NORTHERN DYNASTY MINES INC.
PEBBLE PROJECT
Application for Water Right

North Fork Koktuli River

INSTRUCTION #5 – *Attach sketch, photos, plans of water system, or project description (if applicable).*

BRIEF PROJECT DESCRIPTION

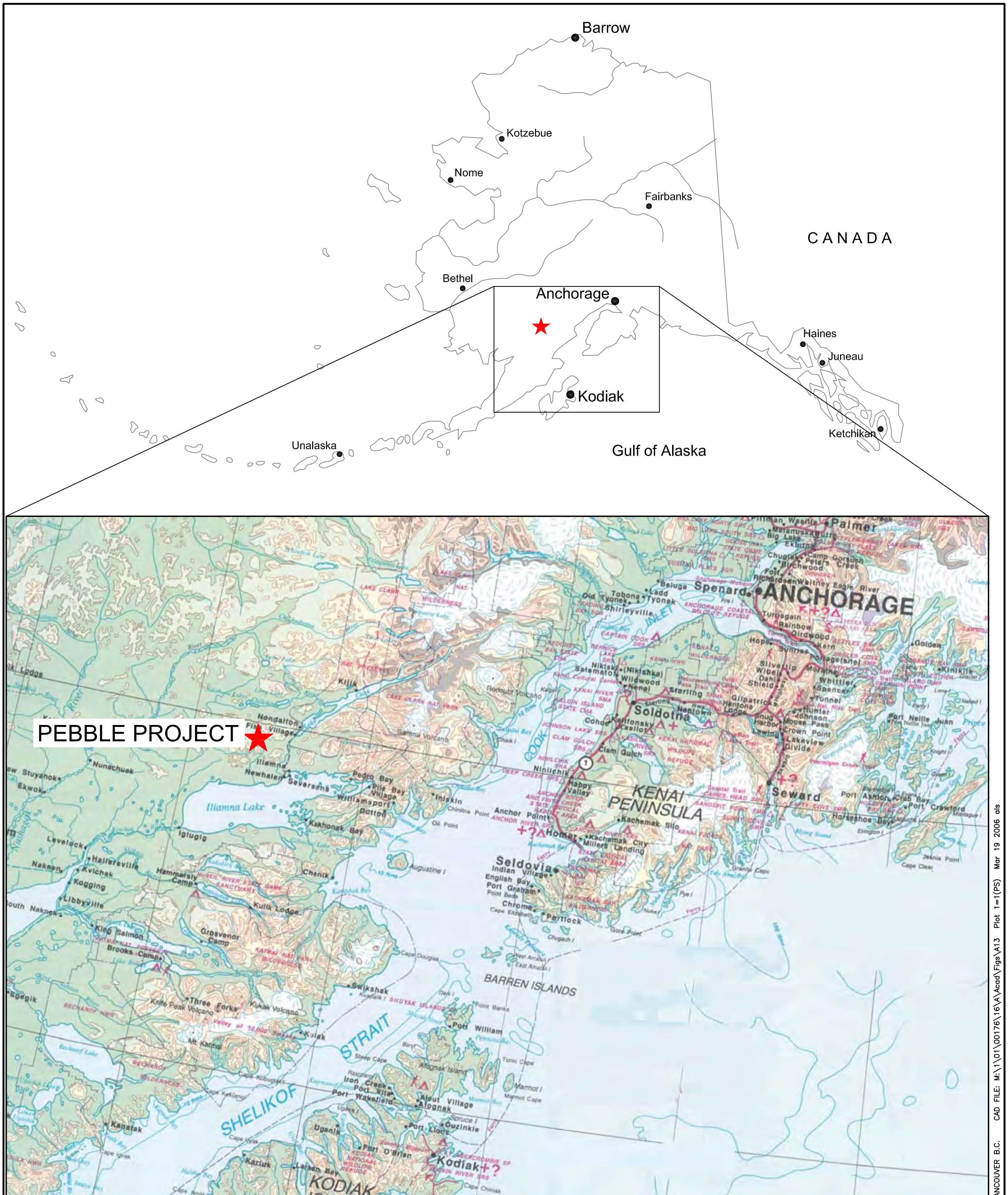
The Pebble Project will be a large open pit mine located 17 miles northwest of the community of Iliamna, on the north side of Lake Iliamna (Figure 1.1). Primary mine area facilities will consist of the open pit, ore conveyor, ore stockpile, a mill site (with associated offices, workshops, equipment repair and storage areas), tailing storage facilities, and a worker camp. Transportation facilities will include a mine area road network, and an approximately 100-mile road to a port facility on Cook Inlet. The primary port site facilities will include metal concentrates storage, fuel storage, a ship loading structure, barge landing, offices and worker housing.

DESCRIPTION OF IMPOUNDMENT FACILITIES

Following is a report describing the impoundment facilities that would be constructed and operated within the South Fork Koktuli River Drainage. This report contains the information required by 11 AAC 93.040(c)(8), more specifically:

> "a description of any impoundment, diversion, or withdrawal structures, including dimensions, construction materials, plans and specifications, and operation plans, and an application to construct or modify a dam, as defined in AS 46.17.900, if 11 AAC 93.171 requires an application;"

Specifically with respect to an application to construct and modify a dam, 11 AAC 93.040(c)(8) requires a person to submit an application to construct a dam if 11 AAC 93.171 requires an application. 11 AAC 93.171(a) requires a person to apply for a certificate of approval from the department prior to constructing a dam. As discussed herein, NDM is not prepared to construct a dam at the present time. Specific design and engineering information sufficient to begin construction of a dam is not available and will not be completed until NDM determines, through its continued exploration activities, the extent of the project. Thus, at the present time, NDM can not, and is not required to, submit an application to construct a dam. Once NDM develops the necessary information, such application will be submitted.



NORTHERN DYNASTY MINES INC.

PEBBLE PROJECT

PROJECT LOCATION

Knight Piésold CONSULTING

PROJECT/ASSIGNMENT NO.	REF. NO.
VA101-176/16	4

FIGURE 1.1 REV. 0

REV. 0	19MAY'06	ISSUED FOR INFORMATION

VANCOUVER B.C. CAD FILE: M:\1\01\00176\16\A\Acad\Figs\A13 Plot 1=1(PS) Mar 19 2006 ols

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NORTHERN DYNASTY MINES INC.
PEBBLE PROJECT

FACILITIES DESCRIPTION IN SUPPORT OF A WATER RIGHTS APPLICATION

NORTH FORK KOKTULI RIVER

(REF. NO. VA101-00176/16-4)

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FIGURES

SECTION 1.0 - INTRODUCTION

1.1 GENERAL

The Pebble Project is a proposed mining development of a large copper-gold-molybdenum deposit located in the Bristol Bay region of Southwestern Alaska. The Pebble Project property is centered at latitude 59° 53' 54" and longitude 155°17'44", approximately 238 mi southwest of Anchorage and 17 mi northwest of the Village of Iliamna. The project location is shown on Figure 1.1.

The deposit is situated on a drainage divide, with the Upper Talarik River draining to the east and south, and the North Fork and South Fork Koktuli rivers draining to the west and southwest, respectively. The mining of the ore deposit would result in an open pit mine located at the headwaters of the South Fork Koktuli Watershed and the Upper Talarik Watershed. The mine waste (tailings and waste rock) would be stored in two Tailings Storage Facilities (TSF) located in the South Fork Koktuli Watershed (TSF at Site A) and the North Fork Koktuli Watershed (TSF at Site G). A regional site plan of the watersheds for the respective water use facilities is shown on Figure 1.2.

1.2 SCOPE OF REPORT

The scope of this report is to provide details of the TSF at Site G, located west of the open pit in the North Fork Koktuli Watershed, in support of the Water Rights Application Process. The TSF located at Site G, and the water extraction limit for the North Fork Koktuli River, are shown on Figure 1.3. The TSF at Site G has been developed to provide additional storage capacity to the TSF at Site A, located south of the open pit in the South Fork Koktuli Watershed. The storage capacity of the TSF at Site A has been maximized, providing the storage requirements for approximately 2 billion tons of tailings. Ongoing exploration continues to expand the deposit and the tailings storage requirments. The TSF at Site G would be modified to provide the additional storage capacity to the TSF at Site A, to be consistent with the ultimate Mine Plan. The design of the TSF at Site G is a work in progress, and the technical details contained within this report are preliminary.

The design of the TSF at Site G is integrated with the overall water management objectives in that disturbed surface runoff within the water extraction limit of the North Fork Koktuli Watershed is controlled, collected and contained on site, in an environmentally responsible manner. The water appropriated from upstream of the water extraction limit will be used for the following mining processes and beneficial uses:

- To provide water required for the mining process in addition to the water provided from the TSF at Site A (mine haul road dust suppression, equipment cooling, mill process, tailings slurry transport, concentrate slurry transport, etc).
- To ensure that there is sufficient water available in the system to offset the water that is lost to evaporation and sublimation, and the water that is permanently retained in the tailings voids.
- To ensure that annual and seasonal fluctuations in the tailings pond do not impact the mining process.

- To protect the downstream aquatic resources by:
  - o Submerging the potentially reactive waste materials deposited in the TSF to prevent oxidation and the potential development of acid drainage.
  - o Promoting the saturation and/or flooding of tailings solids to prevent dust generation.
  - o Controlling sediment.
  - o Capturing and re-using process water that comes into contact with mineralized rock to ensure that the quality of the water for downstream fish and aquatic habitat is not adversely impacted by the mining operations.

The TSF located at Site G, and the water extraction limit for the North Fork Koktuli River, are shown on Figure 1.3.

SECTION 2.0 TAILINGS STORAGE FACILITY

2.1 TAILINGS STORAGE FACILITY DESIGN AND OPERATION

2.1.1 General

The principal objectives of the design and operation of the TSF are to provide secure containment for tailings solids, potentially reactive waste rock and impounded process water. The design and operation of the TSF at Site G is integrated with the overall water management objectives for the entire mine development, in that surface runoff from disturbed catchment areas is controlled, collected and contained on site. An additional requirement for the TSF is to allow effective reclamation of the tailings impoundment and associated disturbed areas at closure to meet land use objectives.

The TSF at Site G has been designed to store approximately 500 million tons of tailings, potentially reactive waste rock, as well as mill process water, site runoff and the Probable Maximum Flood (PMF) event, in conformance with the Alaska Dam Safety Guidelines.

The tailings are the by-product of processing the Pebble Project ore. The flotation mill process will create two separate tailings streams; a bulk tailings stream (approximately 97% of the total tailings stream) and a pyritic tailings stream (approximately 3% of the total tailings stream). The bulk tailings, which testwork has shown to be non-reactive, will be discharged from delivery pipelines located along the embankment crests and adjacent high ground to facilitate beach development and separate the supernatant pond from the embankments. The pyritic tailings, which will be potentially reactive (i.e., potentially acid generating if allowed to oxidize), will be deposited below ponded water to prevent oxidation.

Waste rock will be extracted from the open pit in addition to the ore. Some of this waste is unmineralized rock or low grade rock adjacent to the ore, the remainder is material mined to maintain a safe geometry in the open pit mine. Testwork has shown that some of this waste rock will be non-reactive, while the remainder will be potentially reactive. The non-reactive waste will be used for construction purposes at the site, particularly the construction of the TSF impoundment structures. The potentially reactive waste rock will be encapsulated within the tailings mass to prevent oxidation and acid generation.

The PMF is the flow resulting from the most severe combination of Probable Maximum Precipitation (PMP) and basin hydrogeological conditions. The PMP is the precipitation which results from the worst possible metrological conditions. The PMF is a purely hypothetical event that is sufficiently large to ensure that it is never exceeded, yet at the same time not so excessively large that design requirements are unnecessarily conservative.

The preliminary level design of the TSF has taken into account the following requirements:

- Permanent, secure and total confinement of both tailings streams and the potentially reactive waste rock within an engineered disposal facility.
- Control, collection and removal of water from the TSF during operations for recycling as process water to the maximum practical extent.
- Minimizing seepage from the facility and providing seepage collection and recovery from the impoundment structures.
- Diversion of undisturbed surface runoff from areas upstream of the TSF.
- Inclusion of monitoring features for all aspects of the facility to monitor embankment stability and ensure the design criteria are met.

2.1.2 Tailings Storage Facility Components

The TSF at Site G will ultimately include a main earthfill/rockfill embankent at the north end of the facility and an earthfill/ rockfill saddle dam along the ridge between the north and south Fork Koktuli Watersheds, at the south end of the facility. The saddle dam will be constructed in the latter stages of the facility life as the embankment continues to increase in height during ongoing staged expansion. The objective of this saddle dam is to prevent water from the TSF at Site G from entering the South Fork Koktuli Watershed. The design also includes allowances for wave run-up, contingent freeboard and ice.

The TSF embankments will be raised in stages, with each stage providing the required capacity for that particular period until the next stage is completed. The highest section of the final main embankment for the TSF at Site G will be approximately 450 ft (137 m) high. The final length of the main embankment will be approximately 7,800 ft (2,377 m) long, with the final facility covering approximately 3.6 mi^2 (9.3m km).

The general arrangement of the final TSF is shown on Figure 2.1. A typical embankment section throught the Main Embankment is shown on Figure 2.2.

The main components of the TSF are as follows:

- **Face Liner - HDPE Geomembrane Liner**
  A synthetic High Density Polyethylene (HDPE) geomembrane liner will be included along the upstream face of the initial embankment to control embankment seepage prior to the development of low permeability tailings beaches. The liner will tie into a grout curtain or low permeability silts or silty glacial till materials at the base of the embankment. The 80 mil thick HDPE liner will be placed on low permeability core zone material (Zone S) which serves as a bedding layer for the liner and provides an

added level of seepage control as the combined HDPE liner and Zone S material behaves as a compound liner. The HDPE liner will not be required once the low permeability tailings beaches have been developed and the supernatant pond is maintained in the center portion of the facility away from the embankments.

- **Core Zone/ Low Permeability Blanket - Zone S**

  The core zone/ low permeability till blanket (Zone S) will be constructed with low permeability glacial till. The core zone combined with the HDPE liner will behave as a compound liner and serve as the primary seepage control zone for the initial embankment stages, until tailings beaches are established for additional seepage control. The core zone will provide the primary embankment seepage control feature (along with the tailings) for the upper section of the embankments. This material will also be used to provide a low permeability till blanket beneath the downstream shell zone of the embankments to collect rainfall that percolates through the shell zone materials. The foundation will be graded such that infiltration reports to the downstream seepage collection sumps for recycle back to the TSF.

- **Transition Zone - Zone F/T**

  The filter and transition zones (Zone F/T) will be incorporated to ensure internal stability between embankment zones and will act to prevent the migration of fines from the core zone into the adjacent pervious shell zone materials. The transition zone will comprise both a specified sand filter adjacent to the core zone and a coarser gravelly sand transition zone between the filter sand and the downstream shell zone (C1).

- **Shell Zone - Zone C1(NR)**

  The downstream shell zone (C1), adjacent to the transition zone, and the upstream shell zone (C1), adjacent to the core zone, will be constructed in controlled compacted layers comprising well graded non-reactive waste rock and overburden from the open pit.

- **Shell Zone – Zone C2(NR)**

  The downstream shell zone (C2), downstream of shell zone (C1), will be constructed with similar to Zone C1, but will typically incorporate non-reactive coarse rockfill material from the open pit.

- **Seepage Cutoff Measures**

  Embankments will be keyed into low permeability foundation materials or a grout curtain through underlying bedrock if low permeability foundation materials do not exist, to reduce seepage from the TSF.

- **Embankment Toe Drain**

  A toe drain will be constructed within the transition zone (Zone F/T), in the upstream toe of the embankment to capture potential seepage through or beneath the grout curtain and to enhance the stability of the embankments. The toe drain will drain into the seepage collection sumps for recycle back to the TSF.

- **Longitudinal Drain**

  A longitudinal drain will be installed within the upper sections of the Main Embankment once the tailings beach is developed and the HDPE liner is no longer required to form a compound liner system with the core zone (Zone S). The longitudinal drain will collect seepage from the upper portions of the embankment and will drain into the seepage collection sump located at the eastern abutment prior to recycle back to the TSF.

- **Seepage Collection Sumps**

  The seepage collection sumps will be located at the downstream toe of the embankments. The sumps will collect water from the embankment toe drain systems and from the low permeability till blanket (Zone S) at the Main Embankment. The sump located on the Main abutment will collect water from the embankment longitudinal drain. Drainage collected in the seepage collection **sumps will be pumped back to the TSF.**

- **Groundwater Monitoring Wells**

  Groundwater monitoring wells will be installed downstream of all embankments to provide on-going groundwater quality data.

2.1.3 Foundation Preparation

All organics and overburden from below the upstream zones of the embankments will be stripped and excavated to bedrock. The organics and overburden will be stockpiled for future reclamation. The stripping and overburden excavation will result in a large cut off trench. Grout will be injected into the underlying bedrock to form a seepage control curtain. A secondary trench, perpendicular to the embankment axes, will be excavated to allow seepage collected in the upstream toe drains to flow by gravity to the sumps located outside the final downstream embankment toe.

2.2 TAILINGS PHYSICAL PROPERTIES

The tailings particle size distribution test results indicate that the bulk tailings are uniformly graded, consisting predominantly of silt-sized particles. The bulk tailings were classified as a low plasticity silt (ML), using the Unified Soil Classification System. There was little variation in the particle size distribution test results for the different bulk tailings samples.

Laboratory consolidation testing of the bulk tailings at low stresses indicates that the permeability will initially be around 3 x10-7 ft/s (1 x 10-5 cm/s) at a confining pressure of less than 6 x 10-1 psi (4 kPa); however, the permeability will reduce over time, as the tailings consolidate, to roughly 2 x 10-8 ft/s (5 x 10-7 cm/s) at a confining pressure of approximately 390 psi (2,700 kPa).

The predicted behavior of the bulk tailings can be summarized as follows:

- **Water Production**

  Lab testing has indicated that with a tailings slurry containing 32% solids, as much as 60% of the initial water volume will be released as supernatant. Based on this testwork, approximately 50 to 55% of the solution in the tailings slurry will be available for recycle to the mill from the TSF pond after allowing for evaporation losses and water retained in tailings. The volume of supernatant released will vary depending on the tailings type and the moisture content of the underlying tailings.

- **Tailings Density**
  The laboratory test results and operating experience at other similar copper mines, indicate that the final dry density will be in the order of 90 lb/ft3 (1.44 metric t/m3).

- **Pumping and Viscosity**
  The tailings streams will flow by gravity in pipelines from the process plant to the TSF for the initial years of operations. The solids contents of the bulk and pyritic tailings streams will be approximately 32% and 50%, respectively. The critical solids content (i.e., the solids content at which the viscosity increases significantly) of tailings slurries, based on experience with similar copper-gold porphyry deposits and flotation mill processes, is typically about 65%. Pumping systems will be installed once the TSF embankments are raised to the point where the driving head from the plant site is insufficient for gravity flow.

2.3 TSF CONSTRUCTION

The embankments will be developed in stages using low permeability glacial till, overburden and waste rock materials. The filling schedule and staged construction sequence of the TSF are shown on Figure 2.3.

The staged construction of the TSF will directly integrate waste materials from the pit. The scheduled placement of fill within the downstream shell zone can accommodate fluctuating quantities of mine waste rock to coincide with the mine plan. Some of the finer grained overburden material produced from the pit development will be stockpiled, as the majority of the overburden will be mined early on in the mine life but will be required at various later periods during ongoing staged expansion of the TSF. The staged design of the embankments will be reviewed annually and refined, as required, to accommodate the availability of construction materials and to incorporate experience gained with local conditions and constraints.

2.4 RECLAIM WATER SYSTEM

A process water reclaim system is required to return sufficient water on a continuous basis from the TSF supernatant pond to the mill for use in the process. The water recovered will be routed through the Process Water Pond (PWP), which is located near the mill site in the South Fork Koktuli Watershed.

Water for the process will be reclaimed from the TSF supernatant pond using pumps mounted on a barge. The barge-mounted pump-station will be a prefabricated unit, naval architect designed and suitable for all anticipated weather conditions. Additional requirements include barge anchoring to cope with windy conditions, de-icing mechanisms to keep the unit free from surface ice, enclosure heating and ventilation, year round walkway access, and water around the barge to minimize solids entrainment into the pipeline. Pipeline connections from the barge to shore will incorporate flexible joints to accommodate the rise and fall in pond elevation.

2.5 SEISMICITY AND EMBANKMENT STABILITY

Alaska is the most seismically active state in the U.S. and in 1964 experienced the second largest earthquake ever recorded worldwide. Both crustal earthquakes in the continental North American Plate and subduction earthquakes affect the Alaska region. Historically, the level of seismic activity is highest along the south coast, where earthquakes are generated by the Pacific Plate subducting under the North American plate. This seismic source region, known as the Alaska-Aleutian megathrust, has been responsible for several of the largest earthquakes recorded, including the 1964 Prince William Sound magnitude 9.2 (M9.2) earthquake. There is potential for a future large subduction earthquake (M9.2+) along the southern coast of Alaska, and this seismic source zone is located approximately 125 mi from the project site.

Several major active faults in Alaska have generated large crustal earthquakes within the last century. A magnitude 7.9 earthquake occurred along a part of the Denali fault in 2002, approximately 44 mi south of Fairbanks. The western portion of the Denali Fault trends in a NE-SW direction, approximately 125 mi north of the project site. Approximately 19 mi northeast of the project site is the western end of the NE-SW trending Castle Mountain Fault, which terminates approximately at the northwest end of Lake Clark. A magnitude 7.0 earthquake associated with this fault occurred in 1933. The Denali and Castle Mountain faults are capable of generating large earthquakes with magnitudes in the range of M7.5 to M8.0.

Consistent with current design philosophy for geotechnical structures such as dams, two levels of design earthquake have been considered: the Operating Basis Earthquake (OBE) for normal operations; and the Maximum Design Earthquake (MDE) for extreme conditions (ICOLD, 1995). Values of maximum ground acceleration and design earthquake magnitude have been determined for both the OBE and MDE.

Appropriate OBE and MDE events for the facilities are determined based on a hazard classification of the facility, with consideration of the consequences of failure. The hazard classification was carried out using the criteria provided by the document “Guidelines for Cooperation with the Alaska Dam Safety Program” (2003). Classification of the facilities is carried out by considering the potential consequences of failure, including loss of life, economic loss and environmental damage. The hazard classification has been assessed as at least Class II (Significant). The OBE and MDE are selected based on the dam hazard classification and an appropriate earthquake return period, as defined by the “Guidelines for Cooperation with the Alaska Dam Safety Program” (2003).

For a Class II hazard classification, the OBE is selected from a range of return periods from 70 to 200 years, depending on the operating life of the facility, the frequency of regional earthquakes and the difficulty of quickly assessing the site for repairs. The impoundment would be expected to remain functional during and after the OBE and any resulting damage should be easily repairable in a limited period of time.

The MDE is typically selected from a range of return periods from 1000 to 2500 years for a Class II hazard classification. However, the MDE for the Pebble TSF has been conservatively based on a Class I hazard classification making it equivalent to the Maximum Credible Earthquake (MCE), which has a bedrock acceleration of 0.30 g corresponding to a magnitude M7.8 earthquake, occurring along the nearby Castle Mountain Fault system. The MCE is considered to be the seismic event with the highest possible maximum ground acceleration at the project site. Although a M9.2+ megathrust earthquake does not impose the highest maximum ground acceleration at the Pebble site (predicted maximum acceleration of 0.17 g), the event was considered as well in the seismic design analyses because of the very long duration of ground shaking associated with earthquakes of this magnitude.

The TSF embankments will be designed to meet or exceed the Alaska Dam Safety requirements to ensure the embankment will remain stable without release of tailings or process water for all loading cases, including the MDE and the M9.2+ megathrust event. Limited deformation of the facility is acceptable under seismic loading from the MDE, provided that the overall stability and integrity of the facility is maintained and that there is no release of stored tailings or water (ICOLD, 1995).

2.6 WATER MANAGEMENT PLAN

2.6.1 General

The main objective of the overall water management plan is to control all water that originates within, or is brought into the Pebble project area, in an environmentally responsible manner. This section describes the water management plan for the initial construction period of the TSF at Site G and during operation of the TSF at Site G. It is beyond the scope of this report to describe the overall water management plan for the other mine facilities in the Pebble Project area (i.e., mill site, open pit and the TSF at Site A). The water management plan for the TSF at Site G includes the control of surface water runoff within the extraction limit of the North Fork Koktuli, seepage, sediment transport and tailings process water.

2.6.2 Site Water Flow

Water Management and Sediment Control – Initial Construction Period of the TSF

The initial construction period water management plan consists of the following:

- Establishment of sediment control measures prior to construction of the TSF at Site G. Control measures to remove sediment will include both natural and constructed ponds.
- Construction of cofferdams to provide sediment control for the construction activities, where necessary; dewatering of the foundation during construction, where necessary.
- Collection and storage of all runoff within the catchment area of the TSF at Site G.

A cofferdam will impound water until the upstream face of the Stage 1 embankment has been lined with a HDPE liner. The cofferdam will then be inundated and the TSF pond will expand to the entire footprint of the Stage 1 TSF. The TSF pond will contain approximately 1.1 billion ft3 (32 million m3) of water, based on a long term average discharge rate of 24 ft3/s (0.7 m3/s) for the TSF catchment area at Site G, over a period of about 1.5 years of construction prior to tailings disposal in the facility.

Once operation of the TSF at Site G is underway the TSF will continue to intercept and contain all precipitation and runoff that occurs upstream of the North Fork Koktuli water extraction limit.

Water Management and Sediment Control –Operations

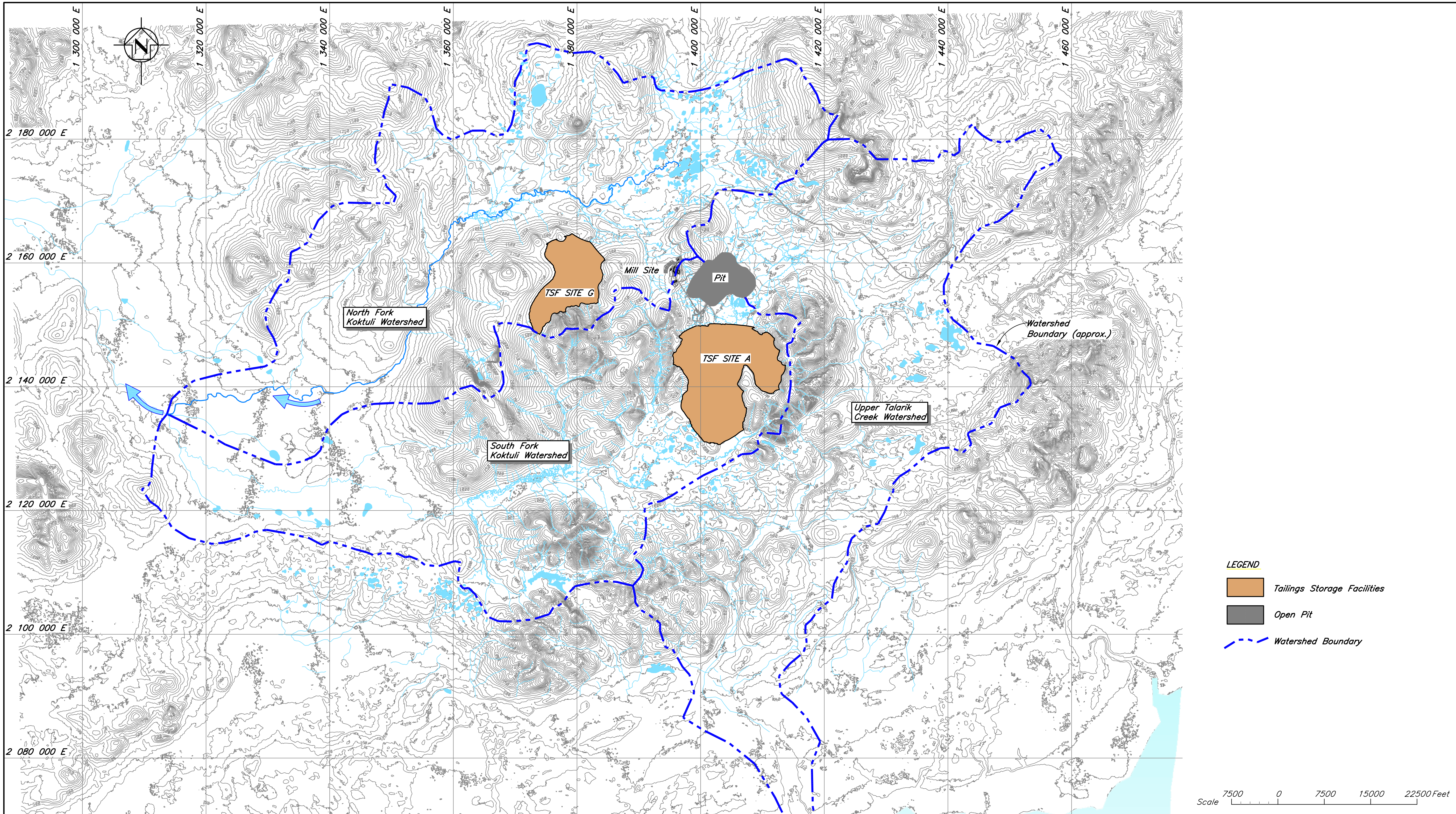
The water management and sediment control plan during operation of the TSF consists of the following:

- All runoff within the TSF catchment area at Site G will be collected and stored in the TSF.
- The sediment control measures established during the initial construction period of the TSF will be maintained and managed during operation of the facility.
- Process water will be discharged into the TSF at Site G with the bulk and pyritic tailings slurries. Tailings supernatant water will be pumped back to the mill for re-use in the mill processing.
- A tailings deposition strategy will be implemented to optimize the TSF supernatant pond volume, to compensate for ice development within the pond, and to prevent wind blown dust generation.
- Seepage from the TSF at Site G and rainfall infiltration into the downstream face of the embankments will be collected in seepage sumps and pumped back to the TSF at Site G.
- Groundwater monitoring wells will be used to verify the performance of the TSF at Site G.

SECTION 3.0 - REFERENCES

ICOLD – International Commission on Large Dams, (1995), "Tailings Dams and Seismicity: Review and Recommendations," Bulletin 98.

Alaska Department of Natural Resources (Sept. 2003). Guidelines for Cooperation with the Alaska Dam Safety Program (2003).



NORTHERN DYNASTY MINES INC.

PEBBLE PROJECT

REGIONAL SITE PLAN

Knight Piésold CONSULTING

PROJECT/ASSIGNMENT NO.	REF. NO.
VA101-176/16	4

FIGURE 1.2 REV. A

REV. A	29MAY'06	ISSUED FOR INFORMATION

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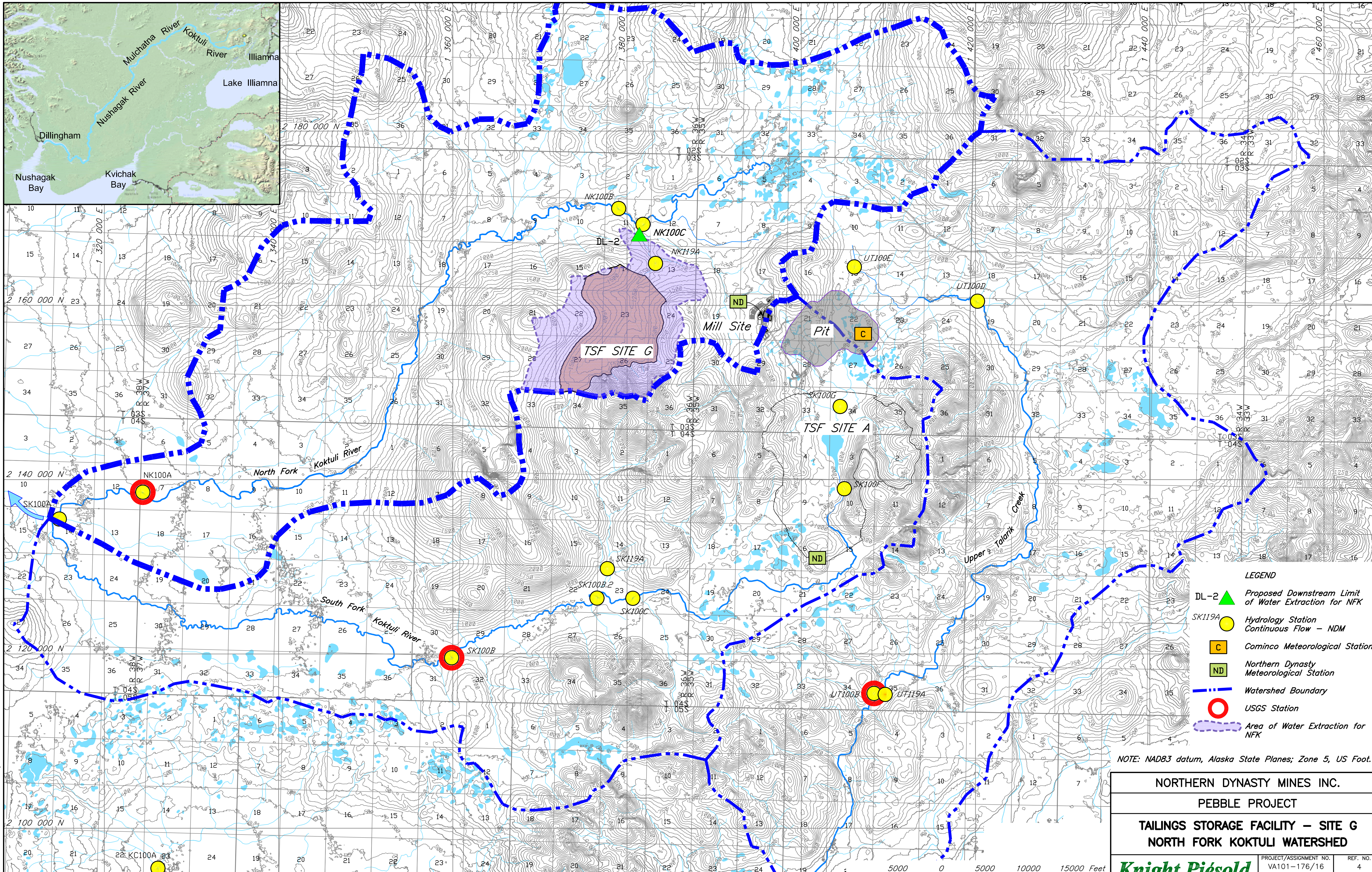

NORTHERN DYNASTY MINES INC.

PEBBLE PROJECT

TAILINGS STORAGE FACILITY – SITE G
NORTH FORK KOKTULI WATERSHED

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PROJECT/ASSIGNMENT NO.	REF. NO.
VA101-176/16	4

FIGURE 1.3 — REV. A

REV. A	29MAY'06	ISSUED FOR INFORMATION

XREF FILE : features, Trimmed_50ft_NAD83, Hydro_old_NAD83

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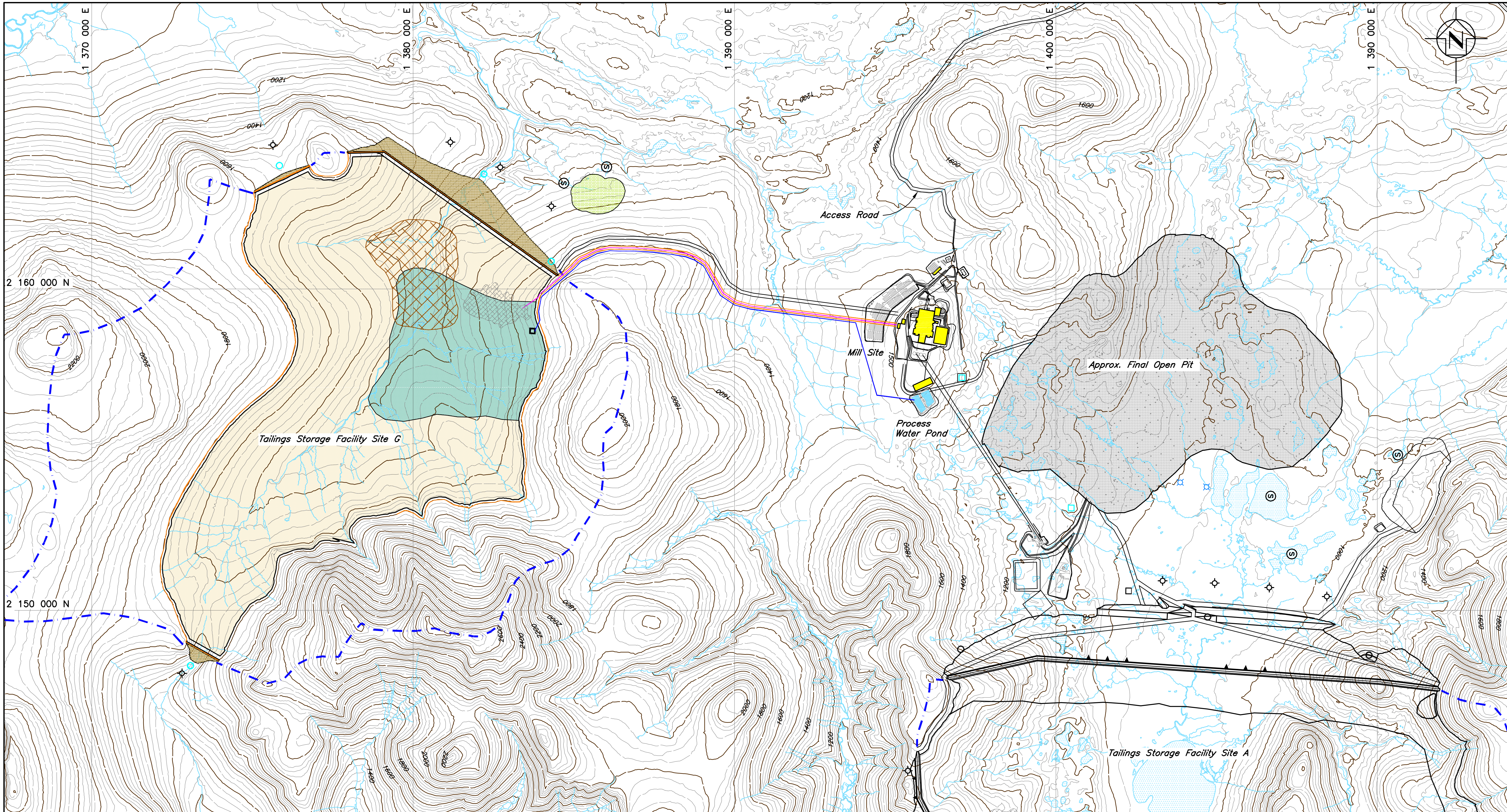

LEGEND

	Tailings Beach		TSF Catchment Boundary		Potable Water Well
	Supernatant Pond		Pyritic Tailings Pipeline		Sediment Control
	Non-reactive Mine Rock		Bulk Tailings Pipeline		Seepage Collection Sump
	Potentially Reactive Waste Rock		Reclaim Pipeline		Surface Runoff Collection Sump
	Pyritic Tailings		Roads		Topsoil Stockpile
			Monitoring Well		Barge Mounted Pump Station

NOTE

1. Mine site topography information is in NAD83 Alaska State Plane Zone 5 Foot. Outer stream/lake features have been incorporated from NAD27 information. Contour interval shown is 25 ft. Information provided by Eagle Mapping, Nov. 2004.

Scale 1500 0 1500 3000 4500 Feet

DRAFT

FOR DISCUSSION ONLY

NORTHERN DYNASTY MINES INC.

PEBBLE PROJECT

TAILINGS STORAGE FACILITY – SITE G
GENERAL ARRANGEMENT
FINAL

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PROJECT/ASSIGNMENT NO.	REF. NO.
VA101-176/16	4

FIGURE 2.1 REV. A

REV. A	01JUN'06	ISSUED FOR INFORMATION

XREF FILE : Topo_5ft, Hydro, Features

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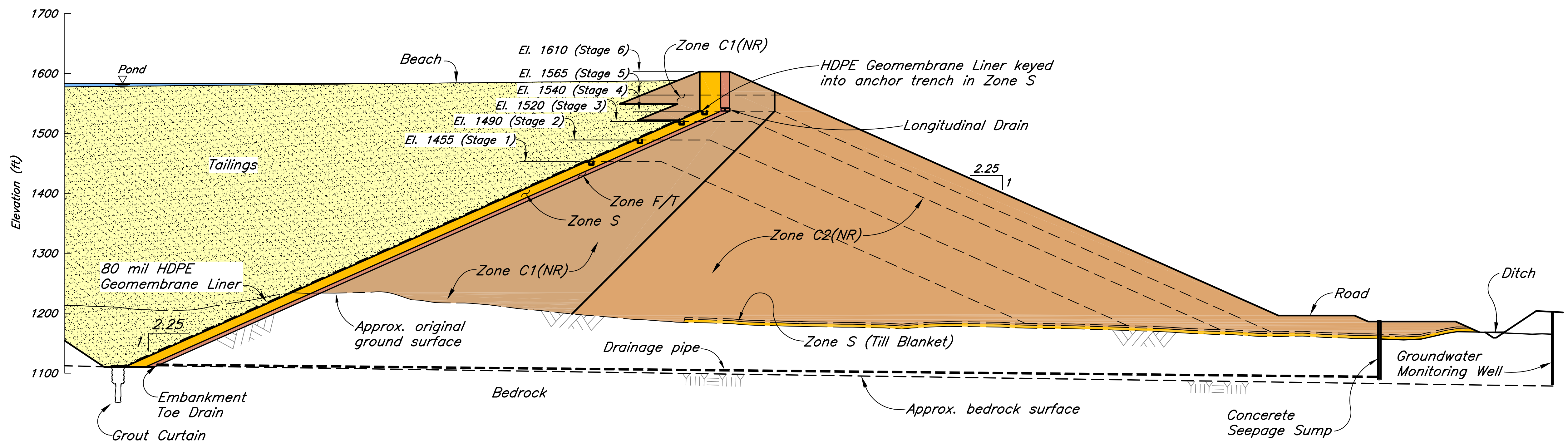

MAIN EMBANKMENT SECTION
Scale A

Scale A 100 0 100 200 300 Feet

NORTHERN DYNASTY MINES INC.

PEBBLE PROJECT

TAILINGS STORAGE FACILITY – SITE G
MAIN EMBANKMENT SECTION
TYPICAL

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PROJECT/ASSIGNMENT NO.	REF. NO.
VA101-176/16	4

FIGURE 2.2 REV. A

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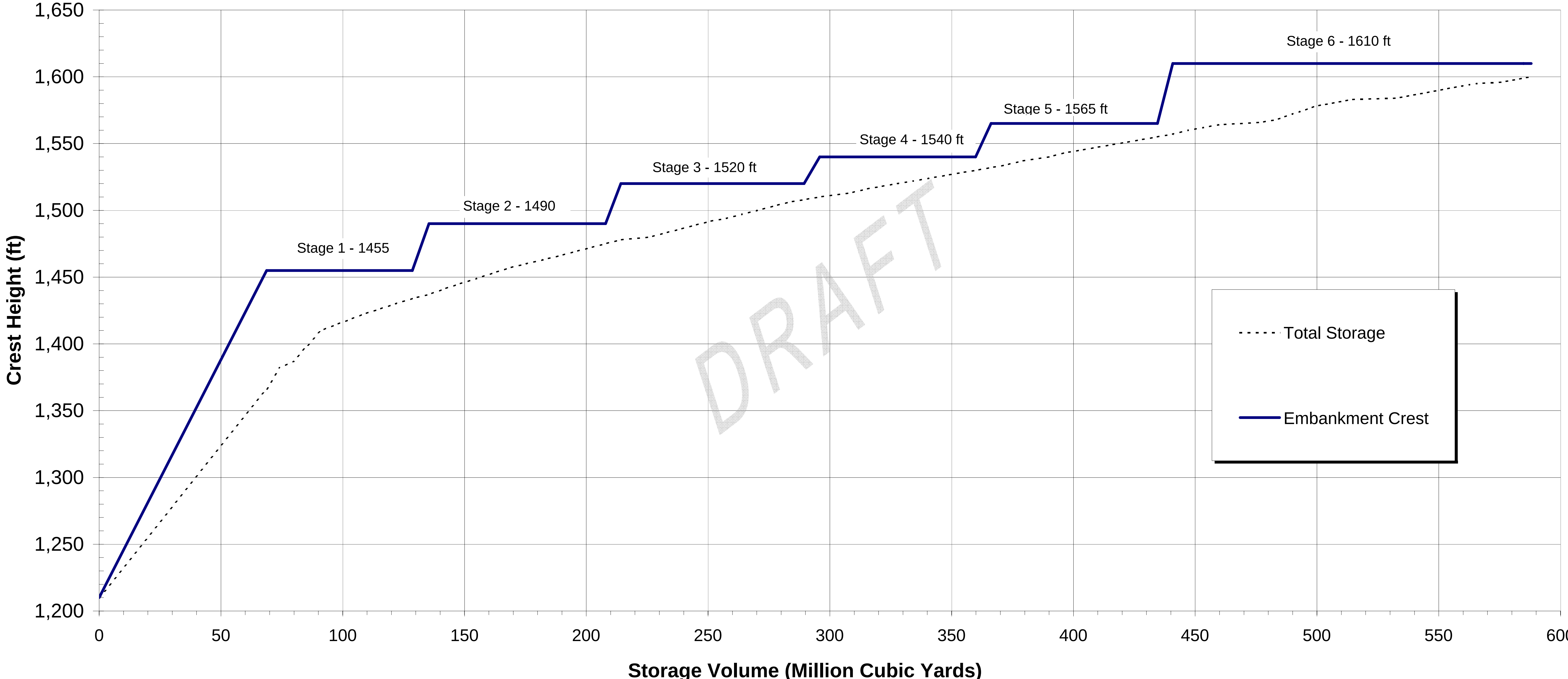

NOTES:

1) Total Storage Volume Includes Tailings, Supernatant Pond and Storm Containment
2) Embankment Crest Elevation Includes 10 ft. freeboard

Rev A - Issued for Information

NORTHERN DYNASTY MNES INC.
PEBBLE PROJECT
TAILINGS STORAGE FACILITY SITE G **FILLING SCHEDULE**
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PROJECT / ASSIGNMENT NO. VA101-176/16
REF NO. 4
FIGURE 2.3
REV. A