

**2015 Annual Land-Use Covenant
Inspection Report
for DOE Areas at the Laboratory
for Energy-Related Health
Research/Old Campus Landfill
Superfund Site
University of California, Davis**

January 2016



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ENERGY

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REPORT DISTRIBUTION

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Contents

Abbreviations	ii
1.0 Introduction	1
1.1 Inspection and Reporting Requirements	2
1.2 Period Covered	2
1.3 Activities Conducted During the Reporting Period.....	2
2.0 Inspections.....	5
2.1 Inspection of Domestic Septic System 4 Area for Prohibited Land Uses	5
2.2 Inspections of DOE Areas for Compliance with Requirements of the Soil Management Plan	5
2.2.1 Soil Management Compliance Interview.....	9
2.2.2 Inspection of DOE Areas for Evidence of Soil-Disturbing Activities.....	9
2.3 Inspections of Groundwater Monitoring Wells	9
3.0 Soil Management Plan Implementation	11
3.1 Training	11
3.2 Soil-Disturbing Activities.....	11
3.3 Soil Disposal.....	11
3.4 Soil Management Plan Changes	12
4.0 Certification.....	13
5.0 References	15

Figures

Figure 1. Location of the LEHR Superfund Site, UC Davis, Solano County, California	3
Figure 2. Areas of the LEHR Superfund Site Subject to Land-Use Restrictions	4
Figure 3. Monitoring Wells and Corner Point Monuments at the LEHR Superfund Site	6
Figure 4. View South of Fallen Tree with Disturbed Soil in Foreground and Relocated Fallen Tree Stump Behind (photo taken June 12, 2015)	7
Figure 5. 1998 Survey Map Showing Original Location of Fallen Tree	8

Appendixes

Appendix A	Inspection and Maintenance Checklists
Appendix B	Photographs of Monuments at Permanent Reference Points for Areas Subject to Land-Use Restrictions
Appendix C	Photographs of DOE Areas Subject to Land-Use Restrictions
Appendix D	Photographs of Groundwater Monitoring Wells
Appendix E	Photographs of Completed Maintenance Work

Abbreviations

DOE	U.S. Department of Energy
DSS	Domestic Septic System
DTSC	California Department of Toxic Substances Control
EDPs	Eastern Dog Pens
EH&S	Environmental Health and Safety
LEHR	Laboratory for Energy-Related Health Research
Ra/Sr	Radium/Strontium
SMP	Soil Management Plan
SWT	Southwest Trenches
UC Davis	University of California, Davis
EPA	U.S. Environmental Protection Agency
Weiss	Weiss Associates

1.0 Introduction

This report documents inspection of land-use restrictions implemented by the U.S. Department of Energy (DOE) to control exposure to residual soil contaminants at DOE areas of the Laboratory for Energy-Related Health Research/Old Campus Landfill Superfund Site (LEHR site) located at the University of California, Davis (UC Davis) (Figure 1). By controlling land use at the LEHR site, DOE meets the requirement of the Comprehensive Environmental Response, Compensation, and Liability Act to protect human health and the environment from any potential effects of contamination remaining at the DOE areas at the LEHR site. The selection of land-use controls for eight DOE areas at the LEHR site is documented in the *Record of Decision for DOE Areas at the Laboratory for Energy-Related Health Research, University of California, Davis* (DOE 2009). The land-use restrictions were recorded in the *Covenant to Restrict Use of Property, Environmental Restriction (Land-Use Covenant)* (DTSC 2014). Methods for implementation of the land-use restrictions are provided in the *Remedial Design/Remedial Action Work Plan for the Former Laboratory for Energy-Related Health Research Federal Facility, University of California, Davis* (RD/RA Work Plan) (DOE 2010).

The DOE areas subject to land-use restrictions (Figure 2) are the Radium/Strontium (Ra/Sr) Treatment Systems Area, Domestic Septic System (DSS) 3 and DSS 4 Areas, Dry Wells A–E Area, Eastern Dog Pens (EDPs), and the Southwest Trenches (SWT) Area. The DSS 2 Area is located within the Ra/Sr Treatment Systems Area. The DSS 4 Area contains a portion subject to a prohibition on residential use.

The Western Remediation Support Area and Eastern Remediation Support Area shown on Figure 2 do not contain residual contamination, but are designated for staging of equipment and supplies if contingent remedial action were implemented at the Ra/Sr Treatment Systems Area, DSS 3 and DSS 4 Areas, Dry Wells AE Area, EDPs, or SWT Area.

The Land-Use Covenant states that:

- Residential use, use for day care for children, and cultivation of crops for human consumption are prohibited at the location in the DSS 4 Area shown on Figure 2.
- Soil management must be implemented per the Soil Management Plan (SMP) included as Appendix A in the RD/RA Work Plan (DOE 2010) at the Ra/Sr Treatment Systems Area, DSS 3 Area, DSS 4 Area, Dry Wells A–E Area, EDPs Area, and the SWT Area.
- Interference, tampering with, or destruction of the groundwater monitoring system is prohibited.
- The California Department of Toxic Substances Control (DTSC) and the U.S. Environmental Protection Agency (EPA), Region 9 shall have reasonable right of entry and access to the property for periodic inspections to ensure compliance with land-use restrictions.
- Access must be granted to DOE for the purpose of collecting samples and maintaining groundwater monitoring wells.
- An annual inspection verifying compliance with the Land-Use Covenant shall be conducted.

These restrictions shall be maintained until the concentrations of contaminants in the soil are at or below cleanup levels specified in the Record of Decision (DOE 2009).

1.1 Inspection and Reporting Requirements

Annual inspection for compliance with the Land-Use Covenant is required (DTSC 2014). The inspection must include verification of permits obtained for any soil-disturbing activities, a review of soil-disturbing activities for compliance with the SMP (DOE 2010), review of disposal practices for waste generated during soil-disturbing activities, and suggested changes to the SMP.

The inspection report is required to contain:

- The dates, times, and names of those who conducted the inspection and reviewed the report
- How the observations were performed that were the basis for the statements and conclusions (e.g., drive by, fly-over, walk-through)
- The annual inspection results
- Review of compliance with the requirements of the SMP
- Certification of compliance with the Land-Use Covenant
- Discussion of any soil-disturbing activities and wastes generated

If violations are noted, the annual inspection report must detail the steps taken to return to compliance. The inspection report is due to the DTSC and EPA on or before January 15.

1.2 Period Covered

This report covers the period from December 10, 2014, to December 9, 2015.

1.3 Activities Conducted During the Reporting Period

Inspections of groundwater monitoring wells, land survey monuments, and DOE areas subject to land-use restrictions were conducted in support of this report and the first Five-Year Review for the DOE areas (DOE 2015). The objectives of these two inspections differed in that the Five-Year Review inspection, completed on June 16, 2015, was focused on remedial action effectiveness and the land-use covenant inspection, completed on November 3, 2015, was focused on covenant compliance. Items from the Five-Year Review inspection that are applicable to covenant inspection are included in this report.

The UC Davis Environmental Health and Safety (EH&S) Unit conducted annual training to communicate soil management requirements to appropriate units performing or contracting work.

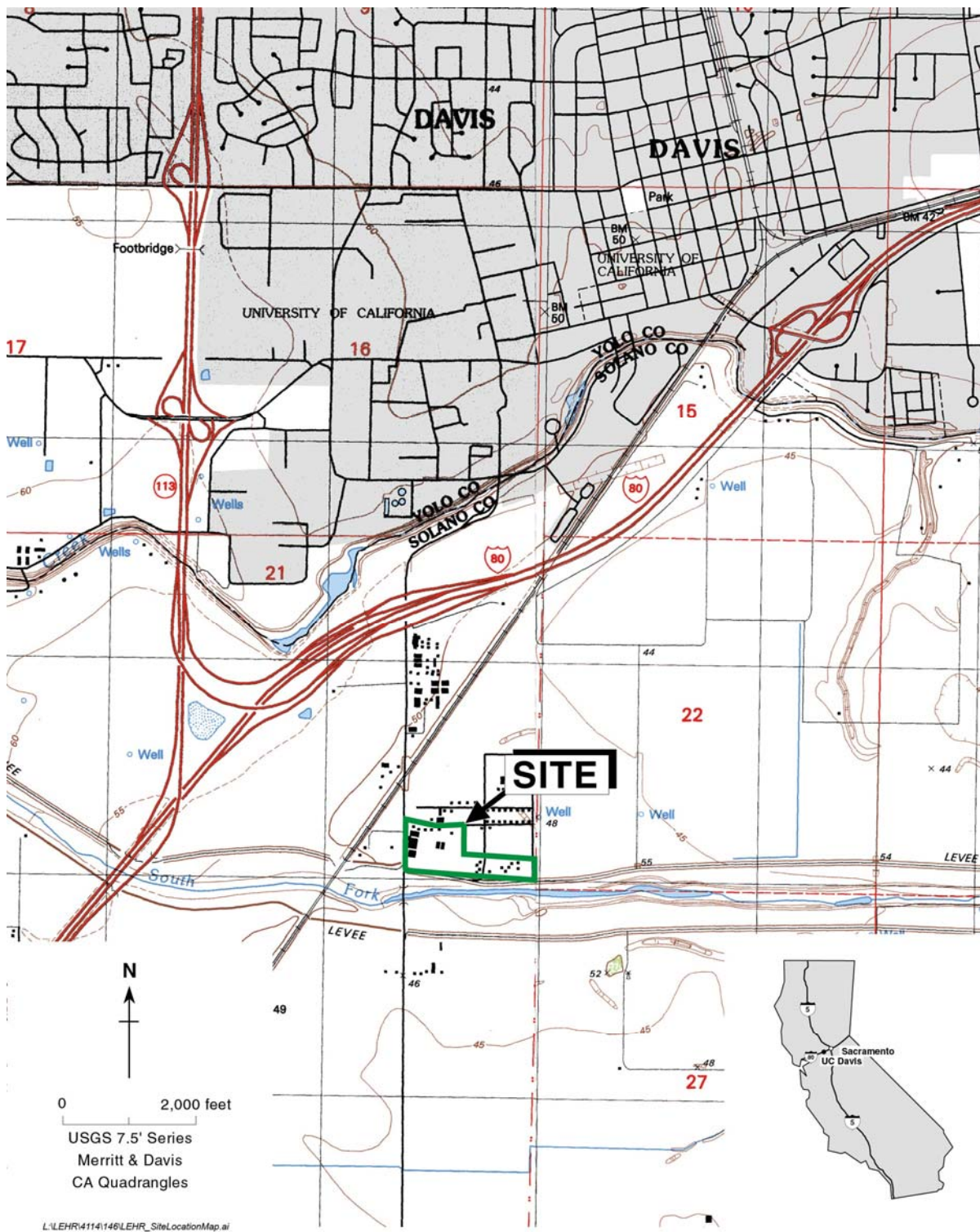


Figure 1. Location of the LEHR Superfund Site, UC Davis, Solano County, California



Figure 2. Areas of the LEHR Superfund Site Subject to Land-Use Restrictions

2.0 Inspections

On November 3, 2015, between 8:49 a.m. and 2:38 p.m., Tim Utterback of Weiss Associates (Weiss) performed walk-through inspections of monuments that define the areas subject to land-use restrictions (Figure 3). As discussed above, a separate inspection was conducted in June to support the First Five-Year Review for the LEHR Federal Facility (DOE 2015) and the November 3, 2015, inspection was conducted to comply with the Land-Use Covenant requirements (DTSC 2014). All 24 monuments were in good condition on June 16, 2015, except Monument 19 (Figure 3), which was not located and presumed lost as a result of a minor surface soil disturbance at the northwest corner of the EDPs Area (see Section 2.2). On September 29, 2015, Hunter Surveying, a California-licensed land surveyor, reinstalled Monument 19 at its previous location.

All 24 monuments were found in good condition during the November 3, 2015, inspection. Appendix A provides the inspection checklist completed on November 3, 2015, Appendix B provides the photographs of the monuments, including reinstalled monument M19. The checklist and photographs from the June 16, 2015, inspection were presented in Appendix D of the *Draft First Five-Year Review for the Laboratory for Energy-Related Health Research Federal Facility* (DOE 2015) and are not included in this document.

2.1 Inspection of Domestic Septic System 4 Area for Prohibited Land Uses

On June 16, 2015, at 11:00 a.m. and November 3, 2015, at 10:30 a.m., Tim Utterback of Weiss performed walk-through inspections of the DSS 4 Area. No residential use, use for day care for children, or cultivation of crops for human consumption was observed in the DSS 4 Area.

2.2 Inspections of DOE Areas for Compliance with Requirements of the Soil Management Plan

On June 16, 2015, between 10:14 a.m. and 2:23 p.m. and November 3, 2015, between 8:42 a.m. and 3:07 p.m., Tim Utterback of Weiss performed walk-through inspections of the DOE areas subject to land-use restrictions to look for signs of soil disturbance. Minor soil disturbance associated with a fallen tree was observed in the northwest corner of the EDPs during both inspections. Before the tree fell, it was located outside the west boundary of the EDPs as shown in the surveyors map prepared in 1998 (Figure 5). Easting and northing coordinates obtained from the surveyors map indicate that the trunk was originally located approximately 8 to 10 feet west (outside) of the EDPs fence. The tree was dead when it fell to the northeast into the northwest corner of the EDPs. The UC Davis grounds crew removed branches from the tree and moved the trunk approximately 15–20 feet southeast of its original location. In the process of performing this work, the grounds equipment disturbed a shallow area of soil. The area of disturbed soil is approximately 1–2 inches deep by 25 feet long by 22 feet wide as shown on Figure 3. Less than 3 cubic yards of soil was mounded near the center of the scraped area. The trunk of the fallen tree was lying about 5 feet south of the scraped area. As shown on Figure 4, the tree sheared at its base and did not bring soil or roots to the surface.

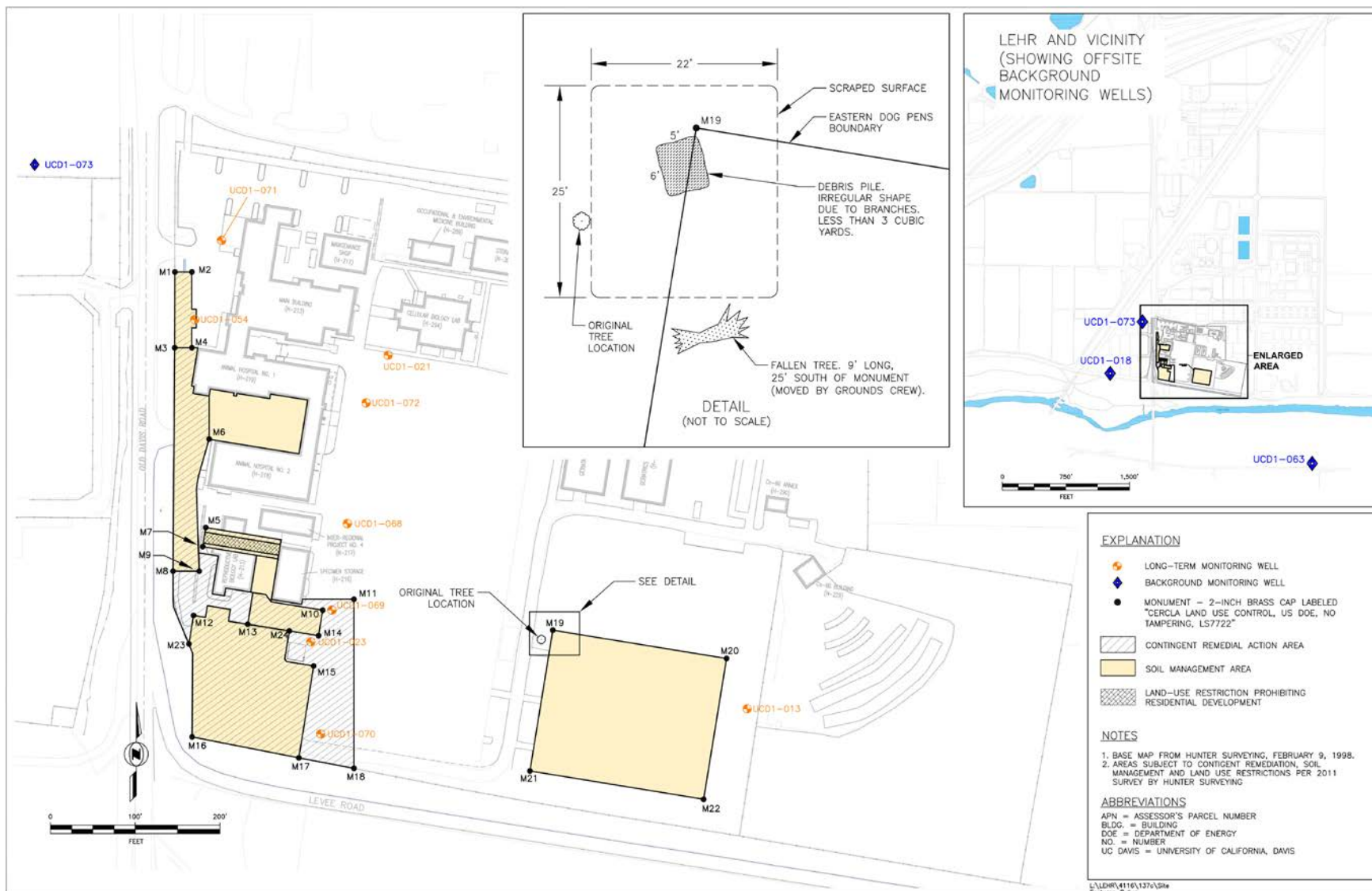


Figure 3. Monitoring Wells and Corner Point Monuments at the LEHR Superfund Site



Figure 4. View South of Fallen Tree with Disturbed Soil in Foreground and Relocated Fallen Tree Stump Behind (photo taken June 12, 2015)



Figure 5. 1998 Survey Map Showing Original Location of Fallen Tree

The volume and depth of the EDPs soil disturbance were less than the quantities that would require a permit according to the specifications in the Soil Management Plan in Appendix A of the *Remedial Design/Remedial Action Work Plan* (DOE 2010) (disturbed depths less than 1 foot and soil displaced less than 5 cubic yards). No soil disturbance events that would require a permit have occurred during the reporting period. Appendix A provides the November 3, 2015, inspection checklist, and Appendix C provides photographs documenting the inspection. The checklist and photographs from the June 16, 2015, inspection were presented in Appendix D of the Draft First Five-Year Review for the LEHR Federal Facility (DOE 2015).

2.2.1 Soil Management Compliance Interview

On November 4, 2014, at 2 p.m., Tim Utterback of Weiss interviewed Sue Fields of the UC Davis EH&S Unit to determine if the unit was aware of any soil-disturbing activities within the DOE areas subject to land-use restrictions. Ms. Fields reported that no soil-disturbing activities occurred within the DOE areas subject to land-use restrictions during the reporting period at the time of the interview. Appendix A provides copies of the interview checklists.

On December 14, 2015, at 10:30 a.m., Tim Utterback of Weiss conducted a follow-up interview with Sue Fields of the UC Davis EH&S Unit to determine if the unit was aware of any soil-disturbing activities since the November 3, 2015, inspection. Ms. Fields reported that no soil-disturbing activities had occurred within the DOE areas subject to land-use restrictions between November 3 and December 14, 2015.

2.2.2 Inspection of DOE Areas for Evidence of Soil-Disturbing Activities

During this reporting period, no permit-required soil-disturbing activities occurred within the DOE areas subject to land-use restrictions; therefore, no inspections were necessary to comply with the requirements of the SMP (DOE 2010).

2.3 Inspections of Groundwater Monitoring Wells

On June 16, 2015, between 9:57 a.m. and 3:02 p.m., and November 3, 2015, between 8:02 a.m. and 3:35 p.m., Tim Utterback of Weiss performed walk-through inspections of groundwater monitoring wells UCD1-013, UCD1-018, UCD1-021, UCD1-023, UCD1-054, UCD1-063, and wells UCD1-068 through UCD1-073 (Figure 3). None of the wells showed evidence of tampering. Wells with standpipe completions (UCD1-013, UCD1-018, UCD1-063, UCD1-070, and UCD1-073) were observed to be secured with functioning padlocks. Wells UCD1-054, UCD1-068, UCD1-069, UCD1-071, and UCD1-072 have surface completions and were observed to be secured with bolts. Wells UCD1-021 and UCD1-023 have surface completions and screw-on lids. All well completions were structurally sound, and the wells were in good condition.

Well UCD1-021 has surface cracks and chips in the cement pad, but the underlying structural cement around the vault appears to be sound. The cement pad at the base of the standpipe at well UCD1-070 has a crack, but the standpipe is sound. Cement pads at the remainder of the DOE areas wells and at the background wells were structurally sound with no surface damage.

On November 3, 2015, an attempt was made to test DOE areas wells and pumps to assess if they are functioning properly for groundwater sample collection. Water levels were below the pump intakes due to drought conditions, and the pumps were not tested.

Groundwater samples were successfully collected in March of 2015 from wells UCD1-013, UCD1-021, UCD1-023, UCD1-054, and wells UCD1-068 through UCD1-072 (Figure 3) demonstrating that the onsite pumps and wells were functional within the period covered by this report. Although water levels were too low on November 3, 2015, there was no indication of pump or well failure during the inspections. DOE areas wells and pumps were not tested during the June 16, 2015, inspection conducted for the Five-Year Review.

Some minor well maintenance issues were noted during the inspections. On June 16, 2015, these items were:

- The plaque on the lid of well UCD1-069 was missing due to vault replacement. The vault was replaced due to damage from grounds maintenance equipment.
- Well UCD1-071 required a new vault gasket.

Items on November 3, 2015, were:

- Well plaques inside some flush-mount vaults have thin coatings of iron oxide or other residues.
- The vault gasket in well UCD1-068 is beginning to age.

On September 1, 2015, a new plaque was installed on the lid of well UCD1-069. On November 3, 2015, a new vault gasket was installed at well UCD1-071. Appendix E provides photographs of the reinstalled plaque and replaced gasket. Well plaques will be cleaned if coatings or residues worsen. The vault gasket in well UCD1-068 will be replaced if its condition continues to deteriorate.

3.0 Soil Management Plan Implementation

In accordance with an agreement with DOE, the EH&S Unit at UC Davis is responsible for implementation of the SMP (DOE 2010).

3.1 Training

The EH&S Unit conducted annual training to communicate soil management requirements to applicable units that may perform, manage, or contract for work at and near the project site. Additionally, personnel working in departments located on the project site or near it received annual training.

Information on the following topics was provided:

- Roles and responsibilities for soil management in the DOE areas
- Areas and contaminants subject to soil management requirements
- Soil management during excavation or construction
- Permits for soil-disturbing activities
- Plans and documentation
- Soil management during emergency work
- Waste management
- Waste characterization and disposal
- Inspections

3.2 Soil-Disturbing Activities

On the basis of site inspections and the November 4, 2015, interview with Sue Fields of the EH&S Unit at UC Davis, no permit-required soil-disturbing activities (routine or emergency) occurred in any of the DOE areas subject to the requirements of the SMP during this reporting period. Consequently, no permits for soil disturbance were issued. The EH&S Unit is providing ongoing training and guidance to university staff to avoid unnecessary soil-disturbing activities in the areas subject to the SMP.

On November 3, 2015, Pacific Gas and Electric was observed replacing its gas transmission line along Old Davis Road. The replacement work is within the northbound lane of Old Davis Road and outside the DOE areas subject to land-use controls.

3.3 Soil Disposal

On the basis of site inspections and the interview documented in this report, no soil from the DOE areas subject to the requirements of the SMP was disposed of during this reporting period.

3.4 Soil Management Plan Changes

Suggested changes to the SMP proposed in the draft Five-Year Review include:

- Installing new high-visibility markers at monuments
- Installing new high-visibility markers at flush-mount wells located in fields
- Specifying procedures for handling and disposing of fallen trees

If the regulatory agencies agree with these changes, DOE will revise the SMP accordingly.

4.0 Certification

The U.S. Department of Energy hereby certifies to the best of its knowledge that the information contained in this inspection report is true and accurate and no exceptions to the Land-Use Covenant terms and conditions occurred during this reporting period.

Scott R. Surovchak

Digitally signed by Scott R. Surovchak
DN: c=us, o=u.s. government, ou=department of
energy, ou=Energy IT Services, ou=Legacy
Management, ou=People, cn=Scott R. Surovchak
Date: 2016.01.11 13:37:15 -07'00'

Scott Surovchak
Site Manager
U.S. Department of Energy
Office of Legacy Management
11025 Dover Street, Suite 1000
Westminster, CO 80021

The University of California hereby certifies to the best of its knowledge that the information contained in this inspection report is true and accurate and no exceptions to the Land-Use Covenant terms and conditions occurred during this reporting period.



Date: 1-4-16

Sue Fields
Environmental Manager
UC Davis Environmental Health and Safety
One Shields Avenue
Davis, CA 95616

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5.0 References

DOE (U.S. Department of Energy), 2009. *Record of Decision for DOE Areas at the Laboratory for Energy-Related Health Research, University of California, Davis*, LMS/LEH/S05069, Office of Legacy Management, September.

DOE (U.S. Department of Energy), 2010. *Remedial Design/Remedial Action Work Plan for the Former Laboratory for Energy-Related Health Research Federal Facility, University of California, Davis*, LMS/LEH/S05822, Office of Legacy Management, November.

DOE (U.S. Department of Energy), 2015. *Draft First Five-Year Review for the Laboratory for Energy-Related Health Research Federal Facility*, University of California, Davis, LMS/LEH/S13284, Rev C, Office of Legacy Management, October.

DTSC (California Department of Toxic Substances Control), 2014. *Covenant to Restrict Use of Property, Environmental Restriction (Re: Portions of County of Solano Assessor's Parcel No. 110-05-04 UC Davis, Laboratory for Energy-related Health Research/Old Campus Landfill (LEHR/OCL) Superfund Site, Site Code 100424)*, Solano County Recorder's Office Document Number 201400051822, July 11.

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Appendix A

Inspection and Maintenance Checklists

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LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Dry Wells A – E Area

Inspection Period December 10, 2014 – December 9, 2015

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2014, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
If waste was generated due to soil disturbing activities since December 10, 2014, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u> <u>Install/maintain delineators at monuments and Flush-mount wells</u>

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Dry Wells A – E Area

Inspection Period December 10, 2014 – December 9, 2015

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LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Domestic Septic System 3

Inspection Period December 10, 2014 – December 9, 2015

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2014, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
If waste was generated due to soil disturbing activities since December 10, 2014, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u> <u>Install/maintain delineators at monuments and Flush-mount wells</u>

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Domestic Septic System 3

Inspection Period December 10, 2014 – December 9, 2015

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LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Domestic Septic System 4

Inspection Period December 10, 2014 – December 9, 2015

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any indications of a residence, growing plants for human consumption, or a day care center for children observed during walk-thru inspection? If yes, explain.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any indications of a change in land use observed during walk-thru inspection? If yes, explain. ²	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2014, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
If waste was generated due to soil disturbing activities since December 10, 2014, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Domestic Septic System 4

Inspection Period December 10, 2014 – December 9, 2015

Inspection Item	Y	N	NA	Comments
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u> No changes suggested for Domestic Septic System 4

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LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Eastern Dog Pens Area

Inspection Period December 10, 2014 – December 9, 2015

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Tree maintenance work at M14 does not qualify as a soil disturbance per Section 1.5.1 Excluded Activities of the Soil Management Plan</u>
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2014, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
If waste was generated due to soil disturbing activities since December 10, 2014, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u> <u>Install/maintain delineators at monuments</u>

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Eastern Dog Pens Area

Inspection Period December 10, 2014 – December 9, 2015

Photograph Description	Photo No.	Comments
View northeast over Eastern Dog Pens Area from southwest corner.	2981	
View east over Eastern Dog Pens Area.	2956	
View southeast over Eastern Dog Pens Area from northwest corner.	2957	
View south over Eastern Dog Pens Area.	2961	
View southwest over Eastern Dog Pens Area from northeast corner.	2962	
View west over Eastern Dog Pens Area.	2963	
View northwest into Eastern Dog Pens Area from southeast corner	2983	
View north over Eastern Dog Pens Area from north levee.	2982	

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Radium/Strontium Treatment Systems Area
Inclusive of Domestic Septic System 2

Inspection Period December 10, 2014 – December 9, 2015

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2014, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
If waste was generated due to soil disturbing activities since December 10, 2014, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u> <u>Install/maintain delineators at</u> <u>monuments and flush-mount wells</u>

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Radium/Strontium Treatment Systems Area
Inclusive of Domestic Septic System 2

Inspection Period December 10, 2014 – December 9, 2015

Photograph Description	Photo No.	Comments
View north over southern portion of Radium/Strontium Treatment Systems Area. Building H-215 to right; Building H-218 back/right.	2852	
View north over middle portion of Radium/Strontium Treatment Systems Area. Building H-218 to right; Building H-219 back/right.	2850	
View south over southern portion of Radium/Strontium Treatment Systems Area. Building H-215 to left.	2851	
View north over northern portion of Radium/Strontium Treatment Systems Area. Building H-219 to right.	2845	
View south over middle/south portion of Radium/Strontium Treatment Systems Area. Building H-218 to left; Old Davis Road to right.	2846	
View east over middle portion of Radium/Strontium Treatment Systems Area. Building H-218 to right; Building H-219 to left.	2847	
View southeast over <u>Domestic Septic System 2 area within</u> <u>TRU 1-5-16</u> Radium/Strontium Treatment Systems Area; Building H-218 behind.	2849	
View west over middle-west portion of Radium/Strontium Treatment Systems Area, west perimeter fence, and Old Davis Road.	2848	
Roof-level view west over middle portion of Radium/Strontium Treatment Systems Area. Building H-219 to right; Building H-218 to left; Old Davis Road in background.	2853	

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Hutterback

Inspection Date 11-3-15

DOE Area: Radium/Strontium Treatment Systems Area
Inclusive of Domestic Septic System 2

Inspection Period December 10, 2014 – December 9, 2015

[illegible]

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Southwest Trenches

Inspection Period December 10, 2014 – December 9, 2015

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2014?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u>
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2014, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
If waste was generated due to soil disturbing activities since December 10, 2014, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Sue Fields on 11-4-15</u> <u>Install/maintain delineators at monuments and Flush-mount wells</u>

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Area: Southwest Trenches

Inspection Period December 10, 2014 – December 9, 2015

Photograph Description	Photo No.	Comments
View southeast over Southwest Trenches Area; North levee in background.	2914	
View east over Southwest Trenches Area; Storage shed to left; north levee to right; Western Dog Pens Area and UC Davis Southern Trenches Area in background.	2933	
View north ^{northwest} over northwest corner of Southwest Trenches Area.	2935	
View south over Southwest Trenches Area; North levee in background; shoulder of Old Davis Road to right.	2916	
View southeast over Southwest Trenches Area.	2915	
View west over Southwest Trenches Area; shoulder of Old Davis Road in background.	2926	
View northwest over Southwest Trenches Area.	2927	
View north over Southwest Trenches Area.	2928	
View north from center of Southwest Trenches Area.	2929	
View west from center of Southwest Trenches Area.	2930	
View south from center of Southwest Trenches Area.	2931	
View east from center of Southwest Trenches Area.	2932	

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Hutterback

Inspection Date 11-3-15

Survey Monuments

Inspection Period December 10, 2014 – December 9, 2015

Monument No.	Close-up Photo ¹	Setting Photo ²	Damaged or missing? (Y/N) If Y, explain	Comments
1	2831	2830	N	
2	2833	2832	N	
3	2836	2834	N	
4	2839	2837	N	
5	2859 2858	2858	N	
6	2857	2856	N	
7	2861	2860	N	
8	2863	2862	N	
9	2865	2864	N	
10	2875 2867	2874	N	
11	2877	2876	N	
12	2867	2866	N	
13	2869	2868	N	
14	2873	2872	N	
15	2901	2897	N	

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

Survey Monuments

Inspection Period December 10, 2014 – December 9, 2015

Monument No.	Close-up Photo ¹	Setting Photo ²	Damaged or missing? (Y/N) If Y, explain	Comments
16	2943	2939	N	
17	2946	2944	N	
18	2951	2948	N	
19	2959	2960	N	
20	2966	2964	N	
21	2955	2954	N	
22	2975	2974	N	
23	2938	2936	N	
24	2871	2870	N	

Notes:

¹ Take zoom photograph of monument. Record photograph number.

² Place orange ring marker around monument and step back to take photo of monument location with recognizable site features (ex. buildings, fence, road, etc) in view. Record photograph number.

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-15

DOE Areas Monitoring Wells

Inspection Period December 10, 2014 – December 9, 2015

Well ID and Completion Type	Photographs		Evidence of tampering? (Y/N) If Y, explain	Locks/Bolts Secure? ³ (Y/N) If N, explain	ID Plaques OK? ⁴ (Y/N) If N, explain	Vault and Seal Sound? ⁵ (Y/N) If N, explain	Pump OK? ⁶ (Y/N) If N, explain	Comments
	Wellhead / tag ¹	Vault / tag ²						
UCD1-013 standpipe	2968 2969	2971 2972	N	Y	Y	Y	NA	Water level at 66 ft
UCD1-018 standpipe	2984 2986	2987 2989	N	Y	Y	Y	NA	Water level at 62.5 ft
UCD1-021 flush	2917 2918	2921 2920	N	Y/NA ^(b)	Y	Y	NA	Water level at 62 ft needs grommet for WL hole
UCD1-023 flush	2891 2893	2895 2896	N	Y/NA ^(b)	X	Y	NA	Well dry to top of pump @ 62.5
UCD1-054 flush	2840 2841	2842 2843	N	Y	Y	Y	NA	Well dry to top of pump @ 62.5 ft
UCD1-063 standpipe	2976 2978	2979 2980	N	Y	Y	Y	NA	Water level at 64.5 ft
UCD1-068 flush	2906 2907	2908 2909	N	Y	Y ^(c)	Y ^(d)	NA	Well dry to top of pump at 60 ft
UCD1-069 flush	2902 2903	2904 2905	N	Y	Y ^(c)	Y	NA	Well dry to top of pump @ 59 ft

(b) screw lid secure

(c) plaque inside vault could be cleaned

(d) vault lid gasket beginning to age

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim H. Erback

Inspection Date 11-3-15

DOE Areas Monitoring Wells

Inspection Period December 10, 2014 – December 9, 2015

Well ID and Completion Type	Photographs		Evidence of tampering? (Y/N) If Y, explain	Locks/Bolts Secure? ³ (Y/N) If N, explain	ID Plaques OK? ⁴ (Y/N) If N, explain	Vault and Seal Sound? ⁵ (Y/N) If N, explain	Pump OK? ⁶ (Y/N) If N, explain	Comments
	Wellhead / tag ¹	Vault / tag ²						
UCD1-070 standpipe	2922 2923	2924 2925	N	Y	Y	Y	NA	Well dry to top of pump @ 61 ft
UCD1-071 flush	2821 2822	2823 2824	N	Y	Y	Y ^a	NA	well dry to top of Pump @ 61 ft
UCD1-072 flush	2910 2911	2912 2913	N	Y	Y [Ⓢ]	Y	NA	Well dry to top of pump at 60.3 ft
UCD1-073 standpipe	2990 2991	2992 2993	N	Y	Y	Y	NA	Well dry to top of pump at 60 ft

Notes:

¹ Take photograph inclusive of wellhead features including concrete pad. Take zoom photograph of wellhead identification plaque (tag). Record photograph numbers.

² Open well vault and take photograph inclusive of vault inner features. Take zoom photograph of identification plaque (tag) stored in vault. Record photograph numbers.

³ Verify that standpipe well locks are present, in good condition, and secured with the lock at the time of inspection. Verify that flush mount well bolts are present, in good condition, and properly secured at the time of inspection. Document any issues.

⁴ Verify that well identification plaques fixed to the outside of the well and stored inside the well are legible and in good condition. Document any issues.

⁵ Verify that concrete pads are structurally sound. Document any issues.

⁶ Connect pump to controller and discharge approximately 300 milliliters of water to bucket. Document any issues.

^a replaced vault seal. Existing bolts fastened easily and securely with new seal.

Ⓢ Plaque inside vault could be cleaned

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Appendix B

Photographs of Monuments at Permanent Reference Points for Areas Subject to Land-Use Restrictions

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Monument 1: northwest corner of Dry Wells A-E Area (photo No. 2831).



View northwest: Monument 1, within orange ring in foreground; entrance sign in background (photo No. 2830).



Monument 2: northeast corner of Dry Wells A-E Area (photo No. 2833).



View west: Monument 2, within orange ring; bottom of retracted entrance gate in background (photo No. 2832).



*Monument 3: southwest corner of Dry Wells A-E Area
(photo No. 2836).*



*View west: Monument 3, within orange ring;
west perimeter fence in background (photo No. 2834).*



*Monument 4: southeast corner of Dry Wells A-E Area
(photo No. 2839).*



*View east: Monument 4 with Building H-219 in background
(photo No. 2837).*



Monument 5: northwest corner of Domestic Septic System 4 (photo No. 2859).



View east: Monument 5, within orange ring; Building H-215 in background (photo No. 2858).



Monument 6: adjacent to northwest corner of Building H-218; Radium/Strontium Treatment Systems Area (photo No. 2857).



View southeast: Monument 6 with corner of Building H-218 in left of background (photo No. 2856).



Monument 7: southwest corner of Domestic Septic System 4 (photo No. 2861).



View east: Monument 7, within orange ring; Building H-215 in background (photo No. 2860).



Monument 8: southwest corner of radium-226 leach trench; Radium/Strontium Treatment Systems Area (photo No. 2863).



View southwest: Monument 8, within orange ring; west perimeter fence upper right (photo No. 2862).



Monument 9: southeast corner of radium-226 leach trench;
Radium/Strontium Treatment Systems Area (photo No. 2865).



View east: Monument 9, within orange ring;
Building H-215 in background (photo No. 2864).



Monument 10: northeast corner of former leach field in
Domestic Septic System 3 Area (photo No. 2875).



View northwest: Monument 10, within orange ring in foreground;
Building H-216 in background (photo No. 2874).



Monument 11: northeast corner of Eastern Remediation Support Area (photo No. 2877).



View west: Monument 11, within orange ring in foreground; Building H-216 in background (photo No. 2876).



Monument 12: northwest corner of Southwest Trenches Area (photo No. 2867).



View south: Monument 12, within orange ring in foreground; water hydrant in background (photo No. 2866).



Monument 13: southwest corner of Domestic Septic System 3, at northern perimeter of Southwest Trenches Area (photo No. 2869).



View north: Monument 13 within orange ring at edge of concrete swale; Building H-215 in background (photo No. 2868).



Monument 14: southeast corner of Domestic Septic System 3 (photo No. 2873).



View northwest: Monument 14, within orange ring in foreground; Building H-216 in background (photo No. 2872).



*Monument 15: eastern corner of Southwest Trenches Area
(photo No. 2901).*



*Monument 16: southwest corner of Southwest Trenches Area
(photo No. 2943).*



*View south: Monument 15, within orange ring in foreground;
former Western Dog Pens silt fence to left and trailer shed
fence in right of background (photo No. 2897).*



*View southwest: Monument 16, within orange ring;
southwest corner post of perimeter fence in background
(photo No. 2939).*



Monument 17: southeast corner of Southwest Trenches Area (photo No. 2946).



Monument 18: southeast corner of Eastern Remediation Support Area (photo No. 2951).



View south: Monument 17, within orange ring; south perimeter fence behind; foot of North Levee in background (photo No. 2944).



View south: Monument 18, within orange ring; foot of North Levee in background (photo No. 2948).



*Monument 19: northwest corner of Eastern Dog Pens Area
(photo No. 2959).*



*View southeast: Monument 19, within orange ring;
Eastern Dog Pens Area in background (photo No. 2960).*



*Monument 20: northeast corner of Eastern Dog Pens Area
(photo No. 2966).*



*View southwest: Monument 20, within orange ring;
Eastern Dog Pens Area in background (photo No. 2964).*



*Monument 21: southwest corner of Eastern Dog Pens Area
(photo No. 2955).*



*View northeast: Monument 21, within orange ring;
Eastern Dog Pens Area in background (photo No. 2954).*



*Monument 22: southeast corner of Eastern Dog Pens Area
(photo No. 2975).*



*View east: Monument 22, within orange ring;
Cobalt-60 Area fence in background (photo No. 2974).*



Monument 23: western perimeter point of Southwest Trenches Area (photo No. 2938).



View west: Monument 23, within orange ring; west perimeter fence in background (photo No. 2936).



Monument 24: northeast corner of Southwest Trenches Area, at southern perimeter of Domestic Septic System 3 (photo No. 2871).



View southeast: Monument 24, within orange ring on edge of concrete swale—waste bin and trailer shed behind; rose planter in right of background (photo No. 2870).

Appendix C

Photographs of DOE Areas Subject to Land-Use Restrictions

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View southeast over Southwest Trenches Area: North Levee in background (photo No. 2914).



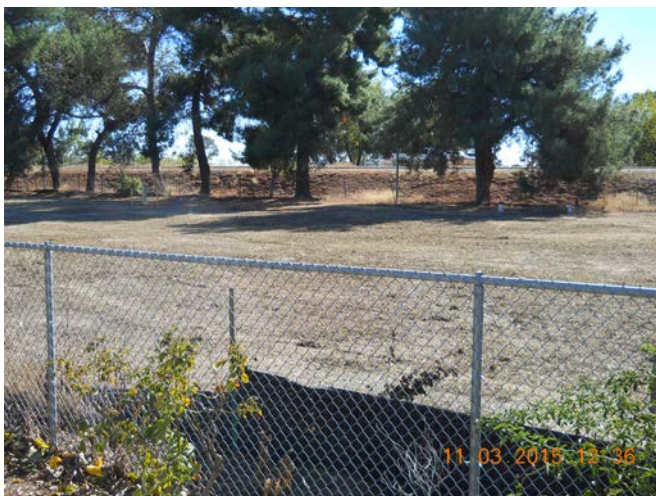
View east over Southwest Trenches Area: Western Dog Pens Area and UC Davis Southern Trenches Area in background (photo No. 2933).



Northwest corner of Southwest Trenches Area (photo No. 2935).



View south over Southwest Trenches Area: North Levee in background; shoulder of Old Davis Road to right (photo No. 2916).



View southeast over Southwest Trenches Area (photo No. 2915).



View west over Southwest Trenches Area: shoulder of Old Davis Road in background (photo No. 2926).



View northwest over Southwest Trenches Area (photo No. 2927).



View north over Southwest Trenches Area (photo No. 2928).



*View north from center of Southwest Trenches Area
(photo No. 2929).*



*View west from center of Southwest Trenches Area
(photo No. 2930).*



*View south from center of Southwest Trenches Area
(photo No. 2931).*



*View east from center of Southwest Trenches Area
(photo No. 2932).*



View east over former leach field part of Domestic Septic System 3 Area: Building H-216 to left; storage unit to right; Western Dog Pens Area in background (photo No. 2878).



View east over eastern half of Domestic Septic System 3 Area (photo No. 2879).



View west over former leach field part of Domestic Septic System 3 Area: Buildings H-215 and H-216 to right; shoulder of Old Davis Road in background (photo No. 2880).



View south over septic tank part of Domestic Septic System 3 Area: Building H-216 to left; Building H-215 to right (photo No. 2881).



View north over septic tank part of Domestic Septic System 3 Area: Building H-215 to left, Building H-216 to right; Domestic Septic System 4 Area in background (photo No. 2882).



View south over east end of Domestic Septic System 3 leach field: trailer in background (photo No. 2883).



View east: Building H-216 in background, standing north/left of tree (photo No. 2884).



View east: Building H-216 in background, standing south/right of tree (photo No. 2885).



View north over Domestic Septic System 4 septic tank location and east end of leach field: Building H-215 to left, Building H-216 to right; Building H-217 in background (photo No. 2886).



View west over east end of Domestic Septic System 4 leach field: Building H-215 in background (photo No. 2887).



View east over Domestic Septic System 4 septic tank location: Building H-216 in background (photo No. 2888).



View east over western portion of Domestic Septic System 4 Area: Building H-215 in background (photo No. 2890).



View north over southern portion of Radium/Strontium Treatment Systems Area: Building H-215 to right; Buildings H-218 and H-219 in background (photo No. 2852).



View north over middle portion of Radium/Strontium Treatment Systems Area: Building H-219 in background (photo No. 2850).



View south over southern portion of Radium/Strontium Treatment Systems Area: Building H-215 to left (photo No. 2851).



View north over northern portion of Radium/Strontium Treatment Systems Area: Building H-219 to right (photo No. 2845).



View south over the middle-south portion of Radium/Strontium Treatment Systems Area: Building H-218 to left (photo No. 2846).



View east over middle portion of Radium/Strontium Treatment Systems Area: Building H-218 to right; Building H-219 to left (photo No. 2847).



View southeast over Domestic Septic System 2 area within Radium/Strontium Treatment Systems Area: Building H-218 in background (photo No. 2849).



View west over Domestic Septic System 2 area within middle-west portion of Radium/Strontium Treatment Systems Area (photo No. 2848).



Roof-level view west over middle portion of Radium/Strontium Treatment Systems Area: Building H-219 to right, Building H-218 to left (photo No. 2853).



Roof-level view southwest over middle portion of Radium/Strontium Treatment Systems Area: Building H-218 in background (photo No. 2854).



Roof-level view northwest over middle portion of Radium/Strontium Treatment Systems Area: Building H-219 in background (photo No. 2855).



View south over northern portion of Radium/Strontium Treatment Systems Area: Building H-219 to left, west perimeter fence and Old Davis Road to right (photo No. 2844).



View north over Dry Wells A–E Area: Old Davis Road to left (photo No. 2826).



View south over Dry Wells A–E Area: Building H-219 in background/left; facility entrance to right (photo No. 2827).



View west over Dry Wells A–E Area: retracted site entrance gate and Old Davis Road in background (photo No. 2828).



View southwest over Dry Wells A–E Area: Old Davis Road in background (photo No. 2829).



View northeast over Eastern Dog Pens Area from North Levee (photo No. 2981).



View east over Eastern Dog Pens Area (photo No. 2956).



View southeast over Eastern Dog Pens Area from northwest corner (photo No. 2957).



View south over Eastern Dog Pens Area (photo No. 2961).



View southwest over Eastern Dog Pens Area from northeast corner (photo No. 2962).



View west over Eastern Dog Pens Area (photo No. 2963).



View northwest into Eastern Dog Pens Area from North Levee (photo No. 2983).



View north over Eastern Dog Pens Area from North Levee (photo No. 2982).

Appendix D

Photographs of Groundwater Monitoring Wells

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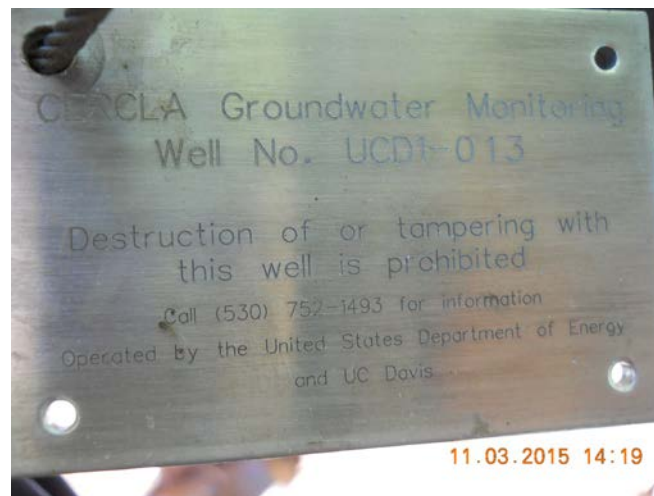
UCD1-013 Wellhead (photo No. 2968).



UCD1-013 Wellhead Plaque (photo No. 2969).



UCD1-013 Interior (photo No. 2971).



UCD1-013 Interior Plaque (photo No. 2972).



UCD1-018 Wellhead (photo No. 2984).



UCD1-018 Wellhead Plaque (photo No. 2986).



UCD1-018 Interior (photo No. 2987).



UCD1-018 Interior Plaque (photo No. 2989).



UCD1-021 Wellhead (photo No. 2917).



UCD1-021 Wellhead Plaque (photo No. 2918).



UCD1-021 Interior (photo No. 2921).



UCD1-021 Interior Plaque (photo No. 2920).



UCD1-023 Wellhead (photo No. 2891).



UCD1-023 Wellhead Plaque (photo No. 2893).



UCD1-023 Interior (photo No. 2895).



UCD1-023 Interior Plaque (photo No. 2896).



UCD1-054 Wellhead (photo No. 2840).



UCD1-054 Wellhead Plaque (photo No. 2841).



UCD1-054 Interior (photo No. 2842).



UCD1-054 Interior Plaque (photo No. 2843).



UCD1-063 Wellhead (photo No. 2976).



UCD1-063 Wellhead Plaque (photo No. 2978).



UCD1-063 Interior (photo No. 2979).



UCD1-063 Interior Plaque (photo No. 2980).



UCD1-068 Wellhead (photo No. 2906).



UCD1-068 Wellhead Plaque (photo No. 2907).



UCD1-068 Interior (photo No. 2908).



UCD1-068 Interior Plaque (photo No. 2909).



UCD1-069 Wellhead (photo No. 2902).



UCD1-069 Wellhead Plaque (photo No. 2903).



UCD1-069 Interior (photo No. 2904).



UCD1-069 Interior Plaque (photo No. 2905).



UCD1-070 Wellhead (photo No. 2922).



UCD1-070 Wellhead Plaque (photo No. 2923).



UCD1-070 Interior (photo No. 2924).



UCD1-070 Interior Plaque (photo No. 2925).



UCD1-071 Wellhead (photo of gasket replacement in Appendix E) (photo No. 2821).



UCD1-071 Wellhead Plaque (photo No. 2822).



UCD1-071 Interior (photo No. 2823).



UCD1-071 Interior Plaque (photo No. 2624).



UCD1-072 Wellhead (photo No. 2910).



UCD1-072 Wellhead Plaque (photo No. 2911).



UCD1-072 Interior (photo No. 2912).



UCD1-072 Interior Plaque (photo No. 2913).



UCD1-073 Wellhead (photo No. 2990).



UCD1-073 Wellhead Plaque (photo No. 2991).



UCD1-073 Interior (photo No. 2992).



UCD1-073 Interior Plaque (photo No. 2993).

Appendix E

Photographs of Completed Maintenance Work

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UCD1-069: new plaque on well vault lid.



UCD1-071: vault lid gasket replacement.