

VARIANCE / FIELD CHANGE NOTICE

V/F No. 4

WBS NO.: 2505-WP-0022

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PROJECT TITLE: Integrated Environmental Monitoring Plan, Rev. 2.

Date: 3-7-02

VARIANCE / FIELD CHANGE NOTICE (Include justification):

Requirement: Measure water levels in the wells listed in Section 3.5.1.6 of the IEMP titled "Routine Water Level Monitoring". Sample monitoring wells listed in Section 3.5.1.4. of the IEMP titled "Waste Storage Area Module" for water quality.

4164

Variance 1: Remove Well 2027 from the Routine Water Level Monitoring Activity of the IEMP, and add the following 12 wells.

- 83117 Channel 1 (Channel 2 if Channel 1 is dry)
- 83117 Channel 7 (Channel 6 if Channel 7 is dry)
- 83124 Channel 1 (Channel 2 if Channel 1 is dry)
- 83124 Channel 7 (Channel 6 if Channel 7 is dry)
- 83123 Channel 1 (Channel 2 if Channel 1 is dry)
- 83123 Channel 7 (Channel 6 if Channel 7 is dry)
- 83120 Channel 1 (Channel 2 if Channel 1 is dry)
- 83120 Channel 7 (Channel 6 if Channel 7 is dry)
- 63116, 23118, 63119, 63121, 63122, 2037, 32766, 32768

INFORMATION ONLY

Variance 2: Replace well 2027 in the WSA Water Quality Module with well 2037.

Variance 3: Sample monitoring wells 63116, 23118, 63119, 63121, 32766, 32768 and 63122 for the reduced list of WSA parameters that are proposed for the FY06 baseline (see Table 1). This is a one-time sampling event. If the turbidity of the sample is greater than 5 NTUs, then the sample will be filtered with a 5-micron filter. If the turbidity of the 5 micron filtered sample is still above 5 NTUs, then the 5 micron filtered sample will be additionally filtered through a 0.45-micron filter. Both the unfiltered and final filtered uranium sample will be analyzed. The final filtered sample will be analyzed for metals and radionuclides only. Field QC requirements specified in the IEMP will be followed. Samples will be submitted to an offsite subcontract laboratory for analysis.

RECORD

Sample Channels 1 through 6 in CMT Wells 83117, 83120, 83123, and 83124 for Total Uranium only. This is the second of a two time initial sampling requirement to establish a uranium profile for each of the new CMT wells.

Following these one-time sampling events, sample monitoring wells 63116, 23118, 63119, 63121, 63122, 32766, and 32768 and the channel with the highest total U concentration for CMTs 83117, 83124, 83123, and 83120 for total Uranium only on a semi-annual basis. Once per year, all channels of the CMTs will be sampled for total U. The filtering scheme noted above will be followed. Field QC requirements specified in the IEMP will be followed.

Justification: These wells were recently installed in the Waste Storage Area. Data collected from these wells will be useful to assess aquifer restoration progress and to aid in making operational decisions concerning extraction wells in the area. Monitoring well 2027 was recently removed from the IEMP due to access problems, and biofouling of the well.

Requested By: Ken Broberg 3-7-02 *KAB*

X IF REQD	VARIANCE/FCN APPROVAL	DATE	REQD	X IF	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE <i>Michael Broberg</i>	3-8-02	X		ARWMP Hydrogeology <i>Michael Broberg</i>	3/8/02
	DATA QUALITY MANAGEMENT		X		EM IEMP <i>Michael Broberg</i>	3/8/02
	ANALYTICAL CUSTOMER SUPPORT		X		EM Water Monitoring <i>Michael Broberg</i>	3/8/02
	OTHER				OTHER	

VARIANCE/FCN APPROVED YES NO REVISION REQUIRED: YES NO

DISTRIBUTION

PROJECT MANAGER:	DOCUMENT CONTROL ECDC	OTHER:
FIELD MANAGER:	OTHER:	OTHER:

**Table 1
Analytical Requirements for Variance 3**

Parameter	Holding Time	Preservative	Sample Volume/Container	Lab QC Volume/Container
VOAs (Carbon Disulfide & TCE)	14 days	H ₂ SO ₄ , pH < 2 Cool to 4°C	5 X 40 ml vials	5 X 40 ml vials
Metals (molybdenum) (filtered if > 5 NTUs)	28 Days	HNO ₃ , pH < 2	1 - 1 liter plastic	2 - 1 liter plastic
Nitrate-Nitrite	28 Days	H ₂ SO ₄ , pH < 2 Cool to 4°C	1 - 500 ml plastic	2 - 500 ml plastic
Rads (Tc-99 and Total U) (filtered if > 5 NTUs)	6 Months	HNO ₃ , pH < 2	2 - 1 liter plastic	1- 4 liter plastic
Total U (Unfiltered) (collect only if < 5 NTUs)	6 months	HNO ₃ , pH < 2	1 - 250 ml plastic	2 - 250ml plastic

Field QC shall be collected using the following frequencies:

Rinsate (Unfiltered) - 1 in 20 wells sampled (when using other than dedicated sampling equipment).

Field Blank (Unfiltered) - 1 per day.

Duplicate (Same filtering scheme as normal sample) - 1 in 20 wells.

- For Laboratory QC samples denote in the special instructions of the Chain of Custody: "Sample designated for laboratory QC."