



**Department of Energy**  
Washington, DC 20585

WM-00063

May 5, 2016

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Deputy Director  
Mail Stop T8-F5  
Washington, DC 20555-0001

Subject: Depression on Mexican Hat, Utah, Disposal Cell

To Whom It May Concern:

The purpose of this letter is to inform the U.S. Nuclear Regulatory Commission (NRC) of recent damage to the disposal cell at the U.S. Department of Energy Office of Legacy Management (DOE-LM) Mexican Hat, Utah, Disposal Site.

During DOE-LM's annual site inspection of the Mexican Hat disposal site, the DOE-LM site manager and the Legacy Management Support (Contractor) site lead identified several slight depressions on the northeast flank of the disposal cell near the toe of the cell, adjacent to the angular rock that constitutes the toe drain. Figure 1 (enclosed) shows the location of the depressions on the cell, including an inset enlargement showing the surveyed outline of the depressions in red and the drainage paths in blue. The outlines were generated by survey-grade GPS instruments. The depressions are assumed to be caused by minor erosion beneath the rock cover. No evidence pointing to previous construction tracks or driving on the area was noted. The depressions are scattered within an area of approximately 100 feet by 100 feet and are roughly 6 inches in depth below the top of the rock cell cover. The cell cover is composed of a 24-inch clay radon barrier, overlain by 6 inches of bedding gravel, and finished with 24 inches of rock cover. Pending further evaluation, it is postulated that bedding gravels may be eroding beneath the rock cover. Initial observations indicate that the 24-inch radon barrier has not been breached.

These depressions are an undesirable change in the cell cover integrity and will require further assessment, in accordance with Table 3-2 in Section 3.6 of the *Long-Term Surveillance Plan for the Mexican Hat, Utah (UMTRCA Title I), Disposal Site, San Juan County, Utah* (DOE-M/1530-2007).

NM5520



May 5, 2016

Please call me at (970) 248-6621 if you have any questions. Please send any correspondence to:

U.S. Department of Energy  
Office of Legacy Management  
2597 Legacy Way  
Grand Junction, CO 81503

Sincerely,

A handwritten signature in black ink, appearing to read 'Angelita Denny', with a long, sweeping horizontal stroke extending to the right.

Angelita Denny  
Site Manager

Enclosure

cc w/enclosure:

D. Orlando, NRC

J. Nofchissey, NN UMTRA (e)

M. Roanhorse, NN UMTRA (e)

A. Gil, DOE-LM (e)

S. Gutierrez, DOE-LM (e)

J. Carman, Navarro (e)

J. Gillespie, Navarro (e)

S. Marutzky, Navarro (e)

D. Miller, Navarro (e)

J. Trnka, Navarro (e)

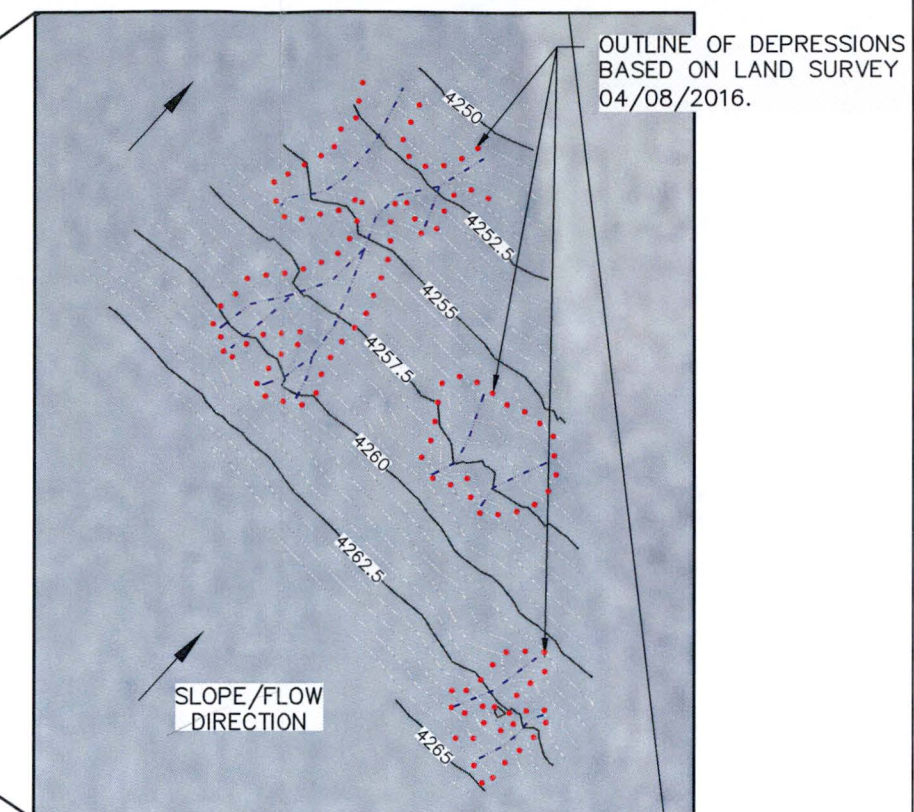
File: HAT 0030.10 (rc-grand junction)





**AREA OF CONCERN:  
MEXICAN HAT, UT, DISPOSAL SITE**

SCALE IN FEET  
400 200 0 400 800 1200



**OUTLINE OF DEPRESSIONS  
BASED ON LAND SURVEY  
04/08/2016.**

**ENLARGED AREA OF CONCERN**

SCALE IN FEET  
30 15 0 30 60 90

**EXPLANATION**

- 1 SURVEY MONUMENT AND NUMBER
- 3 SETTLEMENT PLATE AND NUMBER
- 2 BOUNDARY MONUMENT AND NUMBER
- 5210 CONTOUR
- DRAINAGE PATH
- ... SURVEYED OUTLINE OF DEPRESSIONS
- DIRT ROAD
- PROPERTY BOUNDARY
- WIRE FENCE
- SLOPE - TRIANGLE POINTS DOWNSLOPE

	<p>Work Performed Under DOE Contract No. DE-EM0000421 <b>NAVARRO</b> Navarro Research and Engineering, Inc. Contractor to the U.S. Department of Energy Office of Legacy Management</p>
<p>Figure 1</p>	<p>AREA OF CONCERN MEXICAN HAT, UT DISPOSAL SITE</p>
<p>DATE PREPARED: MAY 4, 2016</p>	<p>FILENAME: S1416000</p>