0081498

Tri-Party Agreement

Change Notice for Modifying Approved Documents/ Workplans
In Accordance with the Tri-Party Agreement Action Plan,
Section 9.0, *Documentation and Records*

Change Number	Document Submitted Under Tri-Party Agreement Milestone	Date:
TPA-CN-205	N/A	06/___/08

Document Number and Title:	Date Document Last Issued:
DOE/RL-2003-4, Revision 1, Sampling and Analysis Plan for the 200-PO-1 Operable Unit	August 2005

Originator: G. D. Cummins	Phone: 372-2484

Description of Change: Amend Table 2-1, Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Unit Near-Field Wells, Table 2-2, Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Unit Far Field Wells and Table A.1, Sampling and Analysis Schedule for Supplemental Wells.

B. L. Charboneau (RL) and J. Price (Lead Regulatory Agency) agree that the proposed change modifies an approved workplan/document and will be processed in accordance with the Tri-Party Agreement Action Plan, Section 9.0, *Documentation and Records*, and not Chapter 12.0, *Changes to the Agreement.*

Table 2-1, Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Unit Near-Field Wells, Table 2-2, Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Unit Far Field Wells and Table A.1, Sampling and Analysis Schedule for Supplemental Wells are amended to reflect changes to monitoring locations, frequency and analytes. Measurement of groundwater levels is also added. The changes to Table 2-1, Table 2-2 and Table A.1 are highlighted with gray shading.

Justification and Impacts of Change:

The data gathered under this sampling and analysis plan will be used to help satisfy the requirements of the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA), 40 CFR 300.430(b), "Remedial Investigation/Feasibility Study and Selection of Remedy," "Scoping," and to fulfill site-wide surveillance monitoring requirements under the *Atomic Energy Act of 1954* (AEA), as implemented under DOE O 450.1, *Environmental Protection Program.*

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Approvals:

for Brent Charboneau RL Project Manager	6/16/08 Date	✓ Approved	__ Disapproved	
Ecology Project Manager (PO-1 OU Lead)	6-18-2008 Date	✓ Approved	__ Disapproved	
	___ Date	__ Approved	__ Disapproved	

Table 2-1. Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Unit Near-Field Wells. (3 Pages)

Well ID	Well Number	Co-Sample	Comments	WAC Compliant	Contaminants of Concern							Supporting Constituents							
					Arsenic	Chromium, Manganese, and Vanadium	Iodine-129	Nitrate	Strontium-90	Technetium-99	Tritium	Specific Conductance[a]	Temperature[a]	Turbidity[a]	Gross Alpha	Anions[b]	Gross Beta	Metals[c]	Uranium
200-PO-1 Near-Field Wells																			
A5878	299-E16-2			N/1960	A	A	A	A	A		A	A	A	A	A	A	A	A	
A4728	299-E17-1	RCRA-PUREX		N/1955	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A4730	299-E17-12			N/1986	A	A	A	A	A		A	A	A	A	A	A	A	A	
A4731	299-E17-13			N/1986	A	A	A	A	A		A	A	A	A	A	A	A	A	
A4732	299-E17-14	RCRA-PUREX		C/1988	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A4734	299-E17-16	RCRA-PUREX		C/1988	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A4736	299-E17-18	RCRA-PUREX		C/1988	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A4737	299-E17-19	RCRA-PUREX		C/1988	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
C3827	299-E17-23	IDF		C/2002	A	A	A	A			A	A	A	A	A	A	A	A	
C3926	299-E17-25	IDF		C/2002	A	A	A	A			A	A	A	A	A	A	A	A	
A4743	299-E18-1	IDF		C/1988	A	A	A	A			A	A	A	A	A	A	A	A	
A4747	299-E23-1			N/1948	A	A	A	A			A	A	A	A	A	A	A	A	
A4751	299-E24-16	RCRA-PUREX		C/1988	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A4753	299-E24-18	RCRA-PUREX		C/1988	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A4756	299-E24-20	RCRA-A-AX		C/1991	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
C4123	299-E24-22	RCRA-A-AX		C/2003	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
C5301	299-E24-23			C/2007	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
C4257	299-E24-33	RCRA-A-AX		C/2004	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
A5899	299-E24-5			N/1956	A	A	A	A			A	A	A	A	A	A	A	A	
A6031	299-E25-17	RCRA-PUREX		N/1976	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
A4764	299-E25-18			N/1976	A	A	A	A	A		A	A	A	A	A	A	A	A	
A4765	299-E25-19	RCRA-PUREX		N/1976	A	A	A	A	A	A	A	A	A	A	A	A	A	A	

Table 2-1. Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Unit Near-Field Wells. (3 Pages)

Well ID	Well Number	Co-Sample	Comments	WAC Compliant	Contaminants of Concern							Supporting Constituents							
					Arsenic	Chromium, Manganese, and Vanadium	Iodine-129	Nitrate	Strontium-90	Technetium-99	Tritium	Specific Cnductance[a]	Temperature[a]	Turbidity[a]	Gross Alpha	Anions[b]	Gross Beta	Metals[c]	Uranium
A4766	299-E25-2	RCRA-A-AX		N/1955	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
A4767	299-E25-20			N/1976	A	A	A	A	A		A	A	A	A	A	A	A	A	
A6032	299-E25-22			N/1983	A	A	A	A	A		A	A	A	A	A	A	A	A	
A4773	299-E25-28	RCRA-A-29	Deep unconfined	N/1986	A	A	A	A			A	A	A	A	A	A	A	A	
A4774	299-E25-29P		Piezometer	N/Unknonwn	A	A	A	A			A	A	A	A	A	A	A	A	
A4775	299-E25-29Q		Piezometer	N/Unknonwn	A	A	A	A			A	A	A	A	A	A	A	A	
C6542	299-E25-236	RCRA-A-AX		C/2008	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
A6024	299-E25-3			N/1954	A	A	A	A	A		A	A	A	A	A	A	A	A	
A4779	299-E25-32P	RCRA-A-29	Piezometer	C/1988	A	A	A	A			A	A	A	A	A	A	A	A	
A4780	299-E25-32Q		Piezometer	C/1988	A	A	A	A			A	A	A	A	A	A	A	A	
A4782	299-E25-34	RCRA-A-29		C/1988	A	A	A	A			A	A	A	A	A	A	A	A	
A4783	299-E25-35	RCRA-A-29		C/1988	A	A	A	A			A	A	A	A	A	A	A	A	
A4784	299-E25-36			C/1988	A	A	A	A	A		A	A	A	A	A	A	A	A	A
A4785	299-E25-37			C/1989	A	A	A	A			A	A	A	A	A	A	A	A	
A4789	299-E25-40	RCRA-A-AX		C/1989	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
A4790	299-E25-41	RCRA-A-AX		C/1989	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
A4791	299-E25-42			C/1991	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
A4792	299-E25-43			C/1991	A	A	A	A			A	A	A	A	A	A	A	A	
A5448	299-E25-44			C/1992	A	A	A	A			A	A	A	A	A	A	A	A	
A4794	299-E25-47			C/1992	A	A	A	A			A	A	A	A	A	A	A	A	
A4796	299-E25-6		Add gamma scan	N/1956	A	A	A	A	A		A	A	A	A	A	A	A	A	

Table 2-1. Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Unit Near-Field Wells. (3 Pages)

Well ID	Well Number	Co-Sample	Comments	WAC Compliant	Contaminants of Concern							Supporting Constituents							
					Arsenic	Chromium, Manganese, and Vanadium	Iodine-129	Nitrate	Strontium-90	Technetium-99	Tritium	Specific Conductance[a]	Temperature[a]	Turbidity[a]	Gross Alpha	Anions[b]	Gross Beta	Metals[c]	Uranium
			for 2 years																
C4122	299-E25-93	RCRA-A-AX		C/2003	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
C4665	299-E25-94	RCRA-A-AX		C/2004	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
C6542	299-E25-236	RCRA-A-AX	New WMA-A-AX wells. Replaces 299-E25-46	C/2008	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
A4804	299-E26-4			N/1958	A	A	A	A	A		A	A	A	A	A	A	A	A	
B2822	699-37-47A	RCRA-PUREX		C/1996	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
A5150	699-39-39			N/1970	A	A	A	A			A	A	A	A	A	A	A	A	
A5162	699-41-42			C/1992	A	A	A	A			A	A	A	A	A	A	A	A	
A5167	699-42-40A			N/1981	A	A	A	A			A	A	A	A	A	A	A	A	
A5171	699-42-42B	RCRA-B-Pond	Confined Ringold	C/1988	A	A	A	A			A	A	A	A	A	A	A	A	
A5180	699-43-45	RCRA-A-29, B-Pond		C/1989	A	A	A	A			A	A	A	A	A	A	A	A	
A5185	699-44-39B	RCRA-B-Pond		C/1992	A	A	A				A	A	A	A	A	A	A	A	

[a] Field measurement.
[b] Anions - Analytes include but not limited to nitrate.
[c] Metals - Analytes include but not limited to arsenic, chromium, manganese, and vanadium. Measured in *both* filtered and unfiltered samples in fiscal year 2008 *only* (see Section 2.3).

A = To be sampled annually.
C = Well construction is compliant with WAC 173-160 resource protection requirements, includes year of construction if available.
N = Well construction is not compliant with WAC 173-160 resource protection requirements, includes year of construction if available.

WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells."

IDF = Integrated Disposal Facility.
RCRA = *Resource Conservation and Recovery Act of 1976.*
PUREX = plutonium-extraction.
WAC = *Washington Administrative Code.*

Table 2-2. Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Far-Field Wells. (6 Pages)

Well ID	Well or Aquifer Tube Name	Co-Sample	Comments	WAC Compliant[a]	Contaminants of Concern			Supporting Constituents																			
					I-129	Nitrate	Tritium	Specific Conductance[b]	Temperature[b]	Turbidity[b]	Gross Alpha	Anions[c]	Arsenic	Gross Beta	Hexavalent Chromium	Cyanide	Gamma[d]	Hg and Pb	ICP Metals[e]	Sr-90	Tc-99	Total Organic Carbon	Total Organic Halides	Uranium	VOA[f]	Other Constituents	Water Level[b]
200-PO-1 Far-Field Wells																											
BC Cribs																											
A4726	299-E13-14			N/1956		A	A	A	A	A	A	A		A		A	A		A	A	A			A			A
A5853	299-E13-5			N/1955		A	A	A	A	A	A	A		A		A	A		A	A	A			A			A
A5858	299-E13-11			N/1956		A	A	A	A	A	A	A		A		A	A		A	A	A			A			A
A5864	299-E13-19			N/1957		A	A	A	A	A	A	A		A		A	A		A	A	A			A			A
Southeast Transect																											
A5063	699-10-54A			N/1950		A	A	A	A	A	A	A		A			A		A	A					A		A
A8457	699-24-46			N/1958	A	A	A	A	A	A	A	A		A			A		A	A					A		A
A5101	699-26-33	RCRA-NRDWL		C/1986	A	A	A	A	A	A	A	A		A			A		A	A					A		A
A5123	699-31-31			N/1956	A	A	A	A	A	A	A	A		A			A		A	A					A		A
A5126	699-32-22A			N/1971	A	A	A	A	A	A	A	A		A			A		A	A					A		A
A5127	699-32-43			N/1968	A	A	A	A	A	A	A	A		A			A		A	A					A		A
A5159	699-41-23			N/1948	A	A	A	A	A	A	A	A		A			A		A	A					A		A
A5197	699-46-21B			N/1955	A	A	A	A	A	A	A	A		A			A		A	A					A		A
River Transect																											
A5065	699-10-E12			N/1962		A	A	A	A	A	A	A		A			A		A	A					A		A
A9613	699-20-E12O			N/1961	A	A	A	A	A	A	A	A		A			A		A	A					A		A
A8646	699-41-1A			N/1979	A	A	A	A	A	A	A	A		A			A		A	A					A		A
A8726	699-46-4			N/1979	A	A	A	A	A	A	A	A		A			A		A	A					A		A
A5374	699-S3-E12			N/1960		A	A	A	A	A	A	A		A			A		A	A					A		A
A5370	699-S19-E13			N/1971		A	A	A	A	A	A	A		A			A		A	A					A		A

Table 2-2. Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Far-Field Wells. (6 Pages)

Well ID	Well or Aquifer Tube Name	Co-Sample	Comments	WAC Compliant[a]	Contaminants of Concern			Supporting Constituents																			
					I-129	Nitrate	Tritium	Specific Conductance[b]	Temperature[b]	Turbidity[b]	Gross Alpha	Anions[c]	Arsenic	Gross Beta	Hexavalent Chromium	Cyanide	Gamma[d]	Hg and Pb	ICP Metals[e]	Sr-90	Tc-99	Total Organic Carbon	Total Organic Halides	Uranium	VOA[f]	Other Constituents	Water Level[b]
Basalt Confined Aquifer																											
A4727	299-E16-1[g]		Elephant Mt interflow[h]	N/1961	T	T	T	T	T	T	T	T		T					T								T
A8262	699-13-1C[g]		Elephant Mt interflow & Rattlesnake Ridge interbed[h]	N		T	T	T	T	T	T	T		T					T								T
A8453	699-24-1P[g]		Rattlesnake Ridge Interbed & Pomona basalt[h]	N/1966		T	T	T	T	T	T	T		T					T								T
A8512	699-32-22B[g]		Rattlesnake Ridge interbed[h]	C/1991	T	T	T	T	T	T	T	T		T					T								T
A5169	699-42-40C[g]		Rattlesnake Ridge interbed[h]	N/1982	T	T	T	T	T	T	T	T		T					T								T
B8101	699-S2-34B		LIGO well (592 m deep)	N/1994		T	T	T	T	T	T	T		T					T								T
A9778	699-S11-E12AP		Levey Interbed (PNL-10817)	N/1962		T	T	T	T	T	T	T		T					T								T
Far-Field General																											
A8098	499-S0-7	400 Area		N/1972	A	A	A	A	A		A	A		A			A		A	A	A			A	A	NH_4	A
A8099	499-S0-8	400 Area	Water supply well	N/1972	A	A	A	A	A		A	A		A			A		A	A	A			A	A	NH_4	A

Table 2-2. Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Far-Field Wells. (6 Pages)

Well ID	Well or Aquifer Tube Name	Co-Sample	Comments	WAC Compliant[a]	Contaminants of Concern			Supporting Constituents																			
					I-129	Nitrate	Tritium	Specific Conductance[b]	Temperature[b]	Turbidity[b]	Gross Alpha	Anions[c]	Arsenic	Gross Beta	Hexavalent Chromium	Cyanide	Gamma[d]	Hg and Pb	ICP Metals[e]	Sr-90	Tc-99	Total Organic Carbon	Total Organic Halides	Uranium	VOA[f]	Other Constituents	Water Level[b]
A8114	499-S1-8J	400 Area	Water supply well	N/1985	A	A	A	A	A		A	A		A			A		A	A	A			A	A	NH_4	A
A8252	699-12-4D			N/1982	T	T	T	T	T	T		T															T
A8260	699-13-1A			N/1973	T	T	T	T	T	T		T															T
B2540	699-13-3A	300-FF-5		C/1995		T	T	T	T	T		T															T
A5068	699-14-38			N/1958		T	T	T	T	T		T															T
A5073	699-17-5			N/1950	T	T	T	T	T	T		T															T
A5075	699-19-43			N1950	T	T	T	T	T	T		T															T
A5080	699-20-20			N/1948	T	T	T	T	T	T		T															T
A9617	699-20-E12S		Deep unconfined[h]	N/1962		T	T	T	T	T		T															T
A8428	699-20-E5A			N/1976		T	T	T	T	T		T															T
A8438	699-21-6			N/1979	T	T	T	T	T	T		T															T
A5078	699-2-3			N/1950	T	T	T	T	T	T		T															T
A8443	699-22-35			C/1994	T	T	T	T	T	T		T															T
A5092	699-24-34C	SWL		C/1987	T	T	T	T	T	T		T															T
A5100	699-26-15A			N/1958	T	T	T	T	T	T		T															T
A5103	699-26-35A	RCRA-NRDWL, SWL		C/1986	T	T	T	T	T	T		T															T
B8077	699-2-6A			C/1997		A	A	A	A	A		A															A
A8122	699-2-7			N/1978		A	A	A	A	A		A															A
A5110	699-28-40			N/1956	T	T	T	T	T	T		T															T
A8490	699-29-4			N/1979	T	T	T	T	T	T		T															T
A8503	699-31-11			N/1980	T	T	T	T	T	T		T															T

Table 2-2. Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Far-Field Wells. (6 Pages)

Well ID	Well or Aquifer Tube Name	Co-Sample	Comments	WAC Compliant[a]	Contaminants of Concern			Supporting Constituents																			
					I-129	Nitrate	Tritium	Specific Conductance[b]	Temperature[b]	Turbidity[b]	Gross Alpha	Anions[c]	Arsenic	Gross Beta	Hexavalent Chromium	Cyanide	Gamma[d]	Hg and Pb	ICP Metals[e]	Sr-90	Tc-99	Total Organic Carbon	Total Organic Halides	Uranium	VOA[f]	Other Constituents	Water Level[b]
A5133	699-33-56			N/1958		T	T	T	T	T		T															T
A5135	699-34-41B			N/1970	T	T	T	T	T	T		T															T
A5136	699-34-42			N/1970	T	T	T	T	T	T		T															T
A5142	699-35-9			N/1950	T	T	T	T	T	T		T															T
A5146	699-37-43			N/1955	T	T	T	T	T	T		T															T
A8588	699-37-E4			N/1982	T	T	T	T	T	T		T															T
A8594	699-38-15			N/1979	T	T	T	T	T	T		T															T
A5152	699-40-1			N/1961	T	T	T	T	T	T		T															T
A5153	699-40-33A			N/1949	T	T	T	T	T	T		T															T
A5154	699-40-36	TEDF		C/1992	T	T	T	T	T	T		T															T
A5161	699-41-40		Confined Ringold[h]	C/1989	T	T	T	T	T	T		T															T
A5163	699-42-12A			N/1957	T	T	T	T	T	T		T															T
A5165	699-42-39A			C/1991	T	T	T	T	T	T		T															T
A5166	699-42-39B		Confined Ringold[h]	C/1991	T	T	T	T	T	T		T															T
A8677	699-43-3			N/1979	T	T	T	T	T	T		T															T
A5195	699-45-42			N/1948	T	T	T	T	T	T		T															T
A8744	699-47-5			N/1979	T	T	T	T	T	T		T															T
A5213	699-48-7A			N/1943		T	T	T	T	T		T															T
A5215	699-49-13E			N/1944	T	T	T	T	T	T		T															T
A5222	699-50-28B			N/1971	T	T	T	T	T	T		T															T
A5233	699-52-19			N/1944		T	T	T	T	T		T															T
A5333	699-8-17			N/1950	T	T	T	T	T	T		T															T

Table 2-2. Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Far-Field Wells. (6 Pages)

Well ID	Well or Aquifer Tube Name	Co-Sample	Comments	WAC Compliant[a]	Contaminants of Concern			Supporting Constituents																			
					I-129	Nitrate	Tritium	Specific Conductance[b]	Temperature[b]	Turbidity[b]	Gross Alpha	Anions[c]	Arsenic	Gross Beta	Hexavalent Chromium	Cyanide	Gamma[d]	Hg and Pb	ICP Metals[e]	Sr-90	Tc-99	Total Organic Carbon	Total Organic Halides	Uranium	VOA[f]	Other Constituents	Water Level[b]
A5334	699-8-25			N/1971	T	T	T	T	T	T		T															T
A5349	699-9-E2			N/1958	T	T	T	T	T	T		T															T
A5366	699-S12-3			N/1950		T	T	T	T	T		T															T
A5421	699-S19-E14			C/1991		T	T	T	T	T		T															T
A5373	699-S3-25			N/1971		T	T	T	T	T		T															T
A5405	699-S6-E14A			N/1962		T	T	T	T	T		T															T
A9152	699-S6-E4A	300-FF-5		N/1948		T	T	T	T	T		T															T
A9153	699-S6-E4B	300-FF-5		N/1953		T	T	T	T	T		T															T
A5408	699-S8-19			N/1950		T	T	T	T	T		T															T
Aquifer Sampling Tube Locations (Hanford Town Site)[i]																											
B8395, 6	82-M, S		82-Medium, Shallow		A	A	A				A	A		A	A						A						
B8397	83-D		83-Deep; scheduled for replacement in FY 2008		A	A	A				A	A		A	A						A						
B8400, 1, 2	84-D, M, S		84-Deep, Medium, Shallow		A	A	A				A	A		A	A						A						
B8403, 4, 5	85-D, M, S		85-Deep, Medium, Shallow		A	A	A				A	A		A	A						A						
B8406, 7, 8	86-D, M, S		86-Deep, Medium, Shallow		A	A	A				A	A		A	A						A						

Table 2-2. Sampling and Analysis Schedule for 200-PO-1 Groundwater Operable Far-Field Wells. (6 Pages)

Well ID	Well or Aquifer Tube Name	Co-Sample	Comments	WAC Compliant[a]	Contaminants of Concern			Supporting Constituents																		
					I-129	Nitrate	Tritium	Specific Conductance[b]	Temperature[b]	Turbidity[b]	Gross Alpha	Anions[c]	Arsenic	Gross Beta	Hexavalent Chromium	Cyanide	Gamma[d]	Hg and Pb	ICP Metals[e]	Sr-90	Tc-99	Total Organic Carbon	Total Organic Halides	Uranium	VOA[f]	Other Constituents	Water Level[b]

[a] Includes year of construction if available.
[b] Field measurement.
[c] Anions - Analytes include but not limited to nitrate. For the transect wells, analytes include but not limited to nitrate, sulfate, chloride, nitrite, and fluoride.
[d] Gamma Scan - Analytes include but not limited to cobalt-60.
[e] Metals - Analytes include but not limited to chromium, manganese, and vanadium.
[f] VOA - Analytes include but not limited to trichloroethene, 1,1-dichloroethene, 1,2-dichloroethene, tetrachloroethene, and vinyl chloride.
[g] Triennial sampling next scheduled for fiscal year 2009.
[h] PNNL-13021, *Water-Level Monitoring Plan for the Hanford Groundwater Monitoring Project*
[I] Aquifer tube sites may include multiple depths: deep (D), medium (M), and shallow (S). Each tube is sampled for field parameters if conditions permit. Laboratory samples are collected from the tube having the highest specific conductance >160 µS/cm. If conductivity of no tube exceeds that value, lab samples are not collected.

A = To be sampled annually.
C = Well construction is compliant with WAC 173-160 resource protection requirements.
N = Well construction is not compliant with WAC 173-160 resource protection requirements.
T = To be sampled triennially and scheduled for fiscal year 2007.

PNL-10817, *Hydrochemistry and Hydrogeologic Conditions Within the Hanford Site Upper Basalt Confined Aquifer System.*
WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells."

NRDWL = Nonradioactive Dangerous Waste Landfill.
RCRA = *Resource Conservation and Recovery Act of 1976.*
SWL = Solid Waste Landfill.
VOA = volatile organic analysis.
WAC = *Washington Administrative Code.*
IDF = Integrated Disposal Facility.
TEDF = Treated Effluent Disposal Facility.
WMA = Waste Management Area.

Table A-1. Sampling and Analysis Schedule for Supplementary Wells. (4 Pages)

Well or Aquifer Tube Name	Co-Sample	Comments	Alkalinity	Alpha	Anions [a]	Arsenic	Beta	Hexavalent Chromium	Cyanide	Gamma	Hg and Pb	I-129	ICP Metals (filtered) [b]	Phenols	Sr-90	Tc-99	Total Dissolved Solids [c]	Total Organic Carbon	Total Organic Halides	Tritium	Uranium	VOA	Other Constituents
RCRA Treatment, Storage, and Disposal Units																							
:ribs																							
299-E17-1	200-PO-1				S								S	A									
299-E17-14	200-PO-1				Q								Q	A									
299-E17-16	200-PO-1				S								S	A									
299-E17-18	200-PO-1				S								S	A									
299-E17-19	200-PO-1				S								S	A									
299-E24-16	200-PO-1				Q								Q	A									
299-E24-18	200-PO-1				S								S	A									
299-E25-17	200-PO-1				S								S	A									
299-E25-19	200-PO-1				Q								Q	A									
299-E25-31	200-PO-1				S								S	A									
599-37-47A	200-PO-1				S								S	A									
:nagement Area A-AX [e]																							
24-20	200-PO-1		Q		Q								Q			Q		Q					
299-E24-22	200-PO-1	Top of confined	Q		Q								Q			Q		Q					
299-E24-33	200-PO-1		Q		Q								Q			Q		Q					
299-E25-2	200-PO-1		Q		Q								Q			Q		Q					
299-E25-40	200-PO-1		Q		Q								Q			Q		Q					
299-E25-41	200-PO-1		Q		Q								Q			Q		Q					
299-E25-93	200-PO-1	Top of confined	Q		Q								Q			Q		Q					
299-E25-94	200-PO-1		Q		Q								Q			Q		Q					
299-E25-236	200-PO-1		Q		Q								Q			Q		Q					
Ditch																							
299-E25-26			S		S								A	A				S	S				
299-E25-28	200-PO-1	Deep unconfined	S		S								A	A				S	S				
299-E25-32P	200-PO-1		S		S								A	A				S	S				
299-E25-34	200-PO-1		S		S								A	A				S	S				
299-E25-35	200-PO-1		S		S								A	A				S	S				
299-E25-48			S		S								A	A				S	S				
299-E26-12			S		S								A	A				S	S				
299-E26-13			S		S								A	A				S	S				
599-43-45	200-PO-1		S		S								A	A				S	S				

Table A-1. Sampling and Analysis Schedule for Supplementary Wells. (4 Pages)

Well or Aquifer Tube Name	Co-Sample	Comments	Alkalinity	Alpha	Anions [a]	Arsenic	Beta	Hexavalent Chromium	Cyanide	Gamma	Hg and Pb	I-129	ICP Metals (filtered) [b]	Phenols	Sr-90	Tc-99	Total Dissolved Solids [c]	Total Organic Carbon	Total Organic Halides	Tritium	Uranium	VOA	Other Constituents
699-42-42B	200-PO-1	Confined Ringold [f]	A	S	A		S						A	A				S	S				
699-43-44			A	S	A		S						A	A				S	S				
699-43-45	200-PO-1		A	S	A		S						A	A				S	S				
699-44-39B	200-PO-1		A	S	A		S						A	A				S	S				
ioactive Dangerous Waste Landfill																							
699-25-33A		Bottom unconfined			S								A	A				S	S			S	
699-25-34A					S								A	A				S	S			S	
699-25-34B					S								A	A				S	S			S	
699-25-34D					S								A	A				S	S			S	
699-26-33	200-PO-1				S								A	A				S	S			S	
699-26-34A					S								A	A				S	S			S	
699-26-34B					S								A	A				S	S			S	
6 `6-35A	RCRA/SWL 200-PO-1				Q	Q							Q	A				Q	S			Q	
699-26-35C		Bottom unconfined			S								A	A				S	S			S	
d Disposal Facility																							
299-E17-26			S	S	S		S					S	S			S		S	S				
299-E17-22			S	S	S		S					S	S			S		S	S				
299-E17-23	200-PO-1		S	S	S		S					S	S			S		S	S				
299-E17-25	200-PO-1		S	S	S		S					S	S			S		S	S				
299-E18-1	200-PO-1		S	S	S		S					S	S			S		S	S				
299-E24-21			S	S	S		S					S	S			S		S	S				
299-E24-24			S	S	S		S					S	S			S		S	S				
WAC Sites																							
ste Landfill (600 Area Central Landfill)																							
699-22-35	200-PO-1				Q	Q							Q					Q				Q	Q:Amm, COD, Col
699-23-34A					Q	Q							Q					Q				Q	Q:Amm, COD, Col
699-23-34B					Q	Q							Q					Q				Q	Q:Amm, COD, Col
699-24-33					Q	Q							Q					Q				Q	Q:Amm, COD, Col
699-24-34A					Q	Q							Q					Q				Q	Q:Amm, COD, Col

Table A-1. Sampling and Analysis Schedule for Supplementary Wells. (4 Pages)

Well or Aquifer Tube Name	Co-Sample	Comments	Alkalinity	Alpha	Anions [a]	Arsenic	Beta	Hexavalent Chromium	Cyanide	Gamma	Hg and Pb	I-129	ICP Metals (filtered) [b]	Phenols	Sr-90	Tc-99	Total Dissolved Solids [c]	Total Organic Carbon	Total Organic Halides	Tritium	Uranium	VOA	Other Constituents
699-24-34B					Q	Q							Q					Q				Q	Q:Amm, COD, Col
699-24-34C	200-PO-1				Q	Q							Q					Q				Q	Q:Amm, COD, Col
699-24-35					Q	Q							Q					Q				Q	Q:Amm, COD, Col
699-26-35A	200-PO-1				Q	Q							Q					Q				Q	Q:Amm, COD, Col
Treated Effluent Disposal Facility (TEDF)																							
699-40-36				Q	Q		Q				Q		Q				Q			A			Q: Cd, Tr. Mtls
699-41-35				Q	Q		Q				Q		Q				Q			A			Q: Cd, Tr. Mtls
699-42-37				Q	Q		Q				Q		Q				Q			A			Q: Cd, Tr. Mtls
CERCLA (300-FF-5)																							
ırial Grounds and 316-4 Crib																							
699-S6-E4A	200-PO-1		S	Q	Q		Q						S			S				S	Q	S	S:SVOA
(6-E4B	200-PO-1		S	S	S		S						S							S	S		
699-S6-E4D			A	A	A		A						A			A				A	A		
699-S6-E4E			S	S	S		S						S							S	S		
699-S6-E4K			S	S	S		S						S			S				S	S	S	S:SVOA
699-S6-E4L			S	Q	Q		Q						S			S				S	Q	S	S:SVOA
ırial Grounds																							
699-12-2C			S	Q	S		Q						S			S				Q	S		
699-13-0A			S	Q	S		Q						S							Q			
699-13-1E			S	Q	S		Q						S							Q			
699-13-2D			S	Q	S		Q						S			S				Q	S		
699-13-3A	200-PO-1		S	Q	S		Q						S			S				Q	S		
699-12-4D			A	A	A		A						A			A				A	A		

:: [a] Anions – Analytes include but not limited to nitrate.
[b] Metals – Analytes include but not limited to chromium, manganese, and vanadium.
[c] Optional constituent.
[d] Field measurement.
[e] Waste Management Area A-AX wells will be sampled and evaluated for possible continued use to monitor cribs and to provide a monitoring location betwee Management Area A-AX and Waste Management Area C.
[f] PNNL-13021, *Water-Level Monitoring Plan for the Hanford Groundwater Monitoring Project.*

ɔ be sampled annually.
ɔ be sampled semiannually.
ɔ be sampled quarterly.