URS

May 24, 2004

Mr. Mark Erickson
Wilder Construction Company
11301 Lang Street
Anchorage, Alaska 99515

Re: BLM Campbell Tract Dry Well Investigation Results
Project Number: 26219604

Dear Mr. Erickson:

In November 2003, Wilder Construction Company (Wilder) and URS Corporation (URS) performed an investigation of a dry well that served the maintenance building (Unit C) at the Bureau of Land Management (BLM) Campbell Tract Facility in Anchorage, Alaska. The locations of the facility and dry well schematic are shown in Figures 1 and 2. The dry well was constructed in 1967 of concrete blocks laid on edge with coarse gravel and rock backfill. The dry well received liquids from five floor drains in the vehicle maintenance building until Spring 2003 when the floor drains were plugged. Effluent from the floor drains passed through an in-line oil interceptor prior to discharge to the dry well. Activities in the building during the time the floor drains were used included typical vehicle and equipment maintenance such as oil changes, light repair work, and cleaning. Fluids that could have been discharged to the oil interceptor and dry well include floor wash water, oil, antifreeze, cleaning chemicals, and fuel (e.g., gasoline and diesel). Volumes of non-rainwater wastewater discharges are unknown but are unlikely to have been large, based on past usage patterns of the facility.

The dry well also received and continues to receive runoff from roof drains from the approximately 6,000-square foot building. The volume of runoff is roughly 60,000 gallons per year based on an average precipitation of 16 inches and the assumption that all roof precipitation discharges to the dry well. The dry well was identified during a Compliance Assessment-Safety, Health, and the Environment (CASHE) inspection of the facility in 2001.

REGULATORY AUTHORITY AND SAMPLING AND ANALYSIS PLAN

The Underground Injection Control (UIC) Program under Title 40, U.S. Code of Federal Regulations (CFR), Part 144 (40 CFR 144) sets forth requirements for underground injection wells. The EPA administers Alaska's UIC program for all injection wells with the exception of Class II wells, which are administered by the Alaska Oil and Gas Conservation Commission (AOGCC). Based on the regulations in 40 CFR 144, the BLM Campbell Tract facility dry well would be defined as a Class V shallow injection well and likely classed as a former motor vehicle disposal well based on its past use.

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Dry well and drain closures completed at this site are overseen by the EPA. The dry well investigation and sampling followed the general procedures found in the *EPA Guidelines for Characterizing, Closing, and Abandoning Shallow Injection Wells* (March 2001). This document is used as guidance for dry well investigations and closures for EPA Region X.

Prior to work in the area, a sampling and analysis plan (SAP) titled "Sampling *and Analysis Plan, Dry Well Investigation, Campbell Track, Anchorage, Alaska"* (November 6, 2003) was submitted to Ms. Jennifer Parker of the Environmental Protection Agency (EPA) for review. Mr. Thor Cutler has subsequently taken over for Ms. Paker in the position EPA UIC program manager. An additional copy of the SAP was also sent to the Alaska Department of Environmental Conservation (ADEC). Unless otherwise noted in this summary report, the dry well investigation was completed according the SAP procedures and protocols.

DRY WELL INSPECTION

Wilder and URS excavated the material overlying the dry well on November 3, 2003. The dry well was confirmed to be 8 feet square by 8 feet deep with a 6-inch-thick concrete cover. The top of the well was approximately 9 feet below ground surface (bgs). The dry well contained water; the depth to which was approximately 5 feet below the top of the dry well or approximately 14 feet below ground surface (bgs). The water was approximately 2 feet deep, overlying sludge that was dark gray to black with a distinct hydrocarbon odor. According to the design drawings for the dry well, it can be assumed that the sludge is approximately one foot thick. Oily fines were observed on the top row of cement blocks, demonstrating that at least during peak discharges, the dry well runs "full." Construction details and precise location are presented on Figures 3 and 4.

As required in the SAP, the water and sludge contained in the dry well was sampled and analyzed for:

- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B
- Gasoline Range Organics (GRO) by Alaska Department of Environmental Conservation (ADEC) Method AK101
- Diesel Range Organics (DRO) by ADEC Method AK102
- Residual Range Organics (RRO) by ADEC Method AK103
- Volatile organic compounds (VOCs) by EPA Method 8260B
- Semi-volatile organic compounds by EPA Method 8270C SIM
- RCRA 8 Metals by EPA Method 6000/7000 series
- Polychlorinated biphenyls (PCBs) by EPA Method 8082

Additionally, the sludge was analyzed for toxicity characteristic leaching procedure (TCLP) for cadmium, chromium, and lead since high total concentrations were detected and verification was needed to determine if the sludge was a possible hazardous waste. The laboratory results for this project are attached. SGS in Anchorage completed all analytical testing.

All results for the water sample (23CT01WA) were non-detect except for barium, which was detected at 0.0316 mg/L. Since the ADEC groundwater cleanup level and the drinking water maximum contaminant level (MCL) for barium is 2 mg/L, the water standing in the dry well complied with applicable cleanup standards for groundwater for all analytical parameters tested.

For the sludge sample (23CT01SD), however, all eight RCRA metals were detected at concentrations that appeared elevated (i.e., over concentrations that would normally be expected for background soil samples), along with several fuel-related compounds. Select analytical results are presented on Table 1. Arsenic, cadmium, chromium, selenium, PCBs (Aroclor-1254), and DRO exceeded ADEC Method 2 cleanup levels for soil. Additionally, lead was detected at a concentration above the residential cleanup level of 400 mg/kg. It was also noted during sampling that disturbing the sludge released petroleum sheen to the water surface.

The cadmium, chromium, and lead detections for the sludge sample were significant enough that TCLP testing was completed to determine if the material was a hazardous waste. Results of the TCLP tests were below the levels that would have resulted in a hazardous determination due to toxicity. Neither the sample results nor the other available information suggests that the sludge meets the definition of hazardous waste. However, as discussed previously, the sludge does exceed ADEC cleanup levels and will require disposal and/or treatment according to the regulations within Title 18, Chapter 75, of the Alaska Administrative Code (AAC).

SOIL BORINGS

In addition to the inspection of the interior of the dry well, three soil borings were advanced around the dry well perimeter to determine if discharges resulted in contamination of the subsurface. Discovery Drilling advanced the borings on November 10, 2003, using a truck-mounted drill rig equipped with hollow stem augers. Soil boring SB01 was advanced 6 feet from the northeast side of the dry well, SB02 was 3 feet from the northwest side, and SB03 was 5 feet from the southwest side. Soil samples were obtained using split spoon samplers beginning at 5 feet bgs and at 2.5-foot intervals thereafter. Upon retrieval of each sample, the samples were quickly evaluated for the potential presence of contaminants using the photoionization detector (PID) and other indicators such as moisture, odor, or staining. If determined appropriate by the field sampler, laboratory samples were collected quickly to avoid the potential loss of volatile contaminants. Following collection of laboratory samples, a portion of each sample was placed in Ziploc-type bags and warmed in a vehicle prior to using the PID to measure organic vapors. Finally, a description of each sample was recorded and the samplers were decontaminated for reuse. One field duplicate sample (23CT14SL, duplicate of 23CT04SL) was collected and an equipment blank (23CT02WA) of the soil sampling implements was also collected for quality assurance / quality control (QA/QC) purposes.

As shown on the attached boring logs, subsurface material was predominantly sand and gravel to a depth of approximately 22 or 23 feet bgs where a layer of silt was encountered. PID readings were relatively low except that two samples from SB01 exceeded the range of the PID with a possible fuel

odor. One sample from each of the other borings also appeared to have odor, however, PID results were much lower. None of the samples were described as having a strong odor. Laboratory results are attached and summarized on Table 1. Soil samples were non-detect for all organic analytes except that several had detections of chloroform ranging from 0.0369 to 0.0811 mg/kg, which is below the 1.4 mg/kg ADEC soil cleanup level. Additionally, chloroform is a common laboratory contaminant and is not a likely target contaminant of concern at this site. However, it should be noted that although sample 23CT02SL was one of the samples with a PID result that exceeded the instrument's range; it was essentially non-detect for VOCs with the exception of chloroform

Mercury, arsenic, barium, chromium, and lead were detected in each of the soil samples collected from the borings. Each of the soil samples exceeded cleanup levels for arsenic and chromium, except for the field duplicate sample that did not exceed the cleanup level for chromium. The natural occurrence of these metals in soil likely accounts for part or all of the exceedances.

Water was encountered in soil boring SB01 at approximately 15 feet bgs, which correlates approximately with the depth to water within the dry well. However, soil samples from SB02 and SB03 did not appear saturated until approximately 18 feet and 22.5 feet bgs, respectively. These borings were within 25 feet of each other and demonstrate that the observed water was not continuous and would best be described as "perched." Collection of water "screening" samples was attempted for each boring using a bailer to withdraw water that recharged the hollow stem augers. The volume of water that entered the augers was limited; only ¾ liter was obtained from SB01 (screening sample 23CT02WA), 80 milliliters was obtained from SB02 (screening sample 23CT04WA), and no water was available from SB03. Due to the limited sample volume, only VOCs and PAHs were analyzed for the screening sample from SB01 and only VOCs were analyzed for the sample from SB02. Water samples were non-detect for all parameters.

CONCLUSIONS AND RECOMMENDATIONS

Although water was encountered in the borings, it is unknown if it was true groundwater, perched infiltration, or residual water from discharges of rainwater to the dry well. The silt encountered at approximately 22 to 23 feet bgs probably acts as an aquatard, retarding or preventing downward flow of surface infiltration and water discharged to the dry well. As historical discharges to the dry well included hydrocarbons and heavy metals (as demonstrated by analytical results of the sludge sample), groundwater contamination from historical use is possible. Although the water samples collected during this investigation were not contaminated, it may be advisable due to the age of the dry well to install a monitoring well so that a groundwater sample can be collected for petroleum hydrocarbon, VOC, and heavy metal analysis.

The floor drains within the maintenance facility have been plugged preventing any future non-sanitary wastewater discharges to the dry well. Water standing in the dry well complied with ADEC groundwater cleanup standards and drinking water MCLs even though it was in direct contact with the contaminated sludge. However, sludge in the dry well exceeded several ADEC cleanup standards and

will need to be removed and treated offsite. Based on the laboratory results, the sludge and soil could be disposed at thermal treatment facility. Alaska Soil Recycling (ASR) in Anchorage has more stringent requirements for acceptance of PCB-contaminated soils and cannot accept the sludge due to the detection of PCBs at 1.77 mg/kg. Therefore, the sludge and any soils with concentrations of PCBs above non-detect would need to be shipped to OIT, Inc. in North Pole, which can accept soils with PCBs up to 50 mg/kg. This would increase soil and sludge disposal costs since the material would have to be trucked from Anchorage to North Pole. The sludge would also have to be drained of free-liquids prior to shipment to OIT.

It was not practicable to collect samples beneath the sludge without damaging the dry well structure; therefore, the vertical extent of contaminated material directly beneath the dry well unit is not known. However, the absence of contamination in soil samples collected from nearby borings suggests the extent of contaminated soil is limited to a "bulb" of contamination immediately around and beneath the dry well. Therefore, excavation of the contaminated soil and sludge is likely to be the most cost effective remedial alternative to comply with ADEC and EPA cleanup requirements.

Based on the design of the dry well, it is not possible to remove the contaminated soil and sludge without permanently damaging the dry well structure. A replacement discharge system (e.g., new dry well, surface discharge) for the building roof drainage system will need to be placed into operation to handle stormwater runoff from the prior to demolition of the existing dry well. A new dry well could be used for the roof drainage if an inventory form is submitted to EPA and it only serves as a stormwater discharge point (i.e., no floor drain connections).

A work plan will be required by ADEC and must be submitted and approved prior to commencing remediation work at this site. Telephone discussions with Mr. Thor Cutler (206-553-1673 Fax: 206-553-1280 Email: cutler.thor@epa.gov), the EPA UIC program manager, indicate that EPA would defer primary cleanup authority to the ADEC since it appears that the primary contaminants at this location are petroleum hydrocarbons. However, EPA would need to be copied on the progress of removal and cleanup of the dry well. Additionally, 30-days prior to removal of the dry well, a Class V Well Pre-Closure Notification Form must be submitted to EPA (attached). The form simply states that unit is being removed from service. The EPA pre-closure form mentions a "closure plan" which can be the same work plan submitted to ADEC.

Two drums of 55-gallon drums of soil cuttings generated during the October 2003 soil boring field investigation will require disposal at OIT. This soil could be disposed at the same time excavation activities occur.

Sincerely,

URS Corporation

Chris Holden
Project Engineer

CPH:cph

Attachments

- Figure 1 – Site Location Map
- Figure 2 – 2002 Aerial Photograph
- Figure 3 – Dry Well Location and Soil Boring Locations
- Figure 4 – Dry Well Detail
- Table 1 – Soil/Sludge Samples - Select Results
- Boring Logs
- Class V Well Pre-Closure Notification Form
- Analytical Results

Table 1
BLM Campbell Tract Dry Well Investigation
Soil/Sludge Samples - Select Results

Sample ID	23CT01SD	23CT01SL	23CT02SL	23CT03SL	23CT04SL	23CT14SL	23CT05SL	Applicable Cleanup Level [a]
Sample Description	Dry Well Sludge	Soil Boring SB01	Soil Boring SB01	Soil Boring SB02	Soil Boring SB03	Field Dup. of 23CT04SL	Soil Boring SB03	
Sample Depth (feet bgs)	Grab	12.5 to 14.5	18 to 20	21 to 22	10 to 12	10 to 12	24 to 24.5	
Analyte								
RCRA 8 Metals by EPA Method 6020 /7421 (mg/kg)								
Mercury	0.864	0.106	0.102	0.0612	0.123	0.108	0.0461	1.4
Arsenic	11.4	2.76	5.49	3.95	3.21	2.79	3.78	2
Barium	307	71.3	50	39.3	44.8	40.5	56.6	1,100
Cadmium	48.9	0.201 U	0.202 U	0.198 U	0.203 U	0.204 U	0.220 U	5
Chromium	149	37.1	29.9	27.3	30.1	24.4	27.6	26
Lead	948	3.58	7.46	4.78	3.89	3.84	4.57	1,000
Selenium	9.76	0.502 U	0.506 U	0.496 U	0.508 U	0.510 U	0.549 U	3.5
Silver	0.887	0.100 U	0.101 U	0.0992 U	0.102 U	0.102 U	0.110 U	21
TCLP Metals by EPA Method 6010B /1311 (mg/L)								
Cadmium	0.0826	NA	NA	NA	NA	NA	NA	1
Chromium	0.2 U	NA	NA	NA	NA	NA	NA	5
Lead	1.33	NA	NA	NA	NA	NA	NA	5
Petroleum Hydrocarbons (mg/kg)								
GRO (AK101)	3.68	1.38 U	1.37 U	1.19 U	1.28 U	1.54 U	1.13 U	300
DRO (AK102)	4,300	21.5 U	21.9 U	22.6 U	20.8 U	20.5 U	22.7 U	250
RRO (AK103)	6,360	21.5 U	21.9 U	22.6 U	20.8 U	20.5 U	22.7 U	10,000
BTEX by EPA Method 8021B (mg/kg)								
Benzene	0.0181 U	0.00716 U	0.00714 U	0.00617 U	0.00663 U	0.00799 U	0.00588 U	0.02
Toluene	0.0724 U	0.0275 U	0.0274 U	0.0237 U	0.0255 U	0.0307 U	0.0226 U	5.4
Ethylbenzene	0.0724 U	0.0275 U	0.0274 U	0.0237 U	0.0255 U	0.0307 U	0.0226 U	5.5
P&M-xylene	0.0905	0.0275 U	0.0274 U	0.0237 U	0.0255 U	0.0307 U	0.0226 U	78 [b]
o-Xylene	0.131	0.0275 U	0.0274 U	0.0237 U	0.0255 U	0.0307 U	0.0226 U	
PCBs by EPA Method 8082 (mg/kg)								
Aroclor-1254	1.77	0.0545 U	0.0580 U	0.0590 U	0.0574 U	0.0591	0.0582 U	1 [c]
Volatile Organics by EPA Method 8260B								
1,2,4-Trimethylbenzene	0.0858	0.0275 U	0.0274 U	0.0237 U	0.0255 U	0.0307 U	0.0226 U	NE
4-Isopropyltoluene	0.372	0.0138 U	0.0137 U	0.0119 U	0.0128 U	0.0154 U	0.0113 U	NE
Chloroform	0.0362 U	0.0138 U	0.0541	0.0811	0.0369	0.0154 U	0.0329	1.4

U = Not detected above detection limits with detection limit shown

Note [a]: ADEC soil cleanup levels, 18 AAC 75.341, "Under 40-inch Zone," Table B1 and Table B2 with exception of TCLP which is based on 40 CFR 261.

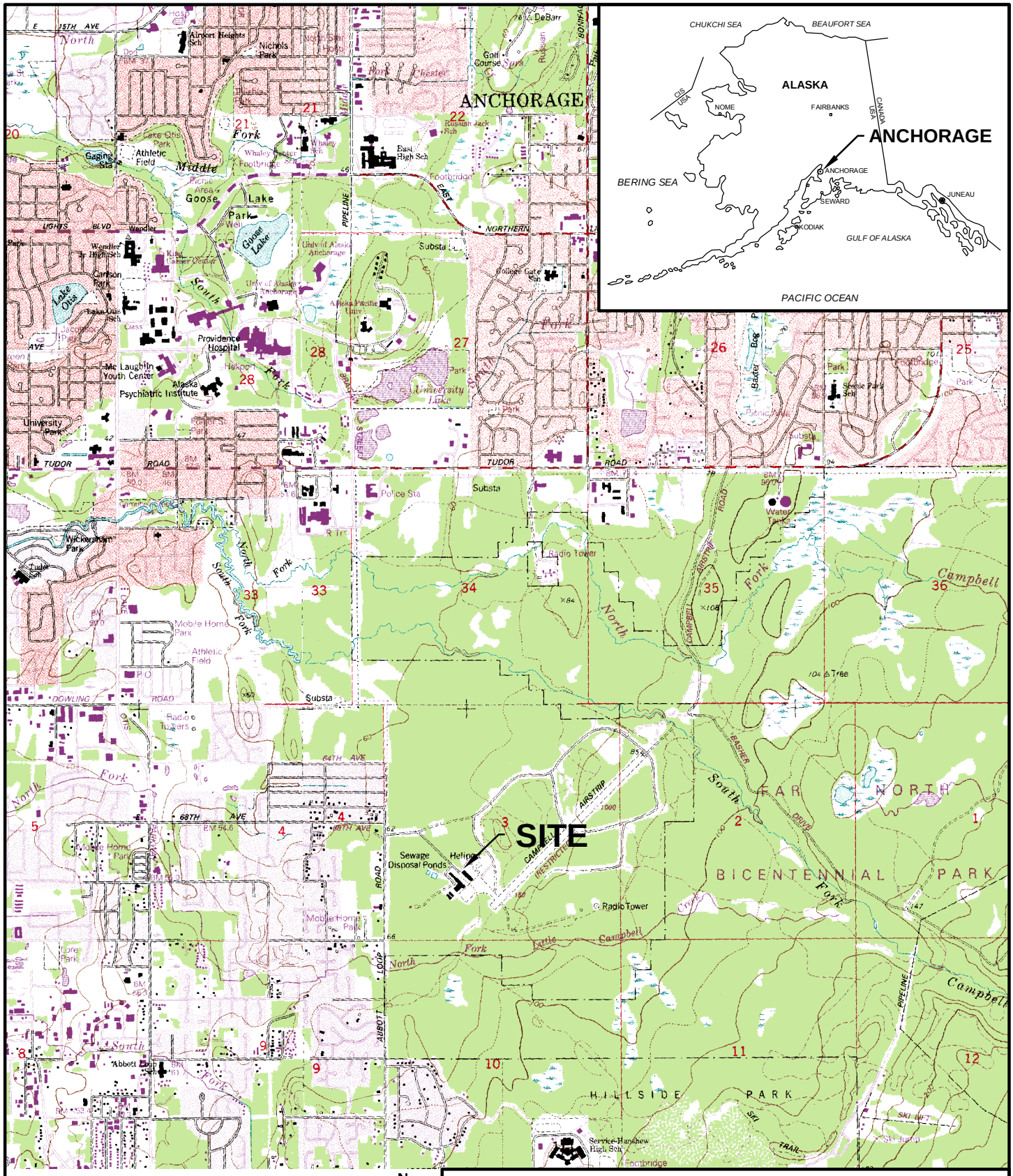
Note [b]: Regulated value is based on total xylenes.

Note [c]: Regulated value is based on sum of all 7 PCB isomers (total). Only detected isomers are shown.

Shaded results exceed the cleanup level.

NE = An ADEC cleanup level has not been established for this analyte.

NA = Not analyzed



BUREAU OF LAND MANAGEMENT

CAMPBELL TRACT FACILITY DRY WELL

SITE LOCATION MAP

ANCHORAGE, ALASKA

URS

JOB NO: 262195604	DRAWN: ARN
DATE: 9/12/03	FILE: DRYWELL INV.DWG

FIGURE 1

Source: AeroMap US, Inc.
Date: 9/10/02, Roll #2002-15C, Exp. #10-12

0 75 150 300
SCALE IN FEET

N
W E

BUREAU OF LAND MANAGEMENT
CAMPBELL TRACT FACILITY DRY WELL

2002 AERIAL PHOTOGRAPH

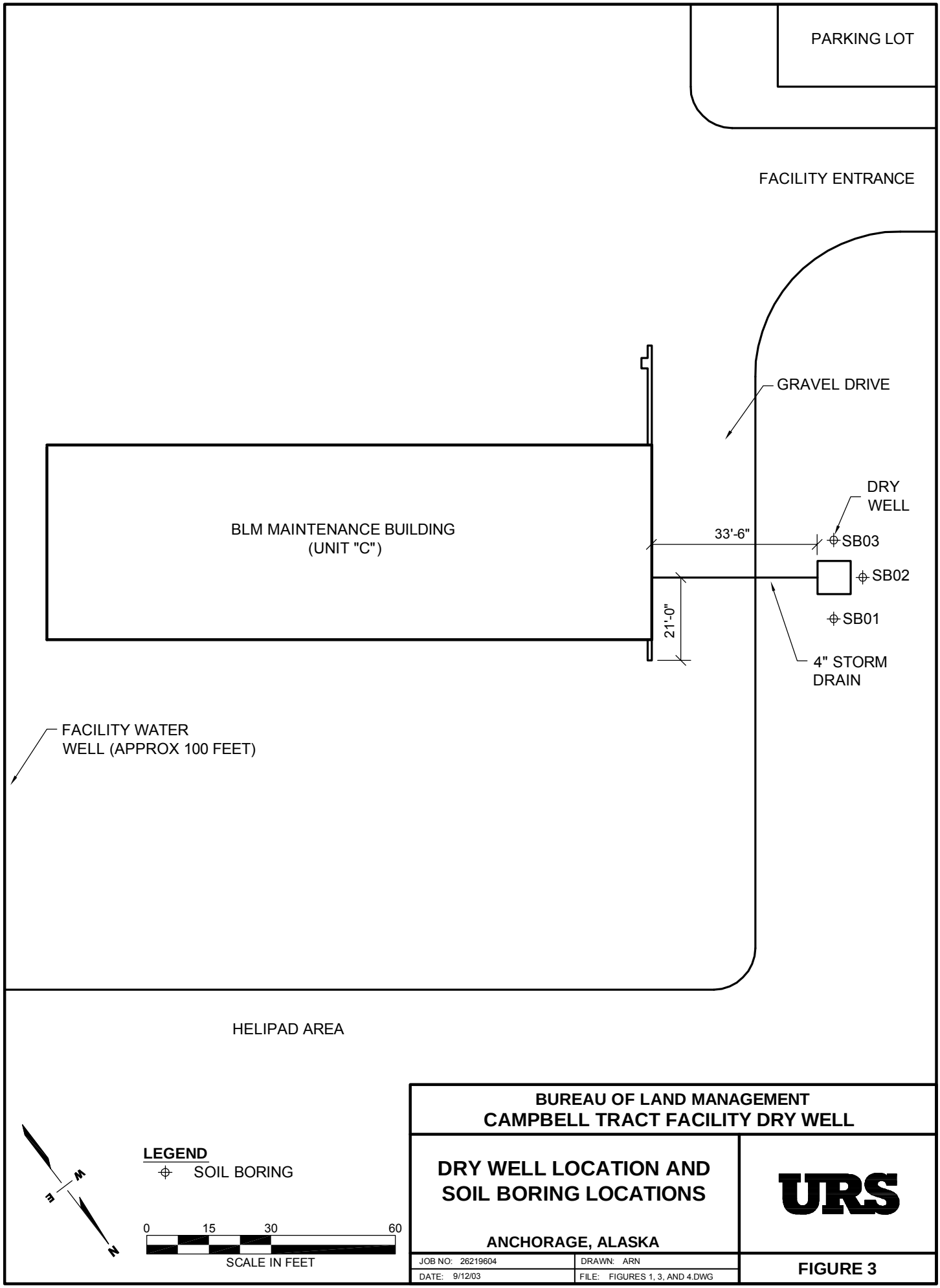
ANCHORAGE, ALASKA

URS

JOB NO: 26219604	DRAWN: ARN
DATE: 10/6/03	FILE: DRYWELL FIG 2.DWG

FIGURE 2

G:\PROJECTS\26219604\DRYWELL FIG 2.DWG; Revised Mon, 06 Oct 2003 - 1:22pm; Printed Mon, 06 Oct 2003 - 2:12pm



S:\PROJECTS\FEDERAL\74-FBM BLM - WILDER\26219604 BLM CAMPBELL TRACT\GRAPHICS\SAMPLING AND ANALYSIS PLAN\FIGURES 1, 3, AND 4.DWG; Revised Tue, 25 May 2004 - 11:19am; Printed Tue, 25 May 2004 - 11:23am

BUREAU OF LAND MANAGEMENT
CAMPBELL TRACT FACILITY DRY WELL

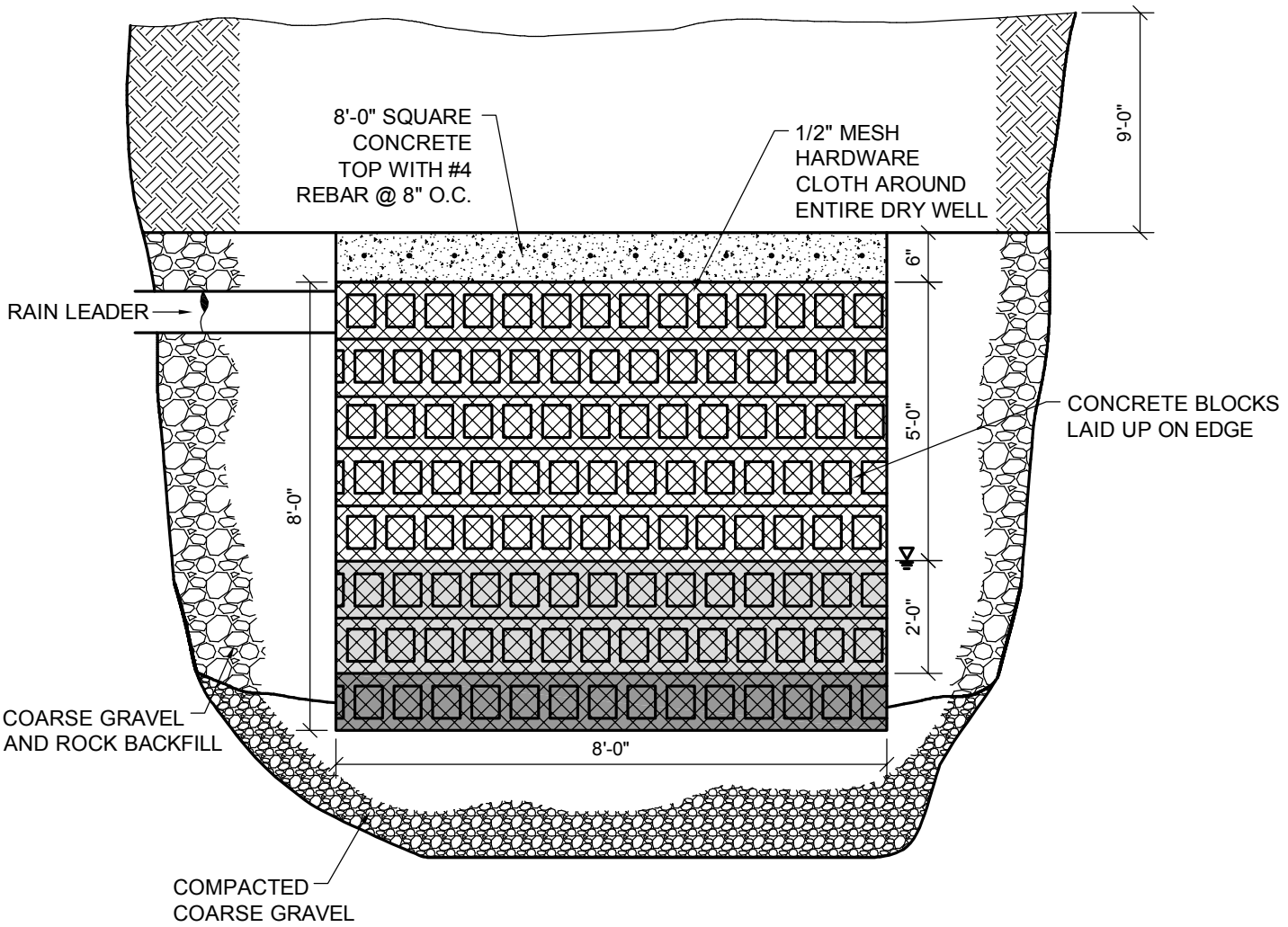
DRY WELL LOCATION AND SOIL BORING LOCATIONS

ANCHORAGE, ALASKA

URS

JOB NO: 26219604	DRAWN: ARN
DATE: 9/12/03	FILE: FIGURES 1, 3, AND 4.DWG

FIGURE 3



LEGEND

WATER

SLUDGE

BUREAU OF LAND MANAGEMENT
CAMPBELL TRACT FACILITY DRY WELL

DRY WELL DETAIL

URS

ANCHORAGE, ALASKA

JOB NO: 26219604	DRAWN: ARN
DATE: 9/12/03	FILE: FIGURES 1, 3, AND 4.DWG

FIGURE 4

Project: BLM Campbell Tract Facility Dry Well Investigation
Project Location: Anchorage, Alaska
Project Number: 26219604

Log of Boring CTSB01

Sheet 1 of 1

Date(s) Drilled	**11/10/03**	Logged By	**B. Craig**	Checked By	**C. Holden**
Drilling Method	**Hollow Stem Auger**	Drill Bit Size/Type	**3.5" I.D. HSA**	Total Depth of Borehole	**22.0 feet**
Drill Rig Type	**CME-75**	Drilling Contractor	**Discovery Drilling**	Approximate Surface Elevation	
Groundwater Level and Date Measured	**Approximately 15' during drilling**	Sampling Method(s)	**2.5" O.D. Split spoon**	Hammer Data	**340 lb., 30" drop**
Borehole Completion	**Boring backfilled with hydrated bentonite chips and native soil**	Location	**BLM Campbell Tract Facility**		

Elevation feet	Depth, feet	SAMPLES Type	Number	Blows	Recovery	PID (ppmv)	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND WELL DETAILS
	0							(SM) SILTY SAND with gravel	Soil Cuttings
	5		1	15 3 3	18/12	0.0		Same as above; brown, moist, fine- to coarse-grained sand, angular gravels to 1.5" size,	Hydrated Bentonite Chips
			2	3 3 2 3	24/11	0.0		Same as above	
	10		3	3 2 2 1	24/12	9.5		Same as above; rounded gravels to 1" size	Slough
			23CT01SL	2 2 3 2	24/10	13.2		(SW) SAND with gravel, brown, moist, fine- to coarse-grained sand, rounded gravels to 1" size, trace silt	
	15		5	4 6 5 7	24/16	>10000.0		Same as above; wet, with cobbles and trace silt, gravels to 1.5" size, angular cobbles to 2" size, possible odor	Groundwater encountered during drilling at 15' bgs
			23CT02SL	10 13 11 13	24/18	>10000.0		Same as above; possible odor	
	20		7	19 14 15 16	24/24	0.7		(GW) GRAVEL with sand, saturated, medium- to coarse-grained sand, angular gravels and cobbles, silt lens at 20.5' to 20.8' feet bgs	
									Boring completed to 22' bgs
	25								Water sample 23CT02WA collected through augers
	30								

URS

Report: ENV_12S/W_ANCHORAGE; File: BLMCAMPBELLTRACT.GPJ; 4/14/2006 CTSB01

Project: BLM Campbell Tract Facility Dry Well Investigation
Project Location: Anchorage, Alaska
Project Number: 26219604

Log of Boring CTSB02

Sheet 1 of 1

Date(s) Drilled	**11/10/03**	Logged By	**B. Craig**	Checked By	**C. Holden**
Drilling Method	**Hollow Stem Auger**	Drill Bit Size/Type	**8" O.D.**	Total Depth of Borehole	**23.0 feet**
Drill Rig Type	**CME-75**	Drilling Contractor	**Discovery Drilling**	Approximate Surface Elevation	
Groundwater Level and Date Measured	**1 to 2 feet of water accumulated in hole**	Sampling Method(s)	**2.5" O.D. Split spoon**	Hammer Data	**340 lb., 30" drop**
Borehole Completion	**Boring backfilled with hydrated bentonite chips and native soil**	Location	**BLM Campbell Tract Facility**		

Elevation feet	Depth, feet	SAMPLES Type	Number	Blows	Recovery	PID (ppmv)	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND WELL DETAILS
	0							(SM) SILTY SAND with gravel	Soil Cuttings
	5		1	3 2 2 2	24/6	0.3		Same as above; brown, moist, fine- to coarse-grained sand, rounded gravels to 1" size	Hydrated Bentonite Chips
			2	2 2 1 1	24/10	0.5		Same as above	
	10		3	2 2 1 2	24/10	0.0		(SW) SAND with gravel, brown, moist, fine- to coarse-grained, rounded gravels to 1" size, angular piece of cobble in shoe	
			4	1 9 3 4	24/10	0.0		Same as above	
	15		5	5 7 7 9	24/16	0.0		(SM) SILTY SAND with gravel, brown, moist, gravels to 1" size (SW) SAND AND GRAVEL,brown, moist to wet, medium- to coarse-grained sand, rounded to angular gravels to 1.5" size, no odor	Slough
			6	20 14 13 12	24/18	0.0		(SM) SILTY SAND with gravel, brown, fine- to medium-grained sand, rounded gravels to 1" size (GW) SANDY GRAVEL, brown to black, wet to saturated, coarse-grained sand, angular gravels to 2" size	
	20		7	3 10 10 11	24/18	5.3		Same as above; gray, slight odor	
			23CT03SL	7 8	12/12	2.0		(ML) SILT with sand and gravel, gray, fine-grained sand	
	25								Boring completed to 23' bgs Water sample 23CT04WA collected through augers
	30								

Report: ENV_12S/W_ANCHORAGE; File: BLMCAMPBELLTRACT.GPJ; 4/14/2006 CTSB02

URS

Project: BLM Campbell Tract Facility Dry Well Investigation
Project Location: Anchorage, Alaska
Project Number: 26219604

Log of Boring CTSB03

Sheet 1 of 1

Date(s) Drilled	**11/10/03**	Logged By	**B. Craig**	Checked By	**C. Holden**
Drilling Method	**Hollow Stem Auger**	Drill Bit Size/Type	**8" O.D.**	Total Depth of Borehole	**27.0 feet**
Drill Rig Type	**CME-75**	Drilling Contractor	**Discovery Drilling**	Approximate Surface Elevation	
Groundwater Level and Date Measured	**No water accumulation in hole**	Sampling Method(s)	**2.5" O.D. Split spoon**	Hammer Data	**340 lb., 30" drop**
Borehole Completion	**Boring backfilled with hydrated bentonite chips and native soil**	Location	**BLM Campbell Tract Facility**		

Elevation feet	Depth, feet	SAMPLES Type	Number	Blows	Recovery	PID (ppmv)	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND WELL DETAILS
	0							(SM) SILTY SAND with gravel, brown	Soil Cuttings
	5		1	9 2 2 3	24/10	0.0		Same as above; brown, moist, fine- to coarse-grained sand, rounded gravels to 1.25" size	Hydrated Bentonite Chips
			2	11 11 12 13	24/18	0.0		Same as above	
	10		23CT04SL	7 22 15 16	24/16	0.8		(GW) SANDY GRAVEL AND COBBLES, dark brown to black, moist, medium- to coarse-grained sand, broken cobbles in sampler	
			4	16 7 6 8	24/17	0.0		(SM) SILTY SAND with gravel, brown, moist, fine- to coarse-grained sand, rounded gravels to 1.5" size (SW) SAND AND GRAVEL,brown, moist, medium- to coarse-grained sand, rounded gravels to 1" size	
	15		5	16 18 7 10	24/18	0.5		(SM) SILTY SAND with gravel, brown, moist, fine- to medium-grained sand, gravels to 1" size (SW) SAND AND GRAVEL, dark brown, moist, medium- to coarse-grained sand, rounded gravels to 1" size	Slough
			6	8 16 26 29	24/24	0.8		(GW) SANDY GRAVEL AND COBBLES, dark brown, moist, medium- to coarse-grained sand, rounded gravels and cobbles (SW) SAND with gravel, brown, moist, fine- to medium-grained, rounded gravels to 0.75" size	
	20		7	10 12 12 12	24/20	1.5		(SM) SILTY SAND with gravel, brown, moist, fine- to coarse-grained sand, rounded gravels to 0.75" size (SW) SAND AND GRAVEL, brown, moist to wet, medium- to coarse-grained sand, rounded gravels to 1.5" size	
			23CT05SL	8 8 6 7	24/18	2.0		(ML) SANDY SILT, brown, wet to saturated, fine- to medium-grained sand, pebbles to 0.5' size	
								(SP) SAND, dark gray, wet to saturated, possible odor	
	25		9	2 9 7 7	24/24	0.0		(ML) SANDY SILT, brown and gray, wet, fine- to medium-grained sand	
								(SP) SAND with pebbles, dark brown, wet to saturated	
								(ML) SANDY SILT, gray, wet to saturated, fine- to coarse-grained sand, rounded gravels to 0.75" size	
	30								Boring completed to 27' bgs No water accumulated in hole

Report: ENV_12S/W_ANCHORAGE; File: BLMCAMPBELLTRACT.GPJ; 4/14/2006 CTSB03

URS

Type or print all information. See reverse for instructions.

Form Approved 12/99
OMB Control No.2040-0214

CLASS V WELL PRE-CLOSURE NOTIFICATION FORM

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF GROUND WATER AND DRINKING WATER

1. Name of facility:_____

Address of facility:_____

_____

City/Town:_____ State:_____ Zip Code:_____

County:_____ Location:_____

2. Name of Owner/Operator:_____

Address of Owner/Operator:_____

_____

City/Town:_____ State:_____ Zip Code:_____

Legal contact:_____ Phone number:_____

3. Type of well(s):_____ Number of well(s):_____
4. Well construction (check all that apply):

☐ Drywell ☐ Septic tank ☐ Cesspool
☐ Improved sinkhole ☐ Drainfield/leachfield ☐ Other_____

5. Type of discharge:_____

_____

6. Average flow (gallons/day):_____ 7. Year of well construction:_____
8. Type of well closure (check all that apply):

☐ Sample fluids/sediments ☐ Clean out well
☐ Appropriate disposal of remaining fluids/sediments ☐ Install permanent plug
☐ Remove well & any contaminated soil ☐ Conversion to other well type
☐ Other (Describe):_____

9. Proposed date of well closure:_____

10. Name of preparer:_____ Date:_____

PAPERWORK REDUCTION ACT NOTICE

The public reporting and recordkeeping burden for this collection of information is estimated to average 1.5 hours per respondent. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Regulatory Information Division, U.S. Environmental Protection Agency (2137), 401 M St., S.W., Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

INSTRUCTIONS

You must complete this form to notify the U.S. EPA that you intend to close a Underground Injection Control (UIC) Class V well at your facility. You may complete one form for more than one of the same type of Class V well at each facility. For example, if you will be closing two drywells that are of similar construction at your facility, you may use one form.

The numbers below correspond to the numbers on the form.

1. Supply the name and street address of the facility where the Class V well(s) is located. Include the City/Town, State (U.S. Postal Service abbreviation) and Zip Code. If there is no street address for the Class V well, provide the route number or locate the well(s) on a map. If available, for the "Location" provide the Latitude/Longitude of the well or the legal description of the facility.

2. Provide the name and mailing address of the owner of the facility or if the facility is operated by lease, the operator of the facility. Include the name and phone number of the legal contact for any questions regarding the information provided.

3. Indicate the type of Class V well that you intend to close. For example, motor vehicle waste disposal well or cesspool). Provide the number of wells of this well type at your location that will be closed.

4. Mark an “x” in the appropriate box to indicate the type of well construction. Mark all that apply to your situation. For example, for a septic tank that drains into a drywell, mark both the “septic tank” and “drywell” boxes. Please provide a generalized sketch or schematic of the well construction if available.

5. List or describe the types of fluids that enter the Class V well. If available, attach a copy of the chemical analysis results and/or the Material Safety Data Sheets for the fluids that enter the well.

6. Estimate the average daily flow into the well in gallons per day.

7. Provide the year that the Class V well was constructed. If unknown, provide the length of time that your business has been at this location and using this well.

8. Mark an “x” in the appropriate box(s) to indicate briefly how the well closure is expected to proceed. Mark all that apply to your situation. For example, all boxes except the “Remove well & any contaminated soil” and “Other” would be marked if: the connection of an automotive service bay drain leading to a septic tank and drainfield will be closed, but the septic system will continue to be used for washroom waste disposal only, and the fluids and sludge throughout the system will be removed for proper disposal, the system cleaned, a cement plug placed in the service bay drain and the pipe leading to the washroom connection, and the septic tank/drainfield remains open for septic use only. In this example, the motor vehicle waste disposal well is being converted to another well type (a large capacity septic system).

9. Self explanatory.

10. Self explanatory.

The purpose of this form is to serve as the means for the Class V well owner or operator’s notice to the UIC Director of their intent to close the well in accordance with Title 40 of the Code of Federal Regulations (40 CFR) Section 144.12 (a). According to 40 CFR §144.86, you must notify the UIC Program Director at least 30 days prior to well closure of you intent to close and abandon your well. Upon receipt of this form, if the Director determines that more specific information is required to be submitted to ensure that the well closure will be conducted in a manner that will protect underground sources of drinking water (as defined in 40 CFR §144.3), the Director can require the owner/operator to prepare, submit and comply with a closure plan acceptable to, and approved by the Director.

Please be advised that this form is intended to satisfy federal UIC requirements regarding pre-closure notification only. Other state, tribal or local requirements may also apply.