

#### **PEBBLE PROJECT**

#### DRAFT ENVIRONMENTAL BASELINE STUDIES PROPOSED 2008 STUDY PLANS

#### **CHAPTER 2. METEOROLOGY**

#### DRAFT



Prepared For: State of Alaska Large Mine Permitting Team Department of Natural Resources



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# TABLE OF CONTENTS

Section	<u>Page Number</u>
TABLE OF CONTENTS	ii
LIST OF FIGURES	ii
2. Meteorology	2-1

# LIST OF TABLES

Table 2-1, Meteorological Study Summary 2004-2008Table 2-2, Pebble Project Meteorological Sampling Locations

# LIST OF FIGURES

Figure 2-1, Pebble Project Study Areas

#### 2. METEOROLOGY

Hoefler Consulting Group will lead the meteorology baseline study for Pebble Project in 2008. The objectives and scope of work for 2008 are the same as those described in the 2005, 2006, and 2007 Study Plans with exceptions noted below.

Meteorological data will be collected at eight locations throughout 2008. The collection of Prevention of Significant Deterioration (PSD)-quality meteorological data will continue at the existing Pebble 1, Pebble 4, North Fork Koktuli Basin (Pebble 5), Talarik Creek Basin (Pebble 6), Williamsport, North Head, and Port Site 1 meteorological stations (Figure 2-1). Data collection will continue in 2008 for all seven PSD-quality monitoring stations. The collection of non-PSD-quality data will continue at Pebble 3 and North Fork Koktuli Basin (Pebble 5A) in support of engineering and design for Pebble Project. In 2008, precipitation data will be collected in six locations to support the small pools study. This study is described in Chapter 10 of the 2008 Study Plan.

A summary of meteorological monitoring activities for 2004 through 2008 is shown in Table 2-1. The meteorological parameters that have been and will be monitored at each station are shown in Table 2-2a and Table 2.2b. The methods and approaches described in Section 2.2.2 of the 2005 Study Plan have not changed.

In addition to the meteorological monitoring stations, particulate matter monitoring for PM-10 and PM-2.5 will be conducted at one site in the village of Iliamna. This study will be made available for air quality permitting, if required for this purpose, and to address any concerns surrounding local air quality.

# Table 2-1Pebble Project Environmental StudiesMeteorological Study Summary 2004-2008Consultant: Hoefler Consulting Group

Discipline	2004	2005	2006	2007	2008
	Data Collected or Tasks Completed	Data Collected or Tasks Completed	Data Collected or Tasks Completed	Data Collected or Tasks Completed	Tasks to be Completed
Meteorology			Mine Study Area	· · ·	· · · · · · · · · · · · · · · · · · ·
	Information Gathering	Information Gathering	Information Gathering	Information Gathering	Information Gathering
	Scope, Schedule, Field Monitoring Plan	Scope, Schedule, Field Monitoring Plan	Scope, Schedule, Field Monitoring Plan	Scope, Schedule, Field Monitoring Plan	Scope, Schedule, Field Monitoring Plan
		Prepared Meteorology Chapter of 2005 Study Plan	Prepared 2006 Study Plan Summary	Prepare 2007 Study Plan Summary	
		Site Visit with ADEC and EPA to Finalize PSD-Quality Meteorological Monitoring Station Locations	Continue Monitoring at Pebble 1 and Pebble 3	Continue Monitoring at Pebble 1, Pebble 3, and Pebble 4	Continue Monitoring at Pebble 1, Pebble 3, Pebble 4, Pebble 5 and 5A, and Pebble 6
	Install Meteorological Monitoring Stations at the Mill Site	Upgraded Pebble 1 to PSD-Quality. Moved the	Installed Webcam at Pebble 1. Installed Pebble 4, a New	Install Pebble 5 and Pebble 6, New PSD-Quality	Install Particulate Matter (PM-10 and MP-2.5) Monitoring
	(Pebble 1) and the Tailings Impoundment Site (Pebble 2)	. Equipment at Pebble 2 to a New, Nearby Location (Renamed Pebble 3)	PSD-Quality Meteorological Monitoring Station at the Pebble 2 Site. Enabled real-time data availability at Pebble 1 and Pebble 4.	Meteorological Monitoring Stations in the North Fork Koktul and Upper Talarik Basins, Respectively	Station in Iliamna
			Submitted First Annual Data Report for Pebble 1 to ADEC for Review and Approval	Submit Second Annual Data Report for Pebble 1 and First Annual Data Report for Pebble 4 to ADEC for Review and Approval	Submit the Calendar Year 2007 Annual Data Reports for Pebble 1 and Pebble 4 to ADEC for Review and Approval
			Drafted Chapter 2, Climate and Meteorology, of	Update Chapter 2, Climate and Meteorology, of	Draft Chapter 2, Climate and Meteorology, of the
			Environmental Baseline Document	Environmental Baseline Document to Include One Additional Year of Data	Supplemental Environmental Baseline Document to Include 2007 Data
			Submitted Quality Assurance Project Plan (QAPP) to	Update QAPP to Include Pebble 5 and Pebble 6	Update QAPP to Include Particulate Matter (PM-10 and MP
			ADEC for Review and Approval		2.5) Monitoring Station in Iliamna
	Communication and Data Management	Communication and Data Management	Communication and Data Management	Communication and Data Management	Communication and Data Management
	Coordination with NDM and Agencies	Coordination with NDM and Agencies	Coordination with NDM and Agencies	Coordination with NDM and Agencies	Coordination with PP and Agencies
Meteorology			Transportation Corridor		
	Information Gathering	Information Gathering	Information Gathering	Information Gathering	Information Gathering
	Scope, Schedule, Field Monitoring Plan	Scope, Schedule, Field Monitoring Plan	Scope, Schedule, Field Monitoring Plan	Scope, Schedule, Field Monitoring Plan	Scope, Schedule, Field Monitoring Plan
		Prepared Meteorology Chapter of 2005 Study Plan	Prepared 2006 Study Plan Summary	Prepare 2007 Study Plan Summary	
		Site Visit with ADEC and EPA to Finalize PSD-Quality Meteorological Monitoring Stations Locations	Continued Monitoring at Port Site 1	Continue Monitoring at Port Site 1	Continue Monitoring at Williamsport, North Head and Port Site 1
		Installed a PSD-Quality Meteorological Monitoring Station at the Port Site (Port Site 1)		Install New PSD-Quality Meteorological Monitoring Stations at Williamsport and on East Side of Iliamna Bay (AC Point)	
			Submitted First Annual Data Report for Port Site 1 to	Submit Second Annual Data Report for Port Site 1 to	Submit the Calendar Year 2007 Annual Data Report for
			ADEC for Review and Approval	ADEC for Review and Approval	Port Site 1 to ADEC for Review and Approval
			Drafted Chapter 26, Climate and Meteorology, of	Update Chapter 26, Climate and Meteorology, of	Draft Chapter 26, Climate and Meteorology, of
				Environmental Baseline Document to Include One Additional Year of Data	Supplemental Environmental Baseline Document to Include 2007 Data
			Submitted QAPP to ADEC for review and approval	Update QAPP to Include Williamsport and AC Point.	
	Communication and Data Management	Communication and Data Management	Communication and Data Management	Communication and Data Management	Communication and Data Management
	Coordination with NDM and Agencies	Coordination with NDM and Agencies	Coordination with NDM and Agencies	Coordination with NDM and Agencies	Coordination with PP and Agencies

ADEC = Alaska Department of Environmental Conservation EPA = U.S. Environmental Protection Agency

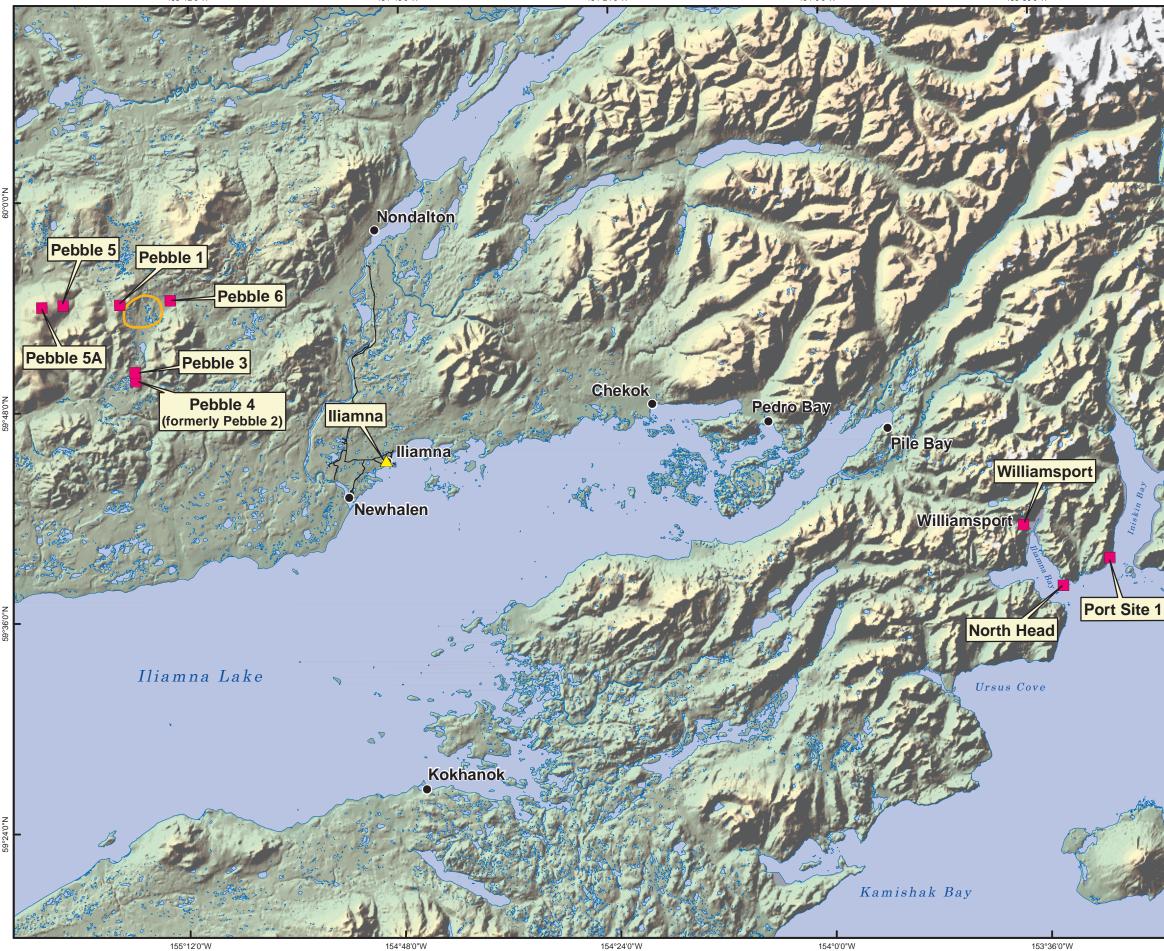
#### Table 2-2b Pebble Project Ambient Air Pollutant and Meteorological Sampling Locations - Mine Study Area

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154°24'0"W





#### Figure 2-1 2008 Study Plan Deposit and Port Meteorological and Particulate Matter Monitoring Stations DRAFT

Legend

- Meteorological Stations
- △ PM Station
- General Deposit Location



