[] RC Rock core

TESTS

DRILLER: JEREMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
1.5 TO 2.0 m — 0 - 20 mm									
								MB	NO WATER SEEP DURING THE DRILLING
~9.48 m BEDROCK									
9.78 m END OF HOLE									

Remarks: BEDROCK WAS EXPECTED AT 10.1 m
WB STOP AFTER 300 mm INTO THE BEDROCK.

Checked By: ____ DATE: ____

Borehole No.: P-3685
Elevation:

Borehole Field Report

Client: FIGILBERT, TGC
Project / Site: AMARUQ, WHALE TAIL DYKE
Project No.: 1120439?-B1

Date start: 2019-11-13
Date Finish: 2019-11-13
Inspector: AVONDS PARNA

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 15.43 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: JBABMX WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
~1.5m 0 - 20 mm									
~9.0m WB SBR WATER AFTER A STOP T AIR IN CASING									WATER SEE AT ~9.0m (WITH AIR IN CASING)
15.03m BEDROCK									
15.43m END OF HOLE									

Remarks: BEDROCK EXPECTED AT 14.7m

WB STOP AFTER 300 mm IN THE BEDROCK

Checked By: ____ DATE: ____

Borehole No.: T-3715
Elevation: ____

Borehole Field Report

Client: FIGILBERT, TBC
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1120439Z-B1

Date start: 2019-11-13
Date Finish: 2019-11-13
Inspector: HUGUES POTVIN

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: ____
DEPTH OF HOLE: 12.90m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: JEREMY WEBSTER
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
MUCK FILL									
2.0m BOULDER 0-20 mm									
~2.3m									
~9.20m WATER (X LOT) SEEP AFTER A STOP + AIR IN CASING.									WATER (A LOT) SEEP AT ABOUT 9.20m AFTER A STOP + AIR IN CASING. MB
12.55m x BED MUCK									
~12.90m END OF HOLE									

Remarks: BEDMUCK EXPECTED AT 13.4m.

Checked By: ____ DATE: ____

Borehole No.: S-3724-13
Elevation: ____

Borehole Field Report

Client: EIGLBART, TGC
Project / Site: AMARUQ, WHALE TAIL DYKE
Project No.: 117 04397-B1

Date start: 2019-11-13
Date Finish: 2019-11-13
Inspector: HUGUES PERRIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 11.39 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: JBPBMX WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCKFILL									
1.5 TO 2.0m — — — — — — — —									
0 - 80 mm									
									NB: NO WATER SEEN DURING DRILLING
11.03m — BEDROCK									
11.39m — END OF HOLE									

Remarks: BEDROCK EXPECTED AT 11.3 m

Checked By: ____ DATE: ____

Field Report

Night shift

Client: Groupe Gilbert - KCJ

Date: 13-11-19

Site: Amaruq

Project: Whale tail Bike

Project No.: 12049332-B1

- [ ] Excavation Bed Ver.
- [ ] Concrete
- [ ] Compaction
- [ ] Asphalt
- [ ] Sampling
- [ ] Reinforcing Steel
- [ ] Structural Steel
- [ ] Vibration Monitoring
- [x] Other: Borehole

I have: [x] my JSEAs [x] my PPE [x] Proper training

I see: [ ] Unexpected Hazards I need: [ ] an S-RAF?

-38 °C

Field Results:

During the first hole T-377.5, Bobby and I remark the bite make a strange sound. We'll need to change it very soon.

The hole T-389.5 just have to first & 2nd casing. the rest will be done by the dayshift.

Corrective actions to be taken:

Site Representative: Eric Gagnon

From: Qamanittuaq Sana

Inspector: Mareyska Beauregard

Signature*:

Time on site (hrs): 12h

Travel time (hrs): —

Project Manager: Daniel Pedneault, GHD

Mileage (km): —

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maryska Beauregard

Drill #: TCG5 9928 / 0902

Date: 13-11-19

Day ☐ Night ☒

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-377,5	11,89	5,32	4,30	2,56		11,33	0,35	-0,26	BR: 10,93 presence of water at 10m
P-380,5	11,29	5,33	4,37	1,94*		Ø	0,35	-1,21	BR: 10,64 trace of water at 8m
T-383,5	12,30	5,33	4,30	3,02		11,64	0,35	-0,42	BR: 11,55 presence of water at 9m
S-386,5	13,28	5,32	4,36	3,95		12,60	0,35	-0,32	BR: 11,80 presence of water at 8,5m
T-389,5	11,47	5,32	4,37	2,13			0,35		BR: 10,75
↳						2nd			
↳	We just put the first casing, the others will done by the dayshift.								

* casing lenght is 2,80m

PAGE ____ OF ____

Borehole No.: F-377.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KGS
Project / Site: Amaruq - Whale tail Bike
Project No.: 1204932-B1

Date start: 13-11-19
Date Finish: 13-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 11.33
DEPTH OF HOLE: 11.63
WATER LEVEL: 10 DATE: 13-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: IC95 9928 C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level									weather - 38°C Beautiful night
Rock fill									
1@2									
0-20mm									in the middle of the hole the bite start to make a strange sound. The bits seem to have less efficacity for drilling.
6									
presence of concrete mixed									
9									
10 presence of water									
11.33 Bedrock									
11.63 end of borehole									

Remarks: The maximal depth is 11,89m & the bedrock is reach 0,4m after the depth expected

Checked By: ____ DATE: ____

PAGE _____ OF _____

Borehole No.: P-380.5
Elevation: _____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amarrug - Whale tail like
Project No.: 112 04932-B1

Date start: 13-11-19
Date Finish: 13-11-19
Inspector: Mariska Beauregard

DIAMETER OF HOLE — OVERBURDEN: _____ BEDROCK: —
DEPTH OF HOLE: 11.29
WATER LEVEL: 8 DATE: 13-11-19
PROBE No.: _____ TIME: _____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: ICG 5 9928 C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level									weather - 38°C
Rock fill									
0-20 mm									
presence of remblai									
trace of water									From 6 to 8m until the end of borehole we can see water. BUT... in the end there is a lot of water.
a lot of water									
end of borehole									

1@2
5
6
8
11.29

Remarks: The maximal depth is 11.29m & we didn't reach the bedrock.

Checked By: _____ DATE: _____

Borehole Field Report

Borehole No.: T-383,5
Elevation:

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - Whale tail Bike
Project No.: 1120432-B1

Date start: 13-11-19
Date Finish: 13-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11.64
DEPTH OF HOLE: 11.94
WATER LEVEL: 9 DATE: 13-11-19
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Bobby Gagné
DRILL: TCG 5928 C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level									weather - 38°C
									0.4m on the top
Rockfill									
0-20 mm									
									In this station I didn't see concrete!
9 Presence of water									
11.64 Bedrock									
11.94 end of borehole									

Remarks: The maximal depth is 12,36m & the bedrock is reach 0,09m later than expected

Checked By: DATE:

PAGE ____ OF ____

Borehole No.: S-3825
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCT
Project / Site: Amaruq - Whale Tail Pike
Project No.: 1204932-B1

Date start: 13-11-19
Date Finish: 13-11-19
Inspector: Marjska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 12.66
DEPTH OF HOLE: 12.96
WATER LEVEL: 8.5 DATE: 13-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: Bobby Cayen
DRILL: TC65 7925 C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ground level		0							weather - 38°C
				0.4m on the top					
Rock Pill									
1.22									
0-20 mm									
8.5 presence of water									
9									
presence of concrete mixed									
10									
12.66 Bedrock									
12.96 end of borehole									

Remarks: The maximal depth is 13,28 m & the bedrock is reach 0,8m after the depth expected.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-389.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amarrag - Whale Tail Mine
Project No.: 1120432-B1

Date start: 13-11-19
Date Finish: 13-11-19
Inspector: Manuela Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Groome
DRILL: TCS 4728 C-912

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							weather - 38°C
Rockfill									
1 (02)									
0-20 mm									
6									
presence of concrete mixed									
8									
Bedrock									
end of borehole									

will be done by the day shift

Remarks: The maximal depth is 11,47m & the bedrock.

Checked By: ____ DATE: ____

KIVALLIQ CONTRACTORS GROUP LTD

Casing Drilling Follow Up

	Date Casing Drilling	PM Station	(D/N,D,N)	Total Hole Per Day	Total (m)
DOWNSTREAM	02.11.2019	P-740.5, P-728.5,P704.5	D	3	29.74
	03.11.2019	T-725.5,T-722.5,T-701.5,S-698.5,S-695.5,T-749.5,S-746.5,T-743.5,T-737.5,T-734.5,T-731.5	D	11	111.22
	04.11.2019	P-692.5,T-689.5,S-686.5,T-683.5,P-680.5	N	5	53.64
	05.11.2019	T-677.5,P-644.5,T-647.5,S-650.5,T-653.5,P-656.5, T-659.5	D/N	7	82.23
	06.11.2019	S-662.5,T-665-5,P-668.5,T-611.5,S-614.5,T-617.5,P-620.5	D/N	7	81.44
	07.11.2019	T-623.5,S-626.5,T-629.5,P-632.5,T-635.5,S-638.5,T-641.5,P-596.5	D/N	8	85.17
	08.11.2019	P-596.5,T-599.5,S-602.5,T-605.5,P-536.5,T-539.5,S-542.5,T-545.5	D/N	8	89.72
	09.11.2019	P-548.5,T-551.5,S-554.5,T-557.5,T-509.5,P-512.5,T-515.5	D/N	7	76.30
	10.11.2019	S-518.5,T-521.5,P-524.5,T-527.5,S-530.5,T-533.5	D/N	6	52.66
	11.11.2019	T-533.5,T-479.5,S-482.5,T-485.5,P-488.5	D/N	5	50.76
	12.11.2019	T-491.5,P-488.5,S-494.5,T-497.5,P-500.5,T-503.5,S-506.5,P-476.5,T-473.5	D/N	8	83.95
	13.11.2019	P-452.5,P-368.5,T-371.5,S-374.5,T-377.5,P-380.5,T-383.5,S-386.5	D/N	8	99.85
	Totals:			83	896.68

Figure 1 - Casing Drilling Day to Day Follow Up

Downstream Objective:		Upstream Objective:	
10 holes/day	100.5 m/day	10 holes/day	102.82 m/day
192 holes	Total = 1930.40 m (with stick-up)	383 holes	Total = 3937.89 m (with stick-up)

Figure 2 - Objectives

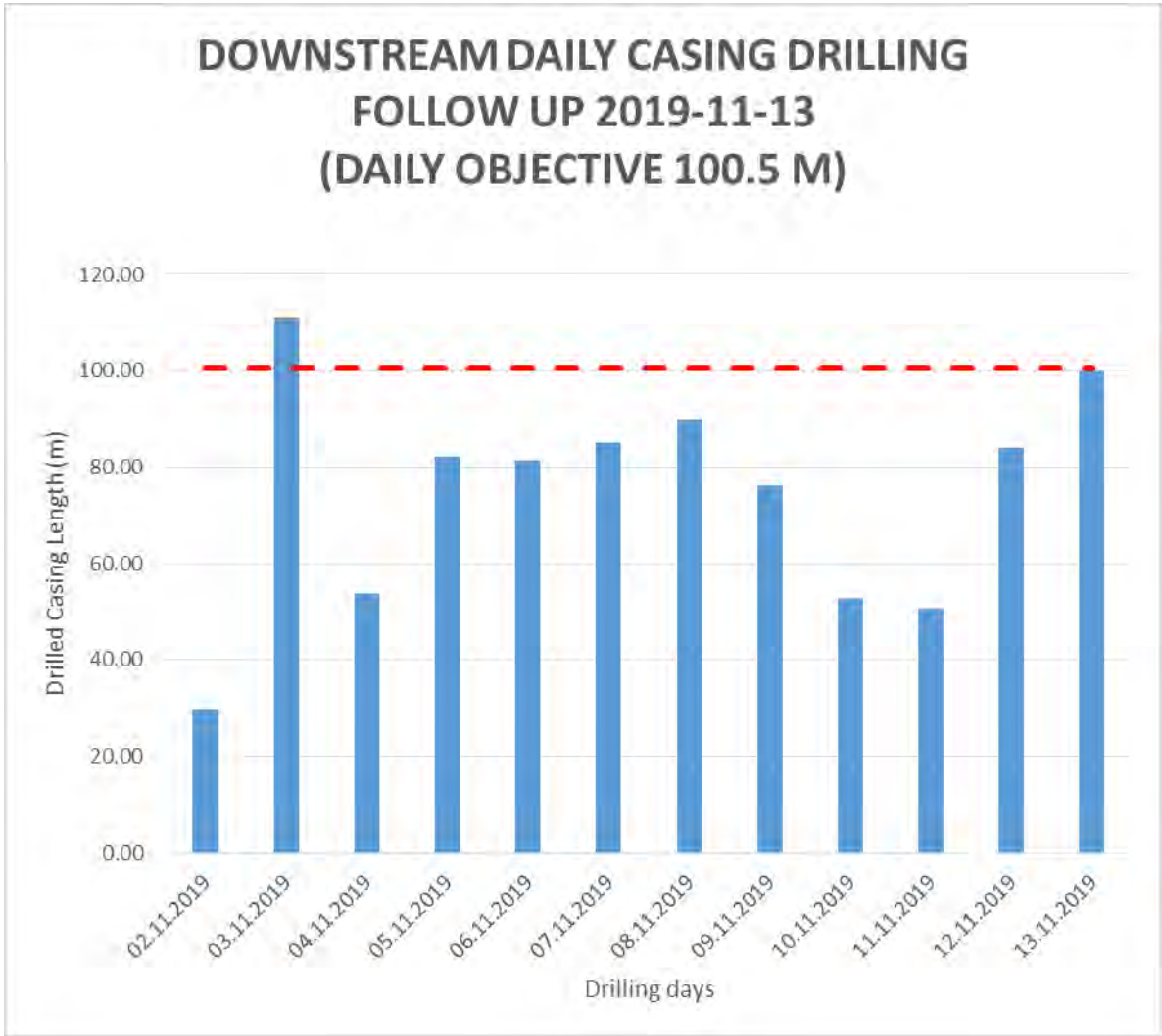


Figure 3 - Casing Drilling Performance vs Objective

Field Report

Client: F-GILBERT, TGC	**Date:** 2019-11-14 DAY SHIFT
Site: AMARUQ - WHALE TAIL DYKE	○ Excavation Bed Ver. ○ Sampling
Project: WHALE TAIL DYKE	○ Concrete ○ Reinforcing Steel
Project No.: 113-04933-B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◉ Other: BOREHOLE CHECK WIRE

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-24 °C

Field Results:

~~BOREHOLES~~ T-389.5 WAS COMPLETED (START AT NIGHT SHIFT).

+ ~~BOREHOLES~~ P-392.5, T-395.5 WERE COMPLETED DURING THE DAY SHIFT.

* BOREHOLE S-398.5 WAS STOP AT ~5.0m DEPTH BECAUSE BAD WHEATHER CONDITIONS + WIND (TO BE COMPLETED

NB: WE LOST 2.2m OF CASING WITH A BIT IN THE BOTTOM AT THE ORIGINAL LOCATION OF T-395.5, REDRILL A LITTLE BIT AT THE EAST.

Corrective actions to be taken

Site Representative: DALE BURTON
From: QUAMANITTUAQ
Project Manager: DANIEL PEDNAULT

Inspector: HUGUES PERRON
Signature*: [signature]
Time on site (hrs): 12.0
Travel time (hrs):
Mileage (km):

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Hugues Pomin

Drill #:

Date: 2019-11-14

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-389.5	11.47	NIGHT	SHIFT	2.05		NO	0.35	—	BIR EXPECTED AT 10.7m
P-390.5	12.07	5.33	4.37	2.75		NO	0.35	—	BIR EXPECTED AT 11.07m
				2.75					
T-395.5	12.32	5.33	4.36	2.95		12.06	0.35	—	BEDROCK EXPECTED AT 11.48m
S-398.5	12.00	5.33	4.37	2.62					TO BIR FINISHED

MBL T-389.5 START DURING THE NIGHT SHIFT

S-398.5 IS NOT FINISHED (BAD WHEATHER CONDITIONS) → WIND +

Borehole No.: ~~K-38915~~
Elevation: T-38915

Borehole Field Report

Client: E GILBERT, T&C
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1204932-B1

Date start: 2019-11-13 NIGHT SHIFT
Date Finish: 2019-11-14 DAY SHIFT
Inspector: HUGUES POTVIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 211.47m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: BOBBY + JEREMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
SEE NIGHT SHIFT REPORT									
0 - 30 mgm									-SEE A LITTLE WATER AT 9:30m AFTER WELDING STOP + AIR IN CASING
211.47m END OF HOLE									

Remarks: WE DIDN'T REACH THE BEDROCK.
BEDROCK EXPECTED AT 10.7m
-STOP AT THE MAXIMUM CUP

Checked By: ____ DATE: ____

Borehole No.: P3915
Elevation: ____

Borehole Field Report

Client: F. GILBERT, T&C
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1120493J -B1

Date start: 2019-11-14
Date Finish: 2019-11-14
Inspector: HUGUES POMIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 17.10m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: JEREMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
1.5 to 2.0m									
0 - 20 mm									
								MB	1 WR NUT SIZE WATER WHEN WE DRILL IT
17.10m									
END OF BOREHOLE									

Remarks: WE STOP AT THE MAXIMUM CUT DEPTH
BEDROCK EXPECTED AT 11.07m DEPTH

Checked By: ____ DATE: ____

Borehole No.: BH-395-5
Elevation: ____

Borehole Field Report

Client: FIGILBERT, TGC
Project / Site: AMARUQ - WHALE TAIL DYKE
Project No.: 1120493Z-B1

Date start: 2019-11-14
Date Finish: 2019-11-14
Inspector: HUGUES PERRIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 12.32m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: SIB MB MY WBAT
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
1.15 TO 2.10m — — — — — —									
0 - 20 mm									
									MB: NO WATER SEEN DURING THE DRILLING
12.06m BEDROCK									
12.32m END OF HOLE									

Remarks: * BEDROCK EXPOSED AT 11.48m DEPTH.
* BOREHOLE DEPICTED NEARBY AT THE EAST OF IS OPTIONAL LOCATION.

Checked By: ____ DATE: ____

Borehole No.: S-3985
Elevation: ____

Borehole Field Report

Client: FGILBERT, TGC
Project / Site: AMARUD - WHALE TAIL DYKE
Project No.: 11204932 B1

Date start: 2019-11-14
Date Finish: TO BE FINISHED
Inspector: HUGUES POTVIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: JEREMY WEST
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCK FILL									
1.5 TO 2.0m									
0 - 20 mm									
END OF DAY AT 25.00m TO BE FINISH									

Remarks: BEDROCK EXPECTED AT 1.3 m
BOREHOLE NOT FINISHED DURING THE DAY SHIFT DUE TO VERY BAD WHEATHER CONDITION

Checked By: ____ DATE: ____

Field Report

Night shift

Client: Groupe Gilbert - KCJ	**Date:** 4-11-19
Site: Amaruq	◎ Excavation Bed Ver. ◎ Sampling ◎ Concrete ◎ Reinforcing Steel ◎ Compaction ◎ Structural Steel ◎ Asphalt ◎ Vibration Monitoring
Project: Whale Tail Pit	◎ Other: Borehole
Project No.: 11204732-B1	

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-30 °C

Field Results:

When we verified the verticality of the hole B-398,5, North is ok, but west is a little bit too much on the right. It's too late for us, we can't put the casing right now. There is already 5m drill.

we begin about 9:00pm because there had an accident with a long haul.

Our last hole T-407.5 isn't finish, the day shift will must drill the 3rd casing (4.48 m).

Corrective actions to be taken:

Site Representative: Eric Gagnon
From: Qamanittuaq Sana
Project Manager: Daniel Rancourt, GHD

Inspector: Marynka Beauregard
Signature*:
Time on site (hrs): 12h
Travel time (hrs):
Mileage (km):

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maryska Fournegard

Drill #: ICE 9128 / E-902

Date: 14-11-19

Day ☐ Night ☒

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
S-398.5	12.08	5.33	4.37	2.73		10.95	0.35	-0.83	BR: 11.30 No water
T-401.5	12.78	5.33	4.36	2.84		11.96	0.35	-0.82	BR: 11.00 presence of water at 9.5m
P-404.5	13.44	5.32	4.36	4.11		Ø	0.35	Ø	BR: 12.42 presence of water at 8.5m
T-407.5	13.82	5.33	4.36	4.48					BR: 13.02 NOT FINISH
				↳	not prepared.				

Borehole No.: S-378.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KGT
Project / Site: Amaruq - Whale Tail Pike
Project No.: 1120432-B1

Date start: 14-11-19
Date Finish: 14-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.95
DEPTH OF HOLE: 11.25
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TC45 9928 C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ground level		0.4m on the top							weather -30°C
Section done by dayshift									
5									
0 - 20 mm									
Presence of concrete									
10.95 Bedrock									
11.25 end of borehole									

Remarks: The maximal depth is 12.08m & the bedrock is reach 0.35 m soon than expected in a competent rock.

Checked By: ____ DATE: ____

Borehole No.: T-401.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - RCT
Project / Site: Amaruq - Whale Tail Pit Lake
Project No.: 1204932-B1

Date start: 14-11-19
Date Finish: 14-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: Bobby Crayne
DRILL: TC45 9928-C-902

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ground level	0							weather - 30°C
Rockfill	0.4 cm the top							
0-20mm								
	7							
Presence of concrete mixed with	9							
Bedrock	11.0							
end of borehole	11.3							

Remarks: The maximal depth is 12,18m & the bedrock is reach where it was expected (difference 0,60m)

Checked By: ____ DATE: ____

Borehole No.: P-4045
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCT
Project / Site: Amaruq - Whale tail Dike
Project No.: 1204932-B1

Date start: 14-11-19
Date Finish: 14-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 13.44
WATER LEVEL: 8.5 DATE: 14-11-19
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Bobby Gregoire
DRILL: TC45 7728 C-902

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							weather - 28°C
									0.4m on the top
Rock fall									
		1							
		2							
0-20mm									
		4							
4.8 some ice									
		6							
concrete									
		8							
8.5 presence of water									there is a lot of water until the end of borehole.
		10							
		12							
13.44 end of borehole									

Remarks: The maximal depth is 13.44m & the bedrock isn't reach.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-407.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - Whale tail Dike
Project No.: 1120432-B1

Date start: 14-11-19
Date Finish: ____
Inspector: Marysika Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC45 7738 C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							weather -28°C
									0.4m on the top
Rockfill									
1622									
0-20 mm									

Field Report

Day shift

Client: Qamanittuq Sana	Date: 15-12-19
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling
Project: Whale tail Dike	○ Concrete ○ Reinforcing Steel
Project No.: 12204932-B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◎ Other:

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☒ Unexpected Hazards I need: ☒ an S-RAF?

-20 °C

Field Results:

Drilling Shift

T: 407.5

S- 362.5

P-332.5

S-338.5 (no Roc)

T- 341.5

P- 344.5 (No Roc)

T- 347.5 (not Finish on the day Shift)

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: _____

Inspector: JPCarton

Signature*: _____

Time on site (hrs): _____

Travel time (hrs): _____

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: JPBF

Drill #:

Day ☒ Night ☐

Date: 2019-11-15

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
407,5	13,80	5,3	4,3	4,3	—	12.0	0,35	1,30	Night / Day
S 362,5	16.1	5.3	4,3	4,3	2.5	15.60	0,35	0,15	WATER 14,0M
332.5	12.0	5,3	4,3	2,80	—	11,40	0,35	0,30	NO WATER
S- 338,5	12,8	5,3	4,3	3,5	—	NO	0,35	—	NO ROC, NO WATER
T- 341.5	12,8	5,3	4,3	3,5	—	12,0	0,35	0,4	NO WATER,
D-344,5	13,0	5,3	4,3	3,7	—	NO	0,35	—	NO ROC WATER 13,0M
T 347.5	13,3	5.3	4,3	4,10	—				Not Finish Day Shift

Borehole No: PB32.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale tail Dike
Project No.: 1120439281

Date start: 2019-11-15
Date Finish: 2019-11-15
Inspector: JPBF

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 11,40
DEPTH OF HOLE: ~~11,0~~ 11,70
WATER LEVEL: — DATE: 2019-11-15
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: S. Bretan
DRILL: IG 599 28

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
Rayfill									
Sand and Stone (~0-20mm)									Medium Diffiwty Drilling
									NO WATER At the time OF Drilling
Bed Roc Level 11,40m									
End OF Hole 11,70m									

Remarks: 300 mm in the Roc
No water on the Drilling

Checked By: DATE:

PAGE ____ OF ____

Borehole No.: S-338, 5
Elevation: ____

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale tail Dike
Project No.: 1204392 B1

Date start: 2019-11-15
Date Finish: 2019-11-15
Inspector: JRBF

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: NO
DEPTH OF HOLE: 12,80 M
WATER LEVEL: — DATE: 2019-11-15
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
RC Rock core

TESTS

DRILLER: S. Bicton
DRILL: TG59928

STRATIGRAPHY	Depth feet / metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill								
Gravel 0-20mm								NO WATER At the time of Drilling
								NO ROC
12,80M END OF the Hole	12,80M							

Remarks: NO WATER and NO ROC
we reached the maximum

Checked By: ____ DATE: ____

Borehole No.: T-341,5
Elevation: ___

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale tail Dike
Project No.: 1124392-B1

Date start: 2019-11-15
Date Finish: 2019-11-15
Inspector: JPBF

DIAMETER OF HOLE — OVERBURDEN: ___ BEDROCK: 12.04
DEPTH OF HOLE: 12.30 M
WATER LEVEL: — DATE: 19-11-15
PROBE No.: ___ TIME: ___

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: S. Breton
DRILL: TC65928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill 0-200mm Gravel									
MUD and Stone		11.0							
Bed Rock 12.0 M		12.0							
END OF HOLE 12.30M									

Remarks: NO WATER AT the time to Drilling
300 mm in the Roc

Checked By: ___ DATE: ___

Borehole No.: P-344.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale tail Dike
Project No.: 1204392-B1

Date start: 2019-11-15
Date Finish: 2019-11-15
Inspector: JpBF

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: — NO
DEPTH OF HOLE: 13.00 M
WATER LEVEL: 13.0M DATE: 19-11-15
PROBE No.: TIME:

SAMPLE
SS Split spoon
ST Shelby tube
RC Rock core

TESTS

DRILLER: S. Breton
DRILL: TC659428

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
Recfill									
0-200mm Gravel									
WATER		13.0 M							WATER Level Little Bit
End of Hole		13.00 M							

Remarks: We reached the maximum
NO Rac
WATER Level 13.0M

Checked By: DATE:

Borehole No.: T-347 S

Elevation:

Borehole Field Report

Client: A Sanca

Project / Site: Amaruq Whaletail Dike

Project No.: 1204342 B1

Date start: 2019-11-15

Date Finish: 2019-11-15

Inspector: JPBF

DIAMETER OF HOLE — OVERBURDEN:

BEDROCK:

DEPTH OF HOLE: — Not

WATER LEVEL: — DATE: Finish

PROBE No.: TIME: the Hole

SAMPLE

- SS Split spoon
- ST Shelby tube
- RC Rock core

TESTS

DRILLER: S. Breton

DRILL: LG 59428

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock fill Gravel 0-200mm									
5.30m end of the First casing									

Remarks: the Hole is not Finish on the Day Shift

Checked By: DATE:

Borehole No.: JS62.5
Elevation:

Borehole Field Report

Client: SANA
Project / Site: Amaruq Whale tail Dike
Project No.: 1120439 92-BJ

Date start: 2019-11-15
Date Finish: 2019-11-15
Inspector: JPBF

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 15,60
DEPTH OF HOLE: ~~15,~~ 15,90
WATER LEVEL: 14,0 DATE: 2019.11.15
PROBE No.: TIME:

SAMPLE
SS Split spoon
ST Shelby tube
RC Rock core

TESTS

DRILLER: S. Bretan
DRILL: TG5 9928

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockpille		1							
		2							
		3							
		4							
		5							medium Drilling Difficulty
		6							
Stone and Sand (gravel) 0-20		7							
		8							
		9							
		10							
		11							
14.0 WATER LEVEL		12							
		13							
		14							
Bedroc 15.60m →		15							
		16							← End of Hole 15,90m

Remarks: Bed Roc 15,60 M
WATER 14,00 M
Secad cut C,15 M

We make to 300 mm into the Bed Roc

Checked By: DATE:

Borehole No.: 1073

Elevation:

Borehole Field Report

Client: Scna

Project / Site: Amarug whale tail Dike

Project No.: 1120 4392 B1

Date start: 2019-11-14 15

Date Finish: 2019-11-14 15

Inspector: JD BF

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 12.00

DEPTH OF HOLE: 12.30 m

WATER LEVEL: ____ DATE: ____

PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: Stephane Breton

DRILL: TCG 5792 E

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
See Night Shift Rapport	1–12		S						NO WATER at the time of Drilling
Roc Level	12								Bed Roc 12.00 m
End of Hole 12.30 m	13								

Remarks: We make 300 mm into the Bed Roc
second cut 1.30 m

Checked By: JDBF

DATE: 2019-11-15

Field Report

Night shift

Client: Scna	**Date:** 15-11-19
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling
Project: Whale tail Dike	○ Concrete ○ Reinforcing Steel
Project No.: 11204932 - B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◎ Other:

I have: ☒ my JSEAs ☒ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

°C

Field Results:

Drilling:

P- 347,5 (Day and Night shift)

T- 263.5

S- 266,5 (We finished on the Night shift)

Corrective actions to be taken:

Site Representative: _____ Inspector: Mathieu Brissen

From: _____ Signature*: _____

Time on site (hrs): _____

Travel time (hrs): _____

Project Manager: _____ Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KINGLLIN CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Mathieu Brisson

Drill #: TC-6 5

Date: 2019-11-15

Day ☐

Night ☒

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
P-347,5	13,3	5,3	4,3	4,10	-	11,4	0,35	0,22	WATER Day / NIGHT
T-263,5	9,3	5,3	4,3	-	-	8,9	0,35	-	BR 8,7
S-266,5	9,9	5,3							BR 8,7 Night / Day

Borehole No.: T-263,5
Elevation: ____

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale tail Dike
Project No.: 1120/4932-B1

Date start: 2019-11-15
Date Finish: 2019-11-15
Inspector: ~~[illegible]~~ MB

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8,9 M
DEPTH OF HOLE: 9,25m
WATER LEVEL: — DATE: 15-11-19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Bobby Lagace
DRILL: TL65

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock Fill									
Gravel 0-20 mm									
8,90 m Bed Rock									
9,25m end of the Hole									

Remarks: NO WATER
300 mm in the Roc

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-349.5
Elevation: ____

Borehole Field Report

Client: Snc
Project / Site: Among Whale tail Dike
Project No.: 1124932-B1

Date start: 2019-11-15
Date Finish: 2019-11-15
Inspector: MB

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 11.94
DEPTH OF HOLE: 12.29
WATER LEVEL: 9.5M DATE: 19-11-15
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Bobby boyce
DRILL: TLG

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
RocFill				See day shift					
Gravel 0-20 mm									
11.94m Bed Roc									Roc ↓
12.29 End of the Hole									

Remarks: 300 mm in the Roc
water 9.50 M

Checked By: ____ DATE: ____

Borehole No.: 3-266.5
Elevation: ____

Borehole Field Report

Client: Sang
Project / Site: Amaruq Whale tail Dike
Project No.: 1120493 2 B1

Date start: 2019-11-15
Date Finish: 2019-11-15
Inspector: MB

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: —
DEPTH OF HOLE: —
WATER LEVEL: — DATE: 15-11-15
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: Bobby Gagne
DRILL: T66 5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
See Day Shift									

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Day Shift

Client: Sana	Date: 2019-11-16
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring ◎ Other:
Project: Whale tail Dike	
Project No.: 112.69392.01	

I have: ☐ my JSEAs ☐ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-20°C

Field Results:

Drilling:

S-266.5 (Night and Day Shift)
T-269.5
P-272.5 (No Rec)
S-278.5
T-281.5
S-284.5
T-287.5
S-290.5

Corrective actions to be taken:

No problems during the shift

Site Representative: _____

From: _____

Inspector: JPFG

Signature*: Jean Philippe Bureau

Time on site (hrs): _____

Travel time (hrs): _____

Project Manager: _____

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KINGALUK CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: JPBF / Pierre

Drill #: 05

Day ☒ Night ☐

Date: 2019-11-16

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)	
S-266.5	9,9	5,3	4,3	—		8,92	0.35	0,08 m	NO WATER Night / DCY	JPF
T-269,5	10,0	5,32	4,30	—		8,77	0,35	0,20m	NO WATER	JP
P-272,5	8,6	5,33	3,62	—		NO ROC	0,35	—	NO ROC NO WATER	JP
T-275,5	9,3	5,31	4,36	—		8,91	0,35	0,11	NO WATER	JP
S-278,5	9,5	5,33	4,30	—		8,58	0,35	0,35	NO WATER	JP
T-281.5	9,3	5,32	3,87	—		8,69	0,35	0,23	No Water	pierre
P-284.5	8,9	5,34	4,36	—		8,7	0,35	0,35		pierre
T 287,5	8,8	5,31	3,84	—		8,23	0,35	0,27	NO WATER	JPF
S-290.5	9,5	5,32	4,30	—	—	8,62	0,35	0,35	NO WATER	JPF

9,56 9,52 9,62

8,23 ~~8,15~~ 8,55

PAGE ____ OF ____

Borehole No.: BH06,5
Elevation: ____

Borehole Field Report

Client: Sana
Project / Site: Amanuel Whaletail Dike
Project No.: 1204392-B1

Date start: 2019-11-16
Date Finish: 2019-11-16
Inspector: JDE

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8,92m
DEPTH OF HOLE: 9,22m
WATER LEVEL: 8,50m DATE: 19-11-16
PROBE No.: ____ TIME: ____

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: S. Bretton
DRILL: TL605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
RocFill									
Gravel 0-20									
8,92m Bedroc									
									Roc
9,22m Roc									
end of the Hole									

± 8,50m Level Water After Drilling

Remarks: NO WATER on the Drilling time
After Drilling water = 8,50m
300 mm in the Roc
Night and Day Hole

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-269 | 5

Elevation: ____

Borehole Field Report

Client: Sana

Project / Site: Amarna Wheele Tail Dike

Project No.: 1204398-B1

Date start: 2014-11-16

Date Finish: 2014-11-16

Inspector: JPBF

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.77 m

DEPTH OF HOLE: 9.07 M

WATER LEVEL: 8.50 M DATE: 14-11-16

PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: S Breton

DRILL: TL605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Re Fill									
0-20 Gravel									NO WATER During the Drilling
8.77m Bed Roc									
Roc									Roc
9.07 End of Hole									
				WATER Level AFTER Drilling 8.50m					

Remarks: NO WATER AT THE TIME TO Drilling

300 mm in the Roc

After Drilling Level WATER 8.50M

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-272-5
Elevation: ____

Borehole Field Report

Client: Sena
Project / Site: Amaruq Whale Tail Dew
Project No.: 1120439Z-B1

Date start: 2019-11-16
Date Finish: 2019-11-16
Inspector: JDBF

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 8.60 M
WATER LEVEL: 8.50 DATE: 19-11-16
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: S. Breton
DRILL: 76605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Roc Fill 0-20mm Gravel									
8.60m End of Hole									

Level water 8.50 M After Drilling

Remarks: No Roc, we reached the Maximum
No WATER on the Drilling
After Drilling level water : 8.50 m

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: TA-275-5
Elevation: ____

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale tail Dike
Project No.: 1204392 B1

Date start: 2019-11-16
Date Finish: 2019-11-16
Inspector: JPBF

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.89 M
DEPTH OF HOLE: 9.24 M
WATER LEVEL: — DATE: 19-11-15
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: S. Bieton
DRILL: TL605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill 0-20mm Gravel									
8.89m Bed Roc			Roc						
9.24 End of THE HOLE									

Remarks: No water during the Drilling and After
300 mm in the Roc

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: 3-278.5
Elevation: ____

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale tail Dike
Project No.: 1120439281

Date start: 2019-11-16
Date Finish: 2019-11-16
Inspector: JDB E

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.56 M
DEPTH OF HOLE: 8.88 M
WATER LEVEL: — DATE: 19-11-16
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: S. Breton
DRILL: T600S

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
Rock Fill									
Gravel 0-20mm									
8.56m Bedrock									
8.88m end of the Hole									Roc ↓

Remarks: NO WATER AT THE Drilling time And AFTER 300 mm in the Roc.

Checked By: ____ DATE: ____

Borehole No.: T-28.5
Elevation: ____

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dike
Project No.: 1120429 B1

Date start: 2019-11-16
Date Finish: 2019-11-16
Inspector: Pierre Hewani

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 8.69
DEPTH OF HOLE: 9.0
WATER LEVEL: ✓ DATE: 19-11-16
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
◫ RC Rock core

TESTS

DRILLER: S. Breton
DRILL: TL605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rufill 0 - 20 Gravel									No water
8.69m Bedrock Rock									ROC ↓
9.0 End of whole									

Remarks: No water at the time of drilling
casing 177.8 -
300 mm in the Rock

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: R-2845
Elevation: ____

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dike
Project No.: 1264392 B1

Date start: 2019-11-16
Date Finish: 2019-11-16
Inspector: Pierre Howani

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.7
DEPTH OF HOLE: 9.0
WATER LEVEL: ✓ DATE: 19-11-16
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: S. Breton
DRILL: 7665

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Ru Fill									No water
0-20 Gravel									
8.7m Bedrock									Rock
Rock									
9.0 End of hole									

Remarks: No water at time of drilling and AFTER 300mm in the Rock

Checked By: ____ DATE: ____

Borehole No.: 9-267.5
Elevation: ____

Borehole Field Report

Client: Sena
Project / Site: Amaruq Whale tail Dike
Project No.: 1120435E-B1

Date start: 2019-11-16
Date Finish: 2019-11-16
Inspector: JoBF

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.23m
DEPTH OF HOLE: 8.53m
WATER LEVEL: — DATE: 19-11-16
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: S.J Bedco
DRILL: T6605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Roc Fill									
Gravel 0-20mm									
8.23m Bedroc									Roc ↓
8.53m End of the Hole									

Remarks: 300 mm in the Roc
No water on the Drilling time

Checked By: ____ DATE: ____

PAGE ___ OF ___

Borehole No. S-205

Elevation: ___

Borehole Field Report

Client: Sinq

Project / Site: Amuruq Winter Dike

Project No.: 1204392B1

Date start: 2019-10-16

Date Finish: 2019-11-16

Inspector: JPBF

DIAMETER OF HOLE — OVERBURDEN: ___ BEDROCK: 8.62m

DEPTH OF HOLE: 8.92m

WATER LEVEL: — DATE: 19-11-16

PROBE No.: ___ TIME: ___

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: S.Breton

DRILL: TC4-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Roc 7.11									
Gravel 0-20mm									
8.62m Bed Roc									Roc ↓
8.92m END OF THE HOLE									

Remarks: No water during the drilling

300 mm in the Roc

Checked By: ___ DATE: ___

Field Report

Client: SALA	Date: 16 nov. 2019
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring ◎ Other:
Project:	
Project No.: 113043990-B1	

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☒ Unexpected Hazards I need: ☒ an S-RAF?

-35°C

Field Results: The stations T-293,5 - D-296,5 - T-299,5 - S-302,5 - T-305,5 and D-308,5 were drilled.

19h00 to 19h30 the hammer of the drill was frozen

2h30 - 3h30 The safety swift was defective, we call the mechanic for repare

5h00 head of the drill stuck between the casing 1 and 2

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: _____

Inspector: Mathieu Brisson

Signature*: Mathieu Brisson

Time on site (hrs): 13h

Travel time (hrs): _____

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KINGLING CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Mathieu Brisson

Drill #: TCG-5 C-900

Date: 16 nov. 2019

Day ☐
Night ☑

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-293,5	9,2	5,39	4,36	–	–	8,71	0,35	-0,32	BR 8,4 No water
P-296,5	8,6	5,34	3,30	–	–	8,03	0,31	-0	BR 8,1 No water
T-299,5	8,4	5,34	3,30	–	–	7,50	0,35	-0,49	BR 8,0 Water at 5m
S-302,5	8,8	5,33	3,75	–	–	8,35	0,35	-0,08	BR 8,3 Water at 5m
T-305,5	8,7	5,34	3,71	–	–	7,76	0,35	-0,64	BR 8,2 Water at 5m
P-308,5	8,1	5,33	3,12	–	–	7,07	0,35	-0,73	BR 7,5 Water at 5m

PAGE ____ OF ____

Borehole No.: T-2435
Elevation: —

Borehole Field Report

Client: SANA
Project / Site: Amaruq
Project No.: 1120439Z-B1

Date start: 16 nov. 2019
Date Finish: 16 nov. 2019
Inspector: Mathieu Bisson

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 8.71m
DEPTH OF HOLE: 9.01 m
WATER LEVEL: — DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0 Rock Fill									
1.5 to 2.0m									
0-20mm									
8.71m Bedrock									
9.01m End hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-296.5
Elevation: —

Borehole Field Report

Client: SAUA
Project / Site: Amarog
Project No.: 1120439-B1

Date start: 16 nov. 2019
Date Finish: 16 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: —
BEDROCK: 8.03m
DEPTH OF HOLE: 8.33m
WATER LEVEL: — DATE: —
PROBE No.: — TIME: —

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0 Rock fill								
1.5m to 20m								
0-20mm								
8.03m Bed rock								
8.33m End hole								

Remarks:

Checked By: DATE:

PAGE ____ OF ____

Borehole No.: T-2019-5
Elevation: —

Borehole Field Report

Client: SAJA
Project / Site: Amaruq
Project No.: 1204392-B1

Date start: 16 nov. 2019
Date Finish: 16 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 7.50m
DEPTH OF HOLE: 7.80 m
WATER LEVEL: ≈5m DATE: 16 nov. 2019
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TCG 5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0 Rock Fill									
1.5m à 20m —									
0-20mm									
5m See water after put air in casing									
7.50m Bed rock									
7.80m End hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: S-3025
Elevation: —

Borehole Field Report

Client: SAQA
Project / Site: Amaruq
Project No.: 1204392-B1

Date start: 17 nov. 2019
Date Finish: 17 nov. 2019
Inspector: Mathieu Bélisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.35m
DEPTH OF HOLE: 8.65m
WATER LEVEL: ≈5m DATE: 17 nov. 2019
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: ICG5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0									
Rock fill									
1.5m to 2.0m									
0-20mm									
5m — See water after put air in casing									
8.35m — Bedrock									
8.65m — End hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-305.5
Elevation: —

Borehole Field Report

Client: SANA
Project / Site: Amaruq
Project No.: 1204392-B1

Date start: 17 nov. 2019
Date Finish: 17 nov. 2019
Inspector: Mathieu Bélisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 7.76m
DEPTH OF HOLE: 8.06m
WATER LEVEL: ≈5m DATE: 17nov 2019
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Bobby Gagné
DRILL: TCG 5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0									
Rock Fill									
1.5m to 2.0m									
0-20mm									
5m — See water after put air incasing									
7.76m — Bed rock									
8.06m — End hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-3085
Elevation: —

Borehole Field Report

Client: SAUA
Project / Site: Amaroq
Project No.: 1204392-B1

Date start: 17 nov. 2019
Date Finish: 17 nov. 2019
Inspector: Mathieu Bisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 7,07m
DEPTH OF HOLE: 7,37m
WATER LEVEL: ≈ 5m DATE: 17 nov. 2019
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0 Rock Fill									
1,5m to 20m									
0-20mm									
5m See water after put air in casing									
7,07m Bedrock									
7,37m End hole									

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Day SHIFT

Client: Group Sama	Date: 2019-11-17
Site: Amaruq Whale Tail Dike	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring ◎ Other: Drilling
Project: 1120 4932	
Project No.:	

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-3 °C

Field Results:

Boreholes P-308.5 ; T-311.5 ; T-197.5 ; P-200.5 ; T-203.5 , T-251.5 were completed today. Bedrock was reached in All Boreholes.
- Also No water was present when the rods were pressurized with Air.

- See attached note for Borehole P-248.5 in the Casing drilling report Summary table.

Corrective actions to be taken:

Site Representative: _____

From: _____

Inspector: Pierre Hourani

Signature*: Pierre Hourani

Time on site (hrs): 12 hrs

Travel time (hrs): _____

Project Manager: Daniel PedNeault

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

Rapport de chantier

Client: Ge Sana	Date d'inspection: 2019-11-17
Site: Amaruq	☐ Compactage ☐ Expertise ☐ Acier d'armature ☐ Contrôle sismique ☐ Toiture ☐ Enrobé bitumineux ☐ Échantillonnage ☐ Acier de charpente ☐ Insp. d'empattement ☐ Témoins de mouvement ☐ Béton de ciment
Projet: Umwle Doll Dike	
Projet no : 1204932	☐ Autre (Spécifier) :

J'ai avec moi: ☐ mes ASET ☐ mes EPI ☐ la formation appropriée
Je vois: ☐ des dangers imprévus **J'ai besoin :** ☐ d'un ER-C?

-30°C

Résultats de chantier

Drilling:
P-200,5
P-203,5

we have no problem with the drill in the day Shift

Mesures correctives à exécuter

Retour au chantier requis : Oui ☐ Non ☐

Représentant du chantier : _____ Inspecteur : Jean Philippe Bertin
(nom en lettres moulées)

De : _____ Signature * : _____

Chargé de projet : _____ Temps au chantier : _____

* *En signant ce formulaire, je confirme que j'ai consulté l'ASET applicable au projet en cours et que je suis en conformité avec les procédures de l'ASET pour ce site à la date en ce moment.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Pierre Hourani

Drill #:

Date: 2019-11-17

Day ☒ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
P-308.5	8.1	5.34	4.32			7.90	0.35	0.74 0.65	Casing total lenght = 8.95 No water
T-311.5	8.3	5.32	3.10 → 4.30			7.30	0.35	0.07	casing total lenght = 9.62 No Water
T-197.5	9.9	5.34	4.30			8.84	0.35	0.31 0.15	casing total lenght = 9.33 No Water
JP P-200.5	10.2	5.32	4.30	0.93		9.72	0.35	0,15	No Water
JP T-203.5	10.3	5.33	4.37	0.95		10.04	0,35	0.0	No water
T-251.5	9.5	5.32	4.30			8.96	0,35	0,0	No Water
* P-248.5	10.0	5.32	4.30*					0.0 PH	

* P-248.5 2nd welded Failed while getting drilled due to issue in welds and it was resumed during the night shift.

Borehole No.: A-38.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dike
Project No.: 1204932-B1

Date start: 2019-11-17
Date Finish: 2019-11-17
Inspector: Pierre Hourani

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 7.90m
DEPTH OF HOLE: 8.2m
WATER LEVEL: — DATE: 19-11-17
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: S. Breton
DRILL: T6605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows - 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ROCFill									
Gravel 0-20mm									
7.9m									Bed Rock
									+300mm ↓
8.2m									

Remarks: No water observed during Drilling Time.
300 mm in the ROCK

Checked By: DATE:

Borehole No.: TE311.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dike
Project No.: 1120493 2-B1

Date start: 2019-11-17
Date Finish: 2019-11-17
Inspector: Pierre Houranì

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 7.70 m
DEPTH OF HOLE: 8.01 m
WATER LEVEL: ~ DATE: 19-11-17
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: S. Breton
DRILL:

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
RocFill Gravel 0-20 mm									
7.70m									Bedrock
8.01m									roc

Remarks: No water observed during drilling process
300 mm in the roc.

Checked By: DATE:

Borehole No.: T-1975
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dike
Project No.: 1204932-B1

Date start: 2019-11-17
Date Finish: 2019-11-17
Inspector: Pierre Hourani

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 8.84
DEPTH OF HOLE: 9.14
WATER LEVEL: / DATE: 19-11-17
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: S. Breton
DRILL: T6605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
ROCFill Gravel 0-20mm									
8.84									Bedrock roc ↓
9.14									

Remarks: No water observed during drilling
300mm in the roc

Checked By: DATE:

Borehole No.: 200.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale tail Dike
Project No.: 1204932 B1

Date start: 2019-11-17
Date Finish: 2019-11-17
Inspector: JPBF

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9,72 M
DEPTH OF HOLE: 10,02M
WATER LEVEL: ____ DATE: 19-11-17
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
RC Rock core

TESTS

DRILLER: S. Breton
DRILL: T6605

STRATIGRAPHY	Depth feet	Depth metres	Sample State	Sample Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rac fill									
Gravel 0-20 mm									
9,72M									Bed Roc
									↓ Roc
10,02M									

Remarks: No WATER During the Drilling time
300 mm in the Roc

Checked By: ____ DATE: ____

Borehole Field Report

Borehole No.: T-203,5
Elevation:

Client: Sana
Project / Site: Amarug Whaletail Dike
Project No.: 1204432 B1

Date start: 2019-11-17
Date Finish: 2019-11-17
Inspector: JPBF

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 10.04 M
DEPTH OF HOLE: 10.34M
WATER LEVEL: — DATE: 19-11-17
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: S. Breton
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
Roc Fill									
0-20mm Gravel									
10.04M									Bed Roc
									Roc ↓
10.34M									
End of the Hole									

Remarks: No water during the drilling time
300 mm in the Roc

Checked By: DATE:

Borehole No.: T-251.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dike
Project No.: 1204932-B1

Date start: 2019-11-17
Date Finish: 2019-11-17
Inspector: Pierre Hourani

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 8.96
DEPTH OF HOLE: 9.28
WATER LEVEL: — DATE: 19-11-17
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: S. Breton
DRILL: T6605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Roc Fill Gravel 0 - 20mm 8.96m Bedrock roc 9.28m									

Remarks: No water observed during drilling process
300 mm in the roc

Checked By: DATE:

Field Report

Night shift

Client: Qamanittuaq SANA	**Date:** 17 nov. 2019
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring ◎ Other: Drilling
Project: [redacted]	
Project No.: 11204359-B1	

I have: ☑ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

≈-25°C

Field Results:

- We have drilling the station P-248,5 ; T-245,5 ; S-243,5 ; T-239,5 and we have started the station P-236,5, but just the first casing is in the hole

20h => Spindle broken, drilling stoped to 2h and 2 gaskets are changed

Corrective actions to be taken:

Site Representative: _____

From: _____

Inspector: Mathieu Boisson

Signature*: Mathieu Boisson

Time on site (hrs): 12 hre

Travel time (hrs): _____

Project Manager: Daniel Pedneault

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KINGLLIK CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Mathieu Brisson

Drill #: TC65, C-902

Day ☐
Night ☑

Date: 17 nov. 2019

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (~~0,4m~~ 0,35m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
P-248.5	10,07	5,32	4,30	~~—~~	—	8,97 ~~10,23~~	0,35m	0	~~15h~~ : Drilling started during the day shift and complete at 20h (spindle broken) the night shift - No water
T-245,5	9,32	5,33	4,34	—	—	8,68m ~~9,68m~~	0,35m	0,34m	1,32m (and seal) No water
S-242,5	9,14	5,33	4,16	—	—	9,09m ~~9,84~~	0,35m	0	No water. 0,14m
T-239,5	9,23	5,33	4,~~35~~ 30	—	—	8,65m ~~8,65m~~	0,35m	-0,33	No water
P-236,5	9,18	5,33	4,30						hole started, just first casing put in the hole

Borehole No.: P-2485
Elevation: ____

Borehole Field Report

Client: Qamanittuaq SAUA
Project / Site: Amaruq
Project No.: 1204392-B1

Date start: 17 nov. 2019
Date Finish: 17 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.97m
DEPTH OF HOLE: 9.27 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TCG5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0									
1.5m to 20m									
0-20mm									
8.97m Bed rock									
9.27m End hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-245.5
Elevation: ~

Borehole Field Report

Client: Qamanittuaq SAVA
Project / Site: Amaruq
Project No.: 1120432-B1

Date start: 18 nov. 2019
Date Finish: 18 nov. 2019
Inspector: Mathieu Bisson

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 8.68m
DEPTH OF HOLE: 8.98m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TCGS, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0									
1.5m to 2.0m									
0-20mm									
8.68m Bedrock									
8.98m End hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: S-2425
Elevation: —

Borehole Field Report

Client: Qamanittuaq SANA
Project / Site: Amaruq
Project No.: 1201392-B1

Date start: 18 nov. 2019
Date Finish: 18 nov. 2019
Inspector: Mathieu Bysouth

DIAMETER OF HOLE — OVERBURDEN: —
BEDROCK: 9,00m
DEPTH OF HOLE: 9,14 m
WATER LEVEL: — DATE: —
PROBE No.: — TIME: —

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Bobby Cognè
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0									
1.5m to 2cm									
0-20mm									
9,00m Bed rock									
9,14m End hole									

Remarks: —

Checked By: _____ DATE: _____

PAGE ____ OF ____

Borehole No.: T-239-5
Elevation: —

Borehole Field Report

Client: Qamanittuaq
Project / Site: Amaruq
Project No.: 1120392-14

Date start: 18 nov. 2019
Date Finish: 18 nov. 2019
Inspector: Mathieu Bérubé

DIAMETER OF HOLE
OVERBURDEN: —
BEDROCK: 8.65m
DEPTH OF HOLE: 8.95m
WATER LEVEL: — DATE: —
PROBE No.: — TIME: —

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0									
1.5m to 2.0m									
0-20mm									
8.65m Bed rock									
8.95m End hole									

Remarks: —

Checked By: —

DATE: —

GHD

Field Report

Day SHIFT

Client: Sana	Date: 2019-11-18
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring ◉ Other: Borehole check
Project: Whale Tail Dyke	
Project No.: 12204392-B1	

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-25°C

Field Results:

Bore Holes P-236.5 ; T-233.5 ; T-230.5 ; T-227.5 P-224.5 ; T-221.5, T-221.5 et T-218.5 were completed Today. Bedrock was reached in all boreholes.
Water level was checked right after drilling Air pressure in russ.

T-221.5 et T-218.5 had water at around depth 8.5m

Note: T-218.5 was drilled an extra 45cm inside bedrock because driller could not unsue the bits. 0.45m was more than anticipated depth

Corrective actions to be taken:

Site Representative: _____

From: _____

Inspector: Pierre Houroni

Signature*: Pierre Houroni

Time on site (hrs): 12.0

Travel time (hrs): _____

Project Manager: Daniel Pedneault

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KINGLLIC CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Pierre Howard

Drill #:

Day ☑ Night ☐

Date: November 18 2019

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)	measured depth - 0.35m profondeur mesure - 0.35m
		1st	2nd	3rd	4th					
P-236.5	9.1	5.33	4.10			8.95	0.35	0.18	No water	9.15 m
T-233.5	9.4	5.33	4.30			8.63	0.35	0.39	No water	8.90 m
T-230.5	9.6	5.33	4.30			9.0	0.35	0.32	No water	9.30 m
T-227.5	9.5	5.32	4.30			9.01	0.35	0.32	No water	9.30 m
P-224.5	10.1	5.33	4.30			9.0	0.35	0.28	No water	9.3 m
T-221.5	10.7	5.33	4.30	1.35		9.85	0.35	0.32	some water before bedrock	10.2 m
* T-218.5	11.1	5.33	4.30	1.70	0.45	10.2	0.35	0.38	some water before bedrock	10.95m

PAGE ____ OF ____

Borehole No.: R-2365
Elevation:

Borehole Field Report

Client: Sana Group
Project / Site: Amaruq Whale Tail Dike
Project No.: 1204392-B1

Date start: 2019-11-18
Date Finish: 2019-11-18
Inspector: Pierre Hovani

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.95
DEPTH OF HOLE: 9.15
WATER LEVEL: C DATE: 19-11-18
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: GINO Gingras
DRILL: TCG 05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill 0-20mm									No water gravel Medium difficulty drilling.
@ 9.5m bedrock 30cm									
9.15m End of Hole									

Remarks: No water was observed during drilling
Bedrock reached at 9.5m

Checked By: ____ DATE: ____

, PAGE ____ OF ____

Borehole No.: T-233.5
Elevation: ____

Borehole Field Report

Client: Sana
Project / Site: Amarug Whale Tail Dike
Project No.: 1120439 2-B1

Date start: 2019-11-18
Date Finish: 2019-11-18
Inspector: Pierre Hourani,

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.63
DEPTH OF HOLE: 8.90
WATER LEVEL: ✓ DATE: 19-11-18
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: Gino Ginard
DRILL: TG03

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows - 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill ---0-20mm--- ↓ 8.63m bedrock 300mm 8.9 End of hole									No water gravel Medium drilling difficulty

Remarks: No water observed during drilling process
Bedrock reached at 8.63m

Checked By: ____ DATE: ____

Borehole No.: T-2305
Elevation: ____

Borehole Field Report

Client: Sanq
Project / Site: Amarug Whale Tail Pike
Project No.: 1804392-B1

Date start: 2019-11-18
Date Finish: 2019-11-18
Inspector: Pierre Hourani

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.0
DEPTH OF HOLE: 9.3
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Gino Ginard
DRILL: TC 605

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows - 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill								No water
0-20mm								Medium difficulty drilling
								gravel
9.0m bedrock								
300mm								
9.3m End of hole								

Remarks: *Note: Survey Max at 10.1m but might be inaccurate depth
No water observed during drilling process
Bedrock reached at 9.0m

Checked By: ____ DATE: ____

Borehole Field Report

Borehole No.: T-227.5
Elevation: ____

Client: Sana
Project / Site: Amaraq Whale Tail Dike
Project No.: 1204392-B1

Date start: 2019-11-18
Date Finish: 2019-11-18
Inspector: Pierre Mourant

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 9.01 m
DEPTH OF HOLE: 9.3 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Gino Ginard
DRILL: TC 605

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill								
0-20mm								No water
								Medium drilling difficulty
								gravel
9.01m bedrock								
300mm								
9.3m End of hole								

Remarks: No water observed during drilling process
Bedrock reached at 9.01m

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-224.5
Elevation: ____

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dike
Project No.: 1120-4392-B1

Date start: 2019-11-18
Date Finish: 2019-11-18
Inspector: Pierre Hourani

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 9.0m
DEPTH OF HOLE: 9.3m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
SS Split spoon
ST Shelby tube
RC Rock core

TESTS

DRILLER: Gino Ginard
DRILL: TC 605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows - 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill									No water
0-20mm									Medium drilling difficulty
									gravel
9.0m									
300mm									
9.3m									
End of hole									

Remarks: No water observed during drilling process pressure
*Note: Bedrock reached at 9.0m even if survey anticipated 10.1m depth estimate max.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-221.5
Elevation: ____

Borehole Field Report

Client: Sana
Project / Site: Amaaruq Whale Tail Dyke
Project No.: 1120492-B1

Date start: 2019-11-18
Date Finish: 2019-11-18
Inspector: Pierre Hemmy

DIAMETER OF HOLE: OVERBURDEN: ____ BEDROCK: 9.85 m
DEPTH OF HOLE: 10.2m
WATER LEVEL: 8.5m DATE: 19-11-18
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Gino Girard
DRILL: TC 805

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows - 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock Fill 0-20 mm ↓									medium drilling DTH cutting
									Some water observed during drilling
9.85m bedrock									
300mm									
10.2m End of hole									

Remarks: Water observed at around 8.5m depth
bedrock reached at 9.85m

Checked By: ____ DATE: ____

, PAGE ____ OF ____

Borehole No.: T-2185
Elevation: ____

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1204392-B1

Date start: 2019-11-18
Date Finish: 2019-11-18
Inspector: Pierre Houbani

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.2m
DEPTH OF HOLE: 10.95
WATER LEVEL: ~~8.8m~~ DATE: 19-11-18
PROBE No.: ____ TIME: ____

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Gino Gnard
DRILL: TCG05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock Fill 0-20mm ↓									Medium drilling difficulty
									Some water found passed 8.8m deep
10.2m — bedrock 300mm + extra (0.45pm)									
End of Hole									

Remarks: water found at around 8.8m and deeper
bedrock reached

Checked By: ____ DATE: ____

Field Report

Day shift

Client: F.Gilbert, TLE	**Date:** 19-11-2019
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring ◎ Other: Borehole check
Project: Whale Tail Dyke	
Project No.: 11204392-B1	

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-27.°C

Field Results: Boreholes ; T-215.5 ; P-212.5 ; T-209.5 ; S-194.5 ; T191.5 ;

Bedrock was reached in all Boreholes. Water was observed after air pressure was applied in all rods drilled.

All Boreholes were Placed 300mm inside the bedrock and 350mm stickup.

- Please see attached Borehole Field reports and casing drilling Report for details.

Corrective actions to be taken

Site Representative: _____

From: _____

Inspector: Pierre Hourani

Signature*: Pierre Hourani

Time on site (hrs): 12.0

Travel time (hrs): _____

Project Manager: Daniel Pesneault

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KINALLIK CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Pierre Hourani

Drill #: TC605

Day ☐ Night ☐

Date: 19/11/2019

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)	Measured depth - 0.35
T-215.5	10.3	5.33	4.29	1.03		10.0	0.35	/NA	some water around 9m. Depth	10.30
T-212.5	10.2	5.33	4.3	0.90		9.6	0.35	0.25	some water around 8.5m depth	9.9
T-209.5	10.3	5.33	4.3	1.1m		9.80	0.35	0.27	some water around 9m depth	10.15
S-194.5	9.9	5.33	4.3	0.35		9.3	0.35	/Na	some water around 8.5m depth	9.6
T-191.5	10.1	5.33	4.3			8.7m	0.35	0.27	some water observed	9.0

Borehole No.: T-215.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120392-B1

Date start: 2019-11-19
Date Finish: 2019-11-19
Inspector: Pierre Houranp

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 10.0m
DEPTH OF HOLE: 10.3m
WATER LEVEL: 9.0m DATE: 2019-11-19
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Gino Ginnard
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock Fill									Medium Drilling difficulty
0-20mm									Gravel
↓									some water at around 9m depth once pressured by drill.
10.0m Bedrock									
300mm									
10.3m end of hole									

Remarks: Maximum anticipated depth was reached.
bedrock depth reached at 10.0m

Checked By: DATE:

Borehole No.: A-212.5
Elevation:

Borehole Field Report

Client: Sama
Project / Site: Almaraig Whale Tail Dyke
Project No.: 1120392-B1

Date start: 2019-11-19
Date Finish: 2019-11-19
Inspector: Pierre Houraini

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.6
DEPTH OF HOLE: 10.15
WATER LEVEL: ≈8.5m DATE: 2019-11-19
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Gino Ginart
DRILL: TCG05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock Fill									Medium drilling difficulty
0-20mm									Gravel
									after Air pressure From some water observed around 8.5m depth
9.6m Bedrock									
300mm									
10.1m end of hole									

Remarks: Bedrock reached at 9.6m before anticipated Survey depth

Checked By: DATE:

Borehole No.: T-209.5
Elevation:

Borehole Field Report

Client: Sang
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120392-B1

Date start: 2019-11-19
Date Finish: 2019-11-19
Inspector: Pierre Houranieh

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.8m
DEPTH OF HOLE: 10.15m
WATER LEVEL: — DATE: 2019-11-19
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Gino Ginard
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock Fill									Medium drilling difficulty
---- 0-20mm ----									Gravel
↓									Some water observed after drill Air pressure clear up.
9.8m									
Bedrock									
10.15m									
End of hole									

Remarks: Bedrock reached at 9.8m before anticipated survey depth.

Checked By: DATE:

Borehole Field Report

Borehole No.: S-194.5
Elevation:

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120392-B1

Date start: 2019-11-19
Date Finish: 2019-11-19
Inspector: Pierre Hawrani

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.3m
DEPTH OF HOLE: 9.6m
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: Gino Ginard/Amiel
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Medium drilling difficulty
0 - 20mm									Gravel
									Some water observed after air pressure
9.3m bedrock									
9.6m end of hole									

Remarks: Bedrock reached at 9.3m before Anticipated survey depth.

Checked By: DATE:

Borehole Field Report

Borehole No.: T-191.5
Elevation:

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120492-B1

Date start: 2019-11-19
Date Finish: 2019-11-19
Inspector: Pierre Hamann

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 8.7m
DEPTH OF HOLE: 9.0m
WATER LEVEL: ✓ DATE: 2019-11-19
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Gino Gomard / Daniel
DRILL: TC 605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Some water after drill pressured
0.20mm									Gravel
									Medium drilling difficulty
8.7m bedrock									
9.0m end of hole									

Remarks: Minimum anticipated depth reached at 8.7m
- Some water

Checked By: DATE:

Field Report

Night shift

Client: Qamanittuaq, SANA	**Date:** 18/19 nov 2019
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring
Project: Whale tail ~~dyke~~ dike	◎ Other: Drilling, borehole
Project No.: 112043932-B1	

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-26 °C

Field Results:

- The driller is arrived at ~~*~~ midnight, but he's call sick. No drilling!.
- The drilling have started at Ø

=> We have drilling the stations Ø

Corrective actions to be taken:

Site Representative: _____

From: _____

Inspector: Mathieu Brisson

Signature*: Mathieu Brisson

Time on site (hrs): Ø

Travel time (hrs): _____

Project Manager: Daniel Pedneault

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Field Report

Client: Qamanittuaq, SNWA

Site: Amaruq

Project: Whale tail dyke

Project No.: 12504382.31

Date: 19 nov 2019

- [ ] Excavation Bed Ver.
- [ ] Concrete
- [ ] Compaction
- [ ] Asphalt
- [x] Other: Drilling, borehole
- [ ] Sampling
- [ ] Reinforcing Steel
- [ ] Structural Steel
- [ ] Vibration Monitoring

I have: [x] my JSEAs [x] my PPE [x] Proper training

I see: [ ] Unexpected Hazards I need: [ ] an S-RAF?

-25°C

Field Results:

- This stations have been drilled: T-188,5; S-182,5; T-179,5; P-176,5

- We have started the station T-257,5, but the hammer drill need to be changed, About 4h a.m

- ~~Hier~~

=> Cut measured with a tape: T-191,5 → 8,56m

- T-188,5 → 8,14m
- T-185,5 → 8,34m
- S-182,5 → 7,58m → May be a error
- T-179,5 → 8,00m
- P-176,5 → 7,60m

Corrective actions to be taken:

Site Representative: _____

From: _____

Inspector: Mathieu Boisson

Signature*: Mathieu Boisson

Time on site (hrs): 12hre

Travel time (hrs): _____

Mileage (km): _____

Project Manager: Daniel Pedneault

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Mathieu Brisson

Drill #: TCG-5, C-902

Day ☐ Night ☑

Date: 19 nov. 2019

- Drilled during day shift

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0.35m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
*T-191,5	10,2						0,35m	0,21	Br: 8,5 Nouvelle Missing data, see the day shift
P-188,5	8,1	5,30	3,15	–	–	8,10	0,35m	Ø	Br: 7,5, Nouvelle We reach the cutmax
T-185,5	8,3	5,33	3,33	–	–	7,31	0,35	Ø	Br: 7,5 Nouvelle Casing introduce of 1m in the rock by the drill operator.
*S-182,5	8,3	5,32	3,33	–	–	7,29	0,35	-0,71	Br: 7,6 Nouvelle
T-179,5	8,0	5,33	3,03	–	–	7,86	0,35	Ø	Br: 7,5 Nouvelle Casing introduce of 0,14m in the rock, we reach the cut max
P-176,5	7,6	5,33	2,62	–	–	7,60	0,35	Ø	Br: 7,1 Nouvelle We reach the cutmax
T-257,5	9,4	5,33							Br: 8,7 Problem with the hammer, the drilling is stopped.

PAGE ____ OF ____

Borehole No.: D-1885
Elevation: ____

Borehole Field Report

Client: Qanuilitaq, SADA
Project / Site: Arnaviq
Project No.: 1120439-B1

Date start: 19 nov. 2019
Date Finish: 19 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.10 m
DEPTH OF HOLE: 8.10 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: ____
DRILL: TCG-5, C-903

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0									
Rock Fill									
1.5m to 2.0m									
0-20mm									
8.10m Bedrock									
8.10m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-185.5
Elevation: ____

Borehole Field Report

Client: Qamani'tuaq, SANA
Project / Site: Amaruq
Project No.: 11201392-B1

Date start: 19 nov. 2019
Date Finish: 19 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 7,31 m
DEPTH OF HOLE: 8,31m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: ____
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
0									
Rock fill									
1.5m to 2.0m									
0-20mm									
7.31m Bedrock									
8.31m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: S-182.5
Elevation:

Borehole Field Report

Client: Qamanittuaq, SAUA
Project / Site: Amaruq
Project No.: 1120-1392-B1

Date start: 19 nov. 2019
Date Finish: 19 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 7.29 m
DEPTH OF HOLE: 7.59 m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- [ ] RC Rock core

TESTS

DRILLER: ____
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock Fill									
1.5m to 2.0m									
0-20mm									
7.29m Bedrock									
7.59m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-179.5
Elevation: ____

Borehole Field Report

Client: Gouvernement, SAUA
Project / Site: Amaruq
Project No.: 1120439-B1

Date start: 19 nov. 2019
Date Finish: 19 nov. 2019
Inspector: Mathieu Bisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 7.86m
DEPTH OF HOLE: 8.00m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: ____
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0 Rock Fill									
1.5m to 2.0m									
0-20mm									
7.86m Bedrock									
8.00 End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: A-176.5
Elevation: ____

Borehole Field Report

Client: Communitaq, SAUA
Project / Site: Amaruq
Project No.: 1120-4392-B1

Date start: 20 nov. 2019
Date Finish: 20 nov. 2019
Inspector: Mathieu Boisvert

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 7.60m
DEPTH OF HOLE: 7.60m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: Sebastien Brassard
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0									
Rock Fill									
1.5m to 2.0m									
0-20mm									
7.60m Bedrock									
7.60m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Client: F. Gilbert, TLE (Sanai)

Site: Amaruq

Project: Whale Tail Dyke

Project No.: 11204392-B1

Date: 2019-11-20

- [ ] Excavation Bed Ver.
- [ ] Concrete
- [ ] Compaction
- [ ] Asphalt
- [ ] Sampling
- [ ] Reinforcing Steel
- [ ] Structural Steel
- [ ] Vibration Monitoring
- [x] Other: Drilling Casing check

I have: [x] my JSEAs [x] my PPE [x] Proper training
I see: [ ] Unexpected Hazards I need: [ ] an S-RAF?

-30°C

Field Results:

5 Boreholes, T-257.5; P-260.5; S-314.5; T-317.5; P-320.5;

- Air pressure and water sprayed For certain boreholes see attached Borehole Field report for details.
- All casings drilled reached bedrock and surpassed it by 300 mm.
- Drilling process was Medium difficulty
- Please see attached Borehole casing drilling report and Field reports for inspection details.

Corrective actions to be taken:

Site Representative: _____

From: _____

Inspector: Pierre Hourani

Signature*: ~~Pierre Hourani~~

Time on site (hrs): 12.0

Travel time (hrs): _____

Mileage (km): _____

Project Manager: Daniel Pedneault

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KINGLINK CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Pierre Houraini

Drill #: TCG05

Day ☒ Night ☐

Date: 2019-11-20

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand, etc.)	Measured depth
T-257.5	9.4	5.33	4.3			8.85	0.35	0.1	No water	9.2m ✓
P-260.5	9.8	5.33	4.29	0.2m		9.15	0.35	NA	water reached while pressurized	9.45m ✓
S-314.5	9.4	5.33	4.3			8.75	0.35	0.2	water observed after pressure	9.15m ✓
T-317.5	9.7	5.33	4.3	0.4		9.4	0.35	0.1	No water	9.7m ✓
P-320.5	10.5	5.33	4.3	1.15		10.05	0.35	0.1	No water	10.4

PAGE 1 OF 1

Borehole No.: TK-257.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120393.92-B1

Date start: 2019-11-20
Date Finish: 2019-11-20
Inspector: Pierre Hoikkanen

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 8.86m
DEPTH OF HOLE: 9.2m
WATER LEVEL: ✓ DATE: 2019-11-20
PROBE No.: TIME:

SAMPLE
SS Split spoon
ST Shelby tube
RC Rock core

TESTS

DRILLER: Mael
DRILL: TCG05

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill								Gravel
----0-20mm----								No water observed
↓								Medium drilling difficulty
8.86m								
bedrock								
9.2m								
end of hole								

Remarks:
Max Bedrock reached at 8.85m depth.
No Water

Checked By:
DATE:

Borehole No.: R-260.5
Elevation:

Borehole Field Report

Client: Sanq
Project / Site: Amarug Whale Tail Dyke
Project No.: 1120439 2-B1

Date start: 2019-11-20
Date Finish: 2019-11-20
Inspector: Pierre Houlami

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.15 m
DEPTH OF HOLE: 9.45 m
WATER LEVEL: / DATE: 2019-11-20
PROBE No.: / TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Mael
DRILL: TCG05

STRATIGRAPHY	Depth (feet / metres)	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill ---- 0-20mm ---- ↓ 9.15m bedrock 9.45m end of hole								Gravel Some water after pressured by drilling Medium drilling difficulty

Remarks:
- Bedrock reached at 9.15m deep
- So water sprayed when Air pressures around 8.5m deep.

Checked By: DATE:

Borehole No.: S-314.5
Elevation:

Borehole Field Report

Client: Sang
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120439Z-B1

Date start: 2019-11-20
Date Finish: 2019-11-20
Inspector: Pierre Howani

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 8.75
DEPTH OF HOLE: 9.15m
WATER LEVEL: ✓ DATE: 2019-11-20
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Mahel
DRILL: TCG05

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill								
0 - 20mm								Medium drilling difficulty
								Gravel
								some water sprayed after pressure.
8.75m								
bedrock								
9.15m								
end of hole								

Remarks: - Bedrock reached at 8.75m deep
- some water around 8.5m deep.

Checked By: DATE:

Borehole No.: TK-317,5
Elevation:

Borehole Field Report

Client: Sanna
Project / Site: Amaruq whale Tail Dyke
Project No.: 1204392-B1

Date start: 2019-11-20
Date Finish: 2019-11-20
Inspector: Pierre Hourani,

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9,4m
DEPTH OF HOLE: 9.7 m
WATER LEVEL: — DATE: 2019-11-20
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Mael
DRILL: TCG05

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill 0-20mm 9.4m bedrock 9.7m end of hole								Gravel No water observed Medium drilling difficulty

Remarks: Bedrock reached around 9.4m deep
No water observed all the way below even after Air pressure with drill.

Checked By: DATE:

Borehole No.: R-320.5
Elevation:

Borehole Field Report

Client: Sanga
Project / Site: Amaruq whale Tail Dyke
Project No.: 1204392-B1

Date start: 2019-11-20
Date Finish: 2019-11-20
Inspector: Pierre Houranl

DIAMETER OF HOLE: OVERBURDEN: /
BEDROCK: /
DEPTH OF HOLE:
WATER LEVEL: / DATE: 2019-11-20
PROBE No.: / TIME: /

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Mael
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									
6-20mm									No water
									Gravel
									20mm drilling difficulty
10.05m									
bedrock									
10.4m end of hole									

Remarks:

Checked By: DATE:

Field Report

Client: Qamani Hoey, SAUA

Site: Arnaud

Project: White tail dike

Project No.: 11204312-131

Date: 20 mar 2019

- [ ] Excavation Bed Ver.
- [ ] Concrete
- [ ] Compaction
- [ ] Asphalt
- [x] Other: Drilling, boretole
- [ ] Sampling
- [ ] Reinforcing Steel
- [ ] Structural Steel
- [ ] Vibration Monitoring

I have: [ ] my JSEAs [ ] my PPE [x] Proper training

I see: [ ] Unexpected Hazards I need: [ ] an S-RAF?

-28°C

Field Results:

The stations have been drilled: T-323.5; S-326.5; T-329.5; S-350.5 T-353.5;

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: Daniel Pedneault

Inspector: Mathieu Brisson

Signature*: Mathieu Brisson

Time on site (hrs): 12h

Travel time (hrs): _____

Mileage (km): _____

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

EXPLORATION CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Mathieu Brisson

Drill #: TCG-5, C-902

Day ☐ Night ☑

Date: 20 nov 2019

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0.4m) 0.35m	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-323,5	10,75	5,33	4,30	1,72	—	10,17m	0,35m	-0,53m	Br: 10,1, Uwater; Rock found hreel: 10,56m
S-326,5	11,5	5,33	4,30	2,52	—	10,73m	0,35	-0,78m	Rock found 9,42 Br: 10,5, water at ≈ m hreel: 11,08m
T-329,5	11,72	5,33	4,30	2,74	—	10,76	0,35	-0,96m	Br: 10,93, water at 11m hreel: 11,1m
S-350,5	13,28	5,33	4,30	4,30		13,4	0,35	Ø	→ casing introduce of 0,16m in the rock Br: 12,71, water at 9,58m hreel: 13,98m
T-353,5	13,66	5,33	4,30	4,30	0,38	13,85	0,35	-0,11	No rock found Br: 12,96, water at 13,80m hreel: 14,37

PAGE ____ OF ____

Borehole No.: T-323.5
Elevation: —

Borehole Field Report

Client: Communities, SAUA
Project / Site: Amaruq
Project No.: 1120439-B1

Date start: 20 nov. 2019
Date Finish: 20 nov. 2019
Inspector: Mathieu Bisson

DIAMETER OF HOLE — OVERBURDEN: —
BEDROCK: ~~10.47m~~ 10.17m
DEPTH OF HOLE: ~~10.47~~ 10.47m
WATER LEVEL: — DATE: —
PROBE No.: — TIME: —

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Sebastien Bissard
DRILL: TCG-5, C-962

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0									
Rock Fill									
1.5m to 2.0m									
0-20mm									
10.17m ~~10.47m~~ Bedrock									
10.47m ~~10.47m~~ End of hole									

Remarks: —

Checked By: — DATE: —

PAGE ____ OF ____

Borehole No.: T-326.5
Elevation: ____

Borehole Field Report

Client: Qamanittuaq, SANA
Project / Site: Amaruq
Project No.: 1120A392-B1

Date start: 20 nov. 2019
Date Finish: 20 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 10.72m
DEPTH OF HOLE: 11.02m
WATER LEVEL: ~~9.42m~~ DATE: 20 nov. 19
PROBE No.: 9.42m TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Sebastien Brossard
DRILL: TCG-5, C-402

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0									
Rock Fill									
1.5m to 2.0m									
0-20mm									
9.42m ~~9.42m~~ Water									
10.72m Bedrock									
11.02m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-328.5
Elevation: —

Borehole Field Report

Client: Qamanittuaq, SAUA
Project / Site: Amaruq
Project No.: 1120-4392-B1

Date start: 20 nov. 2019
Date Finish: 20 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.76m
DEPTH OF HOLE: 11.06m
WATER LEVEL: 11.0m DATE: 20.nov.19
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Sebastien Brassard
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows - 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0									
Rock Fill									
1,5m to 2,0m									
0-20mm									
10.76m Bedrock									
11,0m water									
11.06m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: S-3506
Elevation: ____

Borehole Field Report

Client: Qamanittuaq, SAPA
Project / Site: Amaruq
Project No.: 1120 4392-B1

Date start: 21 nov. 2019
Date Finish: 21 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 13,42
DEPTH OF HOLE: ~~13,42m~~ 13,58m
WATER LEVEL: 9,58m DATE: 20 nov. 19
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Sébastien Brossard
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0									
Rock Fill									
1.5m to 2.0m									
0-20mm									
9,58m Water									
13,42m Bedrock									
13,58m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

Borehole No.: T-353.5
Elevation: —

PAGE ____ OF ____

Borehole Field Report

Client: Qamanittuaq, SAUA
Project / Site: Amaruq
Project No.: 1120 4392-B1

Date start: 21 nov. 2019
Date Finish: 21 nov. 2019
Inspector: Mathieu Bisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 13.86m
DEPTH OF HOLE: 13.85m
WATER LEVEL: 13.80 DATE: 21 nov. 19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Sebastien Bossard
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0								
Rock Fill								
1.5m to 2.0m								
0-20mm								
13.80m Water								
13.85m Bedrock								
13.85m End of hole								

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Client: Sana	Date: 21-11-19
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring ◎ Other: Borehole check
Project: Whale Tail Dyke	
Project No.: 11203402-B1	

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☒ an S-RAP?

-30°C

Field Results:

3 Boreholes mate today P-356.5 ; S-410.5; T-413.5

P-356.5 was drilled 200mm deeper then the maximum depth of 14.4m 14.6m. was reached however bedrock was never reached. Sana representative told us to stop drilling passed anticipated depth therefore we moved to the next borehole.

Corrective actions to be taken

Site Representative: _____

From: _____

Inspector: Pierre Hourani

Signature*: Pierre Hourani

Time on site (hrs): 12

Travel time (hrs): _____

Project Manager: Daniel Pednault

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Pierre Hourani

Drill #: TCG05

Date: 2019/11/21

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)	measured depth - 0.35m
P-356.5	14.4	5.33	4.3	4.3	0.9	[illegible]	0.35	To.15	50% water	14.6 m
S-410.5	11.1	5.33	4.3	1.85		10.45	0.35	0.32	No water	10.4 [illegible]
T-413.5	11.4	5.32	4.3	2.12		10.84	0.35	0.25	No water	11.15 m
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]			

Borehole No.: S-410.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.:

Date start: 2019-11-21
Date Finish: 2019-11-21
Inspector: Pierre Hourani

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 10.45
DEPTH OF HOLE: 10.75
WATER LEVEL: ~ DATE: 2019-11-21
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Maël Simard
DRILL: TCG05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock Fill 0-20mm ↓ 10.45m bedrock 10.75m end of hole									No water Medium drilling difficulty

Remarks: No water observed
Bedrock reached at 10.45m depth

Checked By: DATE:

Borehole No.: F-413.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaru 9 Whale Tail Dyke
Project No.: 11

Date start: 2019-11-21
Date Finish: 2019-11-21
Inspector: Pierre Hawrani

DIAMETER OF HOLE: OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Maël Simar
DRILL: IG605

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									No Water
0-20mm									Medium drilling difficulty
10.84m									
bedrock									
11.15m									
end of hole									

Remarks: Bedrock reached at 10.84m

Checked By: ____ DATE: ____

PAGE 1 OF 1

Borehole No.: R3565
Elevation:

Borehole Field Report

Client: Simon
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120492-B1

Date start: 2019-11-21
Date Finish: 2019-11-21
Inspector: Pierre Hourrant

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 14.4m ?
DEPTH OF HOLE: -?
WATER LEVEL: — DATE: 2019-11-21
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Maël / Simon
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Some Water at 10.5m depth
0-20cm									
14.6m									
unknown bedrock depth was never reached									

Remarks:

Checked By: DATE:

Field Report

Client: Qamanittuaq, SALA

Site: Arviraq

Project: Whale tail dike

Project No.: 12604799-B1

Date: 21 nov 2019

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◉ Other: Drilling, borehole
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-28 °C

Field Results:

- This station have been drilled: T-419.5; S-422.5; T-425.5; P428.5

=> The station P-416.5, the casing 2 (4.30) does not want introducing in the hole, maybe the starter on the First casing (5.33m) defect. We have cutted 0.80m of 2e casing for take out the central rod.

- At the station T-431.5 the First casing is drilled

Corrective actions to be taken:

Site Representative: _____

From: _____

Inspector: Mathieu Buisson

Signature*: Mathieu Buisson

Time on site (hrs): 12h

Travel time (hrs): _____

Mileage (km): _____

Project Manager: Daniel Pedneault

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KINGLUK CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Mathieu Brisson

Drill #: TCG-5, C-9032

Date: 21 nov. 2019

Day ☐ Night ☑

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0.38m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand, etc.)
*P-416.5	11.6	5.33	4.30		—				* Br: 10.8 - Second (2e) casing (4.33m) does not want introducing in the hole, blocked — 1e ligne
T-419.5	11.4	5.33	4.30	2.42	—	10.48m	0.35m	-0.89m	water: 10.60m Br: 10.6; Rock Found — heel: 10.83m
S-423.5	11.3	5.33	4.30	2.32	—	10.27m	0.35m	-1.03m	water: 10.38m Br: 10.6; Rock Found — heel: 10.67m
T-425.5	11.2	5.33	4.30	2.22	—	10.61m	0.35m	-0.59m	water: 10.96m Br: 10.6; Rock Found — heel: 10.98m
P-428.5	11.2	5.33	4.30	2.22	—	10.19m	0.35m	-1.01m	water: 10.19m Br: 10.2; Rock Found — heel: 10.61m

PAGE ____ OF ____

Borehole No.: P-4285
Elevation: —

Borehole Field Report

Client: Canamiltaq
Project / Site: Amaruq
Project No.: 1120439-B1

Date start: 22 nov. 2019
Date Finish: 22 nov. 2019
Inspector: Mathieu Bisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.19m
DEPTH OF HOLE: 10.49m
WATER LEVEL: 10.19 DATE: 28nov 19
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Sebastien Brassard
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth (feet / metres)	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0								
Rock Fill								
1.5m to 2.0m								
0-20mm								
10.19m Bedrock + Water								
10.49m End of hole								

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: TM25-5
Elevation: ____

Borehole Field Report

Client: Communauté SADA
Project / Site: Amaruq
Project No.: 1120136-B1

Date start: 22 nov. 2019
Date Finish: 22 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.61m
DEPTH OF HOLE: 10.91m
WATER LEVEL: 10.90m DATE: 22nov. 19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: Sebastien Brassard
DRILL: TC-55, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0									
Rock fill									
1.5m to 2.0m									
0-20mm									
10.61m Bedrock									
10.90m Water									
10.91m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

422.5

PAGE ____ OF ____

Borehole No.: ~~422.5~~
Elevation: —

Borehole Field Report

Client: Qamanittuaq SAUA
Project / Site: Amaruq
Project No.: 1120439Z-B1

Date start: 21 nov. 2019
Date Finish: 21 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.27
DEPTH OF HOLE: ~~10.57m~~ 10.57m
WATER LEVEL: 10.38m DATE: 21nov. 19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Sebastien Brassard
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0									
Rock fill									
1.5m to 2.0m									
0-20mm									
10.27m Bed rock									
10.38m Water									
10.57m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: 419-5
Elevation: ~

Borehole Field Report

Client: Kamanittuaq, SADA
Project / Site: Amaruq
Project No.: 1204392-B1

Date start: 21 nov. 2019
Date Finish: 21 nov. 2019
Inspector: Mathieu Blisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10,48m
DEPTH OF HOLE: 10,78m
WATER LEVEL: 10,60m DATE: 21, nov, 19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Christian Brassard
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0 Rock Fill									
1,5m to 2,0m									
0-20mm									
10,48m Bed rock									
10,60m water									
10,78m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Client: Sana

Site: Amaruq

Project: Whale Tail Dyke

Project No.: 11204982-81

Date: 2019-11-22

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: Borehole
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training

I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-30 °C

Field Results:

Boreholes T-431.5 ; P.416.5 and T-437.5 drilled today with only T-431.5 having some water while Air pressured.

Bedrock reached in All 3 casings. drilled

Please see inspection sheets For details.

Corrective actions to be taken:

Site Representative: _____

From: _____

Inspector: Pierre Nouvarné

Signature*: Pierre Nouvarné

Time on site (hrs): 12.0

Travel time (hrs): _____

Mileage (km): _____

Project Manager: Daniel Pednault

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Pierre Hourani

Drill #: TCG05

Date: Nov 22 2019

Day ☑

Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)	
		1st	2nd	3rd	4th					Mesured depth - 0.35m
T-431.5	10.8	5.33	4.3	1.52		10.23	0.35	0.27	Some water observed	10.55m
P-416.5	11.6	5.33	4.3	2.35		10.66	0.35	0.68	No water	11.0m
T-437.5	10.9	5.33	4.3	1.62		10.0	0.35	0.6	No water	10.3m

Borehole No.: T-431.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 420492-B1

Date start: 2019-11-22
Date Finish: 2019-11-23
Inspector: Pierre Howani, I

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 10.23 m
DEPTH OF HOLE: 10.53 m
WATER LEVEL: — DATE: 2019-11-21
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Maël Simar
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Water observed after Air pressure
----- 0-20mm ---									Medium drilling difficulty
									bedrock reached At 10.23m
10.23m									
bedrock									
10.53m									

Remarks: Bedrock reached at 10.23m depth
- some water observed after 9m depth

Checked By: DATE:

Borehole No.: R416.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120499-B1

Date start: 2019-11-22
Date Finish: 2019-11-22
Inspector: Pierre Houran

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 10.66m
DEPTH OF HOLE: 10.96m
WATER LEVEL: — DATE: 2019-11-22
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Maël Simard
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									No water observed
---- 0-20mm ---- ↓									Medium drilling difficulty
10.66m — bedrock									
10.95m									

Remarks: Bedrock reached at 10.66m deep.
No water observed after Air pressure application.

Checked By: DATE:

Borehole No.: T-4375
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120492-B1

Date start: 2019-11-22
Date Finish: 2019-11-22
Inspector: Pierre Howard

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 10 m
DEPTH OF HOLE: 10.3 m
WATER LEVEL: — DATE: 2019-11-22
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Maël Simard
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock fill									Medium drilling difficulty
0-20mm									No Water
10.0 m									bedrock reached at 10.0 m
bedrock									
10.3m									

Remarks: No water
bedrock reached at 10.3m

Checked By: DATE:

Field Report

Client: Qamanittuaq, SAUA

Site: Amaruq

Project: Whale tail drive

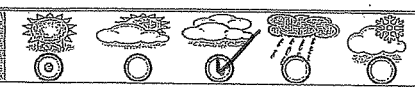
Project No.: 11204392-B1

Date: 22 nov 2019

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring
- ◉ Other: Drilling, borehole

I have: ☐ my JSEAs ☐ my PPE ☑ Proper training

I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?



-20°C

Field Results:

This station have been drilled: T-443.5; S-446.5; T-455.5; S-458.5 T-461.5; P-464.5

Site Representative: _____

From: _____

Inspector: Matthieu Boisson

Signature*: Matthieu Boisson

Time on site (hrs): 12h

Travel time (hrs): _____

Project Manager: Darrel Pednecault

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Mathieu Bérisson

Drill #: TCG-5, C-902

Day ☐ Night ☑

Date: 22 nov. 2019

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0.4m) 0.35m	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-443,5	10,6	5,33	4,30	1,32	—	10,39m	0,35m	Ø	Br: 10,1; Rock Found — water at: 10,51m — heel: 10,66m
S-446,5	10,5	5,32	4,30	1,23	0,22	10,42m	0,35m	Ø	Br: 9,9; Rock Found — water at: 9,07m — heel: 10,73m
T-455,5	10,8	5,33	4,30	1,79	-	10,24m	0,38m	-0,50	Br: 10,0; Rock Found — water level: 10,34m — heel: 10,62m
S-458,5	10,7	5,32	4,30	1,53	—	10,27m	0,35m	-0,23m	Br: 9,9; Rock Found — water level: 7,97m — heel: 10,62m
T-461,5	10,7	5,33	4,30	1,42	—	10,16m	0,35m	-0,24m	Br: 10,0; Rock Found — water level: 8,28m — heel: 10,41m
P-464,5	10,7	5,32	4,30	1,43	—	9,91	0,35	-0,49	Br: 9,7; Rock Found — water level: 10,11m — heel: 10,27m

PAGE ____ OF ____

Borehole No.: T-443.5
Elevation: ____

Borehole Field Report

Client: Qamanittuaq SANA
Project / Site: Amaruq
Project No.: 1120-1392-B1

Date start: 22 nov. 2019
Date Finish: 22 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.3m
DEPTH OF HOLE: 10.6m
WATER LEVEL: 10.51m DATE: 22.nov.2019
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: Sebastien Brassard
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0									
Rock fill									
1.5m to 2.0m									
0-20mm									
10.3m Bed rock									
10.51m water									
10.6m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: S-446.15
Elevation: ____

Borehole Field Report

Client: Qamanittuaq, SAUA
Project / Site: Amaruq
Project No.: 11204392-B1

Date start: 22 nov. 2019
Date Finish: 22 nov. 2019
Inspector: Mathieu Bjisson

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 10.42m
DEPTH OF HOLE: 10.72m
WATER LEVEL: 9.07m DATE: 22 nov. 19
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Sebastien Brossard
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0									
Rock Fill									
1.5m to 2.0m									
0-20mm									
9.07m Water									
10.42m Bed rock									
10.72m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

Borehole No.: F-155.5
Elevation: —

Borehole Field Report

Client: Communitaq, SAUA
Project / Site: Amaruq
Project No.: 1120-1392-B1

Date start: 22 nov. 2019
Date Finish: 23 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.24m
DEPTH OF HOLE: 10.54
WATER LEVEL: 10.34m DATE: 22nov. 2019
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
⊟ RC Rock core

TESTS

DRILLER: Sebastien Brassard
DRILL: TCG-5, C-90.2

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0									
Rock Fill									
1.5m to 2.0m									
0-20mm									
10.24m Bedrock									
10.34m Water									
10.54m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: S-1205
Elevation: —

Borehole Field Report

Client: Communications, SAUA
Project / Site: Amaruq
Project No.: 1120439-B1

Date start: 23 nov. 2019
Date Finish: 23 nov. 2019
Inspector: Mathieu Bisson

DIAMETER OF HOLE — OVERBURDEN: —
BEDROCK: 10.27m
DEPTH OF HOLE: 10.57m
WATER LEVEL: 7.97m DATE: 23nov.19
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Sebastien Brossard
DRILL: TCG-5, C-902

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
0 Rock fill								
1.5m to 2.0m								
0-20mm								
7.97m Water								
10.27m Bedrock								
10.57m End of hole								

Remarks: ____

Checked By: ____ DATE: ____

Borehole No.: T-461.5
Elevation: —

Borehole Field Report

Client: Qamanittuaq, SAVA
Project / Site: Amaruq
Project No.: 1120-4392-B31

Date start: 23 nov. 2019
Date Finish: 23 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.16m
DEPTH OF HOLE: 10.46m
WATER LEVEL: 8.28m DATE: 23 nov. 19
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Sebastien Brossard
DRILL: TEG-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0									
Rock Fill									
1.5m to 2.0m									
0-20mm									
8.28m Water									
10.16m Bedrock									
10.46m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-1645
Elevation: ____

Borehole Field Report

Client: Commitment SAUA
Project / Site: Amaruq
Project No.: 1120439B-B1

Date start: 23 nov. 2019
Date Finish: 23 nov. 2019
Inspector: Mathieu Brisson

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.91m
DEPTH OF HOLE: 10.21m
WATER LEVEL: 10.11m DATE: ____
PROBE No.: ____ TIME: ____

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Sebastien Brassard
DRILL: TOO-5, C-902

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0									
Rock fill									
1.5m to 2.0m									
0-20mm									
9.91m Bedrock									
10.11m Water									
10.21m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Client: Sana	Date: 2019-11-23
Site: Amaruq	◎ Excavation Bed Ver. ◎ Sampling
Project: Whale Tail Dyke	◎ Concrete ◎ Reinforcing Steel
Project No.: 11204932-B1	◎ Compaction ◎ Structural Steel
	◎ Asphalt ◎ Vibration Monitoring
	◉ Other: Borehole check

I have: ☐ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-25°C

Field Results:

3 Boreholes drilled toaday T-467.5, S-470.5 and S-206.5.
All Boreholes drilled reached required bedrock.
- Some water was seen in borehole S-206.5 after Air pressured by the drill.

- Please see Cassing drilling reports for check details.

Follow-up actions to be taken:

Site Representative: _____
From: _____

Inspector: Pierre Hawani
Signature*: Pierre Hawani
Time on site (hrs): 12
Travel time (hrs): _____
Mileage (km): _____

Project Manager: Daniel Pedneault

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIWALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Pierre Hourani

Drill #: TC605

Date: November 23 2019

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-467.5	10.2	5.33	4.3	0.92		9.9	0.35	✓	No water
S-470.5	10.1	5.33	4.3	0.82		9.8	0.35	✓	No water
*S-206.5	10.7	5.33	4.3	1.42		10.03	0.35	0.22	So No water

Depth - 0.35m measured
10.2m
10.1m
10.48 ~~35~~ m

PAGE 1 OF 1

Borehole No.: T 467.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120493-2-Bi

Date start: 2019-11-23
Date Finish: 2019-11-23
Inspector: Pierre Houraini

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 9.9 m
DEPTH OF HOLE: 10.2 m
WATER LEVEL: / DATE: /
PROBE No.: / TIME: /

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Maël Simard
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill									No water was seen while Air pressured by Drill
----0-20mm----									Medium drilling difficulty
9.9m									Bedrock reached.
bedrock									
10.2m end of hole									

Remarks:
- Between Anticipated surveyed max/min depths
- Bedrock reached at 9.9m deep

Checked By: DATE:

Borehole No.: S-470.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1204932-B1

Date start: 2019-11-23
Date Finish: 2019-1-23
Inspector: Pierre Hamrani

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.8
DEPTH OF HOLE: 10.1 m
WATER LEVEL: — DATE: —
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Maël Simard
DRILL: TCG05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									No water was observed after Air pressure
0-20mm									Medium drilling difficulty gravel
9.8m bedrock									bedrock reached.
10.1m end of hole									

Remarks:
- Bedrock reached at 9.8m deep.
- Anticipated survey depth Max/Min is with in Bedrock depth reach.

Checked By: DATE:

Borehole No.: S-2065
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120493 2-B1

Date start: 2019-11-23
Date Finish: 2019-11-23
Inspector: Pierre Hourani

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 10.03
DEPTH OF HOLE: 10.33 m
WATER LEVEL: ~ DATE: ~
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER:
DRILL:

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Some water in the hole after Air pressured by drill.
--- 0-20mm --- ↓									Medium drilling difficulty of Gravel.
10.03m bedrock									Bedrock reached at anticipated surveyed max/min depths.
10.48m end of hole									

Remarks: Bedrock reaches at 10.03 m deep.

Checked By: DATE:

Field Report

Client: Sana Group Gilbert

Site: Amaruq

Project: Whale Tail Dyke

Project No.: 11209332-B1

Date: 2019-12-24

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: Borehole check
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☐ my JSEAs ☑ my PPE ☑ Proper training

I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-35.0°C

Field Results:

As requested by client, GHD was present on site to monitor drilling process.

- Borehole drilled today was T-707.5 and the bedrock was finally reached at 11.86m at 2.06m passed anticipated depth.
- Water was observed passed a certain level before reaching the bedrock.
- Due to Mechanical failure for 5hrs, only one borehole was successfully drilled.

Corrective actions to be taken

Site Representative: _____

From: _____

Inspector: Pierre Hourani

Signature*: Pierre Hourani

Time on site (hrs): 12.0 hrs

Project Manager: Daniel Pednault

Travel time (hrs): _____

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KINALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Pierre Howard

Drill #: TCG05

Date: 2019-11-24

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-707.5	9.8	5.32	4.3	0.81	2.06	11.86	0.35	NA	some water observed after Air pressure 12.2m

PAGE 1 OF 1

Borehole No.: T-707.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1204932-B1

Date start: 2019-11-24
Date Finish: 2019-11-24
Inspector: Pierre Hourani

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK: 11.86m
DEPTH OF HOLE: 12.16m
WATER LEVEL: ~ DATE: ~
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Mael Simare
DRILL: TC-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock Fill									Some water observed once pressurized by drill once passed 5.5m depth
0-20mm									easy drilling difficulty.. Gravel then water
Max Anticipated depth of Bedrock 9.8m									bedrock reached passed anticipated
11.86m start bedrock									
12.16m end of hole									

Remarks:
- Bedrock reaches at 11.86m deep.

Checked By: DATE:

Field Report

Client: Sana / Gilbert group

Site: Amaruq

Project: Whale Tail Dyke

Project No: 12204432-B1

Date:

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: Borehole check
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training

I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-24.0°C

Field Results:

As requested by the client GHD was present on site for Borehole monitoring. Boreholes S-710.5 ; T-713.5 ; T-716.5 ; T-719.5 were checked today and all reached bedrock.

- All Boreholes drilled passed Maximum anticipated depth during drilling process to ensure bedrock was reaches.
- All Boreholes had some water accumulated while drilling.
- For check details please see attached Field report.

Corrective actions to be taken

Site Representative: _____

From: _____

Inspector: Pierre Hawani

Signature*: Pierre Hawani

Time on site (hrs): 12.0hrs

Travel time (hrs): _____

Project Manager: Daniel Pednault

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIWALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Pierre Howard

Drill #: TCG05

Date: 2019-11-25

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)	Mesured depth - 0.35m
S-710.5	9.5	5.33	4.3	4.3		13.03	0.35	0.25	some water observed passed max depth	13.3m ✓
T-713.5	9.7	5.33	4.3	4.3	+0.23	13.5	0.35	/NA	some water observed after air pressure	13.8m ✓
T-716.5	9.7	5.33	4.3	4.3		11.63	0.35	1.65	some water observed	11.93m ✓
T-719.5	9.6	5.32	4.3	1.65		9.7	0.35	0.92	Some water observed	10.0m

Borehole No.: S-710.5
Elevation:

Borehole Field Report

Client: Sakia
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120 4932-B1

Date start: 2019-11-25
Date Finish: 2019-11-25
Inspector: Pierre Hourani

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK: 13.07m
DEPTH OF HOLE: 13.33m
WATER LEVEL: / DATE: 2019/11/25
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Maël / Simard
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Medium drilling difficulty until water level, easily drilled passed anticipated Maximum depth.
0-20mm									
13.20m Bedrock									Bedrock reached at 13.01 m depth.
13.33m end of hole									

Remarks: - water reached at arounds 6m deep. observed pressurized Air drill and lots of water was flowing out.
- Bedrock reached passed anticipated Max depth.

Checked By: DATE:

Borehole No.: T-H3.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaring Whale Tail Dyke
Project No.: 11204932-B1

Date start: 2019-11-25
Date Finish: 2019-11-25
Inspector: Pierre Houraui

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 13.5m
DEPTH OF HOLE: 13.8 m
WATER LEVEL: ~ DATE: 25-11-25
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Mael Simard
DRILL: TG05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Medium drilling difficulty during gravel drilling until water level around 7m deep easily drilled passed anticipated maximum depth of 9.7m.
0-20mm									
13.5m bedrock									Bedrock reached at 13.5m depth.
13.8m end of hole									Air pressure from drill sprays out excess water from bore hole

Remarks:
- Bedrock was reached at 13.5m depth and was drilled an extra 300mm in bedrock conforming to specs but passed anticipated depth.

Checked By:
DATE:

Borehole No.: TF 716.5
Elevation:

Borehole Field Report

Client: Sang
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1204932-B1

Date start: 2019-11-25
Date Finish: 2019-11-25
Inspector: Pierre Houraoi

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 11.63m
DEPTH OF HOLE: 11.93m
WATER LEVEL: ✓ DATE: 2019-11-25
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Maje / Simare
DRILL: TG05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Drilling difficulty was medium until water level observed while pressured drill.
0-20mm									
									Bedrock was reached at 11.63m deep and drilled further 300 mm in bedrock. passing anticipated max depth.
11.63m bedrock									
11.93m end of hole									

Remarks:
- Bedrock reached at 11.63m deep.

Checked By:
DATE:

Borehole No.: T-719.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120493Z-B1

Date start: 2019-11-25
Date Finish: 2019-11-25
Inspector: Pierre Houvani

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.7 m
DEPTH OF HOLE: 10.0m
WATER LEVEL: — DATE: 2019-11-25
PROBE No.: — TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Maé / Simard
DRILL: TCG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Medium drilling difficulty
0-30mm									Some water observed after Air pressure by drill.
9.7m bedrock									Bedrock reached at 9.7m deep slightly passed anticipates.
10.0m end of hole									

Remarks: - Some water observed
- Bedrock reached at 9.7m depth.

Checked By: DATE:

Field Report

Client: Sana / Gilbert

Site: Amaruq

Project: Whale Tail Dyke

Project No.:

Date:

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: Borehole check
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training

I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-26.8C

Field Results:

As requested by the client, GHD was present on site for drilling inspection and check.

2 Boreholes drilled today S-679.5 and T-671.5 and both reached the bedrock and surpassed by 300mm. Water was observed while pressurized.

-Mechanical failure of the drill for 5hrs due to bit and hammer failure

- Please see attached Field report for borehole check details.

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: Daniel Pednault

Inspector: Pierre Houreau

Signature*: Pierre Houreau

Time on site (hrs): 12hrs

Travel time (hrs): 1

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Pierre Houraní

Drill #: TC-05

Day ☑ Night ☐

Date: 2019-11-26

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
S-674.5	11.2	5.33	4.3	2.23		10.58	0.35	0.63	Some water observed / Mesured depth -0.35 = 10.9m
T-671.5	10.9	5.33	4.3	1.65		9.95	0.35	0.67	Some water observed 10.25m

Borehole No.: S-674.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail - Dyke
Project No.: 1204932-B1

Date start: 2019-11-26
Date Finish: 2019-11-26
Inspector: Pierre Houranieh

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 10.58m
DEPTH OF HOLE: 10.9m
WATER LEVEL: / DATE: 2019-11-26
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Maël Simard
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Some water was observed once the hole was Air Pressured by the drill
----0-20mm----									Bedrock was reached at 10.58m depth
↓									Hard difficulty drilling.
10.58m									
bedrock									
10.9m									
end of hole									

Remarks:
- Some water observed
- Bedrock reached at 10.58m depth.

Checked By: DATE:

Borehole No.: F-671.5
Elevation:

Borehole Field Report

Client: Samq
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120 4932-B1

Date start: 2019-11-26
Date Finish: 2019-11-26
Inspector: Pierre Howrani

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.95m
DEPTH OF HOLE: 10.25m
WATER LEVEL: ✓ DATE: 2019-11-26
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Maël Simard
DRILL: TC 605

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill	0							Some water after Air pressured with the drill.
	20m							
	9.95m							Bedrock was reached at 10.25m depth
bedrock								Hard dificulty drilling
	10.25m							

Remarks:
- Bedrock was reached at 9.95m depth
- Water observed while pressurized

Checked By: DATE:

GHD

Field Report

Client: Sana / Group Gilbert

Site: Amaruq

Project: Whale Tail Dyke

Project No.: 11204932-B1

Date:

- ◎ Excavation Bed Ver.
- ◎ Concrete
- ◎ Compaction
- ◎ Asphalt
- ◎ Other: Borehole check
- ◎ Sampling
- ◎ Reinforcing Steel
- ◎ Structural Steel
- ◎ Vibration Monitoring

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-35°C

Field Results:

As requested by the client, GHD visited the site for Drilling monitoring and Borehole Checks.

- Boreholes checked today were T-593.5 ; S-590.5 ; T-587.5 ; P-584.5
- All Boreholes checked passed the Maximum Anticipated depths placed by the surveyor of bedrock depth. All Boreholes had some water sprayed after Air pressured by drilling process.
- All Boreholes checked reached the bedrock and passed by 300mm as requested.
- Please see attached Field reports for Monitoring details.

Corrective actions to be taken:

- Note : In the morning, one of the boreholes was inclined while being placed therefore the surveyor was called to restart a new borehole without issues of inclination and the 1st one was cancelled.

Site Representative: _____

From: _____

Inspector: Pierre Hourani

Signature*: Pierre Hourani

Time on site (hrs): 12.0

Travel time (hrs): _____

Mileage (km): _____

Project Manager: Daniel Pedneault

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIWALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Pierre Hourani

Drill #: TCG05

Date: 2019-11-27

Day ☒ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)	
		1st	2nd	3rd	4th					mesured depth -0,35m
T-593.5	11.5	5.32	4.3	2.88	+0.65	12.48	0.35	/NA	some water observed	12.8m
S-590.5	11.1	5.32	4.3	4.3		12.61	0.35	0.66	some water observed	12.92m
T-587.5	11.5	5.32	4.3	4.3		12.13	0.35	1.14	some water observed	12.43m
P-584.5	10.8	5.33	4.3	4.3		12.6	0.35	0.67	some water observed	12.9 m

PAGE 1 OF 1

Borehole No.: T-593.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1204932-81

Date start: 2019-11-27
Date Finish: 2019-11-27
Inspector: Pierre Hamani

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK: 12.48m
DEPTH OF HOLE: 12.78m
WATER LEVEL: ✓ DATE: ✓
PROBE No.: TIME:

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Maël Simard
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Medium drilling difficulty
0-20mm									Gravel and water observed after drilling with Air pressure.
water/gravel									Bedrock was reached at 12.48m depth.
12.48m bedrock									
12.78m end of hole									

Remarks:
- Bedrock reached much passed anticipated maximum depth at 12.48m deep.
- Water observed after air pressured with drill.

Checked By: DATE:

Borehole No.: S-590.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.:

Date start: 2019-11-27
Date Finish: 2019-11-27
Inspector: Pierre Houranieh

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 12.61m
DEPTH OF HOLE: 12.92m
WATER LEVEL: ✓ DATE: 2019-11-27
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
◫ RC Rock core

DRILLER: Maei / Simare
DRILL: TCG05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Water observed after Air pressure
0-20mm									Medium drilling difficulty
water/ gravel									Gravel
12.61m bedrock									Bedrock reached at 12.61m depth.
12.92m end of hole									

Remarks: - Bedrock reached passed anticipated maximum depth of 11.1m at 12.61m depth in steps.
- Water sprayed after pressurized by drill Air pressure.

Checked By: DATE:

Borehole No.: F-587.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaring Whale Tail Dyke
Project No.: 1120432-B1

Date start: 2019-11-27
Date Finish: 2019-11-27
Inspector: Pierre Howrani

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK: 12.13m
DEPTH OF HOLE: 12.43m
WATER LEVEL: ✓ DATE: 2019-11-27
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Maël Simare
DRILL: TC605

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill								Medium drilling difficulty
~ - - - 0-20mm - - -								Water observed after pressured by drilled
								Gravel most and some water
12.13m bedrock								Bedrock reached at 12.13m deep
12.43m end of hole								

Remarks: - Bedrock passed anticipated max depth of 11.5m to 12.13m depth instead. (Reached)

- Water sprayed after Air pressured by the drill rod.

Checked By: DATE:

Borehole No.: BH584.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq Whale Tail Dyke
Project No.: 1120493281

Date start: 2019-11-27
Date Finish: 2019-11-27
Inspector: Pierre Hourani

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 12.6m
DEPTH OF HOLE: 12.9m
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Maël Simard
DRILL: TCG05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									Medium difficulty drilling
----0-20mm----									Water observed after pressured by drilled
									Gravel most and some water.
12.6m bedrock									Bedrock reached at 12.6m depth
12.9m end of hole									

Remarks:
- Bedrock passed anticipated maximum depth of 10.8 to 12.6m instead
- Water sprayed after Air pressured by the drilling process

Checked By: DATE:

Field Report

Client: Sana / Groupe Gilbert
Date: 19-11-28
Site: Amaruq
Project: Whale tail dike
Project No.: 1120493231

- [ ] Excavation Bed Ver.
- [ ] Concrete
- [ ] Compaction
- [ ] Asphalt
- [x] Other: Drilling inspection
- [ ] Sampling
- [ ] Reinforcing Steel
- [ ] Structural Steel
- [ ] Vibration Monitoring

I have: [x] my JSEAs [x] my PPE [ ] Proper training
I see: [ ] Unexpected Hazards I need: [ ] an S-RAF?

-20°C

Field Results:

- Borehole checked today were T-581,5 ; S-578,5 and T-575,5.
- All boreholes checked reached the bedrock and passed by 300mm as requested
- The first 2 boreholes checked (T-581,5 and S-578,5) passed the maximum anticipated depths placed by the surveyor of bedrock depth.

Corrective actions to be taken:

Site Representative: _____
From: _____
Project Manager: D.P

Inspector: Jean-Michel Royer
Signature*: [signature]
Time on site (hrs): 12h
Travel time (hrs): —
Mileage (km): —

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Jean-Michel Boyer

Drill #: TCG05

Date: 2019-11-28

Day ☐ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (~~0,4m~~)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-581,5	10,8	5,33	4,3	4,3	—	11,71	0,35	1,57	water observed
S-578,5	10,9	5,33	4,3	4,3	—	11,72	0,35	1,56	water observed
T-575,5	11,7	5,33	4,3	4,3	—	11,43	0,35	1,85	water observed

Casing length - Sec. cut - 0,35 - 0,3

Borehole No.: T-SB1.5
Elevation:

Borehole Field Report

Client: Sana
Project / Site: Amaruq, Whale tail dike
Project No.: 1120932-B1

Date start: 2019-11-28
Date Finish: 2019-11-28
Inspector: Jean-Michel Royer

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11.71
DEPTH OF HOLE: 12.01
WATER LEVEL: — DATE: 19-11-28
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Maël Simard
DRILL: TG05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock fill 0-20mm									- Water observed after pressured by the drill - Gravel most and some water - Bedrock reached at 11.71m deep
11.71 Bedrock									
12.01 End of Drilling									

Remarks: anticipated max depth = 10.8m

Checked By: DATE:

Borehole No.: S-5785
Elevation:

Borehole Field Report

Client: Sanq
Project / Site: Amaruq, WTD
Project No.: 1204932-B1

Date start: 19-11-28
Date Finish: 19-11-28
Inspector: Jean-Michel Royer

DIAMETER OF HOLE — OVERBURDEN: — BEDROCK: 11.72
DEPTH OF HOLE: 12.02
WATER LEVEL: — DATE: 19-11-28
PROBE No.: — TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Maël Simard
DRILL: ICS05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock fill 0-20mm									-Water observed after pressured by the drill -Gravel most and some water -Bedrock reached at 11.72m deep
11.72m Bedrock									
12.02m End of Drilling									

Remarks: anticipated bedrock depth = 10.9m

Checked By: — DATE:

Borehole No.: T-585-5
Elevation:

Borehole Field Report

Client: SAQ
Project / Site: Amaruq, WTP
Project No.: 1120493Z-B1

Date start: 19-11-28
Date Finish: 19-11-28
Inspector: Jean-Michel Boyer

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11.43
DEPTH OF HOLE: 11.73
WATER LEVEL: DATE: 19-11-28
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Maël Simard
DRILL: TC505

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill 0-20mm									-water observed after pressured by the drill -Gravel moist and some water -Bedrock reached at 11.43m deep.
11.43m Bedrock									
11.73m End of Drilling.									

Remarks:

Checked By: DATE:

Field Report

Client: Qamanirtuq Sana
Date: 14/7/19
Site: Amaruq
Project: Whale tail Dike
Project No: 12544932-EV

- [ ] Excavation Bed Ver.
- [ ] Concrete
- [ ] Compaction
- [ ] Asphalt
- [x] Other: boreholes check
- [ ] Sampling
- [ ] Reinforcing Steel
- [ ] Structural Steel
- [ ] Vibration Monitoring

I have: ☐ my JSEAs ☐ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-10°C

Field Results:

- 3 boreholes ~~[illegible]~~ have been drilled (P-572.5 and T-569.5) + (S-566.5)
- We hit something hard around 10m deep while drilling the borehole T-569.5
- Mostly gravel and some water
- Bedrock reached deeper than the anticipated depth for the ~~[illegible]~~ boreholes P-572.5 and T-569.5

Corrective actions to be taken:

Site Representative: _____
From: _____
Project Manager: D. P.

Inspector: J-M Roger
Signature*: [signature]
Time on site (hrs): 12
Travel time (hrs): —
Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KINGLING CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Jean-Michel Royer

Drill #: TG05

Date: 2019-11-29

Day ☐ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (~~0,4m~~)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
~~P-572.5~~	~~11.3~~	~~5.33~~	~~4.3~~	~~4.3~~	—	~~12.99~~	~~0.35~~	~~0.29~~	Encounter B.C. ~ 12.99m water
P-572.5	11.3	5.33	4.3	4.3	—	12.99	0.35	0.29	water
T-569.5	11.4	5.33	4.3	4.3	—	11.45	0.35	1.83	water
S-566.5	11.1	5.33	4.3	4.3	—	10.65	0.35	2.63	water

Borehole No.: P-572S
Elevation:

Borehole Field Report

Client: Qamanittuaq Sana
Project / Site: Amaroq, W.T.D.
Project No.: 1120432-B1

Date start: 19-11-30
Date Finish: 19-11-30
Inspector: Jean-Michel Boyer

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 12,99
DEPTH OF HOLE: 13,29
WATER LEVEL: — DATE: 19-11-30
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Mael Simard
DRILL: TG90S

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill 0-20mm									water and gravel
12,99 bedrock encountered									
13,29 End of drilling									

Remarks: Bedrock reached deeper than anticipated depth

Checked By: DATE:

Borehole No.: T-569.5
Elevation:

Borehole Field Report

Client: Qamanittuaq Sana
Project / Site: Amaruq, W-T.D
Project No.: 1120493Z-B1

Date start: 19-11-30
Date Finish: 19-11-30
Inspector: Jean-Michel Royer

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11,45
DEPTH OF HOLE: 11,75
WATER LEVEL: DATE: 19-11-30
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Maël Simard
DRILL: JCB05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
0-20mm									- water and gravel
									- We hit something hard around 10cm deep
11,45 Bedrock									
11,75 End of drilling									

Remarks: Bedrock reached deeper than anticipated depth

Checked By: DATE:

Borehole No.: 15-5665
Elevation:

Borehole Field Report

Client: Qamani'tuaq Sana
Project / Site: Amaruq W.T.D.
Project No.: 1120493-B1

Date start: 19-11-30
Date Finish: 19-11-30
Inspector: J-Michel Boyer

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 10.65
DEPTH OF HOLE: 10.95
WATER LEVEL: — DATE: 19-11-30
PROBE No.: — TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Mark Simard
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill 0-20 mm									Mostly gravel and water
Bedrock 10.65m									
End of drilling 10.95m									

Remarks:

Checked By: DATE:

Field Report

Client:	groupe Gilbert - KCS
Site:	Amaruq
Project:	Whale tail Pit
Project No.:	[illegible]
Date:	16 [illegible] 2019

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: Boreholes
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☒ Unexpected Hazards I need: ☐ an S-RAF?

-10 °C

Field Results:

The shift was done well without any problem! (

At the end of the shift, ± 5 hours pm, we prepared all the equipments for be ready to operate tomorrow morning on the hole P-596.5.

For Survey only, to be filled

Site Representative: Ken Lachance
From: Qanaittuaq Sana

Inspector: Maryska Beauregard
Signature*:

Time on site (hrs): 12h
Travel time (hrs): —
Mileage (km): —

Project Manager: Daniel Pedneault, GHD

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Mariska Beaureagard

Drill #: TG45 9928 / C-919

Date: 30-11-19

Day [X]
Night [ ]

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-5635		5,32	4,29	3,62		10,7	0,34	1,89	presence of water at 8,5m
D-5605		5,32	4,30	1,84		9,5	0,35	1,31	presence of water at 8m
P-6805		10,8	+0,4 =	3,87		11,75	0,35	2,63	presence of water at 10m

PAGE ____ OF ____

Borehole No.: T-963.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - WTP
Project No.: 1204932 - B1

Date start: 30-11-19
Date Finish: 30-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10,7
DEPTH OF HOLE: 11,0
WATER LEVEL: 3,5 DATE: ____
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Mael Simard
DRILL: TC45 99138 C-919

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Ground level		0,35 m							weather -10°C
Rockfill									
1@2									
0-20 mm									
3.5 Presence of water									
9.5									A lot of water
10.7 Bedrock									
11.0 end of borehole									

Remarks: The bedrock is reach at 10.7 m as a competent rock and the presence of water start at 3.5m until the end of borehole.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-550-5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - WTP
Project No.: 1204932-B1

Date start: 30-11-19
Date Finish: 30-11-19
Inspector: Marjska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.5
DEPTH OF HOLE: 9.8
WATER LEVEL: 8.0 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Mael Smard
DRILL: TCGS 9928 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Ground Level		0							weather -10 °C
Rock fill									
0-20mm									
presence of water	8								A lot of water until the end
Bedrock	9.5								
end of borehole	9.8								

Remarks: The bedrock is reach at 9.5 m in a competent rock

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-680,5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - WTP
Project No.: 1204932-B1

Date start: 30-11-19
Date Finish: 30-11-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 11.75
DEPTH OF HOLE: 12.05
WATER LEVEL: 10 DATE: ____
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Mael Simard
DRILL: TG65 7928
C-919

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0,35m							weather -10°C
Already done by an other shift									
	10.0								presence of water in the end of borehole
	10.76								
Bedrock	11.75								
end of borehole	12.05								

Remarks: The bedrock is reach at 11.75m in a competent rock in this hole there is presence of a lot of water !!!

Checked By: ____ DATE: ____

Field Report

Client: Groupe gilbert - KCT

Site: Amaruq

Project: Whale tail Bike

Project No:

Date:

- Excavation Bed Ver.
- Concrete
- Compaction
- Asphalt
- Other: Borehole
- Sampling
- Reinforcing Steel
- Structural Steel
- Vibration Monitoring

I have: ☐ my JSEAs ☐ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-17°C

Field Results:

After we put the 3rd casing on the rod, the drill didn't start. We had wait about 20-30 minutes for the mecanic guy.

We finish the borehole at 5hours pm, the sky track is busy so he can't moved all our equipments to the next one (P-392.5).

Tomorrow morning, we'll begen by moving the stuff.

Corrective actions to be taken:

Site Representative: François Collard

From: Canamiteaq Sana

Inspector: Maryska Beauregard

Signature*:

Time on site (hrs): 12R

Travel time (hrs):

Mileage (km):

Project Manager: Daniel Pedneault, GHD

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Mareyska Beaureegard

Drill #: TCG5 9928 / C-999

Date: 1-12-19

Day [X]
Night [ ]

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	~~4th~~ total	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
P-596.5		«12,47»	0,4	1,7	(14,6)	12,63	0,35	1,29	presence of ice and water at 10m
T-533.5		«11,3»	0,4	2,9	(14,6)	12,33	0,35	1,72	presence of water at 11m
P-404.5		«13,79»	0,102	4,30	(18,71)	14,32	0,35	3,74	presence of ice and water at 11,5m

PAGE ____ OF ____

Borehole No.: P-596-5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - WRS
Project No.: 1204932-B1

Date start: 1-12-19
Date Finish: 1-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 12.76
DEPTH OF HOLE: 13.06
WATER LEVEL: 10 DATE: ____
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Mael Simard
DRILL: TC65 992-5
C-919

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							weather -17°C
		0.35m							
Already done by an other shift									
	10								There is a lot of water and mud at the end of the borehole
	12.47								
Bedrock	12.76								
end of borehole	13.06	0.3							

Remarks:
12.47 = Stick-up + depth Hole
The bedrock is reach only 0,29m after we begin to drill the hole again.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-533.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - RCT
Project / Site: Amaruq - WPB
Project No.: 1124932-B1

Date start: 01-12-19
Date Finish: 01-12-19
Inspector: Nanyska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 12.23
DEPTH OF HOLE: 12.53
WATER LEVEL: 11.0 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Mael Simard
DRILL: IC45 9928-C-19

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Ground level			F	0.35m					weather -17°C
Already done by an other shift									
11.0 Presence of water									there is just a little water
11.3									
12.23 Bedrock									
12.53 end of borehole									

Remarks: The bedrock is reach at 12.23m in a competent rock!

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-404
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCT
Project / Site: Amherst - WTP
Project No.: 1204932 - B1

Date start: 01-12-19
Date Finish: 01-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 14.32
DEPTH OF HOLE: 14.62
WATER LEVEL: 10.5 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Mael Simard
DRILL: RG5 7928 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0.35m							weather -10°C the wind begin to be strong
Already done by an other shift									
10.5 presence of water									There is a lot of water & mud
13.79									
14.32 Bedrock									
14.62 end of borehole									

Remarks: The bedrock is reach at 14.32m it a competent rock. At 10.5m the water begin to show up and there is mud in the borehole.

Checked By: ____ DATE: ____

Field Report

Client: Groupe gilbert - KCT

Site: Amaruq

Project: Whale tail Bike

Project No: 11221352.01

Date: 13-12-19

- [ ] Excavation Bed Ver.
- [ ] Concrete
- [ ] Compaction
- [ ] Asphalt
- [x] Other: Borehole
- [ ] Sampling
- [ ] Reinforcing Steel
- [ ] Structural Steel
- [ ] Vibration Monitoring

I have: [x] my JSEAs [x] my PPE [x] Proper training

I see: [ ] Unexpected Hazards I need: [ ] an S-RAF?

-26 °C

Field Results:

At 4:45 we finished the borehole P-380.5. So we moved all our equipment to be ready tomorrow morning to drill P-356.5.

Corrective actions to be taken:

Site Representative: François Collard

From: Qamanittuaq Sana

Project Manager: Daniel Pedneault, GHS

Inspector: Maryske Beauregard

Signature*:

Time on site (hrs): 12h

Travel time (hrs): —

Mileage (km): —

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Khrystka Beauregard

Drill #: TG65 9938 / TC-919

Day ☒ Night ☐

Date: 02-12-19

Station	Survey Depth	Casing lenght (m) measure			total	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.) Final depth
		1st	2nd	3rd	~~4th~~				
P-392,5		12,27	2,24		14,51	12,38	0,35	1,48	presence of water at 9,5m 13,25m
T-389,5		11,58	2,96		14,54	12,52	0,35	1,37	presence of water at 10,5m 13,43m
P-380,5		11,47	3,06		14,53	12,15	0,35	1,73	presence of water at 9m 13,08m

* must add the lenght of the bite to... Bedrock = final depth 0,24 + 0

PAGE ____ OF ____

Borehole No.: P-392.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - WTP
Project No.: 1204932-B1

Date start: 02-12-19
Date Finish: 02-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 12.38
DEPTH OF HOLE: 13.08
WATER LEVEL: 9.5 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG45 9988 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0.35m							weather - 26°C
Already done by an other shift									
9.5 Presence of water									There is a lot of water at this point until the end of coverage.
12.27									
12.38 Bedrock									
12,68 end of borehole									

Remarks: The bedrock is reach only 0,09m after the depth done by the others, in a competent rock.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-389-5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCT
Project / Site: Amaruq - WTP
Project No.: 1204932-B1

Date start: 02-12-19
Date Finish: 02-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 12.52
DEPTH OF HOLE: 12.82
WATER LEVEL: 10.5 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC95 9928 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level				0.35m					weather - 26°C
Already done by an other shift!									
10.5 Presence of water									A lot of water and mud almost at the end of borehole
11.58									
12.52 Bedrock									
12.82 end of borehole									

Remarks: The bedrock is reach at 12.52m (difference of 0.94m) in a competent rock.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-380.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - WTR
Project No.: 1120432-B1

Date start: 02-12-19
Date Finish: 02-12-19
Inspector: Manyska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 12.15
DEPTH OF HOLE: 12.45
WATER LEVEL: 9.0 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG 5 9128 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level	0			0.35m					Weather -26°C
Already done by an other shift									
9.0 Presence of water	9.0								A lot of water and mud
11.47	11.47								
12.15 Bedrock	12.15								
12.45 end of borehole	12.45								

Remarks: The bedrock is reach at 12.15m (difference of 0.32m) is a fractured rock.

Checked By: ____ DATE: ____

Field Report

Client: Groupe Gilbert - KCJ

Site: Amaruq

Project: Whale tail Bike

Project No.: 12579-01

Date: 03-18-19

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: Borehole
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training

I see: ☒ Unexpected Hazards I need: ☐ an S-RAE?

-20 °C

Field Results:

This morning, we put a too long casing on the rat we needed a loader to remove the « U » on the top.

The job was done well!

Corrective actions to be taken:

Site Representative: François Collard

From: Qamanittuaq Sara

Inspector: Maryska Beauregard

Signature*:

Time on site (hrs): 12h

Travel time (hrs): —

Mileage (km): —

Project Manager: Daniel Pednault, GHD

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

All the final depth are verified by Bobby !

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Manuska Beaurepaire

Drill #: TCG5 9928 / C-919

Day ☒ Night ☐

Date: 03-12-19

mesuré (rod)

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	total	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand, etc.)	final depth ↓
P-396,5		14,84	4,30		19,14	15,18	0,35	3,31	A LOT of water at 9m + & concrete	16.08
T-353,5		14,07	3,4		16,47	14,31	0,35	2,51	Presence of water at 9,5m	15.23
P-344,5		13,09?	0,23	1,22	14,54	13,13	0,35	0,76	Presence of water at 10,5m	14.04
S-338,5			0,23			To finish 04-12-19				

* must add the lenght of the bite to the final depth (0.24m + 0.65m)

PAGE ____ OF ____

Borehole No.: P-356.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - WTR
Project No.: 1120432-B1

Date start: 03-12-19
Date Finish: 03-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 15.08
DEPTH OF HOLE: 15.38
WATER LEVEL: +9 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC65 #128 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0.35m							Weather - 20°C
Already done by an other style									
+9 Presence of water									There is A LOT of water until the end of borehole + the mud is concrete!
14.84									Liquid concrete are really present at the bottom
15.18 Bedrock									
15.48 end of borehole									

Remarks:
The bedrock is reach at 15.08m (difference of 0.24m) in a competent rock.
A LOT of water & concrete in the borehole.

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-533.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - WTP
Project No.: 1120+232 - B1

Date start: 03-12-19
Date Finish: 03-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 14.31
DEPTH OF HOLE: 14.61
WATER LEVEL: ± 9.5 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG5 9928 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							weather - 20°C
Already done by an other shift									
± 9.5 — Presence of water ▽									
13.39									
14.31 Bedrock									
14.61 end of borehole									

Remarks: The bedrock is reach at 14.31m in a competent rock

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: P-344.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - WTB
Project No.: 1120493 2-B1

Date start: 03-12-19
Date Finish: 03-12-19
Inspector: Marjska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TG95 9928 - C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Ground level		0,35m							Weather -20°C
Already done by an other shift									
↓10.5 Presence of water									
13.09									
13.13 bedrock									
13.43 end of borehole									

Remarks: The bedrock is reach at 13,13m in a competent rock

Checked By: ____ DATE: ____

Field Report

Client: Groupe Gilbert - KCS

Site: Amaruq

Project: Whale tail Dike

Project No.: 112012-17

Date: 04-12-19

- ◎ Excavation Bed Ver.
- ◎ Concrete
- ◎ Compaction
- ◎ Asphalt
- ◉ Other:
- ◎ Sampling
- ◎ Reinforcing Steel
- ◎ Structural Steel
- ◎ Vibration Monitoring

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training

I see: ☐ Unexpected Hazards I need: ☐ an S-RAP?

-36 °C

Field Results:

We was able to finish all the station (338-314-272-188-176) at 4:15. So, we prepared our equipments for tomorrow morning.

Site Representative: Francois Collard

From: Qamanittuaq Sana

Inspector: Marjska Beauregard

Signature*:

Time on site (hrs): 12h

Travel time (hrs): —

Mileage (km): —

Project Manager: Daniel Pedneault - GHD

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maryska Beauregard

Drill #: TC65 9928 / TC-919

Day ☒ Night ☐

Date: 04-12-19

measure (rod)

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th total	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand, etc.) Final depth
S-338.5		13.25	0.23	1.24	14.72	13.61	0.35	0.46	▽ at 13m 14.53
T-311.5		8.4	0.23	1.35	9.98	8.08	0.35	1.25	▽ at 7.5m 8.95
P-272.5		9.05	0.23		9.28	8.63	0.35	Ø	dry borehole, already in rock (0.18 in rock) 9.34
P-188.5		8.55	0.23		8.78	8.13	0.35	Ø	dry borehole, already in rock (0.26 in rock) 8.84
P-176.5		8.05	0.23		8.28	7.69	0.29	Ø	Barely a little water at 7.5m (0.3 in rock) 8.30 *
									* the end of the borehole is full in mud Really not evident to measure the final depth

* must add the lenght of the bite (0.24m) and 0.65m to the bedrock.

All final depth are verified by Bobby!

PAGE ____ OF ____

Borehole No.: T-3385
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCT
Project / Site: Amaruq - WTP
Project No.: 1204937-B1

Date start: 04-12-19
Date Finish: 04-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE: OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG65 9988 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							Weather - 36°C
		0.35m							
Already done by another shift									
	12.9								
± 13.0 ▽									Just a little water
13.61 Bedrock									
13.91 end of borehole									

Remarks: The bedrock is reach at 13.61 m (difference of 0.71m) in a competent rock

Checked By: ____ DATE: ____

CHG FG-1110.14 - Borehole Field Report - Rev.0 - 07/01/2015

(13.25 - 0.35 = 12.9m in the ground)

PAGE ____ OF ____

Borehole No.: VS-311.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - WTB
Project No.: 1120493Z-B1

Date start: 04-12-19
Date Finish: 04-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.08
DEPTH OF HOLE: 8.38
WATER LEVEL: 7.5 DATE: ____
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TCG5 9928 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							weather - 36°C
		0.35m							
Already done by an other shift									
7.5 ▽									just a little water
8.05									
8.08 Bedrock									
8.38 end of borehole									

Remarks: The bedrock is reach at 8.08m (difference of 0.03m) in a competent rock.

Checked By: ____ DATE: ____

(8.4 - 0.35 = 8.05)

PAGE ____ OF ____

Borehole No.: P-272.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - WTS
Project No.: 1204932-B1

Date start: 04-12-19
Date Finish: 04-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 8.63
DEPTH OF HOLE: 8.93
WATER LEVEL: 0 DATE: ____
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG5 99-38 C-919

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0.35m							weather - 36°C
Already done by another shift									The borehole is completely dry. We can see the dust of the bedrock. We are ALREADY in the bedrock. So, we just drill 0.58 m
8.63 Bedrock									
8.93 end of borehole									

Remarks: The bedrock is competent and there is no water in the borehole!

Checked By: ____ DATE: ____

(9.05 - 0.35 = 8.7)

PAGE ____ OF ____

Borehole No.: P-188.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - WTP
Project No.: 1204932-B1

Date start: 04-12-19
Date Finish: 04-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG45 9928
C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0							weather -36°C
									the borehole is dry there is no water.
Already done by an other shift									we are already in the bedrock. So we just drill 0,26m.
8.13 Bedrock									
8.43 end of borehole									

Remarks: The bedrock is competent and there is no water in the borehole.

Checked By: ____ DATE: ____

(8.55 - 0.35 = 8.2)

PAGE ____ OF ____

Borehole No.: BH-16.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - WTB
Project No.: 1204932-B1

Date start: 04-12-19
Date Finish: 04-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE: OVERBURDEN: ____ BEDROCK: 7.69
DEPTH OF HOLE: 7.99
WATER LEVEL: ±7.5 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG5 9928 C9P1

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level		0.29 m							weather - 36°C
Already done by an other shift									
±7.5 ▽									Barely a little water in the hole.
7.69 Bedrock									
7.99 end of borehole									

Remarks: The bedrock is not competent.

Checked By: ____ DATE: ____

Field Report

Client: Groupe Gilbert - KCS
Site: Amaruq
Project: Whale tail Dike
Project No.: 11204932 B1

Date: 05-12-19

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: Borehole
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-40 °C

Field Results:

Today, we was able to make only two boreholes. This morning, the kite of the drill broke at the beginning (before we even started the hole S-254.5. So, after lunch about ± 14:30 we needed to stop working immediately for a « code red » until 16:30.

Also, maxime Côté (Sana) showed me a few things in the injection unity (tests, cleaning, etc) and we test the efficacity of the cone (26 sec ± 0.5). All 4 are OK !! Mohammed Saleem was with us and approved the results.

Site Representative: Patrice Foutin
From: Qamanittuaq Sana

Inspector: Maryska Beauregard
Signature*:

Time on site (hrs): 12h
Travel time (hrs): —
Mileage (km): —

Project Manager: Daniel Pedneault, GHD

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIWALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maryska Beauregard

Drill #: ICG5 9928 / C-919

Day [X] Night [ ]

Date: 05-12-19

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
S-254.5		5,33	4,29			9,0	0,35	Ø	▽ at 8,5m, 0,27m in Rock 9,73 final depth.
T-365.5		5,32	4,31	4,28	4,30	16,75	0,35	0,81	▽ at 9m, 0,3m in Rock

* Must add the lenght of the bite of the bedrock
0.24 + 0.65m

All final depth are verified by Bobby!

PAGE ____ OF ____

Borehole No.: S-284.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCS
Project / Site: Amaruq - WTP
Project No.: 1204932-B1

Date start: 05-12-19
Date Finish: 05-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.0
DEPTH OF HOLE: 9.3
WATER LEVEL: 8.5 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: Bobby Gagne
DRILL: TG S 9928 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
ground level				0,35m					weather - 40°C
Rock fill									
0-20 mm	1	0.2							
	7								presence of concrete & bentonite
	8.2								
	8.5	▽							There is a lot of water until the end of borehole.
Bedrock	9.0								
end of borehole	9.3								

Remarks: The bedrock is reach in a not competent rock, we lost the air in the dyke and there is a lot of water about 8.5m

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-365.5
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KCJ
Project / Site: Amaruq - WTP
Project No.: 1204932-B1

Date start: 05-12-19
Date Finish: 05-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE: OVERBURDEN: ____ BEDROCK: 16.75
DEPTH OF HOLE: 17.05
WATER LEVEL: 9 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Bobby Gagné
DRILL: 7C65 9988 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level			T	0,35m					Weather - 40°C
Rockfill 0-20 mm									
									presence of bentonite a lot in this zone. BUT... we can find a few more a little more deeper.
9 ▽									There is a lot of water until the end of borehole.
16.75 Bedrock									
17.05 end of borehole									

Remarks: The bedrock is reach at 16,75m in a not competent rock, it is clearly fractured.

Checked By: ____ DATE: ____

Field Report

Client: Groupe Gilbert - KGT	Date: Oct 10 19
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling
Project: Whale tail Dyke	○ Concrete ○ Reinforcing Steel
Project No.: 11219134 P1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◎ Other: Borehole

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-42 °C

Field Results:

Today we finished the boreholes downstream of the dyke. The only one we didn't have time to do yesterday because of the code red. So, The hole S-434.5 is done about 9:30 in the morning.

Corrective actions to be taken

Site Representative: Dale Burton
From: Qamanittuaq Sana

Inspector: Maryska Beauregard
Signature*:

Time on site (hrs): 12h.
Travel time (hrs): —
Mileage (km): —

Project Manager: Daniel Pednault, GHD

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KINGLINE CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Mariusa Beauregard

Drill #: IC65 9928 / C-0919

Day ☒ Night ☐

Date: 06-12-19

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	~~4th~~ Total	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.) Final depth
S-434.5		5,31	4,04	4,32	13,67	9,89	0,35	3,13	▽ at ± 9 m 10,88 m

* Must add the lenght of the bite to the bedrock (0.24 + 0.165m)

All final depth are verified by Bobby!

PAGE ____ OF ____

Borehole No.: S-4345
Elevation: ____

Borehole Field Report

Client: Groupe Gilbert - KAS
Project / Site: Amaruq - WTA
Project No.: 1204932-B1

Date start: 06-12-19
Date Finish: 06-12-19
Inspector: Maryska Beauregard

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 9.89
DEPTH OF HOLE: 10.19
WATER LEVEL: 9.0 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC45 92282 C-919

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
ground level	0	0		T 0,35m					weather - 42 °C
									I didn't see any concrete in the hole.
±9 ▽									small presence of water in the end of borehole
9.89 Bedrock									
10.19 end of borehole									

Remarks: The bedrock is reach at 9.89m in a competent rock and there is a small presence of water

Checked By: ____ DATE: ____

Field Report

Client: Sana KC	**Date:** 2019-12-12
Site: Amarya	○ Excavation Bed Ver. ○ Sampling
Project: 11204932 B1	○ Concrete ○ Reinforcing Steel
Project No.:	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◉ Other:

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-30°C

Field Results:

Casing

Correction of the Hole 5722.5

We had to go deeper than maximal depth to reach the bed Roc.

Casings were added

Corrective actions to be taken:

Site Representative: _____ Inspector: DBF

From: _____ Signature*: _____

Time on site (hrs): _____

Travel time (hrs): _____

Project Manager: _____ Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Jean Philippe Bastien

Drill #: 9932

Date: 2019-12-12

Day ☒ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
S_722.5	—	12.8				12.45	0.35		3.4 m casing added
		↳	total						

PAGE ____ OF ____

Borehole No.: 5722,5
Elevation: ____

Borehole Field Report

Client: Sana - KCJ
Project / Site: Amanva
Project No.: 1120493Z B1

Date start: 2019-12-12
Date Finish: 2019-12-12
Inspector: JPBJF

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: 12,45
WATER LEVEL: — DATE: 2019-12-12
PROBE No.: ____ TIME: ____

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: D. Diolet
DRILL: 9932

STRATIGRAPHY	Depth (feet / metres)	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
12,45m End of the Hole								

Remarks: ____

Checked By: JPBF

DATE: 2019-12-12

Field Report

Client: FGL – Sana	Date: 2020-02-26
Site: Dike	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring ◎ Other: casing drilling
Project: Amaruq	
Project No: 12039152-B1	

I have: ☐ my JSEAs ☐ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF 2

-30 °C

Field Results:

Station drilled : Q736
- Q733
- Q697
- Q694 → not finished

note #1 : Impossible to embed in the bedrock.
The weld between the pipes #1 and #2 has broken.
Extraction of the pipe #3, remove and reach the broken weld.
The welding has been redone at the end of the shift.

Corrective actions to be taken

Site Representative: _____

From: _____

Inspector: Maxime Pointer Desbiens

Signature*: Maxime Pointer Desbiens

Time on site (hrs): 12.0 hours

Travel time (hrs): _____

Project Manager: Daniel Pednault

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maxime Poirier Desbiens

Drill #: TCG-05

Date: 26-02-2020

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
Q736	8.9	5.33	4.27	2.86		9.73	0.28	2.15	Water reach at 8.87m
Q733	8.8	5.33	4.27	2.13		9.81	0.28	1.32	" " at 9.07m
Q697	9.5	5.32	4.28	4.29		9.96	0.28	3.34	" " at 9.10m
Q694	9.7	5.33	4.28	3.34		[look at note #1 in field report]			water reach at 7.92m

Borehole No.: Q736
Elevation: -

Borehole Field Report

Client: FGL - Sara
Project / Site: Amaruq Dike
Project No.: 1120493Z-B1

Date start: 2020-02-26
Date Finish: " " "
Inspector: Maxime Poirier Perkins

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Jessie
DRILL: TG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES

8.87m — water
9.73m — Bedrock
10.12m — End of the hole

Remarks:

Checked By: DATE:

Borehole No.: BH-23
Elevation: —

Borehole Field Report

Client: FGL - Sena
Project / Site: Amaray Dike
Project No.: 1204932 - 01

Date start: 2020-02-26
Date Finish: "
Inspector: Maxime P.D.

DIAMETER OF HOLE — OVERBURDEN: —
BEDROCK: —
DEPTH OF HOLE: —
WATER LEVEL: — DATE: —
PROBE No.: — TIME: —

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Jessie
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
9.07m Water									
9.81m Bed rock									
10.25m End of the hole									

Remarks:

Checked By: DATE:

Borehole No.: Q697
Elevation:

Borehole Field Report

Client: FGL - Sand
Project / Site: Annacis Dike
Project No.: 1204932 - B1

Date start: 2020-02-26
Date Finish:
Inspector: Maxime P.D.

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Jessie
DRILL: TG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.10m water									
9.96m Bed rock									
10.20m End of the hole									

Remarks:

Checked By: DATE:

Borehole Field Report

Borehole No.: BG94
Elevation: —

Client: FGL - Sang
Project / Site: Anning Dike
Project No.: 1204932 - B1

Date start: 2020-02-26
Date Finish: " not sure
Inspector: Marine P.D

DIAMETER OF HOLE — OVERBURDEN: —
BEDROCK: —
DEPTH OF HOLE: —
WATER LEVEL: — DATE: —
PROBE No.: — TIME: —

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: Jessie
DRILL: TG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
7,92m Water									
? Bedrock									
? End of the hole									

Remarks: note #1 Field report

Checked By: — DATE: —

Field Report

Client: FGL - Sana	Date: 2-23-02-26 Night
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling ○ Concrete ○ Reinforcing Steel ○ Compaction ○ Structural Steel ○ Asphalt ○ Vibration Monitoring ◎ Other:
Project: Amaruq	
Project No.: 12604922-B1	

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-30 °C

Field Results:

Compressor broke down → none of borehole done.

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: Daniel Pednault

Inspector: Amadou Oury Diallo

Signature*: _____

Time on site (hrs): 12.0 hrs

Travel time (hrs): _____

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KINGLING CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Amadou Oury Diallo

Drill #: TCG-5

Date: 2020-02-26

Day ☐

Night ☒

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
Q-694	9,7	5,33	3,85	4,28					

Field Report

Client: Group Gilbert	Date: 27-02-2020
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling
Project: Dike	○ Concrete ○ Reinforcing Steel
Project No.: 12204732-B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◎ Other: Cassing drilling

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-30°C

Field Results:

station drilled : ◦ Q 694
◦ Q 691

Inclinometer, station done : Q 739
Q 736
Q 733
Q 697

Corrective actions to be taken

Site Representative: _____

From: _____

Project Manager: Daniel Pedneault

Inspector: Maxime Poirier Boulet

Signature*: _____

Time on site (hrs): 12 hrs

Travel time (hrs): _____

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Marine Poirier Rubio

Drill #: TGG-05

Date: 27-02-2020

Day ☐ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
Q 694	9.7	5.33	3.95	4.28	–	9.54	0.28	3.34	Water level = 7.92m Measure Final 10.16mm deep
Q 691	9.89	5.31	4.28	3.34	–	10.32	0.28	2.03	Water level : 9.05m, Final Deapth

Borehole Field Report

Borehole No.: QG94
Elevation:

Client: Groupe Gilbert
Project / Site: Amarcing Dike
Project No.: 1204932-131

Date start: 26-02-2020
Date Finish: 27-02-2020
Inspector: Maxime PD

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK :
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

DRILLER: Jessy Savard
DRILL: TG-05

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
7.92 Water								
9.54 Bedrock								
10.16 End of the hole								

Remarks:

Checked By: DATE:

Borehole No.: Q691
Elevation: —

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Armagh Dike
Project No.: 1120432-B1

Date start: 27-02-2020
Date Finish: 1" " "
Inspector: Maxime P.D

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯▯ RC Rock core

TESTS

DRILLER: Jessy Savard
DRILL: TZ6-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
9.05m Water									
10.32m Bedrock									
? End of the hole									

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Client: FGL - Sana

Site:

Project: Amaruq

Project No.: 12049932 - R1

Date: 2020-02-27 (night)

- ◎ Excavation Bed Ver.
- ◎ Concrete
- ◎ Compaction
- ◎ Asphalt
- ◉ Other:
- ◎ Sampling
- ◎ Reinforcing Steel
- ◎ Structural Steel
- ◎ Vibration Monitoring

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-30°C

Field Results: Boreholes checked.

- Q688
  - Survey depth = 10,0m
  - Encounter bedrock = 10.26m
  - Stickup at level ground = 0.30m
  - Water reached at 9.0m
  - Casing into bedrock = 0.30m
- Q685
  - Survey depth = 10,0m ; - Encounter bedrock = 10,90m
  - Stick-up at level ground = 0,30m
  - Water reached at 9,0m ; Casing into bedrock = 0,30m
- Q682
  - Survey depth = 9,9m ; - Encounter bedrock = 10.17m
  - Water reached at 9,0m, Casing into bedrock = 0,30m
- Q718
  - Survey depth = 9,4m
  - depth of hole 10.6m (bedrock hasn't been reach)

→ To be continued by day shift crew

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: Daniel Pedneault

Inspector: Amadou Oury Diallo

Signature*: _____

Time on site (hrs): 12,0 hrs

Travel time (hrs): _____

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KINGLING CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Amadou Oury Diallo

Drill #: TCG-5

Date: 2020-02-27

Day ☐ Night ☒

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
Q-688	10.0	5,32	4,30	2,03	—	10,36	0.30	0,79	Water @ 9,0m mixed with concrete
Q-685	10,0	5,32	4,28	3,21	—	10.90	0,30	1,31	Water mixed with concrete @ 9.0m
Q-682	9,9	5,31	4,28	4,30	—	10,17	0,30	3,12	Water mixed with concrete @ 9,0m
Q-718	9,4	5,32	4,36	1,32					Casing depth = 10,6m → To be finish by deposit drill crew

PAGE ____ OF ____

Borehole No.: Q.688
Elevation: ____

Borehole Field Report

Client: FGL - Sana
Project / Site: Amaruq
Project No.: 1120493z-R1

Date start: 2020-02-27 Night
Date Finish: 2020-02-27 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: Bobby Gzyne
DRILL: TC6T5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill 0-20mm									
9.0m Water									
10.26m bedrock									
10.56m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: 8685
Elevation: ____

Borehole Field Report

Client: FGL - Sand
Project / Site: Amaruq
Project No.: 1120493 2 - B1

Date start: 2020-02-~~27~~ Night
Date Finish: 2020-02-27 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TCG-50

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock fill									
- 0-20mm									
9.0m									
10.90m									
11.2m bedrock									
End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: BH682
Elevation: ____

Borehole Field Report

Client: FGL - Sena
Project / Site: Amaruq
Project No.: 1120491 32-B1

Date start: 2020-02-27 Night
Date Finish: 2020-02-27 Night
Inspector: ____

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- [] RC Rock core

TESTS

DRILLER: ____
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock pile									
0-20mm									
9.0m Water									
10.17m									
~~Boulder~~ bedrock									
10.47									
End of hole									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: BH18
Elevation:

Borehole Field Report

Client: FGL - Sana
Project / Site: Amaruq
Project No.: 1120493 2 - B1

Date start: 2020-02-27 Night
Date Finish: 2020-02-27 Night
Inspector: Amadou Ourydiallo

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TC 625

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES

Remarks: ____

Checked By: ____ DATE: ____

GHD

Field Report

Client: Groupe Gilbert

Site: Amaruq Dike

Project: —

Project No.: 12044132-01

Date: 28-02-2020

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: Casing drilling
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☐ my JSEAs ☐ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-35°C

Field Results:

Casing drilled: Q-718
Q-667
Q-664 * → Note 1
Q-628
P-609.1 * → Note 2

* Note 1: The water was coming out of hole Q667 already drilled while drilling the hole Q664. The two communicate between each other.

* Note 2: Weld between pipe #1 and 2 broke, so we cut weld between pipe #2 to #3, extract the pipe #3, and redo the weld by the night shift.

Site Representative: _____

From: _____

Project Manager: Daniel Pednault

Inspector: Maxime Poirier-Kadjesa

Signature*: [signature]

Time on site (hrs): 12 hrs

Travel time (hrs): _____

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KINGLUK CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maxime Poirier Pelletier

Drill #: TCG #5

Date: 28-02-2020

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
Q-718	9.4	5.32	4.36	1.32	1.31	11.61	0.28	0.12	Water level : 10.6m final depth : 11.99m
Q-667	10.5	5.33	4.29	3.11	—	10.56	0.28	1.59	Wlevel = 9.02m fdepth : 10.57m
Q-664	10.4	5.32	4.30	4.30	-	10.35	0.28	2.99	Wlevel = 10.35m *Note #1 fdepth : 10.75m
Q628	11.6	5.33	4.28	2.99	-	12.07	0.23	0	Wlevel = 9.13m fdepth : 12.46
P609.1	11.8	5.31	4.28	4.30					Weld between pipe #1 et 2 broke
		\	/	it will change slightly.					*note #2
		Still good.							

PAGE 1 OF 4

Borehole No.: Q718
Elevation: -

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amaruq Dike
Project No.: 1204932-B1

Date start: 28-02-2020
Date Finish: " " "
Inspector: Marine Rider-Rediker

DIAMETER OF HOLE OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Jessy Savard
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
10,60m water									
11,61m Bed rock									
11,91m End of hole									

Remarks:

Checked By: DATE:

Borehole No.: 9667
Elevation: —

Borehole Field Report

Client: Grape gilbert
Project / Site: Amherst Dike
Project No.: 1204932-131

Date start: 28-02-2020
Date Finish:
Inspector: Marine Pointer Desbiens

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

DRILLER: Jesby Smart
DRILL: TLG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.02m Water									
10.56m Bedrock									
10.86m End of hole									

Remarks:

Checked By: DATE:

Borehole No.: Q664
Elevation:

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amuray Dike
Project No.: 1204932-31

Date start: 28-02-2020
Date Finish: " "
Inspector: Maxime Poirier Desbiens

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Jessy Savard
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
10.35 Water + Bedrock									
10.65m End of hole									

Remarks: The water was coming out of hole Q-667 while drilling the hole Q664. They seems to communicate between each other.

Checked By: DATE:

PAGE 4 OF 4

Borehole No.: Q628
Elevation: —

Borehole Field Report

Client: groupe Gilbert
Project / Site: Amiens Dike
Project No.: 1120932-131

Date start: 28-02-2020
Date Finish: " "
Inspector: Maxime P.D

DIAMETER OF HOLE — OVERBURDEN: — BEDROCK: —
DEPTH OF HOLE: —
WATER LEVEL: — DATE: —
PROBE No.: — TIME: —

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Jessy Sund
DRILL: TCG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
9,13m Water									
12,07m Bedrock									
12,37m End hole									

Remarks:

Checked By: DATE:

Field Report

Client: GROUPE GILBERT.

Site: AMARUK.

Project: WHALE TAIL DIKE.

Project No.: 11204432-B1.

Date: 2020/03/12

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◉ Other: CASING DRILLING.
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☐ my JSEAs ☐ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAP?

-35°C

Field Results:

CASING DRILLING ON DIKE.

- P-487
- Q-295
- Q-292
- Q-223
- Q-220

INCLINOMETER ON CASING # T-580, S-526, S-529, T-532, T-535, T-538, P-583, Q-526, Q-523, T-556, S-553.

Corrective actions to be taken

Site Representative: _____

From: _____

Project Manager: D. PEDNEAULT

Inspector: RICHARD JODOIN

Signature*: _____

Time on site (hrs): 12.0

Travel time (hrs): —

Mileage (km): —

By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD.

11811 - Casing Drilling Report

Employee: R. JODOIN

Drill #: TCG 5

Date: 2020/03/12

Day ☒ Night ☐

CASING MEASUREMENT

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
P-487	9.5	5.33	4.28	3.58	—	10.88	0.260	1.75	FIRST LENGTH STARTED ON DAY SHIFT. NO WATER
Q-295	9.2	5.33	4.28	—	—	8.68	0.260	0.370	NO WATER
Q-292	9.5	5.33	4.30	—	—	8.60	0.260	0.470	"
Q-223	10.7	5.33	4.28	4.30	—	9.59	0.300	3.72	WATER AT ± 7m. MUD BOTTOM
Q-220	11.2	5.32	4.28	3.72	—	10.96	0.270	2.29	" " " " "

11.31 OK
9.14 OK
9.04 OK
9.90
11.15

PAGE 1 OF

Borehole No.:

Elevation: P-481

Borehole Field Report

Client: GROUPE GILBERT

Project / Site: WHALE TAIL DIKE

Project No.: 1120432-B1

Date start: 2020/03/12

Date Finish: 2020/03/12

Inspector: RICHARD JODOIN

DIAMETER OF HOLE: OVERBURDEN:

BEDROCK: 10.88

DEPTH OF HOLE: 11.31

WATER LEVEL: @ DATE:

PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ⊡ RC Rock core

TESTS

DRILLER: SEBASTIEN

DRILL: TG65

SECOND CUT → 1.75

STICK-UP.

0.260

GROUND (0) LEVEL

(2)

(1)

BEDROCK LEVEL. 10.88

SOCKET

END OF HOLE. 11.31

Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES

Remarks:

Checked By: DATE:

Borehole Field Report

Borehole No.:
Elevation: Q-295

Client: GROUPE GILBERT
Project / Site: WHALE TAIL DIKE
Project No.: 11204432-B1.

Date start: 2020/03/12
Date Finish: 2020/03/12
Inspector: RICHARD JODOIN.

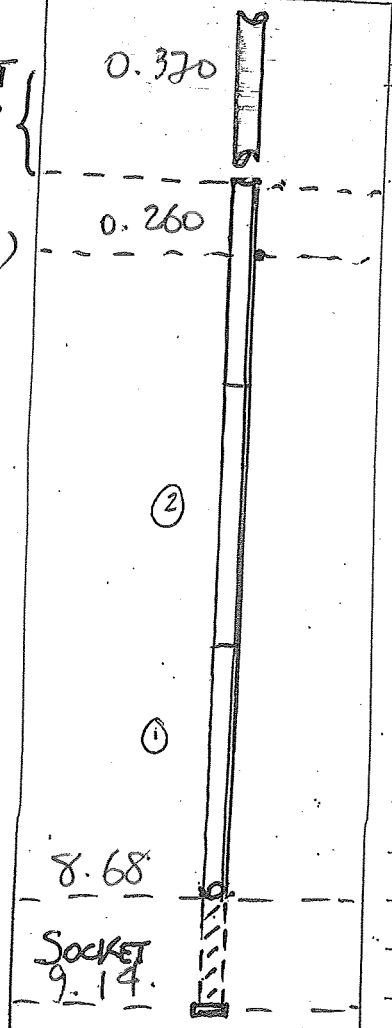
DIAMETER OF HOLE: OVERBURDEN:
BEDROCK: 8.68
DEPTH OF HOLE: 9.14.
WATER LEVEL: DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: SEBASTIEN.
DRILL: TC65.

SAMPLE | TESTS

Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES



SECOND CUT →
STICK-UP.
GROUND (0) LEVEL
BEDROCK LEVEL.
END OF HOLE.

Remarks:

Checked By: DATE:

Borehole No.:
Elevation: Q-292

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: WHALE TAIL DIKE
Project No.: 11204432-B1.

Date start: 2020/03/12
Date Finish: 2020/03/12
Inspector: RICHARD JODOIN.

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK: 8.60
DEPTH OF HOLE: 9.14.
WATER LEVEL: DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: SEBASTIEN.
DRILL: TC65.

SECOND CUT → 0.470
STICK-UP.
GROUND (0) LEVEL 0.260

BEDROCK LEVEL. 8.60
SOCKET
END OF HOLE. 9.04.

Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES

Remarks:

Checked By: DATE:

PAGE 4 OF

Borehole No.:

Elevation: Q-223.

Borehole Field Report

Client: GROUPE GILBERT

Project / Site: WHALE TAIL DIKE

Project No.: 1204432-B1.

Date start: 2020/03/12

Date Finish: 2020/03/12

Inspector: RICHARD JODOIN.

DIAMETER OF HOLE OVERBURDEN:

BEDROCK:

DEPTH OF HOLE:

WATER LEVEL: DATE:

PROBE No.: TIME:

SS Split spoon

ST Shelby tube

RC Rock core

DRILLER: SEBASTIEN.

DRILL: TCG5.

SECONDCUT →

3.72

STICK-UP.

0.300

GROUND LEVEL (0)

(2)

(1)

9.59

BEDROCK LEVEL.

SOCKET

END OF HOLE.

9.90

SAMPLE						TESTS	
Depth feet	Depth metres	Sample State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES

Remarks:

Checked By: DATE:

PAGE 5 OF

Borehole No.:

Elevation: Q-220

Borehole Field Report

Client: GROUPE GILBERT

Project / Site: WHALE TAIL DIKE

Project No.: 1120432-BJ.

Date start: 2020/03/12

Date Finish: 2020/03/12

Inspector: RICHARD JODOIN.

DIAMETER OF HOLE: OVERBURDEN:

BEDROCK: 10.46

DEPTH OF HOLE: 11.15

WATER LEVEL: DATE:

PROBE No.: TIME:

SS Split spoon

ST Shelby tube

RC Rock core

DRILLER: SEBASTIEN.

DRILL: TC65.

SECOND CUT → 2.29

STICK-UP.

0.270

GROUND LEVEL

BEDROCK LEVEL. 10.46

SOCKET 11.15

END OF HOLE.

SAMPLE						TESTS	
Depth feet / metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES

Remarks:

Checked By:

DATE:

Field Report

NIGHT SHIFT

Client: GROUPE GILBERT

Site: AMARUQ

Project: DIKE

Date: 2019-03-[illegible]

Project No: 12-3[illegible]-01

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: CASING DRILLING

- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☑ my JSEAs ☑ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-35°C

Field Results:

CASING DRILLED : Q 199

Q 197

Q 193

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: D. PEDNEAULT

Inspector: ALAIN BEAUCHESNE

Signature*: Alain Beauchesne

Time on site (hrs): 12 HRS.

Travel time (hrs): _____

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD.

11811 - Casing Drilling Report

Employee: ALAIN BEAUCHESNE

Drill #: TCG-05

Date: 2020-03-12 AND 13

Day ☐ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
Q199	9.9	5.33	4.28	2.29	—	9.48	0.24	1.94	WATER 8.71 F DEPHT 9.81
Q197	10.2	5.33	4.30	1.93	—	10.26	0.24	0.76	WATER 9.25 F DEPHT 10.65
Q193	10.2	5.33	4.20	4.28	—	9.76	0.24	3.59	WATER 9.12 F DEPHT 10.15

GHD

Borehole No.: Q 199
Elevation:

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: AMARO DIKE
Project No.: 11201932-B1

Date start: 2020-03-12
Date Finish: 2020-03-12
Inspector: ALAIN BEAUCHESNE

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 9.42
DEPTH OF HOLE: 9.91
WATER LEVEL: 8.71 DATE: 20-03-12
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: BOBBY LAVOIE
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
8.71 WATER									
9.42 BED ROCK									
9.91 END OF HOLE									

Remarks:

Checked By: DATE:

Borehole No.: Q147
Elevation:

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: AMARUQ DIKE
Project No.: 1120493 2-B1

Date start: 2020-03-12
Date Finish: 2020-03-12
Inspector: ALAIN BEAUCHEMIN

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 10.26
DEPTH OF HOLE: 10.65
WATER LEVEL: 9.25 DATE: 20-03-12
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: BOBBY GRAHAME
DRILL: TCH-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES

9.25 WATER
10.26 BEDROCK
10.65 END OF HOLE

Remarks:

Checked By: DATE:

GNP

Borehole No.: Q-193
Elevation:

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: AMARUQ, DIKE
Project No.: 1120493 2-B1

Date start: 2020-03-13 NIGHT
Date Finish: 2020-03-13 NIGHT
Inspector: ALAIN BEAUCHESNE

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 9.76
DEPTH OF HOLE: 10.15
WATER LEVEL: 9.12 DATE: 2020-03-13
PROBE No.: TIME:

☒ SS Split spoon
▨ ST Shelby tube
◫ RC Rock core

DRILLER: BOBBY CRAIG
DRILL: TC4-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES

9.12 WATER
9.76 BEDROCK
10.15 END OF HOLE

Remarks:

Checked By: DATE:

D-3 Upstream Casing Installation Report

Field Report

Client: FGL - Sana	**Date:** 2020-02-22
Site:	○ Excavation Bed Ver. ○ Sampling
Project: Amaruq	○ Concrete ○ Reinforcing Steel
Project No.: 12044932-B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◉ Other:

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards **I need:** ☐ an S-RAF?

-35°C

Field Results:

Station drilled : T-748

Corrective actions to be taken

Site Representative: _____

From: _____

Project Manager: Daniel Pednault

Inspector: Amadou Oury Diallo

Signature*: _____

Time on site (hrs): 12.6 hrs

Travel time (hrs): _____

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KINGLINK CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Amadou Oury Diallo

Drill #:

Date: 2020-02-22

Day ☐
Night ☒

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-748	8.5	5.23	4.30	—	—	8.88	0.30	0.15	water reached at 5.0m

Borehole Field Report

Borehole No.: \
Elevation: ____

Client: FGL Sena
Project / Site: Amaruq
Project No.: 1192049 32 - B1

Date start: 2020-02-22
Date Finish: 2020-02-23
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TCT

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
5.0 m Water									
8.88 m Bedrock									
9.18 m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Client: FGL-Sana

Site:

Project: Amaruq

Project No: 12-42852-R1

Date: 23-02-25 W/d

- Excavation Bed Ver.
- Concrete
- Compaction
- Asphalt
- Other:
- Sampling
- Reinforcing Steel
- Structural Steel
- Vibration Monitoring

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☑ an S-RAF?

-30°C

Field Results:

Boreholes checked:

- S-745
  - Survey depth = 8.4m
  - Encounter bedrock = 8.8m
  - Stick-up at level ground - 0,25m
  - Water reached @ 5.0m
  - Casing in bedrock = 0.3m
- Q-739
  - Survey depth = 8.9m
  - Encounter bedrock = 10.2m
  - Stick up a level ground = 0.3m
  - Casing in bedrock = 0,3m
- Q-736
  - 1st casing lenght = 5.32m → To be continued by day shift crew

Corrective actions to be taken:

Site Representative: _____

From: _____

Inspector: Amadou Oury Diallo

Signature*: _____

Time on site (hrs): 12,00 hrs

Travel time (hrs): _____

Mileage (km): _____

Project Manager: Daniel Pednault

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KINALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Amadou Oury Diallo

Drill #: TCG-5

Date: 2020-02-25 Night

Day ☐ Night ☒

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
S.745	8.4	5.30	4,05	-	-	8.8	0,25	Ø	water @ 5.0m, bedrock @ 8.8m
Q-739	8,9	5.33	4,30	2,51		10,2	0.30	1,34	water @ 5.0m, concrete between 5.5 & 9.5m bedrock @ 10.2m
Q.736	8,9	5.32	-	-		-	✓ -	-	To be continued by day Shift

PAGE ____ OF ____

Borehole No.: BH745
Elevation: ____

Borehole Field Report

Client: FGL - Sana
Project / Site: Amaruq
Project No.: 1120493 2 - B1

Date start: 2020-02-25 Night
Date Finish: 20-02-25 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 8.8m
DEPTH OF HOLE: 9.1m
WATER LEVEL: 7.0m DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TC6-5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock fill									
0.20mm									
7.0m level of water									
8.8m bedrock									
9.10m end of hole									

Remarks: Water observed around 7.0m depth
Bedrock at 8.8m depth

Checked By: ____ DATE: ____

Borehole No.: Q739
Elevation: ____

Borehole Field Report

Client: FGL-Sana
Project / Site: Amarug
Project No.: 1120493?-81

Date start: 2020-02-26
Date Finish: 2020-02-26
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- [ ] RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TCG.5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock fill 4"									
0-20 mm									
5.0									
water 5.5									
Concrete									
9.5 m									
10,2 m									
Bedrock									
10,5 m									

Remarks: Water observed @ 5.0m
Concrete between 5.5m & 9.5m
bedrock @ 10.2m

Checked By: ____ DATE: ____

Field Report

Client: FGL - Sana

Date: 2020-02-28 Night

Site:

Project: Amaruq

Project No.: 12204932 - B1

- ◎ Excavation Bed Ver.
- ◎ Concrete
- ◎ Compaction
- ◎ Asphalt
- ◉ Other:
- ◎ Sampling
- ◎ Reinforcing Steel
- ◎ Structural Steel
- ◎ Vibration Monitoring

I have: [X] my JSEAs [X] my PPE [X] Proper training

I see: [ ] Unexpected Hazards I need: [ ] an S-RAF?

-31 °C

Field Results:

- P-609.1
  - Survey depth = 11,83m ; Encounter bedrock = 12.72m
  - Stick up at level ground = 0.30m ; Water level = 9,0m
  - Casing into bedrock = 0.30m
- T-742
  - Survey depth = 8.4m ; Encounter bedrock = 9.11m
  - Stick-up at level ground = 0,2m ; Water @ 8.5m
  - Casing into bedrock = 0.30m
- P-739
  - Survey depth = 8.9m ; Encounter bedrock = 9.44m
  - Stick-up at level ground = 0,30m, Water @ 9,0m
  - Casing into bedrock = 0.30m
- T-736
  - Survey depth = 8.9m ; Encounter bedrock = 9,12m
  - Stick up at level ground = 0,18m ; Concrete @ 9.0m
  - Casing into bedrock = 0.30m
- T-733 → To be continued by day shift crew.

Corrective actions to be taken

Site Representative: _____

From: _____

Inspector: Amadou Oury Diallo

Signature*: _____

Time on site (hrs): 12.0 hrs

Travel time (hrs): _____

Mileage (km): _____

Project Manager: Daniel Pednezult

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Amadou Oury Diallo

Drill #: TCG_5

Day ☐

Night ☒

Date: 2020_02_28

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
P-609,1	11,83	5,33	4,23	4,28	-	12,72	0.30	0,57	Water with Concrete @ 9,0m
P-742	8,4	5,33	4,28	-	-	9,11	0,20	-	Concrete mixed with water @ 8.5m
P-739	8.9	5,32	4.30	0,57		9,44	0,30	0.15	Water @ 9.0m concrete as well
T-736	8.9	5,32	4,28	-	-	9,12	0,18	-	Concrete at ~~8,55m~~ 9,0m
S-733	8.8	5,30	4,28						

Borehole No.: P689.1
Elevation:

Borehole Field Report

Client: FGL-Sena
Project / Site: Amaruq
Project No.: 1120493 2-B1

Date start: 2020-02-28 Night
Date Finish: 2020-02-28 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 12.72
DEPTH OF HOLE: 13.02
WATER LEVEL: 9.0m DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯▯ RC Rock core

TESTS

DRILLER: Bobby Bagne
DRILL: TCG-5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock fill									
0 - 20 mm									
9.0m Water									
Concrete									
12.72m									
Bedrock									
13.02									
End of hole									

Remarks:

Checked By: DATE:

Borehole No.: T-742
Elevation:

Borehole Field Report

Client: FGL-Sena
Project / Site: Amaruq
Project No.: 1120493 2.81

Date start: 2020-02-28 Night
Date Finish: 2020.02.28 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 9.11m
DEPTH OF HOLE: 9.41m
WATER LEVEL: 8.5m DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TETG-5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock fill									
0 - 20 mm									
8.5m Water + Concrete									
9.11m Bedrock									
9.41m									

Remarks:

Checked By: DATE:

Borehole No.: P-739
Elevation:

Borehole Field Report

Client: FGL-Sand
Project / Site: Amaraq
Project No.: 1120493 2-81

Date start: 2020-02-23
Date Finish: 2020-02-26
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.44m
DEPTH OF HOLE: 9.74m
WATER LEVEL: 9,0m DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ◫ RC Rock core

TESTS

DRILLER: Bobby Gagne
DRILL: TCG 5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill 0 – 20mm									
9.0m Water									
9,44m Bedrock									
9.74m									

Remarks:

Checked By: DATE:

Borehole No.: T-736
Elevation:

Borehole Field Report

Client: FGL-Sana
Project / Site: Amaruq
Project No.: 1120493 2-B1

Date start: 2020-02-28 Night
Date Finish: 2020-02-28 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.12m
DEPTH OF HOLE: 9.42m
WATER LEVEL: DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Bobby Gagné
DRILL: TC TG-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									
0-20mm									
9.0m Concrete									
9.12m Bedrock									
9.42									

Remarks:

Checked By: DATE:

Field Report

Client: Groupe Gilbert

Site: Amaruq Dike

Project:

Date: 29-02-2020

Project No.: 11209382-B1

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: casing drilling
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☐ my JSEAs ☑ my PPE ☑ Proper training

I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-35°C

Field Results:

Casing drilled:
- S-733
- T-730
- P-727
- T-724
- S-721
- T-718 → not finished

Site Representative: _____

From: _____

Project Manager: Daniel Pednault

Inspector: Marine Poirier Desbiens

Signature*: [signature]

Time on site (hrs): 12 hrs

Travel time (hrs): _____

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maxime Poirier-Desbiens

Drill #: TCG-05

Date: 29-02-2020

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
S-733	9.5	5.33	4.28	4.28	-	9.67	0.28	3.64	Water level : 9.11m Final deapth : 10.07m
T-730	9.7	5.31	4.37	3.64	-	10.23	0.28	2.51	W level: 8.37m F.deapth:
P-727	9.6	5.31	4.31	2.51	-	11.33	0.25	0.24	W level: 9.61m F.deapth: 11.70m
T-724	9.5	5.30	4.29	4.29	-	11.80	0.28	1.50	W level: 9.59m F.deapth:
S-721	9.9	5.32	4.30	4.28	-	11.75	0.28	1.57	W level: 8.42m F.deapth:
T-718	9.9	5.32	4.30						

PAGE 1 OF

Borehole No.: 15-733
Elevation:

Borehole Field Report

Client: Grace Gilbert
Project / Site: Anning Dike
Project No.: 1204932-131

Date start: 29-02-2020
Date Finish: " " "
Inspector: Maxine Bilder Robbins

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ⊡ RC Rock core

DRILLER: Jessy Savard
DRILL: TG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.11m Water									
9.67m Bedrock									
9.97m End of hole									

Remarks:

Checked By: DATE:

PAGE 2 OF ____

Borehole No.: T-730
Elevation:

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amaruq Dike
Project No.: 1120493a-131

Date start: 29-02-2020
Date Finish:
Inspector: Marine P.D

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Jessy Gravel
DRILL: TCG-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
8.37m Water									
10.23m Bedrock									
10.53m End hole									

Remarks:

Checked By: DATE:

PAGE 3 OF

Borehole No.: VP-727
Elevation:

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amaruq Dike
Project No.: 1204932-B1

Date start: 29-02-2020
Date Finish: " " "
Inspector: Maxime P.D.

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
[ ] RC Rock core

DRILLER: Jessy Savard
DRILL: TG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES

9.61m — Water

11.33m — Bedrock

11.63m — End hole

Remarks:

Checked By: DATE:

PAGE 4 OF

Borehole No.: T-724
Elevation: —

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amaray Dike
Project No.: 1120493z-131

Date start: 29-02-2020
Date Finish: " " "
Inspector: Maxime P.D

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Jessy Savard
DRILL: TG-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.99m Water									
11.80m Bedrock									
12.10m End hole									

Remarks:

Checked By: DATE:

PAGE ____ OF ____

Borehole No.: S-721
Elevation: —

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amaruq Dike
Project No.: 1120932-B1

Date start: 29-02-2020
Date Finish: " " "
Inspector: Maxime P.D

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Jessy Savard
DRILL: TG-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES

8.42 m
11.75 m
12.05 m

Remarks:

Checked By: DATE:

Field Report

Client: FGL - Sana	Date: 2020 - 02 - 29 Night
Site:	○ Excavation Bed Ver. ○ Concrete ○ Compaction ○ Asphalt ◉ Other: ○ Sampling ○ Reinforcing Steel ○ Structural Steel ○ Vibration Monitoring
Project: Amaruq	
Project No.: 12204932-B1	

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-30°C

Field Results: * Bore holes checked:

- T-718 | • Survey depth = 9.93m ; • Encounter bedrock = 13,28m • Stick up at level ground = 0.33m ; • water level = 8.5m • Casing into bedrock = 0.30m
- T-715 | • Survey depth = 9,94m ; • Encounter bedrock = 13,32m • Stick up at level ground = 0.30m • Water level = 8.5m ; • Casing into bedrock = 0,30m
- T-712 | • Survey depth = 9,64m ; • Encounter bedrock = 13,81m • Stick up at level ground = 0,30m ; • water = 7.5m • Casing into bedrock = 0.30m
- S-709 | • Survey depth = 9.71m ; Encounter bedrock = 12,51m • Stick up at level ground = 0.30m ; • Water level = 9.0m • Casing into bedrock = 0,30m.

Corrective actions to be taken: ADD

* Inclinaison tests has been done on holes T-742 ; T-739, T-734, T-733, T-730, P-727, T-724, S-731, T-718 →
→ All results meet the requirements.

Site Representative: _____ Inspector: Amadou Oury Diallo

From: _____ Signature*: _____

Time on site (hrs): 12,0 hrs

Project Manager: Daniel Pednault Travel time (hrs): _____

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Amadou Oury Diallo

Drill #: TCG-5

Date: 2020-02-29

Day ☐ Night ☒

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-718	9.93	5,32	4,30	1.57	2.72	13,28	0.33	—	Water & concrete @ 8.5m
T-715	9.94	5,33	4,29	4,30	—	13,32	0.30	—	Water & concrete @ 8.5m
T-712	9.64	5,33	4,30	4.28	—	13.31	0.30	—	Water & concrete @ 7.5m
S-709	9.71	5,33	4.30	4,30	—	12.51	0.30	0.82	Water & Concrete 9.0m

Borehole No.: T-718
Elevation:

Borehole Field Report

Client: FGL - Sand
Project / Site: Amaruq
Project No.: 1120493 2-81

Date start: 2020-02-29 Night
Date Finish: 2020-02-29 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 13.28m
DEPTH OF HOLE: 13.58m
WATER LEVEL: 8.5m DATE:
PROBE No.: TIME:

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: Bobby Gagne
DRILL: TCT G-5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill									
0 - 23mm									
8.5 : water & concrete									
13.28 bedrock									
bedrock (3m)									
13.58 End of hole									

Remarks:

Checked By: DATE:

Borehole No.: T-715
Elevation:

Borehole Field Report

Client: FGL - Sana
Project / Site: Amaruq
Project No.: 1|2049332-B1

Date start: 2020-02-29 Night
Date Finish: 2020-02-29 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 13,32m
DEPTH OF HOLE: 13.62m
WATER LEVEL: 8.5m DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Bobby Gagne
DRILL: TC6-5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill 0-200mm									
8.5 Water & Concrete									
13,32 Bedrock									
Bedrock									
13.62 End of hole									

Remarks:

Checked By: DATE:

Borehole No.: T-712
Elevation:

Borehole Field Report

Client: FGL - Sana
Project / Site: Amaruq
Project No.: 1204932-81

Date start: 2020-02-29 Night
Date Finish: 2020-02-29 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 13.31m
DEPTH OF HOLE: 13.61m
WATER LEVEL: 7.5m DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TCGT-5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill									
0 - 20mm									
7.5 Water & Concrete									
13.31 Bedrock									
bedrock									
13.61 End of hole									

Remarks:

Checked By: DATE:

Borehole No.: S-709
Elevation:

Borehole Field Report

Client: FGL-Sana
Project / Site: Amarug
Project No.: 1120493Z-B1

Date start: 2020-02-29 Night
Date Finish: 2020-02-29 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 12.51m
DEPTH OF HOLE: 12.81m
WATER LEVEL: 9.0m DATE:
PROBE No.: TIME:

SAMPLE
SS Split spoon
ST Shelby tube
RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TCG-5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock fill									
0-2.0m									
9.0 water									
12.51 bedrock									
12.81 end of hole									

Remarks:

Checked By: DATE:

Field Report

Client: Groupe Gilbert

Site: Among Dike

Project:

Project No: 12097-32-B

Date: 01-07-2020

- [ ] Excavation Bed Ver.
- [ ] Concrete
- [ ] Compaction
- [ ] Asphalt
- [x] Other: casing drilling
- [ ] Sampling
- [ ] Reinforcing Steel
- [ ] Structural Steel
- [ ] Vibration Monitoring

I have: ☐ my JSEAs ☐ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-25°C

Field Results:

casing drilled : • T - 706
• P - 703 } *1
• T - 700 } *2
• S - 697

→ Same thing happen as *1
T-700 and S-697 communicate

inclinometer : • Q-718
• P-715

*1 While drilling the hole T-700, the water was coming out the hole P-703, they communicate between each other.

Site Representative: _____

From: _____

Project Manager: Daniel Pedneault

Inspector: Maxime Poirier Pelletier

Signature*: [signature]

Time on site (hrs): 12 hrs

Travel time (hrs): _____

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KINGLING CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Martin Poirier Pendergast

Drill #: T600-05

Date: 01-03-2020

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	~~total~~ 4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-706	9,7	5,32	4,30	4,29	13,91	10,70	0,28	2,63	Wlevel : 8,52m Fdepth : 11,32m
P-703	9,6	5,33	4,29	2,63	12,25	10,80	0,28	0,87	Wlevel : 4,83m Fdepth : 11,17m
T-700	9,9	5,32	4,30	4,29	14,01	10,56	0,28	2,77	water 4,72m Fdepth : 10,92m
S-697	10,1	5,33	4,27	2,77	12,37	10,59	0,28	1,20	water clear : 9,15m Fdepth : 11,00m

PAGE 1 OF 4

Borehole No.: T-706
Elevation:

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amuay Dike
Project No.: 1120432-B1

Date start: 01-03-2020
Date Finish: " " "
Inspector: Maxime Poirier Boissonneault

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Jessy Savard
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
8.52 m Water									
10.70 m Bedrock									
11.00 m End hole									

Remarks:

Checked By:

DATE:

GHD Form No. 14 - Borehole Field Report - Rev.6 - 07-Oct-2015

PAGE 2 OF 4

Borehole No.: P-703
Elevation: —

Borehole Field Report

Client: Coupe Gilbert
Project / Site: Amaruq Dike
Project No.: 1204432 - 131

Date start: 01-03-2020
Date Finish:
Inspector: Maxime P.D.

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ☐ RC Rock core

DRILLER: Joey Savard
DRILL: TG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
4.83m Water									
10.80m Bed rock									
11.10m End hole									

Remarks:

Checked By:

DATE:

Borehole No.: T-700
Elevation:

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amiante Dike
Project No.: 1120432-31

Date start: 01-03-2020
Date Finish: " " "
Inspector: Maxime P.D.

DIAMETER OF HOLE OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

☒ SS Split spoon
▨ ST Shelby tube
⊟ RC Rock core

DRILLER: Jessy Savard
DRILL: IG-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES

4.72m — Water

10.56m — Bedrock

10.86m — End hole

Remarks:

Checked By: DATE:

Borehole Field Report

Borehole No.: S-647
Elevation:

Client: Groupe Gilbert
Project / Site: Aming Dike
Project No.: 1120432-B1

Date start: 01-03-2020
Date Finish: " "
Inspector: Maxime P.D

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Jessy Savard
DRILL: TLG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9,15m Water									
10,59m Bedrock									
10,89m End hole									

Remarks:

Checked By: DATE:

Field Report

Client: FGL-Sanz

Site:

Project: Amarug

Project No.: 112-40932 (6)

Date: [illegible]

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other:
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☑ my JSEAs ☑ my PPE ☑ Proper training
I see: ☑ Unexpected Hazards I need: ☑ an S-RAF?

-37°C

Field Results:

* Borehole checked

- T694
  - Survey depth = 10.47 m
  - Encounter bedrock = 10.52 m
  - Stick-up at level ground = 0.30 m
  - Water level = 6.0 m
  - Casing into bedrock = 0.30 m

* Inclinaison tests done on holes P-715, T-712, T-709 and T-706 → Results meet the requirement

Corrective actions to be taken: [illegible]

A huge quantity of water came out from hole T-700 without any external pressure → be aware of slippery area.

Site Representative: _____

From: _____

Inspector: Amadou Dary Diallo

Signature*: _____

Time on site (hrs): 12.0 hrs

Travel time (hrs): _____

Mileage (km): _____

Project Manager: Daniel Pednault.

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Amadou Oury Diallo

Drill #: TCG-5

Date: 2020-03-01

Day ☐

Night ☒

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T694	10,47	5,32	4,30	4,30	—	10.52	0.30	2.80	water & Concrete @ 6.0 m

PAGE ____ OF ____

Borehole No.: T694
Elevation: ____

Borehole Field Report

Client: FGL-Sona
Project / Site: Amaruq
Project No.: 1120493 2-B1

Date start: 2020-03-01 Night
Date Finish: 2020.03.01 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE
OVERBURDEN: ____
BEDROCK: 10.52 m
DEPTH OF HOLE: 10.82 m
WATER LEVEL: 6.0 m DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
RC Rock core

TESTS

DRILLER: Bobby Gagne
DRILL: TC 6.5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock fill									
0-20 mm									
Water & Concrete									
6.0									
10.52 Bedrock									
10.82 End of hole									

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Client:	Groupe Gilbert
Site:	Amaruq Dike
Project:	1204932-B1
Project No.:	
Date:	02-03-2020

- ◎ Excavation Bed Ver.
- ◎ Concrete
- ◎ Compaction
- ◎ Asphalt
- ◎ Other: Casing drilling
- ◎ Sampling
- ◎ Reinforcing Steel
- ◎ Structural Steel
- ◎ Vibration Monitoring

I have: ☑ my JSEAs ☐ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-40 °C

Field Results:

Casing drilled : • P691 < T700 / T694 } - communicate, water coming out while drilling.

- T-688
- S-685
- T-682
- P-679
- T-676 → not finished

Corrective actions to be taken:

Inclino : P-703, S-697
T-700, T-694

Site Representative: _____

From: _____

Project Manager: Daniel Pednault

Inspector: Marine Poirier Pelletier

Signature*: [signature]

Time on site (hrs): 12 hrs

Travel time (hrs): _____

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maxime Poirier Dubien

Drill #: TCG-05

Date: 02-03-2020

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
P-691	10,6	5,32	4,28	2,79	-	10,55	0,28	1,26	Water : 4,82m Fdepth : 10,45m
T-688	10,7	5,32	4,28	3,01	-	10,26	0,28	1,77	Water : 9,00m Fdepth : 10,49m
S-685	10,8	5,32	4,28	2,48	-	10,92	0,28	0,58	Water : 9,10m Fdepth : 11,29m
T-682	10,7	5,32	4,30	1,88	-	10,29	0,28	0,63	Water : 9,20m Fdepth : 10,68m
P-679	11,0	5,32	4,30	3,00	-	11,00	0,28	1,04	Water 4,74m Fdepth : 11,42m
T-676	11,0	5,23	4,29	2,85					

PAGE 1 OF 5

Borehole No.: P691
Elevation: —

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Arnaud Dike
Project No.: 1120493 2 - B1

Date start: 02-03-2020
Date Finish: " "
Inspector: Maxime Poirier Desbiens

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

☒ SS Split spoon
▨ ST Shelby tube
⊟ RC Rock core

DRILLER: Jessy Savard
DRILL: TG65

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES

4.82m — Water

10.55m — Bedrock

10.85m — End hole

Remarks:

Checked By:

DATE:

Borehole Field Report

Borehole No.: T688
Elevation:

Client: Groupe Gilbert
Project / Site: Aiguq D.K.
Project No.: 1204932-0.1

Date start: 02-03-2020
Date Finish: " " "
Inspector: Maxime P.D.

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

☒ SS Split spoon
▨ ST Shelby tube
⊡ RC Rock core

DRILLER: Jessy Savard
DRILL: IC6-25

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.00m water									
10.26m Bedrock									
10.56m End hole									

Remarks:

Checked By: DATE:

Borehole Field Report

Borehole No.: S-685
Elevation:

Client: Groupe Gilbert
Project / Site: Anning Dike
Project No.: 112049732-B1

Date start: 02-03-2020
Date Finish: " " "
Inspector: Maxime P.D.

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
RC Rock core

DRILLER: Jessy Savard
DRILL: TLG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.10m water									
10,92m Bedrock									
11,22 End hole									

Remarks:

Checked By:

DATE:

Borehole No.: T-682
Elevation:

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Anney Dike
Project No.: 1120493Z-B1

Date start: 02-03-2020
Date Finish: " " "
Inspector: Maxime PD

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

☒ SS Split spoon
▨ ST Shelby tube
▯▯ RC Rock core

DRILLER: Jessy Salva
DRILL: TC6 95

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES

9.20m Water

10.29m Bedrock

10.59 End hole

Remarks:

Checked By:

DATE:

PAGE 5 OF 5

Borehole No.: P679
Elevation:

Borehole Field Report

Client: Golder Gilbert
Project / Site: Amaruq Dike
Project No.: 1120432 - B1

Date start: 02-03-2020
Date Finish:
Inspector: Maxime PD

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Jessy Savard
DRILL: TC6 -05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
4.76m Water									
11.0m Bedrock									
11.30m End Hole									

Remarks:

Checked By:

DATE:

GPO Equinox - Borehole Field Report - Rev.6 - 02-03-2018

Field Report

Client: FGL - Sana

Date: 2020-08-02

Site:

Project: Amaraq

Project No: 11228492 - B1

- ◎ Excavation Bed Ver.
- ◎ Concrete
- ◎ Compaction
- ◎ Asphalt
- ◎ Other:
- ◎ Sampling
- ◎ Reinforcing Steel
- ◎ Structural Steel
- ◎ Vibration Monitoring

I have: ☒ my JSEAs ☒ my PPE ☒ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-34°C

Field Results:

* Boreholes finished and checked;
  - T-676
    - Survey depth = 10.96m
    - Encounter bedrock = 10.66m
    - Stick up at level ground = 0.26m
    - water level = 7.5m;
    - casing into bedrock = 0.30m
  - S-673
    - Survey depth = 10.79m;
    - Encounter bedrock = 10.68m
    - Stick up at level ground = 0.30m
    - water level = 8.0m
    - Casing into bedrock = 0.30m.
* Boreholes started with the first (1st) casing: T-664, S-661, T-658, P-655, T-652, S-649 → → Follow up.

Corrective actions to be taken:

* Inclinaison Tests done on holes P-691, T-688, S-685, T682, P-679, T676 and S-673 → Results meet the requirements.

Site Representative: _____

From: _____

Project Manager: David Pednault

Inspector: Amadou Oury Diallo

Signature*: _____

Time on site (hrs): 12.0 hrs

Travel time (hrs): _____

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Amadou Oury Diallo

Drill #: TCG-5

Date: 2020-02-02

Day ☐

Night ☒

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-676	10,96	5.23	4.29	2.86	-	10.46	0.26	1.36	Water & concrete @ 7.5m
S-673	10.79	5.32	4.29	1.77	-	10.68	0.36	0.10	Water & concrete @ 8.0m
T-664	10.6	5.32	∅	∅	∅	∅	∅	∅	Follow-up
S-661	10.9	5.31	↓	↓	↓	↓	↓	↓	↓
T-658	10.9	5.31	↓	↓	↓	↓	↓	↓	↓
P-655	11.5	5.32	↓	↓	↓	↓	↓	↓	↓
T-652	11.3	5.31	↓	↓	↓	↓	↓	↓	↓
S-649	11.3	5.31	↓	↓	↓	↓	↓	↓	↓

PAGE ____ OF ____

Borehole No.: S-673
Elevation: ____

Borehole Field Report

Client: FGL - Sana
Project / Site: Amarug
Project No.: 1120493 2-B1

Date start: 2020-02-08 Night
Date Finish: 2020-03-02 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.68m
DEPTH OF HOLE: 10.98m
WATER LEVEL: 8.0m DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TC G-5

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock fill								
0-20mm								
8.0m water & concrete								
10.68m Bedrock								
10.98m End of hole								

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-676
Elevation: ____

Borehole Field Report

Client: FGL - Sana
Project / Site: Amaruq
Project No.: 1120492 2-B1

Date start: 2020-03-02 Night
Date Finish: 2020-03-02 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 10.46 m
DEPTH OF HOLE: 10.76 m
WATER LEVEL: 7.5 m DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: Bobby Cagné
DRILL: TCG-50

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill									
0 - 20mm									
7,5 m Water & concrete									
10.46 m Bedrock									
10,76 m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Client: Gage Gilbert	Date: 03-03-2020
Site: Amaruq	○ Excavation Bed Ver. ○ Sampling
Project: Dike	○ Concrete ○ Reinforcing Steel
Project No: 12204732 - B1	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◎ Other: casing drilling

I have: ☐ my JSEAs ☑ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-30°C

Field Results:

Casing drilled : T-664
T-646 first casing, hole not finished
S-661
T-658
P-655
T-652 *1 not finished

Inclinometer : T-664
S-661

*1 first casing look not to be 90° perpendicular to the second particular attention when we will do the inclinometer. (night shift) too south little bit.

Site Representative: _____
From: _____
Project Manager: David Pedneault

Inspector: Maxime Poirier Desbiens
Signature*: _____
Time on site (hrs): 12 hrs
Travel time (hrs): _____
Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: Maxime Poirier Desbiens

Drill #: TCG-05

Date: 03-03-2020

Day ☐ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
T-664	11,2	5,32	4,29	4,30	-	11.21	0,28	2,12	Water : 9,6m Final depth : 11,89m
T-646	11,9	5,32	Ø	Ø	-	Ø	Ø	Ø	only first casing
S-661	11,6	5,31	4,30	2,12	-	11,22	0,21	0	Water : 9,16m Fdepth : 11,61m
T-658	11,6	5,31	4,30	2,53	-	11,22	0,28	0,34	Water : 9,01m Fdepth : 11,62m
P-655	12,3	5,32	4,29	4,27	-	12,39	0,28	0,91	Water : 9,11m Fdepth : 12,72m
T-652	12,1	5,31	4,30		-				not finished

Borehole No.: T664
Elevation:

Borehole Field Report

Client: Coupe Gilbert
Project / Site: Amuay Dike
Project No.: 1204932 B1

Date start: 03-03-2020
Date Finish: " "
Inspector: Maxime P.D

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Jessy Savard
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.6m Water									
11.21m Bedrock									
11.51m End hole									

Remarks:

Checked By: DATE:

Borehole No.: S661
Elevation: —

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amang Dike
Project No.: 11204932-131

Date start: 03-03-2022
Date Finish: " " "
Inspector: Maxime P.D

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ⊡ RC Rock core

DRILLER: Jessy Savard
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.16m Water									
11.22m Bedrock									
11.52m End hole									

Remarks:

Checked By:

DATE:

Borehole No.: TG58
Elevation: —

Borehole Field Report

Client: George Gilbert
Project / Site: Amarug Dike
Project No.: 1120493 2-01

Date start: 03-03-2020
Date Finish: " "
Inspector: Marike P.D

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Jessy Grant
DRILL: TG-05

STRATIGRAPHY	Depth (feet / metres)	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES

9.01m Water

11.22m Bedrock

11.52m End hole

Remarks:

Checked By: ____ DATE: ____

PAGE 4 OF 4

Borehole No.: P-655
Elevation: —

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Armand Dike
Project No.: 1204932-B1

Date start: 03-03-2020
Date Finish: " "
Inspector: Maxime P.D.

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Jessy Savard
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.11m Water									
12.39m Bedrock									
12.69m End hole									

Remarks:

Checked By:

DATE:

Daily Field Report

Client FGL-Sana	Inspection Date 2020-03-03 Night shift
Site Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☐ Material Placement ☐ Water Management ☐ Sampling ☒ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project Amaruq	
Project N°: 11204932-B1	☒ Other (specify): Borehole
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training **I SEE:** ☐ Unexpected Hazards **I NEED:** ☐ an S-RAF	-36°C

Field Results

Boreholes checked:

T-652: survey depth= 12.09m; encounter bedrock= 11.74m; stick –up at level ground= 0.26m; water level= 7.0m; casing into bedrock= 0.30m.

S-649: survey depth= 11.91m; encounter bedrock= 11.32m; stick-up at level ground= 0.26m; water level= 7.5m; casing into bedrock= 0.30m.

T-646: survey depth= 10.8m; encounter bedrock= 11.21m; stick-up at level ground= 0.26m; water level= 8.0m; casing into bedrock= 0.30m.

P-643: started, to be continued by day shift crew.

Inclinaison tests: T-658, P-655, T-652 and S-649.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Amadou Oury Diallo (Print Name)

From : _____ Signature* : _____

Project Manager : Daniel Pedneault Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD.

11811 - Casing Drilling Report

Employee: Amadou Oury Diallo

Drill #: TCG-5

Date: 2020-03-03

Day ☐

Night ☒

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-652	12.09	5,31	4,30	3.02	-	11.74	0.26	0.33	Water & concrete @ 7.0m
S-649	11.91	5,31	4,27	3.02	—	11.39	0.26	0.72	Water & concrete @ 7.5m
T-646	11.87	5,32	4.28	2.91	—	11.21	0.26	0.74	Water & concrete @ 8.0m
P-643	10.8	5,32	4,30	[illegible]	-	-	—	—	Follow-up

Borehole No.: T-652
Elevation:

Borehole Field Report

Client: FGL-Sana
Project / Site: Amaruq
Project No.: 1120493 2-B1

Date start: 2020.03.03 Night
Date Finish: 2020.03.03 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11.74 m
DEPTH OF HOLE: 12.04 m
WATER LEVEL: 7.8m DATE:
PROBE No.: TIME:

☒ SS Split spoon
▨ ST Shelby tube
⊟ RC Rock core

DRILLER: Bobby Gagné
DRILL: TG-65

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									
0-20mm									
Water & gravel									
7.0m									
11.74m Bedrock									
12.04m End of hole									

Remarks:

Checked By: DATE:

Borehole No.: S-649
Elevation:

Borehole Field Report

Client: FGL - Sana
Project / Site: Amaruq
Project No.: 1204932 - B1

Date start: 2020.03.03 - Night
Date Finish: 2020.03.03 - Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11.32m
DEPTH OF HOLE: 11.62m
WATER LEVEL: DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Bobby Gagné
DRILL: TC6-5

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									
0-20mm									
7.5m water & cement									
11.32m Bedrock									
11.62m End of hole									

Remarks:

Checked By: DATE:

Borehole No.: T-646
Elevation:

Borehole Field Report

Client: FGL-Sana
Project / Site: Amaruq
Project No.: 1120493-2-B1

Date start: 2020-03-03 Night
Date Finish: 2020-03-03 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11,21m
DEPTH OF HOLE: 11,51m
WATER LEVEL: DATE:
PROBE No.: TIME:

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC61-5

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock fill									
0-20mm									
Water & sand 8,0m									
11,21m Bedrock									
11,51m End of hole									

Remarks:

Checked By: DATE:

Field Report

Client: Groupe Gilbert

Site: Amaruq

Project: Dike

Project No: 11224132-B1

Date: 02/07/2023

- Excavation Bed Ver.
- Concrete
- Compaction
- Asphalt
- Other: casing drilling
- Sampling
- Reinforcing Steel
- Structural Steel
- Vibration Monitoring

I have: ☐ my JSEAs ☐ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-35°C

Field Results:

Casing drilled :
- P-643
- T-640
- S-637 → commencé with T-640
- T-634 → Commencé with S-637
- P-631
- T-628 not finished.

Site Representative: _____

From: _____

Project Manager: Daniel Redpeauth

Inspector: Maxime Poirier Dagenais

Signature*: [signature]

Time on site (hrs): 12 hrs

Travel time (hrs): _____

Mileage (km): _____

*By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD.

11811 - Casing Drilling Report

Employee: Maxime Poirier Rossiens

Drill #: TCG-05

Date: 04-03-2020

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
P-643	11.6	5.32	4.30	2.97	–	11.23	0.28	0.78	Water : 9.0m Fdepth : 11.61m
T-640	11.4	5.32	4.30	3.03	–	11.07	0.28	1.20	Water : 9.0m Fdepth : 11.47m
S-637	11.9	5.32	4.29	4.30	–	11.04	0.28	2.29	Water 9.1m Fdepth 11.44m
T-634	12.4	5.31	4.29	3.78	–	12.23	0.28	0.57	Water : 8.8m Fdepth : 12.65m
P-631	12.2	5.31	4.30	3.03	–	12.19	0.15	0	Water : 8.9m Fdepth 12.58m
T-628	12.1	5.32							

PAGE 1 OF 5

Borehole No.: P-643
Elevation:

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amaruq Dike
Project No.: 1120932-131

Date start: 04-03-2020
Date Finish: " " "
Inspector: Maxime Poirier Desbiens

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
RC Rock core

TESTS

DRILLER: Jessy Savard
DRILL: TCB 05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
9,0m water									
11.23m Bedrock									
11.53m End hole									

Remarks:

Checked By: DATE:

GHD

Borehole No.: TG40
Elevation:

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amanda Dike
Project No.: 11204932-B1

Date start: 04-03-2020
Date Finish: " "
Inspector: Maxime P.D.

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

☒ SS Split spoon
▨ ST Shelby tube
⊡ RC Rock core

DRILLER: Jessy Savard
DRILL: TG-05

STRATIGRAPHY	Depth (feet / metres)	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES

9.0m Water

11.07m Bedrock

11.37m End hole

Remarks:

Checked By: DATE:

Borehole No.: S-637
Elevation:

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amaruq - Dike
Project No.: 1120-4932 - B1

Date start: 04-03-2020
Date Finish: " " "
Inspector: Maxime P.Q

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ⊟ RC Rock core

DRILLER: Jessy Savard
DRILL: TG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.10m Water									
11.04m Bedrock									
11.34m End hole									

Remarks:

Checked By: DATE:

Borehole No.: T634
Elevation: —

Borehole Field Report

Client: Groupe G. Nadeau
Project / Site: Armagh Dike
Project No.: 1120493 2 -B1

Date start: 04-03-2020
Date Finish: " "
Inspector: Maxime P.D.

DIAMETER OF HOLE — OVERBURDEN: —
BEDROCK: —
DEPTH OF HOLE: —
WATER LEVEL: — DATE: —
PROBE No.: — TIME: —

☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

DRILLER: Jessy Ginard
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
8.80m Water									
12.23m Bedrock									
12.53 End hole									

Remarks:

Checked By: DATE:

GHD

Borehole No.: T631

Elevation:

Borehole Field Report

Client: Grape Gilbert

Project / Site: Arnaq Dike

Project No.: 12204932-B1

Date start: 03-03-2020

Date Finish:

Inspector: Maxime P.D

DIAMETER OF HOLE: OVERBURDEN:

BEDROCK:

DEPTH OF HOLE:

WATER LEVEL: DATE:

PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER:

DRILL:

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
8.9m Water									
12.19m Bedrock									
12.49m End hole									

Remarks:

Checked By: DATE:

Daily Field Report

Client FGL-Sana	Inspection Date 2020-03-04 Night shift
Site Amaruq	☐ Drill and Blast ☐ Expertise
Project Amaruq	☐ Foundation Prep. ☐ Vibration Monitoring
	☐ Material Placement ☐ Water Management
	☐ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project N° : 11204932-B1	☒ Other (specify): Borehole
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training I SEE: ☐ Unexpected Hazards I NEED: ☐ an S-RAF	-38°C

Field Results

Borehole checked:

T-628: survey depth= 12.13m; encounter bedrock= 11.78m; stick –up at level ground= 0.26m; water level= 8.5m; casing into bedrock= 0.30m

Inclinaison tests: T-646, P-643, T-640 and S-637.

Compressor broke down, works stopped until the issue to be fix.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Amadou Oury Diallo

From : _____ Signature* : _____ (Print Name)

Project Manager : Daniel Pedneault Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD.

11811 - Casing Drilling Report

Employee: Amadou Oury Diallo

Drill #: TC G-57

Date: 2020-03-04

Day ☐

Night ☒

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-628	12.13	5.32	4.30	3.02	—	11.78	0.26	0.30	water & Concrete @ 8.5m

PAGE 1 OF 1

Borehole No.: T-628
Elevation:

Borehole Field Report

Client: FGL - Sana
Project / Site: Amaruq
Project No.: 1120493.2 - B1

Date start: 2020-03-04 Night
Date Finish: 2020-03-04 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11.78 m
DEPTH OF HOLE: 12.08 m
WATER LEVEL: 8.5 m DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TC6.5C

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
Rock fill									
0 - 8.0 m									
Water & Concrete 8.5 m									
11.78 m Bedrock									
12.08 m End of hole									

Remarks:

Checked By: DATE:

Field Report

Client: Grupe Gilbert	Date: 05-03-2020
Site: Amang	○ Excavation Bed Ver. ○ Sampling
Project: Dike	○ Concrete ○ Reinforcing Steel
Project No: 11209132-01	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◎ Other: cashy drilling

I have: ☐ my JSEAs ☐ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAT?

-30°C

Field Results:

Casing drilled: • S-625 → commute with T-628
• T-622 not finished

Site Representative: _____

From: _____

Inspector: Maxine Potter Nesbitt

Signature*: Maxine Potter Nesbitt

Time on site (hrs): 12 hrs

Travel time (hrs): _____

Mileage (km): _____

Project Manager: Daniel Redmond

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

PAGE 1 OF 1

Borehole No.: S-625
Elevation: -

Borehole Field Report

Client: George Gilbert
Project / Site: Annunaq Dike
Project No.: 1120432-B1

Date start: 05-03-2020
Date Finish:
Inspector: Maxime Pardeilhan-Nadeau

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK: 12.71 m
DEPTH OF HOLE: 13.01 m
WATER LEVEL: 8.9 m DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Jessy Snowball
DRILL: TC6-65

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES

8.9m — water

12.71m — Bedrock

13.01m — End of hole

Remarks:

Checked By: DATE:

KIVALLIQ CONTRACTORS GROUT LTD.

11811 - Casing Drilling Report

Employee: Maxime Poirier Desbiens

Drill #: TCG 05

Date: 05-03-2020

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
S-625	12,4	5,32	4,29	4,29	-	12,71m	0,28	0,61	Water: 8,9m Depth 13,11m
T-622	12,2	5,32							

Daily Field Report

Client FGL-Sana	Inspection Date 2020-03-05 Night shift
Site Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☐ Material Placement ☐ Water Management ☐ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project Amaruq	
Project N° : 11204932-B1	☒ Other (specify): Borehole

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED:** ☐ an S-RAF

-35°C

Field Results

Boreholes checked:

T-622: survey depth= 12.19m; encounter bedrock= 11.39m; stick –up at level ground= 0.26m; water level= 8.5m; casing into bedrock= 0.30m

P-619: survey depth= 11.71m; encounter bedrock= 11.18m; stick –up at level ground= 0.26m; water level= 8.5m; casing into bedrock= 0.30m

T-616: survey depth= 11.60m; encounter bedrock= 10.91m; stick –up at level ground= 0.26m; water level= 8.5m; casing into bedrock= 0.30m

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

From : _____

Project Manager : Daniel Pedneault

Inspector : Amadou Oury Diallo
(Print Name)

Signature* : _____

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD.

11811 - Casing Drilling Report

Employee: Amadou Ouryalko

Drill #: TC6-5

Date: 2020-03-05

Day ☐

Night ☒

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-622	12.19	5.32	4.30	4.30	—	11.39	0.26	1.97	Water & concrete 8.5m
P-619	11.71	5.32	4.30	4.30	—	11.18	0.26	2.18	Water @ 8.5m
T-616	11.60	5.32	4.30	4.30	—	10.91	0.26	2.45	Water @ 8.5

Borehole No.: T-622
Elevation:

Borehole Field Report

Client: FGL - Sana
Project / Site: Amaruq
Project No.: 1120493 2 - B1

Date start: 2020-02-05 Night
Date Finish: 2020-03-05 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11,39m
DEPTH OF HOLE: 11,69m
WATER LEVEL: 8,5m DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Bobby Gagné
DRILL: TC6-5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rock fill									
0 - 20 mm									
8,5m Water & concrete									
Bedrock 11,39m									
11,69m End of hole									

Remarks:

Checked By: DATE:

Borehole No.: R_619
Elevation: ____

Borehole Field Report

Client: FGL - Sana
Project / Site: Amarug
Project No.: 1120493 2-B1

Date start: 2020-03-05 Night
Date Finish: 2020-03-05 Night
Inspector: Amadou Oury Diallo

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 11.18m
DEPTH OF HOLE: 11.48m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Bobby Gagné
DRILL: TC6T50

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
Rockfill									
0-20mm									
8.5m Water									
11.18m Bedrock									
11.48m End of hole									

Remarks: ____

Checked By: ____ DATE: ____

Borehole No.: T-616
Elevation:

Borehole Field Report

Client: FGL-Sana
Project / Site: Amarug
Project No.: 1204932-B1

Date start: 2020-03-05 Night
Date Finish: 2020-03-05 Night
Inspector: Amadou Ouro Diallo

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 10.91
DEPTH OF HOLE: 11.21m
WATER LEVEL: 8,5m DATE:
PROBE No.: TIME:

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: Bobby Gagné
DRILL: TCG 7.5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES
Rockfill									
0-20mm									
Water 8,5m									
Bedrock 10.91m									
11,21m End of hole									

Remarks:

Checked By: DATE:

Field Report

Client: Groupe Gilbert	Date: 11-03-2021
Site: Aymony	○ Excavation Bed Ver. ○ Sampling
Project: Dike	○ Concrete ○ Reinforcing Steel
Project No.: 11234-12-07	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◎ Other: Casing drilling

I have: ☐ my JSEAs ☐ my PPE ☑ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAP?

-30°C

Field Results:

Casing drilled:
- S-613
- T-610
- P-607
- T-604

Incline: T-634, P-631, T-628, S-625, T-622, P-619

Corrective actions to be taken

Site Representative: _____

From: _____

Inspector: Maxime Poirier Desbiens

Signature*: Maxime Poirier Desbiens

Time on site (hrs): 12 hrs

Travel time (hrs): _____

Mileage (km): _____

Project Manager: David Pedneault

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KOVALLIO CONTRACTORS GROUP LTD.

11811 - Casing Drilling Report

Employee: Maxime Poirier Rogers

Drill #: TC6-05

Date: 06-03-2020

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
S-613	11,9	5,32	4,31	4,29	—	11,89	0,20	1,53	Water 9,0 m Fdepth : 12,29m
T-610	12,9	5,32	4,28	4,28	—	12,55	0,28	0,75	Water : not detected Fdepth : 12,95 m
P-607	12,9	5,32	4,28	4,31	—	12,73	0,28	0,60	Water : 9,1 m Fdepth : 13,13 m
T-604	12,7	5,32	4,29	4,29	—	12,60	0,28	0,75	Water : 8,8 m Fdepth : 13,0 m

PAGE 1 OF 4

Borehole No.: S-613
Elevation: —

Borehole Field Report

Client: Groupe Gilbert
Project / Site: Amaruq Dike
Project No.: 1204932-131

Date start: 06-03-2020
Date Finish: " " "
Inspector: Maxime Binet Desjardins

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 11.81m
DEPTH OF HOLE: 12.11m
WATER LEVEL: 9.0m DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Jessy Savard
DRILL: TCG-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.0m Water									
11.81m Bedrock									
12.19m End hole									

Remarks:

Checked By: DATE:

Borehole Field Report

Borehole No.: T-610
Elevation:

Client: Groupe Ghert
Project / Site: Amaruq Dike
Project No.: 1204932-B1

Date start:
Date Finish:
Inspector: Mathieu Binet Desjardins

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 12.55
DEPTH OF HOLE: 12.85
WATER LEVEL: None DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: Jessy Savard
DRILL: TCG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
12.55m Bedrock									
12.85m End hole									

Remarks:

Checked By: DATE:

Borehole Field Report

Borehole No.: MP-607
Elevation: —

Client: Groupe Gilbert
Project / Site: Annaly Dike
Project No.: 1120932-B1

Date start: 06-03-2020
Date Finish:
Inspector: Maxime Binet Desbiens

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 12.73
DEPTH OF HOLE: 13.03
WATER LEVEL: 9.1 DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Jessy Savard
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	TESTS Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.1m Water									
12.73m Bedrock									
13.03m End hole									

Remarks:

Checked By: DATE:

Borehole Field Report

Borehole No.:
Elevation:

Client: Groupe Gilbert
Project / Site: Amaray Dike
Project No.: 1120493 2 - 13 1

Date start:
Date Finish:
Inspector: Maxime Boivin Rashiem

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK: 12.60m
DEPTH OF HOLE: 12.90m
WATER LEVEL: 8.8m DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: Jessy Savard
DRILL: TCG-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE Slate	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
8.8m — water									
12.60 — Bedrock									
12.87m — End hole									

Remarks:

Checked By: DATE:

Field Report

Client: GROUPE GILBERT.	Date: 06-03-2020
Site: AMARUK DIKE	○ Excavation Bed Ver. ○ Concrete ○ Compaction ○ Asphalt ◎ Other: CASING DRILLING ○ Sampling ○ Reinforcing Steel ○ Structural Steel ○ Vibration Monitoring
Project:	
Project No.: 12204132-61	

I have: ☐ my JSEAs ☐ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

°C

Field Results:

THIS EVENING DRILLED CASING

- S-601 (± 7⁰⁰ - 10⁰⁰ hre)
- T-598 (± 10⁰⁰ - 12³⁰ hrs)

STOP WORKS AFTER LUNCH BECAUSE OF COLD T° (-41°) AND GUSTY WIND. (BY CLAUDE TREMBLAY) (± 2⁰⁰ - 2³⁰).

2³⁰: START OVER ON P595 UNTIL 5¹⁵ AM / LESS WIND

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: B. PEDNEAULT

Inspector: R. BOUCHARD

Signature*: [signature]

Time on site (hrs): 12.0 hrs

Travel time (hrs): _____

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KINGLLIN CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: RICHARD JODOIN

Drill #: TCG-05

Date: 6 MARS 2020

Day ☐

Night ☒

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
S-601	12.68	5.32	4.28	4.30	—	12.09	0.250	1.26	NIVEAU À PROF ±8.5m-9m. (12.7)
T-598	11.0	5.32	4.30	4.30	—	12.25	0.250	1.12	PRÉSENCE D'EAU FAIBLE À ±8.5m (12.8)
D-595	11.0	5.33	4.30	4.295	—				

COMME

Borehole Field Report

Borehole No.: S-601
Elevation:

Client: GROUPE GILBERT
Project / Site: AMARUK DIKE
Project No.: 112049 32-B1

Date start: 06-03-2020
Date Finish:
Inspector: RICHARD JODOIN

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: BOBBY GAGNÉ
DRILL: TC605

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
8,5-9,0m — WATER									
12.09m — BEDROCK									
12.39 — END OF HOLE									

Remarks:

Checked By: DATE:

Borehole No.: TC-598
Elevation:

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: AMARUK DIKE
Project No.: 1120493 2-B1

Date start: 06-03-2020
Date Finish:
Inspector: RICHARD JOLOIN

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK:
DEPTH OF HOLE:
WATER LEVEL: DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: BOBBY GAGNE
DRILL: TCG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
8.5 m WATER									
12.25 BEDROCK									
12.55 END OF HOLE									

Remarks:

Checked By: DATE:

PAGE ____ OF ____

Borehole No.: P595
Elevation: ____

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: AMARUK DIKE
Project No.: 1120493 2 - B1.

Date start: 06-03-2020.
Date Finish: ____
Inspector: RICHARD JODOIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: ____
DEPTH OF HOLE: ____
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: BOBBY GAGNE
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES

Remarks: 3RD LENGTH NOT WELDED, END OF SHIFT

Checked By: ____ DATE: ____

Field Report

Client: George Gilbert	Date: 08-03-2020
Site: Annacis	○ Excavation Bed Ver. ○ Sampling
Project: D:14	○ Concrete ○ Reinforcing Steel
Project No.: 11209442-02-01	○ Compaction ○ Structural Steel
	○ Asphalt ○ Vibration Monitoring
	◎ Other: Casing drilling

I have: ☐ my JSEA; ☐ my PPE; ☒ Proper training
I see: ☐ Unexpected Hazards; I need: ☐ an S-RAF?

-45 °C

Field Results:

Casing drilled : P-583 → communication with T-586

Inclinometre: T-616, S-613, T610, P-607, T-604, S-601
T-598, P-595, T-592, S-589, T-586

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: Daniel Pedneault

Inspector: Richard Jodoin / Maxime Poirier Desjardins

Signature*: _____

Time on site (hrs): 12.0 hrs.

Travel time (hrs): _____

Mileage (km): _____

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD.

11811 - Casing Drilling Report

Employee: Maxime et Richard

Drill #: TC-05

Date: 08-03-2020

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
P-583	11.1	5.29	4.29	4.29	—	12.34	0.27	0.96	water: 8.8m Fdepth: 12.74m

Borehole No.: P-583
Elevation: –

Borehole Field Report

Client: Group G. Hart
Project / Site: Annacis Dike
Project No.: 1204932-B1

Date start: 08-03-2020
Date Finish: " "
Inspector: Mathieu Boivin, Rabiem Richard Gaton

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK: 12.34
DEPTH OF HOLE: 12.64
WATER LEVEL: 8.8 DATE:
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ⊟ RC Rock core

TESTS

DRILLER: Jessy Savard
DRILL: TCG-05

STRATIGRAPHY	Depth (feet / metres)	State	Sample Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES

8.8m
12.34m
12.64m

Remarks:

Checked By: DATE:

Field Report

Client: GROUPE GILBERT

Site: AMARUQ

Project: DIKE

Project No: [illegible]

Date: [illegible] NIGHT SHIFT

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: CASING DRILLING
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☐ my JSEAs ☐ my PPE ☒ Proper training

I see: ☐ Unexpected Hazards I need: ☐ an SLRAP?

-36°C

Field Results:

CASING DRILLED : T-580
S-577
T-57A

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: DANIEL PEDNEAULT

Inspector: ALAIN BEAUCHESNE

Signature*: Alain Beauchesne

Time on site (hrs): 12 HRS

Travel time (hrs): _____

Mileage (km): _____

*By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: ALAN BEAUCHEMIN

Drill #: TCG-05

Date: 2020-03-08 AND 09

Day ☐ Night ☑

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-580	10.3	5.33	4.29	4.29	–	11.40	0.26	1.95	WATER 9.14 FINAL DEPHT ~~11.75~~ 11.79
S-577	10.4	5.32	4.29	4.28	–	11.39	0.26	1.94	WATER 5.00 F.DEPHT 11.79
T-574	9.9	5.33	4.29	4.28	–	11.26	0.26	2.08	WATER 9.12 FINAL DEPHT 11.69

Borehole Field Report

Borehole No.: T-530
Elevation:

Client: GROUPE GILBERT
Project / Site: AMAQUR, DIKE
Project No.: 1120A932-B1

Date start: 2020-03-03
Date Finish: 2020-03-08
Inspector: ALAN BEAUCHESNE

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 11.40
DEPTH OF HOLE: 11.79
WATER LEVEL: 9.14 DATE: 2020-03-08
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: BOBBY GAGNÉ
DRILL: TCG-03

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES

9.14 WATER

11.40 BED ROCK

11.79 END OF HOLE

Remarks:

Checked By: DATE:

Borehole Field Report

Borehole No.: S-577
Elevation:

Client: GROUPE GILBERT
Project / Site: AMARUQ, DIKE
Project No.: 1120A932-B1

Date start: 2020-03-08
Date Finish: 2020-03-08
Inspector: ALAN BEAUCHEMIN

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11.39
DEPTH OF HOLE: 11.79
WATER LEVEL: 8.70 DATE: 2020-03-08
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: BOBBY CACHAGNE
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
8.00 WATER									
11.39 BED ROCK:									
11.79 END OF HOLE									

Remarks:

Checked By: DATE:

Borehole Field Report

Borehole No.: T-574
Elevation:

Client: GROUPE GILBERT
Project / Site: AMARUQ, DIKE
Project No.: 1120493Z-B1

Date start: 2020-03-09
Date Finish: 2020-03-09
Inspector: ALAIN BEAUCHESNE

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11.26
DEPTH OF HOLE: 11.69
WATER LEVEL: 9.12 DATE: 2020-03-09
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: BOBBY CAINE
DRILL: TCC-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
9.12 WATER									
11.26 BED ROCK									
11.69 END OF HOLE									

Remarks:

Checked By: DATE:

Field Report

Client:	GROUPE GILBERT
Site:	AMARUK
Project:	WHALE TAIL DIKE
Project No:	12-04432-81
Date:	9-3-2020

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: CASING DRILLING.
- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☐ my JSEAs ☐ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAP 2

-36 °C

Field Results:

- CASSING DRILLING ON DIKE, UPSTREEM SIDE.
  WORKS STARTED AT ± 8h BECAUSE OF HEAVY WINDS & SNOW.
- DRILLED CASING : P-571, T-568, S-565, T-562 } WATER AT ± 9m DEPTH ≠ COMMUNICATION..

Site Representative: _____

From: _____

Project Manager: D. REDNEAULT

Inspector: R. HODGSON

Signature*: _____

Time on site (hrs): 12-0

Travel time (hrs): —

Mileage (km): —

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: R. Loosmore

Drill #: TC65

Date: 9/3/2020.

Day ☑ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
P-571.	10.54	5.32	4.30	4.30	—	13.01	0.250	0.360	SMALL AMOUNT OF WATER AT ±9 m WITHOUT CASING
T-568	10.53	5.32	4.29	4.28	—	12.48	0.300	0.810	" " " " "
S-565	10.45	5.32	4.30	4.29	—	11.86.	0.250	1.5	~~0~~ WATER
T-562	10.33	5.32	4.26	4.29.	—	9.72	0.250	3.34+	~~0~~ WATER.
								0.260	
* ; BROKEN CHAIN ; HAD TO SUBSTRACTED 300 mm ON MEASURES... (DONE).									

CHAIN MEASURM

OK 13.400
OK 13.100
OK 12.55
OK 10.35

PAGE ____ OF ____

Borehole No.: P 571.
Elevation: ____

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: WHALE TAIL DIKE
Project No.: 1120432-B1-

Date start: 9-3-2020.
Date Finish: 9-3-2020
Inspector: R. JODOIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 13.01
DEPTH OF HOLE: 13.4m
WATER LEVEL: ±9.0 DATE: ____
PROBE No.: — TIME: ____

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: SEBASTIEN
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
WATER LEVEL ±9m									SMALL FLOW, NO CONNUNICATION.
BEDROCK. 13.01m									
END OF HOLE 13.4m									MEASURMENT CHAIN

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T568
Elevation: ____

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: WHALE TAIL DIKE
Project No.: 1204432-B1

Date start: 9-3-2020
Date Finish: 9-3-2020
Inspector: R. JODOIN

DIAMETER OF HOLE: OVERBURDEN: ____ BEDROCK: 12.48
DEPTH OF HOLE: 13.1m
WATER LEVEL: ±9m DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: SEBASTIEN
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
WATER LEVEL ± 9m									SMALL WATERFLOW & COMMUNICATION
BEDROCK 12.48m									
END OF HOLE 13.1m (MUD)									

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: J-565
Elevation: ____

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: WHALE TAIL DIKE
Project No.: 1120432-B1.

Date start: 9-3-2020
Date Finish: 9-3-2020
Inspector: R. JODOIN

DIAMETER OF HOLE — OVERBURDEN: ____ BEDROCK: 11.86m
DEPTH OF HOLE: 12.4m
WATER LEVEL: 0 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- ☒ SS Split spoon
- ▨ ST Shelby tube
- ▯ RC Rock core

TESTS

DRILLER: SEBASTIEN
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES

BEDROCK 11.86m

END OF HOLE 12.55m

Remarks: ____

Checked By: ____ DATE: ____

PAGE ____ OF ____

Borehole No.: T-562
Elevation: ____

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: WHALE TAIL DIKE
Project No.: 1120432-B1.

Date start: 2020/03/09
Date Finish: 2020/03/09.
Inspector: R. JOBOIN

DIAMETER OF HOLE: OVERBURDEN: ____ BEDROCK: 9.72m
DEPTH OF HOLE: 10.35m
WATER LEVEL: 0 DATE: ____
PROBE No.: ____ TIME: ____

SAMPLE
- SS Split spoon
- ST Shelby tube
- RC Rock core

TESTS

DRILLER: SEBASTIEN
DRILL: ____

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES

BEDROCK LEVEL. 9.72m

END OF HOLE. 10.35m

Remarks: ____

Checked By: ____ DATE: ____

Field Report

Client: GROUPE GILBERT

Site: AMARUQ

Project: DIKE

Project No.:

Date: [illegible] NIGHT SHIFT

- ○ Excavation Bed Ver.
- ○ Concrete
- ○ Compaction
- ○ Asphalt
- ◎ Other: CASING DRILLING

- ○ Sampling
- ○ Reinforcing Steel
- ○ Structural Steel
- ○ Vibration Monitoring

I have: ☐ my JSEAs ☐ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-25°C

Field Results:

CASING DRILLED : P-559
T-556
S-553
T-550
P-547 JUST PREPARED

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: D. REDNEAULT

Inspector: ALAIN BEAUCHESNE

Signature*: Alain Beauchesne

Time on site (hrs): 12 HRS

Travel time (hrs): _____

Mileage (km): _____

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: ALAIN BEAUCHESNE

Drill #: TCG-05

Date: 2020-03-09 AND 10

Day ☐ Night ☐

Station	Survey Depth	Casing lenght (m)				Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
		1st	2nd	3rd	4th				
P-559	9.7	5.33	4.30	4.29	—	10.39	0.26	2.97	WATER 9.13 F. DEPHT 10.79
T-556	9.7	5.33	4.29	2.97	—	9.87	0.26	2.16	WATER ~~DRY~~ F. DEPHT 10.28
S-553	9.8	5.32	4.30	3.33	—	9.70	0.26	2.69	WATER ~~DRY~~ F. DEPHT 10.11
T-550	9.6	5.30	4.30	2.67	—	9.61	0.26	2.10	WATER 9.00 F. DEPHT 10.01
P-547		5.32	—	—	—				JUST PEPARED

Borehole Field Report

Borehole No.: P-559
Elevation:

Client: GROUPE GILBERT
Project / Site: AMEC Q, DIKE
Project No.: 112493-2-B1

Date start: 2020-05-09
Date Finish: 2020-05-09
Inspector: ALAIN BEAUCHESNE

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 10.39
DEPTH OF HOLE: 10.79
WATER LEVEL: 9.13 DATE: 20.05.09
PROBE No.: TIME:

SAMPLE
SS Split spoon
ST Shelby tube
RC Rock core

TESTS

DRILLER: BOSS C-A CME
DRILL: TC(-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES

9.13 WATER
10.39 BEDROCK
10.79 END OF HOLE

Remarks:

Checked By: DATE:

Borehole No.: T-556
Elevation:

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: AMARUQ, DIKE
Project No.: 1120492-B1

Date start: 2020-03-09
Date Finish: 2020-03-09
Inspector: ALAIN BEAUCHESNE

DIAMETER OF HOLE — OVERBURDEN: —
BEDROCK: 9.07
DEPTH OF HOLE: 10.28
WATER LEVEL: — DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: BOBBY GAGNE
DRILL: TCH-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.07 BED ROCK									
10.28 END OF HOLE									

Remarks:

Checked By: DATE:

Borehole No.: S-53
Elevation:

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: AMARUQ, DIKE
Project No.: 1120493Z-B1

Date start: 2020-03-09
Date Finish: 2020-03-10 (NIGHT)
Inspector: ALAIN BEAUCHESNE

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.70
DEPTH OF HOLE: 10.11
WATER LEVEL: — DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: BOBBY GAGNE
DRILL: TCA-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.70 BED ROCK									
10.11 END OF HOLE									

Remarks:

Checked By: DATE:

Borehole Field Report

Borehole No.: T-550
Elevation:

Client: GROUPE GILBERT
Project / Site: AMARUQ, DIKE
Project No.: 1120A932-B1

Date start: 2020-03-10 (NIGHT)
Date Finish: 2020-03-10 (NIGHT)
Inspector: ALAIN BEAUCHESNE

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.61
DEPTH OF HOLE:
WATER LEVEL: 9.0 DATE: 20-03-10
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: BOBBY GAGNE
DRILL: TCA-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.0 WATER									
9.61 BEDROCK									
10.61 END OF HOLE									

Remarks:

Checked By: DATE:

Field Report

Client: GROUPE GILBERT.

Site: AMARUK.

Project: WHALETAIL DIKE.

Project No.: 11204432-01.

Date: 2020/03/10

- O Excavation Bed Ver.
- O Concrete
- O Compaction
- O Asphalt
- O Sampling
- O Reinforcing Steel
- O Structural Steel
- O Vibration Monitoring
- O Other: CASING DRILLING.

I have: ☐ my JSEAs ☐ my PPE ☐ Proper training
I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-30 °C

Field Results:

CASING DRILLING ON DIKE.

- P-547 } Low water flow AT ± 6.5/7.0m.
- Q-481
- Q-478
- Q-523
- Q-526

INCLINOMETER ON CASING #P583, S577, T574, P571, T568 S565, T562, P559.

Corrective actions to be taken:

Site Representative: _____

From: _____

Project Manager: D. PEDNEAULT

Inspector: RICHARD JODOIN

Signature*: _____

Time on site (hrs): 12.0

Travel time (hrs): —

Mileage (km): —

* By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.

KIVALLIQ CONTRACTORS GROUP LTD

11811 - Casing Drilling Report

Employee: R. JODOIN

Drill #: TC65

Date: 2020/03/10

Day ☒ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)	GI Anal MEASUR
P-547	10.32	5.32	4.28	4.28	—	10.22	0.250	3.11	LOW WATER FLOW AT ±6.5m	11.21 - 0.300
Q-481	9.36	5.32	4.29	4.29	—	9.9	0.250	3.45	" " " ±7.0m	10.9 - 0.300
Q-478	9.51	5.32	4.28	3.45	-	~~9.77~~ 9.8	0.250	2.70	" " " "	10.8 - 0.300
Q-523	9.49	5.32	4.28	4.28	—	9.82	0.250	3.51	Ø WATER.	10.8 - 0.300
Q-526	9.56	5.32	4.29	4.28	—	11.02	0.250	2.32	Ø "	11.21 - 0.300
T-544		5-32							PLACEMENT OF CASING NOT STARTED	MISSING LENGHT ON CHAIN.

Borehole No.: P547
Elevation: 10.22

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: WHALE TAIL DIKE
Project No.: 1120443 2-B1

Date start: 2020/03/10
Date Finish: " " "
Inspector: R. JOBOIN

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 10.22
DEPTH OF HOLE: 10.9m
WATER LEVEL: ____ DATE: ____
PROBE No.: ____ TIME: ____

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: SEBASTIEN
DRILL: TC65

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
WATER ± 6.5m									
BEDROCK LEVEL. 10.22									
END OF HOLE. 10.91									

Remarks:

Checked By: ____ DATE: ____

Borehole No.: Q-481

Elevation: ~~to 6 GH~~ DEM

Borehole Field Report

Client: GROUPE GIBERT

Project / Site: WHALE TAIL DIKE

Project No.: 1204432-B1

Date start: 2020/03/10

Date Finish: " " "

Inspector: R. JODOIN

DIAMETER OF HOLE — OVERBURDEN: — BEDROCK: 99 mm

DEPTH OF HOLE: 10.6m

WATER LEVEL: ± 7.0m DATE:

PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: SEBASTIEN

DRILL: TC65

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
WATER ± 7.0m									
BEDROCK LEVEL. 9.9m									
END OF HOLE. 10.6m									

Remarks:

Checked By: DATE:

Borehole No.: D-478
Elevation:

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: WHALE TAIL DIKE
Project No.: 1120432-B1

Date start: 2020/03/10
Date Finish: " " "
Inspector: R. JODOIN

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 8.77m
DEPTH OF HOLE: 10.50
WATER LEVEL: 7.0m DATE:
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: SEBASTIEN
DRILL: TC65

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
WATER ± 7.0m									
BEDROCK LEVEL.		9.80							
END OF HOLE.		10.50							

Remarks:

Checked By: DATE:

Borehole No.: BH-523
Elevation: 9.82

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: WHALE TAIL DIKE
Project No.: 11204432-B1

Date start: 2020/03/10
Date Finish: " " "
Inspector: R. JODOIN

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 9.82
DEPTH OF HOLE: 10.500 - 0.250
WATER LEVEL: 0 DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯▯ RC Rock core

TESTS

DRILLER: SEBASTIEN
DRILL: TCG - 5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES

9.82 ms — BEDROCK LEVEL.

10.500 — END OF HOLE.

Remarks:

Checked By: DATE:

Borehole No.: BH-526
Elevation: 11.02

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: WHALE TAIL DIKE
Project No.: 11204432-B1

Date start: 2020/03/10
Date Finish: " " "
Inspector: R. JODOIN

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 11.02
DEPTH OF HOLE: 10.9
WATER LEVEL: 0 DATE:
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯▯ RC Rock core

TESTS

DRILLER: SUBARTEN
DRILL: IC6-5

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	Type and No.	DESCRIPTION OF SAMPLES

11.02m
BEDROCK LEVEL.

10.9m
END OF HOLE.

Remarks:

Checked By: DATE:

Field Report

Client: GROUPE GILBERT

Site: AMARUQ

Project: DIKE

Date: 25-03-19 (WORK NIGHT SHIFT)

Project No: [illegible]

- ◎ Excavation Bed Ver.
- ◎ Concrete
- ◎ Compaction
- ◎ Asphalt
- ◎ Other: CASING DRILLIN
- ◎ Sampling
- ◎ Reinforcing Steel
- ◎ Structural Steel
- ◎ Vibration Monitoring

I have: ☐ my JSEAs ☐ my PPE ☒ Proper training

I see: ☐ Unexpected Hazards I need: ☐ an S-RAF?

-24°C

Field Results:

CASING DRILLED : T - 544
S - 541
T - 538
P - 535
T - 532
S - 529 TWO SECTION ONLY

WHEN WE DID THE CASING DRILLING T-538, WATER WAS COMING OUT OF THE S-541

Corrective actions to be taken:

Site Representative: _____

From: _____

Inspector: ALAIN BRAUCHESNE

Signature*: Alain Brauchesne

Time on site (hrs): 12.0 HRS

Travel time (hrs): _____

Mileage (km): _____

Project Manager: DANIEL PEDNEAULT

** By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

KIVALLIQ CONTRACTORS GROUP LTD.

11811 - Casing Drilling Report

Employee: ALAIN BEAUCHESNE

Drill #: TC6-05

Date: 2020-05-10 AND 11

Day ☐ Night ☐

Station	Survey Depth	Casing lenght (m) 1st	2nd	3rd	4th	Encounter bedrock (m)	Stick-up at level ground (0,4m)	Second cut (m)	Comments (ex; empty, boulders, ice, sand,etc.)
T-544	9,6	5,32	4,30	4,29	—	9,54	0,26	3,81	WATER 9,12 F DEPHT 9,96
S-541	9,7	5,32	4,29	3,81	—	9,65	0,26	3,21	WATER DRY F DEPHT 10,05
T-538	9,6	5,33	4,27	3,21	—	9,76	0,26	2,49	WATER 9,10 F DEPHT 10,17
P-535	9,5	5,31	4,27	2,49	—	10,03	0,26	1,48	WATER 9,08 F DEPHT 10,44
T-532	9,5	5,32	4,29	1,48	—	10,31	0,26	0,22	WATER 9,01 F DEPHT 10,71
S-529	9,6	5,33	4,28						NOT FINISH

Borehole Field Report

Borehole No.: T-54A
Elevation:

Client: ROUPE GILBERT
Project / Site: AMARUQ, DIKE
Project No.: 1120A932-B1

Date start: 2020-03-10
Date Finish: 2020-03-10
Inspector: ALAIN BEAUCHESNE

DIAMETER OF HOLE
OVERBURDEN:
BEDROCK: 9.54
DEPTH OF HOLE: 9.96
WATER LEVEL: 9.12 DATE: 20-03-10
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: BOBBY CAMPBELL
DRILL: TC6-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
9.12 WATER									
9.54 BEDROCK									
9.96 END OF HOLE									

Remarks:

Checked By: DATE:

Borehole No.: S-541
Elevation:

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: AMARUQ, DIKE
Project No.: 1120 4932-B1

Date start: 2020-03-10
Date Finish: 2020-03-10
Inspector: ALAIN BEAUCHESNE

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9,65
DEPTH OF HOLE: 10,05
WATER LEVEL: DRY DATE: 20-03-10
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

TESTS

DRILLER: BOBBY CHAPMAN
DRILL: TCG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9,65 BEDROCK									
10,05 END OF HOLE									

Remarks:

Checked By: DATE:

Borehole No.: T-538
Elevation:

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: AMARUQ, DIKE
Project No.: 1120 4432-B1

Date start: 2020-03-10
Date Finish: 2020-03-10
Inspector: ALAIN BEAUCHESNE

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 9.76
DEPTH OF HOLE: 10.17
WATER LEVEL: 9.10 DATE: 20-03-10
PROBE No.: TIME:

SAMPLE: ☒ SS Split spoon; ▨ ST Shelby tube; ▯ RC Rock core

DRILLER: BOBBY GAGNE
DRILL: ICH-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration Index	TESTS Type and No.	DESCRIPTION OF SAMPLES
9.10 WATER									
9.76 BEDROCK									
10.17 END OF HOLE									

Remarks:

Checked By: DATE:

Borehole Field Report

Borehole No: P3535
Elevation:

Client: GROUPE GILBERT
Project / Site: AMARUQ, DIKE
Project No.: 1120A932-B1

Date start: 2020-03-10
Date Finish: 2020-03-11
Inspector: ALAIN BEAUCHEMIN

DIAMETER OF HOLE — OVERBURDEN:
BEDROCK: 10.03
DEPTH OF HOLE: 10.44
WATER LEVEL: 9.08 DATE: 20-03-11
PROBE No.: TIME:

SS Split spoon
ST Shelby tube
RC Rock core

DRILLER: BOBBY GALLANT
DRILL: TC-05

STRATIGRAPHY	Depth feet	Depth metres	SAMPLE State	SAMPLE Type and No.	SAMPLE Recup.	SAMPLE Blows 6" / 15cm or RQD	SAMPLE Penetration index	TESTS Type and No.	DESCRIPTION OF SAMPLES

9.08 WATER
10.03 BEDROCK
10.44 END OF HOLE

Remarks:

Checked By: DATE:

Borehole No.: T-532
Elevation:

Borehole Field Report

Client: GROUPE GILBERT
Project / Site: AMARUQ, DIKE
Project No.: 1120492-B1

Date start: 2020-03-11 NIGHT
Date Finish: 2020-03-11 NIGHT
Inspector: ALAIN BEAUCHESNE

DIAMETER OF HOLE: OVERBURDEN:
BEDROCK: 10.31
DEPTH OF HOLE: 10.71
WATER LEVEL: 9.31 DATE: 20-03-11
PROBE No.: TIME:

SAMPLE
☒ SS Split spoon
▨ ST Shelby tube
▯ RC Rock core

TESTS

DRILLER: BOBBY GAGNE
DRILL: TCG-05

STRATIGRAPHY	Depth feet	Depth metres	State	Type and No.	Recup.	Blows 6" / 15cm or RQD	Penetration index	Type and No.	DESCRIPTION OF SAMPLES
9.31 WATER									
10.31 BEDROCK									
10.71 END OF HOLE									

Remarks:

Checked By: DATE:

D-4 WTD Downstream Casing Deviation Table

Hole		Measure 1 (°)	Measurement 1 depth (m)	Gap 1 (°)	**Deviation 1 (m)**	Measure 2 (°)	Measurement 2 depth (m)	Gap 2 (°)	**Deviation 2 (m)**	Measure 3 (°)	Measurement 3 depth (m)	Gap 3 (°)	**Deviation 3 (m)**	Measure 4 (°)	Measurement 4 depth (m)	Gap 4 (°)	**Deviation 4 (m)**	Borehole depth (m)	Total deviation (m)	**Deviation (%)**	Comment
P-176.5	**E**	89.47	3	0.53	**0.028**	89.14	6	0.86	**0.045**			90	**0.000**			90	**0.000**	8.19	**0.073**	**0.89%**	
	N	89.83	3	0.17	**0.009**	89.1	6	0.9	**0.047**			90	**0.000**			90	**0.000**		**0.056**	**0.68%**	
T-179.5	**E**	89.29	2	0.71	**0.025**	89.34	5	0.66	**0.035**	88.91	8	1.09	**0.061**			90	**0.000**	8.20	**0.120**	**1.47%**	
	N	89.38	2	0.62	**0.022**	89.76	5	0.24	**0.013**	88.71	8	1.29	**0.072**			90	**0.000**		**0.106**	**1.30%**	
S-182.5	**E**	89.28	2	0.72	**0.025**	89.73	5	0.27	**0.014**	89.97	8	0.03	**0.001**			90	**0.000**	7.79	**0.041**	**0.52%**	
	N	89.48	2	0.52	**0.018**	89.76	5	0.24	**0.013**	89.73	8	0.27	**0.013**			90	**0.000**		**0.044**	**0.56%**	
T-185.5	**E**	89.49	2	0.51	**0.018**	89.54	5	0.46	**0.024**	89.9	8	0.1	**0.006**			90	**0.000**	8.51	**0.048**	**0.56%**	
	N	89.2	2	0.8	**0.028**	89.48	5	0.52	**0.027**	89.51	8	0.49	**0.030**			90	**0.000**		**0.085**	**1.00%**	
P-188.5	**E**	89.05	2	0.95	**0.033**	89.43	5	0.57	**0.030**	89.31	8	0.69	**0.044**			90	**0.000**	8.63	**0.107**	**1.24%**	
	N	89.03	2	0.97	**0.034**	89.45	5	0.55	**0.029**	88.94	8	1.06	**0.067**			90	**0.000**		**0.130**	**1.50%**	
T-191.5	**E**	89.74	4	0.26	**0.018**	89.85	7	0.15	**0.008**	89.77	10	0.23	**0.007**			90	**0.000**	8.65	**0.033**	**0.38%**	
	N	89.57	4	0.43	**0.030**	89.78	7	0.22	**0.012**	89.59	10	0.41	**0.012**			90	**0.000**		**0.053**	**0.62%**	
Q-193	**E**	89.32	2	0.68	**0.024**	89.91	5	0.09	**0.005**	89.56	8	0.44	**0.040**			90	**0.000**	10.26	**0.069**	**0.67%**	
	N	89.52	2	0.48	**0.017**	89.07	5	0.93	**0.049**	89.61	8	0.39	**0.036**			90	**0.000**		**0.101**	**0.99%**	
S-194.5	**E**	89.64	3	0.36	**0.019**	89.7	6	0.3	**0.016**	89.11	9	0.89	**0.059**			90	**0.000**	9.82	**0.094**	**0.96%**	
	N	89.74	3	0.26	**0.014**	89.65	6	0.35	**0.018**	89.32	9	0.68	**0.045**			90	**0.000**		**0.077**	**0.79%**	
Q-197	**E**	89.69	2	0.31	**0.011**	89.18	5	0.82	**0.043**	88.97	8	1.03	**0.104**			90	**0.000**	10.76	**0.157**	**1.46%**	
	N	89.29	2	0.71	**0.025**	89.71	5	0.29	**0.015**	88.79	8	1.21	**0.122**			90	**0.000**		**0.162**	**1.50%**	
T-197.5	**E**	89.02	2	0.98	**0.034**	88.89	5	1.11	**0.058**	88.6	8	1.4	**0.090**			90	**0.000**	8.70	**0.183**	**2.10%**	
	N	89.12	2	0.88	**0.031**	89.66	5	0.34	**0.018**	89.21	8	0.79	**0.051**			90	**0.000**		**0.100**	**1.14%**	
Q-199	**E**	89.58	2	0.42	**0.015**	89.53	5	0.47	**0.025**	89.4	8	0.6	**0.052**			90	**0.000**	9.92	**0.091**	**0.92%**	
	N	89.14	2	0.86	**0.030**	89.58	5	0.42	**0.022**	88.92	8	1.08	**0.093**			90	**0.000**		**0.145**	**1.46%**	
P-200.5	**E**	89.86	3	0.14	**0.007**	89.88	6	0.12	**0.006**	89.69	9	0.31	**0.023**			90	**0.000**	10.25	**0.037**	**0.36%**	
	N	89.32	3	0.68	**0.036**	89.65	6	0.35	**0.018**	89.59	9	0.41	**0.030**			90	**0.000**		**0.084**	**0.82%**	
T-203.5	**E**	89.45	3	0.55	**0.029**	89.77	6	0.23	**0.012**	89.66	9	0.34	**0.026**			90	**0.000**	10.35	**0.067**	**0.64%**	
	N	89.53	3	0.47	**0.025**	89.4	6	0.6	**0.031**	89.66	9	0.34	**0.026**			90	**0.000**		**0.082**	**0.79%**	
S-206.5	**E**	89.69	3	0.31	**0.016**	89	6	1	**0.052**	89.46	9	0.54	**0.042**			90	**0.000**	10.45	**0.111**	**1.06%**	
	N	89.73	3	0.27	**0.014**	89.71	6	0.29	**0.015**	89.81	9	0.19	**0.015**			90	**0.000**		**0.044**	**0.42%**	
T-209.5	**E**	89.13	3	0.87	**0.046**	89.13	6	0.87	**0.046**	89.05	9	0.95	**0.071**			90	**0.000**	10.29	**0.162**	**1.58%**	
	N	89.37	3	0.63	**0.033**	89.36	6	0.64	**0.034**	89.12	9	0.88	**0.066**			90	**0.000**		**0.132**	**1.29%**	
P-212.5	**E**	89.09	3	0.91	**0.048**	88.46	6	1.54	**0.081**	88.51	9	1.49	**0.107**			90	**0.000**	10.13	**0.236**	**2.33%**	
	N	89.73	3	0.27	**0.014**	89.02	6	0.98	**0.051**	88.46	9	1.54	**0.111**			90	**0.000**		**0.176**	**1.74%**	
T-215.5	**E**	89.5	3	0.5	**0.026**	89.76	6	0.24	**0.013**	89.38	9	0.62	**0.049**			90	**0.000**	10.50	**0.087**	**0.83%**	
	N	89.52	3	0.48	**0.025**	89.43	6	0.57	**0.030**	89.87	9	0.13	**0.010**			90	**0.000**		**0.065**	**0.62%**	
S-218.5	**E**	89.05	2	0.95	**0.033**	89.58	5	0.42	**0.022**	89.74	8	0.26	**0.026**			90	**0.000**	10.75	**0.081**	**0.76%**	
	N	89.35	2	0.65	**0.023**	89.56	5	0.44	**0.023**	89.19	8	0.81	**0.081**			90	**0.000**		**0.127**	**1.18%**	
Q-220	**E**	89.48	2	0.52	**0.018**	89.57	5	0.43	**0.023**	89.68	8	0.32	**0.033**			90	**0.000**	10.88	**0.074**	**0.68%**	
	N	89.04	2	0.96	**0.034**	88.84	5	1.16	**0.061**	89.04	8	0.96	**0.099**			90	**0.000**		**0.193**	**1.77%**	
T-221.5	**E**	89.82	3	0.18	**0.009**	89.61	6	0.39	**0.020**	89.65	9	0.35	**0.028**			90	**0.000**	10.51	**0.057**	**0.55%**	
	N	89.53	3	0.47	**0.025**	89.88	6	0.12	**0.006**	89.94	9	0.06	**0.005**			90	**0.000**		**0.036**	**0.34%**	
Q-223	**E**	89.4	2	0.6	**0.021**	89.31	5	0.69	**0.036**	89.87	8	0.13	**0.011**			90	**0.000**	10.04	**0.069**	**0.68%**	
	N	88.85	2	1.15	**0.040**	89.67	5	0.33	**0.017**	89.43	8	0.57	**0.050**			90	**0.000**		**0.108**	**1.07%**	
P-224.5	**E**	89.13	3	0.87	**0.046**	89.39	6	0.61	**0.032**	89.53	9	0.47	**0.026**			90	**0.000**	9.18	**0.104**	**1.13%**	
	N	89.65	3	0.35	**0.018**	89.7	6	0.3	**0.016**	89.76	9	0.24	**0.013**			90	**0.000**		**0.047**	**0.52%**	
T-227.5	**E**	89.15	4	0.85	**0.059**	89.32	7	0.68	**0.036**			90	**0.000**			90	**0.000**	9.10	**0.095**	**1.04%**	
	N	89.62	4	0.38	**0.027**	89.49	7	0.51	**0.027**			90	**0.000**			90	**0.000**		**0.053**	**0.58%**	
S-230.5	**E**	89.32	3	0.68	**0.036**	89.45	6	0.55	**0.029**	89.71	9	0.29	**0.015**			90	**0.000**	9.05	**0.080**	**0.88%**	
	N	89.23	3	0.77	**0.040**	89.45	6	0.55	**0.029**	89.46	9	0.54	**0.029**			90	**0.000**		**0.098**	**1.08%**	
T-233.5	**E**	89.94	3	0.06	**0.003**	89.94	6	0.06	**0.003**	89.59	9	0.41	**0.022**			90	**0.000**	9.09	**0.028**	**0.31%**	
	N	89.39	3	0.61	**0.032**	89.29	6	0.71	**0.037**	89.46	9	0.54	**0.029**			90	**0.000**		**0.098**	**1.08%**	
P-236.5	**E**	89.5	3	0.5	**0.026**	89.72	6	0.28	**0.015**	89.95	9	0.05	**0.003**			90	**0.000**	9.28	**0.044**	**0.47%**	
	N	89.34	3	0.66	**0.035**	89.64	6	0.36	**0.019**	89.86	9	0.14	**0.008**			90	**0.000**		**0.061**	**0.66%**	
T-239.5	**E**	89.3	3	0.7	**0.037**	89.54	6	0.46	**0.024**	88.8	9	1.2	**0.066**			90	**0.000**	9.15	**0.127**	**1.38%**	
	N	89.69	3	0.31	**0.016**	89.91	6	0.09	**0.005**	89.32	9	0.68	**0.037**			90	**0.000**		**0.058**	**0.64%**	
S-242.5	**E**	89.31	2	0.69	**0.024**	89.49	5	0.51	**0.027**	89.71	8	0.29	**0.022**			90	**0.000**	9.34	**0.073**	**0.78%**	
	N	89.1	2	0.9	**0.031**	89.35	5	0.65	**0.034**	89.28	8	0.72	**0.055**			90	**0.000**		**0.120**	**1.28%**	
T-245.5	**E**	88.77	3	1.23	**0.064**	89.32	6	0.68	**0.036**	89.19	9	0.81	**0.045**			90	**0.000**	9.18	**0.145**	**1.58%**	
	N	89.72	3	0.28	**0.015**	89.67	6	0.33	**0.017**	89.58	9	0.42	**0.023**			90	**0.000**		**0.055**	**0.60%**	
P-248.5	**E**	89.74	4	0.26	**0.018**	89.81	7	0.19	**0.010**	89.95	10	0.05	**0.002**			90	**0.000**	9.47	**0.030**	**0.32%**	
	N	89.6	4	0.4	**0.028**	89.42	7	0.58	**0.030**	89.65	10	0.35	**0.015**			90	**0.000**		**0.073**	**0.77%**	
T-251.5	**E**	89.52	3	0.48	**0.025**	89.68	6	0.32	**0.017**	89.68	9	0.32	**0.018**			90	**0.000**	9.25	**0.060**	**0.65%**	
	N	89.37	3	0.63	**0.033**	89.84	6	0.16	**0.008**	89.96	9	0.04	**0.002**			90	**0.000**		**0.044**	**0.47%**	
S-254.5	**E**	89.64	3	0.36	**0.019**	89.74	6	0.26	**0.014**	89.88	9	0.12	**0.007**			90	**0.000**	9.47	**0.040**	**0.42%**	
	N	89.52	3	0.48	**0.025**	89.9	6	0.1	**0.005**	89.85	9	0.15	**0.009**			90	**0.000**		**0.039**	**0.42%**	
T-257.5	**E**	89.41	3	0.59	**0.031**	89.61	6	0.39	**0.020**	89.78	9	0.22	**0.013**			90	**0.000**	9.38	**0.064**	**0.69%**	
	N	89.39	3	0.61	**0.032**	89.82	6	0.18	**0.009**	89.72	9	0.28	**0.017**			90	**0.000**		**0.058**	**0.62%**	
P-260.5	**E**	89.08	2	0.92	**0.032**	88.94	5	1.06	**0.055**	88.49	8	1.51	**0.123**			90	**0.000**	9.67	**0.211**	**2.18%**	
	N	89.85	2	0.15	**0.005**	88.51	5	1.49	**0.078**	88.64	8	1.36	**0.111**			90	**0.000**		**0.194**	**2.01%**	
T-263.5	**E**	89.37	3	0.63	**0.033**	89.31	6	0.69	**0.036**	89.19	9	0.81	**0.049**			90	**0.000**	9.45	**0.118**	**1.25%**	
	N	89.63	3	0.37	**0.019**	89.6	6	0.4	**0.021**	89.35	9	0.65	**0.039**			90	**0.000**		**0.079**	**0.84%**	
S-266.5	**E**	89.5	3	0.5	**0.026**	89.84	6	0.16	**0.008**	89.79	9	0.21	**0.012**			90	**0.000**	9.37	**0.047**	**0.50%**	

S-266.5	N	89.78	3	0.22	**0.012**	89.69	6	0.31	**0.016**	89.85	9	0.15	**0.009**			90	**0.000**	9.37	**0.037**	**0.39%**	
T-269.5	E	88.94	3	1.06	**0.055**	89.38	6	0.62	**0.032**	89.26	9	0.74	**0.042**			90	**0.000**	9.27	**0.130**	**1.40%**	
	N	89.69	3	0.31	**0.016**	89.73	6	0.27	**0.014**	89.57	9	0.43	**0.025**			90	**0.000**		**0.055**	**0.59%**	
P-272.5	E	88.82	2	1.18	**0.041**	89.07	5	0.93	**0.049**	88.94	8	1.06	**0.073**			90	**0.000**	8.95	**0.163**	**1.82%**	
	N	89.77	2	0.23	**0.008**	89.32	5	0.68	**0.036**	89.58	8	0.42	**0.029**			90	**0.000**		**0.073**	**0.81%**	
T-275.5	E	88.94	2	1.06	**0.037**	88.95	5	1.05	**0.055**	89.16	8	0.84	**0.065**			90	**0.000**	9.41	**0.157**	**1.66%**	
	N	89.25	2	0.75	**0.026**	89.4	5	0.6	**0.031**	89.44	8	0.56	**0.043**			90	**0.000**		**0.101**	**1.07%**	
S-278.5	E	89.61	3	0.39	**0.020**	89.91	6	0.09	**0.005**	89.44	9	0.56	**0.031**			90	**0.000**	9.13	**0.056**	**0.61%**	
	N	89.62	3	0.38	**0.020**	89.22	6	0.78	**0.041**	89.87	9	0.13	**0.007**			90	**0.000**		**0.068**	**0.74%**	
T-281.5	E	89.66	2	0.34	**0.012**	88.9	5	1.1	**0.058**	88.42	8	1.58	**0.119**			90	**0.000**	9.31	**0.188**	**2.02%**	
	N	89.71	2	0.29	**0.010**	89.05	5	0.95	**0.050**	88.59	8	1.41	**0.106**			90	**0.000**		**0.166**	**1.78%**	
P-284.5	E	89.51	3	0.49	**0.026**	89.37	6	0.63	**0.033**	89.41	9	0.59	**0.033**			90	**0.000**	9.20	**0.092**	**1.00%**	
	N	89.4	3	0.6	**0.031**	89.8	6	0.2	**0.010**	89.87	9	0.13	**0.007**			90	**0.000**		**0.049**	**0.53%**	
T-287.5	E	89.42	2	0.58	**0.020**	89.5	5	0.5	**0.026**	89.16	8	0.84	**0.055**			90	**0.000**	8.73	**0.101**	**1.16%**	
	N	89.35	2	0.65	**0.023**	89.58	5	0.42	**0.022**	89.4	8	0.6	**0.039**			90	**0.000**		**0.084**	**0.96%**	
S-290.5	E	89.29	3	0.71	**0.037**	89.42	6	0.58	**0.030**	89.53	9	0.47	**0.025**			90	**0.000**	9.10	**0.093**	**1.02%**	
	N	89.72	3	0.28	**0.015**	89.77	6	0.23	**0.012**	89.72	9	0.28	**0.015**			90	**0.000**		**0.042**	**0.46%**	
Q-292	E	89.08	2	0.92	**0.032**	89.39	5	0.61	**0.032**	88.63	8	1.37	**0.096**			90	**0.000**	9.01	**0.160**	**1.77%**	
	N	89.38	2	0.62	**0.022**	89.76	5	0.24	**0.013**	89.29	8	0.71	**0.050**			90	**0.000**		**0.084**	**0.93%**	
T-293.5	E	89.72	2	0.28	**0.010**	89.75	5	0.25	**0.013**	89.8	8	0.2	**0.014**			90	**0.000**	9.10	**0.037**	**0.41%**	
	N	89.26	2	0.74	**0.026**	89.8	5	0.2	**0.010**	89.74	8	0.26	**0.019**			90	**0.000**		**0.055**	**0.60%**	
Q-295	E	89.5	2	0.5	**0.017**	89.8	5	0.2	**0.010**	89.56	8	0.44	**0.031**			90	**0.000**	9.09	**0.059**	**0.65%**	
	N	89.63	2	0.37	**0.013**	89.46	5	0.54	**0.028**	89.71	8	0.29	**0.021**			90	**0.000**		**0.062**	**0.68%**	
P-296.5	E	89.35	2	0.65	**0.023**	89.72	5	0.28	**0.015**	89.39	8	0.61	**0.037**			90	**0.000**	8.49	**0.075**	**0.88%**	
	N	89.36	2	0.64	**0.022**	89.34	5	0.66	**0.035**	89.96	8	0.04	**0.002**			90	**0.000**		**0.059**	**0.70%**	
T-299.5	E	89.01	2	0.99	**0.035**	89.62	5	0.38	**0.020**	89.59	8	0.41	**0.021**			90	**0.000**	8.00	**0.076**	**0.95%**	
	N	89.06	2	0.94	**0.033**	89.48	5	0.52	**0.027**	89.28	8	0.72	**0.038**			90	**0.000**		**0.098**	**1.22%**	
S-302.5	E	89.25	2	0.75	**0.026**	88.85	5	1.15	**0.060**	89.8	8	0.2	**0.013**			90	**0.000**	8.85	**0.100**	**1.13%**	
	N	89.22	2	0.78	**0.027**	89.36	5	0.64	**0.034**	89.45	8	0.55	**0.037**			90	**0.000**		**0.098**	**1.10%**	
T-305.5	E	89.24	2	0.76	**0.027**	89.67	5	0.33	**0.017**	89.34	8	0.66	**0.038**			90	**0.000**	8.26	**0.081**	**0.98%**	
	N	89.29	2	0.71	**0.025**	89.43	5	0.57	**0.030**	89.36	8	0.64	**0.036**			90	**0.000**		**0.091**	**1.10%**	
P-308.5	E	88.65	4	1.35	**0.094**	88.75	7	1.25	**0.065**			90	**0.000**			90	**0.000**	8.15	**0.160**	**1.96%**	
	N	89.45	4	0.55	**0.038**	88.74	7	1.26	**0.066**			90	**0.000**			90	**0.000**		**0.104**	**1.28%**	
T-311.5	E	89.42	2	0.58	**0.020**	89.74	5	0.26	**0.014**	89.74	8	0.26	**0.016**			90	**0.000**	8.58	**0.050**	**0.58%**	
	N	89.42	2	0.58	**0.020**	89.55	5	0.45	**0.024**	89.64	8	0.36	**0.022**			90	**0.000**		**0.066**	**0.77%**	
S-314.5	E	89.63	3	0.37	**0.019**	89.64	6	0.36	**0.019**	89.79	9	0.21	**0.012**			90	**0.000**	9.28	**0.050**	**0.54%**	
	N	89.78	3	0.22	**0.012**	89.53	6	0.47	**0.025**	89.78	9	0.22	**0.013**			90	**0.000**		**0.049**	**0.53%**	
T-317.5	E	89.37	3	0.63	**0.033**	89.38	6	0.62	**0.032**	89.3	9	0.7	**0.046**			90	**0.000**	9.78	**0.112**	**1.14%**	
	N	89.77	3	0.23	**0.012**	89.41	6	0.59	**0.031**	89.74	9	0.26	**0.017**			90	**0.000**		**0.060**	**0.61%**	
P-320.5	E	89.62	4	0.38	**0.027**	89.8	7	0.2	**0.010**	89.66	10	0.34	**0.021**			90	**0.000**	10.53	**0.058**	**0.55%**	
	N	89.92	4	0.08	**0.006**	89.62	7	0.38	**0.020**	89.73	10	0.27	**0.017**			90	**0.000**		**0.042**	**0.40%**	
T-323.5	E	89.64	4	0.36	**0.025**	89.63	7	0.37	**0.019**	89.71	10	0.29	**0.019**			90	**0.000**	10.67	**0.063**	**0.59%**	
	N	89.81	4	0.19	**0.013**	89.6	7	0.4	**0.021**	89.33	10	0.67	**0.043**			90	**0.000**		**0.077**	**0.72%**	
S-326.5	E	89.2	4	0.8	**0.056**	89.57	7	0.43	**0.023**	89.62	10	0.38	**0.028**			90	**0.000**	11.22	**0.106**	**0.95%**	
	N	89.54	4	0.46	**0.032**	89.79	7	0.21	**0.011**	89.59	10	0.41	**0.030**			90	**0.000**		**0.073**	**0.65%**	
T-329.5	E	89.48	4	0.52	**0.036**	89.89	7	0.11	**0.006**	89.83	10	0.17	**0.013**			90	**0.000**	11.26	**0.055**	**0.49%**	
	N	89.65	4	0.35	**0.024**	89.7	7	0.3	**0.016**	89.52	10	0.48	**0.036**			90	**0.000**		**0.076**	**0.67%**	
P-332.5	E	89.36	3	0.64	**0.034**	89.64	6	0.36	**0.019**	89.72	9	0.28	**0.015**	89.35	12	0.65	**0.033**	11.95	**0.100**	**0.84%**	
	N	89.63	3	0.37	**0.019**	89.48	6	0.52	**0.027**	89.13	9	0.87	**0.046**	89.23	12	0.77	**0.040**		**0.132**	**1.10%**	
T-335.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.20			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
S-338.5	E	89.21	4	0.79	**0.055**	88.89	7	1.11	**0.058**	89.57	10	0.43	**0.053**			90	**0.000**	14.11	**0.167**	**1.18%**	
	N	89.45	4	0.55	**0.038**	89.75	7	0.25	**0.013**	89.26	10	0.74	**0.092**			90	**0.000**		**0.143**	**1.02%**	
T-341.5	E	89.66	4	0.34	**0.024**	89.2	7	0.8	**0.042**	89.68	10	0.32	**0.031**			90	**0.000**	12.55	**0.097**	**0.77%**	
	N	89.34	4	0.66	**0.046**	89.63	7	0.37	**0.019**	89.87	10	0.13	**0.013**			90	**0.000**		**0.078**	**0.62%**	
P-344.5	E	89.25	4	0.75	**0.052**	89.3	7	0.7	**0.037**	89.81	10	0.19	**0.022**			90	**0.000**	13.63	**0.111**	**0.81%**	
	N	88.94	4	1.06	**0.074**	89.47	7	0.53	**0.028**	89.14	10	0.86	**0.100**			90	**0.000**		**0.201**	**1.48%**	
T-347.5	E	89.36	4	0.64	**0.045**	88.84	7	1.16	**0.061**	89.03	10	0.97	**0.107**			90	**0.000**	13.33	**0.213**	**1.59%**	
	N	88.72	4	1.28	**0.089**	88.54	7	1.46	**0.076**	88.81	10	1.19	**0.131**			90	**0.000**		**0.297**	**2.23%**	
S-350.5	E	89.55	4	0.45	**0.031**	89.63	7	0.37	**0.019**	89.4	10	0.6	**0.071**			90	**0.000**	13.78	**0.122**	**0.88%**	
	N	89.2	4	0.8	**0.056**	89.3	7	0.7	**0.037**	89.2	10	0.8	**0.095**			90	**0.000**		**0.187**	**1.36%**	
T-353.5	E	89.42	4	0.58	**0.040**	89.35	7	0.65	**0.034**	89.88	10	0.12	**0.016**			90	**0.000**	14.81	**0.091**	**0.61%**	
	N	89.56	4	0.44	**0.031**	89.56	7	0.44	**0.023**	89.7	10	0.3	**0.041**			90	**0.000**		**0.095**	**0.64%**	
P-356.5	E	89.35	4	0.65	**0.045**	89.59	7	0.41	**0.021**	89.48	10	0.52	**0.079**			90	**0.000**	15.68	**0.146**	**0.93%**	
	N	89.86	4	0.14	**0.010**	89.93	7	0.07	**0.004**	89.75	10	0.25	**0.038**			90	**0.000**		**0.051**	**0.33%**	
T-359.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.20			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
S-362.5	E	89.91	4	0.09	**0.006**	89.62	7	0.38	**0.020**	89.91	10	0.09	**0.014**			90	**0.000**	16.10	**0.040**	**0.25%**	
	N	89.33	4	0.67	**0.047**	89.43	7	0.57	**0.030**	89.78	10	0.22	**0.035**			90	**0.000**		**0.112**	**0.69%**	
T-365.5	E	89.31	4	0.69	**0.048**	89.54	7	0.46	**0.024**	88.99	10	1.01	**0.181**			90	**0.000**	17.25	**0.253**	**1.47%**	
	N	89.05	4	0.95	**0.066**	89.74	7	0.26	**0.014**	89.54	10	0.46	**0.082**			90	**0.000**		**0.162**	**0.94%**	
P-368.5	E	89.63	2	0.37	**0.013**	89.82	5	0.18	**0.009**	89.71	8	0.29	**0.015**	89.82	11	0.18	**0.024**	15.63	**0.061**	**0.39%**	
	N	89.43	2	0.57	**0.020**	89.78	5	0.22	**0.012**	89.8	8	0.2	**0.010**	89.85	11	0.15	**0.020**		**0.062**	**0.40%**	
T-371.5	E	89.62	4	0.38	**0.027**	89.58	7	0.42	**0.022**	89.8	10	0.2	**0.021**			90	**0.000**	13.10	**0.070**	**0.53%**	

T-371.5	N	89.69	4	0.31	**0.022**	89.9	7	0.1	**0.005**	89.08	10	0.92	**0.098**			90	**0.000**	13.10	**0.125**	**0.95%**	
S-374.5	E	89.29	4	0.71	**0.050**	89.53	7	0.47	**0.025**	89.53	10	0.47	**0.038**			90	**0.000**	11.64	**0.112**	**0.96%**	
	N	89.71	4	0.29	**0.020**	89.14	7	0.86	**0.045**	89.71	10	0.29	**0.023**			90	**0.000**		**0.089**	**0.76%**	
T-377.5	E	89.69	4	0.31	**0.022**	89.61	7	0.39	**0.020**	89.63	10	0.37	**0.031**			90	**0.000**	11.83	**0.073**	**0.62%**	
	N	89.62	4	0.38	**0.027**	89.64	7	0.36	**0.019**	89.86	10	0.14	**0.012**			90	**0.000**		**0.057**	**0.48%**	
P-380.5	E	89.21	4	0.79	**0.055**	89.52	7	0.48	**0.025**	89.61	10	0.39	**0.038**			90	**0.000**	12.65	**0.119**	**0.94%**	
	N	89.38	4	0.62	**0.043**	89.39	7	0.61	**0.032**	89.73	10	0.27	**0.027**			90	**0.000**		**0.102**	**0.81%**	
T-383.5	E	89.66	4	0.34	**0.024**	89.37	7	0.63	**0.033**	89.65	10	0.35	**0.031**			90	**0.000**	12.14	**0.088**	**0.73%**	
	N	89.17	4	0.83	**0.058**	89.26	7	0.74	**0.039**	89.02	10	0.98	**0.088**			90	**0.000**		**0.185**	**1.52%**	
S-386.5	E	89.52	4	0.48	**0.034**	89.72	7	0.28	**0.015**	89.88	10	0.12	**0.013**			90	**0.000**	13.16	**0.061**	**0.46%**	
	N	89.36	4	0.64	**0.045**	89.79	7	0.21	**0.011**	89.19	10	0.81	**0.087**			90	**0.000**		**0.143**	**1.08%**	
T-389.5	E	89.41	4	0.59	**0.041**	89.42	7	0.58	**0.030**	89.36	10	0.64	**0.067**			90	**0.000**	13.02	**0.139**	**1.07%**	
	N	89.64	4	0.36	**0.025**	89.65	7	0.35	**0.018**	89.49	10	0.51	**0.054**			90	**0.000**		**0.097**	**0.75%**	
P-392.5	E	89.33	4	0.67	**0.047**	89.64	7	0.36	**0.019**	89.32	10	0.68	**0.070**			90	**0.000**	12.88	**0.135**	**1.05%**	
	N	89.88	4	0.12	**0.008**	89.79	7	0.21	**0.011**	89.89	10	0.11	**0.011**			90	**0.000**		**0.031**	**0.24%**	
T-395.5	E	88.95	4	1.05	**0.073**	89.47	7	0.53	**0.028**	89.65	10	0.35	**0.034**			90	**0.000**	12.49	**0.135**	**1.08%**	
	N	89.53	4	0.47	**0.033**	89.63	7	0.37	**0.019**	89.76	10	0.24	**0.023**			90	**0.000**		**0.075**	**0.60%**	
S-398.5	E	89.15	4	0.85	**0.059**	89.2	7	0.8	**0.042**	89.21	10	0.79	**0.061**			90	**0.000**	11.45	**0.163**	**1.42%**	
	N	89.54	4	0.46	**0.032**	89.47	7	0.53	**0.028**	89.55	10	0.45	**0.035**			90	**0.000**		**0.095**	**0.83%**	
T-401.5	E	89.49	4	0.51	**0.036**	89.73	7	0.27	**0.014**	89.79	10	0.21	**0.017**			90	**0.000**	11.56	**0.066**	**0.57%**	
	N	89.54	4	0.46	**0.032**	89.84	7	0.16	**0.008**	89.88	10	0.12	**0.010**			90	**0.000**		**0.050**	**0.43%**	
P-404.5	E	89.7	4	0.3	**0.021**	89.66	7	0.34	**0.018**	89.51	10	0.49	**0.067**			90	**0.000**	14.82	**0.106**	**0.71%**	
	N	89.44	4	0.56	**0.039**	89.48	7	0.52	**0.027**	89.45	10	0.55	**0.075**			90	**0.000**		**0.141**	**0.95%**	
T-407.5	E	89.58	1	0.42	**0.007**	89.99	7	0.01	**0.001**	89.91	7	0.09	**0.000**	89.57	10	0.43	**0.041**	12.45	**0.049**	**0.40%**	
	N	89.66	1	0.34	**0.006**	89.88	4	0.12	**0.006**	89.64	7	0.36	**0.019**	89.34	10	0.66	**0.063**		**0.094**	**0.75%**	
S-410.5	E	89.45	1	0.55	**0.010**	89.97	4	0.03	**0.002**	89.77	7	0.23	**0.012**	89.84	10	0.16	**0.011**	11.01	**0.034**	**0.31%**	
	N	89.4	1	0.6	**0.010**	89.94	4	0.06	**0.003**	89.84	7	0.16	**0.008**	89.82	10	0.18	**0.013**		**0.035**	**0.31%**	
T-413.5	E	89.53	1	0.47	**0.008**	89.87	4	0.13	**0.007**	89.85	7	0.15	**0.008**	89.95	10	0.05	**0.004**	11.34	**0.027**	**0.24%**	
	N	89.79	1	0.21	**0.004**	89.96	4	0.04	**0.002**	89.92	7	0.08	**0.004**	89.82	10	0.18	**0.014**		**0.024**	**0.21%**	
P-416.5	E	89.62	1	0.38	**0.007**	89.83	4	0.17	**0.009**	89.54	7	0.46	**0.024**	89.43	10	0.57	**0.041**	11.15	**0.081**	**0.73%**	
	N	89.68	1	0.32	**0.006**	89.7	4	0.3	**0.016**	89.6	7	0.4	**0.021**	89.37	10	0.63	**0.046**		**0.088**	**0.79%**	
T-419.5	E	89.17	1	0.83	**0.014**	89.84	4	0.16	**0.008**	89.71	7	0.29	**0.015**	89.85	10	0.15	**0.010**	11.01	**0.049**	**0.44%**	
	N	89.66	1	0.34	**0.006**	89.86	4	0.14	**0.007**	89.86	7	0.14	**0.007**	89.94	10	0.06	**0.004**		**0.025**	**0.23%**	
S-422.5	E	89.54	1	0.46	**0.008**	89.79	4	0.21	**0.011**	89.64	7	0.36	**0.019**	89.71	10	0.29	**0.019**	10.77	**0.057**	**0.53%**	
	N	88.79	1	1.21	**0.021**	89.81	4	0.19	**0.010**	89.63	7	0.37	**0.019**	89.64	10	0.36	**0.024**		**0.074**	**0.69%**	
T-425.5	E	89.61	1	0.39	**0.007**	89.84	4	0.16	**0.008**	89.89	7	0.11	**0.006**	89.63	10	0.37	**0.027**	11.11	**0.047**	**0.43%**	
	N	89.5	1	0.5	**0.009**	89.83	4	0.17	**0.009**	89.85	7	0.15	**0.008**	89.91	10	0.09	**0.006**		**0.032**	**0.29%**	
P-428.5	E	89.81	1	0.19	**0.003**	89.68	4	0.32	**0.017**	89.87	7	0.13	**0.007**	89.82	10	0.18	**0.012**	10.69	**0.038**	**0.36%**	
	N	89.77	1	0.23	**0.004**	89.85	4	0.15	**0.008**	89.91	7	0.09	**0.005**	89.87	10	0.13	**0.008**		**0.025**	**0.23%**	
T-431.5	E	89.77	1	0.23	**0.004**	89.76	4	0.24	**0.013**	89.92	7	0.08	**0.004**	89.97	10	0.03	**0.002**	10.73	**0.023**	**0.21%**	
	N	89.5	1	0.5	**0.009**	89.74	4	0.26	**0.014**	89.76	7	0.24	**0.013**	89.71	10	0.29	**0.019**		**0.054**	**0.50%**	
S-434.5	E	89.23	2	0.77	**0.027**	89.77	4	0.23	**0.008**	89.64	7	0.36	**0.019**	89.79	10	0.21	**0.012**	10.39	**0.066**	**0.64%**	
	N	89.14	2	0.86	**0.030**	89.79	4	0.21	**0.007**	89.81	7	0.19	**0.010**	89.71	10	0.29	**0.017**		**0.064**	**0.62%**	
T-437.5	E	89.71	1	0.29	**0.005**	89.91	4	0.09	**0.005**	89.94	7	0.06	**0.003**	89.97	10	0.03	**0.002**	10.50	**0.015**	**0.14%**	
	N	89.85	1	0.15	**0.003**	89.82	4	0.18	**0.009**	89.86	7	0.14	**0.007**	89.91	10	0.09	**0.005**		**0.025**	**0.24%**	
P-440.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.20			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-443.5	E	89.7	1	0.3	**0.005**	89.88	4	0.12	**0.006**	89.61	7	0.39	**0.020**	89.27	10	0.73	**0.048**	10.80	**0.080**	**0.74%**	
	N	89.77	1	0.23	**0.004**	89.73	4	0.27	**0.014**	89.18	7	0.82	**0.043**	88.82	10	1.18	**0.078**		**0.139**	**1.29%**	
S-446.5	E	89.29	1	0.71	**0.012**	89.8	4	0.2	**0.010**	89.58	7	0.42	**0.022**	89.53	10	0.47	**0.039**	11.72	**0.084**	**0.71%**	
	N	89.38	1	0.62	**0.011**	89.94	4	0.06	**0.003**	89.83	7	0.17	**0.009**	89.8	10	0.2	**0.016**		**0.039**	**0.34%**	
T-449.5	E	89.75	1	0.25	**0.004**	89.88	4	0.12	**0.006**	89.93	7	0.07	**0.004**	89.93	10	0.07	**0.005**	11.32	**0.020**	**0.17%**	
	N	89.26	1	0.74	**0.013**	89.76	4	0.24	**0.013**	89.8	7	0.2	**0.010**	89.72	10	0.28	**0.021**		**0.057**	**0.50%**	
P-452.5	E	89.76	1	0.24	**0.004**	89.77	4	0.23	**0.012**	89.94	7	0.06	**0.003**	89.89	10	0.11	**0.006**	10.36	**0.026**	**0.25%**	
	N	89.05	1	0.95	**0.017**	89.88	4	0.12	**0.006**	89.63	7	0.37	**0.019**	89.75	10	0.25	**0.015**		**0.057**	**0.55%**	
T-455.5	E	89.91	1	0.09	**0.002**	89.87	4	0.13	**0.007**	89.8	7	0.2	**0.010**	89.78	10	0.22	**0.014**	10.74	**0.033**	**0.31%**	
	N	89.67	1	0.33	**0.006**	89.77	4	0.23	**0.012**	89.57	7	0.43	**0.023**	89.85	10	0.15	**0.010**		**0.050**	**0.47%**	
S-458.5	E	89.36	1	0.64	**0.011**	89.37	4	0.63	**0.033**	89.3	7	0.7	**0.037**	89.25	10	0.75	**0.049**	10.77	**0.130**	**1.21%**	
	N	89.26	1	0.74	**0.013**	89.75	4	0.25	**0.013**	89.61	7	0.39	**0.020**	89.21	10	0.79	**0.052**		**0.098**	**0.91%**	
T-461.5	E	89.07	2	0.93	**0.032**	89.42	4	0.58	**0.020**	89.26	7	0.74	**0.039**	89.08	9	0.92	**0.059**	10.66	**0.150**	**1.41%**	
	N	89.39	2	0.61	**0.021**	89.81	4	0.19	**0.007**	89.3	7	0.7	**0.037**	89.06	9	0.94	**0.060**		**0.125**	**1.17%**	
P-464.5	E	89.69	1	0.31	**0.005**	89.34	4	0.66	**0.035**	89.12	7	0.88	**0.046**	88.62	10	1.38	**0.082**	10.41	**0.168**	**1.62%**	
	N	89.63	1	0.37	**0.006**	89.51	4	0.49	**0.026**	89.59	7	0.41	**0.021**	89.27	10	0.73	**0.043**		**0.097**	**0.93%**	
T-467.5	E	89.06	1	0.94	**0.016**	89.39	4	0.61	**0.032**	89.16	7	0.84	**0.044**	89.4	10	0.6	**0.036**	10.40	**0.128**	**1.23%**	
	N	89.77	1	0.23	**0.004**	89.72	4	0.28	**0.015**	89.58	7	0.42	**0.022**	89.44	10	0.56	**0.033**		**0.074**	**0.71%**	
S-470.5	E	89.72	1	0.28	**0.005**	88.87	4	1.13	**0.059**	88.95	7	1.05	**0.055**	89.18	10	0.82	**0.047**	10.30	**0.166**	**1.61%**	
	N	89.59	1	0.41	**0.007**	89.54	4	0.46	**0.024**	88.9	7	1.1	**0.058**	89.03	10	0.97	**0.056**		**0.145**	**1.40%**	
T-473.5	E	88.83	1	1.17	**0.020**	89.84	4	0.16	**0.008**	89.73	7	0.27	**0.014**	89.87	10	0.13	**0.007**	9.95	**0.050**	**0.50%**	
	N	89.53	1	0.47	**0.008**	89.88	4	0.12	**0.006**	89.69	7	0.31	**0.016**	89.86	10	0.14	**0.007**		**0.038**	**0.38%**	
P-476.5	E	89.47	1	0.53	**0.009**	89.8	4	0.2	**0.010**	89.7	7	0.3	**0.016**	89.43	10	0.57	**0.032**	10.24	**0.068**	**0.66%**	
	N	89.37	1	0.63	**0.011**	89.83	4	0.17	**0.009**	89.78	7	0.22	**0.012**	89.67	10	0.33	**0.019**		**0.050**	**0.49%**	
Q-478	E	89.76	2	0.24	**0.008**	89.82	5	0.18	**0.009**	89.81	8	0.19	**0.017**			90	**0.000**	10.20	**0.035**	**0.34%**	
	N	89.32	2	0.68	**0.024**	89.79	5	0.21	**0.011**	89.55	8	0.45	**0.041**			90	**0.000**		**0.076**	**0.74%**	
T-479.5	E	89.14	1	0.86	**0.015**	89.72	4	0.28	**0.015**	89.76	7	0.24	**0.013**	89.46	10	0.54	**0.031**	10.34	**0.074**	**0.71%**	

T-479.5	N	89.3	1	0.7	**0.012**	89.62	4	0.38	**0.020**	89.59	7	0.41	**0.021**	89.81	10	0.19	**0.011**	10.34	**0.065**	**0.63%**	
Q-481	E	89.66	2	0.34	**0.012**	89.47	5	0.53	**0.028**	89.63	8	0.37	**0.034**			90	**0.000**	10.30	**0.074**	**0.72%**	
	N	89.58	2	0.42	**0.015**	89.42	5	0.58	**0.030**	89.43	8	0.57	**0.053**			90	**0.000**		**0.098**	**0.95%**	
S-482.5	E	89.81	3	0.19	**0.010**	89.72	5	0.28	**0.010**	89.56	7	0.44	**0.015**	89.83	9	0.17	**0.006**	9.18	**0.042**	**0.45%**	
	N	89.92	3	0.08	**0.004**	89.86	5	0.14	**0.005**	89.92	7	0.08	**0.003**	89.63	9	0.37	**0.014**		**0.026**	**0.28%**	
T-485.5	E	89	1	1	**0.017**	89.8	4	0.2	**0.010**	89.68	7	0.32	**0.017**	89.84	10	0.16	**0.008**	9.98	**0.053**	**0.53%**	
	N	88.97	1	1.03	**0.018**	89.59	4	0.41	**0.021**	89.7	7	0.3	**0.016**	89.71	10	0.29	**0.015**		**0.070**	**0.70%**	
P-488.5	E	89.7	1	0.3	**0.005**	89.71	4	0.29	**0.015**	89.95	7	0.05	**0.003**	89.53	10	0.47	**0.027**	10.33	**0.050**	**0.49%**	
	N	89.94	1	0.06	**0.001**	89.81	4	0.19	**0.010**	89.25	7	0.75	**0.039**	89.62	10	0.38	**0.022**		**0.072**	**0.70%**	
T-491.5	E	89.9	1	0.1	**0.002**	89.26	4	0.74	**0.039**	89.2	7	0.8	**0.042**	89.24	10	0.76	**0.042**	10.17	**0.124**	**1.22%**	
	N	89.64	1	0.36	**0.006**	89.67	4	0.33	**0.017**	89.67	7	0.33	**0.017**	89.44	10	0.56	**0.031**		**0.072**	**0.71%**	
S-494.5	E	89.56	1	0.44	**0.008**	89.92	4	0.08	**0.004**	89.15	7	0.85	**0.045**	89.12	10	0.88	**0.049**	10.19	**0.105**	**1.03%**	
	N	89.2	1	0.8	**0.014**	89.65	4	0.35	**0.018**	89.29	7	0.71	**0.037**	89.32	10	0.68	**0.038**		**0.107**	**1.05%**	
T-497.5	E	89.81	2	0.19	**0.007**	89.61	5	0.39	**0.020**	89.22	8	0.78	**0.041**	89.45	11	0.55	**0.029**	10.99	**0.097**	**0.88%**	
	N	89.64	2	0.36	**0.013**	89.67	5	0.33	**0.017**	89.67	8	0.33	**0.017**	89.44	11	0.56	**0.029**		**0.076**	**0.69%**	
P-500.5	E	89.86	2	0.14	**0.005**	89.85	5	0.15	**0.008**	89.55	8	0.45	**0.024**	89.59	11	0.41	**0.019**	10.70	**0.056**	**0.52%**	
	N	89.91	2	0.09	**0.003**	89.8	5	0.2	**0.010**	89.53	8	0.47	**0.025**	89.94	11	0.06	**0.003**		**0.041**	**0.38%**	
T-503.5	E	89.88	1	0.12	**0.002**	89.86	4	0.14	**0.007**	89.65	7	0.35	**0.018**	89.46	10	0.54	**0.031**	10.29	**0.059**	**0.57%**	
	N	89.72	1	0.28	**0.005**	89.8	4	0.2	**0.010**	89.58	7	0.42	**0.022**	89.3	10	0.7	**0.040**		**0.078**	**0.75%**	
S-506.5	E	89.55	2	0.45	**0.016**	89.64	5	0.36	**0.019**	89.63	8	0.37	**0.019**	89.28	11	0.72	**0.032**	10.52	**0.086**	**0.81%**	
	N	89.6	2	0.4	**0.014**	89.86	5	0.14	**0.007**	89.53	8	0.47	**0.025**	89.59	11	0.41	**0.018**		**0.064**	**0.61%**	
T-509.5	E	89.89	2	0.11	**0.004**	89.41	5	0.59	**0.031**	89.73	8	0.27	**0.014**	89.81	11	0.19	**0.011**	11.40	**0.060**	**0.53%**	
	N	89.7	2	0.3	**0.010**	89.68	5	0.32	**0.017**	89.64	8	0.36	**0.019**	89.21	11	0.79	**0.047**		**0.093**	**0.82%**	
P-512.5	E	89.8	2	0.2	**0.007**	89.31	5	0.69	**0.036**	89.64	8	0.36	**0.019**	89.17	11	0.83	**0.039**	10.70	**0.101**	**0.94%**	
	N	89.68	2	0.32	**0.011**	89.54	5	0.46	**0.024**	89.27	8	0.73	**0.038**	89.11	11	0.89	**0.042**		**0.115**	**1.08%**	
T-515.5	E	89.9	1	0.1	**0.002**	89.6	4	0.4	**0.021**	89.59	7	0.41	**0.021**	89.67	10	0.33	**0.024**	11.19	**0.068**	**0.61%**	
	N	89.13	1	0.87	**0.015**	89.9	4	0.1	**0.005**	89.56	7	0.44	**0.023**	89.34	10	0.66	**0.048**		**0.092**	**0.82%**	
S-518.5	E	89.61	1	0.39	**0.007**	89.81	4	0.19	**0.010**	89.82	7	0.18	**0.009**	89.85	10	0.15	**0.009**	10.32	**0.035**	**0.34%**	
	N	89.46	1	0.54	**0.009**	89.99	4	0.01	**0.001**	89.55	7	0.45	**0.024**	89.76	10	0.24	**0.014**		**0.047**	**0.46%**	
T-521.5	E	89.78	1	0.22	**0.004**	89.66	4	0.34	**0.018**	89.52	7	0.48	**0.025**	89.27	10	0.73	**0.040**	10.13	**0.087**	**0.86%**	
	N	89.84	1	0.16	**0.003**	89.94	4	0.06	**0.003**	89.9	7	0.1	**0.005**	89.29	10	0.71	**0.039**		**0.050**	**0.49%**	
Q-523	E	89.3	2	0.7	**0.024**	89.87	5	0.13	**0.007**	89.78	8	0.22	**0.021**			90	**0.000**	10.57	**0.053**	**0.50%**	
	N	89.75	2	0.25	**0.009**	89.44	5	0.56	**0.029**	89.66	8	0.34	**0.033**			90	**0.000**		**0.071**	**0.67%**	
P-524.5	E	89.81	1	0.19	**0.003**	89.73	4	0.27	**0.014**	89.69	7	0.31	**0.016**	89.33	10	0.67	**0.049**	11.17	**0.082**	**0.74%**	
	N	89.62	1	0.38	**0.007**	89.91	4	0.09	**0.005**	89.53	7	0.47	**0.025**	89.2	10	0.8	**0.058**		**0.094**	**0.84%**	
Q-526	E	89.64	2	0.36	**0.013**	89.9	5	0.1	**0.005**	89.77	8	0.23	**0.027**			90	**0.000**	11.77	**0.045**	**0.38%**	
	N	89.34	2	0.66	**0.023**	89.49	5	0.51	**0.027**	89.32	8	0.68	**0.080**			90	**0.000**		**0.130**	**1.11%**	
T-527.5	E	89.32	1	0.68	**0.012**	89.48	4	0.52	**0.027**	89.21	7	0.79	**0.041**	88.95	10	1.05	**0.062**	10.36	**0.142**	**1.37%**	
	N	89.66	1	0.34	**0.006**	89.66	4	0.34	**0.018**	89.4	7	0.6	**0.031**	89.07	10	0.93	**0.055**		**0.110**	**1.06%**	
S-530.5	E	89.23	1	0.77	**0.013**	89.71	4	0.29	**0.015**	89.56	7	0.44	**0.023**	89.56	10	0.44	**0.025**	10.23	**0.076**	**0.75%**	
	N	89.89	1	0.11	**0.002**	89.88	4	0.12	**0.006**	89.79	7	0.21	**0.011**	89.76	10	0.24	**0.014**		**0.033**	**0.32%**	
T-533.5	E	88.85	2	1.15	**0.040**	88.28	5	1.72	**0.090**	87.87	8	2.13	**0.112**	87.71	11	2.29	**0.189**	12.73	**0.431**	**3.38%**	
	N	87.86	2	2.14	**0.075**	88.13	5	1.87	**0.098**	87.95	8	2.05	**0.107**	87.94	11	2.06	**0.170**		**0.450**	**3.53%**	Deviation toward SOUTH
P-536.5	E	89.5	1	0.5	**0.009**	89.87	4	0.13	**0.007**	89.46	7	0.54	**0.028**	89.54	10	0.46	**0.025**	10.09	**0.069**	**0.68%**	
	N	88.91	1	1.09	**0.019**	89.96	4	0.04	**0.002**	89.61	7	0.39	**0.020**	89.66	10	0.34	**0.018**		**0.060**	**0.59%**	
T-539.5	E	89.69	1	0.31	**0.005**	89.76	4	0.24	**0.013**	89.6	7	0.4	**0.021**	89.84	10	0.16	**0.009**	10.07	**0.047**	**0.47%**	
	N	89.65	1	0.35	**0.006**	89.72	4	0.28	**0.015**	89.59	7	0.41	**0.021**	89.83	10	0.17	**0.009**		**0.051**	**0.51%**	
S-542.5	E	89.67	3	0.33	**0.017**	89.94	6	0.06	**0.003**	89.03	9	0.97	**0.054**			90	**0.000**	9.17	**0.074**	**0.81%**	
	N	89.73	3	0.27	**0.014**	89.07	6	0.93	**0.049**	89.12	9	0.88	**0.049**			90	**0.000**		**0.112**	**1.22%**	
T-545.5	E	89.65	2	0.35	**0.012**	89.17	5	0.83	**0.043**	89.08	8	0.92	**0.048**	89.28	11	0.72	**0.017**	9.32	**0.120**	**1.29%**	
	N	89.84	2	0.16	**0.006**	89.44	5	0.56	**0.029**	88.41	8	1.59	**0.083**	89.03	11	0.97	**0.022**		**0.140**	**1.51%**	
P-548.5	E	89.72	2	0.28	**0.010**	89.8	5	0.2	**0.010**	89.69	8	0.31	**0.016**	89.93	11	0.07	**0.003**	10.46	**0.039**	**0.38%**	
	N	89.96	2	0.04	**0.001**	89.73	5	0.27	**0.014**	89.67	8	0.33	**0.017**	89.34	11	0.66	**0.028**		**0.061**	**0.58%**	
T-551.5	E	89.76	2	0.24	**0.008**	89.8	5	0.2	**0.010**	89.79	8	0.21	**0.011**	89.92	11	0.08	**0.003**	10.39	**0.033**	**0.32%**	
	N	89.75	2	0.25	**0.009**	89.78	5	0.22	**0.012**	89.83	8	0.17	**0.009**	89.95	11	0.05	**0.002**		**0.031**	**0.30%**	
S-554.5	E	88.97	2	1.03	**0.036**	88.56	5	1.44	**0.075**	88.57	8	1.43	**0.075**	88.25	11	1.75	**0.096**	11.13	**0.282**	**2.53%**	
	N	88.91	2	1.09	**0.038**	88.86	5	1.14	**0.060**	88.46	8	1.54	**0.081**	88.46	11	1.54	**0.084**		**0.262**	**2.36%**	Deviation toward NORTH
T-557.5	E	89.21	4	0.79	**0.055**	89.3	7	0.7	**0.037**	88.86	10	1.14	**0.072**			90	**0.000**	10.63	**0.164**	**1.54%**	
	N	88.35	4	1.65	**0.115**	89.59	7	0.41	**0.021**	89	10	1	**0.063**			90	**0.000**		**0.200**	**1.88%**	
P-560.5	E	89.85	4	0.15	**0.010**	89.36	7	0.64	**0.034**	88.96	10	1.04	**0.054**			90	**0.000**	10.00	**0.098**	**0.98%**	
	N	89.05	4	0.95	**0.066**	89.27	7	0.73	**0.038**	88.86	10	1.14	**0.060**			90	**0.000**		**0.164**	**1.64%**	
T-563.5	E	89.17	3	0.83	**0.043**	89.34	6	0.66	**0.035**	89.63	9	0.37	**0.034**			90	**0.000**	11.20	**0.112**	**1.00%**	
	N	89.41	3	0.59	**0.031**	89.65	6	0.35	**0.018**	89.28	9	0.72	**0.065**			90	**0.000**		**0.115**	**1.02%**	
S-566.5	E	89.56	2	0.44	**0.015**	89.34	4	0.66	**0.023**	89.35	6	0.65	**0.023**	89.45	8	0.55	**0.049**	11.15	**0.111**	**0.99%**	
	N	89.29	2	0.71	**0.025**	89.71	4	0.29	**0.010**	89.65	6	0.35	**0.012**	89.6	8	0.4	**0.036**		**0.083**	**0.75%**	
T-569.5	E	89.88	4	0.12	**0.008**	89.44	7	0.56	**0.029**	89.22	10	0.78	**0.067**			90	**0.000**	11.95	**0.105**	**0.88%**	
	N	88.23	1	1.77	**0.031**	89.23	4	0.77	**0.040**	88.88	7	1.12	**0.059**	88.98	10	1.02	**0.088**		**0.218**	**1.82%**	
P-572.5	E	89.98	3	0.02	**0.001**	89.61	6	0.39	**0.020**	89.57	9	0.43	**0.023**	89.68	12	0.32	**0.025**	13.49	**0.069**	**0.51%**	
	N	89.7	2	0.3	**0.010**	89.56	4	0.44	**0.015**	89.54	7	0.46	**0.024**	89.6	10	0.4	**0.045**		**0.095**	**0.71%**	
T-575.5	E	89.47	3	0.53	**0.028**	89.7	5	0.3	**0.010**	89.38	8	0.62	**0.032**	89.19	9	0.81	**0.066**	12.68	**0.137**	**1.08%**	
	N	88.89	2	1.11	**0.039**	89.29	5	0.71	**0.037**	88.95	8	1.05	**0.055**	89.11	11	0.89	**0.073**		**0.204**	**1.61%**	
S-578.5	E	89.23	3	0.77	**0.040**	89.73	6	0.27	**0.014**	89.75	9	0.25	**0.013**	89.75	12	0.25	**0.014**	12.22	**0.082**	**0.67%**	
	N	89.71	3	0.29	**0.015**	89.76	6	0.24	**0.013**	89.82	9	0.18	**0.009**	89.81	12	0.19	**0.011**		**0.048**	**0.39%**	
T-581.5	E	89.38	3	0.62	**0.032**	89.8	6	0.2	**0.010**	89.72	8	0.28	**0.010**	89.55	12	0.45	**0.033**	12.21	**0.086**	**0.70%**	

T-581.5	N	89.24	3	0.76	**0.040**	89.43	6	0.57	**0.030**	89.44	9	0.56	**0.029**	89.37	12	0.63	**0.035**	12.21	**0.134**	**1.10%**	
P-584.5	E	88.77	3	1.23	**0.064**	88.86	6	1.14	**0.060**	88.65	9	1.35	**0.071**	88.58	12	1.42	**0.102**	13.11	**0.297**	**2.26%**	
	N	89.11	3	0.89	**0.047**	89.08	6	0.92	**0.048**	88.7	9	1.3	**0.068**	88.94	12	1.06	**0.076**		**0.239**	**1.82%**	
T-587.5	E	89.76	3	0.24	**0.013**	89.55	6	0.45	**0.024**	89.49	9	0.51	**0.027**	89.19	12	0.81	**0.051**	12.63	**0.114**	**0.90%**	
	N	89.58	3	0.42	**0.022**	89.56	6	0.44	**0.023**	89.18	9	0.82	**0.043**	89.24	12	0.76	**0.048**		**0.136**	**1.08%**	
S-590.5	E	89.59	3	0.41	**0.021**	89.88	6	0.12	**0.006**	89.56	9	0.44	**0.023**	89.52	12	0.48	**0.034**	13.11	**0.085**	**0.65%**	
	N	89.28	3	0.72	**0.038**	89.29	6	0.71	**0.037**	89.21	9	0.79	**0.041**	89.21	12	0.79	**0.057**		**0.173**	**1.32%**	
T-593.5	E	89.7	4	0.3	**0.021**	89.68	7	0.32	**0.017**	89.61	10	0.39	**0.041**			90	**0.000**	13.00	**0.079**	**0.60%**	
	N	89.61	4	0.39	**0.027**	89.64	7	0.36	**0.019**	89.79	10	0.21	**0.022**			90	**0.000**		**0.068**	**0.52%**	
P-596.5	E	89.76	2	0.24	**0.008**	89.69	5	0.31	**0.016**	89.79	8	0.21	**0.011**	89.86	11	0.14	**0.013**	13.13	**0.048**	**0.37%**	
	N	89.86	2	0.14	**0.005**	89.6	5	0.4	**0.021**	89.89	8	0.11	**0.006**	89.72	11	0.28	**0.025**		**0.057**	**0.43%**	
T-599.5	E	89.79	2	0.21	**0.007**	89.87	5	0.13	**0.007**	89.85	8	0.15	**0.008**	89.76	11	0.24	**0.021**	13.08	**0.043**	**0.33%**	
	N	89.83	2	0.17	**0.006**	89.8	5	0.2	**0.010**	89.6	8	0.4	**0.021**	89.69	11	0.31	**0.027**		**0.065**	**0.50%**	
S-602.5	E	89.15	3	0.85	**0.045**	89.42	6	0.58	**0.030**	89.5	9	0.5	**0.026**	89.28	12	0.72	**0.044**	12.47	**0.145**	**1.16%**	
	N	89.82	3	0.18	**0.009**	89.65	6	0.35	**0.018**	89.31	9	0.69	**0.036**	89.55	12	0.45	**0.027**		**0.091**	**0.73%**	
T-605.5	E	89.93	3	0.07	**0.004**	89.56	6	0.44	**0.023**	89.81	9	0.19	**0.010**	89.69	12	0.31	**0.020**	12.65	**0.056**	**0.45%**	
	N	89.9	3	0.1	**0.005**	89.57	6	0.43	**0.023**	89.45	9	0.55	**0.029**	89.61	12	0.39	**0.025**		**0.081**	**0.64%**	
P-609.1	E	89.37	2	0.63	**0.022**	89.35	5	0.65	**0.034**	89.54	8	0.46	**0.066**			90	**0.000**	13.22	**0.122**	**0.92%**	
	N	89.7	5	0.3	**0.026**	89.44	5	0.56	**0.000**	89.32	8	0.68	**0.098**			90	**0.000**		**0.124**	**0.94%**	
T-611.5	E	89.69	2	0.31	**0.011**	89.47	5	0.53	**0.028**	89.85	8	0.15	**0.008**	89.77	11	0.23	**0.017**	12.27	**0.064**	**0.52%**	
	N	89.66	2	0.34	**0.012**	89.39	5	0.61	**0.032**	89.7	8	0.3	**0.016**	89.88	11	0.12	**0.009**		**0.068**	**0.56%**	
S-614.5	E	89.85	2	0.15	**0.005**	89.84	5	0.16	**0.008**	89.85	8	0.15	**0.008**	89.81	11	0.19	**0.011**	11.44	**0.033**	**0.29%**	
	N	89.88	2	0.12	**0.004**	89.83	5	0.17	**0.009**	89.89	8	0.11	**0.006**	89.85	11	0.15	**0.009**		**0.028**	**0.24%**	
T-617.5	E	89.92	2	0.08	**0.003**	89.7	5	0.3	**0.016**	89.62	8	0.38	**0.020**	89.84	11	0.16	**0.010**	11.46	**0.048**	**0.42%**	
	N	89.69	2	0.31	**0.011**	89.8	5	0.2	**0.010**	89.66	8	0.34	**0.018**	89.75	11	0.25	**0.015**		**0.054**	**0.47%**	
P-620.5	E	89.92	2	0.08	**0.003**	89.72	5	0.28	**0.015**	89.74	8	0.26	**0.014**	89.85	11	0.15	**0.010**	11.85	**0.041**	**0.35%**	
	N	89.57	2	0.43	**0.015**	89.54	5	0.46	**0.024**	89.77	8	0.23	**0.012**	89.87	11	0.13	**0.009**		**0.060**	**0.51%**	
T-623.5	E	89.98	3	0.02	**0.001**	89.68	6	0.32	**0.017**	89.84	9	0.16	**0.008**	89.78	12	0.22	**0.013**	12.38	**0.039**	**0.32%**	
	N	89.86	3	0.14	**0.007**	89.87	6	0.13	**0.007**	89.8	9	0.2	**0.010**	89.78	12	0.22	**0.013**		**0.038**	**0.30%**	
S-626.5	E	89.5	2	0.5	**0.017**	89.84	5	0.16	**0.008**	89.47	8	0.53	**0.028**	89.66	11	0.34	**0.024**	12.08	**0.078**	**0.64%**	
	N	89.89	2	0.11	**0.004**	89.68	5	0.32	**0.017**	89.56	8	0.44	**0.023**	89.69	11	0.31	**0.022**		**0.066**	**0.54%**	
Q-628	E	89.71	2	0.29	**0.010**	89.49	5	0.51	**0.027**	89.54	8	0.46	**0.061**			90	**0.000**	12.57	**0.098**	**0.78%**	
	N	89.42	2	0.58	**0.020**	89.5	5	0.5	**0.026**	89.72	8	0.28	**0.037**			90	**0.000**		**0.083**	**0.66%**	
T-629.5	E	89.89	2	0.11	**0.004**	89.94	5	0.06	**0.003**	89.78	8	0.22	**0.012**	89.81	11	0.19	**0.014**	12.37	**0.033**	**0.27%**	
	N	89.81	2	0.19	**0.007**	89.5	5	0.5	**0.026**	89.83	8	0.17	**0.009**	89.81	11	0.19	**0.014**		**0.056**	**0.45%**	
P-632.5	E	89.55	1	0.45	**0.008**	88.37	4	1.63	**0.085**	88.01	7	1.99	**0.104**	88.3	10	1.7	**0.166**	12.58	**0.363**	**2.88%**	
	N	89.78	1	0.22	**0.004**	89.62	3	0.38	**0.013**	88.3	6	1.7	**0.089**	88.04	9	1.96	**0.225**		**0.331**	**2.63%**	Deviation toward SOUTH
T-635.5	E	89.76	1	0.24	**0.004**	89.74	4	0.26	**0.014**	89.41	7	0.59	**0.031**	89.17	10	0.83	**0.071**	11.92	**0.120**	**1.01%**	
	N	89.48	1	0.52	**0.009**	89.75	4	0.25	**0.013**	89.75	7	0.25	**0.013**	89.41	10	0.59	**0.051**		**0.086**	**0.72%**	
S-638.5	E	89.42	1	0.58	**0.010**	89.73	4	0.27	**0.014**	89.75	7	0.25	**0.013**	89.81	10	0.19	**0.014**	11.23	**0.051**	**0.46%**	
	N	89.72	1	0.28	**0.005**	89.3	4	0.7	**0.037**	89.61	7	0.39	**0.020**	89.86	11	0.14	**0.010**		**0.072**	**0.64%**	
T-641.5	E	89.98	1	0.02	**0.000**	89.93	4	0.07	**0.004**	89.89	7	0.11	**0.006**	89.61	10	0.39	**0.029**	11.21	**0.038**	**0.34%**	
	N	89.76	1	0.24	**0.004**	89.74	4	0.26	**0.014**	89.75	7	0.25	**0.013**	89.94	10	0.06	**0.004**		**0.035**	**0.31%**	
P-644.5	E	89.74	1	0.26	**0.005**	89.75	4	0.25	**0.013**	89.66	7	0.34	**0.018**	89.79	10	0.21	**0.016**	11.49	**0.052**	**0.45%**	
	N	89.58	1	0.42	**0.007**	89.84	4	0.16	**0.008**	89.71	7	0.29	**0.015**	89.78	10	0.22	**0.017**		**0.048**	**0.42%**	
T-647.5	E	89.78	1	0.22	**0.004**	89.75	4	0.25	**0.013**	89.83	7	0.17	**0.009**	89.83	10	0.17	**0.015**	11.90	**0.040**	**0.34%**	
	N	89.48	1	0.52	**0.009**	89.83	4	0.17	**0.009**	89.86	7	0.14	**0.007**	89.86	10	0.14	**0.012**		**0.037**	**0.31%**	
S-650.5	E	89.47	1	0.53	**0.009**	89.61	4	0.39	**0.020**	89.59	7	0.41	**0.021**	89.71	10	0.29	**0.023**	11.59	**0.074**	**0.64%**	
	N	89.7	1	0.3	**0.005**	89.7	4	0.3	**0.016**	89.54	7	0.46	**0.024**	89.75	10	0.25	**0.020**		**0.065**	**0.56%**	
T-653.5	E	89.86	1	0.14	**0.002**	89.73	4	0.27	**0.014**	89.91	7	0.09	**0.005**	89.92	10	0.08	**0.006**	11.47	**0.028**	**0.24%**	
	N	89.64	1	0.36	**0.006**	89.84	4	0.16	**0.008**	89.88	7	0.12	**0.006**	89.86	10	0.14	**0.011**		**0.032**	**0.28%**	
P-656.5	E	89.91	1	0.09	**0.002**	89.62	4	0.38	**0.020**	89.32	7	0.68	**0.036**	88.92	10	1.08	**0.096**	12.10	**0.153**	**1.27%**	
	N	89.87	1	0.13	**0.002**	89.69	3	0.31	**0.011**	89.97	6	0.03	**0.002**	89.26	9	0.74	**0.079**		**0.093**	**0.77%**	
T-659.5	E	89.85	1	0.15	**0.003**	89.82	4	0.18	**0.009**	89.81	7	0.19	**0.010**	89.84	10	0.16	**0.011**	11.10	**0.033**	**0.30%**	
	N	89.54	1	0.46	**0.008**	89.9	4	0.1	**0.005**	89.82	7	0.18	**0.009**	89.88	10	0.12	**0.009**		**0.031**	**0.28%**	
S-662.5	E	89.79	1	0.21	**0.004**	89.9	4	0.1	**0.005**	89.82	7	0.18	**0.009**	89.72	10	0.28	**0.021**	11.22	**0.039**	**0.35%**	
	N	89.81	1	0.19	**0.003**	89.86	4	0.14	**0.007**	89.8	7	0.2	**0.010**	89.54	7	0.46	**0.034**		**0.055**	**0.49%**	
Q-664	E				90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	10.85			
	N				90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-665.5	E	89.62	1	0.38	**0.007**	89.79	3	0.21	**0.007**	89.42	6	0.58	**0.030**	89.59	9	0.41	**0.033**	10.66	**0.078**	**0.73%**	
	N	89.59	1	0.41	**0.007**	89.62	3	0.38	**0.013**	89.2	6	0.8	**0.042**	89.44	9	0.56	**0.046**		**0.108**	**1.01%**	
Q-667	E	89.33	2	0.67	**0.023**	89.1	5	0.9	**0.047**	89.34	8	0.66	**0.070**			90	**0.000**	11.06	**0.140**	**1.27%**	
	N	89.8	2	0.2	**0.007**	89.64	5	0.36	**0.019**	89.69	8	0.31	**0.033**			90	**0.000**		**0.059**	**0.53%**	
P-668.5	E	89.74	1	0.26	**0.005**	89.82	3	0.18	**0.006**	89.82	6	0.18	**0.009**	89.85	9	0.15	**0.013**	11.14	**0.034**	**0.30%**	
	N	89.67	1	0.33	**0.006**	89.91	3	0.09	**0.003**	89.9	6	0.1	**0.005**	89.85	9	0.15	**0.013**		**0.028**	**0.25%**	
T-671.5	E	88.92	1	1.08	**0.019**	89.54	4	0.46	**0.024**	89.44	7	0.56	**0.029**	89.54	10	0.46	**0.028**	10.46	**0.100**	**0.96%**	
	N	89.19	1	0.81	**0.014**	89.66	4	0.34	**0.018**	89.71	7	0.29	**0.015**	89.8	10	0.2	**0.012**		**0.059**	**0.57%**	
S-674.5	E	89.44	1	0.56	**0.010**	89.48	3	0.52	**0.018**	88.82	6	1.18	**0.062**	89.74	9	0.26	**0.023**	11.08	**0.113**	**1.02%**	
	N	89	2	1	**0.035**	89.61	5	0.39	**0.020**	89.67	8	0.33	**0.017**	89.13	10	0.87	**0.047**		**0.119**	**1.08%**	
T-677.5	E	89.93	1	0.07	**0.001**	89.86	3	0.14	**0.005**	89.63	6	0.37	**0.019**	89.72	9	0.28	**0.025**	11.18	**0.051**	**0.45%**	
	N	89.68	1	0.32	**0.006**	89.78	4	0.22	**0.012**	89.52	7	0.48	**0.025**	89.86	10	0.14	**0.010**		**0.052**	**0.47%**	
P-680.5	E	89.63	2	0.37	**0.013**	89.68	5	0.32	**0.017**	89.7	8	0.3	**0.038**			90	**0.000**	12.29	**0.068**	**0.55%**	
	N	89.48	2	0.52	**0.018**	89.55	5	0.45	**0.024**	89.64	8	0.36	**0.046**			90	**0.000**		**0.088**	**0.71%**	
Q-682	E	88.18	2	1.82	**0.064**	89.5	5	0.5	**0.026**	89.81	8	0.19	**0.019**			90	**0.000**	10.67	**0.109**	**1.02%**	

Q-682	**N**	89.74	2	0.26	**0.009**	89.73	5	0.27	**0.014**	89.72	8	0.28	**0.028**			90	**0.000**	10.07	**0.051**	**0.48%**	
T-683.5	**E**	89.72	1	0.28	**0.005**	89.87	4	0.13	**0.007**	89.85	7	0.15	**0.008**	89.7	10	0.3	**0.020**	10.81	**0.039**	**0.37%**	
	N	89.83	1	0.17	**0.003**	89.85	4	0.15	**0.008**	89.81	7	0.19	**0.010**	89.79	10	0.21	**0.014**		**0.035**	**0.32%**	
Q-685	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	11.40			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
S-686.5	**E**	89.59	1	0.41	**0.007**	89.72	3	0.28	**0.010**	89.76	6	0.24	**0.013**	89.69	10	0.31	**0.023**	10.17	**0.052**	**0.51%**	
	N	89.82	1	0.18	**0.003**	89.94	3	0.06	**0.002**	89.75	6	0.25	**0.013**	89.75	9	0.25	**0.018**		**0.037**	**0.36%**	
Q-688	**E**	89.86	2	0.14	**0.005**	89.63	5	0.37	**0.019**	89.48	8	0.52	**0.052**			90	**0.000**	10.76	**0.077**	**0.71%**	
	N	89.35	2	0.65	**0.023**	89.4	5	0.6	**0.031**	89.78	8	0.22	**0.022**			90	**0.000**		**0.076**	**0.71%**	
T-689.5	**E**	89.7	1	0.3	**0.005**	89.73	4	0.27	**0.014**	89.74	7	0.26	**0.014**	89.77	10	0.23	**0.014**	10.38	**0.047**	**0.45%**	
	N	89.6	1	0.4	**0.007**	89.78	4	0.22	**0.012**	89.67	7	0.33	**0.017**	89.65	10	0.35	**0.021**		**0.056**	**0.54%**	
Q-691	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	10.82			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
P-692.5	**E**	89.96	2	0.04	**0.001**	89.69	5	0.31	**0.016**	89.77	8	0.23	**0.012**	89.5	11	0.5	**0.027**	11.05	**0.056**	**0.51%**	
	N	89.52	2	0.48	**0.017**	89.92	5	0.08	**0.004**	89.5	8	0.5	**0.026**	89.1	11	0.9	**0.048**		**0.095**	**0.86%**	
Q-694	**E**	89.53	2	0.47	**0.016**	89.09	5	0.91	**0.048**	89.58	8	0.42	**0.037**			90	**0.000**	10.04	**0.101**	**1.01%**	
	N	89.31	2	0.69	**0.024**	89.15	5	0.85	**0.045**	88.99	8	1.01	**0.089**			90	**0.000**		**0.157**	**1.57%**	
T-695.5	**E**	89.73	1	0.27	**0.005**	89.73	4	0.27	**0.014**	89.79	7	0.21	**0.011**	89.68	10	0.32	**0.020**	10.59	**0.050**	**0.47%**	
	N	89.73	1	0.27	**0.005**	89.78	4	0.22	**0.012**	89.78	7	0.22	**0.012**	89.6	10	0.4	**0.025**		**0.053**	**0.50%**	
Q-697	**E**	89.67	2	0.33	**0.012**	89.5	5	0.5	**0.026**	89.06	8	0.94	**0.090**			90	**0.000**	10.46	**0.127**	**1.22%**	
	N	89.52	2	0.48	**0.017**	89.66	5	0.34	**0.018**	89.24	8	0.76	**0.072**			90	**0.000**		**0.107**	**1.02%**	
S-698.5	**E**	89.44	1	0.56	**0.010**	89.68	4	0.32	**0.017**	89.61	7	0.39	**0.020**	89.61	10	0.39	**0.022**	10.21	**0.069**	**0.67%**	
	N	89.81	1	0.19	**0.003**	89.67	4	0.33	**0.017**	89.9	7	0.1	**0.005**	89.91	10	0.09	**0.005**		**0.031**	**0.30%**	
T-701.5	**E**	89.45	1	0.55	**0.010**	89.79	4	0.21	**0.011**	89.86	7	0.14	**0.007**	89.73	10	0.27	**0.015**	10.20	**0.043**	**0.42%**	
	N	89.42	1	0.58	**0.010**	89.54	4	0.46	**0.024**	89.53	7	0.47	**0.025**	89.62	10	0.38	**0.021**		**0.080**	**0.78%**	
P-704.5	**E**	89.88	1	0.12	**0.002**	89.84	3	0.16	**0.006**	89.81	6	0.19	**0.010**	89.49	9	0.51	**0.037**	10.19	**0.055**	**0.54%**	
	N	89.79	1	0.21	**0.004**	89.76	3	0.24	**0.008**	89.36	6	0.64	**0.034**	89.06	9	0.94	**0.069**		**0.114**	**1.12%**	
T-707.5	**E**	89.49	4	0.51	**0.036**	89.65	6	0.35	**0.012**	89.83	8	0.17	**0.006**	89.53	10	0.47	**0.036**	12.34	**0.089**	**0.72%**	
	N	89.26	4	0.74	**0.052**	89.51	6	0.49	**0.017**	89.45	8	0.55	**0.019**	89.74	10	0.26	**0.020**		**0.108**	**0.87%**	
S-710.5	**E**	88.72	1	1.28	**0.022**	89.53	4	0.47	**0.025**	89.74	7	0.26	**0.014**	89.64	10	0.36	**0.041**	13.53	**0.102**	**0.75%**	
	N	89.3	1	0.7	**0.012**	89.48	4	0.52	**0.027**	89.92	7	0.08	**0.004**	89.73	10	0.27	**0.031**		**0.074**	**0.55%**	
T-713.5	**E**	88.82	1	1.18	**0.021**	88.87	4	1.13	**0.059**	88.92	7	1.08	**0.057**	88.64	10	1.36	**0.166**	14.01	**0.303**	**2.16%**	
	N	89.77	2	0.23	**0.008**	89.66	4	0.34	**0.012**	89.04	7	0.96	**0.050**	88.71	10	1.29	**0.158**		**0.228**	**1.63%**	
P-716.5	**E**	89.72	1	0.28	**0.005**	89.41	4	0.59	**0.031**	89.73	7	0.27	**0.014**	89.77	10	0.23	**0.021**	12.13	**0.071**	**0.58%**	
	N	89.22	1	0.78	**0.014**	89.56	3	0.44	**0.015**	89.2	6	0.8	**0.042**	88.95	9	1.05	**0.112**		**0.183**	**1.51%**	
Q-718	**E**	89.24	2	0.76	**0.027**	89.49	5	0.51	**0.027**	89.66	8	0.34	**0.042**			90	**0.000**	12.11	**0.095**	**0.79%**	
	N	89.23	2	0.77	**0.027**	89.71	5	0.29	**0.015**	89.59	8	0.41	**0.051**			90	**0.000**		**0.093**	**0.77%**	
T-719.5	**E**	89.8	1	0.2	**0.003**	89.73	2	0.27	**0.005**	89.87	4	0.13	**0.005**	89.53	6	0.47	**0.063**	11.70	**0.076**	**0.65%**	
	N	89.73	2	0.27	**0.009**	89.78	4	0.22	**0.008**	89.95	6	0.05	**0.002**	89.22	8	0.78	**0.078**		**0.096**	**0.82%**	
S-722.5	**E**	89.35	1	0.65	**0.011**	89.61	3	0.39	**0.014**	89.7	6	0.3	**0.016**	89.71	9	0.29	**0.034**	12.65	**0.074**	**0.59%**	
	N	89.88	1	0.12	**0.002**	89.82	3	0.18	**0.006**	89.76	6	0.24	**0.013**	89.38	9	0.62	**0.072**		**0.093**	**0.73%**	
T-725.5	**E**	89.66	1	0.34	**0.006**	89.48	4	0.52	**0.027**	89.06	7	0.94	**0.126**			90	**0.000**	11.65	**0.159**	**1.36%**	
	N	89.64	1	0.36	**0.006**	89.33	3	0.67	**0.023**	89.18	6	0.82	**0.043**	89.11	9	0.89	**0.088**		**0.160**	**1.38%**	
P-728.5	**E**	89.41	1	0.59	**0.010**	89.4	3	0.6	**0.021**	89.14	6	0.86	**0.120**			90	**0.000**	11.02	**0.152**	**1.38%**	
	N	89.63	2	0.37	**0.013**	89.87	5	0.13	**0.007**	88.64	8	1.36	**0.143**			90	**0.000**		**0.163**	**1.48%**	Deviation toward SOUTH
T-731.5	**E**	88.84	1	1.16	**0.020**	89.01	3	0.99	**0.035**	89.36	6	0.64	**0.034**	89.75	9	0.25	**0.017**	9.90	**0.105**	**1.06%**	
	N	89.65	1	0.35	**0.006**	89.6	3	0.4	**0.014**	89.28	6	0.72	**0.038**	89.75	9	0.25	**0.017**		**0.075**	**0.76%**	
Q-733	**E**	89.3	2	0.7	**0.024**	89.43	5	0.57	**0.030**	89.85	8	0.15	**0.014**			90	**0.000**	10.33	**0.068**	**0.66%**	
	N	89.2	2	0.8	**0.028**	89.5	5	0.5	**0.026**	89.48	8	0.52	**0.048**			90	**0.000**		**0.102**	**0.99%**	
S-734.5	**E**	89.83	1	0.17	**0.003**	89.69	3	0.31	**0.011**	89.44	6	0.56	**0.029**	89.81	9	0.19	**0.011**	9.39	**0.054**	**0.58%**	
	N	89.45	1	0.55	**0.010**	89.7	3	0.3	**0.010**	89.78	6	0.22	**0.012**	89.83	9	0.17	**0.010**		**0.042**	**0.44%**	
Q-736	**E**	89.78	2	0.22	**0.008**	89.73	5	0.27	**0.014**	89.91	8	0.09	**0.008**			90	**0.000**	10.23	**0.030**	**0.29%**	
	N	89.58	2	0.42	**0.015**	89.49	5	0.51	**0.027**	88.79	8	1.21	**0.110**			90	**0.000**		**0.152**	**1.48%**	
T-737.5	**E**	89.71	1	0.29	**0.005**	89.85	3	0.15	**0.005**	89.77	6	0.23	**0.012**	89.92	9	0.08	**0.005**	9.37	**0.027**	**0.29%**	
	N	89.95	1	0.05	**0.001**	89.61	3	0.39	**0.014**	89.53	6	0.47	**0.025**	89.49	9	0.51	**0.030**		**0.069**	**0.74%**	
Q-739	**E**	89.3	2	0.7	**0.024**	89.57	5	0.43	**0.023**	89.05	8	0.95	**0.095**			90	**0.000**	10.70	**0.141**	**1.32%**	
	N	89.83	2	0.17	**0.006**	89.47	5	0.53	**0.028**	89.34	8	0.66	**0.066**			90	**0.000**		**0.099**	**0.93%**	
P-740.5	**E**	89.46	1	0.54	**0.009**	89.52	3	0.48	**0.017**	89.86	6	0.14	**0.007**	89.91	9	0.09	**0.006**	9.60	**0.039**	**0.41%**	
	N	89.28	3	0.72	**0.038**	89.62	6	0.38	**0.020**	89.38	9	0.62	**0.039**			90	**0.000**		**0.097**	**1.01%**	
T-743.5	**E**	89.74	3	0.26	**0.014**	89.86	6	0.14	**0.007**	89.89	8	0.11	**0.004**	89.89	9	0.11	**0.005**	10.83	**0.030**	**0.28%**	
	N	89.51	1	0.49	**0.009**	89.62	3	0.38	**0.013**	89.7	6	0.3	**0.016**	89.69	9	0.31	**0.026**		**0.064**	**0.59%**	
S-746.5	**E**	89.63	1	0.37	**0.006**	89.67	3	0.33	**0.012**	89.66	6	0.34	**0.018**	89.53	9	0.47	**0.029**	9.54	**0.065**	**0.68%**	
	N	89.76	1	0.24	**0.004**	89.73	3	0.27	**0.009**	89.65	6	0.35	**0.018**	89.86	9	0.14	**0.009**		**0.041**	**0.43%**	
T-749.5	**E**	89.45	1	0.55	**0.010**	89.73	4	0.27	**0.014**	89.4	7	0.6	**0.031**	89.67	10	0.33	**0.019**	10.29	**0.074**	**0.72%**	
	N	89.51	1	0.49	**0.009**	89.65	4	0.35	**0.018**	89.8	7	0.2	**0.010**	89.81	10	0.19	**0.011**		**0.048**	**0.47%**	

D-5 WTD Upstream Casing Deviation Table

Hole		Measure 1 (°)	Measurement 1 depth (m)	Gap 1 (°)	**Deviation 1 (m)**	Measure 2 (°)	Measurement 2 depth (m)	Gap 2 (°)	**Deviation 2 (m)**	Measure 3 (°)	Measurement 3 depth (m)	Gap 3 (°)	**Deviation 3 (m)**	Measure 4 (°)	Measurement 4 depth (m)	Gap 4 (°)	**Deviation 4 (m)**	Borehole depth (m)	Total deviation (m)	**Deviation (%)**	Comment
P-487	**E**	89.26	2	0.74	**0.026**	89.41	5	0.59	**0.031**	89.45	8	0.55	**0.060**			90	**0.000**	11.28	**0.117**	**1.04%**	
	N	88.95	2	1.05	**0.037**	89.03	5	0.97	**0.051**	89.35	8	0.65	**0.071**			90	**0.000**		**0.159**	**1.41%**	
Q-488.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-490	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
Q-491.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
S-493	**E**	89.88	2	0.12	**0.004**	89.87	5	0.13	**0.007**	89.75	8	0.25	**0.023**			90	**0.000**	10.23	**0.034**	**0.33%**	
	N	89.37	2	0.63	**0.022**	89.34	5	0.66	**0.035**	89.31	8	0.69	**0.063**			90	**0.000**		**0.120**	**1.17%**	
Q-494.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-496	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
Q-497.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
P-499	**E**	88.91	2	1.09	**0.038**	88.96	5	1.04	**0.054**	89.04	8	0.96	**0.102**			90	**0.000**	11.08	**0.194**	**1.75%**	
	N	89.57	2	0.43	**0.015**	89.15	5	0.85	**0.045**	88.99	8	1.01	**0.107**			90	**0.000**		**0.167**	**1.50%**	
Q-500.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-502	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
Q-503.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
S-505	**E**	89.62	2	0.38	**0.013**	89.6	5	0.4	**0.021**	89.42	8	0.58	**0.058**			90	**0.000**	10.77	**0.093**	**0.86%**	
	N	89.55	2	0.45	**0.016**	89.43	5	0.57	**0.030**	89.33	8	0.67	**0.067**			90	**0.000**		**0.113**	**1.05%**	
Q-506.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-508	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
Q-509.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
P-511	**E**	89.3	2	0.7	**0.024**	89.78	5	0.22	**0.012**	89.49	8	0.51	**0.049**			90	**0.000**	10.49	**0.085**	**0.81%**	
	N	89.47	2	0.53	**0.019**	89.72	5	0.28	**0.015**	89.6	8	0.4	**0.038**			90	**0.000**		**0.071**	**0.68%**	
Q-512.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-514	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
Q-515.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
S-517	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	10.88			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
Q-518.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-520	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
Q-521.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
P-523	**E**	89.3	2	0.7	**0.024**	89.87	5	0.13	**0.007**	89.78	8	0.22	**0.020**			90	**0.000**	10.21	**0.051**	**0.50%**	
	N		2	90	**2.000**			90	**-2.000**			90	**0.000**			90	**0.000**				
Q-524.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-526	**E**	89.63	2	0.37	**0.013**	89.6	5	0.4	**0.021**	89.88	8	0.12	**0.012**			90	**0.000**	10.88	**0.046**	**0.42%**	
	N	89.11	2	0.89	**0.031**	89.37	5	0.63	**0.033**	89.65	8	0.35	**0.036**			90	**0.000**		**0.100**	**0.92%**	
Q-527.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
S-529	**E**	89.81	2	0.19	**0.007**	89.58	5	0.42	**0.022**	89.6	8	0.4	**0.029**			90	**0.000**	9.22	**0.058**	**0.63%**	
	N	89.7	2	0.3	**0.010**	89.4	5	0.6	**0.031**	89.55	8	0.45	**0.033**			90	**0.000**		**0.075**	**0.81%**	
Q-530.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-532	**E**	89.65	2	0.35	**0.012**	89.43	5	0.57	**0.030**	89.34	8	0.66	**0.066**			90	**0.000**	10.71	**0.108**	**1.01%**	
	N	88.82	2	1.18	**0.041**	89.13	5	0.87	**0.046**	88.73	8	1.27	**0.127**			90	**0.000**		**0.213**	**1.99%**	
Q-533.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
P-535	**E**	89.76	2	0.24	**0.008**	89.5	5	0.5	**0.026**	89.34	8	0.66	**0.063**			90	**0.000**	10.43	**0.097**	**0.93%**	
	N	88.86	2	1.14	**0.040**	88.68	5	1.32	**0.069**	88.77	8	1.23	**0.117**			90	**0.000**		**0.225**	**2.16%**	
Q-536.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-538	**E**	89.83	2	0.17	**0.006**	89.27	5	0.73	**0.038**	89.58	8	0.42	**0.038**			90	**0.000**	10.16	**0.082**	**0.81%**	
	N	89.33	2	0.67	**0.023**	89.32	5	0.68	**0.036**	89.65	8	0.35	**0.032**			90	**0.000**		**0.091**	**0.89%**	
Q-539.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			

Q-559.5	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
S-541	E	89.16	2	0.84	**0.029**	89.39	5	0.61	**0.032**	89.5	8	0.5	**0.044**			90	**0.000**	10.05	**0.105**	**1.05%**
	N	89.39	2	0.61	**0.021**	89.61	5	0.39	**0.020**	89.55	8	0.45	**0.040**			90	**0.000**		**0.081**	**0.81%**
Q-542.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-544	E	89.72	2	0.28	**0.010**	89.95	5	0.05	**0.003**	89.68	8	0.32	**0.028**			90	**0.000**	9.94	**0.040**	**0.40%**
	N	89.17	2	0.83	**0.029**	88.68	5	1.32	**0.069**	88.97	8	1.03	**0.089**			90	**0.000**		**0.187**	**1.88%**
Q-545.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-547	E	89.39	2	0.61	**0.021**	89.66	5	0.34	**0.018**	89.66	8	0.34	**0.033**			90	**0.000**	10.62	**0.072**	**0.68%**
	N	89.43	2	0.57	**0.020**	89.95	5	0.05	**0.003**	89.9	8	0.1	**0.010**			90	**0.000**		**0.032**	**0.30%**
Q-548.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-550	E	89.22	2	0.78	**0.027**	89.35	5	0.65	**0.034**	89.21	8	0.79	**0.069**			90	**0.000**	10.01	**0.130**	**1.30%**
	N	89.69	2	0.31	**0.011**	89.75	5	0.25	**0.013**	89.42	8	0.58	**0.051**			90	**0.000**		**0.075**	**0.75%**
Q-551.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-553	E	89.63	2	0.37	**0.013**	89.67	3	0.33	**0.006**	89.8	5	0.2	**0.007**	89.41	8	0.59	**0.053**	10.10	**0.078**	**0.77%**
	N	89.08	2	0.92	**0.032**	89.19	5	0.81	**0.042**	89.08	8	0.92	**0.082**			90	**0.000**		**0.156**	**1.55%**
Q-554.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-556	E	89	2	1	**0.035**	89.33	5	0.67	**0.035**	88.94	8	1.06	**0.097**			90	**0.000**	10.27	**0.167**	**1.63%**
	N	89.8	2	0.2	**0.007**	89.41	5	0.59	**0.031**	89.17	8	0.83	**0.076**			90	**0.000**		**0.114**	**1.11%**
Q-557.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-559	E	89.81	2	0.19	**0.007**	89.45	5	0.55	**0.029**	89.95	8	0.05	**0.005**			90	**0.000**	10.79	**0.040**	**0.38%**
	N	89.45	2	0.55	**0.019**	89.83	5	0.17	**0.009**	89.92	8	0.08	**0.008**			90	**0.000**		**0.036**	**0.34%**
Q-560.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-562	E	89.03	2	0.97	**0.034**	89.39	5	0.61	**0.032**	89.33	8	0.67	**0.060**			90	**0.000**	10.12	**0.126**	**1.24%**
	N	89.00	2	1	**0.035**	89.13	5	0.87	**0.046**	89.67	8	0.33	**0.029**			90	**0.000**		**0.110**	**1.09%**
Q-563.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-565	E	89.06	2	0.94	**0.033**	89.09	5	0.91	**0.048**	89.22	8	0.78	**0.099**			90	**0.000**	12.26	**0.179**	**1.46%**
	N	89.14	2	0.86	**0.030**	89.04	5	0.96	**0.050**	89.38	8	0.62	**0.079**			90	**0.000**		**0.159**	**1.30%**
Q-566.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-568	E	89.24	2	0.76	**0.027**	89.34	5	0.66	**0.035**	89.2	8	0.8	**0.110**			90	**0.000**	12.88	**0.171**	**1.33%**
	N	89.38	2	0.62	**0.022**	89.64	5	0.36	**0.019**	89.58		0.42	**0.058**			90	**0.000**		**0.098**	**0.76%**
Q-569.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-571	E	89.01	2	0.99	**0.035**	89.16	5	0.84	**0.044**	89.36	8	0.64	**0.094**			90	**0.000**	13.41	**0.172**	**1.29%**
	N	89.69	2	0.31	**0.011**	89.59	5	0.41	**0.021**	89.47	8	0.53	**0.078**			90	**0.000**		**0.110**	**0.82%**
Q-572.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-574	E	89.52	2	0.48	**0.017**	89.75	5	0.25	**0.013**	89.61	8	0.39	**0.045**			90	**0.000**	11.66	**0.075**	**0.64%**
	N	89.52	2	0.48	**0.017**	89.61	5	0.39	**0.020**	89.82	8	0.18	**0.021**			90	**0.000**		**0.058**	**0.50%**
Q-575.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-577	E	89.45	2	0.55	**0.019**	89.85	5	0.15	**0.008**	89.63	8	0.37	**0.044**			90	**0.000**	11.79	**0.071**	**0.60%**
	N	89.41	2	0.59	**0.021**	89.62	5	0.38	**0.020**	89.57	8	0.43	**0.051**			90	**0.000**		**0.091**	**0.78%**
Q-578.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-580	E	89.9	2	0.1	**0.003**	89.85	5	0.15	**0.008**	89.83	8	0.17	**0.020**			90	**0.000**	11.80	**0.032**	**0.27%**
	N	89.59	2	0.41	**0.014**	89.87	5	0.13	**0.007**	89.56	8	0.44	**0.052**			90	**0.000**		**0.073**	**0.62%**
Q-581.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-583	E	89.53	2	0.47	**0.016**	89.85	5	0.15	**0.008**	89.43	8	0.57	**0.077**			90	**0.000**	12.74	**0.101**	**0.79%**
	N	89.66	2	0.34	**0.012**	89.68	5	0.32	**0.017**	89.57	8	0.43	**0.058**			90	**0.000**		**0.087**	**0.68%**
Q-584.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-586	E	89.54	2	0.46	**0.016**	89.84	5	0.16	**0.008**	89.94	8	0.06	**0.008**			90	**0.000**	12.20	**0.032**	**0.26%**
	N	89.57	2	0.43	**0.015**	89.72	5	0.28	**0.015**	89.57	8	0.43	**0.054**			90	**0.000**		**0.084**	**0.69%**
Q-587.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-589	E	89.39	2	0.61	**0.021**	89.4	5	0.6	**0.031**	89.7	8	0.3	**0.040**			90	**0.000**	12.56	**0.092**	**0.73%**
	N	89.73	2	0.27	**0.009**	89.81	5	0.19	**0.010**	89.72	8	0.28	**0.037**			90	**0.000**		**0.056**	**0.45%**
Q-590.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-592	E	89.71	2	0.29	**0.010**	89.82	5	0.18	**0.009**	89.87	8	0.13	**0.016**			90	**0.000**	11.95	**0.035**	**0.30%**
	N	89.29	2	0.71	**0.025**	89.56	5	0.44	**0.023**	89.08	8	0.92	**0.112**			90	**0.000**		**0.159**	**1.33%**
Q-593.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-595	E	89.45	2	0.55	**0.019**	89.74	5	0.26	**0.014**	89.52	8	0.48	**0.061**			90	**0.000**	12.29	**0.094**	**0.76%**

P-595	N	89.52	2	0.48	**0.017**	89.27	5	0.73	**0.038**	89.37	8	0.63	**0.080**			90	**0.000**	12.29	**0.135**	**1.10%**
Q-596.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-598	E	89.66	2	0.34	**0.012**	89.72	5	0.28	**0.015**	89.93	8	0.07	**0.009**			90	**0.000**	12.65	**0.036**	**0.28%**
	N	89.54	2	0.46	**0.016**	89.38	5	0.62	**0.032**	89.6	8	0.4	**0.053**			90	**0.000**		**0.102**	**0.81%**
Q-599.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-601	E	89.32	2	0.68	**0.024**	89.78	5	0.22	**0.012**	89.69	8	0.31	**0.041**			90	**0.000**	12.49	**0.076**	**0.61%**
	N	89.56	2	0.44	**0.015**	89.71	5	0.29	**0.015**	89.72	8	0.28	**0.037**			90	**0.000**		**0.067**	**0.54%**
Q-602.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-604	E	89.45	2	0.55	**0.019**	89.49	3	0.51	**0.009**	89.51	5	0.49	**0.017**	89.61	8	0.39	**0.054**	12.97	**0.099**	**0.77%**
	N	89.39	2	0.61	**0.021**	89.83	5	0.17	**0.009**	89.58	8	0.42	**0.058**			90	**0.000**		**0.089**	**0.68%**
Q-605.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-607	E	89.39	2	0.61	**0.021**	89.57	5	0.43	**0.023**	89.72	8	0.28	**0.040**			90	**0.000**	13.13	**0.084**	**0.64%**
	N	89.54	2	0.46	**0.016**	89.62	5	0.38	**0.020**	89.9	8	0.1	**0.014**			90	**0.000**		**0.050**	**0.38%**
Q-608.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-610	E	89.5	3	0.5	**0.026**	89.21	5	0.79	**0.028**	89.44	8	0.56	**0.078**			90	**0.000**	12.95	**0.131**	**1.02%**
	N	89.59	3	0.41	**0.021**	89.77	5	0.23	**0.008**	89.76	8	0.24	**0.033**			90	**0.000**		**0.063**	**0.48%**
Q-611.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-613	E	89.62	2	0.38	**0.013**	89.39	5	0.61	**0.032**	89.6	8	0.4	**0.051**			90	**0.000**	12.29	**0.096**	**0.78%**
	N	89.67	2	0.33	**0.012**	89.42	5	0.58	**0.030**	89.74	8	0.26	**0.033**			90	**0.000**		**0.075**	**0.61%**
Q-614.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-616	E	89.75	2	0.25	**0.009**	89.9	5	0.1	**0.005**	89.82	8	0.18	**0.020**			90	**0.000**	11.31	**0.034**	**0.30%**
	N	89.45	2	0.55	**0.019**	89.43	5	0.57	**0.030**	89.41	8	0.59	**0.065**			90	**0.000**		**0.114**	**1.01%**
Q-617.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-619	E	89.56	2	0.44	**0.015**	89.76	5	0.24	**0.013**	89.6	8	0.4	**0.046**			90	**0.000**	11.58	**0.074**	**0.64%**
	N	89.67	2	0.33	**0.012**	89.91	5	0.09	**0.005**	89.85	8	0.15	**0.017**			90	**0.000**		**0.033**	**0.29%**
Q-620.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-622	E	89.46	2	0.54	**0.019**	89.44	5	0.56	**0.029**	89.74	8	0.26	**0.031**			90	**0.000**	11.79	**0.079**	**0.67%**
	N	89.76	2	0.24	**0.008**	89.9	5	0.1	**0.005**	89.72	8	0.28	**0.033**			90	**0.000**		**0.047**	**0.40%**
Q-623.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-625	E	89.47	2	0.53	**0.019**	89.79	5	0.21	**0.011**	89.9	8	0.1	**0.014**			90	**0.000**	13.11	**0.044**	**0.33%**
	N	89.4	2	0.6	**0.021**	89.7	5	0.3	**0.016**	89.83	8	0.17	**0.024**			90	**0.000**		**0.061**	**0.46%**
Q-626.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-628	E	89.62	2	0.38	**0.013**	89.4	5	0.6	**0.031**	89.92	8	0.08	**0.010**			90	**0.000**	12.18	**0.055**	**0.45%**
	N	89.27	2	0.73	**0.025**	89.73	5	0.27	**0.014**	89.79	8	0.21	**0.026**			90	**0.000**		**0.066**	**0.54%**
Q-629.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-631	E	89.19	2	0.81	**0.028**	89.35	5	0.65	**0.034**	89.08	8	0.92	**0.122**			90	**0.000**	12.59	**0.184**	**1.46%**
	N	89.54	2	0.46	**0.016**	89.63	5	0.37	**0.019**	89.93	8	0.07	**0.009**			90	**0.000**		**0.045**	**0.36%**
Q-632.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-634	E	89.53	2	0.47	**0.016**	89.53	5	0.47	**0.025**	89.63	8	0.37	**0.049**			90	**0.000**	12.63	**0.090**	**0.71%**
	N	89.41	2	0.59	**0.021**	89.58	5	0.42	**0.022**	89.65	8	0.35	**0.047**			90	**0.000**		**0.089**	**0.71%**
Q-635.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-637	E	89.51	5	0.49	**0.043**	89.83	8	0.17	**0.009**	89.38	11	0.62	**0.037**			90	**0.000**	11.44	**0.089**	**0.78%**
	N	89.54	5	0.46	**0.040**	89.07	8	0.93	**0.049**	89.43	11	0.57	**0.034**			90	**0.000**		**0.123**	**1.08%**
Q-638.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-640	E	89.56	4	0.44	**0.031**	89.59	7	0.41	**0.021**	89.66	10	0.34	**0.027**			90	**0.000**	11.47	**0.079**	**0.69%**
	N	89.56	4	0.44	**0.031**	89.72	7	0.28	**0.015**	89.67	10	0.33	**0.026**			90	**0.000**		**0.071**	**0.62%**
Q-641.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-643	E	89.39	4	0.61	**0.043**	89.57	7	0.43	**0.023**	89.53	10	0.47	**0.038**			90	**0.000**	11.63	**0.103**	**0.89%**
	N	89.71	4	0.29	**0.020**	89.54	7	0.46	**0.024**	89.87	10	0.13	**0.011**			90	**0.000**		**0.055**	**0.47%**
Q-644.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-646	E	89.82	5	0.18	**0.016**	88.53	8	1.47	**0.077**	89.09	11	0.91	**0.057**			90	**0.000**	11.61	**0.150**	**1.29%**
	N	88.4	5	1.6	**0.140**	88.92	8	1.08	**0.057**	88.72	11	1.28	**0.081**			90	**0.000**		**0.277**	**2.38%**
Q-647.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-649	E	89.75	5	0.25	**0.022**	89.77	8	0.23	**0.012**	89.78	11	0.22	**0.014**			90	**0.000**	11.72	**0.048**	**0.41%**
	N	89.8	5	0.2	**0.017**	89.85	8	0.15	**0.008**	89.92	11	0.08	**0.005**			90	**0.000**		**0.031**	**0.26%**
Q-650.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		

Q-650.5	**N**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
T-652	**E**	89.01	5	0.99	**0.086**	89.1	8	0.9	**0.047**	88.68	11	1.32	**0.095**			90	**0.000**	12.14	**0.229**	**1.89%**
	N	88.55	5	1.45	**0.127**	88.92	8	1.08	**0.057**	88.75	11	1.25	**0.090**			90	**0.000**		**0.273**	**2.25%**
Q-653.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-655	**E**	89.51	2	0.49	**0.017**	89.27	5	0.73	**0.038**	89.34	8	0.66	**0.035**	89.25	11	0.75	**0.063**	12.79	**0.153**	**1.19%**
	N	89.16	5	0.84	**0.073**	89.38	8	0.62	**0.032**	89.33	11	0.67	**0.056**			90	**0.000**		**0.162**	**1.26%**
Q-656.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-658	**E**	89.92	4	0.08	**0.006**	89.84	7	0.16	**0.008**	89.88	10	0.12	**0.010**			90	**0.000**	11.62	**0.024**	**0.20%**
	N	89.46	4	0.54	**0.038**	89.62	7	0.38	**0.020**	89.81	10	0.19	**0.015**			90	**0.000**		**0.073**	**0.63%**
Q-659.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-661	**E**	89.44	2	0.56	**0.020**	89.57	5	0.43	**0.023**	89.57	8	0.43	**0.050**			90	**0.000**	11.62	**0.092**	**0.79%**
	N	89.39	2	0.61	**0.021**	89.66	5	0.34	**0.018**	89.73	8	0.27	**0.031**			90	**0.000**		**0.070**	**0.60%**
Q-662.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-664	**E**	89.46	2	0.54	**0.019**	89.85	5	0.15	**0.008**	89.57	8	0.43	**0.050**			90	**0.000**	11.61	**0.076**	**0.66%**
	N	89.38	2	0.62	**0.022**	89.47	5	0.53	**0.028**	89.61	8	0.39	**0.045**			90	**0.000**		**0.094**	**0.81%**
Q-665.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-667	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
Q-668.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-670	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
Q-671.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-673	**E**	89.64	7	0.36	**0.044**	89.88	7	0.12	**0.000**	89.94	10	0.06	**0.004**			90	**0.000**	11.08	**0.048**	**0.44%**
	N	89.71	4	0.29	**0.020**	89.6	7	0.4	**0.021**	89.7	10	0.3	**0.021**			90	**0.000**		**0.063**	**0.56%**
Q-674.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-676	**E**	89.27	4	0.73	**0.051**	89.83	7	0.17	**0.009**	89.86	10	0.14	**0.009**			90	**0.000**	10.86	**0.069**	**0.64%**
	N	89.59	4	0.41	**0.029**	89.66	7	0.34	**0.018**	89.75	10	0.25	**0.017**			90	**0.000**		**0.063**	**0.58%**
Q-677.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-679	**E**	89.41	4	0.59	**0.041**	89.75	7	0.25	**0.013**	89.73	10	0.27	**0.021**			90	**0.000**	11.40	**0.075**	**0.66%**
	N	89.69	4	0.31	**0.022**	89.6	7	0.4	**0.021**	89.81	10	0.19	**0.015**			90	**0.000**		**0.057**	**0.50%**
Q-680.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-682	**E**	89.5	4	0.5	**0.035**	89.83	7	0.17	**0.009**	89.88	10	0.12	**0.008**			90	**0.000**	10.69	**0.052**	**0.48%**
	N	89.56	4	0.44	**0.031**	89.78	7	0.22	**0.012**	89.96	10	0.04	**0.003**			90	**0.000**		**0.045**	**0.42%**
Q-683.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-685	**E**	89.48	4	0.52	**0.036**	89.65	7	0.35	**0.018**	89.72	10	0.28	**0.021**			90	**0.000**	11.32	**0.076**	**0.67%**
	N	89.51	4	0.49	**0.034**	89.67	7	0.33	**0.017**	89.79	10	0.21	**0.016**			90	**0.000**		**0.067**	**0.59%**
Q-686.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-688	**E**	89.32	3	0.68	**0.036**	89.75	6	0.25	**0.013**	89.63	9	0.37	**0.030**			90	**0.000**	10.66	**0.079**	**0.74%**
	N	89.17	3	0.83	**0.043**	89.64	6	0.36	**0.019**	89.41	9	0.59	**0.048**			90	**0.000**		**0.110**	**1.03%**
Q-689.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-691	**E**	89.66	3	0.34	**0.018**	89.69	6	0.31	**0.016**	89.76	9	0.24	**0.021**			90	**0.000**	10.95	**0.055**	**0.50%**
	N	89.18	3	0.82	**0.043**	89.72	6	0.28	**0.015**	89.82	9	0.18	**0.016**			90	**0.000**		**0.073**	**0.67%**
Q-692.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-694	**E**	89.15	2	0.85	**0.030**	89.51	5	0.49	**0.026**	89.68	8	0.32	**0.033**			90	**0.000**	10.92	**0.088**	**0.81%**
	N	89.17	2	0.83	**0.029**	89.66	5	0.34	**0.018**	89.88	8	0.12	**0.012**			90	**0.000**		**0.059**	**0.54%**
Q-695.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
S-697	**E**	89.22	2	0.78	**0.027**	89.68	5	0.32	**0.017**	89.48	8	0.52	**0.054**			90	**0.000**	10.99	**0.098**	**0.89%**
	N	89.26	2	0.74	**0.026**	89.64	5	0.36	**0.019**	89.59	8	0.41	**0.043**			90	**0.000**		**0.088**	**0.80%**
Q-698.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-700	**E**	89.03	2	0.97	**0.034**	88.93	5	1.07	**0.056**	89.2	8	0.8	**0.083**			90	**0.000**	10.96	**0.173**	**1.58%**
	N	89.65	2	0.35	**0.012**	89.67	5	0.33	**0.017**	89.67	8	0.33	**0.034**			90	**0.000**		**0.064**	**0.58%**
Q-701.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
P-703	**E**	89.17	2	0.83	**0.029**	89.46	5	0.54	**0.028**	89.67	8	0.33	**0.036**			90	**0.000**	11.20	**0.093**	**0.83%**
	N	89.37	2	0.63	**0.022**	89.7	5	0.3	**0.016**	89.58	8	0.42	**0.045**			90	**0.000**		**0.083**	**0.74%**
Q-704.5	**E**			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10		
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**			
T-706	**E**	89.65	3	0.35	**0.018**	89.54	6	0.46	**0.024**	89.33	9	0.67	**0.060**			90	**0.000**	11.10	**0.102**	**0.92%**

T-708	N	89.18	3	0.82	**0.043**	89.68	6	0.32	**0.017**	89.68	9	0.32	**0.028**			90	**0.000**	11.10	**0.088**	**0.79%**	
Q-707.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
S-709	E	89.67	5	0.33	**0.029**	89.9	8	0.1	**0.005**			90	**0.000**			90	**0.000**	12.91	**0.034**	**0.26%**	
	N	89.57	5	0.43	**0.038**	89.55	8	0.45	**0.024**			90	**0.000**			90	**0.000**		**0.061**	**0.47%**	
Q-710.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-712	E	88.51	3	1.49	**0.078**	89.8	6	0.2	**0.010**	89.47	9	0.53	**0.071**			90	**0.000**	13.71	**0.160**	**1.17%**	
	N	89.12	3	0.88	**0.046**	89.94	6	0.06	**0.003**	89.9	9	0.1	**0.013**			90	**0.000**		**0.063**	**0.46%**	
Q-713.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
P-715	E	89.63	2	0.37	**0.013**	89.76	5	0.24	**0.013**	89.88	8	0.12	**0.018**			90	**0.000**	13.72	**0.044**	**0.32%**	
	N	89.37	2	0.63	**0.022**	89.71	5	0.29	**0.015**	89.52	8	0.48	**0.073**			90	**0.000**		**0.110**	**0.80%**	
Q-716.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-718	E	89.95	3	0.05	**0.003**	89.94	6	0.06	**0.003**	89.93	9	0.07	**0.009**			90	**0.000**	13.68	**0.015**	**0.11%**	
	N	88.61	3	1.39	**0.073**	89.41	6	0.59	**0.031**	89.81	9	0.19	**0.025**			90	**0.000**		**0.129**	**0.94%**	
Q-719.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
S-721	E	89.47	3	0.53	**0.028**	89.76	6	0.24	**0.013**	89.62	9	0.38	**0.041**			90	**0.000**	12.15	**0.081**	**0.67%**	
	N	89.51	3	0.49	**0.026**	89.62	6	0.38	**0.020**	89.89	9	0.11	**0.012**			90	**0.000**		**0.057**	**0.47%**	
Q-722.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-724	E	89.64	5	0.36	**0.031**	89.69	8	0.31	**0.016**			90	**0.000**			90	**0.000**	12.20	**0.048**	**0.39%**	
	N	89.48	5	0.52	**0.045**	89.91	8	0.09	**0.005**			90	**0.000**			90	**0.000**		**0.050**	**0.41%**	
Q-725.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
P-727	E	88.97	5	1.03	**0.090**	89.25	9	0.75	**0.052**			90	**0.000**			90	**0.000**	11.74	**0.142**	**1.21%**	
	N	89.28	5	0.72	**0.063**	89.45	9	0.55	**0.038**			90	**0.000**			90	**0.000**		**0.101**	**0.86%**	
Q-728.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-730	E	89.96	5	0.04	**0.003**	89.83	8	0.17	**0.009**			90	**0.000**			90	**0.000**	10.63	**0.012**	**0.12%**	
	N	89.57	5	0.43	**0.038**	89.8	8	0.2	**0.010**			90	**0.000**			90	**0.000**		**0.048**	**0.45%**	
Q-731.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
S-733	E	89.73	5	0.27	**0.024**	89.31	8	0.69	**0.036**			90	**0.000**			90	**0.000**	10.07	**0.060**	**0.59%**	
	N	88.19	5	1.81	**0.158**	88.36	8	1.64	**0.086**			90	**0.000**			90	**0.000**		**0.244**	**2.42%**	
Q-734.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-736	E	89.35	3	0.65	**0.034**	89.22	6	0.78	**0.041**	89.13	9	0.87	**0.053**			90	**0.000**	9.52	**0.128**	**1.35%**	
	N	88.67	3	1.33	**0.070**	88.82	6	1.18	**0.062**	88.73	9	1.27	**0.078**			90	**0.000**		**0.209**	**2.20%**	
Q-737.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
P-739	E	88.62	2	1.38	**0.048**	89.26	5	0.74	**0.039**	89.74	8	0.26	**0.022**			90	**0.000**	9.84	**0.109**	**1.11%**	
	N	89.72	5	0.28	**0.024**	89.51	5	0.49	**0.000**	89.71	8	0.29	**0.024**			90	**0.000**		**0.049**	**0.50%**	
Q-740.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-742	E	89.37	5	0.63	**0.055**	89.45	8	0.55	**0.029**			90	**0.000**			90	**0.000**	9.51	**0.084**	**0.88%**	
	N	89.17	2	0.83	**0.029**	89.78	5	0.22	**0.012**	89.5	8	0.5	**0.039**			90	**0.000**		**0.080**	**0.84%**	
Q-743.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
S-745	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	9.20			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
Q-746.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
T-748	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	9.28			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				
Q-749.5	E			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**	0.10			
	N			90	**0.000**			90	**0.000**			90	**0.000**			90	**0.000**				

D-6 GHD Daily Report

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2019-11-30
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-20 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike
- P-740.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 batches have been tested. According to the marsh time, the grout in the second and the fourth tests have been found way to thick (See note in the report).
- Please note that, since they started grouting at noon, only one bleeding and expansion test has been done.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Michel Royer (Print Name)

From : _____ Signature* : JMR

Project Manager : Daniel Pedneault Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client	Qamanittuaq Sana	Inspection Date	2019-12-01
Site	Amaruq	☐ Drill and Blast	☐ Expertise
Project	Whale Tail Dike	☐ Foundation Prep.	☐ Vibration Monitoring
		☒ Rockfill Placement	☒ Water Management
		☒ Sampling	☐ Grout curtain
		☐ Compaction	☐ Liner / Geotextile
		☐ Secant Wall	
Project Nº :	11204932-B1	☐ Other (specify):	

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-23 °C

Field Results

- Injection on the Whale Tail Dike
- P-728.5 ; P-716.5 ; P-704.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 9 batches have been tested. Note that I was testing 1 batch for every 5 batches or every time they were adding the Celbex.
- Usually, after they injected 400L of grout in a single borehole, if there was still no pressure, they've been adding 0.240 kg of Celbex to the mix. In reason of the Celbex, we had to stop every marsh tests before the end. In fact, the flow of the grout going out the funnel wasn't steady (drop per drop).

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Michel Royer (Print Name)

From : _____ Signature* : JMR

Project Manager : Daniel Pedneault Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Groupe Gilbert - KCJ	Inspection Date: 2019-12-02
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dyke	
Project N°: 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training **I SEE**: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	-26 °C

Field Results

- Injection on the Whale Tail Dyke
- P-692.5 ; P-680.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 5 batches have been tested by the technician of Qamanittuaq Sana, Maxime Côté.
- Usually, after they injected 400L of grout in a single borehole, if there was still no pressure, they've been adding 0.240 kg of Celbex to the mix. In reason of the Celbex, we had to stop every marsh tests before the end. In fact, the flow of the grout going out the funnel wasn't steady (drop per drop).

- Code 1 at 13H50

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Maryska Beauregard (Print Name)

From : _____ Signature* : MB

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2019-12-02
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dyke	
Project N°: 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training **I SEE**: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	-20 °C

Field Results

- Injection on the Whale Tail Dike P-668.5; P-665.5.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 3 batches have been tested by the technician of Qamanittuaq Sana, Maxime Côté
- Usually, after they injected 400L of grout in a single borehole, if there was still no pressure, they've been adding 0.240 kg of Celbex to the mix. In reason of the Celbex, we had to stop every marsh tests before the end. In fact, the flow of the grout going out the funnel wasn't steady (drop per drop).

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative :

Inspector : Maryska Beauregard (Print Name)

From :

Signature* : MB

Project Manager : Daniel Pedneault, GHD

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2019-12-03
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dyke	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project N°: 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-36 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike
  P-716.5; P-740.5.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 batches have been tested by the technician of Qamanittuaq Sana, Maxime Côté
- The vicat was made for the second test (8H35)
- It was impossible to do a bleeding for the3rd test (9H05), the concrete was too viscous.
- Usually, after they injected 400L of grout in a single borehole, if there was still no pressure, they've been adding 0.240 kg of Celbex to the mix. In reason of the Celbex, we had to stop every marsh tests before the end. In fact, the flow of the grout going out the funnel wasn't steady (drop per drop).

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative :

Inspector : Maryska Beauregard
(Print Name)

From :

Signature* : MB

Project Manager : Daniel Pedneault, GHD

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2019-12-04
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dyke	
Project N°: 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training **I SEE**: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	-40 °C

Field Results

- Injection on the Whale Tail Dike
  P-680.5; P-704.5.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 batches have been tested by the technician of Qamanittuaq Sana, Maxime Côté.
- All the marsh cone are impossible to do, the concrete is too consistant.
- A second vicat was made during the last test of the day (14H35) on the purge valve.
- Usually, after they injected 400L of grout in a single borehole, if there was still no pressure, they've been adding 0.240 kg of Celbex to the mix. In reason of the Celbex, we had to stop every marsh tests before the end. In fact, the flow of the grout going out the funnel wasn't steady (drop per drop).

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative :

Inspector : Maryska Beauregard (Print Name)

From :

Signature* : MB

Project Manager : Daniel Pedneault, GHD

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Groupe Gilbert – KCJ	Inspection Date: 2019-12-07
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project N°: 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-36 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike P-740.5 only. They needed to set-up and tested the new Celbex pump before to inject in the hole. At the moment of the injection test, they got a problem, the concrete was injected directly in the hole P-740.5 and we could reach 5.35meters. So, they cleaned the hole with pressure water.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches. Overall, 1 batche have been tested.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.
- Usually, after they injected 400L of grout in a single borehole, if there was still no pressure, they've been adding 0.240 kg of Celbex to the mix. The Celbex pump make it very difficult to calculate the quantity of Celbex that they put in the borehole.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative :

Inspector : Maryska Beauregard (Print Name)

From :

Signature* : MB

Project Manager : Daniel Pedneault, GHD

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Groupe Gilbert – KCJ	Inspection Date: 2019-12-08
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dike	
Project N°: 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training **I SEE**: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	-36 °C

- Injection on the Whale Tail Dike P-680.5 and P-668.5. The Celbex mixed with concrete it is too dense and the preasure is higher. A lot of people are working to find a way to make it work (SNC, Agnico Eagle, Sana and GHD people). The quantity of Celbex put in the concrete is hard to mix it to be homogeneous and constant in the dike. So, they measure the amount of Celbex and the time needed to mix everything. By the end of the day, they got a good way to work effectively.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- Overall, 5 batches have been tested. The third one, it was just for the marsh cone (see comments on G.C.R.)

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Maryska Beauregard (Print Name)

From : _____ Signature* : MB

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Groupe Gilbert – KCJ	Inspection Date: 2019-12-09
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dike	
Project N°: 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training **I SEE**: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	-47 °C

Field Results

- Injection on the Whale Tail Dike P-656.5 only.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches. Overall, 1 batche have been tested.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.
- This morning, the water truck was frozen. They take it to the garage to be warm up. After, the compressor ran out of gas and the fuel truck of the mine was too busy to full it up. So, they have to wait until 13H (after lunch).

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative :

Inspector : Maryska Beauregard (Print Name)

From :

Signature* : MB

Project Manager : Daniel Pedneault, GHD

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCJ	Inspection Date: 2019-12-10
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-37 ˚C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- No injection today because of a blizzard
- Reading grout standard
- Water Level

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCJ	Inspection Date: 2019-12-11
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-28 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike P-644.5 ; P-620.5 and P-632.5.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.
-

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCJ	Inspection Date: 2019-12-12
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-28 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike P-596.5 B (plug) ; P-632.5 (regrout) ; S-746.5 ; S 734.5 ; S740.5 ; S- 710.5 and S 722.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- Water Level
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.
- Cast the cubes no.1 and no.2 (Mix B and C 28 days)

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCJ	Inspection Date: 2019-12-13
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-33 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike S-698.5 ; S-686.5 ; S-674.5 ; S-680.5 ; S-668.5 ; S-662.5 ; S-650.5 and S-638.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- Water Level
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.
- We have a problem with the pump mixer in afternoon.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCJ	Inspection Date: 2019-12-14
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-28 ˚C

Field Results

- Injection on the Whale Tail Dike S626.5 ; S614.5 ; P596.5B and S674.5
- Checking injection, Vicat Test, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCJ	Inspection Date: 2019-12-15
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-33 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike S-698.5 and S-686.5 (regrout is necessary for the 2 holes)
- Making cubes on the mix D
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCJ	Inspection Date: 2019-12-16
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-35 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike S-686.5 (regrout) ; S-698.5 (Regrout) ; S-746.5 and S-734.5
- Cubes no.3 recovery
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2019-12-17
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-37 ˚C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; S-734.5(regrout) ; S-746.5 (regrout) ; S-722.5 ; S-710.5 ; S-698.5 and S-698.5
- Backfill the 6 holes.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client Groupe Gilbert – KCG	Inspection Date 2019-12-18
Site Amaruq	☐ Drill and Blast ☐ Expertise
Project Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training **I SEE**: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	-31 ˚C

Field Results

- Injection on the Whale Tail Dike ; S-650.5 ; S-662.5 the morning and regrout and afternoon.
- Backfill the 2 holes
- Inclinometer on the Whale Tail Dike
- We don't measuring the hole S-614.5 because snow in the casing (the supervisor is notified).
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-01-11
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-23 ˚C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 : S-638.5
- Plugs : S-590.5 ; T-587.5 ; P-584.5 ; T-581.5 and S-578.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 29 batches have been tested.
-

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Jean-Michel Royer (Print Name)

From : _____

Signature* : JMR

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-01-12
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-36 ˚C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 : T-749.5 ; T-743.5
- Plugs : T-575.5 ; P-572.5 ; S-566.5 and T-563.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 2 batches have been tested.
-

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Jean-Michel Royer (Print Name)

From : _____

Signature* : JMR

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-01-13
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-32 ˚C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 : T-737.5 ; T-731.5 ; T-713.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 3 batches have been tested.
- A Viccat test has been done on the mix D

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Jean-Michel Royer (Print Name)

From : _____

Signature* : JMR

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-01-14
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-36 ˚C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 : T-707.5 ; T-701.5 ; T-695.5 ; T-689.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 7 batches have been tested.
- I've measured the total depth and the water depth of some boreholes

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Jean-Michel Royer (Print Name)

From : _____

Signature* : JMR

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client	Qamanittuaq Sana	Inspection Date	2020-01-15
Site	Amaruq		
Project	Whale Tail Dike		
Project Nº :	11204932-B1		

- ☐ **Drill and Blast**
- ☐ **Foundation Prep.**
- ☒ **Rockfill Placement**
- ☒ **Sampling**
- ☐ **Compaction**
- ☐ **Secant Wall**
- ☐ **Other (specify):**
- ☐ **Expertise**
- ☐ **Vibration Monitoring**
- ☒ **Water Management**
- ☐ **Grout curtain**
- ☐ **Liner / Geotextile**

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-30 ˚C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 : T-683.5 ; T-677.5 ; T-671.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 batches have been tested.
- I've measured the total depth and the water depth of some boreholes

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Jean-Michel Royer (Print Name)

From : _____

Signature* : JMR

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-01-16
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☒ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-20 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike
- Stage 1 : T-665.5 ; T-659.5 ; T-653.5 ; T-647.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 6 batches have been tested.
- I've measured the total depth and the water depth of some boreholes
- I've also done a filter press test on the mix D → V=136 mL, H=62 mm and Time = 25 minutes

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Michel Royer (Print Name)

From : _____ Signature* : JMR

Project Manager : Daniel Pedneault Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client	Qamanittuaq Sana	Inspection Date	2020-01-17
Site	Amaruq	☐ Drill and Blast ☐ Foundation Prep. ☒ Rockfill Placement ☒ Sampling ☐ Compaction ☐ Secant Wall	☐ Expertise ☐ Vibration Monitoring ☒ Water Management ☒ Grout curtain ☐ Liner / Geotextile
Project	Whale Tail Dike		
Project Nº :	11204932-B1	☐ Other (specify):	

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-26 ˚C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 : T-641.5 ; T-635.5 ; T-725.5 ; S-686.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 batches have been tested.
- I've measured the total depth and the water depth of some boreholes
- A bagger got stock in the hole T-719.5. We weren't able to fully inject the grout for this hole.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Jean-Michel Royer (Print Name)

From : _____

Signature* : JMR

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-01-18
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☒ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dike	
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-26 ˚C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 : T-629.5 ; T-623.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 2 batches have been tested.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Jean-Michel Royer (Print Name)

From : _____

Signature* : JMR

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client	Qamanittuaq Sana
Site	Amaruq
Project	Whale Tail Dike
Project Nº :	11204932-B1
Inspection Date	2020-01-19

- ☐ **Drill and Blast**
- ☐ **Foundation Prep.**
- ☒ **Rockfill Placement**
- ☒ **Sampling**
- ☐ **Compaction**
- ☐ **Secant Wall**
- ☐ **Other (specify):**
- ☐ **Expertise**
- ☐ **Vibration Monitoring**
- ☒ **Water Management**
- ☒ **Grout curtain**
- ☐ **Liner / Geotextile**

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-20 ˚C

Field Results

- There was a blizzard, so no injection has been done.
- I've measured the depth of some holes in the afternoon
-

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Jean-Michel Royer (Print Name)

From : _____

Signature* : JMR

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-01-20
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☒ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dike	
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-22 °C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 : S-626.5
- Plug : T-593.5 ; T-569.5 ; P-560.5 ; S-554.5 ; P-548.5 ; T-533.5 B
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 batches have been tested.
- I've been measuring the depth of some hole and some inclinometer.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Jean-Michel Royer (Print Name)

From : _____

Signature* : JMR

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-01-21
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☒ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-32 °C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 : T-617.5 ; S-614.5 ; T-611.5 ; S-602.5 ; P-584.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 5 batches have been tested.
- I've been measuring the depth of some hole and some inclinometer.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Jean-Michel Royer (Print Name)

From : _____

Signature* : JMR

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-01-22
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☒ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-40 ˚C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 : P-572.5 ; S-602.5 (Regrout + backfill)
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 5 batches have been tested.
- I've been measuring the depth of some hole and some inclinometer.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Jean-Michel Royer (Print Name)

From : _____

Signature* : JMR

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-01-25
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-33 ˚C

Field Results

- Injection on the Whale Tail Dike ; P-524.5 (packer stay in the hole); P-512.5 and P-500.5
- No Backfill the P-524.5
- BackFill the P-512.5 and P-500.5

- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.

- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `Only 1 hole in AM because we don't have the water truck.
-

Follow up visit required: Yes ☒ No ☐

Site Representative :

Inspector : Jean-Philippe Boutin (Print Name)

From :

Signature* : JPBF

Project Manager : Daniel Pedneault, GHD

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-01-26
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-23 ˚C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; Only P-488.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `Only 1 injection, pipe maintenance all the day. (PIG)
-

Follow up visit required: Yes ☒ No ☐

Site Representative :

Inspector : Jean-Philippe Boutin (Print Name)

From :

Signature* : JPBF

Project Manager : Daniel Pedneault, GHD

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-01-27
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-28 ˚C

Field Results

- Injection on the Whale Tail Dike ; P-476.5 ; P-464.5 ; P-452,5 ; Plug T-461.6 ; Plug S-446.5 ; S-590.5 and S-578.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

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-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-01-29
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training **I SEE**: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	-20 °C

Field Results

- Injection on the Whale Tail Dike ; S-566.5 ; S-554.5 ; S-542.5 ; S-530.5 and S-524.5 (the hole is not finish)
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-01-31
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-20 ˚C

Field Results

- Injection on the Whale Tail Dike ; S-524.5 Regrout 1, the hole is not finished (need regrout no2)
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `No injection in the morning (No water in the injection unit)
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

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Daily Field Report

Client Groupe Gilbert – KCG	Inspection Date 2020-02-01
Site Amaruq	☐ **Drill and Blast** ☐ **Expertise**
Project Whale Tail Dike	☐ **Foundation Prep.** ☐ **Vibration Monitoring**
	☒ **Rockfill Placement** ☒ **Water Management**
	☒ **Sampling** ☐ **Grout curtain**
	☐ **Compaction** ☐ **Liner / Geotextile**
	☐ **Secant Wall**
Project Nº : 11204932-B1	☐ **Other (specify):**
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-28 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; P-524.5 (backfill) ; S-518.5 ; S-506.5 ; S-494.5 ; S-482.5 ; S-470.5 ; S-458.5 ; S-446.5 ; S-434.5 (Plug) and T-425.5 (Plug).
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

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-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client	Groupe Gilbert – KCG	Inspection Date 2020-02-02
Site	Amaruq	☐ Drill and Blast ☐ Expertise
Project	Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
		☒ Rockfill Placement ☒ Water Management
		☒ Sampling ☐ Grout curtain
		☐ Compaction ☐ Liner / Geotextile
		☐ Secant Wall
Project Nº :	11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-26 ˚C

Field Results

- Injection on the Whale Tail Dike ; S-422.5 Plug ; T-419.5 Plug ; S-416.5 plug ; T-413.5 plug ; S-410.5 plug ; T-407.5 plug ; P-404.5 plug ; T-401.5 plug ; S-398.5 plug ; T-395.5 plug and P-392.5 Plug.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client Groupe Gilbert – KCG	Inspection Date 2020-02-03
Site Amaruq	☐ Drill and Blast ☐ Expertise
Project Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-36 ˚C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; PLUG (T-389.5 ; S-386.5 ; T-383.5 ; P-380.5 ; P377.5 ; S-374.5 and T-371.5) STAGE 1 (T-605.5 ; T-599.5 ; T-593.5 ; T-587.5 and T-581.5)
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-02-04
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-35 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; T-575.5 ; T-569.5 ; T-563.5 ; T-557.5 ; T-551.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-02-05
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-38 ˚C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; T-545.5 ; T-539.5 and T-533.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-02-06
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-35 ˚C

Field Results

- Injection on the Whale Tail Dike ; P-428.5 ; P-416.5 ; P-404.5 ; P-392.5 ; P-380.5 and P-368.5 (PLUG)
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-02-09
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-23 ˚C

Field Results

- Injection on the Whale Tail Dike
- Plugs : T-329.5 ; S-326.5 ; T-323.5; P-320.5 ; T-317.5; S-314.5; T-311.5 ; P-308.5 ; T-305.5 ; S302.5 ; T-299.5 ; P-296.5 ; T-293.5 and T-290.5. A Total of 14 holes injected.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 2 series of tests have been tested from all the batches.
- Measured 16 additional holes depth and water depth.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Pierre Hourani (Print Name)

From : _____

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-02-10
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-43 ˚C

Field Results

- Injection on the Whale Tail Dike
- Plugs : T-287.5 ; P-284.5 ; T-281.5; S-278.5 ; T-275.5; P-272.5; T-269.5 ; S-266.5 ; T-263.5 ; P-260.5 ; T-257.5 ; S-254.5 and T-251.5. A Total of 13 holes injected.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 3 series of tests have been tested from all the batches.
- Measured 9 additional holes depth and water depth.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative :

Inspector : Pierre Hourani (Print Name)

From :

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-02-11
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project N° : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-63 °C

Field Results

- Injection on the Whale Tail Dike
- First stage injection : T-527.5; T-521.5 T-515.5; T-509.5; T-503.5. Total of 5 holes injected to final stage.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 series of tests have been tested from all the batches.
- Measured 7 additional holes depth and water depth.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Pierre Hourani (Print Name)

From : _____

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-02-12
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project N° : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-36 °C

Field Results

- Injection on the Whale Tail Dike
- Second stage injection: T-497.5; T-491.5; T-485.5; T-479.5 Total of 4 holes injected to final stage.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 series of tests have been tested from all the batches.
- Measured 5 additional holes depth and water depth.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Pierre Hourani (Print Name)

From : _____

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-02-13
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project N° : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-34 °C

Field Results

- Injection on the Whale Tail Dike
- Second stage injection: T-473.5; T-466.5; T-461.5; T-455.5; T-449.5 and T-443.5.Total of 6 holes injected to final stage.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 series of tests have been tested from all the batches.
- Measured 5 additional holes depth and water depth.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Pierre Hourani (Print Name)

From : _____

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

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Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-02-15
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project N° : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-34 °C

Field Results

- Generator still down, in fixing and replacement process ongoing, standby most of the day.
- Also took measurements of 5 casings for depth and water Level as a check for the secondary casings S-430.5 TO S-386.5

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Pierre Hourani (Print Name)

From : _____

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-02-16
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dike	
Project N° : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-38 °C

Field Results

- Injection on the Whale Tail Dike
- Secondary stage injection of secondary and Primary holes: S-434.5; S-422.5; S-410.5; S-398.5; S-386.5; P-368.5; P-356.5; P-344.5.Total of 8 holes injected to final stage.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 series of tests have been tested from all the batches.
- Measured 4 additional holes depth and water depth.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Pierre Hourani (Print Name)

From : _____

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-02-17
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project N° : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-33 °C

Field Results

- Injection on the Whale Tail Dike
- Secondary stage injection of Primary holes: P-332.5; P-320.5; P-308.5; P-296.5; P-284.5; P-272.5; A total of 6 holes injected to final stage.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 series of tests have been tested from all the batches.
- Measured 15 additional holes depth and water depth.

Corrective action to be taken:

- At the end of the day around 4:30pm the loader had a mechanical issue therefore the last Primary hole of P-260.5 was moved to complete the following day when loader is fixed.
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Pierre Hourani (Print Name)

From : _____ Signature* : PH

Project Manager : Daniel Pedneault Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-02-18
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project N° : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-33 °C

Field Results

- Injection on the Whale Tail Dike
- Secondary stage injection of Primary holes: P-260.5; P-248.5; T-245.5; S-242.5; T-239.5; P-236.5; and T-233.5. A total of 7 holes injected. 1 Primary and 6 plugs.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 2 series of tests have been tested from all the batches.
- Measured 12 additional holes depth and water depth and casing depth.

Corrective action to be taken:

- The loader had a mechanical issue in the morning with its hook therefore the last Primary hole of P-260.5 was the only hole that was able to be done in the morning. Work resumed normally in the afternoon.
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Pierre Hourani (Print Name)

From : _____ Signature* : PH

Project Manager : Daniel Pedneault Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-02-20
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dike	
Project N° : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-34 °C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 injection of Plugs holes: T-191.5; P-188.5; T-185.5; S-182.5; T-179.5; P-176.5. A total of 6 holes injected before noon. And in the afternoon, cleanup of the shack was done.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 1 series of tests have been tested from all the batches.
- Measured 8 additional holes depth and water depth.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Pierre Hourani (Print Name)

From : _____

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-02-22
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-33 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; T-437.5 ; T-431.5 ; T-425.5 ; T-419.5 ; T-413.5 and T-407.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client	Groupe Gilbert – KCG	Inspection Date	2020-02-23
Site	Amaruq	☐ Drill and Blast	☐ Expertise
Project	Whale Tail Dike	☐ Foundation Prep.	☐ Vibration Monitoring
		☒ Rockfill Placement	☒ Water Management
		☒ Sampling	☐ Grout curtain
		☐ Compaction	☐ Liner / Geotextile
		☐ Secant Wall	
Project Nº :	11204932-B1	☐ Other (specify):	

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-34 ˚C

Field Results

- Injection on the Whale Tail Dike ; T-401.5 ; T-395.5 ; T-389.5 ; T-383.5 ; S-374.5 and S-362.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

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-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-02-24
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-30 ˚C

Field Results

- Injection on the Whale Tail Dike ; S-350.5 ; S-338.5 ; S-326.5 ; S-314.5 ; S-302.5 and S-290.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

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-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-02-26
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-34 ˚C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; P-188.5 and P-176.5
- Vicat Mix B
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `Only 2 injections. (grout shack is down)
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-02-27
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-31 ˚C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; S-254.5 and S-242.5 in afternoon
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

- `no injection this morning because grout unit is down.
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-02-28
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-28 ˚C

Field Results

- Injection on the Whale Tail Dike ; S-230.5 ; S-218.5 ; S-206.5 and S-194.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-02-29
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-22 ˚C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; S-194.5 (Backfill) ; S-182.5 ; T-377.5 ; T-371.5 ; T-365.5 ; T-353.5 ; T-347.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-03-01
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-20 ˚C

Field Results

- Injection on the Whale Tail Dike ; T-341.5 ; T-329.5 ; T-323.5 ; T-317.5 ; T-311.5 ; T-305.5 and T-299.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-03-03
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-35 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; T-269.5 ; T-263.5 ; T-251.5 ; T-245.5 ; T-239.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-03-04
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-31 ˚C

Field Results

- Injection on the Whale Tail Dike ; T-233.5 ; T-227.5 ; T-221.5 and T-215.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-03-05
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-25 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; T-209.5 ; T-203.5 and T-197.5
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Daniel Pedneault, GHD Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-03-07
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dike	
Project N°: 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-42 °C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 injection of Tertiary Holes: T-191.5; P-188.5; T-185.5; S-182.5; T-179.5; A total of 4 holes were injected and backfilled
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 1 series of tests have been tested from all the batches.
- Measured 13 additional holes depth and water depth.

Corrective action to be taken:

Note: During the day around 9:00 am the Loader was down and went to be fixed and resumed to start work around 1:00pm

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Pierre Hourani (Print Name)

From : _____

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-03-08
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dike	
Project N° : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-42 °C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 injection of Quaternary Holes: Q-739; Q-736; Q-733; Q-718; Q-697; Q-694; Q-691; Q-688; Q-685 and Q-682. A total of 10 holes were injected As Plugs
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 1 series of tests have been tested from all the batches.
- Measured 15 additional holes depth and water depth.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Pierre Hourani (Print Name)

From : _____ Signature* : PH

Project Manager : Daniel Pedneault Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-03-09
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dike	
Project N°: 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-42 °C

Field Results

- Injection on the Whale Tail Dike
- Plug stage injection of Holes: Q-667; Q-664; Q-628; P-609.1; S-661; T-652; P-643; T-640. A total of 8 holes were injected As Plugs today.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 2 series of tests have been tested from all the batches.
- Measured 16 additional holes depth and water depth.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative :

Inspector : Pierre Hourani (Print Name)

From :

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-03-10
Site: Amaruq	☐ Drill and Blast ☐ Expertise ☐ Foundation Prep. ☐ Vibration Monitoring ☒ Rockfill Placement ☒ Water Management ☒ Sampling ☐ Grout curtain ☐ Compaction ☐ Liner / Geotextile ☐ Secant Wall
Project: Whale Tail Dike	
Project N°: 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-25 °C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 injection of Holes: Q-739; Q-733; Q-718; Q-697; Q-691; Q-685 grouted and Plug T-748. A total of 7 holes were injected today.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 series of tests have been tested from all the batches.
- Measured 14 additional holes depth and water depth.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Pierre Hourani (Print Name)

From : _____ Signature* : PH

Project Manager : Daniel Pedneault Time on site : 12h

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Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-03-11
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project N° : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-25 °C

Field Results

- Injection on the Whale Tail Dike
- Stage 1 injection of Holes: P-739; T-736; S-733; T-730; P-727; T-724; S-721; T-718; P-715; T-712; S-709; T-706; P-703; T-700. A total of 14 holes were injected today.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 series of tests have been tested from all the batches.
- Measured 23 additional holes depth and water depth.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Pierre Hourani (Print Name)

From : _____

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-03-12
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-39 ˚C

Field Results

- Injection on the Whale Tail Dike
- Plug stage injection of Holes: S-697; T-694; P-691; T-688; S-685; T-682; P-679; T-676; P-673; ; T-634; P-631; T-628 ; S-625. A total of 13 holes were injected today.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 4 series of tests have been tested from all the batches.
- Measured 22 additional holes depth and water depth.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Pierre Hourani (Print Name)

From : _____ Signature* : PH

Project Manager : Daniel Pedneault Time on site : 12h

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AGNICO EAGLE

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-03-13
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project N° : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-39 °C

Field Results

- Injection on the Whale Tail Dike
- Plug stage injection of Holes: T-622; P-619; T-610; P-607; T-604; P-595; T-592. A total of 7 holes were injected today.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 3 series of tests have been tested from all the batches.
- Measured 10 additional holes depth and water depth.

Corrective action to be taken:

Note: Due to water pump damage before noon and maintenance, work wasn't too steady and in the afternoon the water truck was late to fill up the water thank.

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Pierre Hourani (Print Name)

From : _____ Signature* : PH

Project Manager : Daniel Pedneault Time on site : 12h

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Daily Field Report

Client	Qamanittuaq Sana
Site	Amaruq
Project	Whale Tail Dike
Project N° :	11204932-B1
Inspection Date	2020-03-14

- ☐ **Drill and Blast**
- ☐ **Foundation Prep.**
- ☒ **Rockfill Placement**
- ☒ **Sampling**
- ☐ **Compaction**
- ☐ **Secant Wall**
- ☐ **Other (specify):**
- ☐ **Expertise**
- ☐ **Vibration Monitoring**
- ☒ **Water Management**
- ☐ **Grout curtain**
- ☐ **Liner / Geotextile**

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-39 °C

Field Results

- Injection on the Whale Tail Dike
- Plug stage injection of Holes: T-592; S-589; T-586; P-583; T-580. A total of 5 holes were injected today.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 2 series of tests have been tested from all the batches.
- Measured 5 additional holes depth and water depth.

Corrective action to be taken:

Note: Due to loader being down due to damage from 11 am till the end of the day the injection unit wasn't moved. Therefore the injection crew wasn't able to continue working and in the afternoon a blizzard started which slow down the whole work process anyways.

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Pierre Hourani (Print Name)

From : _____

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client	Qamanittuaq Sana
Site	Amaruq
Project	Whale Tail Dike
Project Nº :	11204932-B1
Inspection Date	2020-03-15

- ☐ **Drill and Blast**
- ☐ **Foundation Prep.**
- ☒ **Rockfill Placement**
- ☒ **Sampling**
- ☐ **Compaction**
- ☐ **Secant Wall**
- ☐ **Other (specify):**
- ☐ **Expertise**
- ☐ **Vibration Monitoring**
- ☒ **Water Management**
- ☐ **Grout curtain**
- ☐ **Liner / Geotextile**

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-17 ˚C

Field Results

- Injection on the Whale Tail Dike
- Plug stage injection of Holes: S-577; T-574; P-571; T-568; S-565; T-562; P-559; T-556; S-553; T-550; P-547; T-544; S-541. A total of 13 holes were Plug injected today.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 2 series of tests have been tested from all the batches.
- Measured 12 additional holes depth and water depth.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative : _____

Inspector : Pierre Hourani (Print Name)

From : _____

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Qamanittuaq Sana	Inspection Date: 2020-03-16
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-27 ˚C

Field Results

- Injection on the Whale Tail Dike
- Plug stage injection of Holes: T-538; P-535; T-532; S-529; T-526; Q-526; Q-523; S-517; P-511; S-506. A total of 10 holes were Plug injected today.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 3 series of tests have been tested from all the batches.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Pierre Hourani (Print Name)

From : _____ Signature* : PH

Project Manager : Daniel Pedneault Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client	Qamanittuaq Sana
Site	Amaruq
Project	Whale Tail Dike
Project N° :	11204932-B1
Inspection Date	2020-03-17

- ☐ **Drill and Blast**
- ☐ **Foundation Prep.**
- ☒ **Rockfill Placement**
- ☒ **Sampling**
- ☐ **Compaction**
- ☐ **Secant Wall**
- ☐ **Other (specify):**
- ☐ **Expertise**
- ☐ **Vibration Monitoring**
- ☒ **Water Management**
- ☐ **Grout curtain**
- ☐ **Liner / Geotextile**

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-27 °C

Field Results

- Injection on the Whale Tail Dike
- Plug stage injection of Holes: P-499; S-493; P-487; Q-481; Q-478; Q-295; Q-293; Q-223; Q-220; Q-199; Q-197; Q-193. A total of 12 holes were Plug injected today.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 3 series of tests have been tested from all the batches.
- Measured 10 additional holes for depth and water level.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative :

Inspector : Pierre Hourani (Print Name)

From :

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client	Qamanittuaq Sana
Site	Amaruq
Project	Whale Tail Dike
Project N° :	11204932-B1

Inspection Date 2020-03-18

- ☐ **Drill and Blast**
- ☐ **Foundation Prep.**
- ☒ **Rockfill Placement**
- ☒ **Sampling**
- ☐ **Compaction**
- ☐ **Secant Wall**
- ☐ **Other (specify):**
- ☐ **Expertise**
- ☐ **Vibration Monitoring**
- ☒ **Water Management**
- ☐ **Grout curtain**
- ☐ **Liner / Geotextile**

I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training

I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF

-37 °C

Field Results

- Injection on the Whale Tail Dike
- Plug stage injection of Holes: S-601; T-598; S-613; T-616; S-637; T-646; S649. A total of 7 holes were Plug injected today. Slow day due to loader bucket frozen and non-operating for several hours.
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout.
- Overall, 2 series of tests have been tested from all the batches.
- Measured 7 additional holes for depth and water level.

Corrective action to be taken:

Follow up visit required: Yes ☒ No ☐

Site Representative :

Inspector : Pierre Hourani (Print Name)

From :

Signature* : PH

Project Manager : Daniel Pedneault

Time on site : 12h

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Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-03-21
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-10 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; Upstream : T-664 (plug) ; T-658 (plug) ; T-742 (plug) and S-745 (plug).
- Downstream : Q-736 ; Q-694 and Q-688
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

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-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Marc-Olivier Parent Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-03-22
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-10 °C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; Q-682 ; Q-667 and Q-628
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

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-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Marc-Olivier Parent Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-03-23
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training	-20 ˚C
I SEE: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	

Field Results

- Injection on the Whale Tail Dike ; Downstream : P-609.1 ; Q-526 and Q-481
- Upstream : P-739
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

-
-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Marc-Olivier Parent Time on site : 12h

* *By signing this form I acknowledge that I have consulted the appropriate JSEA for the current project and I am in compliance with the JSEA procedures for this site at this time.*

Daily Field Report

Client: Groupe Gilbert – KCG	Inspection Date: 2020-03-24
Site: Amaruq	☐ Drill and Blast ☐ Expertise
Project: Whale Tail Dike	☐ Foundation Prep. ☐ Vibration Monitoring
	☒ Rockfill Placement ☒ Water Management
	☒ Sampling ☐ Grout curtain
	☐ Compaction ☐ Liner / Geotextile
	☐ Secant Wall
Project Nº : 11204932-B1	☐ Other (specify):
I HAVE: ☒ my JSEAs ☒ my PPE ☒ Proper Training **I SEE**: ☐ Unexpected Hazards **I NEED**: ☐ an S-RAF	-25 °C

Field Results

- Injection on the Whale Tail Dike ; Downstream : P-727 ; P-715 ; P-703 and P-691
- Checking injection, Marsh test, gravity test, bleeding and check the temperature of the grout are done every 5 batches.
- All the measurements (casings lengths, waters, stick-up and rocks) have been take and compare to the Qc program or Grout curtain register and the workers work with the injection directive sheet prepared every day by the assistant project manager.

Corrective action to be taken:

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-

Follow up visit required: Yes ☒ No ☐

Site Representative : _____ Inspector : Jean-Philippe Boutin (Print Name)

From : _____ Signature* : JPBF

Project Manager : Marc-Olivier Parent Time on site : 12h

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