PEBBLE PROJECT

DRAFT ENVIRONMENTAL BASELINE STUDIES PROPOSED 2008 STUDY PLANS

CHAPTER 7. TRACE ELEMENTS

DRAFT

Prepared For:

State of Alaska Large Mine Permitting Team
Department of Natural Resources

Prepared By:

THE pebble PARTNERSHIP

3201 C Street, Suite 604
Anchorage, AK 99503
(907) 339-2600

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7.0 TRACE ELEMENTS

This document summarizes the proposed scope of work for the 2008 trace elements program for the Pebble Project. SLR Alaska (SLR) is the lead consultant for the trace elements program. Bristol Environmental and Engineering Services Corporation (BEESC) performed sampling for the study in the transportation corridor.

The term “trace elements” refers to naturally occurring elements (mostly metals) that are analyzed for in various matrices. In Pebble Project documents, the term “trace elements” also is used to refer to the trace elements program. The trace elements program examines not only elements, but other naturally occurring compounds such as anions, cations, and biogenic hydrocarbons; the term “naturally occurring constituents” (NOC) is commonly used in this document to refer collectively to the analytical parameters included in the trace elements program.

The NOC studies in 2005, 2006, and 2007 are described in Chapter 7 of the Study Plans for those years. The discussions below indicate how the 2008 program differs from the studies in previous years.

7.1 Mine Study Area

No data on trace elements are being collected in the mine area in 2008.

7.2 Transportation Corridor

No data on trace elements are being collected in the transportation corridor in 2008.

TABLE 7.1-1
Pebble Project Environmental Studies
Study Summary for Trace Elements, Mine Study Area, 2004-2008
Consultant: SLR Alaska

Discipline	2004 (completed by CH2M Hill)	2005 Data Collected or Tasks	2006 Data Collected or Tasks	2007 Data Collected or Tasks	2008 Tasks to be Completed
Trace Elements	**Mine Study Area**				
	Information gathering	Information gathering	Information gathering	Information gathering	Information gathering
	Scope, schedule, field sampling plan	Scope, schedule, field sampling plan	Scope, schedule, field sampling plan	Scope, schedule, field sampling plan	Scope, schedule
	2004 study plan	2005 study plan	2007 study plan summary	2007 study plan summary	2008 study plan summary
	Soil sampling (Aug/Sep)	Soil sampling (July and August)	Soil sampling (July)	Bacteriological soil, lichens and moss sampling (July)	Fish-tissue data analysis
				Surface soil sampling (July)	Coordination with HDR and BEESC
	Vegetation sampling (Aug/Sep--leaves and berries)	Vegetation sampling (July--leaves; Aug--leaves and berries)	Terrestrial vegetation sampling (July--leaves only; Aug--leaves and berries)	Terrestrial vegetation sampling (July--leaves only; Aug--leaves and berries)	Draft environmental baseline document
		Aquatic plant sampling (August)	Aquatic plant sampling	Aquatic plant sampling (coordinated with HDR;	Coordination with PLP, agency meetings, monthly
		Mercury/methylmercury fish-tissue data analysis	Fish-tissue data analysis	Fish-tissue data analysis	Communication and data management
			Pond sediment sampling	Pond/lakes sediment sampling (August)	Data analysis
			Stream-sediment and surface-water data analysis	Stream-sediment and surface-water data analysis	
			Coordination with HDR and BEESC	Coordination with HDR and BEESC	
			Draft environmental baseline document	Draft environmental baseline document	
		Coordination with NDM & agencies, monthly reporting	Coordination with NDM, agency meetings, monthly	Coordination with NDM, agency meetings, monthly	
		Communication and data management	Communication and data management	Communication and data management	
		Data entry and analysis	Data analysis	Data analysis	
	QAPP review	QAPP update	QAPP update: aquatic		
		2004 progress report			

TABLE 7.2-1a
Pebble Project Environmental Studies
Study Summary for Trace Elements, Transportation Corridor, 2004-2008
Consultant: SLR Alaska

Discipline	2004 Data Collected or Tasks	2005 Data Collected or Tasks	2006 Data Collected or Tasks	2007 Tasks to be Completed	2008 Tasks to be Completed
Trace Elements	Transportation Corridor				
	None	Information Gathering	Information Gathering	Information Gathering	Information Gathering
			Scope, Schedule, Field Sampling Plan	Scope, Schedule, Field Sampling Plan	Scope, Schedule
		BEESC Study Plan Review	2006 Study Plan Summary	2007 Study Plan Summary	2008 Study Plan Summary
			Coordination with HDR and BEESC	Coordination with HDR and BEESC	Coordination with HDR and BEESC
		Coordination with NDM & Agencies	Coordination with NDM and Resource Agencies, Monthly Reporting	Coordination with NDM and Resource Agencies, Monthly Reporting	Coordination with PLP and Resource Agencies, Monthly Reporting
		Data Analysis	Data Entry and Analysis	Data Entry and Analysis	Data Entry and Analysis
		2004 Progress Report	Prepare Preliminary Environmental Baseline Document	Prepare Preliminary Environmental Baseline Document	Prepare Preliminary Environmental Baseline Document

TABLE 7.2-1b
Pebble Project Environmental Studies
Study Summary for Trace Elements in Vegetation and Sediment, Transportation Corridor, 2004-2008
Consultant: BEESC

Discipline	2004 Data Collected or Tasks	2005 Data Collected or Tasks	2006 Data Collected or Tasks	2007 Data Collected or Tasks	2008 Tasks to be Completed
Trace Elements, Vegetation	**Transportation Corridor**				
	Information Gathering	None	Information Gathering	Information Gathering	Information Gathering
	Scope, Schedule, Field Sampling Plan		Scope, Schedule, Field Sampling Plan	Scope, Schedule, Field Sampling Plan	Data Compilation
	Field Sampling--August		Field Sampling--August	Field Sampling--August	Report Writing
	Communication and Data Management		Communication and Data Management	Communication and Data Management	Communication and Data Management
	Coordination with local communities for observers		Coordination with local communities for observers	Coordination with local communities for observers	
	Prepared presentation		Data Compilation	Data Compilation	
	Report Writing		Report Writing	Report Writing	
Trace Elements, Sediment	**Transportation Corridor**				
	Information Gathering	Information Gathering	Information Gathering	Information Gathering	Information Gathering
	Scope, Schedule, Field Sampling Plan	Scope, Schedule, Field Sampling Plan	Scope, Schedule, Field Sampling Plan	Scope, Schedule, Field Sampling Plan	Data Compilation
	Field Sampling--July, Sept.	Field Sampling--May, July, Sept.	Field Sampling--August	Field Sampling--August	Report Writing
	Communication and Data Management	Communication and Data Management	Communication and Data Management	Communication and Data Management	Communication and Data Management
	Coordination with NDM	Coordination with NDM	Coordination with NDM	Coordination with NDM	
	Coordination with local communities for observers	Coordination with local communities for observers	Coordination with local communities for observers	Coordination with local communities for observers	
	Prepared presentation	Data Compilation and Analysis	Data Compilation and Analysis	Data Compilation and Analysis	
	Report Writing	Report Writing	Report Writing	Report Writing	

TABLE 7.1-2b
Pebble Project
Sample Site Period-of-Record Index
Trace Elements, Mine Study Area, Pebble East

Monitoring Site	Year	Period-of-Record by Discipline																																		Notes
		Vegetation												Soil												Sediment											
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
335245	2004																																					
	2005																																					
	2006							X	X											X																		Lowland wet graminoid moss meadow habitat
	2007							X	X											X																		
335244	2004																																					
	2005																																					
	2006							X	X											X																		Riverine willow scrub habitat
	2007							X	X											X																		
335246	2004																																					
	2005																																					
	2006																			X																		Riverine willow scrub habitat
	2007																			X																		
335141	2004																																					
	2005																																					
	2006							X	X											X																		Upland dwarf, low & tall scrub habitat
	2007							X	X											X																		
335142	2004																																					
	2005																																					
	2006							X	X											X																		Upland dwarf, low & tall scrub habitat
	2007							X	X											X																		
335143	2004																																					
	2005																																					
	2006							X	X											X																		Upland dwarf, low & tall scrub habitat
	2007							X	X											X																		
335144	2004																																					
	2005																																					
	2006							X	X											X																		Upland dwarf shrub habitat
	2007							X	X											X																		
335132	2004																																					
	2005																																					
	2006																			X																		Upland dwarf shrub habitat
	2007																			X																		

Monitoring Site	Year	Period-of-Record by Discipline																																			Notes
		Vegetation												Soil												Sediment											
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
335145	2004																																					
	2005																																					
	2006							X	X											X																		Upland dwarf shrub habitat
	2007							X	X											X																		
335233	2004																																					
	2005																																					
	2006							X	X											X																		Subalpine dwarf & low scrub habitat
	2007							X	X											X																		
335234	2004																																					
	2005																																					
	2006							X	X											X																		Subalpine dwarf & low scrub habitat
	2007							X	X											X																		
335235	2004																																					
	2005																																					
	2006																			X																		Subalpine dwarf & low scrub habitat
	2007																			X																		
335243	2004																																					
	2005																																					
	2006							X	X											X																		Alpine rock & dwarf shrub habitat
	2007							X	X											X																		
335242	2004																																					
	2005																																					
	2006							X	X											X																		Alpine rock & dwarf shrub habitat
	2007							X	X											X																		
335131	2004																																					
	2005																																					
	2006							X	X											X																		Alpine rock & dwarf shrub habitat
	2007							X	X											X																		
335241	2004																																					
	2006																																					
	2007							X	X											X																		Alpine rock & dwarf shrub habitat
	2006							X	X											X																		
335133	2004																																					
	2005																																					
	2006								X																								X					Tundra Pond
	2007								X																								X					Tundra Pond

TABLE 7.1-2a
Pebble Project
Sample Site Period-of-Record Index
Trace Elements, Pebble West Area Mine Studies

Sample Site	Year	Period-of-Record by Discipline																																			Notes
		Vegetation												Soil												Sediment												
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
235271	2004																																					
	2005							X	X											X																		
	2006							X	X											X																		
	2007							X												X																		Bacteriological Soil Study
235281	2004																																					
	2005							X	X											X																		
	2006							X	X											X																		
	2007																																					
235361	2004								X												X																	
	2005							X	X											X																		
	2006																																					
	2007							X												X																		Bacteriological Soil Study
235281	2004																																					
	2005								X											X																		
	2006								X											X																		
	2007																																					
235282	2004																																					
	2005								X																													Tundra pond
	2006								X																								X					Tundra pond
	2007								X																								X					Tundra pond
236221	2004																																					
	2005								X																													Tundra pond
	2006								X																								X					Tundra pond
	2007								X																								X					Tundra pond
236271	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
236272	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
236273	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
236281[b]	2004								X												X																	
	2005																																					
	2006																																					
	2007																																					
236351	2004								X												X																	
	2005																			X																		
	2006																																					
	2007																																					
236352	2004																																					
	2005																			X																		
	2006																			X																		
	2007																																					
236353	2004																																					
	2005							X	X											X																		
	2006							X	X											X																		
	2007							X												X																		Bacteriological Soil Study
335021	2004								X												X																	
	2005							X	X											X	X																	
	2006																																					
	2007																																					
335031	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335032	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335051	2004																																					
	2005								X																													Tundra Pond
	2006								X																								X					Tundra Pond
	2007								X																								X					Tundra Pond
335091	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335092	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335093	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335131	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335132	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335161	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335162	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					

Sample Site	Year	Period-of-Record by Discipline																																			Notes
		Vegetation												Soil												Sediment												
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
335163	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335171	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335172	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335173	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335174	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335175	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335176[b]	2004																					X																
	2005																																					
	2006																																					
	2007																																					
335191	2004																					X																
	2005							X												X																		
	2006																																					
	2007																																					
335192	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335193	2004								X													X																
	2005							X	X											X																		
	2006																																					
	2007																																					
335201	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335231	2004																																					
	2005																			X																		
	2006																			X																		
	2007																																					
335232	2004																																					
	2005																			X																		
	2006																			X																		
	2007																																					
335261	2004								X												X																	
	2005							X	X											X																		
	2006																																					
	2007																																					
335281	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335282	2004																					X																
	2005							X	X											X	X																	
	2006																																					
	2007																																					
335283	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335284	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335301	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335302	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335311	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335321	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
335322	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
336011	2004								X												X																	
	2005							X	X											X																		
	2006																																					
	2007							X												X																		Bacteriological Soil Study
336012	2004																																					
	2005																			X																		
	2006																			X																		
	2007																																					

Sample Site	Year	Period-of-Record by Discipline																																			Notes
		Vegetation												Soil												Sediment											
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
336013	2004																																				
	2005																			X																	
	2006																			X																	
	2007																																				
336041	2004									X												X															
	2005																			X																	
	2006																																				
	2007																																				
336042	2004																					X															
	2005							X	X											X																	
	2006																																				
	2007																																				
336043	2004																																				
	2005																			X																	
	2006																				X																
	2007																																				
336131	2004								X												X																
	2005							X	X											X																	
	2006																																				
	2007							X												X																	Bacteriological Soil Study
336132	2004																																				
	2005							X	X											X																	
	2006							X	X											X																	
	2007																																				
336133	2004																																				
	2005																			X																	
	2006																			X																	
	2007																																				
336211	2004																																				
	2005																			X																	
	2006																			X																	
	2007																																				
336212	2004																																				
	2005							X	X											X																	
	2006							X	X											X																	
	2007																																				
336231	2004									X												X															
	2005							X	X											X																	
	2006																																				
	2007							X												X																	Bacteriological Soil Study
336241	2004																					X															
	2005																			X																	
	2006																																				
	2007																																				
336242	2004																					X															
	2005																			X																	
	2006																																				
	2007																																				
336261	2004								X	X											X																
	2005							X	X											X	X																
	2006																																				
	2007							X												X																	Bacteriological Soil Study
336281	2004																					X															
	2005																			X																	
	2006																																				
	2007																																				
336282	2004																					X															
	2005																			X																	
	2006																																				
	2007																																				
336341	2004																					X															
	2005																			X																	
	2006																																				
	2007																																				
336342	2004																					X															
	2005							X	X											X																	
	2006																																				
	2007																																				
336361	2004																																				
	2005																			X																	
	2006																			X																	
	2007																																				
336362	2004																																				
	2005							X	X											X																	
	2006							X	X											X																	
	2007							X												X																	Bacteriological Soil Study
435061	2004																					X															
	2005																			X																	
	2006																																				
	2007																																				
435062	2004																					X															
	2005																			X																	
	2006																																				
	2007																																				
435161	2004																					X															
	2005																			X																	
	2006																																				
	2007																																				
435162	2004																					X															
	2005																			X																	
	2006																																				
	2007																																				
435221	2004								X	X											X																
	2005								X												X																
	2006																																				
	2007																																				
435222	2004																																				
	2005																				X																
	2006																				X																
	2007																																				

Sample Site	Year	Period-of-Record by Discipline																																				Notes
		Vegetation												Soil												Sediment												
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
435223	2004																																					
	2005																				X																	
	2006																				X																	
	2007																																					
435301	2004								X												X																	
	2005							X	X											X																		
	2006																																					
	2007							X												X																		Bacteriological Soil Study
435302	2004									X											X																	
	2005							X	X											X																		
	2006																																					
	2007																																					
435341	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
435342	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
436041	2004									X											X																	
	2005							X	X											X																		
	2006																																					
	2007							X												X																		Bacteriological Soil Study
436221	2004								X	X											X																	
	2005							X	X											X	X																	
	2006																																					
	2007							X												X																		Bacteriological Soil Study
436222	2004																																					
	2005																			X																		
	2006																			X																		
	2007																																					
436223	2004																																					
	2005																			X																		
	2006																			X																		
	2007																																					
436361	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
535051	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
535052	2004																					X																
	2005																			X																		
	2006																																					
	2007																																					
536051	2004																																					
	2005								X																													Tundra Pond
	2006								X																													Tundra Pond
	2007								X																													Tundra Pond
335011	2004																																					
	2005																																					
	2006							X	X											X																		
	2007							X	X											X																		
335081	2004																																					
	2005																																					
	2006							X	X											X																		
	2007							X	X											X																		
335101	2004																																					
	2005																																					
	2006							X	X											X																		
	2007							X	X											X																		
WL-P01	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study
WL-S04D	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study
28B1	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study
28B2	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study
TPS1	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study
TPS2	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study
TPS3	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study
TPS4	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study
TPS5	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study
TPS6	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study

Sample Site	Year	Period-of-Record by Discipline																																				Notes
		Vegetation												Soil												Sediment												
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
TPS7	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study
TPS8	2004																																					
	2005																																					
	2006								X																													Pond Study
	2007								X																													Pond Study
Section 3, Grid 10[b]	2004																					X												X				
	2005																																					
	2006																																					
	2007																																					
Section 2, Grid 5[b]	2004																					X																
	2005																																					
	2006																																					
	2007																																					
Section 3, Grid 4[b]	2004																					X																
	2005																																					
	2006																																					
	2007																																					
Section 36, Grid 20[b]	2004																					X																
	2005																																					
	2006																																					
	2007																																					
Section 32, Grid 16[b]	2004																					X												X				
	2005																																					
	2006																																					
	2007																																					
Section 27, Grid 28[b]	2004																					X																
	2005																																					
	2006																																					
	2007																																					
Section 17, Grid 106[b]	2004																																	X				
	2005																																					
	2006																																					
	2007																																					
Section 34, Grid 72[b]	2004																																	X				
	2005																																					
	2006																																					
	2007																																					
Section 32, Grid 76[b]	2004																																	X				
	2005																																					
	2006																																					
	2007																																					
Section 28, Grid 81[b]	2004																																	X				
	2005																																					
	2006																																					
	2007																																					
Section 21, Grid 91[b]	2004																																	X				
	2005																																					
	2006																																					
	2007																																					
Section 3, Grid 128[b]	2004																																	X				
	2005																																					
	2006																																					
	2007																																					
Section 12, Grid 120[b]	2004																																	X				
	2005																																					
	2006																																					
	2007																																					
Section 27, Grid 142[b]	2004																																	X				
	2005																																					
	2006																																					
	2007																																					
Section 22, Grid 158[b]	2004																																	X				
	2005																																					
	2006																																					
	2007																																					
Section 11, Grid 53[b]	2004																					X												X				
	2005																																					
	2006																																					
	2007																																					
Section 4, Grid 67[b]	2004																					X												X				
	2005																																					
	2006																																					
	2007																																					
Section 26, Grid 23[b]	2004																					X												X				
	2005																																					
	2006																																					
	2007																																					
Section 23, Grid 39[b]	2004																					X												X				
	2005																																					
	2006																																					
	2007																																					
Section 16[b]	2004																																	X				
	2005																																					
	2006																																					
	2007																																					
Section 12, Grid 54[b]	2004																					X																
	2005																																					
	2006																																					
	2007																																					
Section 19, Grid 35[b]	2004																					X												X				
	2005																																					
	2006																																					
	2007																																					
Section 28[b]	2004																																	X				
	2005																																					
	2006																																					
	2007																																					

NOTES:

b. Site removed from program after 2004.

TABLE 7.2-2
Pebble Project
Sample Site Period-of-Record Index
Trace Elements, Transportation Corridor

Sample Location	Year	Period-of-Record by Discipline																																		Comment
		Sediment												Vegetation												Soil										
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
NHRIV	2004							F		F																												
	2005					F		F		F																												
	2006																																					
	2007																																					
GS20	2004							F		F																												
	2005							F		F																												
	2006																																					
	2007																																					
GS20A	2004							F		F																												
	2005																																					
	2006																																					
	2007																																					
GS18A	2004							F		F																												
	2005																																					
	2006																																					
	2007																																					
GS17A	2004							F		F																												
	2005					F		F		F																												
	2006																																					
	2007																																					
GS14A	2004							F		F																												
	2005																																					
	2006																																					
	2007																																					
GS14B	2004							F		F																												
	2005					F		F		F																												
	2006																																					
	2007																																					
GS12A	2004							F		F																												
	2005																																					
	2006																																					
	2007																																					
GS11A	2004							F		F																												
	2005					F		F		F																												
	2006																																					
	2007																																					
GS8A	2004							F		F																												
	2005					F		F		F																												
	2006																																					
	2007																																					

Sample Location	Year	Period-of-Record by Discipline																																		Comment
		Sediment												Vegetation												Soil										
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
GS7A	2004																																					
	2005																																					
	2006																																					
	2007																																					
GS6A	2004							F		F																												
	2005																																					
	2006																																					
	2007																																					
GS4A	2004							F		F																												
	2005					F		F		F																												
	2006																																					
	2007																																					
GS4B	2004									F																												
	2005																																					
	2006																																					
	2007																																					
GS3A	2004								F	F																												
	2005					F		F		F																												
	2006																																					
	2007																																					
GS23	2004							F		F																												
	2005																																					
	2006								F																													
	2007																																					
GS22	2004																																					
	2005							F		F																												
	2006								F																													
	2007																																					
GS21	2004								F	F																												
	2005					F		F		F																												
	2006								F																													
	2007																																					
PSC	2004																																					
	2005							F																														
	2006																																					
	2007																																					
PSD	2004																																					
	2005							F																														
	2006																																					
	2007																																					
POND1	2004							F		F																												
	2005					F		F		F																												
	2006																																					
	2007																																					
POND2	2004							F		F																												
	2005					F		F		F																												
	2006																																					
	2007																																					

Sample Location	Year	Period-of-Record by Discipline																																		Comment
		Sediment												Vegetation												Soil										
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
POND3	2004							F		F																												
	2005					F		F		F																												
	2006																																					
	2007																																					
POND4	2004							F		F																												
	2005					F		F		F																												
	2006																																					
	2007																																					
POND5	2004							F		F																												
	2005					F		F		F																												
	2006																																					
	2007																																					
POND6	2004																																					
	2005																																					
	2006								F												V																	
	2007								F												V																	
TE01	2004																				V	V											S					
	2005																																					
	2006																																					
	2007																																					
TE02	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					
TE03	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					
TE04	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					
TE05	2004																				V	V											S					
	2005																																					
	2006																																					
	2007																																					
TE06	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					
TE07	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					

Sample Location	Year	Period-of-Record by Discipline																																		Comment
		Sediment												Vegetation												Soil										
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
TE08	2004																				V	V											S					
	2005																																					
	2006																																					
	2007																																					
TE09	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					
TE10	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					
TE11	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					
TE12	2004																				V	V											S					
	2005																																					
	2006																																					
	2007																																					
TE13	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					
TE14	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					
TE15	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					
TE16	2004																				V												S					
	2005																																					
	2006																																					
	2007																																					
TE17	2004																				V	V											S					
	2005																																					
	2006																																					
	2007																																					
TE18	2004																				V												S					
	2005																																					
	2006																				V												S					
	2007																				V												S					

Sample Location	Year	Period-of-Record by Discipline																																				Comment
		Sediment												Vegetation												Soil												
	Month	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
TE19	2004																				V												S					
	2005																																					
	2006																				V												S					
	2007																				V												S					
TE20	2004																				V												S					
	2005																																					
	2006																				V												S					New Loc: North Head - East
	2007																				V												S					
TE21	2004																				V												S					
	2005																																					
	2006																				V												S					New Loc: Knoll Head
	2007																				V												S					
TE22	2004																				V												S					
	2005																																					
	2006																				V												S					New Loc: Just west of Port Site 1
	2007																				V												S					
TE23	2004																																					
	2005																																					
	2006																				V												S					
	2007																				V												S					
TE24	2004																																					
	2005																																					
	2006																				V												S					
	2007																				V												S					
SWQ1[a]	2004																																					
	2005																																					
	2006								F																													
	2007								F																													
SWQ2[a]	2004																																					
	2005																																					
	2006								F																													
	2007								F																													
SWQ3[a]	2004																																					
	2005																																					
	2006								F																													
	2007								F																													
SWQ4[a]	2004																																					
	2005																																					
	2006								F																													
	2007								F																													

KEY:

F Sediment samples collected.
V Vegetation samples collected from various plant species.
S Soil samples collected.

NOTES:

a. Water-quality samples, as well as sediment, are being collected at these sites.