



Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

January 30, 2017

Certified Mail

Mr. John Greenewald
The Black Vault

Dear Mr. Greenewald:

FREEDOM OF INFORMATION ACT REQUEST (FOI 2016-01555)

This letter is in response to the electronic *Freedom of Information Act* (FOIA) request you submitted to this office seeking "records, electronic or otherwise, pertaining to the measurement of the depletion of radioactive isotopes at the 216-U-10 pond, or the U-Pond, and the disposition of that pond and the reason for the disposition." On October 5, 2016, this office sent you an electronic mail message to discuss the broad scope of your request and determine if the request could be narrowed as responsive documents spanned over approximately 60 years. This office also left you voice mail messages on October 7 and October 12, 2016. In a series of electronic mail messages between November 14 and November 15, 2016, you responded and narrowed the scope of your request for documents generated within the last 10 years and that are not currently available on the Hanford Site Administrative Record website, <http://pdw.hanford.gov/arpir/>

The documents have been reviewed and are enclosed with deletions of the payroll numbers and Hanford Identification Numbers assigned to specific individuals pursuant to Exemption 6 of the FOIA. Exemption 6 provides that an agency may protect from disclosure all personal information if its disclosure would constitute a clearly unwarranted invasion of privacy by subjecting the third-party individuals to unwanted communications, harassment, intimidation, retaliation, or other substantial privacy invasions by interested parties.

In invoking Exemption 6 we considered 1) whether a significant privacy interest would be invaded by disclosure of information, 2) whether release of the information would further the public interest by shedding light on the operations or activities of the government, and 3) whether disclosure would constitute a clearly unwarranted invasion of private or public interest. DOE has determined that the public interest in the personal information of the third-party individuals whose information appear in the documents does not outweigh the individuals' privacy interests.

This satisfies the standard set forth by the Attorney General by Memorandum on March 19, 2009, that the agency is justified in not releasing material if it reasonably foresees that disclosure would harm an interest protected by one of the statutory exemptions or disclosure is prohibited by law. This also satisfies DOE's regulation at Title 10, Code of Federal Regulations (CFR), Section 1004.1, to make records available which it is authorized to withhold under 5 U.S.C. 552 when it determines that such disclosure is in the public interest. Accordingly, we will not make discretionary disclosure of this information.

January 30, 2017

All releasable information in the documents has been segregated and is being provided to you. The undersigned individual is responsible for this determination. You have the right to appeal to the Office of Hearings and Appeals, as provided in 10 CFR 1004.8. Your appeal shall be filed within 90 days after receipt of this letter. You may submit your appeal by e-mail to OHA.filings@hq.doe.gov, including the phrase "Freedom of Information Appeal" in the subject line. Alternatively, any such appeal may be made in writing to the following address: Director, Office of Hearings and Appeals (HG-1), U.S. Department of Energy, L'Enfant Plaza Building, 1000 Independence Avenue SW, Washington, D.C. 20585-1615. Should you choose to appeal, please provide this office with a copy of your e-mail or letter.

You may contact DOE RL's FOIA Public Liaison, Richard Buel, at (509) 376-3375, or by mail at P.O. Box 550, Richland, Washington, 99352 for any further assistance and to discuss any aspect of your request. Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road-OGIS, College Park, Maryland 20740-6001, e-mail at ogis@nara.gov; telephone at 202-741-5770; toll free at 1-877-684-6448; or facsimile at 202-741-5769.

For the purpose of assessment of fees, you have been categorized under the DOE regulation at Title 10, Code of Federal Regulations (CFR), Section 1004.9(b)(3), as a "news media" requester. Requesters in this category are charged fees for duplication only and are provided 100 pages at no cost. For your request, 67 pages of documents are being provided, therefore, there will be no charge for this response.

Should you have any questions regarding your request, please contact me on (509) 376-6288.

Sincerely,

-Original Signed By-

Dorothy Riehle
Freedom of Information Act Officer
Office of Communications
and External Affairs

OCE:DCR

Enclosure

PROJECT HANFORD RADIOLOGICAL SURVEY REPORT

Survey Report No.
RC-03615

Page 1 of 4

Date: 12-20-06 Time (Start/Stop): 0730 / 16:30 Area/Bldg./Room/Location: 200-W / 216-U-10 crib. F.C.: RC

SWP Number: N/A Work Package/Job Control Package/JSA: N/A Routine Surveillance Task Number: RC-A020 Radiological Shipping Rec. Number: Site-03-EXCEPTED

Purpose of Survey (check appropriate box(es)): ☐ Job Coverage, ☒ Required Task, ☐ Material Release, ☐ Ram Shipment

Contamination Incident: ☐ Skin, ☐ Clothing, ☐ Spill Alarm Response: ☐ Cam, ☐ ARM, ☐ APM

☐ Exposure Incident ☐ HRA/VHRA Work Other: _____

Job Description: Completed annual Mobile Surface Contamination Survey Monitor (MSCM) survey of Site 216-U-10 crib. N/A
N/A

DOSE RATE MEASUREMENTS Note¹ F = Field (≥ 30 cm) C = Contact (≤ 1 cm)

No.	Description	Dist. (cm) Note	WO (mR/hr)	WC (mR/hr)	CF _B	CF _F	Neutron Dose (mrem/hr)	Shallow Dose (mrem/hr)	Deep Dose (mrem/hr)
<	-----	-----	-----	--N/A--	-----	-----	-----	-----	----->
<	-----	-----	-----	--N/A--	-----	-----	-----	-----	----->
<	-----	-----	-----	--N/A--	-----	-----	-----	-----	----->
<	-----	-----	-----	--N/A--	-----	-----	-----	-----	----->
<	-----	-----	-----	--N/A--	-----	-----	-----	-----	----->
<	-----	-----	-----	--N/A--	-----	-----	-----	-----	----->
<	-----	-----	-----	--N/A--	-----	-----	-----	-----	----->
<	-----	-----	-----	--N/A--	-----	-----	-----	-----	----->
<	-----	-----	-----	--N/A--	-----	-----	-----	-----	----->
<	-----	-----	-----	--N/A--	-----	-----	-----	-----	----->

CONTAMINATION MEASUREMENTS

No.	Description	Direct		Background		Total dpm/100 cm ²		Removable dpm/100 cm ²	
		Gross com/PAB _γ	Gross com/PA _α	β _γ (cpm)	α (cpm)	β _γ	α	β _γ	α
1	Vegetation (High)	1000	N/A	<100	N/A	54,000	N/A	N/A	N/A
2	1 sq Meter soil	<100	N/A	<100	N/A	<5000	N/A	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->
<	-----	-----	N/A	-----	-----	-----	-----	-----	----->

AIR SAMPLE MEASUREMENTS (μCi/ml)

Sample Counter Log Number
or Sample ID Number

	BZ	GA	Initial	Decay		BZ	GA	Initial	Decay	
q ¹	<	---	-----	-----	Pr ¹	<	---	--N/A--	-----	----->
q ²	<	---	-----	-----	Pr ²	<	---	--N/A--	-----	----->

**PROJECT HANFORD
RADIOLOGICAL SURVEY REPORT**

Survey Report No.

RC-03615

Page 2 of 4

Map/Sketch

See attached Map

LEGEND

⊗ Smear



Air Sample



LAW



Neutron

* Contact Reading

----- (designation inside) ----- Radiological Area Boundary

Dose Rates in mrem/h unless otherwise noted

COMMENTS: (Additional information as necessary to interpret results)

Surveys performed by using MSCM as per task. Tractor speed of approximately 2 m.p.h.. or less with average detector height at 6 inches. Contaminated weeds were bagged and taken to regulated compactor truck for disposal. This survey was performed over 4 days with managements approval.

N/A -----

N/A -----

Instr./Probe Model	RD-3B (CP)	GM Model g-m probe	PAM	MSCM/4 det	GM	N/A
Serial No.	N/A	CMEB3-0187	ACBC1-0136	HO-62-5509	CMEB3-0066	N/A
	NA	DTHN3-0561	DTHN3-0046	N/A	DTHNB9-0154	N/A
Efficiency (used)	NA	0.10	0.19	N/A	0.10	N/A

RCT:

Date: 12/20/06

Payroll No. (b)(6)

Reviewer:

Date: 1/9/07

Payroll No. (b)(6)

Name (Print): D.J. Phipps \ R.A. Daughety

Name (Print): D.R. Ekstrom

Signature: *D.J. Phipps*

Signature: *D.R. Ekstrom*

ENVIRONMENTAL SURVEILLANCE DATA FORM
(Circle or Fill in Data as Applicable)

Site: 216-4-10 Survey #: AC-03615 Page 4 of 4

Cave-In or Depressions? Yes ☐ No ☒

Animal or Insect Intrusion? Yes ☐ No ☒

Tumbleweeds/Sagebrush? None ☐ Live ☐ Dead ☒ Blown-In ☐

Current Radiological Posting CA ☐ URMA ☒ Soil ☐ RA ☐ Other

Steel Posts? Yes ☐ No ☐ N/A ☒

Wells / Riser / Vents Capped or Sealed ☐ Intact ☐ Open ☒ N/A ☒

Chain? Yes ☐ No ☐ N/A ☒

Concrete Marker Posts? Surround Site ☒ Single ☐ None ☐

In Place Upright ☒ Leaning / Down ☐ N/A ☐

Signs? In Place ☒ Missing / Down ☐ Faded ☐

Unidentified Containers? Yes ☐ No ☒

Abandon Equipment / Material? Yes ☐ No ☒

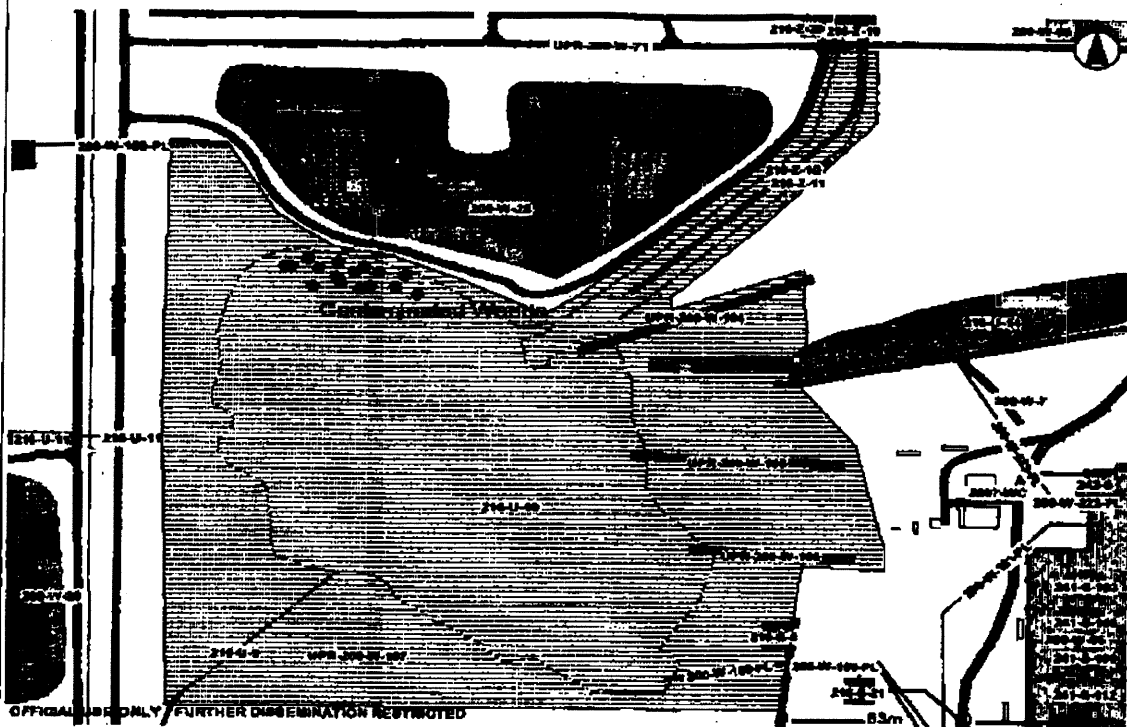
Comments: Site had a few dead T-Weeds. The Bio-Control group cleared off Contaminated Weeds two times the summer and it really paid off. DOT 12-20-06

Surveillant's Signature: D.S. Phipps RA Doughty Date: 12-20-06

PROJECT HANFORD RADIOLOGICAL SURVEY REPORT					Survey Report No. RC-04296		Page <u>1</u> of <u>4</u>			
Date 11-08-07		Time (Start/Stop) 07:30/11:30		Area/Bldg./Room/Location 200W/ 216-U-10 covered pond				F.C. RC		
RWP Number N/A		Work Package/Job Control Package/JSA N/A		Routine Surveillance Task Number RC-A020		Radiological Shipping Record No. N/A				
Purpose of Survey (check appropriate box(es)): <input type="checkbox"/> Job Coverage <input checked="" type="checkbox"/> Required Task <input type="checkbox"/> Material Release <input type="checkbox"/> RAM Shipment Contamination Incident: <input type="checkbox"/> Skin <input type="checkbox"/> Clothing <input type="checkbox"/> Spill Alarm Response: <input type="checkbox"/> CAM <input type="checkbox"/> ARM <input type="checkbox"/> APM <input type="checkbox"/> Exposure Incident <input type="checkbox"/> HRA/VHRA Work <input type="checkbox"/> Other: N/A										
Job Description: Perform annual surveys of Waste Information Data Systems (WIDS Site), 216-U-10. All postings and boundaries checked and verified.										
DOSE RATE MEASUREMENTS Note ¹ F = Field (≥30 cm) C = Contact (≤1 cm)										
No.	Description	Dist. (cm) Note ¹	WO (mR/hr)	WC (mR/hr)	CF _B	CF _Y	Neutron Dose (mrem/hr)	Shallow Dose (mrem/hr)	Deep Dose (mrem/hr)	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CONTAMINATION MEASUREMENTS										
No.	Description	Direct		Background		Total (dpm/100 cm ²)		Removable (dpm/100 cm ²)		
		Gross cpm/PAP _B	Gross cpm/PAP _A	P _T (cpm)	α (cpm)	P _T	α	P _T	α	
1	Soil	<100	N/A	<100	N/A	<5000	N/A	N/A	N/A	
2	Tumble Weeds (High)	2000	N/A	100	N/A	114,000	N/A	N/A	N/A	
3	Ant mounds	<100	N/A	<100	N/A	<5000	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A/N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A/N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
AIR SAMPLE MEASUREMENTS (μCi/ml)						Sample Counter Log Number or Sample ID Number				
	BZ	GA	Initial	Decay						BZ
α ¹	N/A	N/A	N/A	N/A	P _T ¹	N/A	N/A	N/A	N/A	N/A
α ²	N/A	N/A	N/A	N/A	P _T ²	N/A	N/A	N/A	N/A	N/A/N/A/N/A

Page 2 of 4

Map/Sketch



LEGEND:

④ Smear

 Air Sample

LO **LAW**

Neutron

*** Contact Reading**

----- (designation inside) ----- Radiological Area Boundary

Note: Dose Rates in mrem/hr unless otherwise noted.

COMMENTS: (Additional information as necessary to interpret results)

Surveys performed by using MSCM. Tractor speed of approximately 2 m.p.h. or less with average detector height at 6 inches. The area was found to have > 100 tumble weeds contaminated in a small area on the North end. The area was turned over to Bio-Control response team for clean up. Surveys will continue in the area after clean up is completed.

Instrument/Probe Model	R0-3B (CP)	<u>GM Model</u> g-m probe	<u>PAM</u>	N/A	N/A	N/A
Serial No.	ICEB3-0377	CMEBC-0033	ACBC1-0350	N/A	N/A	N/A
	NA	DTHNC-0914	DTHN3-0339	N/A	N/A	N/A
Efficiency (used)	NA	10%	17%	N/A	N/A	N/A

RCT:

Date: 11-07-07

Payroll No.

(b)(6)

Name (Print): D. J. Phipps

Signature:

Dr. Phipps

Reviewer:

Date: _____

11/19/07

Payroll No.:

(b)(6)

Name (Print): _____

D. R. Ekstrom

Signature:

Dr. E. H. H. H.

ENVIRONMENTAL SURVEILLANCE DATA FORM
(Circle or Fill in Data as Applicable)

Site: 216-4-10 Covered Road Survey #: RC-04296 Page 3 of 4

Cave-In or Depressions?

Yes

No

Animal or Insect Intrusion?

Yes

No

Ants

Tumbleweeds/Sagebrush?

None

Live

Dead

Blown-In

Current Radiological Posting

CA

URMA

Soil

RA

Other

Steel Posts?

Yes

No

N/A

Wells / Riser / Vents

Capped or Sealed

Intact

Open

N/A

Chain?

Yes

No

N/A

Concrete Marker Posts?

Surround Site

Single

None

In Place Upright

Leaning / Down

N/A

Signs?

In Place

Missing / Down

Faded

Unidentified Containers?

Yes

No

Abandon Equipment / Material?

Yes

No

Comments:

Site has a lot of weeds.
look bad?

Surveillant's Signature:

D.J. Phipps

Date:

11-8-07

NOTIFICATION OF RADIOLOGICAL PROBLEM

~~Page 1 of 1~~

RADIATION SURVEY

REPORT # RC-04296

PAGE 4 OF 4

Phipps, David J

From: Phipps, David J

Sent: Thursday, November 08, 2007 10:22 AM

To: Coleman, Diane L; Daughety, Rick A; Ekstrom, Deanna R (Dee); Garnett, Steven B (Steve); Harrison, William C; Johnson, Austin Ray; Lamson, Sally B; McKinney, Stephen M; Meeker, James; Morris, Karen R; Norman, Dottie L; Osborne, Bill L (FH); Phipps, David J; Roos, Richard C; Sherman, Christopher D; Shupe, Steven D

Subject: 1108070900.doc

NOTIFICATION OF RADIOLOGICAL PROBLEM

This message is notification of a radiological problem found in your area or facility. It is your responsibility to determine if this condition is a deficiency and to assume responsibility for the reporting requirements.

Date: 11/08/07

Time of discovery: 09:00

Assumed Owner: RARA (Steve Shupe)

Location: 216-U-10 Pond

Description of problem (Suggest this paragraph be used by the ONC if required):

More than 100 contaminated tumbleweeds were detected in a posted URMA while performing MSCM surveys. Maximum contamination levels found were 114,000 dpm/100cm² beta/gamma direct, no removable. No alpha contamination was detected. RARA D&D operator and Bio Control Response Team responded to the area. The weeds were placed in the regulated compactor truck for disposal. The weeds are green and attached to the soil.

Identified by: D.J. Phipps

Posting of area before and after immediate corrective actions: *URMA before and after clean up of the Tumble weeds.*

Radiological Survey Report Number: RC-04296

Other information: Ray Johnson and Steve Shupe were verbally notified. The area has been turned over to the Bio- Control response team for further evaluation and possible clean-up. Surveys will continue in the area.

11/12/2007

PROJECT HANFORD RADIOLOGICAL SURVEY REPORT					Survey Report No. RC-04896		Page <u>1</u> of <u>5</u>			
Date 07/24/08		Time (Start/Stop) 06:30/16:00		Area/Bldg./Room/Location 200W / 216-U-10 pond				F.C. RC		
RWP Number N/A		Work Package/Job Control Package/JSA N/A		Routine Surveillance Task Number RC-A020		Radiological Shipping Record No. N/A				
Purpose of Survey (check appropriate box(es)): <input type="checkbox"/> Job Coverage <input checked="" type="checkbox"/> Required Task <input type="checkbox"/> Material Release <input type="checkbox"/> RAM Shipment Contamination Incident: <input type="checkbox"/> Skin <input type="checkbox"/> Clothing <input type="checkbox"/> Spill Alarm Response: <input type="checkbox"/> CAM <input type="checkbox"/> ARM <input type="checkbox"/> APM <input type="checkbox"/> Exposure Incident <input type="checkbox"/> HRA/VHRA Work <input type="checkbox"/> Other: N/A										
Job Description: Perform annual surveys of Waste Information Data Systems (WIDS Site) 216-U-10. All postings and boundaries checked and verified.										
DOSE RATE MEASUREMENTS Note ¹ F = Field (>30 cm) C = Contact (<1 cm)										
No.	Description	Dist (cm) Note ¹	WO (mR/hr)	WC (mR/hr)	CF _p	CF _y	Neutron Dose (mrem/hr)	Shallow Dose (mrem/hr)	Deep Dose (mrem/hr)	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CONTAMINATION MEASUREMENTS										
No.	Description	Direct		Background		Total (dpm/100 cm ²)		Removable (dpm/100 cm ²)		
		Gross cpm/PA _{py}	Gross cpm/PA _α	P _y (cpm)	α (cpm)	P _y	α	P _y	α	
1	Soil, gravel & vegetation after decon.	<100	N/A	<100	N/A	<5k	N/A	N/A	N/A	
2	MSCM source - case LAW	N/A	N/A	100	N/A	N/A	N/A	<1k/LAW	N/A	
3	Approximately 300 Tumble weeds	1000	0	100	0	54K	0	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
AIR SAMPLE MEASUREMENTS (μCi/ml)										
	BZ	GA	Initial	Decay		BZ	GA	Initial	Decay	Sample Counter Log Number or Sample ID Number
α ¹	N/A	N/A	N/A	N/A	P _y ¹	N/A	N/A	N/A	N/A	
α ²	N/A	N/A	N/A	N/A	P _y ²	N/A	N/A	N/A	N/A	

**PROJECT HANFORD
RADIOLOGICAL SURVEY REPORT**

Survey Report No.
RC-04896

Page 2 of 5

Map/Sketch

See attached Map

LEGEND:

⊙ Smear

△ Air Sample

Ⓢ LAW

Ⓢ Neutron

* Contact Reading

----- (designation inside) ----- Radiological Area Boundary

Note: Dose Rates in mrem/hr unless otherwise noted.

COMMENTS: (Additional information as necessary to interpret results)

Surveys performed by using MSCM. Tractor speed of approximately 2 m.p.h. or less with average detector height at 6 inches. This survey was performed over several days with managements approval.

Instrument/Probe Model	R0-3B (CP)	GM Model g-m probe	PAM	N/A	N/A	N/A
Serial No.	N/A	CMEB5-0013	ACHN2-0433	N/A	N/A	N/A
	NA	DTHNC-0490	DTHN3-0339	N/A	N/A	N/A
Efficiency (used)	NA	10%	16%	N/A	N/A	N/A

RCT: 07 7/31/08

Date: 06/24/08

Payroll No. (b)(6)

Name (Print): D. J. Phipps

Signature: DJ Phipps

Reviewer:

Date: 7/31/08

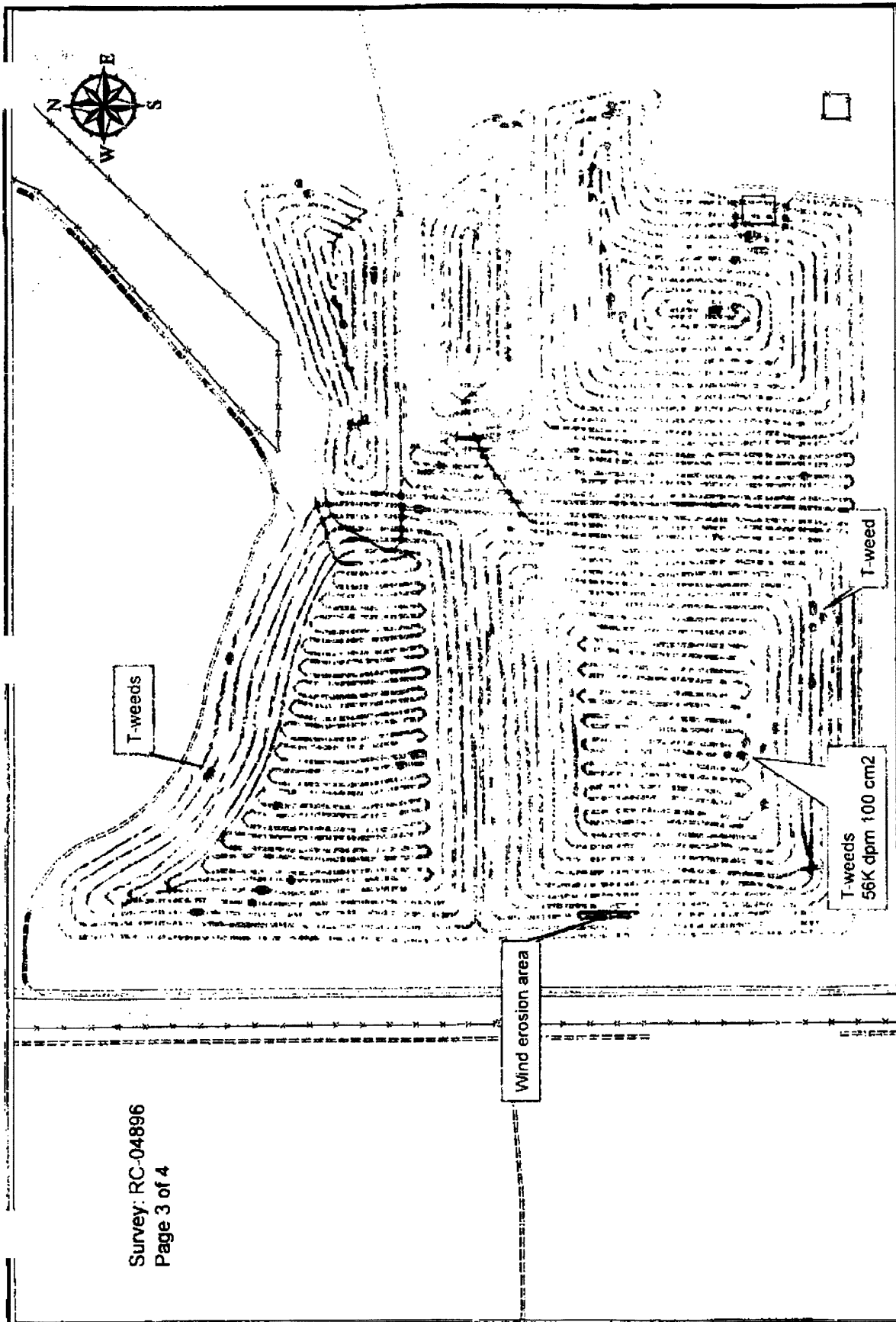
Payroll No.: (b)(6)

Name (Print): D. R. Ekstrom

Signature: DR Ekstrom

Best Available Copy

Survey: RC-04896
Page 3 of 4



C.P.S. Summary Information

< 750
750 - 1000
1001 - 1250
1251 - 1500
> 1500

Date of Survey: 07/09, 10, 21, 23, 24, / 2008

Project File: 216U10_08.mxd

MSCM-II RC Radiological Survey

Survey of 216-U-10 Pond

0 75 150 300 Meters

MSCM II
Mobile Surface Contamination Monitor
U.S. DEPARTMENT OF ENERGY



ENVIRONMENTAL SURVEILLANCE DATA FORM
(Circle or Fill in Data as Applicable)

01. 7-24-08

Site: 216-4-10 Pond

Survey #: RC-04896

Page 24 of 5

Cave-In or Depressions?

Yes ☐ No ☒

Animal or Insect Intrusion?

☒ Yes ☐ No Red Ants

Tumbleweeds/Sagebrush?

None ☐ LIVE ☒ Dead ☐ Blown-In

Current Radiological Posting

CA ☐ URMA ☐ Soil ☐ RA ☐ Other _____

Steel Posts?

Yes ☐ No ☐ N/A ☒

Wells / Risers / Vents

Capped or Sealed ☐ Intact ☐ Open ☐ N/A ☒

Chain?

Yes ☐ No ☐ N/A ☒

Concrete Marker Posts?

Surround Site ☒ Single ☐ None ☐

In Place Upright ☒ Leaning / Down ☐ N/A ☐

Signs?

In Place ☒ Missing / Down ☐ Faded ☐

Unidentified Containers?

Yes ☐ No ☒

Abandon Equipment / Material?

Yes ☐ No ☒

Comments:

We cleaned 300 contaminated Tumble
Weeds from the site.

Surveillant's Signature:

D.S. Phlips

Date:

7-24-08

NOTIFICATION OF RADIOLOGICAL PROBLEM

This message is notification of a radiological problem found in your area or facility. It is your responsibility to determine if this condition is a deficiency and to assume responsibility for the reporting requirements.

Date: 07/24/08

Time of discovery: 07:30 AM

Assumed Owner: RARA (Bill Osborne)

Location: 216-U-10 pond

Description of problem (Suggest this paragraph be used by the ONC if required):

300 Contaminated tumble weeds were detected in a posted URMA while performing surveys on the 216-U-10 covered pond. Maximum contamination levels found were 56,000 dpm/100cm² beta/gamma direct, no removable. No alpha contamination was detected. Dose rate of 2 mR/hr W/O and <0.2 WC. Biological Control & RARA D&D operator responded to the area and removed the contaminated weeds and placed them in the regulated compacter truck for disposal. Cleanup was completed at 10:30 AM.

Identified by: D.J. Phipps

Posting of area before and after immediate corrective actions: *URMA before and after cleanup.*

Radiological Survey Report Number: RC-04896

Other information: Ray Johnson and Bill Osborne were verbally notified.

See page 2 for attached Map.

PROJECT HANFORD RADIOLOGICAL SURVEY REPORT					Survey Report No. RC-05066		Page <u>1</u> of <u>2</u>			
Date 09/17/08		Time (Start/Stop) 12:00/14:00		Area/Bldg./Room/Location 200-E / 216-U-10			F.C. RC			
RWP Number N/A		Work Package/Job Control Package/JSA N/A		Routine Surveillance Task Number RC-A021		Radiological Shipping Record No. N/A				
Purpose of Survey (check appropriate box(es)): <input type="checkbox"/> Job Coverage <input checked="" type="checkbox"/> Required Task <input type="checkbox"/> Material Release <input type="checkbox"/> RAM Shipment Contamination Incident: <input type="checkbox"/> Skin <input type="checkbox"/> Clothing <input type="checkbox"/> Spill Alarm Response: <input type="checkbox"/> CAM <input type="checkbox"/> ARM <input type="checkbox"/> ARM <input type="checkbox"/> Exposure Incident <input type="checkbox"/> HRA/VHRA Work <input type="checkbox"/> Other: N/A										
Job Description: Perform annual survey of Waste Information Data Systems (WIDS SITE) site 216-U-10. No action levels exceeded. All postings and boundaries checked and verified. N/A										
DOSE RATE MEASUREMENTS Note ¹ F = Field (≥ 30 cm) C = Contact (≤ 1 cm)										
No.	Description	Dist. (cm) Note ¹	WO (mR/hr)	WC (mR/hr)	CF _B	CF _Y	Neutron Dose (mrem/hr)	Shallow Dose (mrem/hr)	Deep Dose (mrem/hr)	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CONTAMINATION MEASUREMENTS										
No.	Description	Direct		Background		Total (dpm/100 cm ²)		Removable (dpm/100 cm ²)		
		Gross cpm/PA _B	Gross cpm/PA _A	P _Y (cpm)	α (cpm)	P _Y	α	P _Y	α	
1	Tumble weed.	1000	N/A	100	N/A	54k	N/A	N/A	N/A	
2	1 square meter soil after weed removal.	100	N/A	100	N/A	<5K	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
AIR SAMPLE MEASUREMENTS (μCI/ml)										
	BZ	GA	Initial	Decay		BZ	GA	Initial	Decay	Sample Counter Log Number or Sample ID Number
α^1	N/A	N/A	N/A	N/A	P _Y	N/A	N/A	N/A	N/A	
α^2	N/A	N/A	N/A	N/A	P _Y	N/A	N/A	N/A	N/A	

PROJECT HANFORD RADIOLOGICAL SURVEY REPORT

Survey Report No.
RC-05066

Page 2 of 2

Map/Sketch



LEGEND:

(S) Smear

(A) Air Sample

(L) LAW

(N) Neutron

* Contact Reading

----- (designat on inside) ----- Radiological Area Boundary

Note: Dose Rates in mrem/hr unless otherwise noted.

COMMENTS: (Additional information as necessary to interpret results)

Surveys performed per walking stick method. No biological hazards encountered. No removable contamination detected. N/A

Instrument/Probe Model	R0-3B (CP)	GM Model g-m probe	PAM	N/A	N/A	N/A
Serial No.	N/A	CMEB5-0013	N/A	N/A	N/A	N/A
	NA	DTHNC-0490	N/A	N/A	N/A	N/A
Efficiency (used)	NA	0.10	N/A	N/A	N/A	N/A

RCT:

Date: 09/17/08

Payroll No.

(b)(6)

Name (Print): D. J. Phipps

Signature:

D. J. Phipps

Reviewer:

Date: 10/02/08

Payroll No.

(b)(6)

Name (Print): D.R. Elamont

Signature:

D.R. Elamont 10/2/08 *S. Verde #27*

Page 1 of 4

F.C.
RC

Radiological Shipping Record No.
N/A

7

☐ Other: N/A

Perform annual survey of Waste Information Data Systems (WIDS SITE) site 216-U-10. All postings and boundaries checked and verified. N/A ---

F = Field (≥ 30 cm) C = Contact (≤ 1 cm)

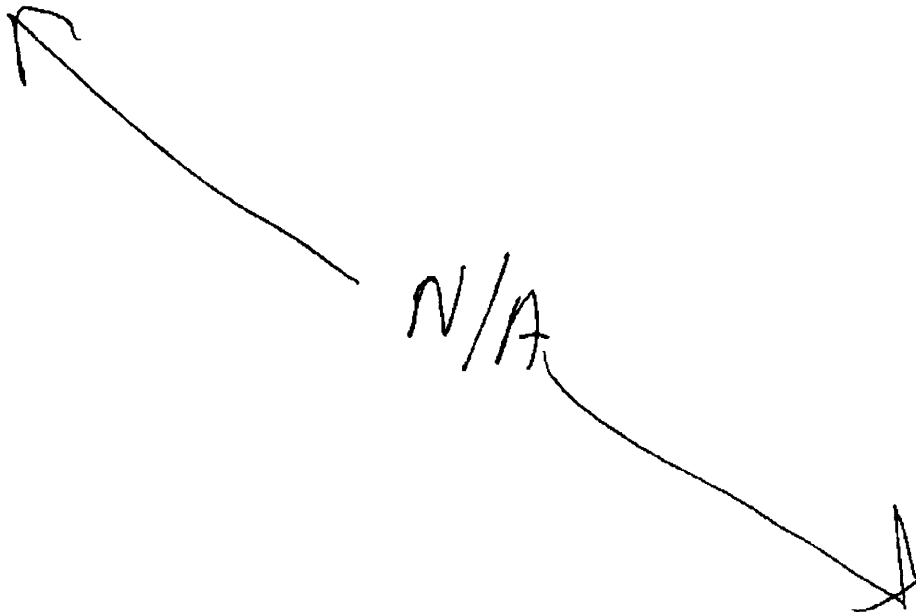
	BZ	GA	Initial	Decay		BZ	GA	Initial	Decay	Sample Counter Log Number or Sample ID Number
α^1	N/A	N/A	N/A	N/A	Pr	N/A	N/A	N/A	N/A	N/A
α^2	N/A	N/A	N/A	N/A	Pr	N/A	N/A	N/A	N/A	N/A

PROJECT HANFORD RADIOLOGICAL SURVEY REPORT

Survey Report No.
RC-05166

Page 2 of 4

Map/Sketch



LEGEND:

② Smear

△ Air Sample

Ⓢ LAW

Ⓢ Neutron

* Contact Reading

----- (designation inside) ----- Radiological Area Boundary

Note: Dose Rates in mrem/hr unless otherwise noted.

COMMENTS: (Additional information as necessary to interpret results)

Surveys performed per walking stick method. No biological hazards encountered. ~~No removable contamination detected.~~ The weeds were bagged and turned over to Bio-Control. N/A

DSF 12-2-08

Instrument/Probe Model	R0-3B (CP)	<u>GM Model</u> g-m probe	<u>PAM</u>	N/A	N/A	N/A
Serial No.	N/A	CMEBB-0353	N/A	N/A	N/A	N/A
	NA	DTHNC-0198	N/A	N/A	N/A	N/A
Efficiency (used)	NA	0.10	N/A	N/A	N/A	N/A

RCT:

Date: 10/03/08

Payroll No.

(b)(6)

Name (Print): D. J Phipps

Signature:

D. J Phipps

Reviewer:

Date: 09/06/12

(b)(6)

Name (Print):

Signature:

D. J Phipps

[Signature]

NOTIFICATION OF RADIOLOGICAL PROBLEM

This message is notification of a radiological problem found in your area or facility. It is your responsibility to determine if this condition is a deficiency and to assume responsibility for the reporting requirements.

Date: 11/03/08

Time of discovery: 09:30

Assumed Owner: RARA (Bill Osborne)

Location: 216-U-10 pond

Description of problem (Suggest this paragraph be used by the ONC if required):

10 Contaminated tumble weeds were detected in a posted URMA while performing surveys on the 216-U-10 covered pond. Maximum contamination levels found were 54,000 dpm/100cm² beta/gamma direct, no removable. No alpha contamination was detected. RARA D&D operator responded to the area and removed the contaminated weeds. The weeds were placed in a RMA for disposal.

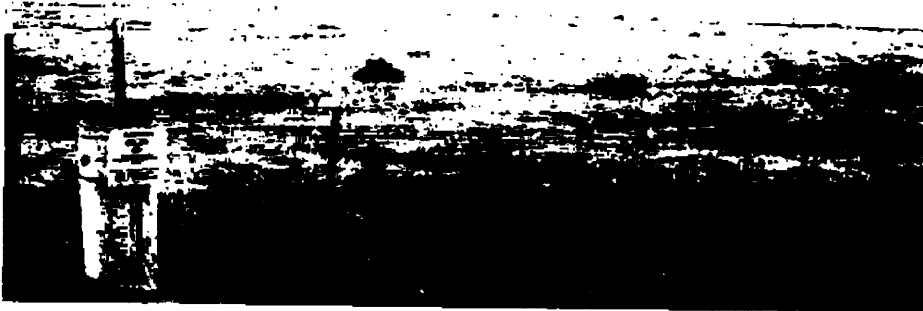
Identified by: D.J. Phipps

Posting of area before and after immediate corrective actions: *URMA before and after cleanup.*

Radiological Survey Report Number: RC-05166 *page 3 of 4*

Other information: Ray Johnson and Bill Osborne were verbally notified.

See attached pictures of area. This area is a known problem area and should be considered for remediation and soil sterilization.



PROJECT HANFORD RADIOLOGICAL SURVEY REPORT

Survey Report No.
RC-05172

Page 1 of 4

Date: 11/04/08 Time (Start/Stop): 07:00/11:00 Area/Bldg./Room/Location: 200-E / 216-U-10 F.C. RC

NWP Number: N/A Work Package/Job Control Package/JSA: N/A Routine Surveillance Task Number: RC-A019 Radiological Shipping Record No.: N/A

Purpose of Survey (check appropriate box(es)): ☐ Job Coverage ☒ Required Task ☐
Contamination Incident: ☐ Skin ☐ Clothing ☐ Spill Alarm Response: ☐ CAM ☐ ARM ☐ APM
☐ Exposure Incident ☐ HRA/VHRA Work ☐ Other: N/A

Job Description:
Perform annual survey of Waste Information Data Systems (WIDS SITE) site 216-U-10. All postings and boundaries checked and verified. N/A

DOSE RATE MEASUREMENTS Note¹ F = Field (>30 cm) C = Contact (<1 cm)

No.	Description	Dist. (cm) Note ¹	WO (mR/hr)	WC (mR/hr)	CF _F	CF _C	Neutron Dose (mrem/hr)	Shallow Dose (mrem/hr)	Deep Dose (mrem/hr)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CONTAMINATION MEASUREMENTS

No.	Description	Direct		Background		Total (dpm/100 cm ²)		Removable (dpm/100 cm ²)	
		Gross cpm/PAβγ	Gross cpm/PAα	βγ (cpm)	α (cpm)	βγ	α	βγ	α
1	>200 Tumble weeds.	2000	N/A	100	N/A	114k	N/A	N/A	N/A
2	1 square meter soil after weed removal.	100	N/A	100	N/A	<5K	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

AIR SAMPLE MEASUREMENTS (μCi/ml)

	BZ	GA	Initial	Decay		BZ	GA	Initial	Decay	Sample Counter Log Number or Sample ID Number
α ¹	N/A	N/A	N/A	N/A	βγ ¹	N/A	N/A	N/A	N/A	
α ²	N/A	N/A	N/A	N/A	βγ ²	N/A	N/A	N/A	N/A	

**PROJECT HANFORD
RADIOLOGICAL SURVEY REPORT**

Survey Report No.
RC-05172

Page 2 of 4

Map/Sketch

See attached

LEGEND: Smear Air Sample LAW Neutron * Contact Reading
 ----- (designation inside) ----- Radiological Area Boundary Note: Dose Rates in mrem/hr unless otherwise noted.

COMMENTS: (Additional information as necessary to interpret results)
 Surveys performed per walking stick method. No biological hazards encountered. ~~No removable contamination detected.~~ The weeds were cleaned up by the D&D operator and compactor truck.. N/A -----
11/30/08

Instrument/Probe Model	R0-3B (CP)	GM Model g-m probe	PAM	N/A	N/A	N/A
Serial No.	N/A	CMEBB-0353	N/A	N/A	N/A	N/A
	NA	DTHNC-0198	N/A	N/A	N/A	N/A
Efficiency (used)	NA	0.10	N/A	N/A	N/A	N/A

RCT:		Reviewer:	
Date: 10/04/08	Payroll No: (b)(6)	Date: 12-29-2008	Payroll No: (b)(6)
Name (Print): D. J Phipps		Name (Print): D. ALT	Scott Demin
Signature: <i>DJ Phipps</i>		Signature: <i>Scott Demin</i>	

NOTIFICATION OF RADIOLOGICAL PROBLEM

This message is notification of a radiological problem found in your area or facility. It is your responsibility to determine if this condition is a deficiency and to assume responsibility for the reporting requirements.

Date: 11/04/08

Time of discovery: 09:15

Assumed Owner: RARA (Bill Osborne)

Location: 216-U-10 pond

Description of problem (Suggest this paragraph be used by the ONC if required):

>200 contaminated tumble weeds were detected in a posted URMA while performing surveys on the 216-U-10 covered pond. Maximum contamination levels found were 114,000 dpm/100cm² beta/gamma direct, no removable. No alpha contamination was detected. RARA D&D operator responded to the area and removed the contaminated weeds. The weeds were placed in regulated compactor for disposal.

Identified by: D.J. Phipps / Rick Daughety

Posting of area before and after immediate corrective actions: *URMA before and after cleanup.*

Radiological Survey Report Number: RC-05172 *page 3 of 4*

Other information: Ray Johnson and Bill Osborne were verbally notified.

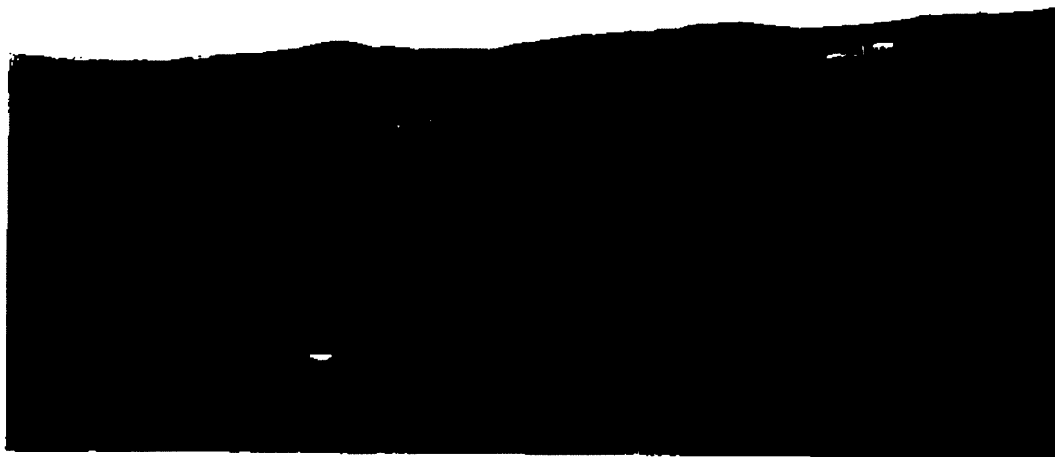
The weeds were small, medium and large in size and attached to the ground.

See attached pictures of area. This area is a known problem area and should be considered for remediation and soil sterilization.

Area before clean up



Area after clean up



CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT

RSR No.
RC-05695

Page 1 of 4

Date 08/27/2009	Start/Stop Time 0730 / 1530	Area/Location 200W / 216-U-10 Pond	RWPI/Rev. N/A
Purpose of Survey		Description of Work/Comments:	
<input type="checkbox"/> Material Release		<p>Completed annual survey of WIDS (Waste Information Data Site) 216-U-10 Pond (to include UPR-200-W-104,105,106,107). No action levels exceeded. All postings and boundaries checked and verified. A live ant mound was found and poisoned and buried. No other biological hazards were encountered.</p>	
Release Survey Plan #: N/A			
Released to: N/A			
<input type="checkbox"/> RAM Shipment: N/A			
<input checked="" type="checkbox"/> Required Task: RC-A020			
<input type="checkbox"/> Job Coverage: N/A			
<input type="checkbox"/> Other: N/A			

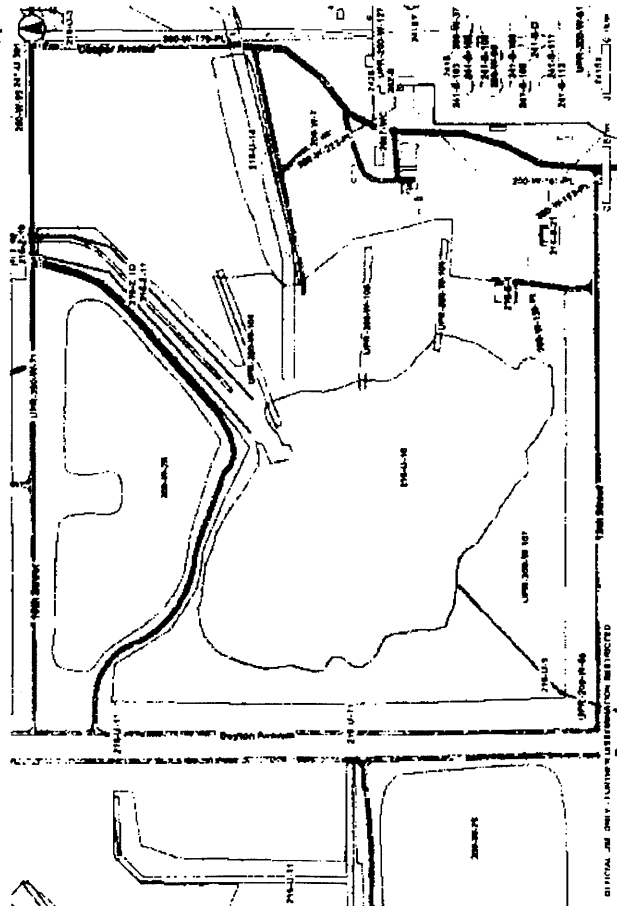
No.	Description	Dose Rate Measurements										Contamination Measurements						
		Notes ¹ F = Field (≥30 cm) C = Contact (≤1 cm)										Background cpm		Direct Gross cpm/PA		Total dpm/100 cm ²		Removable dpm/100 cm ²
		Dist. (cm) Note 1	WD mR/hr	WC mR/hr	CF β	CF γ	Neutron Dose mrem/hr	Shallow Dose mrem/hr	Deep Dose mrem/hr	βγ	α	βγ	α	βγ	α			
1	Soil, gravel & vegetation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100	N/A	100	N/A	<5K	N/A	N/A	N/A
2	Ant mound	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100	0	8-1K	5	8K	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<input type="checkbox"/> Verification survey α= <D		in/s N/A inches away,		count time (seconds),		N/A % of items surveyed or swiped,		N/A # of static counts,		N/A sq. feet.		Area Swiped.		No Audible counts above background				
<input type="checkbox"/> Verification survey βγ= <D		in/s N/A inches away,		count time (seconds),		N/A % of items surveyed or swiped,		N/A # of static counts,		N/A sq. feet.		Area Swiped.		No Audible counts above background				

CH2M HILL PLATEAU REMEDIATION COMPANY
RADIOLOGICAL SURVEY REPORT

RSR No.
RC-05895

Page 2 of 4

Map/Sketch



Legend:

- ☒ Direct Measurement
- ☒ Air Sample
- ☒ Smear
- ☒ LAW
- ☒ Neutron

T = Transferability

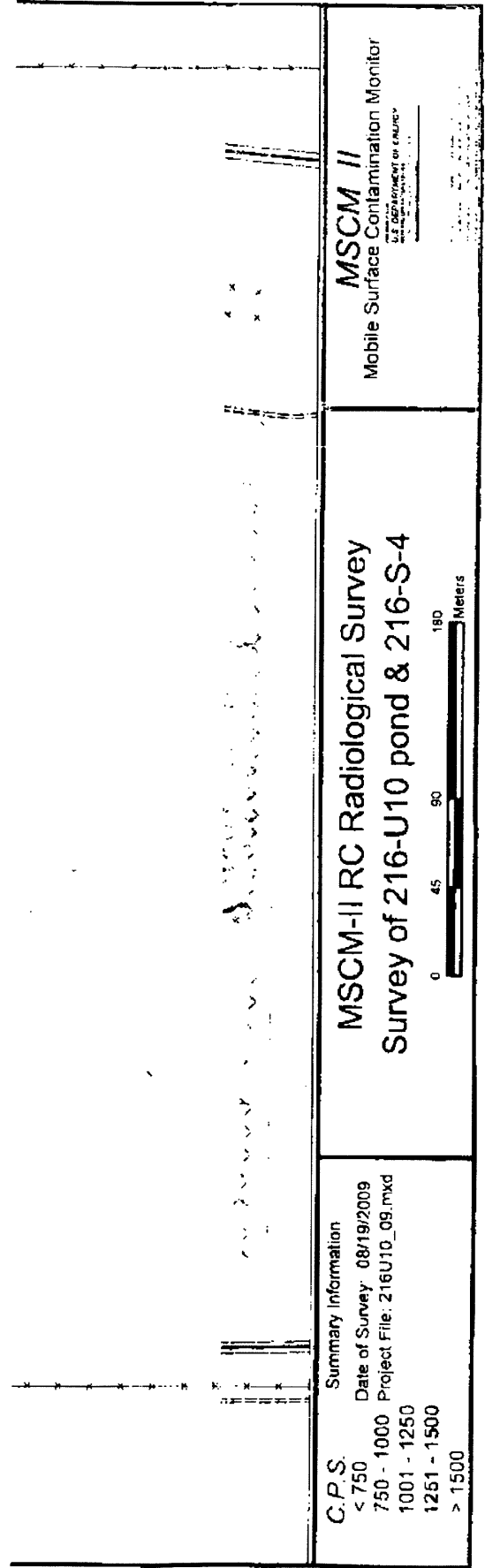
Field Dose Rate
• Contact/ Dose Rate

Note: Dose Rates in mrem/hr unless otherwise noted

Air Sample Log Number				Instruments			
1	N/A	Instrument/Probe Model	GM Model g-m Probe	DAM Probe	N/A	N/A	N/A
2	N/A	Serial No.	ONE-30-00-10	ACRO-00-00	N/A	N/A	N/A
3	N/A	Efficiency (used)	ONE-30-00-10	ONE-30-00-10	N/A	N/A	N/A
4	N/A	Smear Log Number	10	10	N/A	N/A	N/A
5	N/A	HPT: Date	08/17/00	Payroll No	(b)(6)	Review Date	8-27-00
6	N/A	HPT Name (Print)	S. J. J. J.	Signature	(b)(6)	Reviewer Name (Print)	S. J. J. J.
7	N/A	Signature	(b)(6)	Signature	(b)(6)	Signature	(b)(6)



Survey: RC-05695
Page 3 of 4



ENVIRONMENTAL SURVEILLANCE DATA FORM
(Circle or Fill in Data as Applicable)

Site: 216-11-12

Survey #: RC-DS695

Page 4 of 4

Cave-In or Depressions?

Yes

No

Animal or Insect Intrusion?

Yes

No

Tumbleweeds/Sagebrush?

None

Live

Dead

Blown-In

Current Radiological Posting

CA

URMA

Soil

RA

Other _____

Steel Posts?

Yes

No

N/A

Wells / Riser / Vents

Capped or Sealed

Intact

Open

N/A

Chain?

Yes

No

N/A

Concrete Marker Posts?

Surround Site

Single

None

In Place Upright

Leaning / Down

N/A

Signs?

In Place

Missing / Down

Faded

Unidentified Containers?

Yes

No

Abandon Equipment / Material?

Yes

No

Comments:

Ant mound was taken CASE 2

Surveillant's Signature: _____

[Signature]

Date: _____

8/27/09

**CH2M HILL PLATEAU REMEDIATION COMPANY
RADIOLOGICAL SURVEY REPORT**

RSR No. RC-0601

Page 1 of 2

Date	12/10/09	Start/Stop Time	0730 / 1430	Area/Location	200W/MULTIPLE LOCATIONS	RWP/Rev.	N/A
Purpose of Survey				Description of Work/Comments:			
<input type="checkbox"/> Material Release				<p>PERFORMED SEMI-ANNUAL VISUAL INSPECTIONS OF WASTE INFORMATION DATA SYSTEMS (WIDS SITES) 216-U-14, 216-U-10, 216-S-4, 218-W-3, 216-Z-7, 216-2-16, 216-U-17, 216-O-8, 216-U-12 . ALL POSTINGS AND BOUNDARIES VERIFIED. NO ACTION LEVELS EXCEEDED. NO BIOLOGICAL HAZARDS ENCOUNTERED. ALL DEFICIENCIES WERE TURNED OVER TO P. RASCON AND/OR D. PHEPPS.</p>			
Release Survey Plan #: N/A							
Released to: N/A							
<input type="checkbox"/> RAM Shipment: N/A							
<input checked="" type="checkbox"/> Required Task: RC-SA-003							
<input type="checkbox"/> Job Coverage: N/A							
<input type="checkbox"/> Other: N/A							

No.	Description	Dose Rate Measurements								Contamination Measurements						
		Note ¹ F = Field (≥30 cm) C = Contact (≤1 cm)								Background cpm		Direct Gross cpm/PA		Total dpm/100 cm ²		Removable dpm/100 cm ²
		Dist. (cm) Note 1	WO mR/hr	WC mR/hr	CF β	CF γ	Neutron Dose mrem/hr	Shallow Dose mrem/hr	Deep Dose mrem/hr							
1	Random survey points	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

CH2M HILL PLATEAU REMEDIATION COMPANY
RADIOLOGICAL SURVEY REPORT

RSR No.
RC-06012

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Map/Sketch

N/A

Legend:		<input type="checkbox"/> Direct Measurement	<input type="checkbox"/> Air Sample	<input type="checkbox"/> Smear	<input type="checkbox"/> LAW	<input type="checkbox"/> Neutron	T = Transferability	Field Dose Rate * Contact Dose Rate	Note: Dose Rates in mrem/hr unless otherwise noted.
----- (designation inside) ----- Radiological Area Boundary									
Instruments									
1	N/A							N/A	N/A
2	N/A							N/A	N/A
3	N/A							N/A	N/A
4	N/A							N/A	N/A
5	N/A							N/A	N/A
6	N/A							N/A	N/A
7	N/A							N/A	N/A
Air Sample Log Number		Instrument/Probe Model		GM Model g-m Probe		PAM Probe		N/A	
		Serial No.		CMEBB-0204		N/A		N/A	
		Efficiency (used)		10%		N/A		N/A	
Smear Log Number		HPT: Date: 12/13/09		Payroll No (b)(6)		Review Date: 12-14-09		Payroll No (b)(6)	
N/A		HPT Name (Print): H. WOODS		Signature: <i>[Signature]</i>		Reviewer Name (Print): S. M. DEMETER		Signature: <i>[Signature]</i>	
N/A									

CH2M HILL PLATEAU REMEDIATION COMPANY

RADIOLOGICAL SURVEY REPORT

RSR No.

RC-06498

Page 1 of 2

Date

08/09/10

Start/Stop Time

0730 / 1130

Area/Location

200W/216-U-10

RWP/Rev.

RC-10-007

Purpose of Survey

Material Release

Release Survey Plan #: N/A

Released to: N/A

RAM Shipment: N/A

Required Task: RC-A019

Job Coverage: N/A

Other: N/A

Description of Work/Comments:

A CONTAMINATED TUMBLEWEED SEED WAS DETECTED WHILE PERFORMING AN ANNUAL TRACTOR SURVEY OF WASTE INFORMATION DATA SYSTEMS (WIDS SITES)216-U-10. A VERIFICATION SURVEY WAS PERFORMED USING A GM. AREA IS POSTED URMA. ALL NOTIFICATIONS WERE MADE.

No.

Description

Dist. (cm)

Note 1

WO mR/hr

WC mR/hr

CF β

CF γ

Neutron Dose mrem/hr

Shallow Dose mrem/hr

Deep Dose mrem/hr

Background cpm

α

β/γ

Direct Gross cpm/PA

α

β/γ

Total dpm/100 cm²

α

β/γ

Removable dpm/100 cm²

α

β/γ

1

TUMBLEWEED SEED

C

75

0

OFF SCALE

0

OFF SCALE

C

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

Verification survey $\alpha < D$

inches away.

in/s

Verification survey $\beta/\gamma < D$

inches away.

in/s

of static counts.

sq. feet.

Area Swiped.

No Audible counts above background.

of static counts.

sq. feet.

Area Swiped.

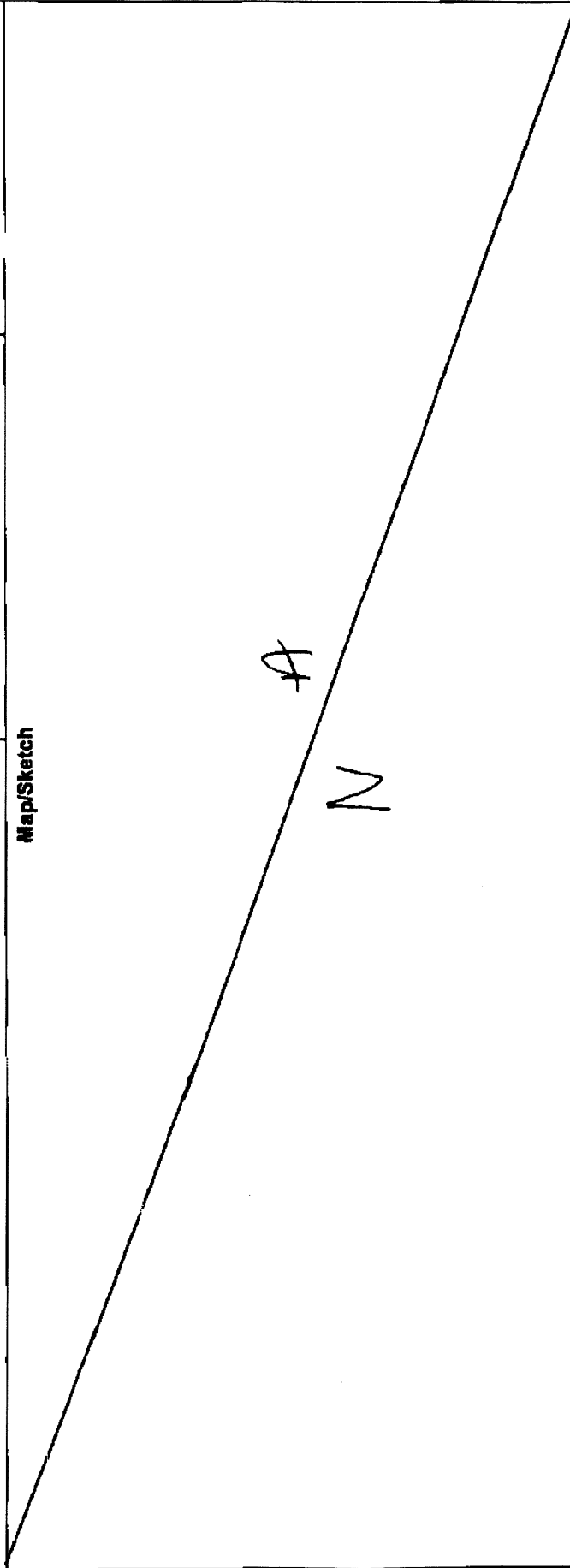
No Audible counts above background.

CH2M HILL PLATEAU REMEDIATION COMPANY
RADIOLOGICAL SURVEY REPORT

RSR No.
RC-06498

Page 2 of 2

Map/Sketch



Legend:		<input type="checkbox"/> Direct Measurement	<input type="checkbox"/> Air Sample	<input checked="" type="radio"/> Smear	<input type="checkbox"/> LAW	<input checked="" type="checkbox"/> Neutron	T = Transferability	Field Dose Rate * Contact Dose Rate	Note: Dose Rates in mrem/hr unless otherwise noted.
----- (designation inside) ----- Radiological Area Boundary									
Air Sample Log Number									
1	N/A						CP	N/A	N/A
2	N/A						TCEB3-0272	N/A	N/A
3	N/A						DTHNC-0964	N/A	N/A
4	N/A				10%	17%	N/A	N/A	N/A
5	N/A						(b)(6)	Review Date: 8-11-10	Payroll No: (b)(6)
6	N/A							Reviewer Name (Print): S. CUEVAS	
7	N/A							Signature: <i>[Signature]</i>	

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT

RSR No.
RC-06528

Page 1 of 4

Date 08/23/2010	Start/Stop Time 0800 / 1500	Area/Location 200E/ 216-U-10 Pond	RWP/Rev. RC-10-007
Purpose of Survey		Description of Work/Comments: Completed Annual survey of WIDS (Waste Information Data Site) 216-U-10. Survey performed using MSCM II with a tractor speed of 2 mph or less and average detector height of 6 inches. All postings and boundaries checked and verified. This survey was performed over several days. There were 2 areas where contamination was detected and cleaned up. See survey#'s RC-06498 and RC-06509 for details. Nothing detected in all other alarm areas. There are a few spots that appear to be shine or wind erosion.	
<input type="checkbox"/> Material Release			
Release Survey Plan #: N/A			
Released to: N/A			
<input type="checkbox"/> RAM Shipment: N/A			
<input checked="" type="checkbox"/> Required Task: RC-A020			
<input type="checkbox"/> Job Coverage: N/A			
<input type="checkbox"/> Other: N/A			

[illegible]

<input type="checkbox"/>	Verification survey	$\alpha = <D$	NA in/s	N/A inches away	NA count time (seconds)	N/A % of items surveyed or swiped	N/A sq. feet	Area Swiped	No Audible counts above background
<input type="checkbox"/>	Verification survey	$\beta = <D$	NA in/s	N/A inches away	NA count time (seconds)	N/A % of items surveyed or swiped	N/A sq. feet	Area Swiped	No Audible counts above background

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT

RSR No.
RC-06528

Page 2 of 4

Map/Sketch

SEE ATTACHED

Legend:		<input checked="" type="checkbox"/> Direct Measurement	<input type="checkbox"/> Air Sample	<input checked="" type="checkbox"/> Smear	<input checked="" type="checkbox"/> LAW	<input checked="" type="checkbox"/> Neutron	T = Transferability	Field Dose Rate * Contact Dose Rate	Note: Dose Rates in mrem/hr unless otherwise noted.
----- (designation inside) ----- Radiological Area Boundary									
Air Sample Log Number									
1	N/A							N/A	N/A
2	N/A							N/A	N/A
3	N/A							N/A	N/A
4	N/A							N/A	N/A
5	N/A							N/A	N/A
6	N/A							N/A	N/A
7	N/A							N/A	N/A
Instruments									
		Instrument/Probe Model	GM Model g-m Probe	PAM Probe				N/A	N/A
		Serial No.	CMEBB-0087	N/A				N/A	N/A
		Efficiency (used)	10%	N/A				N/A	N/A
		Smear Log Number						N/A	N/A
		HPT: Date: 08/23/2010						N/A	N/A
		HPT: Name (Print): S. Cuevas						N/A	N/A
		Signature: <i>[Signature]</i>						N/A	N/A
		Review Date: 8-27-10						N/A	N/A
		Payroll No: (b)(6)						N/A	N/A
		Reviewer Name (Print): S. M. Demiter						N/A	N/A
		Signature: <i>[Signature]</i>						N/A	N/A

ENVIRONMENTAL SURVEILLANCE DATA FORM

(Circle or Fill in Data as Applicable)

Site: 216-U-10

Survey #: ^{Obs 28} Rc-06582-50 9/27/10

Page 4 of 4

Cave-In or Depressions?

Yes

☒ No

Animal or Insect Intrusion?

Yes

☒ No

Tumbleweeds/ Sagebrush?

None

☒ Live

Dead

Blown-In

Current Radiological Posting

CA

☒ URMA

Soil

RA

Other _____

Steel Posts?

☒ Yes

No

N/A

Wells/ Riser/ Vents

☒ Capped or Sealed

Intact

Open

N/A

Chain?

Yes

☒ No

N/A

Concrete Marker Posts?

☒ Surround Site

Single

None

☒ In Place Upright

Leaning/ Down

N/A

Signs?

☒ In Place

Missing/ Down

Faded

Unidentified Containers?

Yes

☒ No

Abandon Equipment/ Material?

Yes

☒ No

Comments: There are lots of live T-Weeds on the South and West edge and in the middle. The site is also surrounded by T-Post that could be removed.

Surveillant's Signature: 

Date:

9/23/10

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT				RSR No. RC-06630		Page 1 of 2										
Date 10/07/10		Start/Stop Time 0730 / 1530		Area/Location 200W 218-W-4A, 216-U-10, 207-U		RWPI/Rev. RC-10-007										
Purpose of Survey <input type="checkbox"/> Material Release Release Survey Plan #: N/A Released to: N/A <input type="checkbox"/> RAM Shipment: N/A <input type="checkbox"/> Required Task: N/A <input checked="" type="checkbox"/> Job Coverage: <input type="checkbox"/> Other: N/A																
Description of Work/Comments: PERFORMED BACKFILL ON SOIL CONTAMINATION AREAS AND HIGH BACKGROUND WITHIN WASTE INFORMATION DATA SYSTEMS (WIDS SITES) 218-W-4A, 216-U-10, 207-U. ALL AREAS WERE COVERED WITH GRAVEL. NO ACTION LEVELS EXCEEDED. NO BIOLOGICAL HAZARDS ENCOUNTERED. REMEDIATED AREAS WERE REPOSTED AS UNDERGROUND RADIOACTIVE MATERIAL AREA.																
No				Dose Rate Measurements				Contamination Measurements								
				Note 1 F = Field (≥30 cm) C = Contact (≤1 cm)				Background cpm		Direct Gross cpm/PA		Total dpm/100 cm ²		Removable dpm/100 cm ²		
Description				Dist (cm)	WO mR/hr	WC mR/hr	CF β	CF γ	Neutron Dose mrem/hr	Shallow Dose mrem/hr	Deep Dose mrem/hr	βγ	α	βγ	α	
1	GRAVEL, SOIL, VEGETATION	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100	N/A	100	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Verification survey α= <D				inches away	count time (seconds)	% of items surveyed or swiped	# of static counts		sq. feet		Area Swiped		No Audible counts above background.			
Verification survey βγ= <D				inches away	count time (seconds)	% of items surveyed or swiped	# of static counts		sq. feet		Area Swiped		No Audible counts above background.			

CH2M HILL PLATEAU REMEDIATION COMPANY
RADIOLOGICAL SURVEY REPORT

RSR No.
RC-06630

Page 2 of 2

Map/Sketch

N/A

Legend:		<input type="checkbox"/> Direct Measurement	<input type="checkbox"/> Air Sample	<input type="checkbox"/> Smear	<input type="checkbox"/> LAW	<input type="checkbox"/> Neutron	T = Transferability	Field Dose Rate • Contact Dose Rate	Note: Dose Rates in mrem/hr unless otherwise noted.
----- (designation inside) ----- Radiological Area Boundary									
Air Sample Log Number									
1	N/A							N/A	N/A
2	N/A							N/A	N/A
3	N/A							N/A	N/A
4	N/A							N/A	N/A
5	N/A							N/A	N/A
6	N/A							N/A	N/A
7	N/A							N/A	N/A

Instruments			
Instrument/Probe Model	GM Model g-m Probe	PAM Probe	N/A
Serial No.	CMFB99-0087		N/A
Efficiency (used)	DTHNC-1114		N/A
Smear Log Number	10%		N/A
HPT: Date: 10/07/10			N/A
Payroll No. (b)(6)			N/A
Review Date: 10-7-10			N/A
Payroll No. (b)(6)			N/A

HPT Name (Print): S. Cuevas	Reviewer Name (Print): S. M. DEMETER
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted)

Page 1 of 3

RSR No.
RC-1100388

Date 7/14/2011	Start/Stop Time 0800 / 1530	Area/Location West / N/A / N/A / 216-U-10	RWP/Rev. RC-11-005
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Purpose of Survey: ☐ Material Release
 Number: N/A
 Released to: N/A
☒ Ram Shipment: Site-03-Sixcopted#84
☒ Required Task: RC-A020
☐ Job Coverage: N/A
☐ Verification survey $\alpha = <D$
 <D=No increase in audible count rate

☐ Verification survey $\beta\gamma = <D$
 <D=No increase in audible count rate

☐ Other: N/A

☐ Verification survey $\beta\gamma = <D$
 <D=No increase in audible count rate

☐ Verification survey $\beta\gamma = <D$
 <D=No increase in audible count rate

☐ Verification survey $\beta\gamma = <D$
 <D=No increase in audible count rate

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☐ Verification survey $\beta\gamma = <D$
 <D=No increase in audible count rate

☐ Verification survey $\beta\gamma = <D$
 <D=No increase in audible count rate

Description of Work / Comments:

216-U-10 Annual Rad Tractor

Comments: Survey of WIDS (Waste InformationData System) Site #216-U-10 and associated UPR's and pipelines. Survey performed using MSCM II with a tractor speed of 2mph or less and average detector height of 6 inches. Survey was performed on July 11, 12, 13, 14 and 18. The same instruments and source was used on all days. All postings and boundaries checked and verified. No biological hazards encountered. This area is posted URVA.

Dose Rate Measurements

No.	Description	Note: F = Field (≥30cm) C = Contact(≤1 cm)						Deep Dose mrem/hr
		Dist. (cm) Note: C	WO mR/hr	WC mR/hr	CF Non- Penetrating	CF Penetrating	Neutron Dose mrem/hr	Shallow Dose mrem/hr
D1	Source D6-185	C	<0.5	<0.5	2	2	N/A	<0.5

Contamination Measurements

† Manually Calculated by RCT

No.	Description	Background		Direct Gross cpm/PA		Total dpm/100 cm²		Correction Factor		Removable Gross (cpm)		dpm/100 cm²	
		$\beta\gamma$	α	$\beta\gamma$	α	$\beta\gamma$	α	$\beta\gamma$	α	Type	$\beta\gamma$	α	α
C1	Soil, Gravel, Vegetation	100	N/A	100	N/A	<5000*	N/A*	10	N/A	N/A	N/A	N/A	N/A
C2	Source D6-185	100	3	100	N/A	N/A†	N/A*	10	6	Smear	N/A	<1000*	<20†
C3	Soil	100	3	100	3	4000*	4000*	10	6	N/A	N/A	N/A	N/A

Date Submitted: 07/18/2011 15:28:53

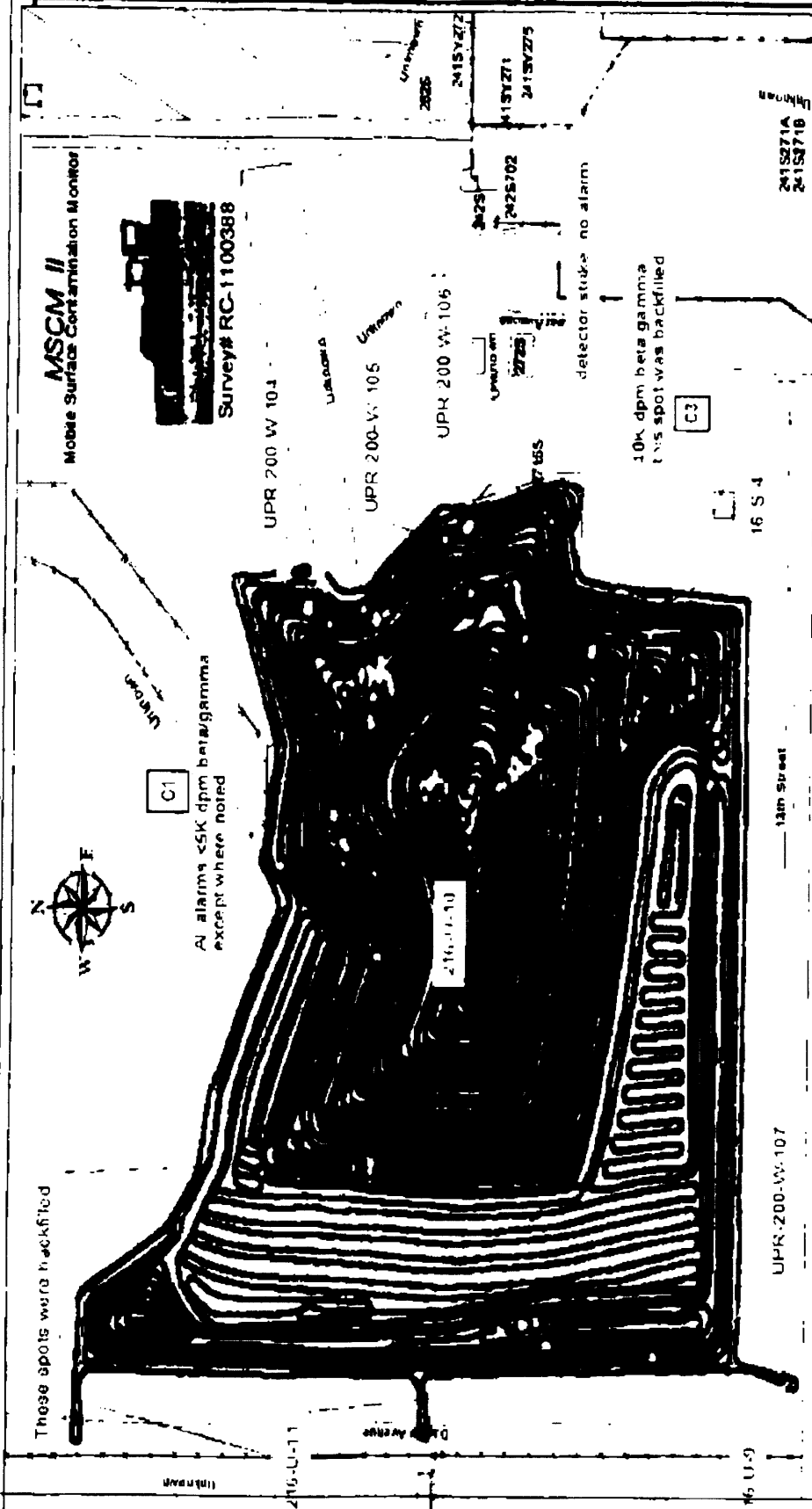
A-6004-663-SS (Rev. 2)

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted)

RSR No.
RC-1100388

Page 2 of 3

Map/Sketch



Summary Information Date of Survey: 07/11/2011 Project #: 216-U-10 (1 mile) 1001 - 1250 1251 - 1500 > 1500		MSCM-II Radiological Survey of 216-U-10 Pond MSCM-II Mobile Surface Contamination Monitor Survey# RC-1100388	
--	--	--	--

Map Name: Annual Rad Tractor		Map Description: 216-U-10	
<input checked="" type="checkbox"/> Direct Measurement	<input checked="" type="checkbox"/> Air Sample	<input checked="" type="checkbox"/> Smear	<input checked="" type="checkbox"/> LAW
<input checked="" type="checkbox"/> Neutron Dose Rate	<input checked="" type="checkbox"/> Transferability	<input checked="" type="checkbox"/> Field	<input checked="" type="checkbox"/> Contact
<input checked="" type="checkbox"/> Other Distance	<input checked="" type="checkbox"/> Other Measurement		

Note: Dose Rates in mrem/hr unless otherwise noted

Date Submitted: 07/18/2011 15:28:53

A-6004-663-SS (Rev. 2)

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted)				RSR No. RC-1100388	Page 3 of 3
Instruments					
Instrument Type	Bar Code No.	Probe Bar Code No.	Efficiency (Used)		
GM / P-11	• CMER3-0220	DTHNC-0288	0.1		
PAM	• ACBC1-0075	DTHN3-0837	0.18		
RO20	• ICEB4-1595	N/A	N/A		
MSCM I1	HO-60-05509	N/A	N/A		
Unless stated otherwise in the "Comments" section, contamination levels for C-14, Fe-55, Ni-59, Ni-63, Se-79, Tc-99, Pd-107, and Eu-155 are ≤ 10 times the b-g contamination levels shown above (see CHPRC-00073, Table 2-2).					
Contributors					
Name	HID	Date	Signature		
Cuevas, Sandra	(b)(6)	7/18/11			
Reviewers					
Name	HID	Date	Signature		
Walt S. Demko	(b)(6)	7-15-11			
History					
2011-07-18 15:28:53 - Submitted					

CH2M HILL PLATEAU REMEDIATION COMPANY

RADIOLOGICAL SURVEY REPORT (Submitted for Approval)

RSR No. RC-1200370

Page 1 of 3

Date: 7/26/2012 Start/Stop Time: 0830 / 1530 Area/Location: 200W / N/A / N/A / 216-J-10 RWP/Rev: RC-12-004 Rev.001

Purpose of Survey: Annual survey of WIDS site 216-J-10.

Material Release Number: N/A

Released to: N/A

✓ Ram Shipment Site-03-Exempted#15

✓ Required Task: RC-A020

Job Coverage: N/A

Verification survey $\alpha = <D$

<D=No increase in audible count rate

N/A Inches/Sec. N/A Inches Away

N/A Count Time (Sec.) N/A % Surveyed

N/A # of Static Counts N/A Square Feet

Verification survey $\beta\gamma = <D$

<D=No increase in audible count rate

N/A Inches/Sec. N/A Inches Away

N/A Count Time (Sec.) N/A % Surveyed

N/A # of Static Counts N/A Square Feet

Other: N/A

Comments:

Survey of WIDS (Waste Information Data System) Site 216-U10.

Survey performed using MSCM II with a tractor speed of 2mph or less and average detector height of 6 inches.

All Alarms <5000dpm beta/gamma by direct frisk.

All postings and boundaries checked and verified. No action levels exceeded.

Survey performed from July 13th thru July 25th. Survey completed on: July 26th with approval of RCS.

No biological hazards encountered. Area posted 'URMA'.

Dose Rate Measurements

No.	Description	Dist. (cm) Note ¹	WC mR/hr	CF Non- Penetrating	CF Penetrating	Neutron Dose mrem/hr	Shallow Dose mrem/hr	Deep Dose mrem/hr
D1	Source D6-185	C	<0.1	3	±	N/A	<0.1	<0.1

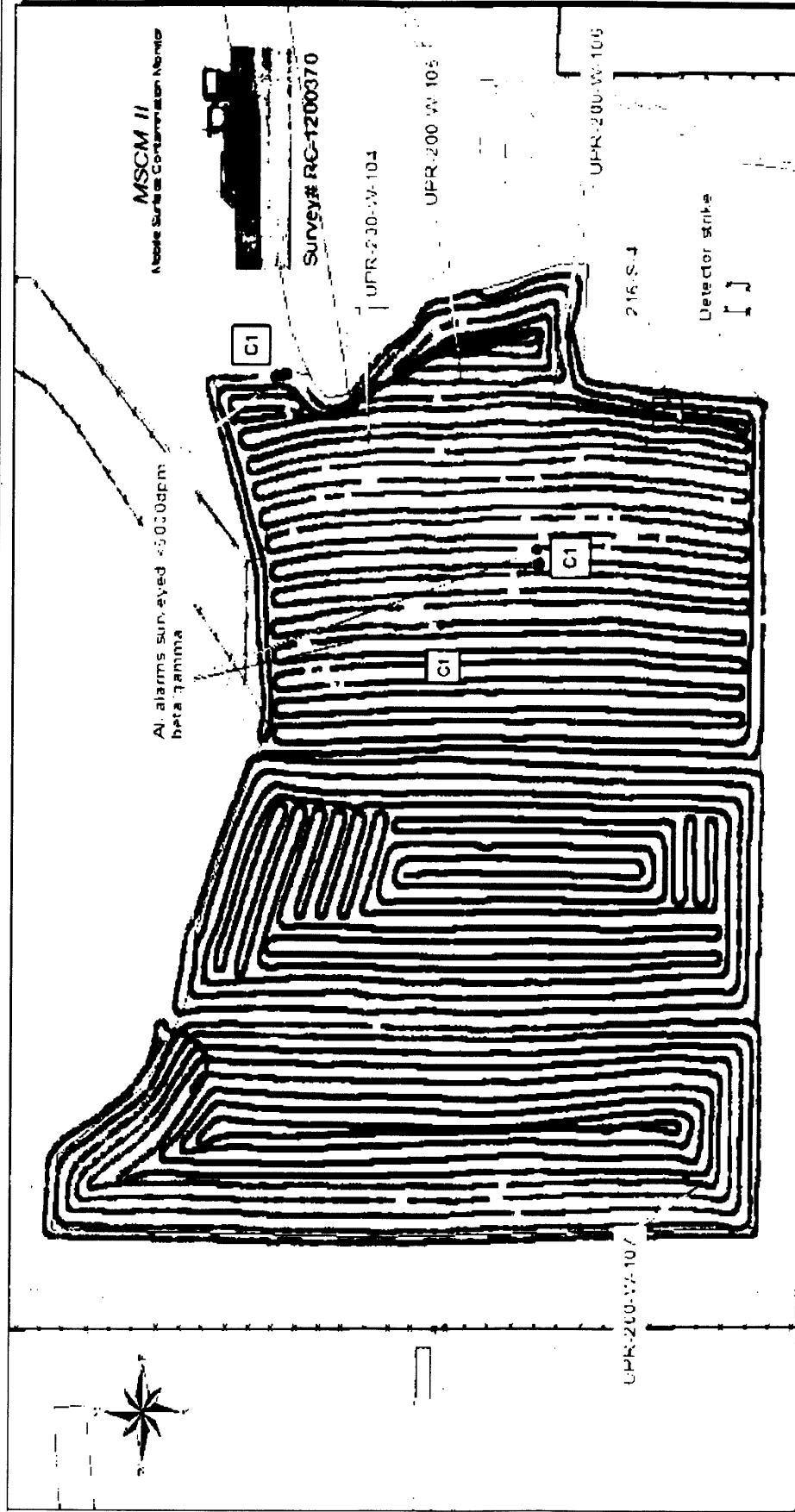
Note¹: F = Field (≥ 30 cm) C = Contact(≤ 1 cm)

Contamination Measurements

† Manually Calculated by RCT

No.	Description	Background cpm	Direct Gross cpm/100 cm ²	Total dpm/100 cm ²		Correction Factor		Removable Gross (cpm)		dpm/100 cm ²	
				$\beta\gamma$	α	$\beta\gamma$	α	$\beta\gamma$	α	$\beta\gamma$	α
C1	Soil, Gravel, Vegetation	100	100	<5000†	N/A†	10	N/A	N/A	N/A	N/A	N/A
C2	Source D6-185 / Case	100	100	<5000	<500	10	6	100	0	<1000	<20

Map/Sketch



**MSCM-II Radiological Survey of
216-U-10**

CPS	Summary - 6000000
150	DATE: 15-06-00
100	C: 25-00
001 - 1200	EXP: 17-00
1201 - 1500	RE: 15-10 12-00
1500	

Map Name: 216-U-10

Legend	Direct Measurement	Air Sample	Smear	LAW	Neutron Dose Rate	Transferability	Field	Contact	Other Distance	Other Measurement
	#	▲	⊗	[#]	◆	T#	F#	C#	D#	Other # Measurement

----- (designation inside) ----- Radiological Area Boundary

Note: Dose Rates in mrem/hr unless otherwise noted.

Note: Dose Rates in mrem/hr unless otherwise noted.

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted for Approval)		RSR No. RC-1200370	Page 3 of 3
Instruments			
Instrument Type	Bar Code No.	Probe Bar Code No.	Efficiency (Used)
CP	ICFB3-0332	N/A	N/A
MSCM II	EO-60-05509	N/A	N/A
PAM	ACBC1-0141	DTIN3-0573	0.16
GM/P-11	CMEBB-0263	DTINC-0986	0.1
Unless stated otherwise in the "Comments" section, contamination levels for C-14, Fe-55, Ni-59, Ni-63, Se-79, Tc-99, Pd-107, and Eu-155 are ≤ 10 times the b-g contamination levels shown above (see CHPRC-00073, Table 2-2).			
History			
2012-07-26 14:59:28 - Rascon, Paul - Submitted			

RC-1200370 Electronically Approved On 7/26/2012 By:

User: RASCON, PAUL (b)(6)

Title: Contributor

Date: Thursday, July 26, 2012, 2:59 PM Pacific Standard Time

=====

User: WILLIAMS, RAYMOND (b)(6)

Title: Reviewer

Date: Thursday, July 26, 2012, 3:54 PM Pacific Standard Time

=====

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted for Approval)				RSR No. RC-1300439	Page 1 of 3																		
Date 7/17/2013	Start/Stop Time 0800 / 1530	Area/Location 200W / N/A / N/A / 216-J-10	RWP/Rev. N/A																				
Purpose of Survey: Annual MSCM II survey of WIDS Site 216-J-10 and Associated areas.																							
Material Release Number: N/A Released to: N/A Ram Shipment: N/A Required Task: RC-A020 Job Coverage: N/A Verification survey $\alpha = <D$ <D=No increase in audible count rate <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%; border: 1px solid black;">N/A</td> <td style="width:33%; border: 1px solid black;">Inches/Sec.</td> <td style="width:33%; border: 1px solid black;">Inches Away</td> </tr> <tr> <td style="border: 1px solid black;">N/A</td> <td style="border: 1px solid black;">Count Time (Sec.)</td> <td style="border: 1px solid black;">% Surveyed</td> </tr> <tr> <td style="border: 1px solid black;">N/A</td> <td style="border: 1px solid black;"># of Static Counts</td> <td style="border: 1px solid black;">Square Feet</td> </tr> </table> Verification survey $\beta\gamma = <D$ <D=No increase in audible count rate <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%; border: 1px solid black;">N/A</td> <td style="width:33%; border: 1px solid black;">Inches/Sec.</td> <td style="width:33%; border: 1px solid black;">Inches Away</td> </tr> <tr> <td style="border: 1px solid black;">N/A</td> <td style="border: 1px solid black;">Count Time (Sec.)</td> <td style="border: 1px solid black;">% Surveyed</td> </tr> <tr> <td style="border: 1px solid black;">N/A</td> <td style="border: 1px solid black;"># of Static Counts</td> <td style="border: 1px solid black;">Square Feet</td> </tr> </table> Other: N/A						N/A	Inches/Sec.	Inches Away	N/A	Count Time (Sec.)	% Surveyed	N/A	# of Static Counts	Square Feet	N/A	Inches/Sec.	Inches Away	N/A	Count Time (Sec.)	% Surveyed	N/A	# of Static Counts	Square Feet
N/A	Inches/Sec.	Inches Away																					
N/A	Count Time (Sec.)	% Surveyed																					
N/A	# of Static Counts	Square Feet																					
N/A	Inches/Sec.	Inches Away																					
N/A	Count Time (Sec.)	% Surveyed																					
N/A	# of Static Counts	Square Feet																					
Comments: Survey of WIDS(Waste Information Data System) Sites, see map for all areas surveyed. All postings and boundaries checked and verified. Survey performed using MSCM II with a tractor speed of 2mph or less and average detector height of 6 inches. Survey performed on July 7,8,9,10,11,15, and 16. Area posted URMA. No action levels exceeded. No biological hazards were encountered.																							

Contamination Measurements												
† Manually Calculated by RCT												
No.	Description	Background cpm		Direct Gross cpm/100 cm²		Total dpm/100 cm²		Correction Factor		Removable		
		$\beta\gamma$	α	$\beta\gamma$	α	$\beta\gamma$	α	Type	Gross (cpm)	$\beta\gamma$	α	dpm/100 cm²
C1	Soil, Gravel, Vegetation	100	N/A	100	N/A	<5000	N/A	10	N/A	N/A	N/A	N/A

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted for Approval)		RSR No. RC-1300439	Page 2 of 3
Map/Sketch			
Map Name: Annual Rad Tractor of URMA		Map Description: 216-U-10 and Associated Areas	
Legend		Note: Dose Rates in mrem/hr unless otherwise noted.	
<input checked="" type="checkbox"/> Direct Measurement	<input checked="" type="checkbox"/> Air Sample	<input checked="" type="checkbox"/> Smear	<input checked="" type="checkbox"/> LAW
<input checked="" type="checkbox"/> Neutron Dose Rate	<input checked="" type="checkbox"/> Transferability	<input checked="" type="checkbox"/> Field	<input checked="" type="checkbox"/> Contact
<input checked="" type="checkbox"/> Other Distance	<input checked="" type="checkbox"/> Other Measurement		

CH2M HILL PLATEAU REMEDIATION COMPANY		RSR No. RC-1300439	Page 3 of 3
RADIOLOGICAL SURVEY REPORT (Submitted for Approval)			
Instruments			
Instrument Type	Bar Code No.	Probe Bar Code No.	Efficiency (Used)
MSCM II	130-62-05248	N/A	N/A
GM/P-11	CMEBB-0323	DTINC-1254	0.1
GM/P-11	CMEB3-0141	DTINC-0291	0.1
Unless stated otherwise in the "Comments" section, contamination levels for C-14, Fe-55, Ni-59, Ni-63, Se-79, Tc-99, Pd-107, and Eu-155 are ≤ 10 times the b-g contamination levels shown above (see CHPRC-00073, Table 2-2).			
History			
2013-07-17 10:59:32 - Rascon, Paul - Submitted			

User: RASCON, PAUL (b)(6)
Title: Contributor
Date: Wednesday, July 17, 2013, 10:59 AM Pacific Standard Time
=====

User: CUEVAS, SANDRA (b)(6)
Title: Contributor
Date: Thursday, July 18, 2013, 12:36 PM Pacific Standard Time
=====

User: WILLIAMS, RAYMOND (b)(6)
Title: Reviewer
Date: Monday, July 29, 2013, 4:45 PM Pacific Standard Time
=====

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted for Approval)				RSR No. RC-1400695	Page 1 of 4																								
Date 11/11/2014	Start/Stop Time 0830 / 1530	Area/Location 200W / N/A / N/A / 216-J-10 Pond		RWP/Rev. RC-004																									
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Purpose of Survey:</p> <p>Material Clearance</p> <p>Number: N/A</p> <p>Cleared to: N/A</p> <p>Ram Shipment: N/A</p> <p>✓ Required Task: RC-A020</p> <p>Job Coverage: N/A</p> <p>Verification survey α = <D</p> <p><D=No increase in audible count rate</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">N/A</td> <td style="width:15%;">Inches/Sec.</td> <td style="width:15%;">N/A</td> <td style="width:15%;">Inches Away</td> </tr> <tr> <td>N/A</td> <td>Count Time (Sec.)</td> <td>N/A</td> <td>% Surveyed</td> </tr> <tr> <td>N/A</td> <td># of Static Counts</td> <td>N/A</td> <td>Square Feet</td> </tr> </table> <p>Verification survey βγ = <D</p> <p><D=No increase in audible count rate</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">N/A</td> <td style="width:15%;">Inches/Sec.</td> <td style="width:15%;">N/A</td> <td style="width:15%;">Inches Away</td> </tr> <tr> <td>N/A</td> <td>Count Time (Sec.)</td> <td>N/A</td> <td>% Surveyed</td> </tr> <tr> <td>N/A</td> <td># of Static Counts</td> <td>N/A</td> <td>Square Feet</td> </tr> </table> <p>Other: N/A</p> </div> <div style="width: 50%;"> <p>Description of Work / Comments:</p> <p>216-J-10 Pond Annual Rad Tractor</p> <p>Comments: Survey of WIDS (Waste Information Data System) Sites listed in description and/or on map. This survey was performed on Nov 5,10,11. Survey performed using MSCM II with a tractor speed of 2mph or less and average detector height of 6 inches. Area that was posted SCA is going to be backfilled.</p> <p>Surveys were also performed manually by following the tractor and surveying random spots (approx every .1 miles), by direct frisk and the transferability survey process. This manual process revealed no contamination that was not detected by the tractor.</p> <p>These areas are posted URMA.</p> <p>No biological hazards were encountered.</p> <p>Action levels were exceeded and all notifications were made.</p> </div> </div>						N/A	Inches/Sec.	N/A	Inches Away	N/A	Count Time (Sec.)	N/A	% Surveyed	N/A	# of Static Counts	N/A	Square Feet	N/A	Inches/Sec.	N/A	Inches Away	N/A	Count Time (Sec.)	N/A	% Surveyed	N/A	# of Static Counts	N/A	Square Feet
N/A	Inches/Sec.	N/A	Inches Away																										
N/A	Count Time (Sec.)	N/A	% Surveyed																										
N/A	# of Static Counts	N/A	Square Feet																										
N/A	Inches/Sec.	N/A	Inches Away																										
N/A	Count Time (Sec.)	N/A	% Surveyed																										
N/A	# of Static Counts	N/A	Square Feet																										
Dose Rate Measurements																													
No.	Description	Note 1: F = Field (≥30cm) C = Contact(≤1 cm)																											
		Dist. (cm) Note 1	WO mR/hr	WC mR/hr	CF Non-Penetrating	CF Penetrating	Neutron Dose mrem/hr	Shallow Dose mrem/hr	Deep Dose mrem/hr																				
D1	General area (approx every .1 mile)	F	<0.1	<0.1	2	1	N/A	<0.1	<0.1																				

CH2M HILL PLATEAU REMEDIATION COMPANY										RSR No.		Page 2 of 4			
RADIOLOGICAL SURVEY REPORT (Submitted for Approval)										RC-1400695					
Contamination Measurements															
		† Manually Calculated by RCT													
No.	Description	Background cpm		Direct Gross cpm/100 cm ²		Total dpm/100 cm ²		Correction Factor		Type	Gross (cpm)		Removable dpm/100 cm ²		
		βγ	α	βγ	α	βγ	α	βγ	α		βγ	α	βγ	α	
C1	Random spots behind tractor (taken approx every 0.1 mile) Soil, Gravel, Bunch Grass.	200	3	200	3	<5000	<500	10	10	Trans.	200	3	<1000	<20	
C2	soil in SCA	200	3	5000	3	48000	<500	10	10	Trans.	200	3	<1000	<20	
C3	T-Weeds	100	N/A	100	N/A	<5000	N/A	10	N/A	N/A	N/A	N/A	N/A	N/A	

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted for Approval)		RSR No. RC-1400695	Page 3 of 4
Map/Sketch			
Legend		Map Name: Annual Rad Tractor	
<input checked="" type="checkbox"/> Direct Measurement	<input checked="" type="checkbox"/> Air Sample	Map Description: 216-U-10 Pond	
<input checked="" type="checkbox"/> Smear	<input checked="" type="checkbox"/> LAW	<input checked="" type="checkbox"/> Neutron Dose Rate	<input checked="" type="checkbox"/> Transferrability
<input checked="" type="checkbox"/> Field	<input checked="" type="checkbox"/> Contact	<input checked="" type="checkbox"/> Other Distance	<input checked="" type="checkbox"/> Other Measurement
Note: Dose Rates in mrem/hr unless otherwise noted.			

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted for Approval)		RSR No. RC-1400695	Page 4 of 4
Instruments			
Instrument Type	Bar Code No.	Probe Bar Code No.	Efficiency (Used)
RC-20	ICPB4-1430	N/A	N/A
NSCM II	EO-60-05248	N/A	N/A
GM/P-11	CMERC-0059	DTHNC-0667	0.1
Ludlum 2360/43-93	SOLL8-0253	DTLLP-0359	0.1
Unless stated otherwise in the "Comments" section, contamination levels for C-14, Fe-55, Ni-59, Ni-63, Se-79, Tc-99, Pd-107, and Eu-155 are ≤ 10 times the b-g contamination levels shown above (see CHPRC-00073, Table 2-2).			
History			
2014-11-13 14:34:58 - Cuevas, Sandra - Submitted			

User: CUEVAS, SANDRA (b)(6)

Title: Contributor

Date: Thursday, November 13, 2014, 2:35 PM Pacific Standard Time

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User: Kostoff, Boyd (b)(6)

Title: Reviewer

Date: Tuesday, November 18, 2014, 5:12 AM Pacific Standard Time

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CH2M HILL PLATEAU REMEDIATION COMPANY			RSR No. RC-1500611		Page 1 of 4																									
RADIOLOGICAL SURVEY REPORT (Submitted for Approval)																														
Date	Start/Stop Time	Area/Location	RWP/Rev.																											
9/16/2015	1330 / 1500	200W / N/A / N/A / J-POND	RC-004/06																											
Purpose of Survey: Material Clearance Number: N/A Cleared to: N/A ✓ Ram Shipment: STOP-03-EXCEPTED VEGETATION #2 ✓ Required Task: RC-VAR009 Job Coverage: N/A Verification survey $\alpha = <D$ <D=No increase in audible count rate <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>N/A</td> <td>Inches/Sec.</td> <td>N/A</td> <td>Inches Away</td> </tr> <tr> <td>N/A</td> <td>Count Time (Sec.)</td> <td>N/A</td> <td>% Surveyed</td> </tr> <tr> <td>N/A</td> <td># of Static Counts</td> <td>N/A</td> <td>Square Feet</td> </tr> </table> Verification survey $\beta y = <D$ <D=No increase in audible count rate <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>N/A</td> <td>Inches/Sec.</td> <td>N/A</td> <td>Inches Away</td> </tr> <tr> <td>N/A</td> <td>Count Time (Sec.)</td> <td>N/A</td> <td>% Surveyed</td> </tr> <tr> <td>N/A</td> <td># of Static Counts</td> <td>N/A</td> <td>Square Feet</td> </tr> </table> Other: N/A			N/A	Inches/Sec.	N/A	Inches Away	N/A	Count Time (Sec.)	N/A	% Surveyed	N/A	# of Static Counts	N/A	Square Feet	N/A	Inches/Sec.	N/A	Inches Away	N/A	Count Time (Sec.)	N/A	% Surveyed	N/A	# of Static Counts	N/A	Square Feet	Description of Work / Comments: Tumbleweed blue card survey for contaminated tumbleweed found at 216-U-10. Comments: PERFORMED SURVEYS IAW THE TASK DESCRIPTION. A CONTAMINATED TUMBLEWEED (DEAD) WAS DISCOVERED IN THE SE PART OF THIS WIDS SITE. LOCATION SURVEYED WAS ADJACENT TO PREVIOUS PROBLEM AREAS THAT HAVE BEEN COVERED WITH BACKFILL. CONTAMINATION LEVELS WERE BELOW LEVELS REQUIRING NOTIFICATION TO MSA ENVIRONMENTAL BUT NOTIFICATIONS WERE MADE TO THE RCS AND FWS. TUMBLEWEED WAS REMOVED, BAGGED, TAGGED, AND SHIPPED TO RMA #224-T-001.			
N/A	Inches/Sec.	N/A	Inches Away																											
N/A	Count Time (Sec.)	N/A	% Surveyed																											
N/A	# of Static Counts	N/A	Square Feet																											
N/A	Inches/Sec.	N/A	Inches Away																											
N/A	Count Time (Sec.)	N/A	% Surveyed																											
N/A	# of Static Counts	N/A	Square Feet																											

Dose Rate Measurements												
No.	Description	Dist. (cm) Note 1	WC mR/hr	CF Non-Penetrating	CF Penetrating	Neutron Dose mrem/hr	Shallow Dose mrem/hr	Deep Dose mrem/hr	Note 1: F = Field (≥ 30 cm) C = Contact (≤ 1 cm)			
D1	CONTAMINATED TUMBLEWEEDS	3	<0.5	2	1	N/A	<0.5	<0.5				
D2	BAG OF VEGETATION/DIRT	30	N/A	N/A	1	N/A	N/A	<0.5				
D3	BAG OF VEGETATION/DIRT	3	<0.5	2	1	N/A	<0.5	<0.5				

Contamination Measurements												
† Manually Calculated by RCT												
No.	Description	Background cpm	Direct Gross cpm/100 cm ²	Total dpm/100 cm ²		Correction Factor		Removable				
				βy	α	βy	α	Type	Gross (cpm)	βy	α	dpm/100 cm ²
C1	TUMBLEWEED/FRAGMENTS AS REMOVED	400	2400	N/A	20000	N/A	10	N/A	N/A	N/A	N/A	N/A

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted for Approval)					RSR No. RC-1500611		Page 2 of 4					
Contamination Measurements (Continued)												
† Manually Calculated by RCT												
No.	Description	Background cpm		Direct Gross cpm/100 cm ²		Total dpm/100 cm ²		Correction Factor		Removable		
		βγ	α	βγ	α	βγ	α	βγ	α	Gross (cpm)	dpm/100 cm ²	
C2	SOIL AROUND AND UNDER TUMBLEWEED	400	1	400	1	<5000	<500	10	10	240	α βγ α 1 Trans. 1 <20 <20	
C3	EXTERIOR OF BAG WITH TUMBLEWEED	240	1	N/A	N/A	N/A	N/A	10	10	240	α βγ α 1 Smear 1 <20 <20	

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted for Approval)		RSR No. RC-1500611	Page 3 of 4
Map/Sketch			
Map Name: 216-U-10		Map Description: Hot tumbleweed	
Legend	<input type="checkbox"/> Direct Measurement	<input type="checkbox"/> Air Sample	<input checked="" type="checkbox"/> Smear
	<input checked="" type="checkbox"/> LAW	<input checked="" type="checkbox"/> Neutron Dose Rate	<input checked="" type="checkbox"/> Transferrability
	<input checked="" type="checkbox"/> Field	<input checked="" type="checkbox"/> Contact	<input checked="" type="checkbox"/> Other Distance
	<input checked="" type="checkbox"/> Other Measurement	<input checked="" type="checkbox"/> Note: Dose Rates in mrem/hr unless otherwise noted.	

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted for Approval)		RSR No. RC-1500611	Page 4 of 4
Instruments			
Instrument Type	Bar Code No.	Probe Bar Code No.	Efficiency (Used)
2360 / 43-93	SOLL8-0327	DTLLP-0433	β 0.1 α 0.1
RO-20	ICEB9-0099	N/A	N/A
Ludlum Model 3	CMLL2-0229	DTINC-0987	0.1
2360 / 43-93	SOLL8-0269	DTLLP-0375	β 0.1 α 0.1
Unless stated otherwise in the "Comments" section, contamination levels for C-14, Fe-55, Ni-59, Ni-63, Se-79, Tc-99, Pd-107, and Eu-155 are \leq 10 times the b-g contamination levels shown above (see CHPRC-00073, Table 2-2).			
History			
2015-09-17 08:16:47 - Regev, Shir - Submitted			

User: REGEV, SHIR (b)(6)
Title: Contributor
Date: Thursday, September 17, 2015, 8:16 AM Pacific Standard Time
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User: LARSON, KENNETH (b)(6)
Title: Contributor
Date: Thursday, September 17, 2015, 9:00 AM Pacific Standard Time
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User: BIGGS, DANIEL (b)(6)
Title: Reviewer
Date: Saturday, September 26, 2015, 11:54 AM Pacific Standard Time
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CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted for Approval)				RSR No. RC-1500618	Page 1 of 3
Date 9/17/2015	Start/Stop Time 0800 / 1530	Area/Location 200W / N/A / N/A / 216-J-10 Pond		RWP/Rev. RC-004 Rev.006	
Purpose of Survey: Material Clearance Number: N/A Cleared to: N/A Ram Shipment: N/A Required Task: RC-A020 Job Coverage: N/A Verification survey $\alpha = <D$ <D=No increase in audible count rate <div style="display: flex; justify-content: space-between;"> <div> N/A Inches/Sec. N/A Inches Away N/A Count Time (Sec.) N/A % Surveyed N/A # of Static Counts N/A Square Feet </div> <div> Verification survey $\beta\gamma = <D$ <D=No increase in audible count rate N/A Inches/Sec. N/A Inches Away N/A Count Time (Sec.) N/A % Surveyed N/A # of Static Counts N/A Square Feet </div> </div> Other: N/A					
Description of Work / Comments: 216-J-10 Pond and 216-S-4 Annual Rad Tractor Comments: Survey of WIDS (Waste Information Data System) Sites listed in description and/or on map. This survey was performed on Sept 15, 16 and 17. Survey performed using MSCMII with a tractor speed of 2mph or less. Surveys were also performed manually by following the tractor and surveying random spots (approx every .1 miles), by direct frisk. No action levels exceeded and No environmental hazards noted. These areas are posted URMA.					

Contamination Measurements

† Manually Calculated by RCT											
No.	Description	Background cpm		Direct Gross cpm/100 cm²		Total dpm/100 cm²		Correction Factor		Removable	
		βγ	α	βγ	α	βγ	α	βγ	α	Gross (cpm)	dpm/100 cm²
C1	2360 Random Survey Measurements (approx every .1 mile) Soil, Gravel and Alarm areas	200	3	200	3	<5000	<500	10	10	N/A	N/A
										N/A	N/A

CH2M HILL PLATEAU REMEDIATION COMPANY				RSR No. RC-1500618		Page 2 of 3	
RADIOLOGICAL SURVEY REPORT (Submitted for Approval)							
Map/Sketch							
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>216-U-10 Pond</p> </div> <div style="width: 50%;"> <p>MSCM II</p> <p>MSCM II Radiological Survey of 216-U-10 Pond</p> <p>Scale: 0 150 300 450 Feet</p> <p>MSCM II Logo</p> <p>RC-1500618</p> </div> </div>							
<p>Map Name: Annual Rad Tractor</p> <p>Legend</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Direct Measurement <input type="checkbox"/> Air Sample <input checked="" type="checkbox"/> Smear <input type="checkbox"/> LAW <input type="checkbox"/> Neutron Dose Rate <input type="checkbox"/> Transferrability <input type="checkbox"/> Field <input type="checkbox"/> Contact <input type="checkbox"/> Other Distance <input type="checkbox"/> Other Measurement 		<p>Map Description: 216-U-10 Pond</p> <p>----- (designation inside) ----- Radiological Area Boundary</p> <p>Note: Dose Rates in mrem/hr unless otherwise noted.</p>					

CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT (Submitted for Approval)		RSR No. RC-1500618	Page 3 of 3
Instruments			
Instrument Type	Bar Code No.	Probe Bar Code No.	Efficiency (Used)
MSCM II	110-60-05248	N/A	N/A
Ludlum 2360/43-93	SCLL8-0250	DTLLP-0356	0.1
Ludlum 2360/43-93	SCLL8-0269	DTLLP-0375	0.1
GM/P-11	CMLL2-0207	DTIHC-0810	0.1
GM/P-11	CMLL2-0229	DTIHC-0987	0.1
Unless stated otherwise in the "Comments" section, contamination levels for C-14, Fe-55, Ni-59, Ni-63, Se-79, Tc-99, Pd-107, and Eu-155 are ≤ 10 times the b-g contamination levels shown above (see CHPRC-00073, Table 2-2).			
History			
2015-09-22 07:38:29 - Cuevas, Sandra - Submitted			
2015-09-22 07:46:46 - Cuevas, Sandra - UnSubmitted: Add data			
2015-09-22 07:58:46 - Cuevas, Sandra - Submitted: Add Data			

User: CUEVAS, SANDRA (b)(6)

Title: Contributor

Date: Tuesday, September 22, 2015, 7:58 AM Pacific Standard Time

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User: REGEV, SHIR (b)(6)

Title: Contributor

Date: Tuesday, September 22, 2015, 8:04 AM Pacific Standard Time

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User: BIGGS, DANIEL (b)(6)

Title: Reviewer

Date: Saturday, September 26, 2015, 11:51 AM Pacific Standard Time

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**CH2M HILL PLATEAU REMEDIATION COMPANY
RADIOLOGICAL SURVEY REPORT (Submitted for Approval)**

Page 1 of 5

RSR No.
RC-1601238

Date 10/04/2016	Start/Stop Time 1500/1545	Area/Location 200W / WIDS / 216-U-10	RWP/Rev. rc-004 / 7
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Purpose of Survey:

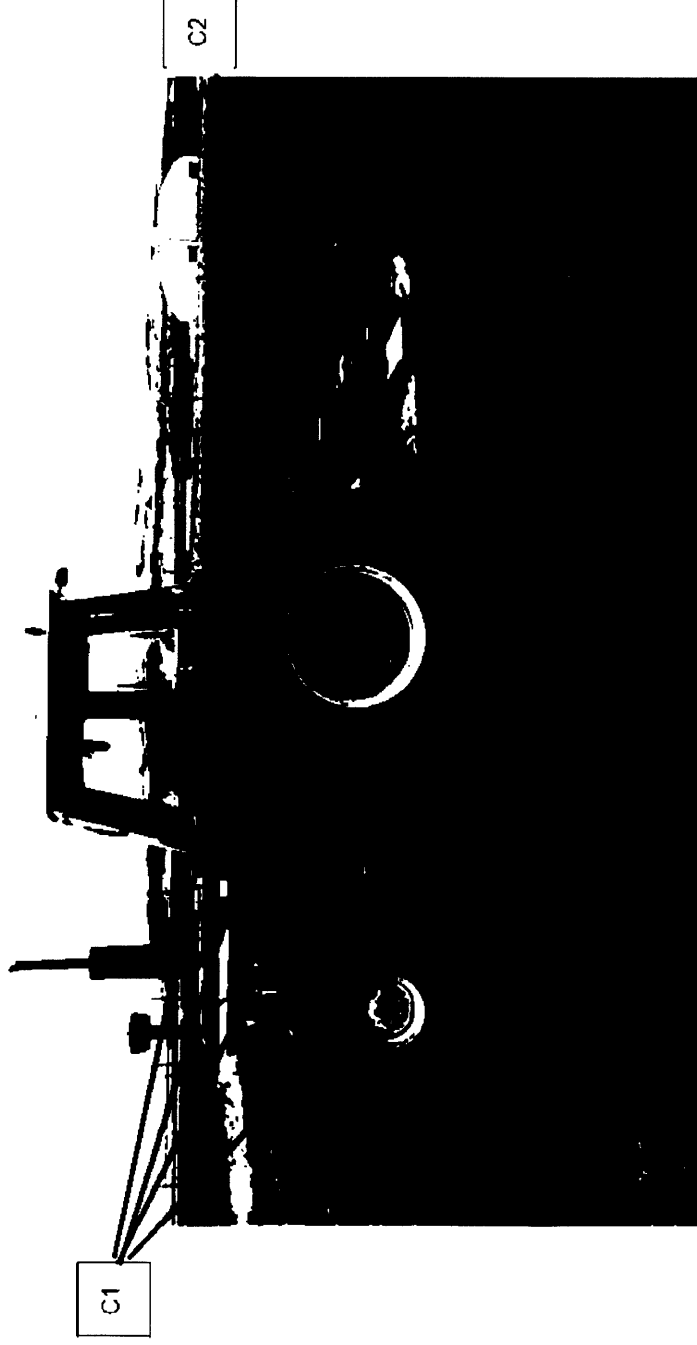
<input type="checkbox"/> Material Clearance Number: N/A Cleared to: N/A <input type="checkbox"/> Ram Shipment: N/A <input type="checkbox"/> Required Task: N/A <input type="checkbox"/> Job Coverage: N/A <input type="checkbox"/> Verification survey $\alpha = < D$ $< D =$ No increase in audible count rate N/A Inches/Sec. N/A Inches Away N/A Count Time (Sec.) N/A % Surveyed N/A # of Static Counts N/A Square Feet <input type="checkbox"/> Verification survey $\beta x = < D$ $< D =$ No increase in audible count rate N/A Inches/Sec. N/A Inches Away N/A Count Time (Sec.) N/A % Surveyed N/A # of Static Counts N/A Square Feet X Other: Good Radiological Practice survey.	Description of Work: WIDS 216-U-10 Mower Tractor survey, after mowing, prior to leaving URMA. on tractor HO-62-3505. Comments: Mower surveyed, after mowing vegetation was completed, prior to exiting URMA as a good radiological work practice.
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CH2M HILL PLATEAU REMEDIATION COMPANY RADIOLOGICAL SURVEY REPORT(Submitted for Approval)					RSR No. RC-1601238		Page 2 of 5				
Contamination Measurements											
		* Manually Calculated by RCT									
No.	Description	Background cpm		Direct Gross cpm/100 cm ²		Total dpm/100 cm ²		Correction Factor		Removable	
		βγ	α	βγ	α	βγ	α	βγ	α	Gross (cpm)	dpm/100 cm ²
C1	2360 survey, on tire cab, cab access, and engine housing.	180	2	180	2	<5000	<500	10	10	N/A	N/A
C2	GM survey, on mower assy and the vegetation debris.	100	N/A	100	N/A	<5000	N/A	10	N/A	N/A	N/A

**CH2M HILL PLATEAU REMEDIATION COMPANY
RADIOLOGICAL SURVEY REPORT (Submitted for Approval)**

RSR No.
RC-1601238

Map/Sketch



Map Name: N/A		Map Description: Pictures are representative								
Legend	Direct Measurement	Air Sample	Smear	LAW	Neutron Dose Rate	Transferability	Field	Contact	Other Distance	Other Measurement
	#	A	#	L	#	T	F	C	D	O
----- (designation inside) ----- Radiological Area Boundary										
Instruments										
Instrument Type		Bar Code No.		Probe Bar Code No.		Efficiency (Used)		Due Date		
LUDLUM 2360 / 43-93		SCLL8-0259		DTLLP-0365		0.1		01/05/2017		
GM		CMEB3-0172		N/A		N/A		02/01/2017		

Note: Dose Rates in mrem/hr unless otherwise noted.

Date Submitted: 10/5/2016

A-6004-663-SS (Rev. 4)

CH2M HILL PLATEAU REMEDIATION COMPANY		RSR No. RC-1601238	Page 4 of 5
RADIOLOGICAL SURVEY REPORT(Submitted for Approval)			
HP-210	N/A	DTHNC-0770	0.1
Unless stated otherwise in the "Comments" section, contamination levels for C-14, Fe-55, Ni-59, Ni-63, Se-79, Tc-99, Pd-107, and Eu-155 are <= 10 times the b-g contamination levels shown above (see CHPRC-00073, Table 2-2).			
History			
10/5/2016 8:11:53 AM - Miller , John E - Submitted: 10/27/2016 3:20:48 PM - Grieder , Randall - Final Approval:			

**** Electronically Approved – RC-1601238 on 10/27/2016 **:**

User: Miller, John E (b)(6)

Title: Owner

Date: Wednesday, October 05, 2016, 8:11 AM Pacific Standard Time

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User: Regev, Shir (b)(6)

Title: Contributor

Date: Thursday, October 27, 2016, 2:14 PM Pacific Standard Time

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User: Grieder, Randall (b)(6)

Title: Reviewer

Date: 10/27/2016 3:20:48 PM Pacific Standard Time

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