
Overview of the Third Quarter 2013 Surveillance and Maintenance Report for the LM Rocky Flats Site

July–September 2013

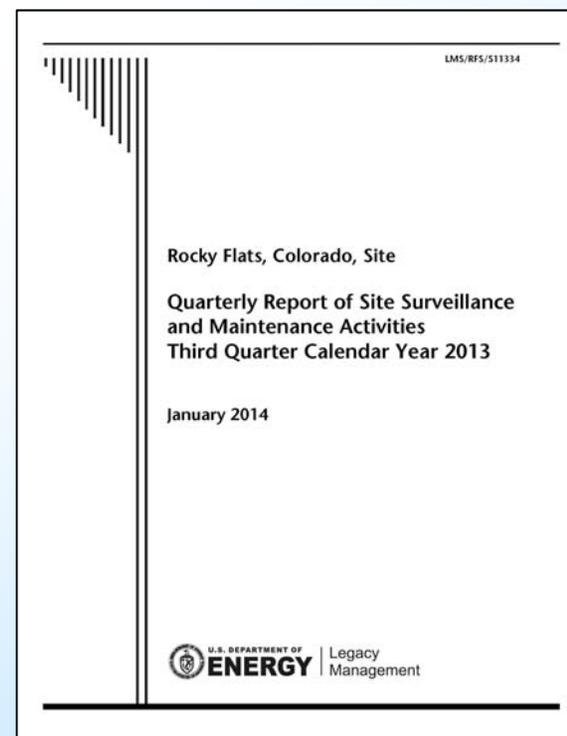


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Quarterly Monitoring and Reporting

- Quarterly reports are required under the Rocky Flats Legacy Management Agreement (RFLMA) to document that the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedy continues to be protective
 - Primary goal is protection of surface water
- Response action under the final remedy for Rocky Flats
 - Maintain two landfill covers
 - Maintain four groundwater treatment systems
 - Surface water and groundwater monitoring
 - Physical controls
 - Signage
 - Restricted access
 - Institutional controls
 - No building construction or occupation
 - Restrictions on excavation and soil disturbance
 - No consumption or agricultural use of surface water
 - No groundwater wells except for monitoring
 - Protection of landfill covers and engineered remedy components



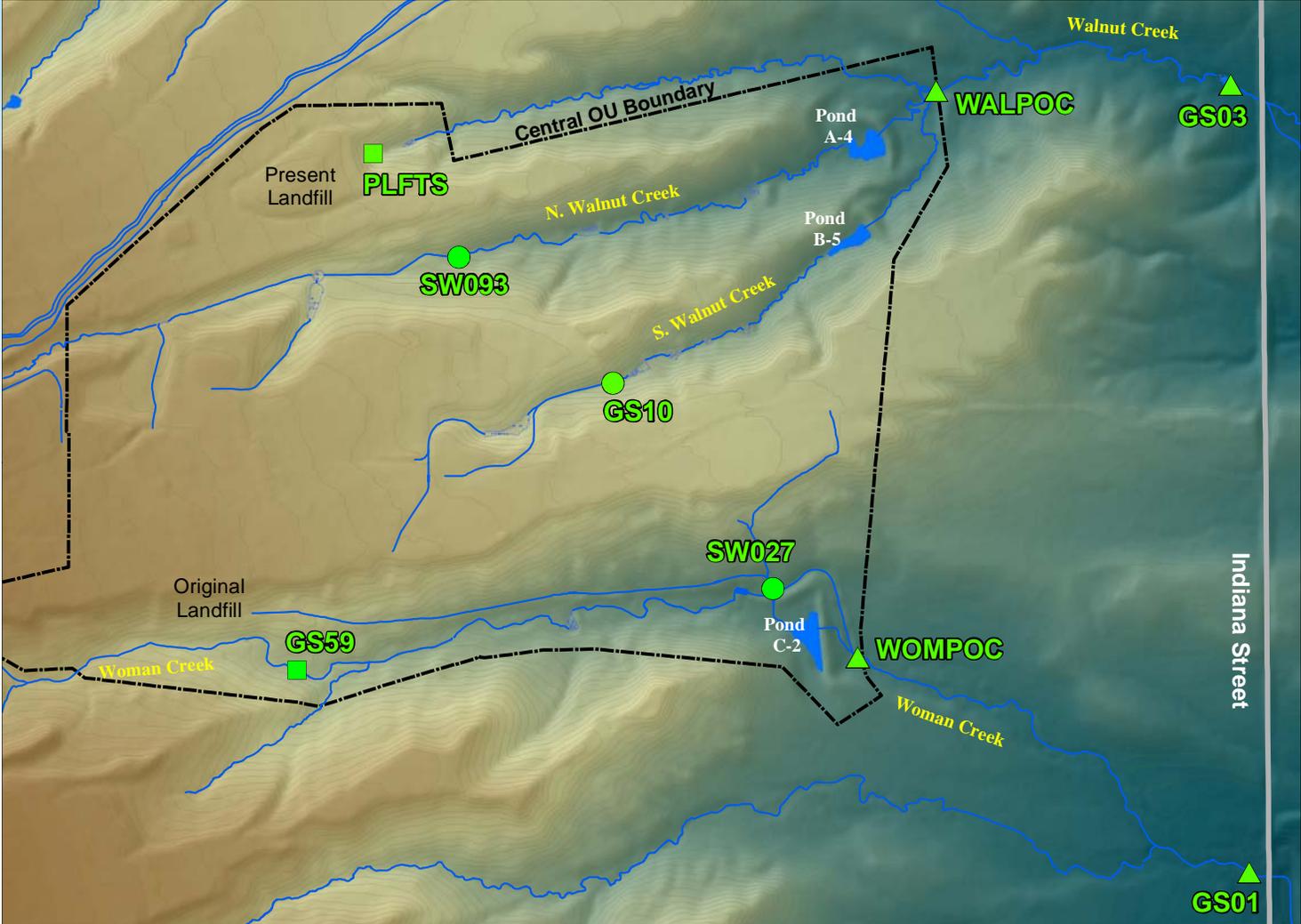
Surface Water Monitoring



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Selected RFLMA Surface Water Monitoring Locations



Performance Monitoring at OLF and PLF

- OLF
 - All sampling results met water quality standards during the quarter
- PLF
 - For the routine sample collected from the system effluent on August 15, 2013, arsenic (As) was measured at 11 $\mu\text{g/L}$ (the standard is 10 $\mu\text{g/L}$)
 - The result prompted As sampling to be done on a more frequent, monthly basis
 - Arsenic continued to be detected above the standard in the first two monthly samples; results for the third monthly sample are pending

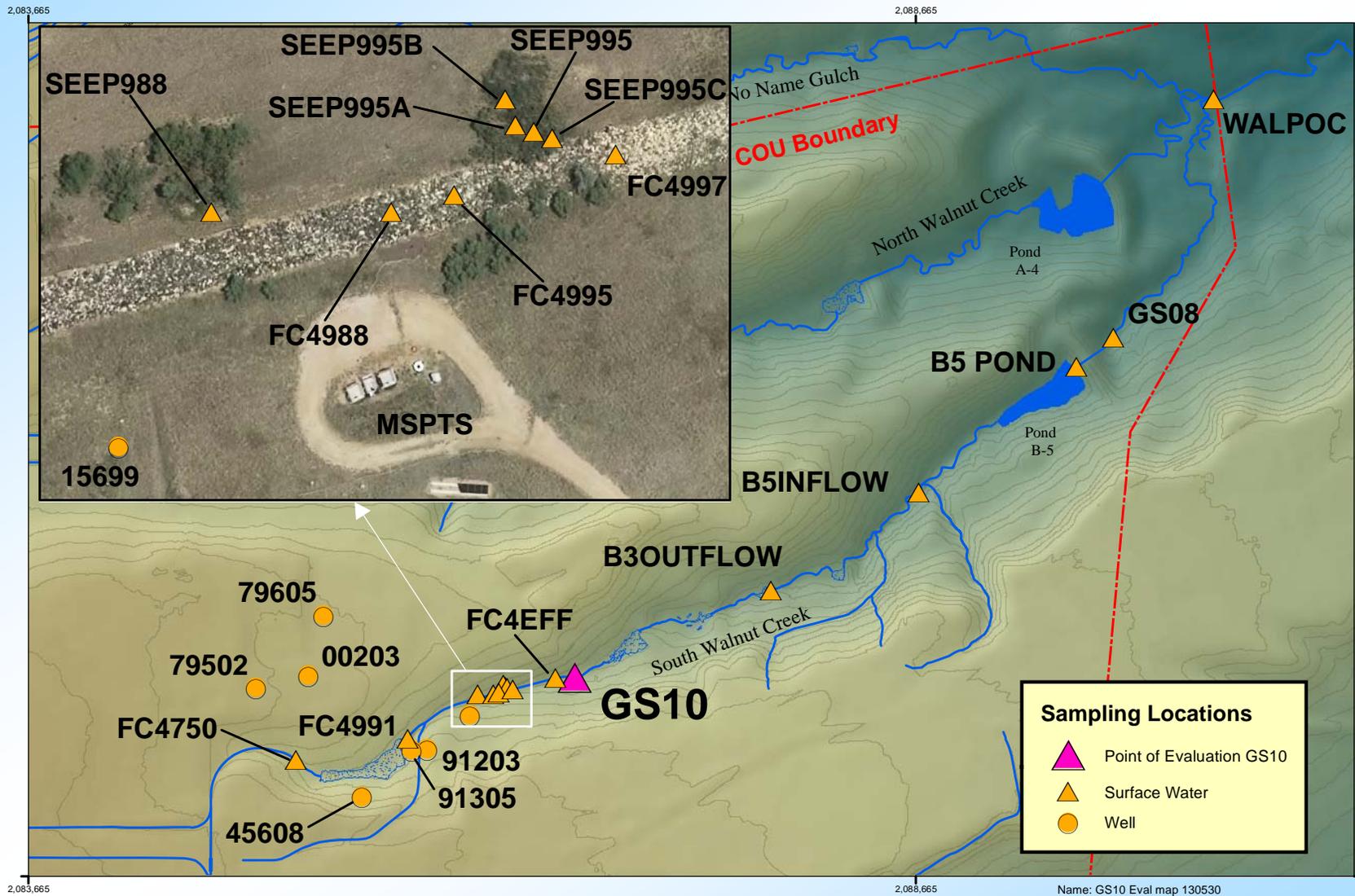


Point of Evaluation Monitoring – GS10

- Reportable 12-month rolling average values for americium, plutonium, and uranium at GS10 were observed during the quarter
- Additional sampling is being conducted both upstream and downstream of GS10
- As of September 30, 2013, uranium is no longer reportable



GS10 Investigation Monitoring



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Questions?



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Groundwater Monitoring and Operations



Third Quarter 2013



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RFLMA Monitoring

- Light quarter
 - Third quarter (same as first quarter)
 - Only sampled RCRA wells
 - PLF
 - OLF
- Statistical evaluation of results will be included in annual report for 2013



Non-RFLMA Monitoring

- Treatment systems
 - MSPTS: air stripper evaluations and optimization
 - ETPTS: air stripper evaluations and optimization
 - SPPTS: microcells and lagoons



Treatment System Activities

■ MSPTS and ETPTS

- MSPTS air stripper: cleaned pump (biofouled)
- ETPTS air stripper
 - Replaced 10 small nozzles with single larger nozzle
 - Pump malfunctioned in September (clogged with scale)
 - Reconfigured and replaced with two pumps of a different design

■ SPPTS

- Completed several microcell tests
 - ZVI, steel wool, mixtures
- Continued to increase flow through pilot-scale lagoons
 - At end of quarter, testing residence times of 3-4 days in Cell B
- Heavy September rains affected the system
 - Vaults flooded, affecting electronics and dosing
 - Several phases of repairs and modifications; back online October 1



Questions?



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SITE OPERATIONS

Third Quarter 2013

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Quarterly Sign Inspections

- RFLMA physical control
- All signs are in good condition



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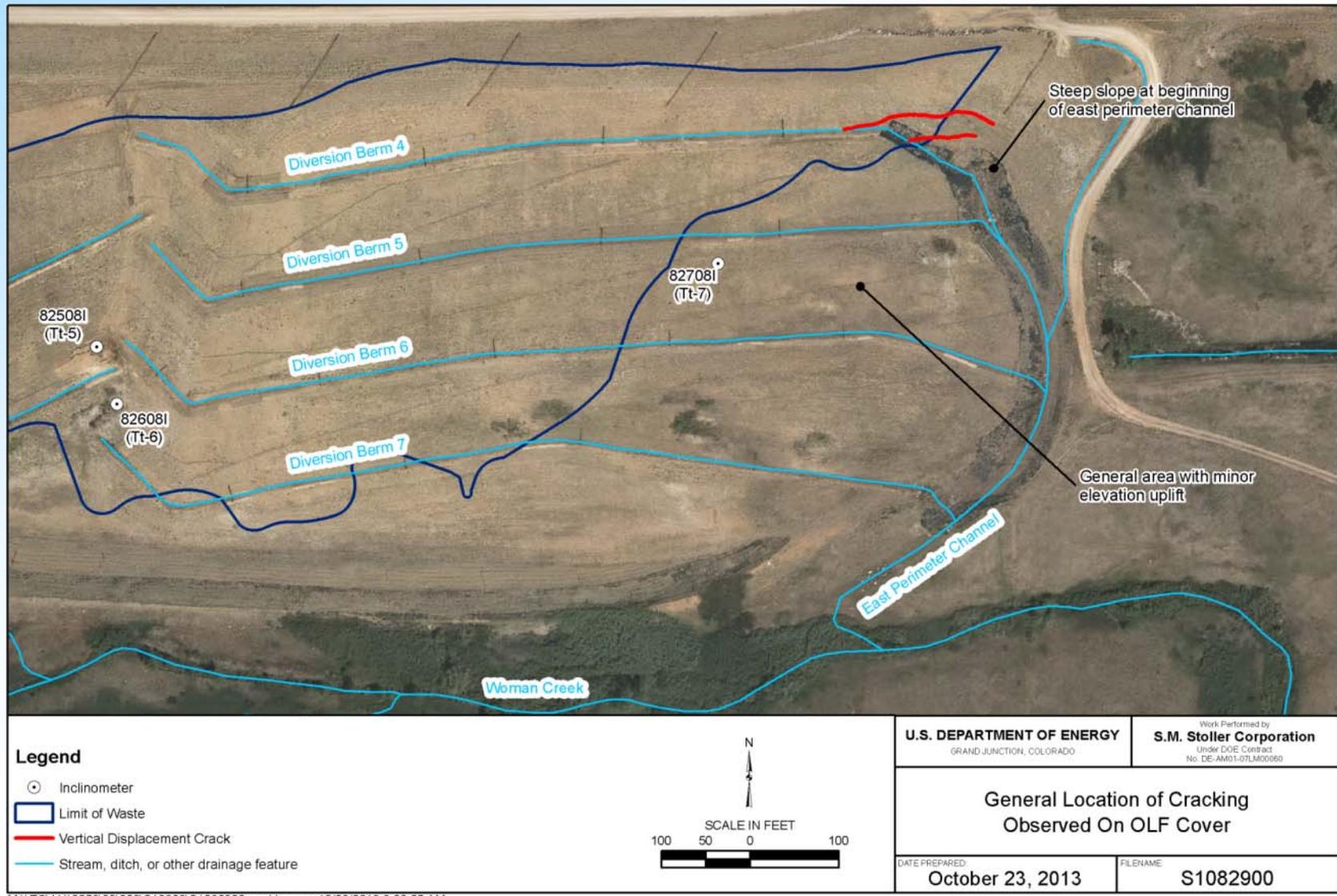
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Site Operations – OLF

- Three monthly inspections performed; weekly inspections of slumping areas
- Eight settlement monuments and seven inclinometers monitored



OLF Cracking/Settling



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OLF Reportable Condition Evaluation

- Contact Record 2013-02 posted to public website on October 24
- Geotechnical engineer observed conditions September 24
 - Technical memorandum of evaluation and recommendations provided in Contact Record 2013-02
- Similar localized cracking and movement on west side of OLF noted in 2007; geotechnical investigation completed in 2008
 - Distress generally includes small-scale, localized slump features originating in comparatively weak clay layer underlying OLF
 - Heavy precipitation can result in moisture penetrating this layer and reduce stability; large-scale slope failure unlikely
- Filling the East Perimeter Channel steep headwall and grading to improve runoff will help stabilize the area



Planned OLF East Perimeter Channel Filling and Grading

- Design drawings for filling and grading approved by CDPHE
- Contact Record 2013-03, with approved *Soil Disturbance Review Plan*, posted to public website on November 27
 - Soil disturbance cannot occur earlier than 10 days after posting the Contact Record
- Severe cold spells and snow in December and early January; planning for early spring start
- Continue weekly monitoring of area and also after significant storm events
- Routine maintenance to fill/tamp cracks if any occur
- Snow removal if major snow drifting occurs above distress area



Site Operations – PLF

- One quarterly inspection performed
- Annual surveys of nine settlement monuments completed in December



Site Road Repairs – Flood Response

- Repaired damaged roads sitewide
- Project duration, November 4 through 14



Questions?



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Third Quarter 2013 Ecological Monitoring Summary

- Weed mapping
- Nest box surveys
- Prairie dog surveys
- Revegetation monitoring
- PMJM mitigation monitoring
- Wetland mitigation monitoring
- Photopoint monitoring
- Herbicide applications
(approximately 62 acres treated)
- Erosion control surveys



Questions?



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