

# WILLIAMS & ASSOCIATES, INC.

P.O. Box 48, Viola, Idaho 83872

(208) 883-0153 (208) 875-0147

Hydrogeology • Mineral Resources • Waste Management • Geological Engineering • Mine Hydrology

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July 1, 1986

Contract No. NRC-02-85-008

Fin No. D-1020

Communication No. 66

Mr. Jeff Pohle  
Division of Waste Management  
Mail Stop 623-SS  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

RE: Monthly Report--June 1986

Dear Jeff:

This document constitutes the ninth monthly (June 1-30, 1986) progress report as required by Contract No. NRC-02-85-008. Williams and Associates, Inc. reviewed several documents this month for the Basalt Waste Isolation Project, for the Nevada Test Site and for the Palo Duro Basin. These document reviews are in draft and final forms. We are continuing our efforts on the required list of tasks outlined in the SOW. Details about our efforts on this contract are outlined based on Task and Subtask numbers.

WM-RES  
WM Record File  
D1020  
W&A

WM Project 10, 11, 16  
Docket No. \_\_\_\_\_  
PDR ✓  
LPDR ✓ (B, N, S)

Distribution:

J. Pohle

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NSKII

(Return to WM, 623-SS)

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PDR WMRES EECWILA  
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## TASK 1

The following work was conducted under Task 1.

### Subtask 1.1

This subtask has been completed.

### Subtask 1.2

Williams and Associates, Inc. conducted a detailed review of the Final Environmental Assessment (FEA) for Yucca Mountain during the month of June, 1986. Review of the FEA consisted of the development of a major comment dealing with travel time calculations and a perusal for DOE responses to NRC detailed comments on the draft EA.

Williams and Associates, Inc. took part in an FEA review meeting in Silver Spring, Maryland, during the week of June 15 to June 20, 1986. Most of the major comment on the Yucca Mountain FEA was completed during this meeting.

In addition to the draft EA, Williams and Associates, Inc. revisited several FEA support documents during the month of June, 1986. Several of these documents were revisited during the FEA review meeting in Silver Spring.

Williams and Associates, Inc. are completing the reviews of several additional documents. Written summaries of these documents currently are being edited. These summaries will be forwarded under separate cover.

### Subtask 1.3

Williams and Associates, Inc. is continuing to review the literature pertaining to potential conceptual models for NNWSI. We will continue to evaluate and update existing conceptual models as new data become available.

## TASK 2

The following work was conducted under Task 2.

### Subtask 2.1

This subtask has been completed.

### Subtask 2.2

Williams and Associates, Inc. conducted a detailed review of the Final Environmental Assessment (FEA) for BWIP during the month of June, 1986. Review of the FEA consisted of the development of a major comment dealing with travel time calculations and a perusal for DOE responses to NRC detailed comments on the draft EA.

Williams and Associates, Inc. took part in an FEA review meeting in Silver Spring, Maryland, during the week of June 15 to June 20, 1986. The major comment on the BWIP FEA was outlined during this meeting.

In addition to the draft EA, Williams and Associates, Inc. revisited several FEA support documents during the month of June, 1986. Several of these documents were revisited during the FEA review meeting in Silver Spring.

### Subtask 2.3

Williams and Associates, Inc. is continuing to review the literature pertaining to potential conceptual models for BWIP. We will continue to evaluate and update existing conceptual models as new data become available.

### TASK 3

The following work was conducted under Task 3.

#### Subtask 3.1

This subtask has been completed.

#### Subtask 3.2

Two documents were reviewed and written reviews were forwarded to the NRC. Written reviews were submitted for the following:

1. Harper, W.V., and Furr, J.M., April 1986, Geostatistical Analysis of Potentiometric Data in the Wolfcamp Aquifer of the Palo Duro Basin, Texas. Office of Nuclear Waste Isolation, Columbus, OH, BMI/ONWI-587.
2. The Earth Technology Corporation, March 1985, Regional Ground-Water Flow Near Richton and Cypress Creek Domes, Mississippi: Annual Status Report for Fiscal Year 1984, Contract No. E512-05700 under Contract DE-AC02-83CH10140 with U.S. Department of Energy.

Williams and Associates, Inc. conducted a detailed review of the Final Environmental Assessment (FEA) for Deaf Smith, Davis Canyon, and Richton Dome during the month of June, 1986. Review of the FEA consisted of the development of a major comment for each site dealing with travel time calculations and a perusal for DOE responses to NRC detailed comments on the draft EA.

Williams and Associates, Inc. took part in an FEA review meeting in Silver Spring, Maryland, during the week of June 15 to June 20, 1986. A draft of the major comment on the Deaf Smith, Davis Canyon and Richton Dome FEAs was completed during this meeting.

In addition to the draft EA, Williams and Associates, Inc. revisited several FEA support documents during the month of June, 1986. Several of these documents were revisited during the FEA review meeting in Silver Spring.

Williams and Associates, Inc. are completing the reviews of several additional documents. Written summaries of these documents currently are being edited. These summaries will be forwarded under separate cover.

Subtask 3.3

Williams and Associates, Inc. completed the initial requirement under this subtask with the submission of our conceptual model letter report. Williams and Associates, Inc. is continuing to review the literature pertaining to potential conceptual models for the Palo Duro Basin. We will continue to evaluate and update existing conceptual models as new data become available.

TASK 4

This task has not been initiated. We are accumulating relevant documents during the course of our other activities under Tasks 1, 2, and 3.

TASK 5

Williams and Associates, Inc. are preparing two papers for the NRC. The first paper defines "uncertainty" with respect to hydrogeologic considerations and prediction of groundwater travel times. The second paper presents our views on the relationship of scale, hydrogeologic parameter quantification, and prediction of groundwater travel time. We anticipate completing these two papers in July.

Contractual Problems

No contractual problems have arisen.

Current Expenditures

A breakdown of individual hours and charges is shown on the attached table. Cumulative costs and projected costs are shown on the second table. The attached figure illustrates projected and current cumulative costs.

Sincerely,

*Roy Williams*

Roy E. Williams

INDIVIDUAL HOURS AND CHARGES

	This Month (hours)	Cumulative (hours)	Cumulative (amount)
Roy Williams	104	624	\$ 31,200
Gerry Winter	173.3	1,559.7	29,636.4
Jeff Brown	0	358	12,530
Jim Osiensky	116	1,044	19,836
Dale Ralston	44	163	7,172
Kirk Steinhorst	14.25	14.25	527.25
Terry Eckwright	0	109	1,641
John Sharp	47.5	72.5	2,900
Charles Smith	-	-	-
George Bloomsburg	82	268	10,720
Terry Howard	-	-	-
Stanley Miller	68	167	5,845
Noel Krothe	0	7.6	380
Richard Parizek	0	25.5	1,275
Barbara Williams	88.5	88.5	1,681.5

CURRENT AND CUMULATIVE PROJECT COSTS

Task	Current Month	Cumulative to Date* FY 86	Cumulative to Date* FY 87	Total to Date*
1	\$ 13,303	\$ 72,682	\$-----	\$ 72,682
2	8,598	63,081	-----	63,081
3	14,087	71,761	-----	71,761
4	-----	-----	-----	-----
5	14,458	42,087	-----	42,087
Total	50,446			

Percentage billed to total funds allocated = 62%.

Williams and Associates, Inc.  
Viola, Idaho 83872  
Contract No. NRC-02-85-008

Cost in Dollars x 100

800  
700  
600  
500  
400  
300  
200  
100  
0

Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep  
1985 1986

Projected Costs  
Actual Costs

