Sewage Disposal Update:
Sumps for Sewage Outfalls at CAM-3, FOX-3, DYE-M, and BAF-3

Licensee: Department of National Defence (DND),
Government of Canada

Licenses, Locations, & Monitoring Station #s:

Licence	Location	Monitoring Station # (Final Discharge Point from the Sewage Disposal Facility)
3BC-SHE0919 Type "B"	CAM-3 North Warning System Site, Shepherd Bay, Kitikmeot Region, Nunavut	SHE-2
3BC-FOD0919 Type "B"	FOX-3 North Warning System Site, Dewar Lakes, Qikiqtani Region, Nunavut	FOD-2
3BC-DYE0919 Type "B"	DYE-M North Warning System Site, Cape Dyer, Qikiqtani Region, Nunavut	DYE-2
3BC-BAF0919 Type "B"	BAF-3 North Warning System Site, Brevoort Island, Qikiqtani Region, Nunavut	BAF-2

Update prepared by: Nasittuq Corporation

Date: 28 January 2010

Background

The current methodology of pumping untreated waste water directly onto the tundra is not acceptable to the authority having jurisdiction, the Nunavut Water Board (NWB), and does not meet the conditions of the revised water licenses issued by the NWB in September 2009 for CAM-3, FOX-3, DYE-M, and BAF-3. The revised licenses require all effluent from the current Sewage Disposal Facility be disposed to a sump which is defined as "an excavation for the purpose of catching or storing liquids such as greywater with the water draining to the soil". Further, the sump must be located at least 31 meters above the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible, and no additional impacts are created. The revised licenses require a "Sewage Disposal Update" be submitted to the NWB for approval. The update must include the dimensions and capacity of the sump "to be located at the sewage outfall".

After being informed that the current situation of discharging untreated waste water directly onto the tundra was unacceptable to the NWB, Nasittuq proposes to build sumps at CAM-3, FOX-3, DYE-M, and BAF-3 to satisfy the requirements of the water licenses.

The Statement of Work below covers the construction and maintenance of sumps at CAM-3, FOX-3, DYE-M, and BAF-3.

Statement of Work

CAM-3

Construct a sump from native material at the outfall of Train A sewage discharge piping. Native material consists of coarse aggregate (medium rock/boulder down to sand). The area is un-surveyed. It consists of uneven terrain generally sloping away from the outfall piping. The sump shall be located at a minimum distance of thirty-one (31) meters above the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created. Attached sketch **SK-01 CAM-3 Topographic Site Map** shows the topography of the site and the location of the sump in relation to water bodies.

Level the construction area to the extent possible by subsurface conditions. The uphill portion of the sump should blend into the natural angle of the native slope. Deposit native material around the construction area perimeter to create a berm. Use native material from the surrounding area as required to construct a berm to the height indicated in the attached sketch **SK-02 CAM-3 Sewage Outfall Sump Plan and Sections**. The bottom of the sump should maintain the existing natural grade. Scarify and line the bottom of the sump with rip-rap sized 10 cm and under.

Compact the berm in layers no greater than 0.3 meter thickness. The berm shall be circular and measure 3 meters in diameter and be of sufficient height to contain approximately 2.5 meters^3 of effluent in the sump. Repair or replace damaged sections of sewage outfall piping. Refer to attached sketch **SK-02**.

The sump shall be constructed and in use no later than August 31, 2010. Photos of completed sump and outfall system will be forwarded to NWB upon project completion.

The sump will be revaluated after one year of use in order to ensure that it has sufficient capacity to handle the quantity of effluent produced at the site. If it is determined that the sump is undersized, it will be appropriately altered to increase capacity. Additionally, regular maintenance will be performed to the sump in order to empty out built up sludge as necessary in order to maintain capacity. Sludge will be deposited in an approved landfill site.

FOX-3

Construct a sump from native material at the outfall of Train A sewage discharge piping. Native material consists of coarse aggregate (medium rock/boulder down to sand). The area is un-surveyed. It consists of uneven terrain generally sloping away from the outfall piping. The sump shall be located at a minimum distance of thirty-one (31) meters above the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created. Attached sketch **SK-05 FOX-3 Topographic Site Map** shows the topography of the site and the location of the sump in relation to water bodies.

Level the construction area to the extent possible by subsurface conditions. The uphill portion of the sump should blend into the natural angle of the native slope. Deposit native material around the construction area perimeter to create a berm. Use native material from the surrounding area as required to construct a berm to the height indicated in the attached sketch **SK-06 FOX-3 Sewage Outfall Sump Plan and Sections**. The bottom of the sump should maintain the existing natural grade. Scarify and line the bottom of the sump with rip-rap sized 10 cm and under.

Compact the berm in layers no greater than 0.3 meter thickness. The berm shall be circular and measure 3 meters in diameter and be of sufficient height to contain approximately 2.5 meters^3 of effluent in the sump. Repair or replace damaged sections of sewage outfall piping. Refer to attached sketch **SK-06**.

The sump shall be constructed and in use no later than August 31, 2010. Photos of completed sump and outfall system will be forwarded to NWB upon project completion.

The sump will be revaluated after one year of use in order to ensure that it has sufficient capacity to handle the quantity of effluent produced at the site. If it is determined that the sump is undersized, it will be appropriately altered to increase capacity. Additionally, regular maintenance will be performed to the sump in order to empty out built up sludge as necessary in order to maintain capacity. Sludge will be deposited in an approved landfill site.

DYE-M

Construct sumps from native material at the outfall of the sewage discharge piping for Train A and Train B. Native material consists of coarse aggregate (rock/boulder down to sand). The area is un-surveyed. It consists of uneven terrain generally sloping away from the outfall piping. The sumps shall be located at a minimum distance of thirty-one (31) meters above the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created. Attached sketch **SK-03 DYE-M Topographic Site Map** shows the topography of the site and the location of the sump in relation to water bodies.

Level the construction area to the extent possible by subsurface conditions. The uphill portion of the sumps should blend into the natural angle of the native slope. Deposit native material around the construction area perimeter to create a berm. Use native material from the surrounding area as required to construct a berm to the height indicated in the attached sketch **SK-04 DYE-M Sewage Outfall Sump Plan and Sections**. The bottom of the sumps should maintain the existing natural grade. Scarify and line the bottom of the sumps with rip-rap sized 10 cm and under.

Compact the berms in layers no greater than 0.3 meter thickness. The berms shall be circular and measure 3 meters in diameter and be of sufficient height to contain approximately 2.5 meters^3 of effluent in the sumps. Repair or replace damaged sections of sewage outfall piping. Refer to attached sketch **SK-04**.

Sumps shall be constructed and in use no later than August 31, 2010. Photos of completed sump and outfall system will be forwarded to NWB upon project completion.

Sumps will be revaluated after one year of use in order to ensure that they have sufficient capacity to handle the quantity of effluent produced at the site. If it is determined that the sumps are undersized, they will be appropriately altered to increase capacity. Additionally, regular maintenance will be performed to the sumps in order to empty out built up sludge as necessary in order to maintain capacity. Sludge will be deposited in an approved landfill site.

BAF-3

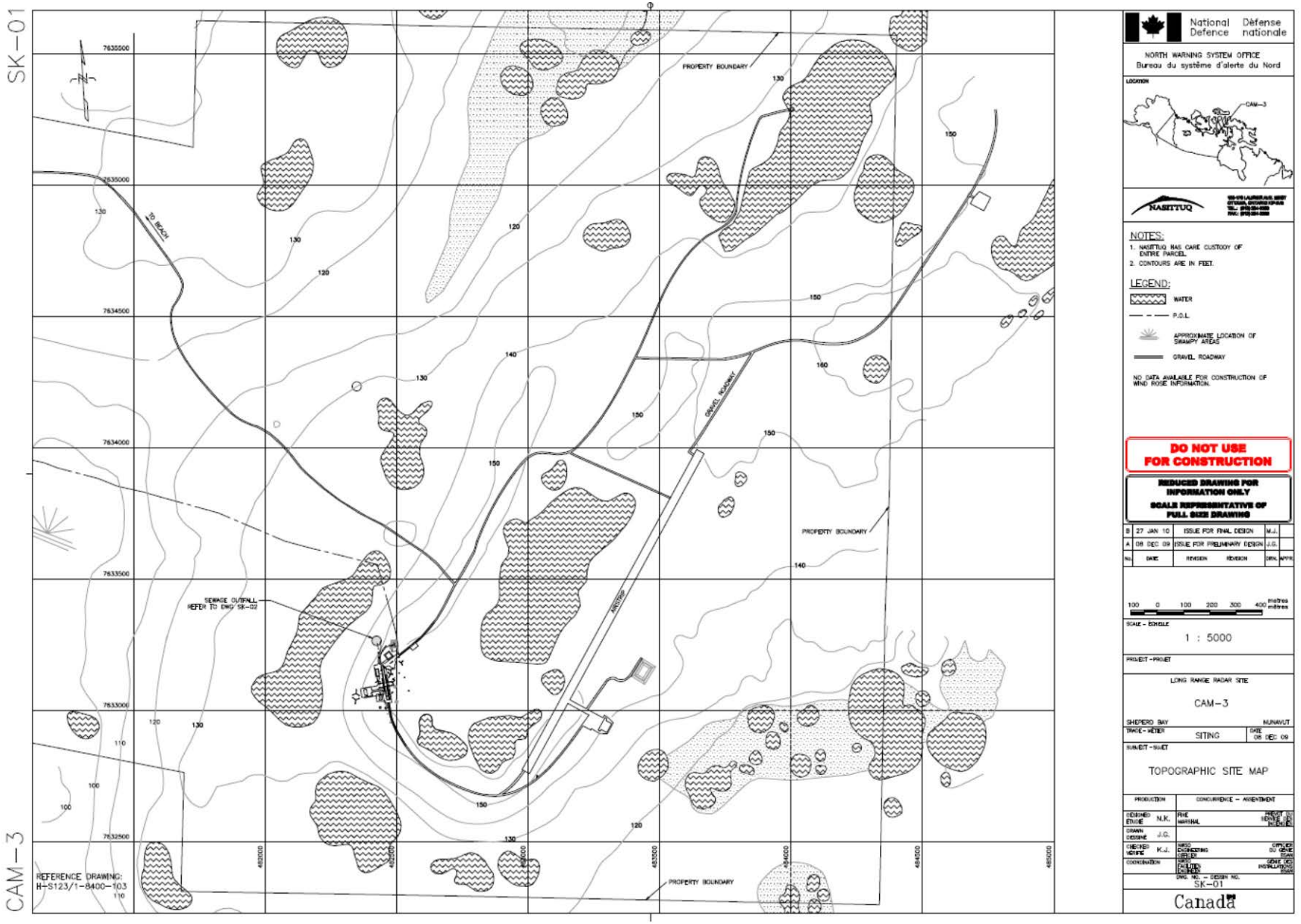
Construct a sump from native material at the outfall of the Accommodations Module sewage discharge piping. Native material consists of coarse aggregate (medium rock/boulder down to sand). The area is un-surveyed. It consists of uneven rocky terrain generally sloping away from the outfall piping. The sump shall be located at a minimum distance of thirty-one (31) meters above the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created. Attached sketch **SK-07 BAF-3 Topographic Site Map** shows the topography of the site and the location of the sump in relation to water bodies.

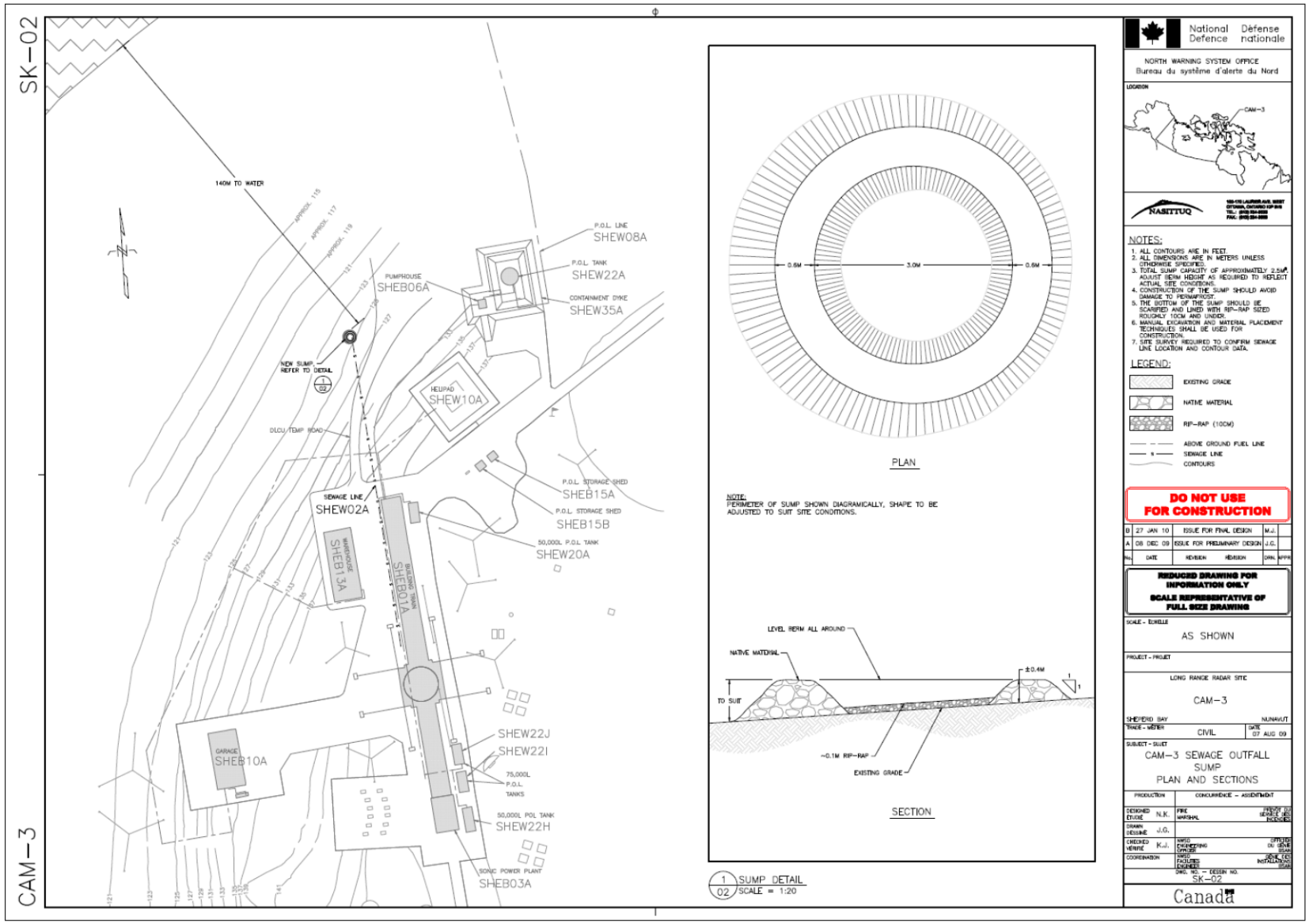
Level the construction area to the extent possible by subsurface conditions. The uphill portion of the sump should blend into the natural angle of the native slope. Deposit native material around the construction area perimeter to create a berm. Use native material from the surrounding area as required to construct a berm to the height indicated in the attached sketch **SK-08 BAF-3 Sewage Outfall Sump Plan and Sections**. The bottom of the sump should maintain the existing natural grade. Scarify and line the bottom of the sump with rip-rap sized 10 cm and under.

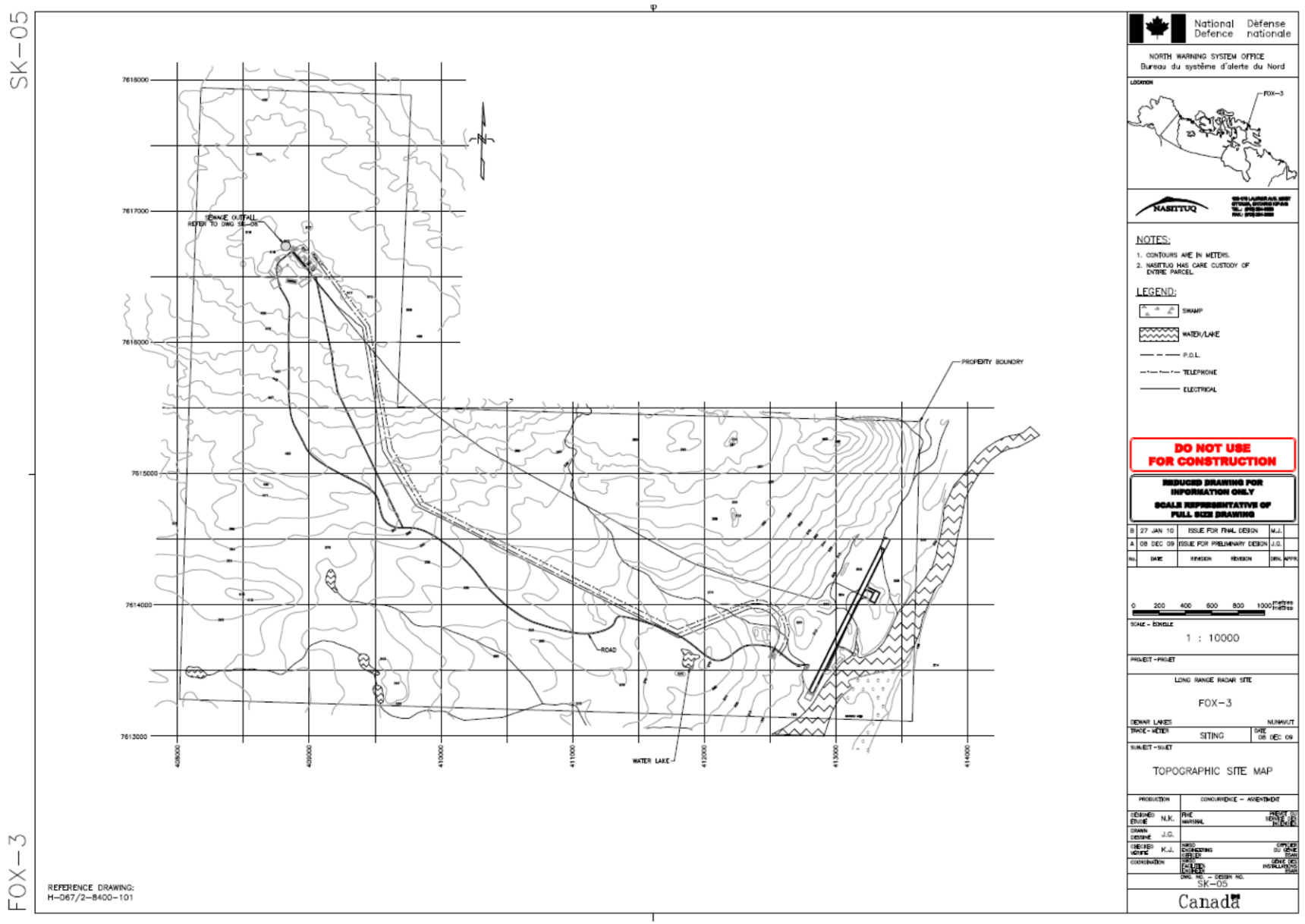
Compact the berm in layers no greater than 0.3 meter thickness. The berm shall be semi-circular and located approximately 2 meters from the sewage discharge. The berm shall be of sufficient height to contain approximately 2.5 meters^3 of effluent in the sump. Repair or replace damaged sections of sewage outfall piping. Refer to attached sketch **SK-08**.

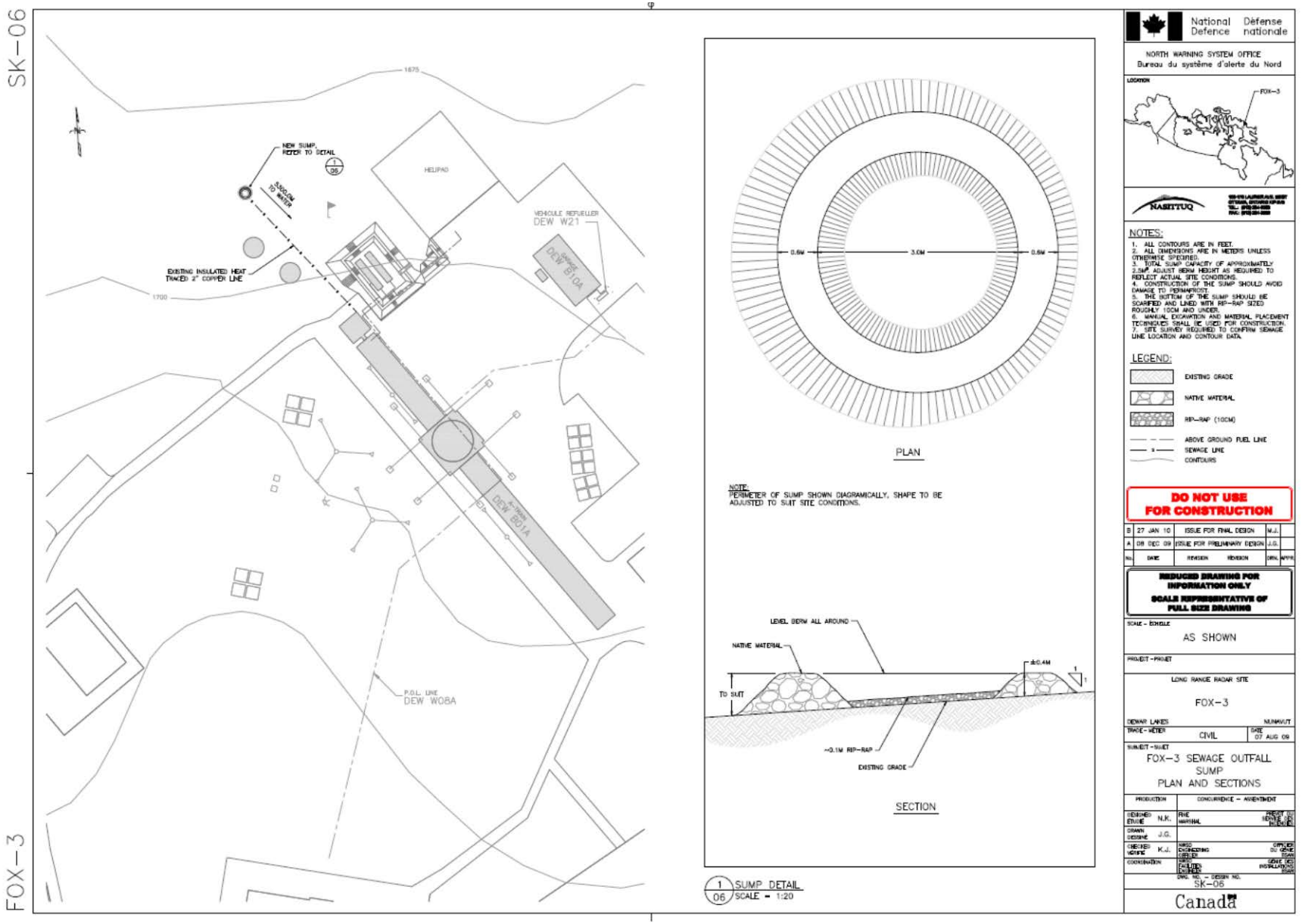
The sump shall be constructed and in use no later than August 31, 2010. Photos of completed sump and outfall system will be forwarded to NWB upon project completion.

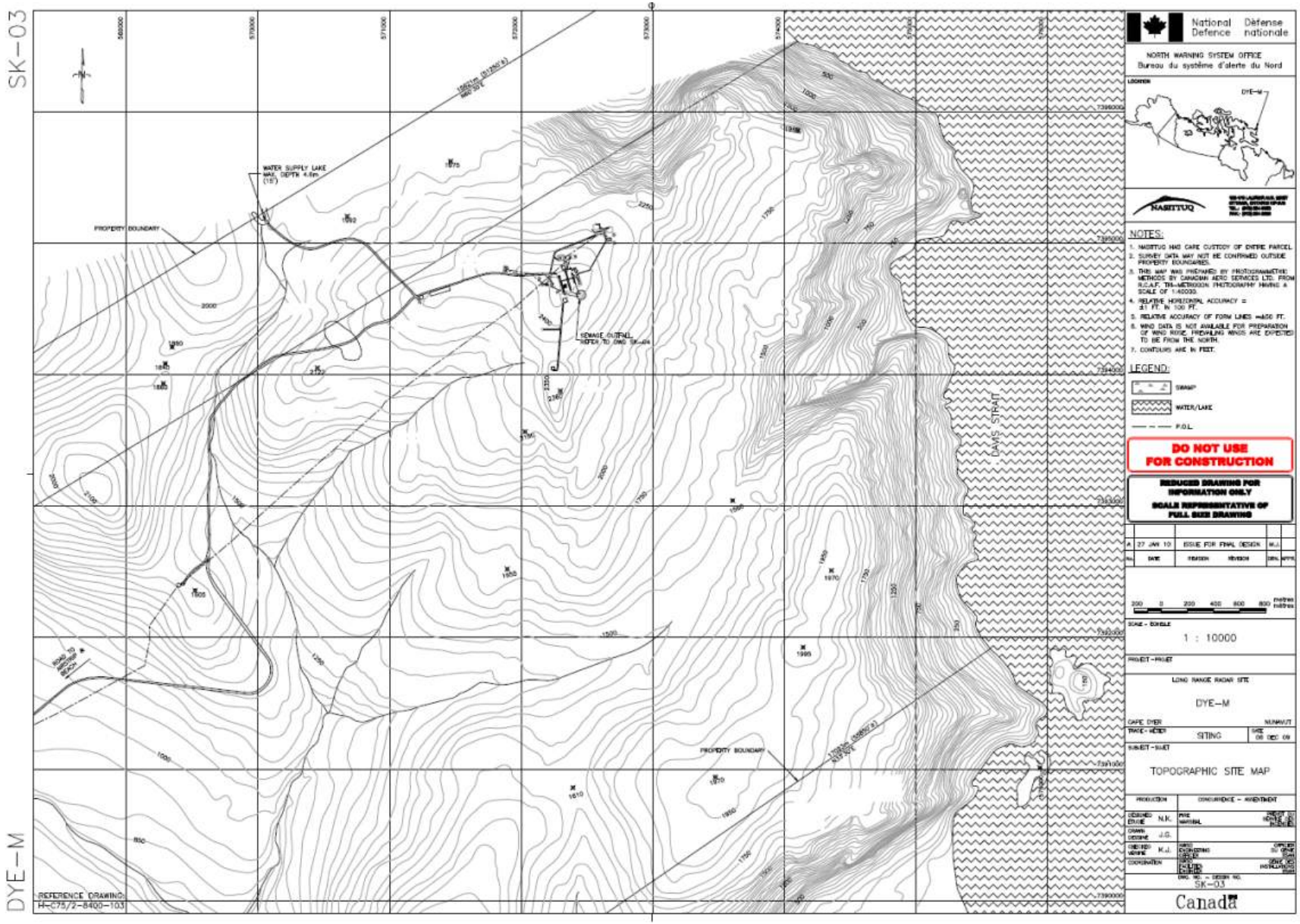
The sump will be revaluated after one year of use in order to ensure that it has sufficient capacity to handle the quantity of effluent produced at the site. If it is determined that the sump is undersized, it will be appropriately altered to increase capacity. Additionally, regular maintenance will be performed to the sump in order to empty out built up sludge as necessary in order to maintain capacity. Sludge will be deposited in an approved landfill site.

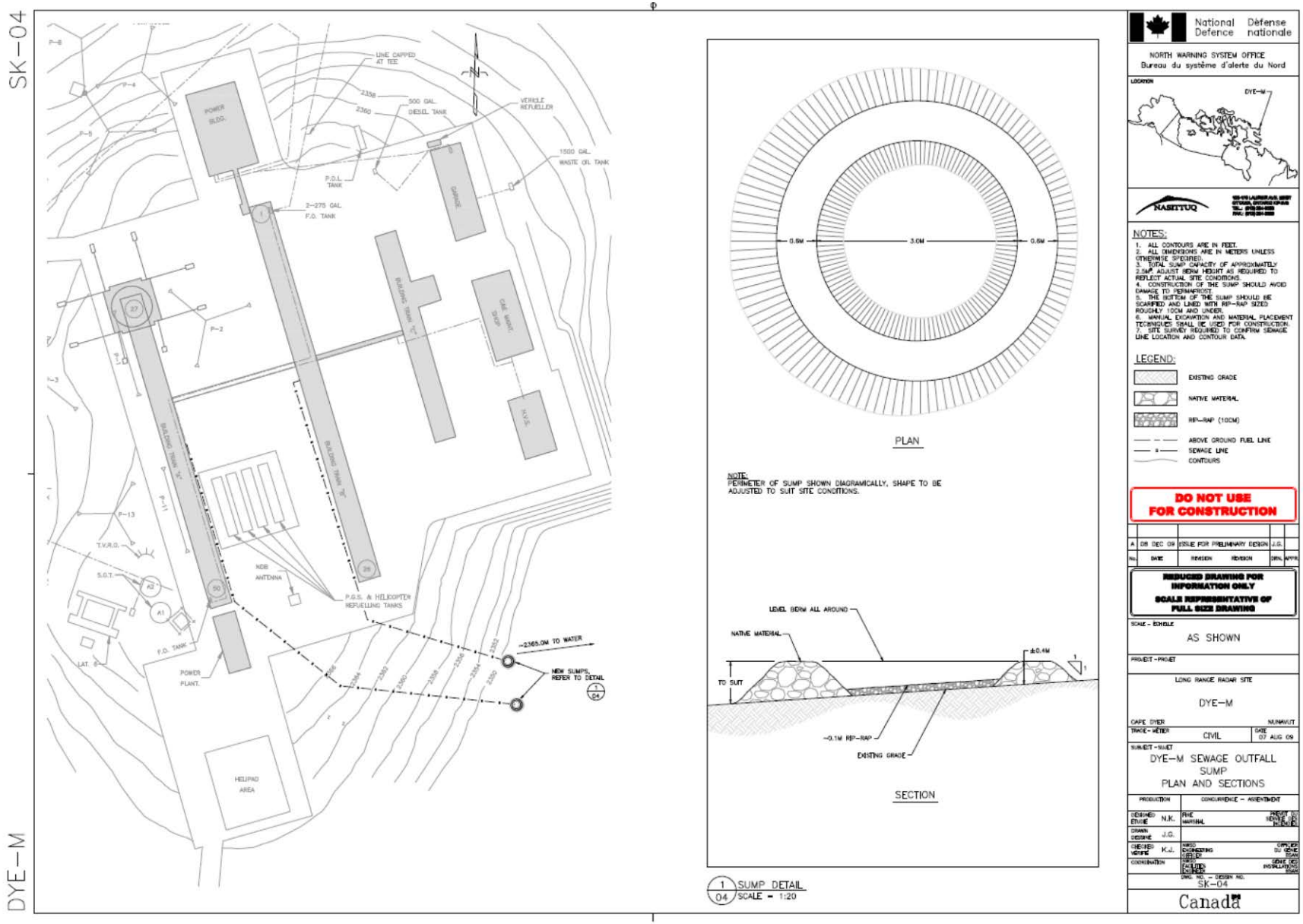

SK-01
CAM-3
PROPERTY BOUNDARY
TO BEACH
GRAVEL ROADWAY
AIRSTRIP
SEWAGE OUTFALL
REFER TO DWG SK-02
REFERENCE DRAWING:
H-S123/1-8400-103
National Defence
Défense nationale
NORTH WARNING SYSTEM OFFICE
Bureau du système d'alerte du Nord
NOTES:
1. NASITTUQ HAS CARE CUSTODY OF ENTIRE PARCEL.
2. CONTOURS ARE IN FEET.
LEGEND:
WATER
P.O.L.
APPROXIMATE LOCATION OF SWAMPY AREAS
GRAVEL ROADWAY
NO DATA AVAILABLE FOR CONSTRUCTION OF WIND ROSE INFORMATION.
DO NOT USE FOR CONSTRUCTION
REDUCED DRAWING FOR INFORMATION ONLY
SCALE REPRESENTATIVE OF FULL SIZE DRAWING
B 27 JAN 10 ISSUE FOR FINAL DESIGN M.J.
A 08 DEC 09 ISSUE FOR PRELIMINARY DESIGN J.G.
100 0 100 200 300 400 metres mètres
1 : 5000
LONG RANGE RADAR SITE
CAM-3
SHEPERD BAY NUNAVUT
SITING 08 DEC 09
TOPOGRAPHIC SITE MAP
DESIGNED N.K.
DRAWN J.G.
CHECKED K.J.
SK-01
Canada

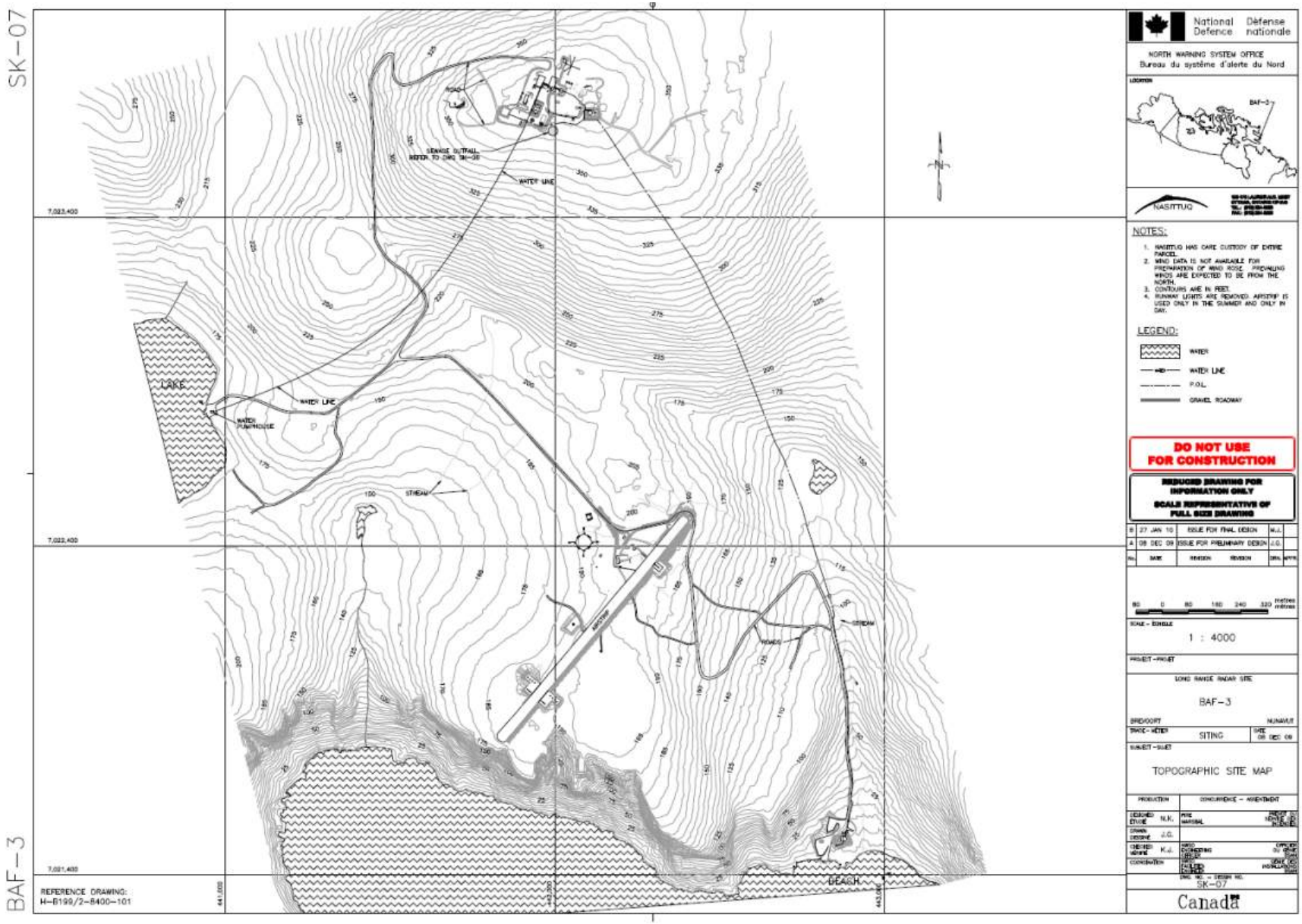

SK-02
CAM-3
140M TO WATER
NEW SUMP - REFER TO DETAIL
SEWAGE LINE SHEW02A
P.O.L. LINE SHEW08A
P.O.L. TANK SHEW22A
CONTAINMENT DYKE SHEW35A
PUMPHOUSE SHEB06A
HELIPAD SHEW10A
DLCU / TEMP ROAD
P.O.L. STORAGE SHED SHEB15A
P.O.L. STORAGE SHED SHEB15B
50,000L P.O.L. TANK SHEW20A
WAREHOUSE SHEB13A
BUILDING TRAIN SHEB01A
GARAGE SHEB10A
SHEW22J
SHEW22I
75,000L P.O.L. TANKS
50,000L POL TANK SHEW22H
SONIC POWER PLANT SHEB03A
PLAN
NOTE:
PERIMETER OF SUMP SHOWN DIAGRAMICALLY, SHAPE TO BE ADJUSTED TO SUIT SITE CONDITIONS.
LEVEL BERM ALL AROUND
NATIVE MATERIAL
TO SUIT
±0.4M
~0.1M RIP-RAP
EXISTING GRADE
SECTION
1/02 SUMP DETAIL
SCALE = 1:20
National Defence / Défense nationale
NORTH WARNING SYSTEM OFFICE
Bureau du système d'alerte du Nord
LOCATION
CAM-3
NASITTUQ
NOTES:
1. ALL CONTOURS ARE IN FEET.
2. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
3. TOTAL SUMP CAPACITY OF APPROXIMATELY 2.5M³. ADJUST BERM HEIGHT AS REQUIRED TO REFLECT ACTUAL SITE CONDITIONS.
4. CONSTRUCTION OF THE SUMP SHOULD AVOID DAMAGE TO PERMAFROST.
5. THE BOTTOM OF THE SUMP SHOULD BE SCARIFIED AND LINED WITH RIP-RAP SIZED ROUGHLY 10CM AND UNDER.
6. MANUAL EXCAVATION AND MATERIAL PLACEMENT TECHNIQUES SHALL BE USED FOR CONSTRUCTION.
7. SITE SURVEY REQUIRED TO CONFIRM SEWAGE LINE LOCATION AND CONTOUR DATA.
LEGEND:
EXISTING GRADE
NATIVE MATERIAL
RIP-RAP (10CM)
ABOVE GROUND FUEL LINE
SEWAGE LINE
CONTOURS
DO NOT USE FOR CONSTRUCTION
B 27 JAN 10 ISSUE FOR FINAL DESIGN M.J.
A 08 DEC 09 ISSUE FOR PRELIMINARY DESIGN J.G.
REDUCED DRAWING FOR INFORMATION ONLY
SCALE REPRESENTATIVE OF FULL SIZE DRAWING
SCALE - ECHELLE
AS SHOWN
PROJECT - PROJET
LONG RANGE RADAR SITE
CAM-3
SHEPERD BAY NUNAVUT
TRADE - METIER CIVIL DATE 07 AUG 09
SUBJECT - SUJET
CAM-3 SEWAGE OUTFALL SUMP PLAN AND SECTIONS
DESIGNED N.K.
DRAWN J.G.
CHECKED K.J.
DWG. NO. - DESSIN NO. SK-02
Canada

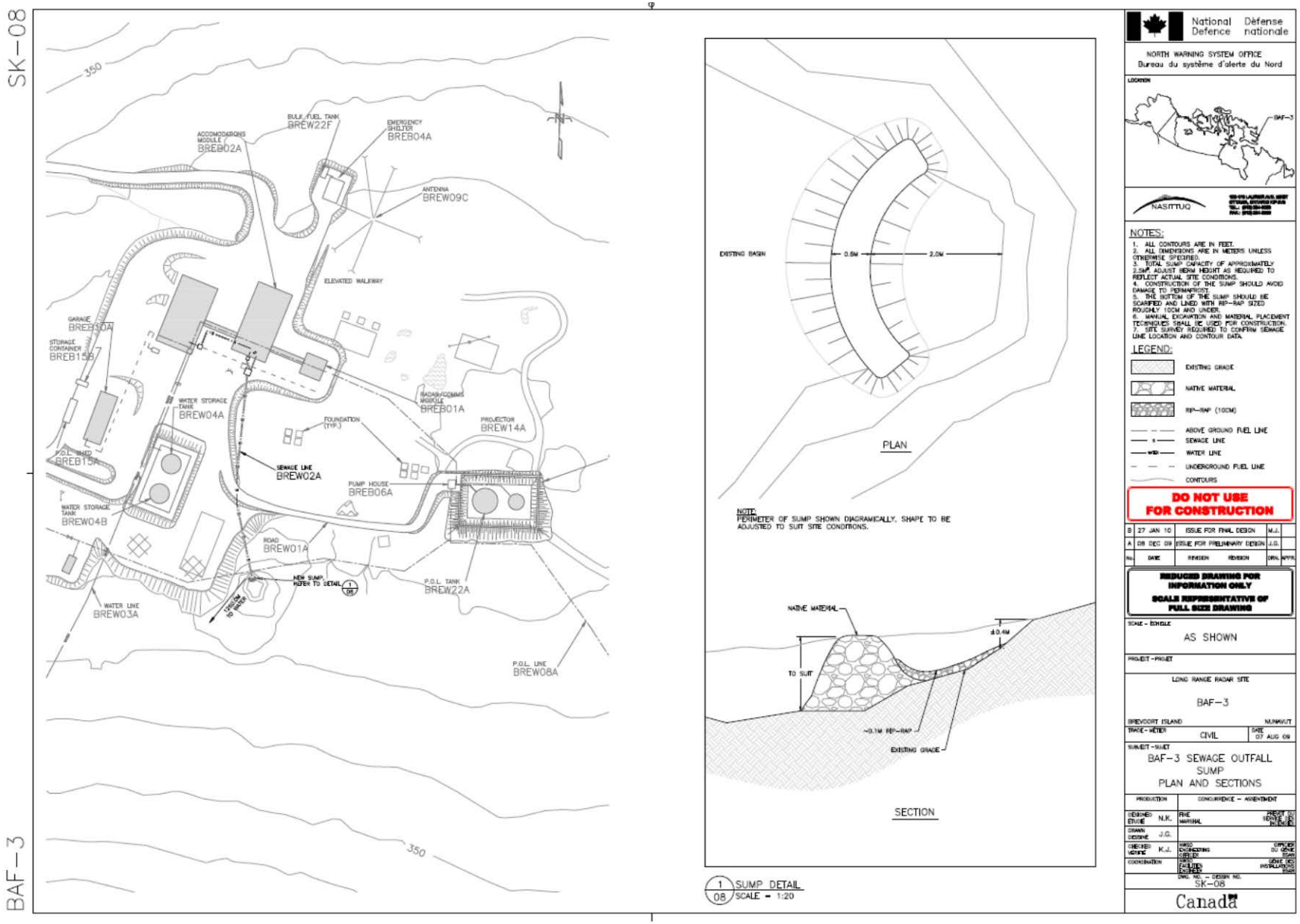

SK-05
FOX-3
7618000
7617000
7616000
7615000
7614000
7613000
428000
429000
410000
411000
412000
413000
414000
SEWAGE OUTFALL
REFER TO DWG SK-05
PROPERTY BOUNDRY
ROAD
WATER LAKE
REFERENCE DRAWING:
H-067/2-8400-101
National Defence
Défense nationale
NORTH WARNING SYSTEM OFFICE
Bureau du système d'alerte du Nord
LOCATION
FOX-3
NASITTUQ
NOTES:
1. CONTOURS ARE IN METERS.
2. NASITTUQ HAS CARE CUSTODY OF ENTIRE PARCEL
LEGEND:
SWAMP
WATER/LAKE
P.O.L.
TELEPHONE
ELECTRICAL
DO NOT USE FOR CONSTRUCTION
REDUCED DRAWING FOR INFORMATION ONLY
SCALE REPRESENTATIVE OF FULL SIZE DRAWING
B 27 JAN 10 ISSUE FOR FINAL DESIGN M.J.
A 08 DEC 09 ISSUE FOR PRELIMINARY DESIGN J.G.
0 200 400 600 800 1000 metres
SCALE - ECHELLE
1 : 10000
LONG RANGE RADAR SITE
FOX-3
DEWAR LAKES NUNAVUT
TRADE - MÉTIER SITING
DATE 08 DEC 09
TOPOGRAPHIC SITE MAP
PRODUCTION
CONCURRENCE - ASSENTIMENT
DESIGNED N.K.
DRAWN J.G.
CHECKED K.J.
DWG. NO. - DESIGN NO.
SK-05
Canada


SK-06
FOX-3
NEW SUMP, REFER TO DETAIL
SUCTION TO WATER
EXISTING INSULATED HEAT TRACED 2" COPPER LINE
HELIPAD
VEHICULE REFUELLER
DEW W21
SUMP DEW B10A
DEW B01A
P.O.L. LINE DEW W08A
PLAN
NOTE:
PERIMETER OF SUMP SHOWN DIAGRAMICALLY, SHAPE TO BE ADJUSTED TO SUIT SITE CONDITIONS.
LEVEL BERM ALL AROUND
NATIVE MATERIAL
TO SUIT
±0.4M
~0.1M RIP-RAP
EXISTING GRADE
SECTION
1 SUMP DETAIL
06 SCALE = 1:20
National Defence
Défense nationale
NORTH WARNING SYSTEM OFFICE
Bureau du système d'alerte du Nord
LOCATION
FOX-3
NASITTUQ
NOTES:
1. ALL CONTOURS ARE IN FEET.
2. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
3. TOTAL SUMP CAPACITY OF APPROXIMATELY 2.5M³. ADJUST BERM HEIGHT AS REQUIRED TO REFLECT ACTUAL SITE CONDITIONS.
4. CONSTRUCTION OF THE SUMP SHOULD AVOID DAMAGE TO PERMAFROST.
5. THE BOTTOM OF THE SUMP SHOULD BE SCARIFIED AND LINED WITH RIP-RAP SIZED ROUGHLY 10CM AND UNDER.
6. MANUAL EXCAVATION AND MATERIAL PLACEMENT TECHNIQUES SHALL BE USED FOR CONSTRUCTION.
7. SITE SURVEY REQUIRED TO CONFIRM SEWAGE LINE LOCATION AND CONTOUR DATA.
LEGEND:
EXISTING GRADE
NATIVE MATERIAL
RIP-RAP (10CM)
ABOVE GROUND FUEL LINE
SEWAGE LINE
CONTOURS
DO NOT USE FOR CONSTRUCTION
B 27 JAN 10 ISSUE FOR FINAL DESIGN M.J.
A 08 DEC 09 ISSUE FOR PRELIMINARY DESIGN J.G.
REDUCED DRAWING FOR INFORMATION ONLY
SCALE REPRESENTATIVE OF FULL SIZE DRAWING
SCALE - ECHELLE
AS SHOWN
PROJECT - PROJET
LONG RANGE RADAR SITE
FOX-3
DEWAR LAKES NUNAVUT
TRADE - METIER CIVIL
DATE 07 AUG 09
SUBJECT - SUJET
FOX-3 SEWAGE OUTFALL SUMP PLAN AND SECTIONS
PRODUCTION
CONCURRENCE - ASSENTIMENT
(DESIGNED) ETUDIE N.K.
DRAWN DESSINE J.G.
(CHECKED) VERIFIE K.J.
COORDINATION
DWG. NO. - DESSIN NO.
SK-06
Canada


SK-03
DYE-M
WATER SUPPLY LAKE
MAX. DEPTH 4.6m
(15')
PROPERTY BOUNDARY
SEWAGE OUTFALL
REFER TO DWG SK-04
DAVIS STRAIT
PROPERTY BOUNDARY
REFERENCE DRAWING:
H-C75/2-8400-103
National Defence
Défense nationale
NORTH WARNING SYSTEM OFFICE
Bureau du système d'alerte du Nord
LOCATION
DYE-M
NASITTUQ
NOTES:
1. NASITTUQ HAS CARE CUSTODY OF ENTIRE PARCEL.
2. SURVEY DATA MAY NOT BE CONFIRMED OUTSIDE PROPERTY BOUNDARIES.
3. THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS BY CANADIAN AERO SERVICES LTD. FROM R.C.A.F. TRI-METROGON PHOTOGRAPHY HAVING A SCALE OF 1:40000.
4. RELATIVE HORIZONTAL ACCURACY = ±1 FT. IN 100 FT.
5. RELATIVE ACCURACY OF FORM LINES =±50 FT.
6. WIND DATA IS NOT AVAILABLE FOR PREPARATION OF WIND ROSE. PREVAILING WINDS ARE EXPECTED TO BE FROM THE NORTH.
7. CONTOURS ARE in FEET.
LEGEND:
SWAMP
WATER/LAKE
P.O.L.
DO NOT USE FOR CONSTRUCTION
REDUCED DRAWING FOR INFORMATION ONLY
SCALE REPRESENTATIVE OF FULL SIZE DRAWING
A 27 JAN 10 ISSUE FOR FINAL DESIGN
1 : 10000
LONG RANGE RADAR SITE
DYE-M
CAPE DYER NUNAVUT
SITING
TOPOGRAPHIC SITE MAP
SK-03
Canada


SK-04
DYE-M
LINE CAPPED AT TEE
500 GAL. DIESEL TANK
VEHICLE REFUELLER
1500 GAL. WASTE OIL TANK
2-275 GAL. F.O. TANK
POWER BLDG.
GARAGE
BUILDING TRAIN "C"
CAC MAINT. SHOP
H.V.S.
NDB ANTENNA
P.G.S. & HELICOPTER REFUELLING TANKS
~2365.0M TO WATER
NEW SUMPS, REFER TO DETAIL 1/04
F.O. TANK
POWER PLANT
HELIPAD AREA
PLAN
NOTE:
PERIMETER OF SUMP SHOWN DIAGRAMICALLY, SHAPE TO BE ADJUSTED TO SUIT SITE CONDITIONS.
0.6M
3.0M
0.6M
LEVEL BERM ALL AROUND
NATIVE MATERIAL
TO SUIT
±0.4M
~0.1M RIP-RAP
EXISTING GRADE
SECTION
1/04 SUMP DETAIL
SCALE - 1:20
National Defence
Défense nationale
NORTH WARNING SYSTEM OFFICE
Bureau du système d'alerte du Nord
LOCATION
DYE-M
NASITTUQ
NOTES:
1. ALL CONTOURS ARE IN FEET.
2. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
3. TOTAL SUMP CAPACITY OF APPROXIMATELY 2.5M³. ADJUST BERM HEIGHT AS REQUIRED TO REFLECT ACTUAL SITE CONDITIONS.
4. CONSTRUCTION OF THE SUMP SHOULD AVOID DAMAGE TO PERMAFROST.
5. THE BOTTOM OF THE SUMP SHOULD BE SCARIFIED AND LINED WITH RIP-RAP SIZED ROUGHLY 10CM AND UNDER.
6. MANUAL EXCAVATION AND MATERIAL PLACEMENT TECHNIQUES SHALL BE USED FOR CONSTRUCTION.
7. SITE SURVEY REQUIRED TO CONFIRM SEWAGE LINE LOCATION AND CONTOUR DATA.
LEGEND:
EXISTING GRADE
NATIVE MATERIAL
RIP-RAP (10CM)
ABOVE GROUND FUEL LINE
SEWAGE LINE
CONTOURS
DO NOT USE FOR CONSTRUCTION
A 08 DEC 09 ISSUE FOR PRELIMINARY DESIGN J.G.
REDUCED DRAWING FOR INFORMATION ONLY
SCALE REPRESENTATIVE OF FULL SIZE DRAWING
SCALE - ECHELLE
AS SHOWN
PROJECT - PROJET
LONG RANGE RADAR SITE
DYE-M
CAPE DYER
NUNAVUT
TRADE - METIER
CIVIL
DATE
07 AUG 09
SUBJECT - SUJET
DYE-M SEWAGE OUTFALL SUMP
PLAN AND SECTIONS
PRODUCTION
CONCURRENCE - ASSENTIMENT
DESIGNED ETUDIE N.K.
DRAWN DESSINE J.G.
CHECKED VERIFIE K.J.
CONFIRMATION
DWG. NO. - DESSIN NO.
SK-04
Canada


SK-07
BAF-3
LAKE
WATER LINE
WATER PUMPHOUSE
SEWAGE OUTFALL
REFER TO DWG SK-08
STREAM
BEACH
REFERENCE DRAWING:
H-8199/2-8400-101
National Defence
Défense nationale
NORTH WARNING SYSTEM OFFICE
Bureau du système d'alerte du Nord
NASITTUQ
NOTES:
1. NASITTUQ HAS CARE CUSTODY OF ENTIRE PARCEL.
2. WIND DATA IS NOT AVAILABLE FOR PREPARATION OF WIND ROSE. PREVAILING WINDS ARE EXPECTED TO BE FROM THE NORTH.
3. CONTOURS ARE IN FEET.
4. RUNWAY LIGHTS ARE REMOVED. AIRSTRIP IS USED ONLY IN THE SUMMER AND ONLY IN DAY.
LEGEND:
WATER
WATER LINE
P.O.L.
GRAVEL ROADWAY
DO NOT USE FOR CONSTRUCTION
REDUCED DRAWING FOR INFORMATION ONLY
SCALE REPRESENTATIVE OF FULL SIZE DRAWING
B 27 JAN 10 ISSUE FOR FINAL DESIGN
A 08 DEC 09 ISSUE FOR PRELIMINARY DESIGN
1 : 4000
LONG RANGE RADAR SITE
BAF-3
BREVOORT
NUNAVUT
SITING
08 DEC 09
TOPOGRAPHIC SITE MAP
SK-07
Canada


SK-08
BAF-3
350
BULK FUEL TANK
BREW22F
EMERGENCY SHELTER
BREB04A
ACCOMODATIONS MODULE
BREB02A
ANTENNA
BREW09C
ELEVATED WALKWAY
GARAGE
BREB10A
STORAGE CONTAINER
BREB15B
WATER STORAGE TANK
BREW04A
FOUNDATION (TYP.)
RADAR/COMMS MODULE
BREB01A
PROJECTOR
BREW14A
P.O.L. SHED
BREB15A
SEWAGE LINE
BREW02A
PUMP HOUSE
BREB06A
WATER STORAGE TANK
BREW04B
ROAD
BREW01A
NEW SUMP, REFER TO DETAIL 1/08
P.O.L. TANK
BREW22A
WATER LINE
BREW03A
P.O.L. LINE
BREW08A
EXISTING BASIN
0.6M
2.0M
PLAN
NOTE:
PERIMETER OF SUMP SHOWN DIAGRAMICALLY, SHAPE TO BE ADJUSTED TO SUIT SITE CONDITIONS.
NATIVE MATERIAL
±0.4M
TO SUIT
~0.1M RIP-RAP
EXISTING GRADE
SECTION
1/08 SUMP DETAIL
SCALE = 1:20
National Defence
Défense nationale
NORTH WARNING SYSTEM OFFICE
Bureau du système d'alerte du Nord
LOCATION
BAF-3
NASITTUQ
NOTES:
1. ALL CONTOURS ARE IN FEET.
2. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
3. TOTAL SUMP CAPACITY OF APPROXIMATELY 2.5M³. ADJUST BERM HEIGHT AS REQUIRED TO REFLECT ACTUAL SITE CONDITIONS.
4. CONSTRUCTION OF THE SUMP SHOULD AVOID DAMAGE TO PERMAFROST.
5. THE BOTTOM OF THE SUMP SHOULD BE SCARIFIED AND LINED WITH RIP-RAP SIZED ROUGHLY 10CM AND UNDER.
6. MANUAL EXCAVATION AND MATERIAL PLACEMENT TECHNIQUES SHALL BE USED FOR CONSTRUCTION.
7. SITE SURVEY REQUIRED TO CONFIRM SEWAGE LINE LOCATION AND CONTOUR DATA.
LEGEND:
EXISTING GRADE
NATIVE MATERIAL
RIP-RAP (10CM)
ABOVE GROUND FUEL LINE
SEWAGE LINE
WATER LINE
UNDERGROUND FUEL LINE
CONTOURS
DO NOT USE FOR CONSTRUCTION
B 27 JAN 10 ISSUE FOR FINAL DESIGN M.J.
A 08 DEC 09 ISSUE FOR PRELIMINARY DESIGN J.G.
No. DATE REVISION REVISION DRN. APPR.
REDUCED DRAWING FOR INFORMATION ONLY
SCALE REPRESENTATIVE OF FULL SIZE DRAWING
SCALE - ECHELLE
AS SHOWN
PROJECT - PROJET
LONG RANGE RADAR SITE
BAF-3
BREVOORT ISLAND NUNAVUT
TRADE - METIER CIVIL DATE 07 AUG 09
SUBJECT - SUJET
BAF-3 SEWAGE OUTFALL SUMP
PLAN AND SECTIONS
PRODUCTION CONCURRENCE - ASSENTIMENT
DESIGNED - ETUDIE N.K.
DRAWN - DESSINE J.G.
CHECKED - VERIFIE K.J.
COORDINATION
DWG. NO. - DESSIN NO.
SK-08
Canada