

March 10, 2014

Sent via Overnight Mail

Attn: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Mr. Drew Persinko, Deputy Director  
Decommissioning & Uranium Recovery Licensing Directorate  
Division of Waste Management & Environmental Protection  
Office of Federal and State Materials &  
Environmental Management Programs  
11545 Rockville Pike  
Rockville, MD 20852-2738

**Subject: License SUA-1341, Docket No. 40-8502  
Willow Creek Project  
March 3, 2014  
8U158-1 Injection Well Release  
Christensen Ranch Mine Unit 8**

Dear Mr. Persinko:

In accordance with License Conditions 12.2 and 9.2 of the referenced license, this correspondence serves as the written notification for a release of ISR injection fluid at the Mine Unit 8 wellfield area at Willow Creek (Christensen Ranch) located in Johnson County. The spill occurred on March 3, 2014. This area is entirely within the fenced MU-8 Controlled Area. The release was reported via email to the NRC Project Manager, Region IV personnel and WDEQ on March 4, 2014.

The details of the release are included on the attached Spill Report Summary along with a map of the location. Note that there were no significant impacts to the public, environment, wildlife or livestock.

Please contact me should you have any questions regarding this report.

Sincerely,



Tim McCullough  
Manager Site SHE

cc: Jon Winter  
Larry Arbogast  
Barry Koch  
Rick Kukura  
NRC File; Spill Reports



**Uranium One USA, Inc. - Willow Creek Project**  
**Spill Report Summary**  
**Mine Unit 8 ISR Injection Fluid Release**

**Date and Estimated Time (beginning & end)**

From: March 3, 2014 (07:52 am - estimated)

To: March 3, 2014 (10:05 am)

**Location**

Christensen Ranch Mine Unit 8

Injection Well 8U158-1

Module 8-7

Section 25, Township 45N, Range 77W

Johnson County, Wyoming

(See attached map for detailed location)

**Release Type**

ISR injection fluid

**Estimated Volume Released**

Released: Approximately 665 gallons of ISR injection fluid was released from Injection Well 8U158-1 when a pop-off valve opened up to relieve pressure and a small piece of poly shaving stuck between the plunger and the seat and did not allow the plunger to close. The injection well is located in the 8-7 Wellfield on a bench above Heldt draw that is a tributary to Willow Creek, both are ephemeral drainages. The associated leak detect with the injection well failed to alarm.

**Estimated Volume Recovered**

No fluid was recovered as the release spread out and did not pool. Additionally, it should be noted that the 665 gallon estimate is a conservative estimate as it was difficult to determine due to the recent snow melt and potential co-mingling of release solution and the snow melt runoff.

**Analysis Results of the Released Fluid**

A small volume of the released fluid was obtained on March 3, 2014 and submitted to the Willow Creek on site lab for analysis. The results were as follows:

Uranium        0.6 ppm

**Impacts**

The release followed site drainage for approximately 100 feet down the bench before dissipating (see map). It is estimated that approximately 2,115 square feet (0.05 acre) of soil was impacted. No wildlife or livestock were affected. No significant erosion resulted from the release.

### **Soil Surveys & Analysis Results**

Due to the limited extent of the release no soil samples were obtained for analysis.

### **Remediation Actions**

Due to the limited extent of the release, no remediation is anticipated at this time.

### **Explanation of the Root Cause**

A 125 psi pop-off valve opened up to relieve pressure at the well head and a small piece of poly shaving became lodged between the plunger and the seat and did not allow the plunger to close. Additionally the associated leak detect device did not go into an audible alarm as some debris caused the float to not operate properly.

### **Corrective Actions**

The well was immediately shut off and both the pop-off and the leak detect device were replaced and tested prior to returning the well to operational status.

### **Agency Reporting**

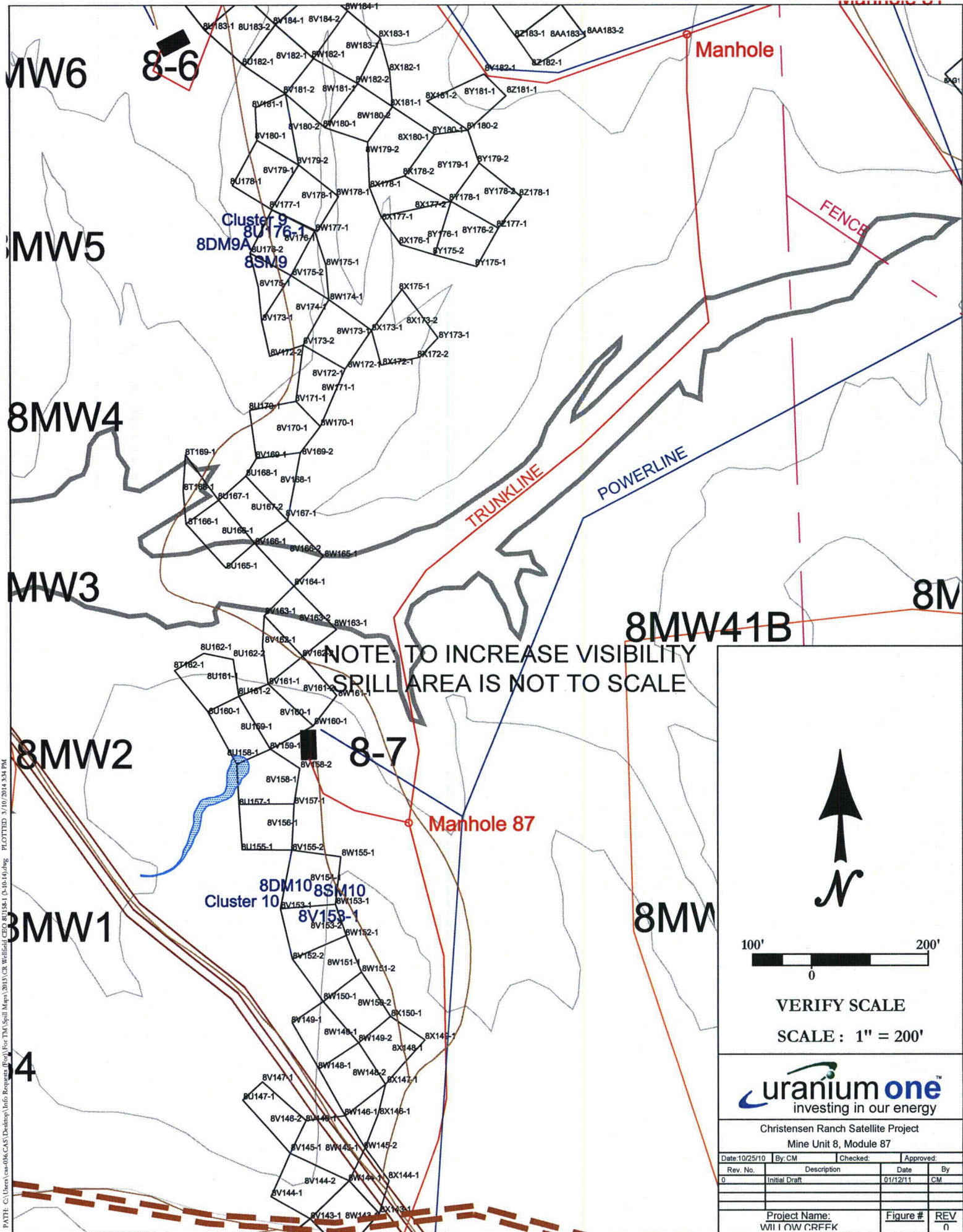
WDEQ: Luke McMahan - Permit Coordinator; March 4, 2014 (e-mail)  
Joe Hunter – Spill Coordinator; March 4, 2014 (e-mail)

NRC: Blair Spitzberg- Region IV Branch Chief; March 4, 2014 (e-mail)  
Ron Linton - Project Manager; March 4, 2014 (e-mail)  
Linda Gersey – Health Physicist, Region IV; March 4, 2014 (e-mail)

### **Map of Spill Location and Impacted Area**

Attached

The location and extent of the release is recorded in the on-site historical spill file.



NOTE: TO INCREASE VISIBILITY  
SPILL AREA IS NOT TO SCALE



VERIFY SCALE  
SCALE : 1" = 200'



Christensen Ranch Satellite Project  
Mine Unit 8, Module 87

Date: 10/25/10	By: CM	Checked:	Approved:
Rev. No.	Description	Date	By
0	Initial Draft	01/12/11	CM
Project Name: W110W CRFFK			Figure # REV n

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