

TABLE 1
PRB Pilot Test Groundwater Monitoring and Sampling Matrix

Sampling/ Monitoring Parameter	Monitoring Period	Monitoring/Sampling Frequency for Indicated Parameter												
		I-1	I-2	I-3	O-1	O-2	O-3	O-4	O-5	O-6	O-7	O-8	PC-98R	
Water Level	B	x	x	x	x	x	x	x	x	x	x	x	x	x
	I	h	h	h	3h	3h	d	d	d	d	d	d	d	end
	P – mo. 1-3	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo
	P – mo. 4-6	end	end	end	end	end	end	end	end	end	end	end	end	end
Visual Water Quality	B	x	x	x	x	x	x	x	x	x	x	x	x	x
	I	---	---	---	d	d	d	d	d	d	d	d	d	---
	P – mo. 1-3	2w	2w	2w	2w	2w	mo	mo	end	mo	mo	end	mo	mo
	P – mo. 4-6	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo
Field Parameters	B	x	x	x	x	x	x	x	x	x	x	x	x	x
	P – mo. 1	wk	wk	wk	wk	wk	wk	wk	wk	wk	wk	wk	wk	mo
	P – mo. 2-3	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo
	P – mo. 4-6	end	end	end	end	end	end	end	end	end	end	end	end	end
Analyte List A	B	x	x	x	x	x	x	x	x	x	x	x	x	x
	P – mo. 1	wk	wk	wk	wk	wk	wk	wk	wk	wk	wk	wk	wk	---
	P – mo. 2-3	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	mo	end
	P – mo. 4-6	end	end	end	end	end	end	end	end	end	end	end	end	end
Bromide (tracer)	B	---	---	---	x	x	x	x	x	x	x	x	x	---
	I	---	---	---	12h	12h	12h	12h	12h	12h	12h	12h	12h	---
	P – mo. 1	---	---	---	d: 1-7	d: 1-7	d: 1-7	d: 1-7	d: 1-7	d: 1-7	d: 1-7	d: 1-7	d: 1-7	---
	P – mo. 2-3	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloride	B	---	---	---	x	x	x	x	x	x	x	x	x	---
	P – mo. 1-3	---	---	---	end	end	end	end	end	end	end	end	end	---
	P – mo. 4-6	---	---	---	end	end	end	end	end	end	end	end	end	---
	B	---	---	---	x	x	x	x	---	x	x	---	---	
Dissolved methane	P – mo. 1-3	---	---	---	end	end	end	end	end	end	end	end	end	---
	P – mo. 4-6	---	---	---	end	end	end	end	end	end	end	end	end	---

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		I-1	I-2	I-3	O-1	O-2	O-3	O-4	O-5	O-6	O-7	O-8	PC-98R
Analyte List B	B	---	---	---	x	x	x	x	x	x	x	x	---
	P – mo. 1	---	---	---	wk	wk	wk	wk	wk	wk	wk	wk	---
	P – mo. 2-3	---	---	---	mo	mo	mo	mo	mo	mo	mo	mo	---
	P – mo. 4-6	---	---	---	end	end	end	end	end	end	end	end	---
Slug Test	B	---	x	---	---	x	x	---	x	x	---	x	---
	P – mo. 1-3	---	end	---	---	end	end	---	---	end	---	---	---
	P – mo. 4-6	---	---	---	---	---	---	---	end	---	---	end	---

Field Parameters: dissolved oxygen (DO), oxidation reduction potential (ORP), specific conductance (sc), pH, turbidity

Analyte List A: perchlorate, chlorate, nitrate sulfate, total organic carbon (TOC), volatile fatty acids (VFA)

Analyte List B: total and dissolved iron, total and dissolved manganese, total arsenic, arsenic speciation, hexavalent chromium (other metals may be added to this list based on results of bench-scale metals mobilization testing)

Monitoring period:

B – Baseline, prior to injection

I – During 3-day injection period

P – Post-injection monitoring period:

mo. 1: first month of post-injection monitoring period

mo. 2-3: months 2-3 of post-injection monitoring period

mo. 1-3: first 3 months of post-injection monitoring period

mo. 4-6: months 4-6 of post-injection monitoring period

Monitoring/sampling frequency:

x – sampled once

--- – not sampled

h – every hour

3h – every 3 hours

12h – every 12 hours

d – daily

d: 1-7 – daily for days 1-7

2w – every 2 weeks

mo – monthly

end – at end of designated monitoring period