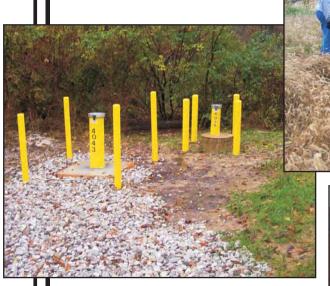


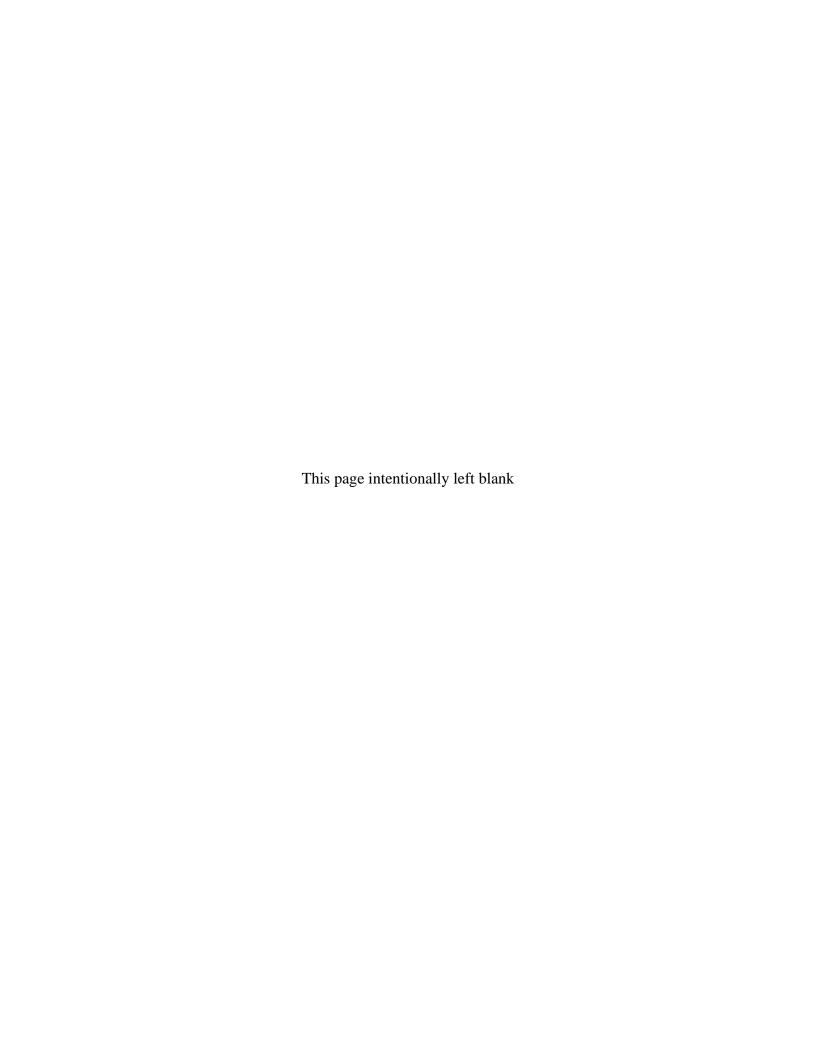
# 2009 Annual Inspection Report for the Weldon Spring, Missouri, Site

January 2010









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#### **Summary**

The Weldon Spring Site, located in St. Charles, Missouri, was inspected on October 27 through 29, 2009. The inspection was conducted in accordance with the *Long-Term Surveillance and Maintenance Plan for the Weldon Spring, Missouri, Site* (LTS&M Plan), dated December 2008, and the associated inspection checklist. Representatives from the U.S. Department of Energy (DOE) Office of Legacy Management (LM); the Legacy Management Support contractor, the S.M. Stoller Corporation (Stoller); the U.S. Environmental Protection Agency (EPA); and the Missouri Department of Natural Resources (MDNR) participated in the inspection. Representatives from the Missouri Department of Transportation (MoDOT) participated in portions of the inspection. The Weldon Spring Site is a Comprehensive Environmental Response, Compensation, and Liability Act site.

The main areas inspected at the site were the Quarry, the disposal cell, the Leachate Collection and Removal System (LCRS), monitoring wells, assorted general features, and areas where future institutional controls will be established.

Institutional control areas were inspected to ensure that pending restrictions on such activities as soil excavation, groundwater withdrawal, and residential use were not being violated. Each area was inspected, and no indication of violations of future restrictions was observed.

The disposal cell was inspected by walking 10 transects over the cell and around the cell perimeter. Hand-held global positioning system (GPS) equipment was used to navigate the 10 transects. Five areas of the cell that had been marked and located by GPS equipment during the 2003 annual inspection were located and observed for any signs of rock degradation. The LCRS was also inspected and found to be in good condition. Sixty-one of the 119 groundwater-monitoring wells were inspected and were in generally good condition. Other site features, including the prairie, site markers, and roads, also were inspected.

#### 1.0 Introduction

The Weldon Spring Site is in southern St. Charles County, Missouri, approximately 30 miles west of St. Louis, as shown in Figure 1. The site consists of two main areas, the Weldon Spring Chemical Plant and the Weldon Spring Quarry, both located along Missouri State Route 94.

In 1941, the U.S. Government acquired 17,232 acres (6,974 hectares) of rural land in St. Charles County to establish the Weldon Spring Ordnance Works. From 1941 to 1945, the U.S. Department of the Army (Army) manufactured trinitrotoluene (TNT) and dinitrotoluene (DNT) at the site. These operations resulted in nitroaromatic contamination of soil at the plant site, sediments in drainages originating at the site (the Frog Pond Outlet and the Southeast Drainage), groundwater near the site, and some off-site springs.

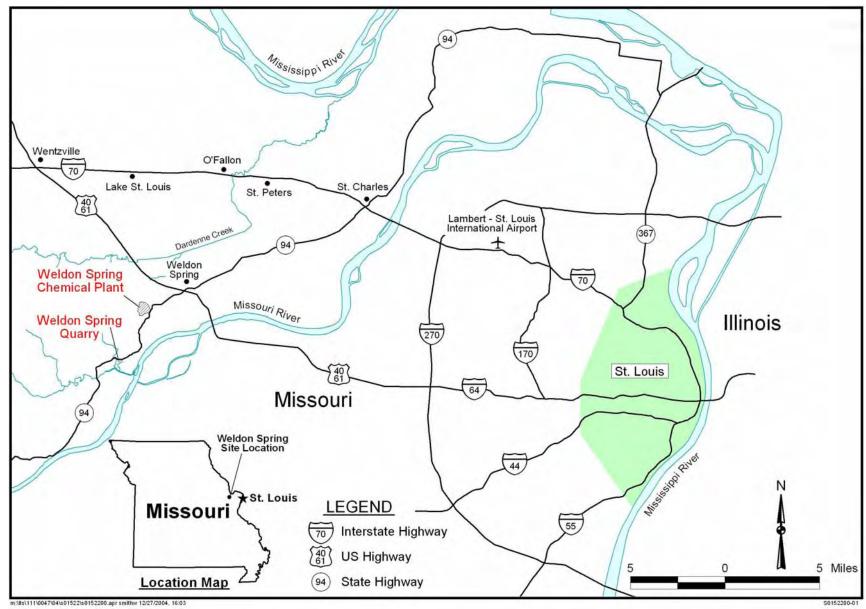


Figure 1. Location of the Weldon Spring, Missouri, Site

The former ordnance works property was transferred to the U.S. Atomic Energy Commission (AEC) in 1956 for construction of the Weldon Spring Uranium Feed Materials Plant, now referred to as the Weldon Spring Chemical Plant. The plant converted processed uranium ore concentrates to pure uranium trioxide, intermediate compounds, and uranium metal. A small amount of thorium also was processed. Wastes generated during these operations were stored in four raffinate pits located on the plant property. Uranium processing operations resulted in radiological contamination of the same locations previously contaminated by former Army operations.

The Weldon Spring Quarry was mined for limestone aggregate used in the construction of the ordnance works. The Army used the Quarry for burning wastes from explosives manufacturing and disposal of TNT-contaminated rubble during the operation of the ordnance works. These activities resulted in the nitroaromatic contamination of the soil and in rock fractures at the Quarry, the in groundwater under the Quarry, and the area between the Quarry and Femme Osage Slough.

In 1960, the Army transferred the Quarry to AEC, who used it from 1963 to 1969 as a disposal area for uranium and thorium residues (both drummed and uncontained) from the Chemical Plant, contaminated building rubble, process equipment, and soils from the demolition of a uranium processing facility in St. Louis. Radiological contamination occurred in the same locations as the nitroaromatic contamination.

Uranium processing operations ceased in 1966, and the Quarry and Chemical Plant areas were placed on the National Priorities List in 1987 and 1989, respectively. Remediation of the Weldon Spring Site was administratively divided into four Operable Units (OUs): the Quarry Bulk Waste OU, the Chemical Plant OU, the Quarry Residuals OU, and the Groundwater OU. Records of Decision for each OU have been approved. The Southeast Drainage was remediated as an interim response action through a separate engineering evaluation and cost analysis.

The remedy for the Quarry Bulk Waste OU consisted of excavating and removing bulk waste from the Quarry and transporting it along a dedicated haul road to an engineered temporary storage area at the Chemical Plant. The Chemical Plant OU remedy included the removal of contaminated soils, sludge, and sediment; the treatment of wastes, as appropriate, by chemical stabilization and solidification; and the disposal of the Chemical Plant and Quarry bulk wastes in an engineered on-site disposal facility. The Quarry Residuals OU addressed residual soil contamination in the Quarry proper, surface water and sediments in the Femme Osage Slough, and contaminated groundwater. The Groundwater OU addresses the groundwater at the Chemical Plant area. The Southeast Drainage was remediated by the removal of selected sediment from accessible areas of the drainage.

The final site conditions from the remedial actions summarized above include the following:

- An on-site disposal cell contains 1.48 million cubic yards of contaminated material.
- Residual groundwater contamination remains in the shallow aquifer beneath both the Chemical Plant and the Quarry.
- Several springs near the Chemical Plant area discharge residually contaminated groundwater.
- Residual soil and sediment contamination remain in the Southeast Drainage.

- Contamination remains at two culverts, one along Missouri State Route 94 and one along Highway D.
- Residual soil contamination remains at inaccessible locations within the Quarry.

The purposes of the annual inspection were to confirm the integrity of the site's visible features (such as the disposal cell, the LCRS, and monitoring wells), document the site's condition after remediation and restoration, identify changes in conditions that may affect the site's integrity, determine if institutional controls are adequately implemented, and determine the need, if any, for maintenance or additional inspections and monitoring.

At the time of the inspection, nine personnel from S.M. Stoller Corporation (Stoller), the Technical Assistance Contractor at the U.S. Department of Energy (DOE) office in Grand Junction, Colorado, were employed full-time at the site. Some of these employees also support other LM sites around the nation. Also employed at the site were nine part-time contractor and subcontractor employees.

This report presents the results of the DOE annual inspection of the Weldon Spring Site. The following personnel from Stoller were the lead inspectors during the inspection:

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Terri Uhlmeyer, Weldon Spring Site
Randy Thompson, Weldon Spring Site
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The following support personnel from Stoller participated in the inspection:

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Tom Welton, Weldon Spring Site
Tim Zirbes, Weldon Spring Site
Becky Cato, Weldon Spring Site
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The following personnel observed the inspection and provided oversight:

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Jane Powell – DOE-LM
Dan Wall – EPA Region 7
Patrick Anderson – MDNR
Hannah Humphrey – MDNR
Kevin Wideman – MoDOT
Tom Nelsen – former Weldon Spring Citizens Commission member
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The inspection was conducted in accordance with the LTS&M Plan.

#### 2.0 Inspection Results

Prior to the inspection, the site inspection agenda (Appendix A) was reviewed with the inspection participants. A safety briefing was also held prior to the inspection, and the corrective action report from the 2008 annual inspection was reviewed (Appendix B). Following is a summary of the inspection results. The inspection base map, which includes the locations of the photographs, is included as Figures 2 and 3. The checklist (from Appendix H of the LTS&M Plan) is included in this report as Appendix C.

#### 2.1 Institutional Control Inspection

Section 2.3.4 of the LTS&M Plan states, "DOE will conduct a formal annual inspection of the physical locations addressed by ICs [institutional controls]. DOE also will evaluate whether the ICs remain effective in protecting human health and the environment and, in coordination with EPA and MDNR, will take appropriate action if evidence indicates the controls are not effective."

The Weldon Spring Site has made progress on attaining the instruments for institutional controls this year, though some are still pending and not yet formally in place. The institutional controls attained during 2009 were an easement on the MDNR-Parks property—to implement groundwater use restrictions there—and the signed revised Memorandum of Understanding with the Army. The Memorandum of Understanding specifies the groundwater use restrictions in the Explanation of Significant Difference and enhances DOE's access for the purpose of environmental monitoring and for the surveillance of the restricted area. The institutional controls in place before 2009 include a Notation of Land Ownership on the Chemical Plant and Quarry property, which is filed with St. Charles County; the Interpretive Center; a license granting DOE permission to abandon or install and operate groundwater wells and perform sampling; and a license granting DOE continued operation and maintenance of the effluent discharge pipeline that runs from DOE property to the Missouri River and through the Katy Trail. The "special use area" under the Missouri Well Code was finalized in a Missouri regulation in August 2007. This special regulation designated DOE's and the Army's groundwater restricted areas as special areas that require additional drilling protocols and construction specifications (to be imposed by MDNR) on any future domestic wells. The final LTS&M Plan also lists the following institutional controls that DOE has been pursuing:

DOE will negotiate with the surrounding affected State agency property owners (Missouri Department of Conservation and Missouri Department of Transportation) to acquire easements that implement the groundwater and land use restrictions contained in the ESD [Explanation of Significant Difference], and to further enhance DOE's access for the purpose of environmental monitoring and for surveillance of the restricted area.

During the inspection, the final and pending institutional control areas were inspected in accordance with the current information in the LTS&M Plan. Figures 4 and 5 are the institutional control location maps from the LTS&M Plan.

The institutional control areas are listed below as they are stated in the inspection checklist.

# 2.1.1 Land and Shallow Groundwater Use Within the Site Proper Boundary (Outside Disposal Cell Buffer Zone)

Inspect for indications of excavations into soil or bedrock and groundwater withdrawal or use in restricted areas. If any party has been granted use of portions of the Chemical Plant area, inspect to ensure that land use is in compliance with the terms of the restrictions within the notation.

**Inspection Results:** This area was inspected, and no indications of excavations into soil or bedrock, groundwater withdrawal, or groundwater use were observed. Lindenwood University has been granted use of the Administration Building, and its use is consistent with the agreement. Current land use remains consistent with the planned institutional controls.

### 2.1.2 Land and Shallow Groundwater Use at DOE Site Proper Disposal Cell and Buffer Zone

Inspect for indications of excavations into soils and bedrock, and for residential use of the shallow groundwater within the buffer zone. Inspect to ensure that the land use continues to be in compliance with the terms of the restrictions within the notation.

**Inspection Results:** This area was inspected. No indications of excavations into soils and bedrock, and no residential use of the shallow groundwater within the buffer zone were observed. The prairie area was extremely muddy because it had recently received several inches of rain. Current land use remains consistent with planned institutional controls. Figure 4 shows the monument locations. During the inspection, the following buffer zone survey monuments were located, with the use of the GPS: WS23, WS26.

#### 2.1.3 Groundwater Use in Areas Surrounding the Chemical Plant

Groundwater use will be restricted in this area. Inspect affected areas for evidence of groundwater or spring water use (Burgermeister Spring and Spring 6303). Inspect to ensure that land use continues to be in compliance with the terms of the license, easement, or permit and the restrictions contained therein.

**Inspection Results:** The surrounding area where groundwater use will be restricted was inspected. This includes property owned by the Missouri Department of Conservation (MDC) and the Army. It was raining during the entire time of the inspection on this property. No evidence of groundwater use was observed, and current land use remains consistent with planned institutional controls on both properties. Burgermeister Spring 6301 (Photo 1) and Spring 6303 on MDC property were inspected, and there were no indications of spring water use. Spring 6303 was flowing. On the Army property, survey monument WS46 was inspected. Figure 4 shows the Chemical Plant groundwater restriction area boundary monuments. The new well (MW–4043) that was installed on the Army property earlier in October 2009 was inspected (Photo 2). All of the monitoring wells inspected were labeled appropriately and were locked.

#### 2.1.4 Land and Shallow Groundwater Use on the DOE Quarry Property

Inspect for indications of excavations into soil or bedrock and groundwater withdrawal or use in restricted areas. If any party had been granted use of portions of the Quarry area, inspect to ensure that land use is in compliance with the terms of the restrictions within the notation.

**Inspection Results:** The Quarry property was inspected, and no indications of excavation into soil or bedrock, groundwater withdrawal, or groundwater use were observed. Also, no party has been granted use of portions of the Quarry area. Quarry backfill continues to provide positive drainage from the Quarry to the Little Femme Osage Creek, and vegetative cover remains well established (Photo 3). Current land use remains consistent with planned institutional controls. It was noted during the 2008 inspection that the fence around the Quarry was in bad condition (Photo 4). It was discussed that the fence is not an institutional control by DOE, but it was decided during the inspection that the fence would be repaired. The repair had not been completed at the time of the inspection but was completed on November 12, 2009.

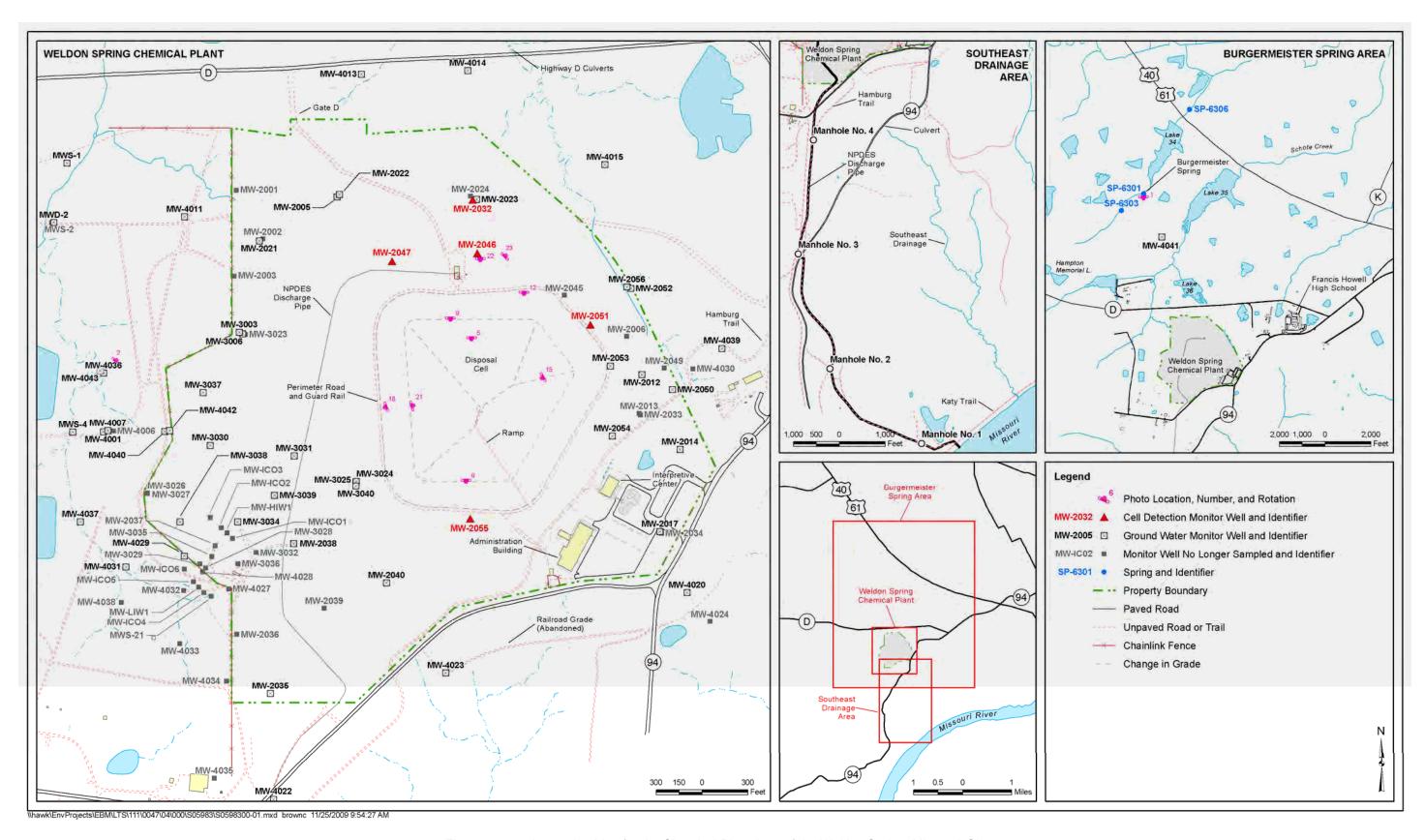


Figure 2. 2009 Inspection Map for the Chemical Plant Area of the Weldon Spring, Missouri, Site

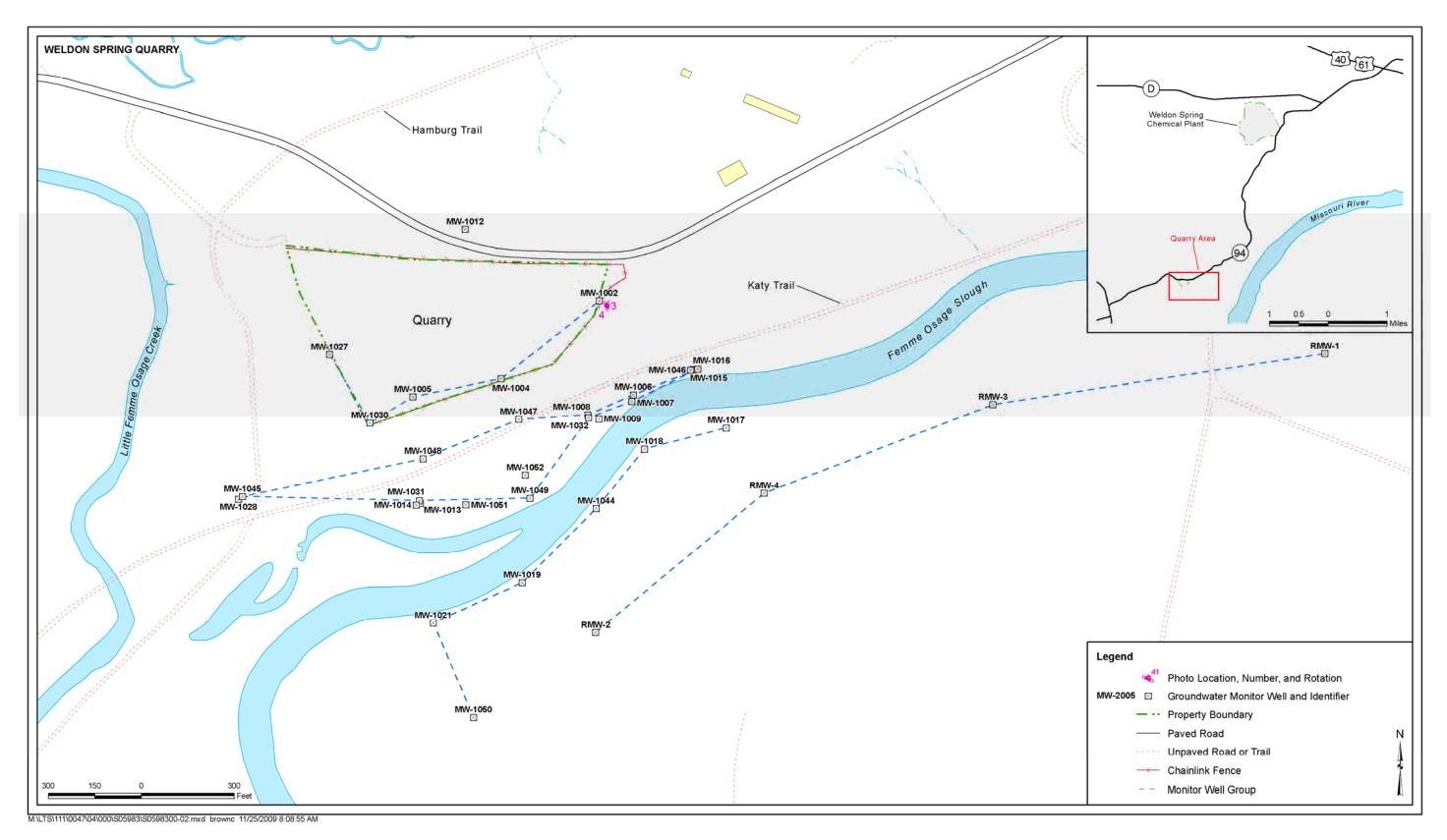


Figure 3. 2009 Inspection Map for the Quarry Area of the Weldon Spring, Missouri, Site

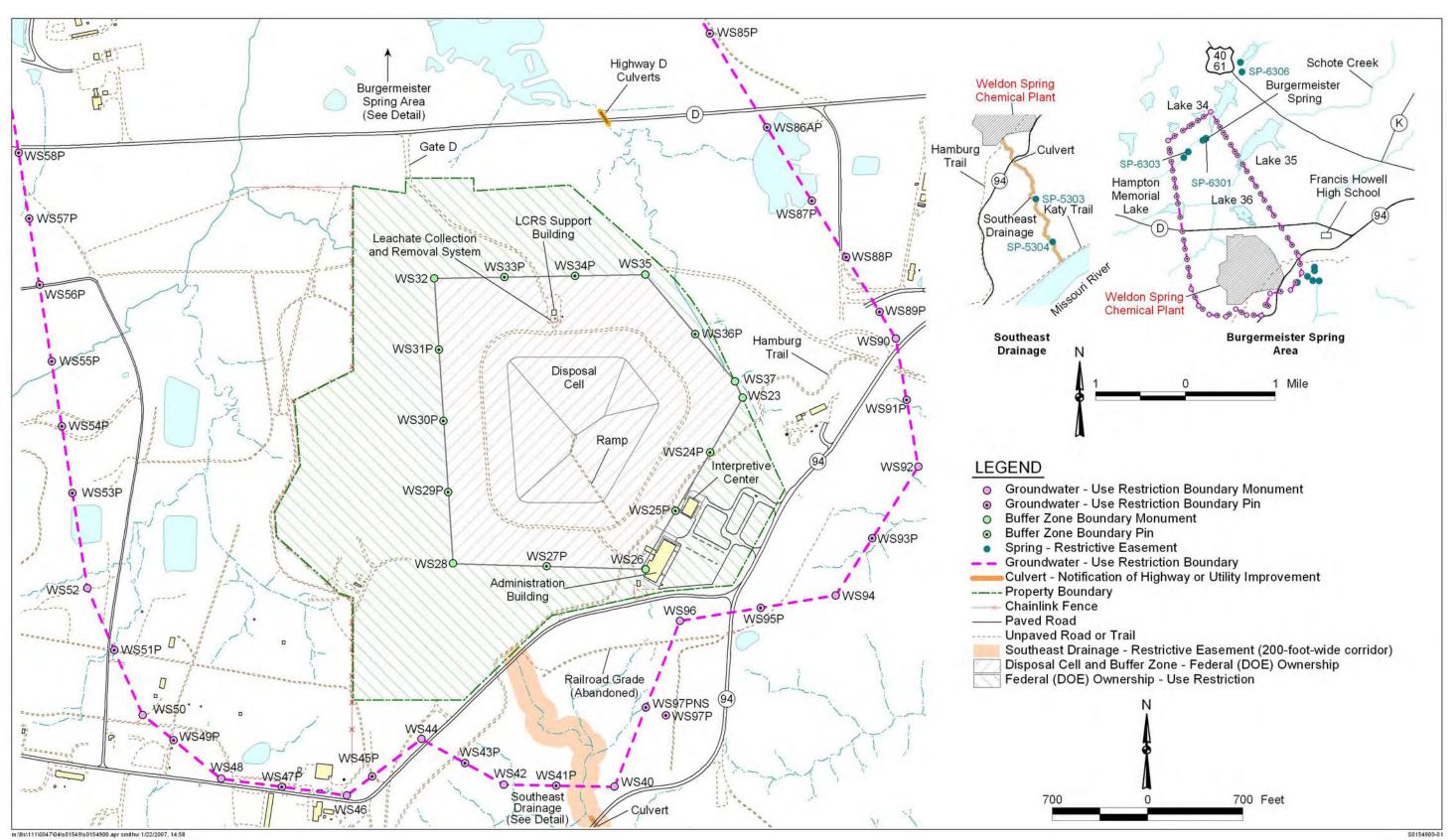


Figure 4. Institutional Controls Location Map for the Chemical Plant Area of the Weldon Spring, Missouri, Site

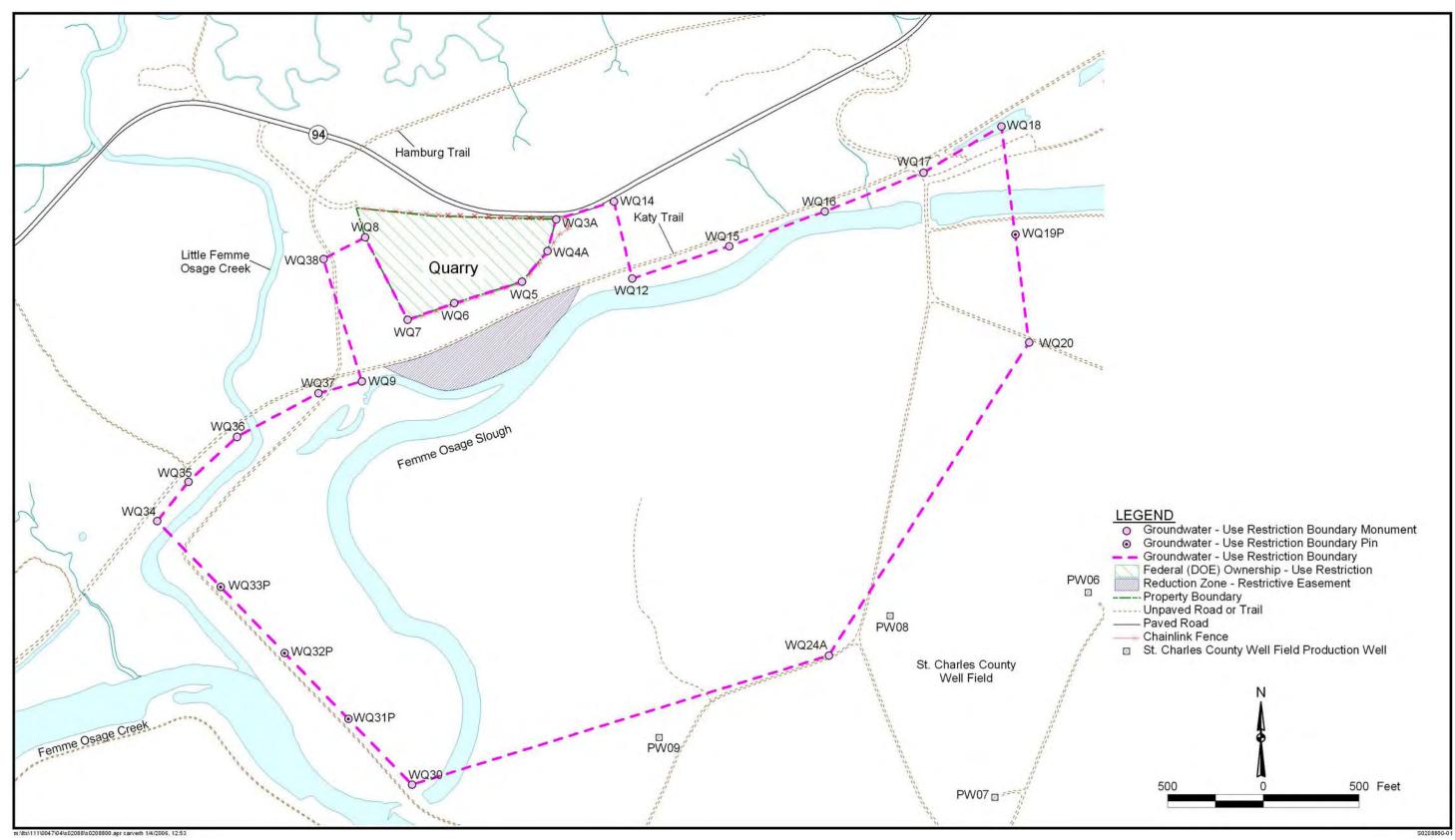


Figure 5. Institutional Controls Map for the Quarry Area of the Weldon Spring, Missouri, Site

#### 2.1.5 Groundwater (Quarry)

Groundwater use is restricted in certain areas. Inspect affected areas for evidence of groundwater withdrawal or use in the area of impact. Inspect to ensure that land use continues to be in compliance with the terms of the license and the restrictions contained therein.

**Inspection Results:** The groundwater restriction area was inspected, and no evidence of groundwater withdrawal or use in the area was observed. Figure 5 shows the Quarry groundwater restriction area boundary survey monuments. The following survey monuments were located during the inspection: WQ4A, WQ7, WQ11.

#### 2.1.6 Land Use in Quarry Area Reduction Zone

A naturally occurring reduction zone exists in soil south of the Katy Trail and north of the Femme Osage Slough. Inspect for indications of excavations into soils and bedrock in the uranium reduction zone. Inspect to ensure that land use continues to be in compliance with the terms of the easement and the restrictions contained therein.

**Inspection Results:** The Quarry reduction zone area was inspected, and no indications of excavation into soils and bedrock were observed. As required by the LTS&M Plan, information signage and contact numbers were posted on monitoring wells at the Quarry Area reduction zone. The labels indicate that no digging is allowed in this area and include contact numbers for DOE and MDC. During the 2007 inspection, it was decided to purchase a more permanent manufactured type label. These were noted during the 2008 inspection. It was also noted during the 2008 inspection that the majority of the labels did not face the trail; during the 2009 inspection, it was noted that the labels had been repositioned to face the trail. Land use remains consistent with planned institutional controls.

#### 2.1.7 Southeast Drainage

Check for indications of residential use or construction in the Southeast Drainage (200-foot-wide corridor), or other activity that would indicate non-recreational use of the area. Check Springs 5303 and 5304 for residential, commercial, or agricultural use of spring water.

Inspection Results: At the time of the inspection, the area had received several inches of rain, and it was raining during the majority of the time during the inspection. It was determined that to walk down the Southeast Drainage would be unsafe. The Southeast Drainage springs were scheduled to be sampled later; therefore, the walk-down was conducted on December 1, 2009, during the sampling activity. MDNR, EPA, and MDC were notified of the date of this event and representatives from MDNR and MDC accompanied the inspectors. The inspectors walked down the entire Southeast Drainage, and no indications of residential use, construction, or any other activity that would indicate non-recreational use of the area was observed. The springs were inspected also, and no indications of residential, commercial, or agricultural use of the springs was observed. Both of the springs were observed to be flowing. Current land use remains consistent with planned institutional controls.

#### 2.1.8 Highway D Culvert

Check for signs of disturbance of the affected region where the Frog Pond outlet culverts pass beneath Highway D and in the utility rights-of-way in the affected area.

**Inspection Results:** The Highway D culverts were inspected. The gravel on top of the culverts that had been placed by MoDOT 2 years ago to stabilize the erosion was still in place.

#### 2.1.9 State Route 94 Culvert

Check for signs of disturbance of the affected region where the culvert passes beneath State Route 94 and in the utility rights-of-way in the affected area.

**Inspection Results:** The State Route 94 culvert was inspected, and it was noted that the condition had worsened slightly since the previous years' inspections. Discussions with MoDOT about repairing the culvert are ongoing.

#### 2.1.10 Pipeline from LCRS to Missouri River

Inspect the entire length of the pipeline and outfall for any maintenance needs or disturbances.

**Inspection Results:** The pipeline was inspected. GPS equipment was used to locate the manholes and cleanouts. Figure 6 shows a map of the pipeline, indicating the manhole locations. It was noted that there were no on-site disturbances of the pipeline, and there were no apparent disturbances in the area of the pipeline or manholes in the off-site areas.

#### 2.2 Disposal Cell

The disposal cell was inspected in accordance with the LTS&M Plan (Photos 5 and 6) and the annual inspection checklist. The cell was divided into 10 transects (Figure 7). The inspectors separated into two groups, and each group walked five transects. The inspectors looked for depressions, shifts of cell plane vertices, and other indications of settlement. Other items for inspection were vegetation, wet areas, apron drains, the guardrail, and the stairs. A GPS unit was used during the 2003 inspection to map five areas chosen for rock degradation review (Figure 7). The inspectors photographed these areas, compared them to photos from the previous inspection of the same areas, and observed no rock degradation. Photos 7 through 21 show these areas (during the original inspection in 2003, during last year's inspection, and during this year's inspection, for comparison).

In accordance with the checklist, the inspectors also checked for wet areas or water drainage and observed that none was present. The toe and apron drains were inspected and found to be functioning as designed. The guardrail and stairs were in good condition. No vegetation was found on the disposal cell during the inspection. It was observed that much of the rock was darker than in previous years. The discoloration was thought to be due to weathering and recent excessive moisture. It is not known if the discoloration is temporary due to the excessive rain the area has received and will be monitored. The darkened rock is not an issue that could compromise the disposal cell—it is just a changed condition that inspectors observed.

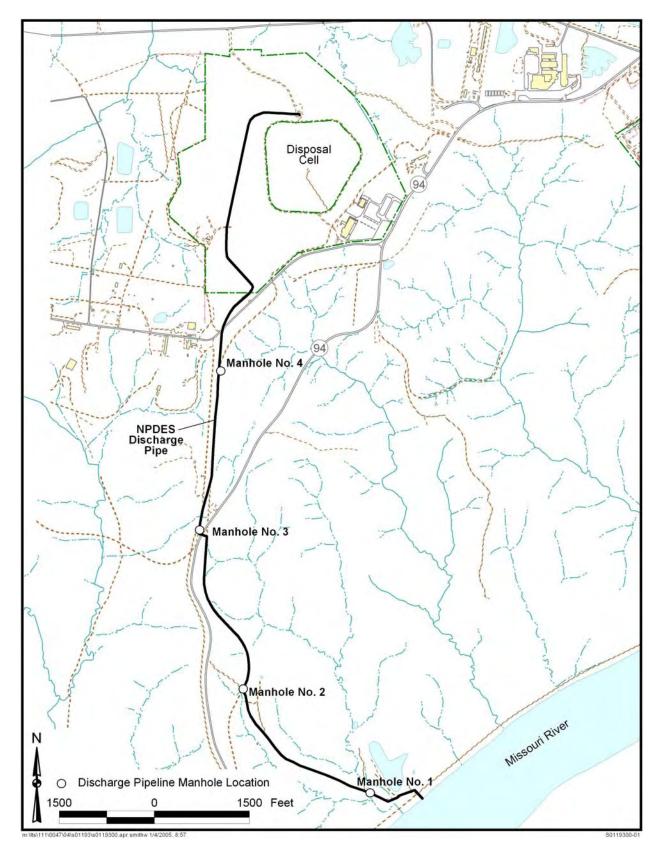


Figure 6. National Pollutant Discharge Elimination System Discharge Pipeline Between the LCRS Support Building at the Missouri River, Weldon Spring, Missouri, Site

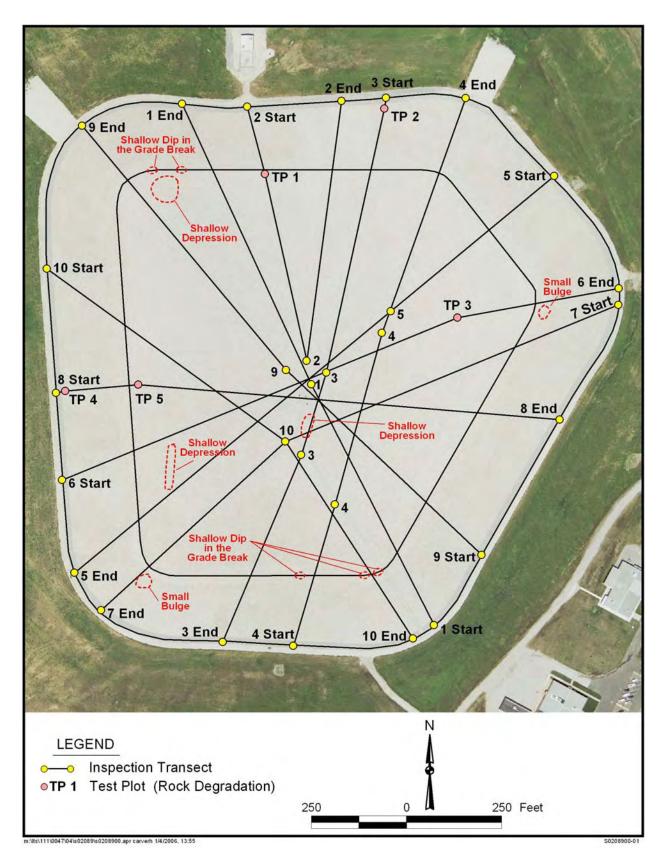


Figure 7. Disposal Cell Inspection Transects and Rock Test Plot Locations at the Weldon Spring, Missouri, Site

#### 2.3 Leachate Collection and Removal System

Operations of the LCRS were discussed with site personnel, and the system was inspected (Photo 22). The system had been reconfigured, and the building housekeeping had been improved during 2008. More labeling had been added during 2009. The fences and doors were locked and in good condition. The system was functioning as designed. The LCRS data and documentation were reviewed during the document review period of the inspection, and the following information was checked and verified to be available: sampling data, LCRS flow rates, action leakage rate information, "burrito" system flow rates, and leachate data. As required by the LTS&M Plan, the leachate production rates, analytical results, and disposal information are provided in Appendix D.

DOE continues to exercise its pretreatment contingency process equipment by pretreating the leachate through a system of cartridge filters and ion exchange media that is selective for uranium. The leachate is sampled and continues to be well below the limit for uranium (20 picoCuries per liter). The leachate will continue to be managed in this manner until the leachate is consistently below the limit for uranium.

The ion exchange vessel has been labeled "potential internal contamination" based on the potential for uranium to accumulate in the resin.

#### 2.4 Erosion

#### 2.4.1 Chemical Plant Area

Areas of erosion in the prairie were identified during the 2006 inspection, and it was recommended that the prairie be inspected more thoroughly, that the erosion areas be located and mapped by GPS, and that the erosion areas be repaired. Erosion channels within the entire prairie were mapped with GPS in August 2007 and again in June 2008 and June 2009 (Figure 8). The resulting information will be used to track the nature and extent of erosion in the future.

A field survey to evaluate erosion issues in the prairie was performed on August 2, 2007. The following individuals participated in the survey: Yvonne Deyo (Stoller, Weldon Spring project manager), Marilyn Kastens (Stoller soil reclamation specialist), Ben Moore (MDNR), Raymond Franson (MDNR), Frank Oberle (Pure Air Native Seed), and Jon Wingo (DJM Ecological Services). It was determined that existing erosion was temporary and typical of a newly reclaimed site in the process of stabilizing. It was recommended that erosion channels be monitored and that other possible strategies for soil amendment and vegetation management be evaluated. Soil disturbance of any kind was not recommended at this time. The report that documents this trip was reviewed by the inspection participants during the 2007 inspection and included in the 2007 report.

It was noted during the 2009 inspection that some areas of erosion had worsened (Photo 23) and that in other places vegetation had taken over the erosion areas considerably. Approximately 300 plugs of prairie cordgrass were planted within channels on the northeast side of the site as a test erosion control method. In September 2009, a group of Legacy Management Support subject matter experts met to discuss the current status of site erosion. They determined that existing erosion continued to be fairly typical for a reclaimed site and that no channels were currently a

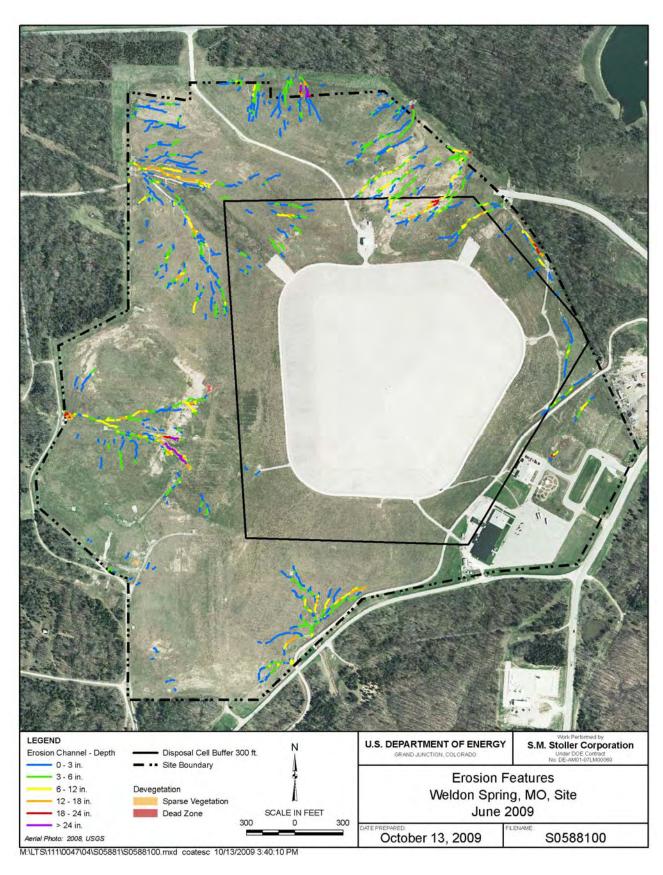


Figure 8. Erosion Channels Within the Prairie

threat to the integrity of the disposal cell. The group agreed that continued monitoring of erosion would be prudent. The erosion will continue to be monitored, and another mapping and evaluation is scheduled for the spring or early summer of 2010.

#### 2.4.2 Quarry Area

No erosion areas were noted during the inspection of the Quarry area.

#### 2.5 General Site Conditions

General site conditions as listed in the checklist were inspected and are discussed below.

#### 2.5.1 Roads

The roads consist of asphalt roads leading into the property and a gravel road that extends around the disposal cell and to Gate D. The roads were in good condition.

#### 2.5.2 Vandalism

Although the site is publicly accessible, signs clearly posted at the disposal cell state that the viewing platform is open during daylight hours only. Evidence of nighttime access of the viewing platform has increased. Public use of the site continues to rise. Because of ongoing issues associated with the increased use, especially nighttime use. (e.g., littering at various locations throughout the site, including at the top of the disposal cell; the occasional discovery of illegal drug paraphernalia), a private security firm has been hired to provide seasonal patrol coverage of the site during the evening hours. These patrols, along with the upgraded safety-oriented security system, have dramatically curtailed undesirable activities at the site.

One of the disposal cell monument plaques was damaged in July 2009. A vandal damaged the plaque's lettering and corners by hitting it with a large rock. The damage was not significant enough to require replacement. The plaque was reattached using adhesive. The plaque damage will be monitored in 2010.

#### 2.5.3 Personal Injury Risks

No personal injury risks were observed.

# 2.5.4 Site Markers (Four Information Plaques on Top of Cell, Historical Markers, and Other Information Markers)

The four information plaques on top of the cell were generally in good condition (see Section 2.5.2). During the 2006 inspection, it was observed that the pedestal on the south side of the viewing platform, under the southeast corner, had eroded after it had been repaired. It was repaired again in 2007, and those repairs were still in good condition during the 2009 inspection. The historical markers were inspected and were in good condition.

The LTS&M Plan states that signs are posted on the LCRS fence to inform the public that trespassing is forbidden and that they may call the DOE 24-hour security telephone number

(970-248-6070 or 877-695-5322) for information. During the 2009 inspection, it was noted that these signs were posted on the LCRS fence.

#### 2.6 Monitoring Wells

Monitoring wells in the Disposal Cell Monitoring Well Network, Chemical Plant Monitoring Well Network, and Quarry Monitoring Well Network were inspected. The inspection checklist required all of the disposal cell wells to be inspected, and greater than 10 percent of the Chemical Plant and Quarry wells to be inspected. The checklist required the wells to be inspected to check if they are properly secured, locked, and in good condition; if they need maintenance; and if they have the proper ID number on them. All of the wells that were inspected met these requirements. It should be noted that each well is inspected at least quarterly during the year when static water levels are recorded. The wells are listed below for identification purposes.

#### 2.6.1 Disposal Cell Monitoring Well Network

Each well in the disposal cell network was inspected and is listed below:

MW-2032, 2046, 2047, 2051, 2055.

#### 2.6.2 Chemical Plant Area Monitoring Well Network

The inspection checklist requires that greater than 10 percent of the wells in the Chemical Plant Monitoring Well Network be inspected. The monitoring well network consists of 89 wells. Only 49 wells are monitored for the groundwater remedy of monitored natural attenuation. The remaining wells are monitored quarterly for static water levels only. The wells that were inspected are listed below:

MW-2005, 2006, 2012, 2013, 2017, 2022, 2023, 2024, 2033, 2034, 2035, 2036, 2045, 2052, 2053, 2056, 3024, 3025, 3026, 3027, 3028, 3029, 3035, 3040, 4001, 4002, 4006, 4007, 4022, 4027, 4028, 4029, 4034, 4035, 4040, 4041, 4042, 4043, ICO4, ICO5, ICO6, LIWI.

#### 2.6.3 Quarry Monitoring Well Network

The inspection checklist requires that greater than 10 percent of the wells in the Quarry Monitoring Well Network be inspected. The monitoring well network consists of 29 wells. The wells that were inspected are listed below:

MW-1002, 1004, 1005, 1006, 1007, 1013, 1014, 1027, 1030, 1048, 1049, 1051, 1052, RMW-1.

#### 2.7 On-site Document and Record Verification

The following on-site documents and records were verified:

- LTS&M Plan
- Maintenance log (Plan of the Day/Plan of the Week forms)
- National Pollutant Discharge Elimination System permit (#MO–0107701, revised)

- Metropolitan St. Louis Sewer District (MSD) agreement and records
- Groundwater monitoring records
- Leachate records
- Interpretive Center sign-in logs
- Telecons and interview records

#### 2.8 Contacts

In accordance with the checklist, several stakeholders were notified prior to the inspection. These included:

- St. Charles County Sheriff
- Cottleville Fire District
- Francis Howell High School
- Simplex-Grinnel Alarm System
- St. Charles County

The institutional control contacts also were notified in regard to the inspection and to maintain annual contact with the representatives relevant to institutional controls. In the future, when institutional controls are established, this annual contact will be used to verify cognizance of the institutional controls and the requirements and/or restrictions with each representative. The representatives contacted are listed below.

- John Vogel MDC
- Joel Porath MDC
- Doyle Brown MDC
- Mary Bryan MDNR–Parks
- Quinn Kellner MDNR–Parks
- Marsha Miller Army
- Tom Blair MoDOT
- Jim Gremaud MoDOT
- Kevin Wideman MoDOT

The St. Charles Planning and Zoning Department also was contacted. They verified that no planning and zoning activities were currently taking place within ¼ mile of the Chemical Plant and Quarry property. The Notation of Land Ownership was verified to be filed and present at the St. Charles Recorder of Deeds office by checking the County website: www.saintcharlescounty.org.

The Stoller project manager, Yvonne Deyo, and environmental data manager, Randy Thompson, were interviewed as required by the inspection checklist.

All conversations and interviews were recorded on an Interview Record form from the EPA *Comprehensive Five-Year Review Guidance*. The forms for each of these contacts and interviews are attached as Appendix E.

#### 2.9 Operation and Maintenance Costs

The fiscal year 2009 long-term surveillance and maintenance costs for the Weldon Spring Site from October 1, 2008, to September 30, 2009, were budgeted at \$1,225,234.19. The actual costs were \$1,223,983.16.

#### 2.10 Environmental Monitoring Data

The environmental data from the Weldon Spring Site are available at <a href="http://www.lm.doe.gov/land/sites/mo/weldon/weldon.htm">http://www.lm.doe.gov/land/sites/mo/weldon/weldon.htm</a> under the "Geospatial Environmental Mapping System" link. A quarterly internal report is issued. It includes validated environmental data results for each quarter, a site summary, data trending, chain-of-custody information, adequacy of quality control sample results, data assessment summaries, information on data that are outside the range of historical concentrations, data that merit explanation or follow-up action, sampling and analytical schedules, trip reports, and sampling location maps.

Results of all environmental monitoring data are included in the *Annual Site Environmental Report*. The report includes data trending information and reports on other aspects of the project such as status and regulatory information. The *Annual Site Environmental Report* for 2009 will be available in August 2010. The 2008 *Annual Site Environmental Report* is available on the Weldon Spring website: <a href="http://www.lm.doe.gov/land/sites/mo/weldon/weldon.htm">http://www.lm.doe.gov/land/sites/mo/weldon/weldon.htm</a>.

#### 2.11 Prairie Maintenance

Section 2.6 of the LTS&M Plan states that routine maintenance of the prairie completed during the previous 12 months will be summarized in the annual inspection report. This summary is as follows:

A significant number of prairie maintenance activities were performed during this period. In compliance with the *Weldon Spring Site Wildland Fire Management Plan*, a controlled burn was performed in April on approximately 75 acres of the site. Due to seasonal plant growth patterns and wind conditions, primarily the northern and western portions of the site were burned. Noticeable improvement in plant growth was observed in burned areas throughout the spring and summer.

In June, individual *Sericea lespedeza* and *Robinia pseudoacacia* plants were spot-sprayed with herbicide as part of ongoing efforts to reduce the numbers and control encroachment of invasive weed species throughout the prairie area. Relatively few plants were observed during this season's eradication activities, and it is expected that in the future, only limited efforts will be required to keep invasive plant populations in check. Also in June, erosion mapping was performed as part of the ongoing effort to evaluate active erosion channels and the need for erosion control.

A garden of plants native to the state of Missouri was designed and constructed to surround the Interpretive Center and build awareness of the Weldon Spring Site. Garden maintenance, consisting of manual weeding and very limited irrigation, was performed throughout the growing season. Corn gluten, a cereal industry byproduct with pre-emergent herbicide qualities, was broadcast on garden beds throughout the spring to assist in weed control efforts. Dried seed heads from grasses and forbs were harvested and used for hand overseeding on the prairie area of the site in October 2009. Areas with active erosion channels were targeted for this seeding effort. Volunteers continued to perform garden maintenance activities throughout this period. Volunteers who are responsible for their maintenance have adopted six large garden beds.

#### 3.0 Findings and Recommendations

1. Finding: During a review of the MSD and purge water information, it was determined that the wells need to be updated with MSD and that all of the approval letters from MSD are not in the LTS&M Plan.

**Corrective Action:** Submit a new letter to MSD, including new wells to be added. Ensure that all of the letters are included in the LTS&M Plan during its next revision.

**Target Date:** September 2010

2. Recommendation: Continue to monitor and evaluate erosion on the Chemical Plant Site.

**Corrective Action:** Continue to monitor and evaluate erosion on the Chemical Plant Site.

**Target Date:** Ongoing

#### 4.0 Photographs



Photo 1. Burgermeister Spring.



Photo 2. Monitoring well MW-4043 on the Army Property.



Photo 3. View of Quarry from the ridge.



Photo 4. Damaged fence at the quarry.



Photo 5. Disposal cell inspection looking south towards monuments.



Photo 6. Disposal cell inspection looking south.



Photo 7. Cell cover rock test plot TP1; north edge north facet (2003 Inspection).



Photo 8. Cell cover rock test plot TP1; north edge of north facet (2008 Inspection).



Photo 9. Cell cover rock test plot TP1; north edge of north facet (2009 Inspection).



Photo 10. Cell cover rock test plot TP2; north edge north facet (2003 Inspection).



Photo 11. Cell cover rock test plot TP2; north edge north facet (2008 Inspection).



Photo 12. Cell cover rock test plot TP2; north edge north facet (2009 Inspection).



Photo 13. Cell cover rock test plot TP3; northeast ridgeline (2003 Inspection).



Photo 14. Cell cover rock test plot TP3; northeast ridgeline (2008 Inspection).



Photo 15. Cell cover rock test plot TP3; northeast ridgeline (2009 Inspection).



Photo 16. Cell cover rock test plot TP4; located on upper west side (2003 Inspection).



Photo 17. Cell cover rock test plot TP4; located on upper west side (2008 Inspection).

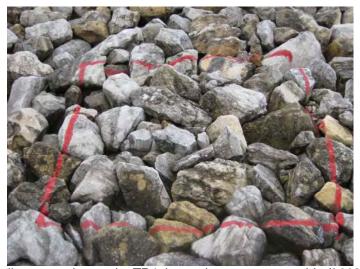


Photo 18. Cell cover rock test plot TP4; located on upper west side (2009 Inspection).



Photo 19. Cell cover rock est plot TP5; located on lower west side (2003 Inspection).



Photo 20. Cell cover rock test plot TP5; located on lower west side (2008 Inspection).

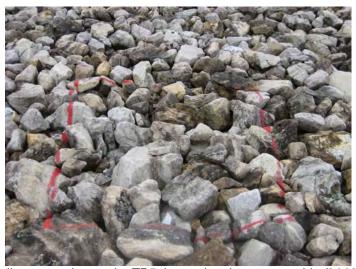


Photo 21. Cell cover rock test plot TP5; located on lower west side (2009 Inspection).



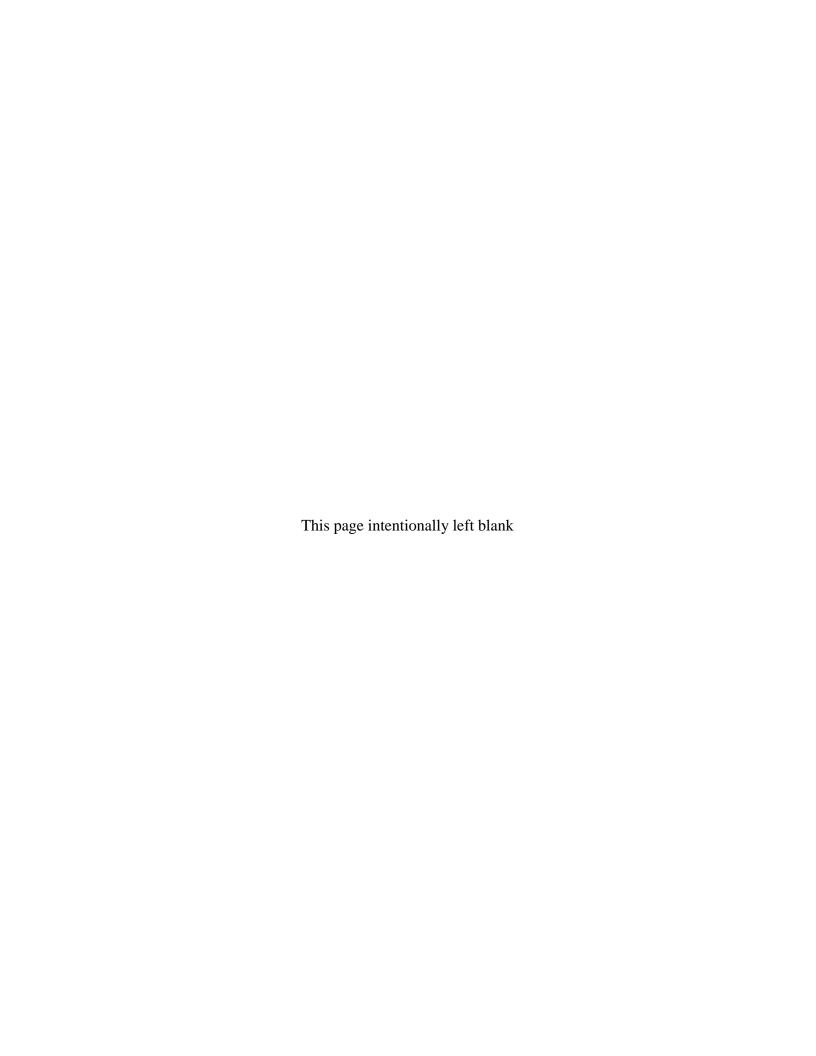
Photo 22. Inside LCRS Building.



Photo 23. Erosion areas.

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Appendix A Inspection Agenda



## WSSRAP ANNUAL INSPECTION AGENDA

#### Tuesday, October 27, 2009

#### 8:30 - 9:00 am

Inspectors/observers will divide into 2 separate groups. Review agenda, inspection teams, and safe work issues. Review inspection report and findings/corrective actions on last year's inspection. Team 1 (Team Leader - Terri Uhlmeyer) will cover the Chemical Plant Area. Team 2 (Team Leader - Randy Thompson) will cover the Southeast Drainage and the Quarry Area.

#### 9:00 - 11:30 am

Team 1: Inspect land & shallow groundwater use on Army property and DOE property:

- Monitoring wells along Army property roads
- Drive all Army roads in proposed IC area and note any land disturbance
- Disposal Cell buffer zone
- Monitoring wells on DOE Chemical Plant property

Team 2: Inspect land & shallow groundwater use on Missouri Department of Conservation property, Weldon Spring Conservation Area:

- Southeast Drainage from Army Road to Hwy 94
- Hwy 94 culvert
- Southeast Drainage from Hwy 94 to Missouri River, incl Springs 5303 & 5304

#### 11:30 am - 12:30 pm

Lunch

#### 12:30 – 4:00 pm

Team 1: Inspect land & shallow groundwater use on Missouri Department of Conservation property, August A. Busch Conservation Area:

- Burgermeister Spring
- Spring 6303
- Monitoring wells along MDC roads
- Hwy D Culvert

Team 2: Inspect land & shallow groundwater use on Missouri Department of Conservation property, Weldon Spring Conservation Area and DOE property:

- DOE Quarry Property (Quarry rim wells)
- DOE Quarry Property (Quarry proper)
- Reduction zone area
- Public Water District #2 well field area

#### 4:00 - 4:30 pm

Meeting in Room 3A: discuss day-1 inspection results

#### Wednesday, October 28, 2009

#### 8:30 - 9:00 am

Meeting in Room 3A to review next inspection objectives. Inspectors/observers divide into 2 separate groups to cover 5 transects each on the disposal cell. The Team Leaders will be Terri Uhlmeyer and Randy Thompson

#### 9:00 - 11:30 am

Disposal Cell Inspection – Potential settlement, rock degradation, vegetation

Team 1: Walk 5 Transects Team 2: Walk 5 Transects

#### 11:30 am - 12:30 pm

Lunch

#### 12:30 pm – 1:00 pm

Teams 1 & 2: reconvene in Room 3A for trip to LCRS.

#### 1:00-3:00 pm

Inspection of LCRS (No confined space entry planned). Walk disposal cell buffer zone inspecting for erosion issues.

#### 3:00 - 4:00 pm

Document and paperwork review

#### 4:00 - 4:30 pm

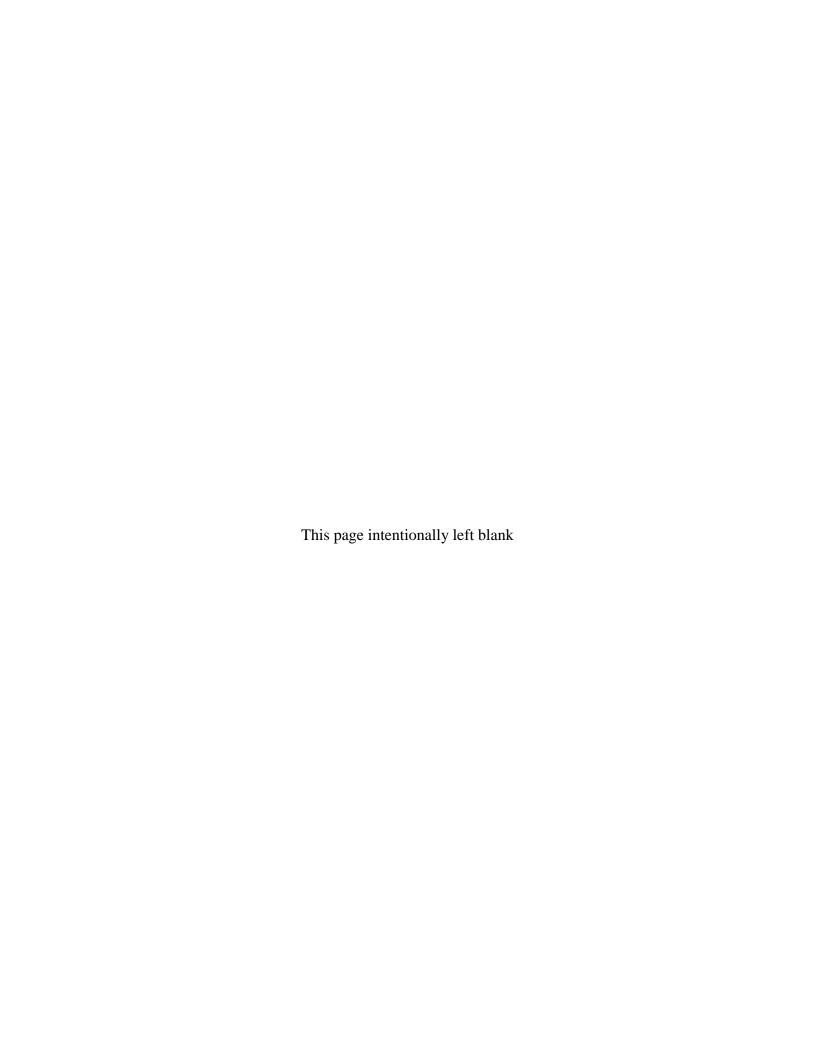
Debriefing for DOE and Stoller management of preliminary inspection findings

#### Thursday, October 29, 2009

#### 8:30-11:30

This day will be used to conduct any items that do not fit within the 2 previous days, such as additional paperwork review, erosion inspections, walk-down of the LCRS pipeline, and inspection of the historical markers.

Appendix B
Corrective Action Report



## Completed Findings, Recommendations and Corrective Actions from 2008 Weldon Spring LTSM Annual Inspection

1. **Recommendation:** Repair the fence at the Quarry

**Corrective Action:** The fence at the Quarry will be repaired.

**Target Date:** September 2009

**Response:** A subcontract for the work has been awarded and the fence is scheduled to be repaired the week of November 2, 2009.

2. **Recommendation:** Have the "No Dig" labels on the Quarry reduction zone wells placed so they can be seen from the Katy Trail.

**Corrective Action:** Have the "No Dig" labels on the Quarry reduction zone wells placed so they can be seen from the Katy Trail.

Target Date: April 2009

**Response:** The "No Dig" labels on the Quarry reduction zone wells were placed so they can be seen from the Katy Trail.

3. **Recommendation:** Continue to monitor and evaluate erosion on the Chemical Plant Site.

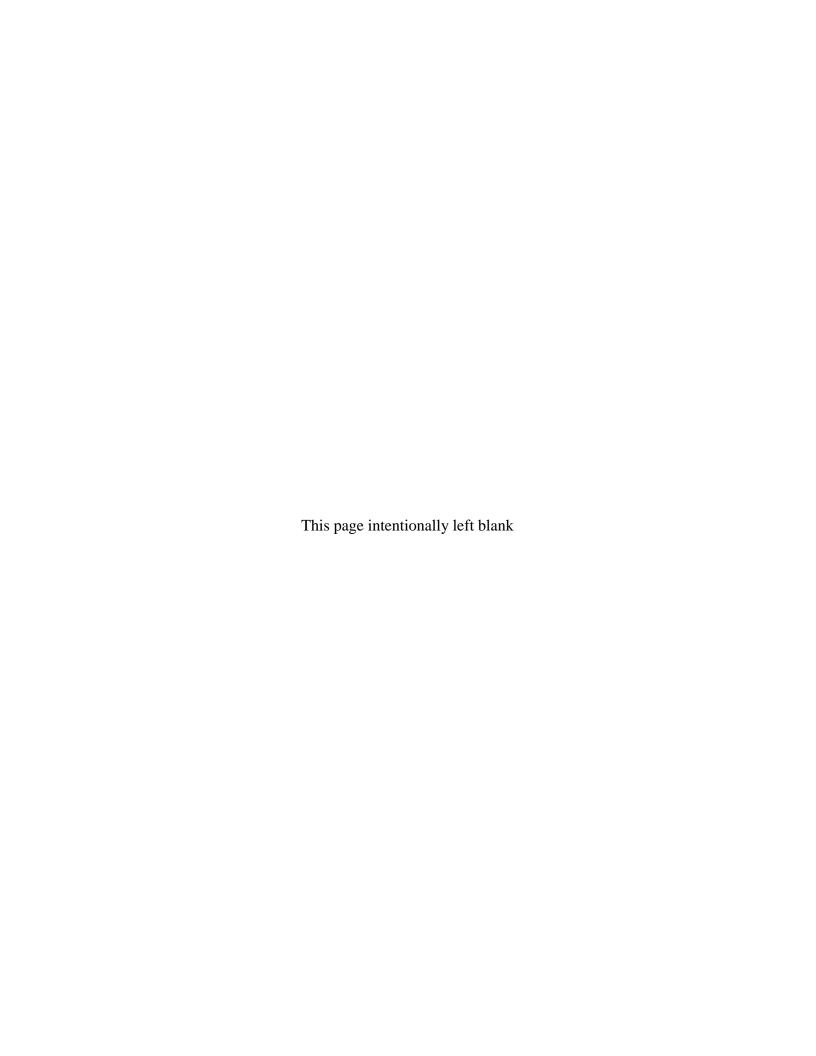
**Corrective Action:** Continue to monitor and evaluate erosion on the Chemical Plant Site.

**Target Date:** Ongoing

**Response:** The erosion channels within the entire prairie were mapped in June 2009 for the third year in a row. The resulting map indicated that erosion channels were repairing naturally in some locations and becoming deeper in others. Approximately 300 plugs of Prairie Cord Grass were planted within channels on the northeast side of the site as a test erosion control method. In September 2009, a group of Legacy Management Support subject matter expert personnel met to discuss the current status of site erosion. It was determined that existing erosion continued to be fairly typical for a reclaimed site and no channels were currently a threat to the integrity of the disposal cell. The group agreed that continued monitoring of erosion would be prudent.

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Appendix C Inspection Checklist



#### **Annual Site Inspection Checklist**

#### **Purpose of the Checklist**

This checklist has been developed from the EPA guidance document *Comprehensive Five Year Review Guidance* dated June 2001 (OSWER No. 9355.7-03B-P) and from Section 2.3 of the *Long-Term Surveillance and Maintenance Plan for the Weldon Spring, Missouri, Site.* The checklist was modified to site-specific conditions as recommended by the guidance document. The checklist will be completed annually during the Weldon Spring Site annual surveillance and maintenance inspection. The checklist will also be used to assist in compiling information for the five-year review.

I. SITE INFORMA	TION
Site name: DOE Weldon Spring Site	Date(s) of inspection: Oct 27-29,2009
Location: St. Charles, MO	EPA ID: MO6210022830
Agencies accompanying DOE for portions of the annual inspection: PEPA, Region 7  MDNR  Other (list): MDST	Weather: 60s rainy cloudy
Remedy Includes: Disposal Cell Institutional controls Monitored Natural Attenuation Long Term Monitoring Other Inspectors Terri Ulmeya (Stollar), Ra	1 Thurs a (staller)
Participants Patrick Anderson (MDNE) Tane Powell (DOE) Hannah Humphrey (MDN) Dan Wall (EPA) Kewin Wideman (MoDoT Becky (ato (Stoller) Tom Welton (Stoller) Tim Firbes (Stoller) Yvonne Deyo (Stoller)	<u>e)</u>

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	II. INTERVIEWS (Check all that apply)	
	Local Site Manager Von Ne Deyo Project Munager 10 2  Name Title Date  Interviewed at site at office by phone Phone no. 636-300-0012  Problems, suggestions; Report attached	<u>[09</u>
	Environmental Data Manager Randy Thompson Data Manager Name Title Interviewed at site at office by phone Phone no. 636-926-7040 Check to ensure that environmental data is reviewed and trended. Problems, suggestions; Report attached	10 <u>/21/0</u> 9 Date
	Other Staff (as applicable)  Name  Name  Title  Interviewed  at site  at office  by phone  Phone no.  Problems, suggestions;  Report attached	Date
1.	Local response agencies: Contact to notify of annual inspection and to determine if there are any consistency.  Agency: St. Charles County Sheriff Contact Tim Hudson Captain 10/21/09 636-94 Name Title Date Phone Problems; suggestions; Report attached	
	1100icins, suggestions, ti report attached	no.
	Agency: Cottleville Fire Department Contact Mark Boekle Name Problems; suggestions; Report attached  Agency: Cottleville Fire Department Contact Mark Boekle Name Title Date Phone	
	Arrangu Cottleville Fire Department	7-6655 e no. ×870

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	Agency: Francis Howell High School Contact Name: Mr. Chris Greiner, Principal
	Contact Name Current Byes ano
	Phone Number Current Types I no (new phone no if applicable)
	Contact Rancly Carter Asst. Principal 18/18/09 636-851-4700 Name (if different than above)  Asst. Principal 18/18/09 636-851-4700 Phone no.
	Name (if different than above) Title Date Phone no.  Problems; suggestions; ☑ Report attached
	Trootems, ouggestions, 2. report unabled
	Agency: Missouri Department of Transportation (local office) Contact Name: Will, aw Wilcox Contact Name Current yes one (new phone no. if applicable)
	Contact Christina Hanne Superindent 10/27/09 314-273-10  Name (if different than above)  Title  Date  Phone no.
	Note: Set up date and time and provide annual training on the site institutional controls and culverts.  Problems; suggestions; Report attached Discussed training with themas, inspection. Jim Gremand Moreguested trail Winin Dec. to set to
	Agency: St. Charles County Contact Name: Mike Duvall, Dir. of Env. Service Contact Name Current  yes  no 434-949-7406 (new phone no. if applicable)
	Contact Peter Sheehan Name (if different than above) Problems; suggestions; Report attached  Enu. Publ: Llochth 10/13/19 636-949-7583 Title Wg. Date Phone no.
_	
	Other interviews  Report attached.
	Other interviews  Report attached.
	Other interviews  Report attached.
	Other interviews  Report attached.        / f    III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)
	III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)  Documents
	III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)
	III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)  Documents  Surveillance and Maintenance Plan  Readily available  Op to date  N/A  Remarks Using Planof the Day Planof the weets as Maintenance
	III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)  Documents  Surveillance and Maintenance Plan  Readily available  Pop to date  N/A  Remarks  Health and Safety Procedures  Readily available  Pop to date  N/A  Remarks  Health and Safety Procedures
	III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)  Documents  Surveillance and Maintenance Plan  Readily available  Vip to date   N/A  Remarks  Health and Safety Procedures  Readily available  Fig. 10 to date   N/A  Remarks  Permits and Service Agreements
	III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)  Documents  Surveillance and Maintenance Plan  Readily available  Vip to date   N/A  Remarks  Health and Safety Procedures  Readily available  Fig. 10 to date   N/A  Remarks  Permits and Service Agreements
	III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)  Documents  Surveillance and Maintenance Plan  Readily available  Pop to date  N/A  Remarks  Permits and Safety Procedures  Readily available  Readily available  Pop to date  N/A  Remarks  Permits and Service Agreements  Readily available  Pup to date  N/A

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4.	Groundwater Monitoring Records Remarks	Readily available	4 Op to date	□ N/A
5.	Leachate Records Remarks	adily available □ Up t	o date	
6.	Interpretative Center Sign-In Logs Remarks	☑ Keadily available	Up to date	□ N/A
	IV.	. O&M COSTS		
1.	O&M Cost Records (This information of Original O&M cost estimate Fy 2000)  Total annual cost for prior federal fiscal years of the Cost of Oct 12008	9: 1,225,734.19		spection)
2.	Unanticipated or Unusually High O&N Describe costs and reasons://	M Costs During Review Per A	iod	
	V. INSTIT	UTIONAL CONTROLS		
Insti	tutional Control (IC) Inspections			
1.	Land and Shallow Groundwater Use we Inspect for indications of excavations into restricted areas. If any party has been grainspect to ensure that land use is in comp Note any observations:	o soil or bedrock and ground nted use of portions of the Cl liance with the terms of the r	water withdrawal nemical Plant or C estrictions within	or use in Quarry area, the notation.
2.	Groundwater Use in Areas Surrounding Groundwater use is restricted in areas. In water use (Burgermeister Spring and Spring compliance with the terms of the license, Note any observations: Inspected and Gwestrictian area. Fau build a large pld outside Mw-404 on conservations	spect affected areas for evide ing 6303). Inspect to ensure easement, or permit and the monitoring wells and monument wsy feure. Inspected this property.	that land use containestrictions contained from Army Produced from Burgarman	tinues to be in ined therein.  operty  y plans to

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Groundwater (Quarry)			
Groundwater use is restricted in areas. Inspect affected areas for evidence of groundwater withdrawal or use in the area of impact. Inspect to ensure that land use continues to be in compliance with the terms of the license and the restrictions contained therein.  Note any observations: No evidence of groundwate with drawal or use.  No land use change. Vegetador in Quarry was good. Water sheet flowing off as obsigned, heavy rains.			
Land Use in Quarry Area Reduction Zone			
A naturally occurring reduction zone exists in soil south of the Katy Trail and north of the Femme Osage Slough. Inspect for indications of excavations into soils and bedrock in the uranium reduction zone. Inspect to ensure that land use continues to be in compliance with the terms of the easement and the restrictions contained therein.  Note any observations: No indications of excavations into soils or bedrock. No land use changes, signs placed in wells (No DIGGING) so that they face the KATY TRAIL. Inspected & Wall, Was, Wall,			
Southeast Drainage			
Check for indications of residential use or construction in the Southeast Drainage (200-foot-wide corridor), or other activity that would indicate nonrecreational use of the area. Check Springs 5303 and 5304 for residential, commercial, or agricultural use of spring water.  Note any observations: No indications of residential use or Construction in the SE Drainage or corridor. He other activity that could indicate hon-recreational use. No indicates so of use of spring water. Springs were sampled.			
Highway D Culvert			
Check for signs of disturbance of the affected region where the Frog Pong outlet culverts pass beneath Highway D and in the utility rights-of-way in the affected area.			
Note any observations: No changes or disturbanu			
State Route 94 Culvert			
Check for signs of disturbance of the affected region where the culvert passes beneath State Route 94 and in the utility rights-of-way in the affected area.  Note any observations: No disturbance. Condition worsened slightly from lost year. Motor and Doe discussing options.			

8.	Pipeline from LCRS to Missouri River				
	Inspect the entire length of the pipeline and outfall for any disturbances or maintenance needs.				
	Note any observations: The pipeline area and the four manholes were inspected. There were no disturbances.				
4					
Inetit	utional Control Annual Contact Log				
In acc	cordance with the LTS&M Plan, the following will be contacted to verify cognizance of institutional obs and real estate agreements. Fill in all that apply.				
1.	Agency: Missouri Department of Conservation Contact Name: Joel Porath, Wildlife Regional Supv. Address: August A. Busch Memorial Conservation Area, 2360 Highway D, St. Charles, MO 63304 Institutional Control and Real Estate Licenses to Verify: Chemical Plant Groundwater Use Restriction, Quarry Area Groundwater Use Restriction, Quarry Reduction Zone Land Use Restriction, Southeast Drainage Residential Use Restriction, North Gate Access, Well Sampling Access Agreement, Effluent Discharge Pipeline, Hamburg Trail Use Agreement.				
	Contact Name Current  yes □ no				
	Contact $N/A$ (Same) Name (if different than above) Title Date Phone no.				
	Problems; suggestions; Report attached				
2.	Agency: Missouri Department of Conservation Contact Name: John Vogel, Area Manager Address: August A. Busch Memorial Conservation Area, 2360 Highway D, St. Charles, MO 63304 Institutional Control and Real Estate Licenses to Verify: See No. 1 Contact Name Current   yes □ no  no (new phone no. if applicable)				
	Contact $N/A$ (Same) Name (if different than above) Problems; suggestions; Preport attached  Title Date Phone no.				
	Trobbins, suggestions, a report unique				
3.	Agency: Missouri Department of Conservation Contact Name: Doyle Brown, Policy Coordinator Address: P.O. Box 180, Jefferson City, MO 65102  Institutional Control and Real Estate Licenses to Verify: See No. 1  Contact Name Current Lyes   no (new phone no. if applicable)				
	Contact N/A /SAME) 10/14/19 573 522 4115 x2255				
	Contact N/A (5AME) Name (if different than above) Problems; suggestions; Report attached  10/14/09 573-522-4115 x3355 Phone no.				
4.	Agency: Missouri Department of Natural Resources Contact Name: Jennifer Frazier, Parks Operation Off.  Address: P.O. Box 176, Jefferson City, MO 65102  Institutional Controls and Real Estate Licenses to Verify: Quarry Area Groundwater Use Restriction,				
	Southeast Drainage Residential Use Restriction, Well Sampling Access Agreement, Effluent Discharge				

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Ph	one Number Current Vyes 🗓 no	(new pl	none no. if app	licable)
Cor	ntact May Bry an Name (if different than above oblems; suggestions; Report attached	Real Estate Mgr Title	10/21/09 Date	573-751-7 Phone
=		8		
Ma Ad Ins So Pip Con	ency: Missouri Department of Natural Re anager, Jones-Confluence Point State Park ddress: P.O. Box 67, West Alton, MO 633 stitutional Controls and Real Estate Lic utheast Drainage Residential Use Restrict peline ntact Name Current Yyes   no	886 senses to Verify: Quarry A ion, Well Sampling Acces	Area Groundwa s Agreement, I	ater Use Rest Effluent Disc
	one Number Current 1/yes 🗆 no		none no. if app	licable)
Co	ntact U/A (Same) Name (if different than above	Title	10/13/09 Date	636-899-1 Phone
Ad Ins Re	ency: Missouri Department of Transporta Idress: 1590 Woodlake Dr., Chesterfield, stitutional Controls to and Real Estate I striction, and question MoDOT regarding lyerts about plans for repairs/replacements	MO 63017 Licenses to Verify: Chem Missouri State Highway 9	ical Plant Grou	ındwater Us
Ad Ins Re cul Cor Pho	Idress: 1590 Woodlake Dr., Chesterfield, stitutional Controls to and Real Estate I striction, and question MoDOT regarding liverts about plans for repairs/replacements ntact Name Current  yes  no one Number Current  yes  no	MO 63017 Licenses to Verify: Chem Missouri State Highway 9 3.  (new ph	ical Plant Grou 94 Culvert and none no. if appl	indwater Us Highway D
Ad Ins Re cul Con Pho	Idress: 1590 Woodlake Dr., Chesterfield, stitutional Controls to and Real Estate I striction, and question MoDOT regarding liverts about plans for repairs/replacements ntact Name Current  yes  no	MO 63017 Licenses to Verify: Chem Missouri State Highway 9 8.  (new ph	ical Plant Grou 94 Culvert and	indwater Us Highway D
Add Ins Re cull Coor Photo Pro	Idress: 1590 Woodlake Dr., Chesterfield, stitutional Controls to and Real Estate I striction, and question MoDOT regarding lyerts about plans for repairs/replacements ntact Name Current ges no one Number Current ges no no ntact M/A (Same)  Name (if different than above) oblems; suggestions; Report attached gency: Missouri Department of Transporta	MO 63017 Licenses to Verify: Chem Missouri State Highway 9 5.  (new ph Title	ical Plant Group 94 Culvert and none no. if appl 10/13/09 Date	indwater Us Highway D icable) 314-340-4 Phone no
Add Ins Re cull Coor Pro	Idress: 1590 Woodlake Dr., Chesterfield, stitutional Controls to and Real Estate I striction, and question MoDOT regarding lyerts about plans for repairs/replacements ntact Name Current  yes  no one Number Current  no ne Number Current  ne Number Current  no ne Number Current  ne N	MO 63017 Licenses to Verify: Chem Missouri State Highway 9 5.  (new ph Title  tion Contact Name: Kevi Spec 65102 Licenses to Verify: Chem Missouri State Highway 9 5.	ical Plant Group A Culvert and none no. if appl 10/13/09 Date  n Wideman, Smialist ical Plant Group A Culvert and	icable)  314-340-4 Phone no
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cul	striction, and question MoDOT repairs/repl	acements.	Aissouri State Hig	hway 94 Culvert and l	Highway D
	ntact Name Current IV yes $\Box$ none Number Current $\Box$ yes $\Box$ n			new phone no. if appli	cable)
Cor	ntact N/A (Same)		Title	10/15/09	636-240-527 Phone no.
Pro	Name (if different than about the suggestions; P Report at		Title	Date	Phone no.
1108	titutional Controls to and Rea				ndwater Use
Res Con Pho	striction, Effluent Discharge Piputact Name Current Lyes Insome Number Current Lyes Instact	oove)			
Rec Coor Photo Coor Pro Agg Add Inst Rec	ntact Name Current Vyes Interest Number Current Vyes Interest Vyes Interest Name (if different than all	pove) tached ler of Deed O 63301 I Estate Li	Title s censes to Verify:	new phone no. if appliate Part Date	636-329-12 Phone no

11.	Agency: St. Charles County Planning and Zoni Address: 201 N 2 <sup>nd</sup> , St. Charles, MO 63301 Institutional Controls to and Real Estate Lie Contact Name Current yes no□ Phone Number Current yes no□	1500	wareness of Rest	rictions	
	- 4 (6,000)				
	Contact W/A (Same)	Title	Date -	636-949-7900x7221 Phone no.	
	Problems; Report attached V suggestions;	THE	Date	Phone no.	
Gene		/			
1.	Land Use Changes On Site	√No			
2.	Land Use Changes Off Site that could affect Remarks	site □ Yes 🗷	No		
		ITE CONDITIONS			
1.	Roads Cocation shown on site map Ro Remarks	ads adequate Ye	s 🗆 No	**.)	
2.	Vandalism	p Vandalism no	ted	₽ No	
	Remarks		,		
_					
3.	Personal Injury Risks Housekeeping ma  Remarks		s 🗆 No		

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4.	Site Markers (Four Information Plaques on Top of Cell, Historical Markers, and Other Information Markers)
	✓ Location shown on site map Legible and Secure DYes □ No
	In Good Condition Vyes   No
	Remarks
5.	Guard Rail Around Cell Location shown on site map Secure Yes No
	Remarks
6.	Stairs to Top of Cell Location shown on site map  Stairs in good condition Yes   No Handrail stable and in good condition Yes   No
	Stairs in good condition
7.	Other Site Conditions:
	Remarks
	<u> </u>
	VII. EROSION
1.	Chemical Plant Areas
	Remarks The orosion has been mapped in 2007, 2008 and 2009. The Figure is located in the inspection report. It shows location and estimated depth. The erosion will continue
	to be monitored.
2.	Quarry Area

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1.	A. Annually: Walk along the grade break at the top of the side slopes, around the cell perimeter, and along 10 transects across the cell surface. Inspect for local depressions, regional departures from planar surfaces, and shifts in intersections (vertices) of cell surface planes. Inspect for vertical shear of the cover layers indicated by sudden, abrupt steps that exceed an approximately 6-inch change of surface level over no more than 10 feet distance.  B. During 5-Year Review Inspections (Beginning 2005 and at 5-year Intervals): Conduct an aerial mapping survey with a vertical resolution not less precise than 0.5 feet. Produce and record maps and survey data for the cell surface represented by 1.0 foot contour intervals. Evaluate the data for indications of settlement. Consider the position and spacing of contour lines as indications of elevation change and possible settlement.  Remarks The inspectors walked the ten transects, not all lery minor clips in a few new locations. The color of the rock was dauku in many locartions through the local of the lo
	and along 10 transects across the cell surface. Inspect for local depressions, regional departures from planar surfaces, and shifts in intersections (vertices) of cell surface planes. Inspect for vertical shear of the cover layers indicated by sudden, abrupt steps that exceed an approximately 6-inch change of surface level over no more than 10 feet distance.  B. During 5-Year Review Inspections (Beginning 2005 and at 5-year Intervals): Conduct an aerial mapping survey with a vertical resolution not less precise than 0.5 feet. Produce and record maps and survey data for the cell surface represented by 1.0 foot contour intervals. Evaluate the data for indications of settlement. Consider the position and spacing of contour lines as indications of elevation change and possible settlement.
	mapping survey with a vertical resolution not less precise than 0.5 feet. Produce and record maps and survey data for the cell surface represented by 1.0 foot contour intervals. Evaluate the data for indications of settlement. Consider the position and spacing of contour lines as indications of elevation change and possible settlement.
	Remarks The inspectors walked the ten transcets, noticed yeary minor dips in a few new locations. he color of the rock was decker in many locations, thought to be caused by moisture.
2.	Rock Cover Signs of degradation
	B. During 5-Year Review Inspections (Beginning 2005 and at 5-year Intervals): Inspect cell cover for gradation changes by walking 10 transects across the cell.  Concentrations of degraded, split, or weathered pieces of limestone will be mapped, photodocumented and visually assessed as a percentage of rock exposed within each mapped area. If degraded rock is evenly distributed, inspectors will estimate the overall percentage of degraded rock. If the amount of degraded rock appears to be increasing, based on a review of previous annual rock quality assessments, additional monitoring or gradation testing will be performed. If rock does not appear degraded, photodocumentation of several GPS located areas will establish rock conditions for future reference.
	Remarks The 5 Rock Test Plots were compared to previous were sono to sold to previous uses photos (2003, 2006, 2008, 2007). The rocks in the first plots had not degraded or changed compared to the photos.
3.	Vegetative Growth Weeds or Plants on Cell ☐ Yes Z→No  Remarks

4.	Wet Areas/ Water Damage
٦.	Wet areas    Yes    No    Location shown on site map Areal extent
	Ponding
	Seeps ☐ Yes ☐ No ☐ Location shown on site map Areal extent
	Remarks
5.	Toe/Apron Drains Proper drainage   ✓ Yes □ No Silting □ Yes ✓ No
	Erosion
	Remarks
,	Slope Instability ☐ Location shown on site map Evidence of slope instability ☐ Yes ☐ No
6.	Slope Instability ☐ Location shown on site map Evidence of slope instability ☐ Yes ☐ No
	Remarks
7.	Leachate Collection and Removal System
	Properly secured/locked Functioning Routinely sampled Good condition
	LCRS flow rates Review data trending and Action Leakage Rate
	Sump Containment System (Burrito) flow rates Burrito flow rate issues
	Compliance with MSD Agreement Exeview shipping records
	Data Issues ☐ Yes ☐ No Flow Rate Issues ☐ Yes ☐ No
	Remarks
8.	Condition of 300 Ft. Buffer Zone Erosion   ✓ Yes □ No
0.	
	Remarks
	/
9.	Condition of Prairie Erosion Ves   No
	Remarks Prairie is becoming established.
	IX. GROUNDWATER MONITORING
1.	Disposal Cell Monitoring Well Network
	Properly secured/locked Functioning Sampled in accordance with LTS&M Plan
	Good condition
	Proper ID on each well Acceptable quality of data
	Data Issues  Yes No
	Remarks MW-2032, 2046, 2017, 7051, 7055
	Williams 14[M- (026, Cox (, Cox (, Cox ), Cox )
-	

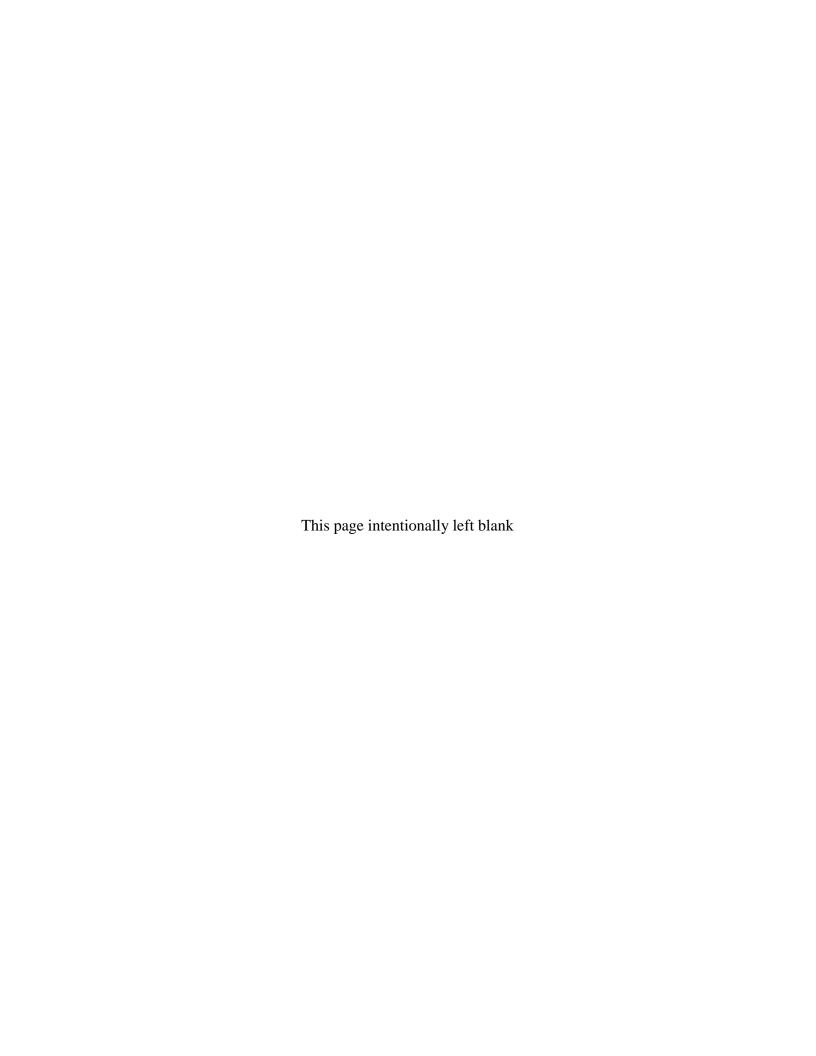
Weldon Spring Site LTS&M Plan Doc. No. S00790-1.0 Page H-12 U.S. Department of Energy December 2008

2.	Chemical Plant Groundwater Monitoring Well Network Properly secured/locked Functioning Sampled in accordance with LTS&M Plan Good condition Evidence of surface water infiltration at casing Needs maintenance Acceptable quality of data Data Issues Yes No List wells checked by number (> 10% of wells) MW_2005, Z006, Z017, Z017, Z017, Z017, Z022, Z024, Z033, Z034, Z035, Z036, Z045, Z052, Z053, Z056, Z057, Z056, Z057, Z057, Z058, Z056, Z057, Z057, Z058, Z056, Z057, Z057, Z058, Z056, Z057, Z057, Z058, Z057, Z057, Z058, Z057, Z058, Z057, Z058, Z057, Z057, Z058, Z057, Z057
3.	Quarry Monitoring Well Network  Properly secured/locked & Functioning Sampled in accordance with LTS&M Plan  Good condition
	Remarks
	X. OVERALL OBSERVATIONS
Impler	mentation of the Remedies
	Describe issues and observations relating to whether the remedies are effective and functioning as designed.  N/A.
Adoan	any of O&M
Auequ	Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedies.

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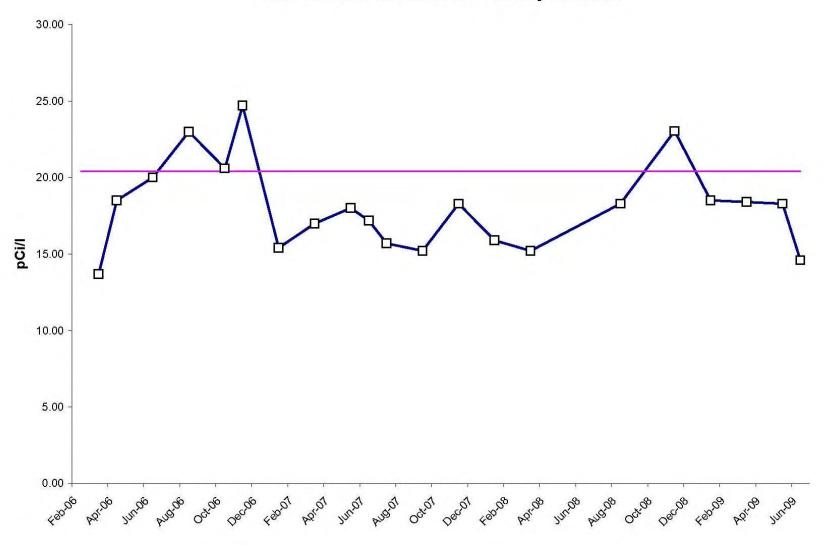
	requency of unscheduled repairs that suggest that the protectiveness of one or more of the remedies made compromised in the future.
-	N/A
-	
_	*
-	
-	
_	
-	
_	
_	
rtun	ities for Optimization
D	escribe possible opportunities for optimization in monitoring tasks or the operation of the remedies.
_	
_	
-	7,000
_	
_	
	The second secon

Appendix D LCRS Data



# **PRIMARY LEACHATE FLOW Daily Averages** 140 120 100 Primary Leachate (Gallons/Day) 80 60 40 20 0 Oct.08 40408 OREOR Octo, Mara, Deco, Mara, Esta, Mera, Mara, Mara, Mira, , my bridge 26th ( Stell Copy of Marco Policy Marco, Pilling Prilog Prodo, 28th Octros Month-Yr

# **Total Uranium Levels in the Primary Leachate**

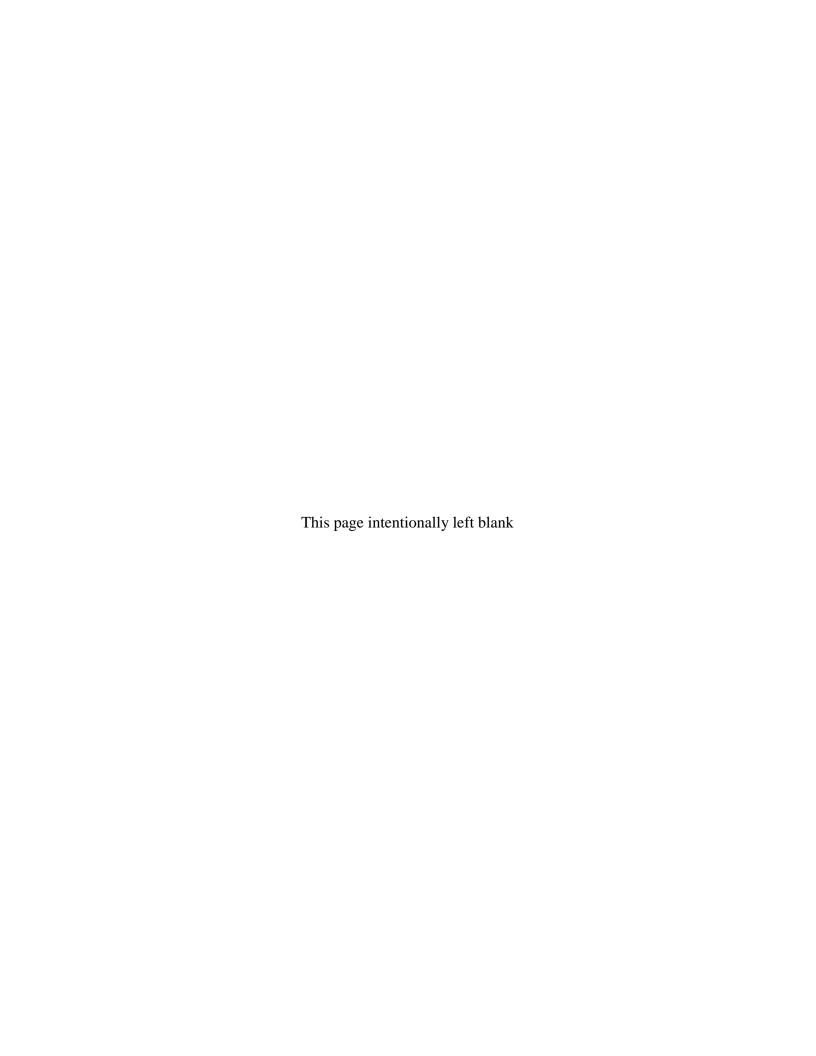


# LCRS Summary of Flow Data - October 2007 to October 2009

Month/ Year	Days	Sump Volume Start (gal)	Sump Volume End of Month (gal)	Transferred from sump (gal)	Transferred to Sump from the Burrito (gal)	Purge water transferred to Sump (gal)	East Secondary Total per Month (gal)	West Secondary Total per Month (gal)	Primary Leachate Total Volume per month (gal)	Primary Leachate (gal/day)	East Secondary (gal/day)	West Secondary (gal/day)	Burrito Flow (gal/day)	Leachate Flow Rate from Primary, Secondary and Burrito	Combined Secondary and Burrito Water Leak Rate (gal/acre/day)
Oct-07	31	2,235	6,091	0	218	0	109	17	3513	113	3.5	0.5	7.0	124	0.42
Nov-07	30	6,091	2,294	7,484	189	0	107	24	3367	112	3.6	0.8	6.3	123	0.40
Dec-07	31	2,294	6,147	0	208	0	105	16	3524	114	3.4	0.5	6.7	124	0.40
Jan-08	31	6,147	810	9,229	188	0	108	17	3579	115	3.5	0.5	6.1	126	0.38
Feb-08	29	810	4,240	0	148	0.	91	14	3177	110	3.1	0.5	5.1	118	0.33
Mar-08	31	4,240	2,145	5,917	131	41	105	14	3531	114	3.4	0.5	4.2	122	0.34
Apr-08	30	2,145	5,868	0	156	0	96	14	3457	115	3.2	0.5	5.2	124	0.37
May-08	31	5,868	8,168	1,547	186	48	102	17	3495	113	3.3	0.5	6.0	123	0.41
Jun-08			3,559	8,288	198	0	99	14	3368	112	3.3	0.5	6.6	123	0.43
Jul-08	31	3,559	7,000	0	240	0	97	16	3088	100	3.1	0.5	7.7	111	0.47
Aug-08	31	7,000	1,778	9,168	246	22	100	15	3563	115	3.2	0.5	7.9		0.49
Sep-08			5,317	0	259	0	127	17	3136	105	4.2	0.6	8.6		0.56
Oct-08			8,835	0	203	0	87	19	3209	104	2.8		6.5		0.42
Nov-08			5,104	7,056	188	20	87	12	3018	101	2.9		6.3	110	0.40
Dec-08			8,755	0	198	0	92	18	3343	108	3.0	0.6	6.4	118	0.41
Jan-09	31	8,755	3,417	8,710	157	0	87	14	3114	100	2.8	0.5	5.1	109	0.35
Feb-09		3,417	6,542	0	125	0	78	14	2908	104	2.8	0.5	4.5	112	0.32
Mar-09			2,455	7,303	154	32.8	90			94	2.9	0.5	5.0	103	0.35
Apr-09			5,493	0	176	0	83			93	2.8	0.5	5.9		0.38
May-09			2,012	7,037	195	0	77	14		105	2.5	0.5	6.3	115	0.38
Jun-09			5,338	0	220	28	86			99	2.9	0.6	7.3	110	0.45
Jul-09		5,388	1,275	7,222	268	0	86			88	2.8	0.5	8.6	100	0.49
Aug-09			4445	0	250	0	87	15		91	2.8	0.5	8.1	102	0.47
Sep-09			3398	4,486	253	55.7	82	13		101	2.7	0.4	8.4	113	0.48
Oct-09			6,509	0	292	0	83	12	2724	88	2.7	0.4	9.4	100	0.52
Nov-09									0	0	0.0		0.0	0	0.10.0
Dec-09	31	V				4			0	0	0.0	0.0	0.0	0	0.00

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Appendix E Interviews and Contacts



INTERVIEW RECORD							
Site Name: Weldon Spring Site	EPA ID No.: MO6210022830						
<b>Subject: Annual Inspection</b>			Time: 10:00	Date: 10/12/09			
Type: _x Telephone Visit Location of Visit:	Other		Incoming <u>x</u>	Outgoing			
	Contact 1	Made By:					
Name: Terri Uhlmeyer	Title: Complianc	e Manager	Organization: SM	M Stoller, Corp.			
	Individual	Contacted:					
Name: Marsha Miller	Title: Facility Ma	nager	Organization: An	rmy			
Telephone No: 636-329-1200 ext. 24 Fax No: E-Mail Address:	01	Street Address: 7301 Hwy. 94 South City, State, Zip: St. Charles, MO 63304					
	Summary Of	Conversation					
I contacted Marsha Miller of the 89 <sup>th</sup> her that DOE would be conducting the told her we would be driving around of She said we should check in at the gargoing on at the Army during that time notified me that the Army should beg	e annual LTS&M ir on the Army site and te and she would pu that would preclud	aspection at the Wel d inspecting our we t us on their calendate e our inspection and	Idon Spring Site on Ils and survey monu ar. I asked if there d she said there was	October 27-29. I uments and pins. was anything			

INTERVIEW RECORD							
Site Name: Weldon Spring Site	EPA ID No.: MO6210022830						
Subject: Annual Inspection			Time: 10:40 am	Date: 10/13/09			
Type: _x Telephone Visit Location of Visit:	Other		Incoming <u>x</u>	Outgoing			
	Contact I	Made By:					
Name: Terri Uhlmeyer	Title: Compliance	e Manager	Organization: SN	A Stoller, Corp.			
	Individual	Contacted:					
Name: Peter Sheehan	Title: Environme Health Manager	ental Public	Organization: St	. Charles County			
Telephone No: 636-949-7406 Fax No: E-Mail Address: psheehan@sccmo.	org		01 North Second S St. Charles, MO 6				
	Summary Of	Conversation					
I contacted Peter Sheehan, Environme conducts an annual Long-Term Surve we would be contacting certain stakel concerns or issues about the site. I intand that if he had any questions or issuemail with my contact information an	illance and Mainten nolders to maintain of formed Mr. Sheehan ues to contact me at	ance inspection eac contact with them and that our inspection any time. I follow	th year and as part on the determine if the this year would be	of the inspection hey had any e on October 27-29			

INTERVIEW RECORD						
Site Name: Weldon Spring Site	EPA ID No.: MO6210022830					
Subject: Annual Inspection			Time: 9:30 am	Date: 10/15/09		
Type: _x Telephone Visit Location of Visit:	Other		Incoming <u>x</u>	Outgoing		
	Contact I	Made By:				
Name: Terri Uhlmeyer	Title: Compliance	e Manager	Organization: SI	M Stoller, Corp.		
	Individual	Contacted:				
Name: Wayne Anthony	Title:		Organization: St. Planning and Zon			
Telephone No: 636-949-7900 x7221 Fax No: E-Mail Address:		Street Address: City, State, Zip:				
	Summary Of	Conversation				
Fax No: E-Mail Address:		the county's maste on on October 27-29 r mile surrounding	er plan. I informed N 9 and I asked him it the chemical plant a	Ir. Anthony that f there were any		

INTERVIEW RECORD						
Site Name: Weldon Spring Site			EPA ID No.: MO	6210022830		
Subject: Annual Inspection			Time: 10:00 am	Date: 10/21/09		
Type: Telephonex_ Visit Location of Visit: Weldon Spring Sit	Other		Incoming0	Outgoing		
Contact Made By:						
Name: Terri Uhlmeyer	Title: Compliance	e Manager	Organization: SI	M Stoller, Corp.		
	Individual	Contacted:				
Name: Randy Thompson	Title: Data Mana	ger	Organization: SI	M Stoller, Corp.		
Telephone No: 636-926-7040 Fax No: 636-447-0803 E-Mail Address: randy.thompson@	gjo.doe.gov	Street Address: V City, State, Zip:	Veldon Spring Site	;		
I interviewed Randy Thompson, Data Manager at the Weldon Spring Site. The interviewing of the data manager is a requirement included in the Annual Inspection Checklist.  1. What is the current status of data validation/reporting? Data validation and review is completed for data through June 2009. The data validation and review is being worked for samples collected during August and September 2009. The 2009 reports are in various stages of the review process.  2. How is the data reported? After data validation and review, the qualification flags are applied and the data is then available on the LM/Weldon Spring website the next day. We continue to prepare data validation reports and the yearly data are summarized in the annual environmental report.  3. What is the current status of the data on the website? Are we meeting our 90-day commitment as stated in the LTSM? Yes, we are meeting our 90-day commitment. The data are reviewed and validated through June 2009 and are available online. The August and September 2009 data are being validated and will be released shortly.  4. Are there any trends that show contaminants increasing or decreasing? Trend analysis is performed annually and summarized for the Annual Site Environmental Report.						

## **INTERVIEW RECORD** Site Name: Weldon Spring Site EPA ID No.: MO6210022830 **Subject: Annual Inspection** Time: 1:40 pm Date: 10/12/09 **Type:** <u>x</u> Telephone \_\_\_ Visit Other \_\_ Incoming <u>x</u> Outgoing **Location of Visit: Contact Made By: Title: Compliance Manager** Organization: SM Stoller, Corp. Name: Terri Uhlmeyer **Individual Contacted: Organization: Francis Howell** Name: Randy Carter **Title: Assistant Principal High School** Street Address: 7001 Hwv 94 South Telephone No: 636-851-4080 x4701 Fax No: City, State, Zip: St. Charles, MO 63304 E-Mail Address: **Summary Of Conversation** I contacted Randy Carter, the assistant principal of Francis Howell High School, as he had been my contact for the last 3 years, and explained that DOE would be conducting an annual Long-Term Surveillance and Maintenance inspection each year and as part of the inspection we contact certain stakeholders, such as the Francis Howell High School to maintain contact with them and to determine if they had any concerns or issues about the site. I informed Mr. Carter that this year our inspection would be October 27-29. He stated that they did not have any concerns at this time. I also reminded him of our interpretive center and that we were always available should any questions or concerns arise. He asked about the interpretive center hours and if there would be someone there available to give a tour for students. I told him we frequently have field trips here and the FHHS students would be welcome at any time. I emailed him a copy or the Weldon Spring Site activity brochure and the address for the site website.

INTERVIEW RECORD							
Site Name: Weldon Spring Site	EPA ID No.:MO6210022830						
Subject: Annual Inspection			Time: 2:30 pm	Date: 10/21/09			
Type: _x Telephone Visit Location of Visit:	Other		Incoming x	Outgoing			
	Contact I	Made By:					
Name: Terri Uhlmeyer	Title: Compliance	e Manager	Organization: SN	A Stoller, Corp.			
	Individual	Contacted:					
Name: Missy	Title:		Organization: Si	mplex/Grinnell			
Telephone No: 888-746-7539 Fax No: E-Mail Address:		Street Address: City, State, Zip:					
	Summary Of	Conversation					
I contacted Simplex/Grinnell, the alar correct three people as contacts and the							

## **INTERVIEW RECORD** Site Name: Weldon Spring Site EPA ID No.: MO6210022830 Time: 10:00 Date: 10/21/09 **Subject: Annual Inspection Type:** <u>x</u> Telephone \_\_\_ Visit Other \_\_ Incoming <u>x</u> Outgoing **Location of Visit: Contact Made By:** Title: Compliance Manager Organization: SM Stoller, Corp. Name: Terri Uhlmeyer **Individual Contacted:** Name: Jim Hudson Title: Captain **Organization: St. Charles County Sheriff Office** Telephone No: 636-949-7325 **Street Address:** Fax No: 636-949-7525 City, State, Zip: E-Mail Address: **Summary Of Conversation** I contacted Captain Jim Hudson of the St. Charles County Sheriff's Office and informed him that the annual LTS&M inspection would be taking place on October 27-29, 2009. I had talked to Captain Hudson the last seven years and reminded him that we would be contacting the Sheriff's office annually to keep in contact with them and check to see if they had any issues or concerns. Captain Hudson said he did not know of any concerns at this time. I informed him that I had in years past discussed vandalism issues with fireworks and other items on the disposal cell. I also told him as I had last year that in addition to signs that said the cell was closed at night and a security camera system which we had installed prior to last years inspection, that during the summer of 2007 we had hired a security firm to patrol on the weekends and one random week night and that the majority of the vandalism had been curtailed. I also informed him again that we had posted signs in the parking lot that stated "No High School or Commuter Parking" and our problems with the high school students driving excessively fast and dangerously in our parking lot had also been curtailed.

INTERVIEW RECORD						
Site Name: Weldon Spring Site	EPA ID No.: MO	6210022830				
<b>Subject: Annual Inspection</b>			Time: 1:00 pm	Date: 10/14/09		
Type: _x Telephone Visit Location of Visit:	Other		Incoming _x_	Outgoing		
	Contact I	Made By:				
Name: Terri Uhlmeyer	Title: Compliance	e Manager	Organization: SM	I Stoller, Corp.		
	Individual	Contacted:				
Name: Doyle Brown	Title: Policy Coor	dinator	Organization: Mi Department of Co			
Telephone No: 573-522-4115 x3355 Fax No: E-Mail Address:		Address: P.O. Box 180 City, State, Zip: Jefferson City, Mo 65102				
	Summary Of	Conversation				
I contacted Doyle Brown of the Misso conducts an annual Long-Term Surve we would be contacting certain stakeh or planned institutional controls and to Brown that our inspection this year wand the agenda. He stated that he plan planned easement with MDC and the	illance and Mainten holders to maintain of o determine if they lould be on October ned to attend the fir	ance inspection each contact with them and any concerns or 27-29. He had been st day of the inspection	h year and as part of the discuss the instruction issues about the site of copied on the 30-dition. We discussed	f the inspection titutional controls e. I informed Mr. lay notification		

## **INTERVIEW RECORD** Site Name: Weldon Spring Site EPA ID No.: MO6210022830 **Subject: Annual Inspection** Time: 10:15 am Date: 10/15/09 **Type:** <u>x</u> Telephone \_\_\_\_ Visit Other \_\_ Incoming <u>x</u> Outgoing **Location of Visit: Contact Made By:** Title: Compliance Manager Organization: SM Stoller, Corp. Name: Terri Uhlmeyer **Individual Contacted:** Name: Jim Gremaud Title: St. Charles County Area **Organization: Missouri** Engineer **Department of Transportation** Telephone No: 636-240-5277 Address: 6780 Old Hwy. N Fax No: City, State, Zip: St. Charles, Mo 63304 E-Mail Address: **Summary Of Conversation** I contacted Jim Gremaud of the Missouri Department of Transportation. I explained to Jim that DOE conducts an annual Long-Term Surveillance and Maintenance inspection each year and as part of the inspection we would be contacting certain stakeholders to maintain contact with them and to determine if they had any concerns or issues about the site. I informed Jim that our inspection this year would be on October 27-29. Jim had been copied on the 30-day notification and the agenda. I inquired about the local MDOT and the training we had committed to give them and informed him that Kevin Wideman had planned to bring a local supervisor and superindent on the inspection and that would assist me in complying with the commitment we had made to train the local MDOT employees on the culverts. Mr. Gremaud also stated that they had hired an additional local superintendent who is undergoing MDOT training, but would be available in a couple months and he requested that I contact him in December to set up a training session for the entire local staff.

## **INTERVIEW RECORD** Site Name: Weldon Spring Site EPA ID No.: MO6210022830 **Subject: Annual Inspection** Time: 8:30 pm Date: 10/13/09 Visit Other **Type:** X Telephone \_\_ Incoming <u>x</u> Outgoing **Location of Visit: Weldon Spring Site Contact Made By:** Title: Compliance Manager Organization: SM Stoller, Corp. Name: Terri Uhlmeyer **Individual Contacted:** Name: John Vogel Title: Area Manager Organization: August A. Busch **Memorial Conservation Area,** Missouri Dept. of Conservation Telephone No: 636-300-1953 ext. 318 Street Address: 2360 Hwy D City, State, Zip: St. Charles, MO 63304 Fax No: E-Mail Address: **Summary Of Conversation** I contacted John Vogel, to notify him of the annual inspection that was going to take place on October 27-29, 2009. DOE had previously sent John a copy of the notification and agenda for the inspection. He said he planned to participate in the inspection of the Southeast Drainage and thought that Doyle Brown would also be participating. He said that the only hunting that would be going on, would be the possibility of squirrel hunters in the area. I discussed the status of our pending institutional controls with MDC. I asked John if he knew of any land or groundwater use in the planned groundwater restriction area that had taken place that would affect the future institutional controls in that area and he stated that there had not been any of this activity. He said he did not have any concerns at this time.

## **INTERVIEW RECORD** Site Name: Weldon Spring Site EPA ID No.: MO6210022830 **Subject: Annual Inspection** Time: 9:30 am Date: 10/14/09 **Type:** <u>x</u> Telephone \_\_\_ Visit Other \_\_ Incoming <u>x</u> Outgoing **Location of Visit: Contact Made By:** Title: Compliance Manager Organization: SM Stoller, Corp. Name: Terri Uhlmeyer **Individual Contacted:** Name: Kevin Wideman Title: Sr. Environmental **Organization: Missouri Specialist Department of Transportation** Address: P.O. Box 270 **Telephone No: 573-526-4171** Fax No: City, State, Zip: Jefferson City, Mo 65102 E-Mail Address: **Summary Of Conversation** I contacted Kevin Wideman of the Missouri Department of Transportation. I explained to Kevin that DOE conducts an annual Long-Term Surveillance and Maintenance inspection each year (which he attended last year) and as part of the inspection we would be contacting certain stakeholders to maintain contact with them and to determine if they had any concerns or issues about the site. I informed Mr. Wideman that our inspection this year would be on October 27-29. Kevin had been copied on the 30-day notification and the agenda. He stated that he planned to attend the first day of the inspection and was bringing a local superintendent and supervisor with him and their main interest would be the Hwy 94 and Hwy. D culverts. I told him that would assist me in complying with the commitment we had made to train the local MDOT employees on the culverts.

## **INTERVIEW RECORD** Site Name: Weldon Spring Site EPA ID No.: MO6210022830 **Subject: Annual Inspection** Time: 9:00 am Date: 10/26/09 **Type:** <u>x</u> Telephone \_\_\_\_ Visit Other \_\_ Incoming <u>x</u> Outgoing **Location of Visit: Contact Made By: Title: Compliance Manager** Organization: SM Stoller, Corp. Name: Terri Uhlmeyer **Individual Contacted: Title: Assistant Fire Chief Organization: Cottleville Fire** Name: Mark Boehle Dept Street Address: PO Box 385 Telephone No: 636-447-6655 ext. 8703 Fax No: City, State, Zip: Cottleville, MO 63338 E-Mail Address: **Summary Of Conversation** I contacted Mark Boehle of the Cottleville Fire Department and informed him that DOE would be conducting the Long-Term Surveillance and Maintenance annual inspection at the Weldon Spring Site on October 27-29, 2009. I told him that as we discussed the last couple years, DOE would be conducting this inspection every year and would use this call in the future to keep in contact with the Cottleville Fire Department and to find out if they have any concerns or issues. He asked about the status of the site and I discussed our current status and what has been going on at the site. He said he did not know of any concerns at this time but would like to come out to tour the site, since it has been awhile since he has done that. I also discussed the October 30, Uranium Workers event with

INTERVIEW RECORD							
Site Name: Weldon Spring Site			EPA ID No.: MO	6210022830			
<b>Subject: Annual Inspection</b>			Time: 1:30 pm	Date: 10/21/09			
Type: _x_ Telephone Visit Location of Visit:	Other		Incoming _x_	Outgoing			
	Contact I	Made By:					
Name: Terri Uhlmeyer	Title: Compliance	e Manager	Organization: SM	I Stoller, Corp.			
	Individual	Contacted:					
Name: Mary Bryan	Title: Real Estate	e Manager Organization: MDNR-Park					
Telephone No: 573-751-7987 Fax No: E-Mail Address:		Street Address: PO Box 176 City, State, Zip: Jefferson City, MO 65102					
	Summary Of	Conversation					
Maintenance inspection each year and maintain contact with them, to discuss informed Ms. Bryan that our inspectic Quinn Kellner. We discussed the progan easement with MDNR-Parks and that she did not have any concerns at the transfer of the program of the progra	s the ICs and to dete on this year would b gress that has been a hat the easement had	ermine if they had and e on October 27-29 made concerning the	ny concerns or issue  I told her that I ha  i institutional contro	es about the site. I ad also contacted ol in the form of			

INTERVIEW RECORD							
Site Name: Weldon Spring Site	EPA ID No.: MO6210022830						
<b>Subject: Annual Inspection</b>			Time: 2:50 am	Date: 10/13/09			
Type: _x Telephone Visit Location of Visit:	Other		Incoming <u>x</u>	Outgoing			
	Contact Made By:						
Name: Terri Uhlmeyer	Title: Compliance	e Manager	Organization: SN	A Stoller, Corp.			
	Individual	Contacted:					
Name: Quinn Kellner	Title: Natural Re	source Manager	Organization: M	DNR-Parks			
	Jones-Confluence	e State Parl					
Telephone No: 636-899-1135 Fax No: E-Mail Address:		Street Address: PO Box 67 City, State, Zip: West Alton, MO 63386					
	Summary Of	Conversation					
I contacted Quinn Kellner, MDNR-Pa site on October 27-39, 2009. He had and a copy of the agenda. He stated the	been previously not	ified by copy of the	regulator 30-day n				

INTERVIEW RECORD						
Site Name: Weldon Spring Site	EPA ID No.: MO	6210022830				
<b>Subject: Annual Inspection</b>	Time: 11:00 am	Date: 10/13/09				
Type: _x_ Telephone Visit Other Location of Visit:			Incoming <u>x</u>	Outgoing		
	Contact N	Made By:				
Name: Terri Uhlmeyer	Title: Compliance	e Manager	Organization: SM	I Stoller, Corp.		
	Individual	Contacted:				
Name: Tom Blair	Title: Assistant D	District Engineer	Organization: Mi Department of To			
Telephone No: 314-340-4203 Fax No: E-Mail Address:			1590 Woodlake Dr. Chesterfield, Mo 63017			
	Summary Of	Conversation				
I contacted Tom Blair of the Missouri past 4 years, DOE conducts an annua of the inspection we would be contact they had any concerns or issues about October 27-29. He stated that he had sattending, but that he and Jim Gremau the local MDOT to attend and I told h MDOT office.	al Long-Term Surve sing certain stakehole the site. I informed seen emails concern ad would be out of to	illance and Mainter ders to maintain cor large that our large the inspection abown. He said that J	nance inspection ear ntact with them and inspection this year and that Kevin Wide im was trying to ge	ch year and as part to determine if would be on man would be t someone from		

INTERVIEW RECORD				
Site Name: Weldon Spring Site			EPA ID No.: MO6210022830	
Subject: Annual Inspection			Time: 1:10 pm	Date: 10/14/09
Type: _x Telephone Visit Other Location of Visit:			Incoming <u>x</u> Outgoing	
Contact Made By:				
Name: Terri Uhlmeyer Title: Compliance Manager		Organization: SM Stoller, Corp.		
Individual Contacted:				
Name: Joel Porath	Title: Wildlife Regional Supv.		Organization: August A. Busch Memorial Conservation Area, Missouri Department of Conservation	
Telephone No: 636-300-1953 x 226 Fax No: E-Mail Address:		Street Address: 2360 Hwy D City, State, Zip: St. Charles, MO 63304		
Summary Of Conversation				
I contacted Joel Porath and notified hi 2009. I informed him that we would be Spring, Spring 6303 and MW -4041. The MDC, and that our new DOE Read MDC in the near future and that she was keeping John Vogel informed of the interest of the	be on MDC property I discussed the pend I Estate Officer was would be here the we	y inspecting the Sor ling institutional co working on a draft	utheast Drainage, Bontrols that DOE is a casement and would	urgermeister working on with ld be sending it to

#### INTERVIEW RECORD Site Name: Weldon Spring Site EPA ID No.: MO6210022830 Time: 11:00am | Date: 10/21/09 **Subject: Annual Inspection** Telephone x Visit Other \_ Incoming \_ Outgoing **Location of Visit: Interpretive Center Contact Made By:** Organization: S.M. Stoller, Corp. Name: Terri Uhlmeyer **Title: Compliance Manager Individual Contacted:** Title: Project Manager Organization: S.M. Stoller, Corp. Name: Yvonne Deyo Street Address: 7295 Hwy. 94 South **Telephone No: 636-300-0012** City, State, Zip: St. Charles, MO 63304 Fax No: 636-447-0739 E-Mail Address: yvonne.deyo@lm.doe.gov **Summary Of Conversation** I interviewed Yvonne Deyo, the S.M. Stoller Site Manager at the Weldon Spring Site. The interviewing of the Site Manager is a requirement included in the Annual Inspection Checklist. Most of the interview questions were from the CERCLA Five-year Review Guidance. **Current Status of the Project:** Long-term surveillance and maintenance. **Any problems encountered with the remedies?** None at this time. 3. Are the remedies functioning as expected? Yes. 4. Any vandalism or trespassing issues? As discussed in the 2008 Annual Inspection interview, public use of the site is frequent. Nighttime access of the disposal cell viewing platform and other undesirable behaviors (littering, etc.) continue to be dramatically curtailed through a private security firm's seasonal patrol coverage of the site during evening hours and use of the safety-address system at the Interpretive Center. What is the current on-site presence? Describe staff and activities. There are 9 full-time contractor employees and 9 part-time contractor and subcontractor employees. Activities include long-term surveillance and maintenance operations, project management, data evaluation, operation of the interpretive center, preparation of site-related regulatory documents, support in establishment of institutional controls, support of site IT and telephone issues, landscape management and general administrative support. On-site staff also provide support on other DOE sites such as Mound, Fernald, and Pinellas and to other projects such as Reuse and Property Management. Environmental sampling personnel support sampling activities at other sites in the Legacy Management system. Are there any issues associated with the site at this time? None. Any suggestions or comments regarding annual inspection? None.

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