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## **NNWSI HOLE HISTORIES**

**UNSATURATED ZONE - NEUTRON HOLES**

**76 BOREHOLES DRILLED**

**BETWEEN**

**MAY 1984 AND FEBRUARY 1986**

**MAY, 1987**

**FENIX & SCISSON, INC.**  
6450 SO. LEWIS STREET  
BRIDGEPORT III  
TULSA, OKLAHOMA 74136

**FENIX & SCISSON, INC.**  
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**NNWSI  
HOLE HISTORIES**

**UNSATURATED ZONE - NEUTRON HOLES**

**76 BOREHOLES DRILLED  
BETWEEN  
MAY 1984 AND FEBRUARY 1986**

**BY**

**FENIX & SCISSON, INC.**

**PREPARED FOR  
U. S. DEPARTMENT OF ENERGY  
NEVADA OPERATIONS OFFICE  
UNDER CONTRACT DE-AC08-84NV10322**

**MAY, 1987**

Prepared by Nevada Nuclear Waste Storage Investigations (NNWSI) Project Participants as part of the Civilian Radioactive Waste Management Program. The NNWSI Project is managed by the Waste Management Project Office of the U. S. Department of Energy, Nevada Operations Office. NNWSI Project work is sponsored by the U. S. Department of Energy, Office of Civilian Radioactive Waste Management, Washington D.C.

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**NNWSI Hole Histories  
Unsaturated Zone-Neutron Holes  
76 Boreholes Drilled  
Between  
May 1984 and February 1986**

**by**

**Reports and CEP Section**

**Abstract**

This is a compilation of data from seventy-four shallow alluvial exploratory core holes and two shallow calibration core holes. The boreholes were drilled to obtain undisturbed alluvial cores, to determine vertical distribution of moisture content and water potential, and to run neutron moisture logs. The holes were drilled between May, 1984 and February, 1986 in Areas 25 and 29 of the Nevada Test Site and in Bureau of Land Management land adjacent to the Nevada Test Site under the guidance of the U.S. Geological Survey. Data presented in the hole histories include all locations, daily activities and review of hole conditions.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *John Hall Coreington*  
 Date: *May 8, 1987*

Hole No.: UE-25 UZN #1		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 769,328.9' E 565,224.3'		
Ground Elev.: 3995.1'	Pad Elev.: N/A	Top Casing Elev.: 3997.5'
Bottom Hole Coord: Not surveyed @		Ref: None
Rig On Location: 10-17-84	Spudded: 10-17-84	Completed: 10-18-84
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REECO		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	50'	6"	5"	13.6#	1/4"	0'	50'	

Total Depth: 50' Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.55		0.67	1.22

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page



**TIME BREAKDOWN**

## MAIN HOLE CONSTRUCTION

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
----------------------------------	-------------------------------	---------------------------------

Drill	0.40	Mobe & Demobe	0.13	Rig Repairs	
Trips	0.02	Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews.	

Casing Operation	_____	_____
------------------	-------	-------

Time (COT) \_\_\_\_\_

Run Casing	_____	_____	_____
Run Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Drill Out Shoe	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

**Total Main Hole Construction Time: 0.55 Days**

Remarks:

TOTAL ELAPSED TIME	
--------------------	--

Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.55	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	0.67	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME		1.22	Days

**UE-25 UZN #1**  
**HOLE HISTORY**

10-17-8      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 27' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Took cores (drive samples) #1 thru #5 from 6' to 8', 11' to 13', 16' to 18', 21' to 23', and 26' to 28' during drilling using ODEX sample spoon. (Crew working day tour only on CME rig.)

10-18-84      HCQ cored (rotary cores) #1 and #2 from 28' to 33' and 33' to 36' with wire line core barrel using air. Reamed and drilled 6" hole from 27' to 37' cased with 5-1/2" casing. HCQ cored (rotary cores) #3 thru #5 from 37' to 40', 40' to 45', and 45' to 47'; core bit quit cutting. Reamed and drilled 6" hole from 37' to 50' cased with 5-1/2" casing. Rigged down and moved out. Hole completed 10-18-84.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		6.0 - 8.0	2.0	1.25	63
2		11.0 - 13.0	2.0	1.0	50
3		16.0 - 18.0	2.0	1.75	88
4		21.0 - 23.0	2.0	1.0	50
5		26.0 - 28.0	2.0	2.0	100
	1	28.0 - 33.0	5.0	2.0	40
	2	33.0 - 36.0	3.0	2.3	77
	3	37.0 - 40.0	3.0	3.0	100
	4	40.0 - 45.0	5.0	4.5	90
	5	45.0 - 47.0	2.0	2.0	100

\* Drive sample data obtained from geologist's field notes.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.

**UE-25 UZN #1**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 15.2 m (50') using ODEX 115 system. Drive samples were taken to 8.5 m (28') during drilling. A total of five 108 mm (4.25") cores were taken below 8.5 m (28') with hole opened to 152 mm (6") after coring. Hole completed 10-18-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: James H. Corrington  
Date: May 5, 1957

Hole No.: UE-25 UZN #2		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-186
Surface Coordinates: N 768,605.5' E 566,113.6'		
Ground Elev.: 3947.2'	Pad Elev.: N/A	Top Casing Elev.: 3948.4'
Bottom Hole Coord: Not surveyed	@	Ref: None
Rig On Location: 06-11-84	Spudded: 06-11-84	Completed: 06-14-84
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REEC		
No. Of Compressors & Capacity: 1/GD 900		

[illegible]

Total Depth:	50'	Plugs:	None
--------------	-----	--------	------

**Junk: None**

Logging Data: None

## Rigs Used

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	1.33		5.00	6.33

Remarks:

Prepared By: JW:LLF:ps

**Time Breakdown on Next Page**

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: UE-25 UZN #2			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (OOT)	
Drill <u>0.42</u>	Mobe & Demobe <u>0.37</u>	Rig Repairs <u>0.42</u>	
Trips _____	Core _____	W.O. Equipment <u>0.12</u>	
Dress Drilling _____	Log _____	Fish _____	
Assembly _____	Unload Hole _____	Clean Out Fill _____	
Fluid Probe _____	Run Mandrel _____	Ream Hole _____	
Connections _____	Hydrological _____	Plug Back _____	
Open Hole _____	Tests _____	Drill Out Plugs _____	
_____	_____	Secured W/Crews _____	
_____	_____	_____	
Main Hole DOT <u>0.42</u> Days	_____	_____	
Casing Operation Time (COT)	_____	_____	
Run Casing _____	_____	_____	
Run Casing _____	_____	_____	
Cement Casing _____	_____	_____	
Cement Casing _____	_____	_____	
Drill Out Shoe _____	_____	_____	
_____	_____	_____	
_____	_____	_____	
Main Hole COT: _____ Days	Main Hole OST: <u>0.37</u> Days	Main Hole ODT: <u>0.54</u> Days	
Total Main Hole Construction Time: <u>1.33</u> Days			
Remarks: _____			
_____			
_____			
_____			
_____			
TOTAL ELAPSED TIME			
Total Site Prep. Time _____	Days	Remarks: _____	
Total Main Hole Construction <u>1.33</u>	Days	_____	
Secured W/O Crew Site Prep. _____	Days	_____	
Secured W/O Crew Main Hole Const. <u>5.00</u>	Days	_____	
Total Suspended Time (No Rig) _____	Days	_____	
TOTAL ELAPSED TIME <u>6.33</u>		Days	
_____		_____	
_____		_____	

**UE-25 UZN #2**  
**HOLE HISTORY**

06-08-84      Moved in and rigged up support equipment.

06-11-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 25' and cased with 5-1/2" O.D., 1/4" wall casing using ODEX drilling system.

06-12-84      Drilled 6" hole from 25' to 42' and cased with 5-1/2" casing. Waited for air compressor 3 hours.

06-13-84      Drilled 6" hole from 42' to 48' and cased with 5-1/2" casing. Changed air compressor and 2" air hose, 3 hours.

06-14-84      Made trip for bit change. Drilled 6" hole from 48' to 50' and cased with 5-1/2" casing. Rigged down and moved out. Hole completed 06-14-84.

**UE-25 UZN #2**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 15.2 m (50') using ODEX 115 system. Hole completed 06-14-84.



**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jim Hall Compton*  
 Date: *May 8, 1987*

Hole No.: UE-25 UZN #3		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 768,630.4' E 566,119.4'		
Ground Elev.: 3940.8'	Pad Elev.:	Top Casing Elev.: 3942.7'
Bottom Hole Coord: Not surveyed @		Ref:
Rig On Location: 06-14-84	Spudded: 06-15-84	Completed: 06-15-84
Circulating Media: ODEX 115		
Main Rig & Contractor: CME/550		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	15'	6"	5"	13.6#	1/4"	0'	15'	

Total Depth: 15'      Plugs:

Junk:

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.41		0.67	1.08

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page



TIME BREAKDOWN	
1	00:00:00
2	00:00:00
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## MAIN HOLE CONSTRUCTION

Hole No.: UE-25 UZN #3

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.08	Mobe & Demobe	0.33	Rig Repairs	
Trips	-	Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT	0.08 Days				
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					
Main Hole COT:	Days	Main Hole OST: 0.33	Days	Main Hole ODT:	Days
Total Main Hole Construction Time:	0.41	Days			

**TOTAL ELAPSED TIME**

Total Site Prep. Time	_____	Days	Remarks:
Total Main Hole Construction	<u>0.41</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>0.67</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME		<u>1.08</u>	Days

**UE-25 UZN #3**  
**HOLE HISTORY**

06-14-84      Moved in CME 550, rig #85136 and rigged up.

06-15-84      Drilled 6" hole from 0' to 15' and cased with 5-1/2", 1/4" wall casing using ODEX 115 drilling system. Rigged down and moved out. Hole completed 06-15-84.

**UE-25 UZN #3**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 4.6 m (15') using the ODEX 115 system. Hole completed 06-15-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *James J. Hall*  
 Date: *May 8, 1987*

Hole No.: UE-25 UZN #4		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 768,663.4' E 566,127.1'		
Ground Elev.: 3942.4'	Pad Elev.: N/A	Top Casing Elev.: 3944.4'
Bottom Hole Coord: Not surveyed @		Ref: None
Rig On Location: 06-15-84	Spudded: 06-15-84	Completed: 06-15-84
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REEC		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	30'	6"	5"	13.6#	1/4"	0'	30'	

Total Depth: 30'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.25			0.25

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

# TIME BREAKDOWN

## MAIN HOLE CONSTRUCTION

Hole No.: UE-25 UZN #4

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.19	Mobe & Demobe	0.04	Rig Repairs	
Trips	0.02	Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.21	Days				
Casing Operation					
Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					

<b>Main Hole COT:</b>	<b>Days</b>	<b>Main Hole OST: 0.04</b>	<b>Days</b>	<b>Main Hole ODT:</b>	<b>Days</b>
-----------------------	-------------	----------------------------	-------------	-----------------------	-------------

**Total Main Hole Construction Time: 0.25 Days**

Remarks:

TOTAL ELAPSED TIME	
--------------------	--

Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	<u>0.25</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	_____	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>0.25</u>	Days	

UE-25 UZN #4  
HOLE HISTORY

06-15-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 30' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 06-15-84.

**UE-25 UZN #4**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 9.1 m (30') using ODEX 115 system. Hole completed 06-15-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Mary H. Covington  
 Date: May 5, 1987

Hole No.: UE-25 UZN #5      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: 25      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 768,689.4' E 566,133.8'  
 Ground Elev.: 3942.9'      Pad Elev.: N/A      Top Casing Elev.: 3942.9'  
 Bottom Hole Coord: Not surveyed @      Ref: None  
 Rig On Location: 06-18-84      Spudded: 06-18-84      Completed: 06-21-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECO  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	50'	6"	5"	13.6#	1/4"	0'	50'	

Total Depth: 50'      Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	1.14		2.04	3.18

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page



### TIME BREAKDOWN

## MAIN HOLE CONSTRUCTION

Hole No.: UE-25 UZN #5

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.54	Mobe & Demobe	0.10	Rig Repairs	0.27
Trips	0.17	Core		W.O. Equipment	
Dress Drilling		Log		Fish	0.06
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.71 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					

<b>Main Hole COT:</b>	<b>Days</b>	<b>Main Hole OST: 0.10</b>	<b>Days</b>	<b>Main Hole ODT: 0.33</b>	<b>Days</b>
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**Total Main Hole Construction Time: 1.14 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks:
Total Main Hole Construction	<u>1.14</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>2.04</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME		<u>3.18</u>	Days

UE-25 UZN #5  
HOLE HISTORY

- 06-18-84 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 26.5' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Made trip out with tools and casing, left 2' bit shoe in the hole. Attempted to recover fish, stuck tools at 20'.
- 06-19-84 Worked tools free and made trip out. Made trip with fabricated fishing tool and recovered fish. Made up ODEX drilling tools. Worked on rig fuel system.
- 06-20-84 Drilled 6" hole from 26.5' to 33' and cased with 5-1/2" casing, casing parted at threads above ground. Made trip out with tools and casing. Made up new assembly and reamed hole from 5' to 33'. Drilled 6" hole from 33' to 47' and cased with 5-1/2" casing. Contacted bed rock at 44'.
- 06-21-84 Drilled 6" hole from 47' to 50' and cased with 5-1/2" casing. Rigged down and moved out. Hole completed 06-21-84.

UE-25 UZN #5  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 15.2 m (50') using ODEX 115 system. Contacted bedrock at 13.4 m (44'). Hole completed 06-21-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry Dell Cornington  
 Date: July 15, 1987

Hole No.: UE-25 UZN #6 | Type Hole: Unsaturated Zone Neutron  
 User: USGS | Area: 25 | Site Prep. W.O. #: None  
 Location: NTS | County: Nye | W.O. #: 3404-196  
 Surface Coordinates: N 768,705.6' E 566,136.6'  
 Ground Elev.: 3938.0' | Pad Elev.: N/A | Top Casing Elev.: 3940.0'  
 Bottom Hole Coord: Not surveyed @ | Ref: None  
 Rig On Location: 06-21-84 | Spudded: 06-21-84 | Completed: 06-22-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECO  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	45'	6"	5"	13.6#	1/4"	0'	45'	

Total Depth: 45' | Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.49		0.66	1.15

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN	
1	00:00:00
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### MAIN HOLE CONSTRUCTION

Hole No.: UE-25 UZN #6

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill/Sample _____ 0.29	Mobe & Demobe _____ 0.10	Rig Repairs _____ 0.10
Trips _____	Core _____	W.O. Equipment _____
Dress Drilling _____	Log _____	Fish _____
Assembly _____	Unload Hole _____	Clean Out Fill _____
Fluid Probe _____	Run Mandrel _____	Ream Hole _____
Connections _____	Hydrological _____	Plug Back _____
Open Hole _____	Tests _____	Drill Out Plugs _____
		Secured W/Crews _____
		_____
		_____
Main Hole DOT 0.29 Days		_____
		_____
Casing Operation		_____
Time (COT)		_____
Run Casing _____		_____
Run Casing _____		_____
Cement Casing _____		_____
Cement Casing _____		_____
Drill Out Shoe _____		_____
		_____
		_____
		_____

<b>Main Hole COT:</b>	<b>Days</b>	<b>Main Hole OST: 0.10</b>	<b>Days</b>	<b>Main Hole ODT: 0.10</b>	<b>Days</b>
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**Total Main Hole Construction Time: 0.49 Days**

Remarks:

TOTAL ELAPSED TIME .

Total Site Prep. Time	_____	Days	Remarks:
Total Main Hole Construction	<u>0.49</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>0.66</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>1.15</u>	Days	

UE-25 UZN #6  
HOLE HISTORY

06-21-84 : Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 15' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Took samples \* from 5' to 7' and 14' to 16'.

06-22-84 : Opened sample hole and drilled 6" hole from 15' to 45' and cased with 5-1/2" casing. Took samples \* from 20' to 22', 25' to 27', 30' to 32', and 35' to 37'. Contacted bedrock at 38.5'. Rigged down and moved out. Hole completed 06-22-84.

\* USGS records not available for drive sample data.

UE-25 UZN #6  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 13.7 m (45') using ODEX 115 system. Samples were taken as directed. Contacted bedrock at 11.7 m (38.5'). Hole completed 06-22-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry T. Full Carington  
 Date: May 8, 1987

Hole No.: UE-25 UZN #7		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: 25	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-106	
Surface Coordinates: N 768,724.1' E 566,141.2'			
Ground Elev.: 3938.8'	Pad Elev.: N/A	Top Casing Elev.: 3940.6'	
Bottom Hole Coord: Not surveyed		@	Ref: None
Rig On Location: 07-13-84	Spudded: 07-13-84	Completed: 07-16-84	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REEC			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	45'	6"	5"	13.6#	1/4"	0'	45'	

Total Depth: 45'      Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.55		2.66	3.21

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page





**UE-25 UZN #7**  
**HOLE HISTORY**


- 07-13-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 21' and cased with 5-1/2", 1/4" casing using ODEX 115 system. Worked on compressor from 1130 hours.
- 07-16-84      Rig secured from 07-13-84 to 07-16-84. Drilled 6" hole from 21' to 45' and cased with 5-1/2" casing. Made trip out, rigged down, and moved out. Hole completed 07-16-84.

UE-25 UZN #7  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 13.7 m (45') using ODEX 115 system. Hole completed 07-16-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jerry L. Cornington*  
 Date: *May 8, 1987*

Hole No.: UE-25 UZN #8      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: 25      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 768,743.0' E 566,146.5'        
 Ground Elev.: 3938.9'      Pad Elev.: N/A      Top Casing Elev.: 3940.9  
 Bottom Hole Coord: Not surveyed      @      Ref: None  
 Rig On Location: 07-16-84      Spudded: 07-16-84      Completed: 07-17-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	45'	6"	5"	13.6#	1/4"	0'	45'	

Total Depth: 45'      Plugs: None  
 Junk: None  
 Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.33		0.67	1.00

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

## TIME BREAKDOWN

### MAIN HOLE CONSTRUCTION

Hole No.: UE-25 UZN #8

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill <u>0.25</u>	Mobe & Demobe <u>0.08</u>	Rig Repairs _____
Trips _____	Core <u>0</u>	W.O. Equipment _____
Dress Drilling _____	Log _____	Fish _____
Assembly _____	Unload Hole _____	Clean Out Fill _____
Fluid Probe _____	Run Mandrel _____	Ream Hole _____
Connections _____	Hydrological _____	Plug Back _____
Open Hole _____	Tests _____	Drill Out Plugs _____
_____	_____	Secured W/Crews _____
_____	_____	_____
_____	_____	_____
Main Hole DOT 0.25 Days	_____	_____
Casing Operation Time (COT)	_____	_____
Run Casing _____	_____	_____
Run Casing _____	_____	_____
Cement Casing _____	_____	_____
Cement Casing _____	_____	_____
Drill Out Shoe _____	_____	_____
_____	_____	_____
_____	_____	_____
Main Hole COT: _____ Days	Main Hole OST: 0.08 Days	Main Hole ODT: _____ Days
Total Main Hole Construction Time: 0.33 Days		

Remarks:

### TOTAL ELAPSED TIME

Total Site Prep. Time _____ Days	Remarks:
Total Main Hole Construction <u>0.33</u> Days	_____
Secured W/O Crew Site Prep. _____ Days	_____
Secured W/O Crew Main Hole Const. <u>0.67</u> Days	_____
Total Suspended Time (No Rig) _____ Days	_____
TOTAL ELAPSED TIME <u>1.00</u> Days	_____

**UE-25 UZN #8**  
**HOLE HISTORY**

- 07-16-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 6' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system.
- 07-17-84      Drilled 6" hole from 6' to 45' and cased with 5-1/2" casing. Made trip out, rigged down, and moved out. Hole completed 07-17-84.

UE-25 UZN #8  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 13.7 m (45') using ODEX 115 system. Hole completed 07-17-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jerry Hall Cornington*  
 Date: *7/24/84*

Hole No.: UE-25 UZN #9      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: 25      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 768,781.5' E 566,155.9'  
 Ground Elev.: 3941.2'      Pad Elev.: N/A      Top Casing Elev.: 3943.2'  
 Bottom Hole Coord: Not surveyed @      Ref: None  
 Rig On Location: 07-17-84      Spudded: 07-17-84      Completed: 07-18-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECo  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	40'	6"	5"	13.6#	1/4"	0'	40'	

Total Depth: 40'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.33		0.67	1.00

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page



TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: UE-25 UZN #9			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill <u>0.19</u>	Mobe & Demobe <u>0.08</u>	Rig Repairs <u>0.06</u>	
Trips <u>0</u>	Core <u>      </u>	W.O. Equipment <u>      </u>	
Dress Drilling <u>      </u>	Log <u>      </u>	Fish <u>      </u>	
Assembly <u>      </u>	Unload Hole <u>      </u>	Clean Out Fill <u>      </u>	
Fluid Probe <u>      </u>	Run Mandrel <u>      </u>	Ream Hole <u>      </u>	
Connections <u>      </u>	Hydrological <u>      </u>	Plug Back <u>      </u>	
Open Hole <u>      </u>	Tests <u>      </u>	Drill Out Plugs <u>      </u>	
<u>      </u>	<u>      </u>	Secured W/Crews <u>      </u>	
<u>      </u>	<u>      </u>	<u>      </u>	
Main Hole DOT 0.19 Days			
Casing Operation Time (COT)			
Run Casing <u>      </u>			
Run Casing <u>      </u>			
Cement Casing <u>      </u>			
Cement Casing <u>      </u>			
Drill Out Shoe <u>      </u>			
<u>      </u>			
<u>      </u>			
Main Hole COT: <u>      </u> Days Main Hole OST: 0.08 Days Main Hole ODT: 0.06 Days			
Total Main Hole Construction Time: 0.33 Days			
Remarks:			
TOTAL ELAPSED TIME			
Total Site Prep. Time <u>      </u>	Days	Remarks:	
Total Main Hole Construction <u>0.33</u>	Days	<u>      </u>	
Secured W/O Crew Site Prep. <u>      </u>	Days	<u>      </u>	
Secured W/O Crew Main Hole Const. <u>0.67</u>	Days	<u>      </u>	
Total Suspended Time (No Rig) <u>      </u>	Days	<u>      </u>	
TOTAL ELAPSED TIME <u>1.00</u>		<u>      </u>	
		<u>      </u>	

UE-25 UZN #9  
HOLE HISTORY

- 07-17-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 5' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Worked on forklift 2-1/2 hours.
- 07-18-84      Drilled 6" hole from 5' to 40' and cased with 5-1/2" casing. Made trip out, rigged down and moved out. Hole completed 07-18-84.

**UE-25 UZN #9**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 12.2 m (40') using ODEX 115 system. Hole completed 07-18-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jerry D. H. Carrington*  
 Date: *May 8, 1987*

Hole No.: UE-25 UZN #10		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 769,868.6' E 564,744.1'		
Ground Elev.: 4038.3'	Pad Elev.: N/A	Top Casing Elev.: 4040.1'
Bottom Hole Coord: Not surveyed @		Ref: None
Rig On Location: 12-02-85	Spudded: 12-02-85	Completed: 12-04-85
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	94'	6"	5"	13.6#	1/4"	0'	94'	
94'	99'	4.25"						

Total Depth: 99' Plugs: None

Junk: None2

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	1.64		0.69	2.33

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

**TIME BREAKDOWN**

## MAIN HOLE CONSTRUCTION

Hole No.: UE-25 UZN #10

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.19	Mobe & Demobe	0.12	Rig Repairs	0.06
Trips	0.04	Core	1.15	W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
				Work Stuck Pipe	0.08
Main Hole DOT 0.23	Days				
Casing Operation					
Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					

Main Hole COT:	Days	Main Hole OST:	1.27	Days	Main Hole ODT:	0.14	Days
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**Total Main Hole Construction Time: 1.64 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	<u>1.64</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>0.69</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>2.33</u>	Days	

**UE-25 UZN #10**  
**HOLE HISTORY**

12-02-85 Moved in CME 550, rig #85136 and rigged up. Cut continuous cores (rotary) #1 thru #4 from 0' to 14' using a 4.25" x 2.40" diamond air core bit and HCQ barrel.

12-03-85 Opened 4.25" hole to 6" from 0' to 14' cased with 5-1/2", 13.6# casing using ODEX 115 system with air. Took drive core #5 (drive sample) from 14' to 16'. Cut continuous cores (rotary) #6 thru #17 to 69' using a 4" x 2.40" used drag bit and HCQ barrel. (Crew worked to 2400 hours.)

12-04-85 Opened 4" core hole to 6" from 14' to 69' cased with 5-1/2" casing. Cut continuous cores (rotary) #18 thru #21 to 87.5', crown on drag bit broke. Hole was sloughing and worked tools free. Opened 4" core hole and drilled 6" hole to 94' cased with 5-1/2" casing. Cut core #22 from 94' to 99' using 4.25" x 2.4" diamond core bit and 5' HCQ barrel. Rigged down and moved out. Hole completed 12-04-85.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Core No.</u>	<u>Feet</u> <u>Interval</u>	<u>Feet</u> <u>Cored</u>	<u>%</u> <u>Recovered</u>	<u>Recovery</u>
	1	0.0 - 4.0	4.0	4.0	100
	2	4.0 - 6.0	2.0	2.0	100
	3	6.0 - 9.0	3.0	3.0	100
	4	9.0 - 14.0	5.0	3.5	70
5		14.0 - 16.0	2.0	1.7	85
	6	16.0 - 19.0	3.0	2.8	93
	7	19.0 - 24.0	5.0	4.2	84
	8	24.0 - 29.0	5.0	1.3	26
	9	29.0 - 34.0	5.0	4.4	88
	10	34.0 - 39.0	5.0	3.8	76
	11	39.0 - 44.0	5.0	4.1	82
	12	44.0 - 49.0	5.0	5.0	100
	13	49.0 - 54.0	5.0	5.0	100
	14	54.0 - 59.0	5.0	5.0	100
	15	59.0 - 63.0	4.0	4.0	100
	16	63.0 - 67.5	4.5	4.5	100
	17	67.5 - 69.0	1.5	1.5	100
	18	69.0 - 73.5	4.5	4.5	100
	19	73.5 - 78.0	4.5	3.2	71
	20	78.0 - 82.5	4.5	0.0	0
	21	82.5 - 87.5	5.0	0.0	0
	22	94.0 - 99.0	5.0	4.7	94

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.

UE-25 UZN #10  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to 28.7 m (94') using ODEX 115 system. Seventeen 102 mm (4") cores, five 108 mm (4.25") cores, and one drive sample were taken during drilling to a total depth of 30.2 m (99') with hole opened to 152 mm (6") to 28.7 m (94') after coring. Hole completed 12-04-85.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: James J. Hall Cornington  
 Date: May 8, 1987

Hole No.: UE-25 UZN #12 | Type Hole: Unsaturated Zone Neutron  
 User: USGS | Area: 25 | Site Prep. W.O. #: None

Location: NTS | County: Nye | W.O. #: 3404-196  
 Surface Coordinates: N 768,650.9' E 566,695.2'  
 Ground Elev.: 3906.8' | Pad Elev.: N/A | Top Casing Elev.: 3909.4'  
 Bottom Hole Coord: Not surveyed @ | Ref: None  
 Rig On Location: 07-23-84 | Spudded: 07-23-84 | Completed: 07-24-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECO  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	50'	6"	5"	13.6#	1/4"	0'	50'	

Total Depth: 50' | Plugs: None  
 Junk: None  
 Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.66		0.67	1.33

Remarks:  
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Prepared By: JW:LLF:ps | Time Breakdown on Next Page



TIME BREAKDOWN	
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97	00:00:00
98	00:00:00
99	00:00:00
100	00:00:00

### MAIN HOLE CONSTRUCTION

Hole No.: UE-25 UZN #12

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill <u>0.37</u>	Mobe & Demobe <u>0.21</u>	Rig Repairs <u>0.04</u>
Trips _____	Core _____	W.O. Equipment <u>0.04</u>
Dress Drilling _____	Log _____	Fish _____
Assembly _____	Unload Hole _____	Clean Out Fill _____
Fluid Probe _____	Run Mandrel _____	Ream Hole _____
Connections _____	Hydrological _____	Plug Back _____
Open Hole _____	Tests _____	Drill Out Plugs _____
_____	_____	Secured W/Crews _____
_____	_____	_____
_____	_____	_____
<b>Main Hole DOT 0.37 Days</b>	_____	_____
<b>Casing Operation</b>	_____	_____
<b>Time (COT)</b>	_____	_____
Run Casing _____	_____	_____
Run Casing _____	_____	_____
Cement Casing _____	_____	_____
Cement Casing _____	_____	_____
Drill Out Shoe _____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

<b>Main Hole COT:</b>	<b>Days</b>	<b>Main Hole OST: 0.21</b>	<b>Days</b>	<b>Main Hole ODT: 0.08</b>	<b>Days</b>
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**Total Main Hole Construction Time: 0.66 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks:
Total Main Hole Construction	<u>0.56</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>0.67</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>1.33</u>	Days	

UE-25 UZN #12  
HOLE HISTORY

- 07-23-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 17' and cased with 5-1/2", 1/4" wall casing at 17' using ODEX 115 system.
- 07-24-84      Drilled 6" hole from 17' to 50' and cased with 5-1/2" casing. Made trip out, rigged down, and moved out. Hole completed 07-24-84.

**UE-25 UZN #12**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 15.2 m (50') using ODEX 115 system. Hole completed 07-24-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *James J. Cornington*  
 Date: *27 May 5, 1987*

Hole No.: UE-25 UZN #13		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 768,024.6' E 568,255.1'		
Ground Elev.: 3821.3'	Pad Elev.: N/A	Top Casing Elev.: 3823.3'
Bottom Hole Coord: Not surveyed @		Ref: None
Rig On Location: 07-18-84	Spudded: 07-18-84	Completed: 07-19-84
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REECO		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	65'	6"	5"	13.6#	1/4"	0'	65'	

Total Depth: 65'      Plugs: None  
 Junk: None  
 Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.37		0.67	1.04

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

**TIME BREAKDOWN**

## MAIN HOLE CONSTRUCTION

Hole No.: UE-25 UZN #13

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.29	Mobe & Demobe	0.08	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT	0.29 Days				
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					

Main Hole COT:	Days	Main Hole OST: 0.08	Days	Main Hole OOT:	Days
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Total Main Hole Construction Time:	0.37	Days
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Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.37	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	0.67	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	1.04	Days	

**UE-25 UZN #13**  
**HOLE HISTORY**

07-18-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 15' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system.

07-19-84      Drilled 6" hole from 15' to 65' and cased with 5-1/2" casing. Made trip out, rigged down and moved out. Hole completed 07-19-84.

**UE-25 UZN #13**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 19.8 m (65') using ODEX 115 system. Hole completed 07-19-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry J. Cornington  
 Date: July 8, 1987

Hole No.: UE-25 UZN #14		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: 25	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 767,967.2' E 568,232.9'			
Ground Elev.: 3823.9'	Pad Elev.: N/A	Top Casing Elev.: 3825.9'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 07-20-84	Spudded: 07-20-84	Completed: 07-23-84	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECO			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	55'	6"	5"	13.6#	1/4"	0'	55'	

Total Depth: 55'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.41		2.67	3.08

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page



### TIME BREAKDOWN

## MAIN HOLE CONSTRUCTION

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
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Drill	0.29	Mobe & Demobe	0.08	Rig Repairs	0.04
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	

Casing Operation	_____	_____
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Time (COT)	_____	_____
Run Casing	_____	_____

Run Casing	_____	_____	_____
Run Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Drill Out Shoe	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

Total Main Hole Construction Time: 0.41 Days

Remarks:

	Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.41	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	2.67	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	3.08	Days	

UE-25 UZN #14  
HOLE HISTORY

- 07-20-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 50' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system.
- 07-23-84      Rig secured from 07-20-84 to 07-23-84. Drilled 6" hole from 50' to 55' and cased with 5-1/2" casing. Made trip out, rigged down and moved out. Hole completed 07-23-84.

UE-25 UZN #14  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 16.8 m (55') using ODEX 115 system. Hole completed 07-23-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jerry Paul Corrington*  
 Date: *July 18, 1987*

Hole No.: UE-25 UZN #18		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 766,472.4' E 565,246.5'		
Ground Elev.: 4018.5'	Pad Elev.: N/A	Top Casing Elev.: 4019.5'
Bottom Hole Coord: Not surveyed @		Ref: None
Rig On Location: 05-16-84	Spudded: 05-16-84	Completed: 05-18-84
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REECO		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	61'	6"	5"	13.6#	1/4"	0'	61'	

Total Depth: 61'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.55		1.33	1.88

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN					
MAIN HOLE CONSTRUCTION					
Hole No.: UE-25 UZN #18					
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)			
Drill <span style="float: right;">0.21</span>	Mobe & Demobe <span style="float: right;">0.15</span>	Rig Repairs <span style="float: right;">0.15</span>			
Trips <span style="float: right;">_____</span>	Soil Sample <span style="float: right;">0.04</span>	W.O. Equipment <span style="float: right;">_____</span>			
Dress Drilling <span style="float: right;">_____</span>	Log <span style="float: right;">_____</span>	Fish <span style="float: right;">_____</span>			
Assembly <span style="float: right;">_____</span>	Unload Hole <span style="float: right;">_____</span>	Clean Out Fill <span style="float: right;">_____</span>			
Fluid Probe <span style="float: right;">_____</span>	Run Mandrel <span style="float: right;">_____</span>	Ream Hole <span style="float: right;">_____</span>			
Connections <span style="float: right;">_____</span>	Hydrological <span style="float: right;">_____</span>	Plug Back <span style="float: right;">_____</span>			
Open Hole <span style="float: right;">_____</span>	Tests <span style="float: right;">_____</span>	Drill Out Plugs <span style="float: right;">_____</span>			
_____	_____	Secured W/Crews <span style="float: right;">_____</span>			
_____	_____	_____			
Main Hole DOT 0.21 Days			_____		
Casing Operation Time (COT)	_____	_____			
Run Casing <span style="float: right;">_____</span>	_____	_____			
Run Casing <span style="float: right;">_____</span>	_____	_____			
Cement Casing <span style="float: right;">_____</span>	_____	_____			
Cement Casing <span style="float: right;">_____</span>	_____	_____			
Drill Out Shoe <span style="float: right;">_____</span>	_____	_____			
_____	_____	_____			
_____	_____	_____			
Main Hole COT: _____ Days			Main Hole OST: 0.19 Days	Main Hole ODT: 0.15 Days	
Total Main Hole Construction Time: 0.55 Days					
Remarks: _____					
_____					
_____					
_____					
_____					
TOTAL ELAPSED TIME					
Total Site Prep. Time	_____ Days	Remarks: _____			
Total Main Hole Construction	0.55 Days	_____			
Secured W/O Crew Site Prep.	_____ Days	_____			
Secured W/O Crew Main Hole Const.	1.33 Days	_____			
Total Suspended Time (No Rig)	_____ Days	_____			
TOTAL ELAPSED TIME 1.88 Days		_____			
_____		_____			

UE-25 UZN #18  
HOLE HISTORY

- 05-16-84 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 6' and cased with 5-1/2" O.D., 1/4" wall casing using ODEX 115 drilling system.
- 05-17-84 Drilled 6" hole from 6' to 61' and cased with 5-1/2" casing. Replaced 3" discharge line with 4" line at 16'. Cut 6" x 4" sample \* from 41' to 43', recovered 2' sample.
- 05-18-84 Made trip out, rigged down, and moved out. Hole completed 05-18-84.

\* USGS records not available for sample data.

**UE-25 UZN #18**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 18.6 m (61') using ODEX 115 system. One sample was taken during drilling with hole opened to 152 mm (6") after sampling. Hole completed 05-18-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jerry Hall Cornington*  
 Date: *May 8, 1987*

Hole No.: UE-25 UZN #19		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 763,688.9' E 564,570.6'		
Ground Elev.: 4024.9'	Pad Elev.: N/A	Top Casing Elev.: 4026.9'
Bottom Hole Coord: Not surveyed @		Ref: None
Rig On Location: 11-06-85	Spudded: 11-06-85	Completed: 11-08-85
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REECO		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	40'	6"	5"	13.6#	1/4"	0'	40'	

Total Depth: 40'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.79		1.33	2.12

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page



TIME BREAKDOWN					
MAIN HOLE CONSTRUCTION					
<b>Hole No.: UE-25 UZN #19</b>					
<b>Drilling Operation Time (DOT)</b>		<b>Other Scheduled Time (OST)</b>		<b>Operational Delay Time (ODT)</b>	
Drill/Core/Sample	<u>0.46</u>	Mobe & Demobe	<u>0.25</u>	Rig Repairs	<u>          </u>
Trips	<u>0.08</u>	Core	<u>          </u>	W.O. Equipment	<u>          </u>
Dress Drilling	<u>          </u>	Log	<u>          </u>	Fish	<u>          </u>
Assembly	<u>          </u>	Unload Hole	<u>          </u>	Clean Out Fill	<u>          </u>
Fluid Probe	<u>          </u>	Run Mandrel	<u>          </u>	Ream Hole	<u>          </u>
Connections	<u>          </u>	Hydrological	<u>          </u>	Plug Back	<u>          </u>
Open Hole	<u>          </u>	Tests	<u>          </u>	Drill Out Plugs	<u>          </u>
	<u>          </u>		<u>          </u>	Secured W/Crews	<u>          </u>
	<u>          </u>		<u>          </u>		<u>          </u>
<b>Main Hole DOT   0.54 Days</b>			<u>          </u>		<u>          </u>
<b>Casing Operation Time (COT)</b>			<u>          </u>		<u>          </u>
Run Casing	<u>          </u>		<u>          </u>		<u>          </u>
Run Casing	<u>          </u>		<u>          </u>		<u>          </u>
Cement Casing	<u>          </u>		<u>          </u>		<u>          </u>
Cement Casing	<u>          </u>		<u>          </u>		<u>          </u>
Drill Out Shoe	<u>          </u>		<u>          </u>		<u>          </u>
	<u>          </u>		<u>          </u>		<u>          </u>
	<u>          </u>		<u>          </u>		<u>          </u>
<b>Main Hole COT:         Days</b>		<b>Main Hole OST:   0.25 Days</b>		<b>Main Hole ODT:         Days</b>	
<b>Total Main Hole Construction Time: 0.79 Days</b>					
<b>Remarks:</b>					
<b>TOTAL ELAPSED TIME</b>					
<b>Total Site Prep. Time</b>			<u>          </u>	<b>Days</b>	<b>Remarks:</b>
<b>Total Main Hole Construction</b>			<u>0.79</u>	<b>Days</b>	
<b>Secured W/O Crew Site Prep.</b>			<u>          </u>	<b>Days</b>	
<b>Secured W/O Crew Main Hole Const.</b>			<u>1.33</u>	<b>Days</b>	
<b>Total Suspended Time (No Rig)</b>			<u>          </u>	<b>Days</b>	
<b>TOTAL ELAPSED TIME</b>			<u>2.12</u>	<b>Days</b>	

UE-25 UZN #19

HOLE HISTORY

- 11-06-85 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 11' and cased with 5-1/2", 13.6# casing using ODEX 115 system. Took cores #1 and #2 (drive samples) from 0' to 8'. (Day tour work for project.)
- 11-07-85 Drilled 6" hole from 11' to 26' and cased with 5-1/2" casing. Took cores #3 thru #5 (drive samples) from 11' to 23'. Cut 3.937" core #6 (rotary core) from 26' to 26.7' using 3.937" x 2.40" diamond core bit and 5' barrel. Opened core hole and drilled 6" hole to 31' and cased with 5-1/2" casing. Attempted to cut 3.937" core #7 (rotary core).
- 11-08-85 Cut 3.937" x 2.40" core #8 from 31' to 32'. Opened core hole and drilled 6" hole to 40' cased with 5-1/2" casing. Pulled ODEX 115 drill tools, rigged down, and moved out. Hole completed 11-08-85.

CORE RECORD

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	2.0	100
2		6.0 - 8.0	2.0	2.0	100
3		11.0 - 13.0	2.0	2.0	100
4		16.0 - 18.0	2.0	2.0	100
5		21.5 - 23.0	1.5	1.5	100
	6	26.0 - 26.7	0.7	0.25	35
	7	31.0 - 31.0	0.0	0.0	0
	8	31.0 - 32.0	1.0	0.9	90

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.

. UE-25 UZN #19  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 12.2 m (40') using ODEX 115 system. Five drive samples and three 100 mm (3.937") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 11-08-85.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWS1**

Approved: *Jerry Neil Covington*  
 Date: *April 8, 1987*

Hole No. UE-25 UZN #20	Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25
Location: NTS	County: Nye
Surface Coordinates: N 763,759.9' E 564,579.3'	W.O. #: 3404-196
Ground Elev.: 4027.2'	Pad Elev.: N/A
Bottom Hole Coord: Not surveyed	Top Casing Elev.: 4028.2'
Rig On Location: 05-15-84	Ref: None
Spudded: 05-15-84	Completed: 05-16-84
Circulating Media: ODEX 115	
Main Rig & Contractor: CME 550/REECo	
No. Of Compressors & Capacity: 1/GD 900	

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	41'	6"	5"	13.6#	1/4"	0'	41'	

Total Depth: 41' Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.45		0.77	1.22

Remarks:

Prepared By: JW:LLF:ps Time Breakdown on Next Page

TIME BREAKDOWN					
MAIN HOLE CONSTRUCTION					
Hole No.: UE-25 UZN #20					
Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.33	Mobe & Demobe	0.04	Rig Repairs	0.06
Trips	0.02	Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.35 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					
Main Hole COT:           Days		Main Hole OST: 0.04 Days		Main Hole ODT: 0.06 Days	
Total Main Hole Construction Time: 0.45 Days					
Remarks:					
TOTAL ELAPSED TIME					
Total Site Prep. Time			Days	Remarks:	
Total Main Hole Construction		0.45	Days		
Secured W/O Crew Site Prep.			Days		
Secured W/O Crew Main Hole Const.		0.77	Days		
Total Suspended Time (No Rig)			Days		
TOTAL ELAPSED TIME		1.22	Days		

UE-25 UZN #20  
HOLE HISTORY

- 05-15-84     Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 25' and cased with 5-1/2" O.D., 1/4" wall casing using ODEX 115 drilling system.
- 05-16-84     Rig secured to 1030 hours. Drilled 6" hole from 25' to 41' and cased with 5-1/2" casing. Rigged down and moved out. Hole completed 05-16-84.

UE-25 UZN #20  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 12.5 m (41') using ODEX 115 system. Hole completed 05-16-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry Hall Covington  
 Date: May 8, 1987

Hole No.: UE-25 UZN #21		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: 25	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 763,806.1' E 564,591.0'			
Ground Elev.: 4027.5'	Pad Elev.: N/A	Top Casing Elev.: 4029.5'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 11-08-85	Spudded: 11-08-85	Completed: 11-14-85	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECO			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	40'	6"	5"	13.6#	1/4"	0'	40'	
40'	42'	3.937"						

Total Depth: 42'      Plugs: None  
 Junk: None  
 Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.87		5.33	6.20

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page





UE-25 UZN #21

HOLE HISTORY

- 11-08-85 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 16' and cased with 5-1/2", 13.6# casing using ODEX 115 system. Took cores #1 thru #3 (drive samples) from 0' to 2', 6' to 8', and 11' to 12' during drilling.
- 11-12-85 Rig secured from 11-08-85 to 11-12-85. Attempted to start and operate drilling equipment. Drilling secured at 1000 hours as directed due to extreme weather.
- 11-13-85 Rig secured from 11-12-85 to 11-13-85. Started, warmed up equipment, and worked on generator. Drilled 6" hole from 16' to 31', cased with 5-1/2" casing and took cores #4 thru #6 (drive samples) from 16' to 18', 21' to 23', and 26' to 27.5'. Cut core #7 (rotary core) from 31' to 32' using 3.937" x 2.40" core bit and 5' HCQ barrel. Opened core hole and drilled 6" hole to 36' and cased with 5-1/2" casing. Cut core #8 (rotary core) from 36' to 37'.
- 11-14-85 Opened core hole and drilled 6" hole to 40' and cased with 5-1/2" casing. Cut core #9 (rotary core) from 40' to 42'. Rigged down and moved out. Hole completed 11-14-85.

CORE RECORD

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	1.75	88
2		6.0 - 8.0	2.0	2.0	100
3		11.0 - 12.0	1.0	1.5	150
4		16.0 - 18.0	2.0	1.5	75
5		21.0 - 23.0	2.0	2.0	100
6		26.0 - 27.5	1.5	1.5	100
	7	31.0 - 32.0	1.0	0.0	0
	8	36.0 - 37.0	1.0	0.4	40
	9	40.0 - 42.0	2.0	2.0	100

\* Drive sample data obtained from geologist's field notes.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.

UE-25 UZN #21  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 12.2 m (40') using ODEX 115 system. Six drive samples were taken to 8.4 m (27.5') during drilling. Three 100 mm (3.937") cores were taken to a total depth of 12.8 m (42') with hole opened to 152 mm (6") to 12.2 m (40') after coring. Hole completed 11-14-85.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *James Neil Covington*  
 Date: *May 8, 1987*

Hole No.: UE-25 UZN #22		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: 25	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 763,880.3' E 564,604.5'			
Ground Elev.: 4028.8'	Pad Elev.: N/A	Top Casing Elev.: 4030.7'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 11-14-85	Spudded: 11-14-85	Completed: 11-18-85	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECO			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	94'	6"	5"	13.6#	1/4"	0'	89'	
94'	95'	3.937"						

Total Depth: 95'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.80		3.33	4.13

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page



**UE-25 UZN #22**  
**HOLE HISTORY**

11-14-85 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 16', cased with 5-1/2", 13.6# casing using ODEX 115 system. Took cores #1 thru #3 (drive samples) from 0' to 2', 6' to 8', and 16' to 17'.

11-15-85 Opened core hole and drilled 6" hole from 16' to 36' and cased with 5-1/2" casing. Cut core #5 (rotary core) from 36' to 38' and core #6 (rotary core) from 38' to 39.5' using 3.937" x 2.40" diamond core bit and 5' HCQ barrel. Opened core hole and drilled 6" hole to 75' and cased with 5-1/2" casing. Secured rig for weekend.

11-18-85 Rig secured from 11-15-85 to 11-18-85. Drilled 6" hole from 75' to 94' and cased with 5-1/2" casing. Pulled casing up to 89' and cut off top bad joint. Cut core #7 (rotary core) from 94' to 95'. Rigged down and moved out. Hole completed 11-18-85.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	1.0	50
2		6.0 - 8.0	2.0	2.0	100
3		16.0 - 17.0	1.0	0.75	75
	5	36.0 - 38.0	2.0	1.3	65
	6	38.0 - 39.5	1.5	0.0	0
	7	94.0 - 95.0	1.0	0.9	90

\* Drive sample data obtained from geologist's field notes.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.

**UE-25 UZN #22**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to 28.7 m (94') using ODEX 115 system. Three drive samples were taken to 5.2 m (17') during drilling. Three 100 mm (3.937") cores were taken to a total depth of 29.0 m (95') with hole opened to 152 mm (6") to 28.7 m (94') after coring. Casing was pulled up to 27.1 m (89') and top joint cut off. Hole completed 11-18-85.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry Dell Corington  
 Date: May 8, 1987

Hole No.: UE-25 UZN #23		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: 25	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 763,973.1' E 564,545.4'			
Ground Elev.: 4043.1'	Pad Elev.: N/A	Top Casing Elev.: 4045.1'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 11-18-85	Spudded: 11-19-85	Completed: 11-21-85	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECO			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	

Total Depth: 35'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.83		2.00	2.83

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page



**TIME BREAKDOWN**

## MAIN HOLE CONSTRUCTION

Hole No.: UE-25 UZN #23

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill 0.27	Mobe & Demobe 0.17	Rig Repairs _____
Trips 0.04	Core 0.35	W.O. Equipment _____
Dress Drilling _____	Log _____	Fish _____
Assembly _____	Unload Hole _____	Clean Out Fill _____
Fluid Probe _____	Run Mandrel _____	Ream Hole _____
Connections _____	Hydrological Tests _____	Plug Back _____
Open Hole _____		Drill Out Plugs _____
		Secured W/Crews _____
		_____
		_____
Main Hole DOT 0.31 Days		_____
		_____
Casing Operation Time (COT)		_____
Run Casing _____		_____
Run Casing _____		_____
Cement Casing _____		_____
Cement Casing _____		_____
Drill Out Shoe _____		_____
		_____
		_____
		_____

<b>Main Hole COT:</b>	<b>Days</b>	<b>Main Hole OST: 0.52</b>	<b>Days</b>	<b>Main Hole ODT:</b>	<b>Days</b>
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**Total Main Hole Construction Time: 0.83 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.83	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	2.00	Days	
Total Suspended Time (No Rig)		Days	
<b>TOTAL ELAPSED TIME</b>	<b>2.83</b>	<b>Days</b>	

UE-25 UZN #23

HOLE HISTORY

11-18-85 (Hole location changed due to bad terrain.) Moved in CME 550, rig #85136 and rigged up.

11-19-85 Drilled 6" hole from 0' to 1'. Cut cores (rotary) #1 from 1' to 3.35', #2 to 6.35', and #3 to 9.35' using 3.990" x 2.40" diamond core bit, 5' HCQ barrel and air. Opened core hole and drilled 6" hole to 17' cased with 5-1/2", 13.6# casing using ODEX 115 system.

11-20-85 Cut core #4 (rotary core) from 17' to 18'. Opened core hole and drilled 6" hole to 22' and cased with 5-1/2" casing. Cut cores (rotary) #5 to 26', #6 to 31', and #7 to 35'. Opened core hole and drilled 6" hole to 35' and cased with 5-1/2" casing.

11-21-85 Rigged down and moved out. Hole completed 11-21-85.

CORE RECORD

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
	1	1.0 - 3.35	2.35	2.35	100
	2	3.35 - 6.35	3.0	3.0	100
	3	6.35 - 9.35	3.0	3.0	100
	4	17.0 - 18.0	1.0	0.5	50
	5	22.0 - 26.0	4.0	4.0	100
	6	26.0 - 31.0	5.0	5.0	100
	7	31.0 - 35.0	4.0	3.5	88

\* No drive samples taken per USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.

UE-25 UZN #23  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 10.7 m (35') using ODEX 115 system. Seven 101 mm (3.990") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 11-21-85.

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**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: Jerry D. Corrington  
Date: May 8, 1987

Hole No.: USW UZ-N24	Type Hole: Unsaturated Zone Neutron
User: USGS	Area: Off Site
Location: NTS	County: Nye
Surface Coordinates: N 768.005.4' E 562.054.2'	W.O. #: 3404-196
Ground Elev.: 4226.5'	Pad Elev.: N/A
Bottom Hole Coord: Not surveyed	Top Casing Elev.: 4228.6'
Rig On Location: 01-31-86	Spudded: 02-04-86
Circulating Media: ODEX 115	Recompleted: 02-26-86
Main Rig & Contractor: CME 550/REECo	
No. Of Compressors & Capacity: 1/GD 900	

Bore Hole Record				Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To
0'	75'	6"	5"	13.6#	1/4"	0'	30'

Total Depth: 75'      Plugs: None  
Junk: None  
Logging Data: USGS Neutron Log

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	2.24		6.00	8.24

Remarks:

Prepared By: JW:LLF:ps      Time Breakdown on Next Page

**TIME BREAKDOWN**

### MAIN HOLE CONSTRUCTION

File No.: USW UZ-N24

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill/Core/Sample	<u>0.81</u>	Mobe & Demobe	<u>0.92</u>	Rig Repairs	<u>0.08</u>
Trips	<u>0.06</u>	Core	<u>      </u>	W.O. Equipment	<u>      </u>
Dress Drilling	<u>      </u>	Log	<u>0.08</u>	Fish	<u>0.19</u>
Assembly	<u>      </u>	Unload Hole	<u>      </u>	Clean Out Fill	<u>      </u>
Fluid Probe	<u>      </u>	Run Mandrel	<u>      </u>	Ream Hole	<u>      </u>
Connections	<u>      </u>	Hydrological	<u>      </u>	Plug Back	<u>      </u>
Open Hole	<u>      </u>	Tests	<u>      </u>	Drill Out Plugs	<u>      </u>
	<u>      </u>		<u>      </u>	Secured W/Crews	<u>      </u>
	<u>      </u>		<u>      </u>	Pull Csg. Up	<u>0.10</u>
Main Hole DOT	<u>0.87 Days</u>		<u>      </u>		<u>      </u>
			<u>      </u>		<u>      </u>
Casing Operation			<u>      </u>		<u>      </u>
Time (COT)			<u>      </u>		<u>      </u>
Run Casing	<u>      </u>		<u>      </u>		<u>      </u>
Run Casing	<u>      </u>		<u>      </u>		<u>      </u>
Cement Casing	<u>      </u>		<u>      </u>		<u>      </u>
Cement Casing	<u>      </u>		<u>      </u>		<u>      </u>
Drill Out Shoe	<u>      </u>		<u>      </u>		<u>      </u>
	<u>      </u>		<u>      </u>		<u>      </u>
	<u>      </u>		<u>      </u>		<u>      </u>

<b>Main Hole COT:</b>	<b>Days</b>	<b>Main Hole OST: 1.00</b>	<b>Days</b>	<b>Main Hole ODT: 0.37</b>	<b>Days</b>
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DATE	TIME	DESCRIPTION	TIME	DATE	TIME	DESCRIPTION	TIME	DATE	TIME	DESCRIPTION	TIME
01/11/2011	08:00	Start of Main Hole Construction	08:00	01/11/2011	16:00	End of Main Hole Construction	16:00	02/11/2011	08:00	Start of Main Hole Construction	08:00
Total Main Hole Construction Time:			2.24	Days							

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time		Days	Remarks: * Includes recompletion time. Inactive time between recompletions totaled 17.61 days.
Total Main Hole Construction	2.24	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	6.00	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	8.24 *	Days	

USW UZ-N24  
HOLE HISTORY

01-31-86      Moved in CME 550, rig #85136 and equipment.      Secured rig for weekend.

02-03-86      Construction completed building location.      Rigged up.

02-04-86      Drilled 6" hole from 0' to 26' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Cut core #1 (drive sample) from 0' to 0.75'. Cut cores #2 (rotary core) from 7' to 9', #3 (rotary core) from 17' to 19', and #4 (rotary core) from 26' to 30' using 4.25" x 2.40" diamond core bit, 5' HCQ barrel, and air.

02-05-86      Cut core #5 (rotary core) from 30' to 32'. Realigned rig. Opened 4.25" hole and drilled 6" hole from 26' to 40' cased with 5-1/2" casing. Cut core #6 (rotary core) from 32.2' to 35' and core #7 (rotary core) from 35' to 40'. Pulled casing to 39'. Rigged down and moved out. Hole completed 02-05-86.

02-12-86      Moved in CME 550, rig #85136 and rigged up.

02-13-86      Cut cores #8 (rotary core) from 40' to 45', #9 (rotary core) from 45' to 50', and #10 (rotary core) from 50' to 53.8', tools stuck. While freeing tools, HCQ rods parted at saver sub leaving sub, HCQ barrel, and 4.25" x 2.40" diamond core bit in hole. Recovered all of fish using a 3-5/8" spear. Opened 4.25" hole to 6" from 40' to 51', cased with 5-1/2" casing.

02-14-86      Opened 4.25" hole and drilled 6" hole from 51' to 54' cased with 5-1/2" casing. Rigged down and moved out. Recompleted 02-14-86.

02-20-86      Moved in CME 550, rig #85136 and rigged up. Pulled 6 joints of 5-1/2" casing up to 25'. Checked no fluid in the hole using a steel line. Rigged down and moved out. Second recompletion 02-20-86.

02-25-86      Moved in CME 550, rig #85136 and rigged up. Cut cores #11 (rotary core) from 55' to 60', #12 (rotary core) from 60' to 65', #13 (rotary core) from 65' to 70', and #14 (rotary core) from 70' to 75' using 4.25" x 2.40" drag core bit, 5' HCQ barrel, and air. Opened 4.25" hole and drilled 6" hole from 50' to 75' cased with 5-1/2" casing using ODEX 115 system and air. Ran USGS neutron log as directed. Pulled 5-1/2" casing up to 30', laid down 9 joints.

02-26-86      Pulled 5-1/2" casing and rewelded shoe on bottom of casing. Lowered and set casing at 30'. Rigged down and moved out. Third recompletion 02-26-86.

USW UZ-N24 - (Cont.)

CORE RECORD

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 0.75	0.75	0.0	0
	2	7.0 - 9.0	2.0	1.9	95
	3	17.0 - 19.0	2.0	2.0	100
	4	26.0 - 30.0	4.0	3.7	92
	5	30.0 - 32.0	2.0	2.5	125
	6	32.2 - 35.0	2.8	2.8	100
	7	35.0 - 40.0	5.0	5.0	100
	8	40.0 - 45.0	5.0	5.0	100
	9	45.0 - 50.0	5.0	4.8	96
	10	50.0 - 53.8	3.8	3.8	100
	11	55.0 - 60.0	5.0	5.0	100
	12	60.0 - 65.0	5.0	4.2	84
	13	65.0 - 70.0	5.0	5.0	100
	14	70.0 - 75.0	5.0	5.0	100

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.

USW UZ-N24  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 12.2 m (40') using ODEX 115 system. Drive sample and six 108 mm (4.25") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 02-05-86. Seven additional cores were then taken to 22.9 m (75'). 108 mm (4.25") core hole was opened to 152 mm (6") cased with 140 mm (5-1/2") casing to a total depth of 22.9 m (75'). USGS neutron log was run 02-25-86. 140 mm (5-1/2") casing was pulled up and set at 9.1 m (30'). Hole recompleted 02-26-86.



**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry Dell Covington  
Date: May 5, 1987

Hole No.: USW UZ-N25		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: Off Site	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 768,430.4' E 561,218.9'			
Ground Elev.: 4334.7'	Pad Elev.: N/A	Top Casing Elev.: 4336.8'	
Bottom Hole Coord: Not surveyed		@	Ref: None
Rig On Location: 02-11-86	Spudded: 02-11-86	Completed: 02-12-86	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECO			
No. Of Compressors & Capacity: 1/GD 900			

[illegible]

Total Depth:	59'	Plugs: None
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Junk: None

**Logging Data:** None

### Rigs Used

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.54		0.67	1.21

**Remarks:**

**Prepared By: JW:LLF:ps**

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### MAIN HOLE CONSTRUCTION

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
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Drill/Core/Sample	0.40	Mobe & Demobe	0.14	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	

Casing Operation Time (COT)	_____	_____
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Run Casing	_____	_____	_____
Run Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Drill Out Shoe	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

**Total Main Hole Construction Time: 0.54 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.54	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	0.67	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	1.21	Days	

**USW UZ-N25**  
**HOLE HISTORY**

02-11-86      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 11' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Cut cores (rotary) #1 from 6' to 7.5' and #2 from 11' to 12' using 4.25" x 2.40" diamond core bit, 5' HCQ barrel, and air.

02-12-86      Opened 4.25" hole and drilled 6" hole from 11' to 59' cased with 5-1/2" casing. Cut cores (rotary) #3 from 16' to 18' and #4 from 31' to 33'. Rigged down and moved out. Hole completed 02-12-86.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
	1	6.0 - 7.5	1.5	0.5	33
	2	11.0 - 12.0	1.0	0.1	10
	3	16.0 - 18.0	2.0	0.4	20
	4	31.0 - 33.0	2.0	0.0	0

\* No drive samples taken per USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.

**USW UZ-N25**  
**REVIEW OF HOLE CONDITONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 18.0 m (59') using ODEX 115 system. Four 108 mm (4.25") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 02-12-86.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry J. Hall, Corvinton  
 Date: May 5, 1987

Hole No.: USW UZ-N26		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: Off Site	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 768,757.2' E 561,022.9'			
Ground Elev.: 4384.1'	Pad Elev.: N/A	Top Casing Elev.: 4386.2'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 02-10-86	Spudded: 02-10-86	Completed: 02-11-86	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECO			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	

Total Depth: 35'      Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.46		0.67	1.13

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

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### MAIN HOLE CONSTRUCTION

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
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Drill/Core/Sample	0.27	Mobe & Demobe	0.19	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	

Casing Operation Time (COT)	_____	_____
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Time (GRT)			
Run Casing	_____	_____	_____
Run Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Drill Out Shoe	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

Total Main Hole Construction Time: 0.46 Days

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	<u>0.46</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>0.67</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
<b>TOTAL ELAPSED TIME</b>	<b><u>1.13</u></b>	<b>Days</b>	

USW UZ-N26  
HOLE HISTORY

02-10-86 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 16' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Cut cores (rotary) #1 from 5' to 5.5' and #2 from 16' to 16.5' using 4.25" x 2.40" diamond core bit, 5' HCQ barrel, and air.

02-11-86 Opened 4.25" hole and drilled 6" hole from 16' to 35' cased with 5-1/2" casing. Cut core #3 (rotary core) from 26' to 26.5'. Rigged down and moved out. Hole completed 02-11-86.

CORE RECORD

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
	1	5.0 - 5.5	0.5	0.3	60
	2	16.0 - 16.5	0.5	0.3	60
	3	26.0 - 26.5	0.5	0.2	40

\* No drive samples taken per USGS records.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.

**USW UZ-N26**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 10.7 m (35') using ODEX 115 system. Three 108 mm (4.25") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 02-11-86.



**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Wally Hill Carrington*  
 Date: *May 8, 1987*

Hole No.: UE-25 UZN #28		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 763.091.2' E 565.319.7'		
Ground Elev.: 3958.1'	Pad Elev.: N/A	Top Casing Elev.: 3960.1'
Bottom Hole Coord: Not surveyed @		Ref: None
Rig On Location: 11-21-85	Spudded: 11-21-85	Abandoned: 11-25-85
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REECo		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	25'	6"	5"	13.6#	1/4"	0'	25'	
25'	26'	4"						

Total Depth: 26' Plugs: None

Junk: Drive sample tube

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.54		3.33	3.87

Remarks:

Prepared By: JW:LLF:ps

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## MAIN HOLE CONSTRUCTION

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
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Drill/Sample	0.21	Mobe & Demobe	0.08	Rig Repairs	0.25
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	

Casing Operation		
Time (COT)		

Run Casing.	_____	_____	_____
Run Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Drill Out Shoe	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

Total Main Hole Construction Time: 0.54 Days

Remarks:

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TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	<u>0.54</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>3.33</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>3.87</u>	Days	

**UE-25 UZN #28**  
**HOLE HISTORY**

11-21-85      Moved in CME 550, rig #85136 and rigged up. Took core #1 (drive sample) from 0' to 1.5' using air.

11-22-85      Opened drive sample hole and drilled 6" hole from 0' to 25' cased with 5-1/2", 13.6# casing using ODEX 115 system and took cores #2 thru #5 (drive samples) from 6' to 8', 11' to 13', 16' to 18' and 21' to 23'. Attempted to take core #6 (drive sample) from 25' to 26', lost sample shoe in hole. Fished for 4" shoe from 1200 hours to 1600 hours. Secured rig for weekend.

11-25-85      Rig secured from 11-22-85 to 11-25-85. Attempted to retrieve drive sample tube. Hole abandoned as directed by USGS with 5-1/2" casing left at 25'. Rigged down and moved to new location. (New location UE-25 UZN #97.)

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary **</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 1.5	1.5	1.5	100
2		6.0 - 8.0	2.0	2.0	100
3		11.0 - 13.0	2.0	2.0	100
4		16.0 - 18.0	2.0	2.0	100
5		21.0 - 23.0	2.0	2.0	100

\* Drive sample data obtained from geologist's field notes.

\*\* No rotary cores taken.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.

**UE-25 UZN #28**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 7.6 m (25') using ODEX 115 system. Five drive samples were taken to 7.0 m (23') with hole opened to 152 mm (6") after sampling. One drive sample was attempted from 7.6 m (25') to 7.9 m (26') when drive sample tube was lost in hole. Hole abandoned with 140 mm (5-1/2") casing left at 7.6 m (25') 11-25-85.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry J. Cornington  
 Date: May 8, 1987

Hole No.: UE-25 UZN #29      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: 25      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 762,613.1'      E 565,173.3'  
 Ground Elev.: 3972.9'      Pad Elev.: N/A      Top Casing Elev.: 3974.8'  
 Bottom Hole Coord: Not surveyed      @      Ref: None  
 Rig On Location: 11-26-85      Spudded: 11-26-85      Completed: 11-27-85  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REEC  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	

Total Depth: 35'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.44		0.33	0.77

Remarks:

Prepared By: JW:LLF:ps      Time Breakdown on Next Page



**UE-25 UZN #29**  
**HOLE HISTORY**

11-26-85      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 5', cased with 5-1/2", 13.6# casing using ODEX 115 system. Took core #1 (drive sample) from 0' to 1'. Cut core #2 (rotary core) from 5' to 6.5' using 4.25" x 2.40" core bit and HCQ barrel. Opened core hole and drilled 6" hole to 21' cased with 5-1/2" casing. Cut core #3 (rotary core) from 10' to 12' and core #4 from 16' to 16.7'.

11-27-85      Cut core #4 (rotary core) from 21' to 22'. Opened core hole and drilled 6" hole from 21' to 35' cased with 5-1/2" casing. Cut core #5 (rotary core) from 26' to 27.5'. Rigged down and moved to next location. Hole completed 11-27-85.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 1.0	1.0	1.0	100
	2	5.0 - 6.5	1.5	1.5	100
	3	10.0 - 12.0	2.0	1.5	75
	4	16.0 - 16.7	0.7	0.7	100
	5	21.0 - 22.0	1.0	1.0	100
	6	26.0 - 27.5	1.5	1.5	100

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a bit and 5' long core barrel.

UE-25 UZN #29  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 10.7 m (35') using ODEX 115 system. Drive sample and five 108 mm (4.25") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 11-27-85.



**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: Jerry J. Hall Covington  
Date: May 8, 1987

Hole No.: UE-25 UZN #30	Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25
Location: NTS	County: Nye
Surface Coordinates: N 762,047.6' E 565,232.8'	W.O. #: 3404-196
Ground Elev.: 3958.8'	Pad Elev.: N/A
Bottom Hole Coord: Not surveyed @	Top Casing Elev.: 3960.6'
Rig On Location: 11-27-85	Ref: None
Spudded: 11-27-85	Completed: 12-02-85
Circulating Media: ODEX 115	
Main Rig & Contractor: CME 550/REEC	
No. Of Compressors & Capacity: 1/GD 900	

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	

Total Depth: 35'      Plugs: None  
Junk: None  
Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.33		4.67	5.00

Remarks:

Prepared By: JW:LLF:ps

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### MAIN HOLE CONSTRUCTION

Hole No.: UE-25 UZN #30

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill/Core <u>0.29</u>	Mobe & Demobe <u>0.04</u>	Rig Repairs _____
Trips _____	Core _____	W.O. Equipment _____
Dress Drilling _____	Log _____	Fish _____
Assembly _____	Unload Hole _____	Clean Out Fill _____
Fluid Probe _____	Run Mandrel _____	Ream Hole _____
Connections _____	Hydrological _____	Plug Back _____
Open Hole _____	Tests _____	Drill Out Plugs _____
_____	_____	Secured W/Crews _____
_____	_____	_____
Main Hole DOT <u>0.29 Days</u>	_____	_____
Casing Operation	_____	_____
Time (COT)	_____	_____
Run Casing _____	_____	_____
Run Casing _____	_____	_____
Cement Casing _____	_____	_____
Cement Casing _____	_____	_____
Drill Out Shoe _____	_____	_____
_____	_____	_____
_____	_____	_____

Main Hole COT: Days		Main Hole OST: 0.04 Days		Main Hole ODT: Days	
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**Total Main Hole Construction Time: 0.33 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.33	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	4.67	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	5.00	Days	

UE-25 UZN #30  
HOLE HISTORY

11-27-85 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 11' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Took core #1 (drive sample) from 0' to 1.25'. Secured rig for holiday and weekend.

12-02-85 Rig secured from 11-27-85 to 0800 hours, 12-02-85. Cut core #2 (rotary core) from 11' to 12' using 4.25" x 2.40" diamond air core bit and HCQ barrel. Opened core hole and drilled 6" hole to 30' cased with 5-1/2" casing. Cut core #3 (rotary core) from 31' to 34'. Opened core hole and drilled 6" hole from 30' to 35' cased with 5-1/2" casing. Rigged down and moved to new location. Hole completed 12-02-85.

CORE RECORD

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 1.25	1.25	1.25	100
	2	11.0 - 12.0	1.0	1.0	100
	3	31.0 - 34.0	3.0	1.7	57

\* Drive sample data obtained from geologist's field notes.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.

UE-25 UZN #30  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 10.7 m (35') using ODEX 115 system. One drive sample and two 108 mm (4.25") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 12-02-85.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *James H. Cornington*  
 Date: *27 Aug 8, 1987*

Hole No.: USW UZ-N40 | Type Hole: Unsaturated Zone Neutron  
 User: USGS | Area: Off Site | Site Prep. W.O. #: None  
 Location: NTS | County: Nye | W.O. #: 3404-196  
 Surface Coordinates: N 766,175.8' E 564,221.3'  
 Ground Elev.: 4079.4' | Pad Elev.: N/A | Top Casing Elev.: 4081.4'  
 Bottom Hole Coord: Not surveyed @ | Ref: None  
 Rig On Location: 12-19-85 | Spudded: 12-20-85 | Completed: 01-07-86  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REEC  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	

Total Depth: 35' | Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.90		18.08	18.98

Remarks:

Prepared By: JW:LLF:ps

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### MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N40

<b>Drilling Operation Time (DOT)</b>		<b>Other Scheduled Time (OST)</b>	<b>Operational Delay Time (ODT)</b>
Drill/Core/Sample	0.40	Mobe & Demobe	0.48
Trips	0.02	Core	
Dress Drilling		Log	
Assembly		Unload Hole	
Fluid Probe		Run Mandrel	
Connections		Hydrological	
Open Hole		Tests	
Main Hole DOT	0.42 Days		
<b>Casing Operation Time (COT)</b>			
Run Casing			
Run Casing			
Cement Casing			
Cement Casing			
Drill Out Shoe			

Main Hole COT:	Days	Main Hole OST: 0.48	Days	Main Hole ODT:	Days
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Main Hole Cdr:	Days	Main Hole Cdr:	Days	Main Hole Cdr:	Days
Total Main Hole Construction Time:	0.90				

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	<u>0.90</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>18.08</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
<b>TOTAL ELAPSED TIME</b>	<u>18.98</u>	Days	

**USW UZ-N40**  
**HOLE HISTORY**

12-19-85 Moved in CME 550, rig #85136.

12-20-85 Rigged up. Cut cores #1 (drive sample) from 0' to 2' and #2 (drive sample) from 2' to 2.9'. Secured rig for holidays.

01-06-86 Rig secured from 12-20-85 to 01-06-86. Opened core hole and drilled 6" hole from 0' to 31' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Cut cores #3 (rotary core) from 6' to 8', #4 (rotary core) from 11' to 13', #5 (rotary core) from 16' to 18', #6 (rotary core) from 21' to 23', and #7 (rotary core) from 31' to 33'.

01-07-86 Opened 4.25" hole and drilled 6" hole from 31' to 35' cased with 5-1/2" casing. Rigged down and moved out. Hole completed 01-07-86.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	1.75	88
2		2.0 - 2.9	0.9	0.75	83
	3	6.0 - 8.0	2.0	2.0	100
	4	11.0 - 13.0	2.0	0.7	35
	5	16.0 - 18.0	2.0	2.0	100
	6	21.0 - 23.0	2.0	2.0	100
	7	31.0 - 33.0	2.0	2.0	100

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.

USW UZ-N40  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 10.7 m (35') using ODEX 115 system. Two drive samples and five 108 mm (4.25") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 01-07-86.



**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Wally Dell Cornington*  
 Date: *May 16, 1987*

Hole No.: USW UZ-N41		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: Off Site	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 765,867.2' E 563,520.9'			
Ground Elev.: 4117.5'	Pad Elev.: N/A	Top Casing Elev.: 4119.5'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 12-12-85	Spudded: 12-12-85	Completed: 12-16-85	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECO			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	
35'	37'	4.25"						

Total Depth: 37' Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.71		3.33	4.04

Remarks:

Prepared By: JW:LLF:ps

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### MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N41

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill/Core/Sample <u>0.42</u>	Mobe & Demobe <u>0.29</u>	Rig Repairs _____
Trips _____	Core _____	W.O. Equipment _____
Dress Drilling _____	Log _____	Fish _____
Assembly _____	Unload Hole _____	Clean Out Fill _____
Fluid Probe _____	Run Mandrel _____	Ream Hole _____
Connections _____	Hydrological _____	Plug Back _____
Open Hole _____	Tests _____	Drill Out Plugs _____
_____	_____	Secured W/Crews _____
_____	_____	_____
_____	_____	_____
Main Hole DOT 0.42 Days	_____	_____
Casing Operation Time (COT)	_____	_____
Run Casing _____	_____	_____
Run Casing _____	_____	_____
Cement Casing _____	_____	_____
Cement Casing _____	_____	_____
Drill Out Shoe _____	_____	_____
_____	_____	_____
_____	_____	_____
Main Hole COT: _____ Days	Main Hole OST: 0.29 Days	Main Hole ODT: _____ Days
Total Main Hole Construction Time: 0.71 Days		

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	<u>0.71</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>3.33</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>4.04</u>	Days	

**USW UZ-N41**  
**HOLE HISTORY**

12-12-85     Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 16' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Took cores #1 thru #3 (drive samples) from 0' to 13'. Started cutting core #4 (rotary core) at 16' using 4.25" x 2.40" diamond core bit and 5' HCQ barrel.

12-13-85     Cut core #4 (rotary core) from 16' to 18'. Opened core hole and drilled 6" hole to 21' cased with 5-1/2" casing. Cut core #5 (rotary core) from 21' to 22.5'. Opened core hole and drilled 6" hole to 35' cased with 5-1/2" casing. Cut core #6 (rotary core) from 35' to 37'. Secured rig for weekend.

12-16-85     Rig secured from 12-13-85 to 12-14-85. Rigged down and moved to next location. Hole completed 12-16-85.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	2.0	100
2		6.0 - 8.0	2.0	2.0	100
3		11.0 - 13.0	2.0	2.0	100
	4	16.0 - 18.0	2.0	2.0	100
	5	21.0 - 22.5	1.5	1.0	67
	6	35.0 - 37.0	2.0	2.0	100

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.

USW UZ-N41  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 10.7 m (35') using ODEX 115 system. Three drive samples and three 108 mm (4.25") cores were taken during drilling to a total depth of 11.3 m (37') with hole opened to 152 mm (6") to 10.7 m (35') after coring. Hole completed 12-16-85.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jim J. Corington*  
 Date: *May 8, 1987*

Hole No.: USW UZ-N42		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: Off Site	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 765,728.6' E 562,858.5'			
Ground Elev.: 4179.1'	Pad Elev.: N/A	Top Casing Elev.: 4180.9'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 12-16-85	Spudded: 12-16-85	Completed: 12-17-85	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECo			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	
35'	40'	4.25"						

Total Depth: 40'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.54		0.67	1.21

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page



**USW UZ-N42**  
**HOLE HISTORY**

12-16-85      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 1' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Cut core #1 (rotary core) from 1' to 3' using 4.25" x 2.40" diamond core bit and 5' HCQ barrel. Opened core hole and drilled 6" hole to 11' cased with 5-1/2" casing. Cut core #2 (rotary core) from 11' to 16'. Opened core hole and drilled 6" hole to 21' cased with 5-1/2" casing.

12-17-85      Cut core #3 (rotary core) from 21' to 24'. Opened core hole and drilled 6" hole to 35'. Cut core #4 (rotary core) from 35' to 40'. Rigged down and moved to next location. Hole completed 12-17-85.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
	1	1.0 - 3.0	2.0	2.0	100
	2	11.0 - 16.0	5.0	4.6	92
	3	21.0 - 24.0	3.0	2.5	83
	4	35.0 - 40.0	5.0	4.5	90

\* No drive samples taken per USGS records.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.

USW UZ-N42  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 10.7 m (35') using ODEX 115 system. Four 108 mm (4.25") cores were taken during drilling to a total depth of 12.2 m (40') with hole opened to 152 mm (6") to 10.7 m (35') after coring. Hole completed 12-17-85.



**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jimmy Todd Cornington  
 Date: April 8, 1987

Hole No.: USW UZ-N43      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: Off-Site      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 765,997.0' E 563,263.6'  
 Ground Elev.: 4149.4'      Pad Elev.: N/A      Top Casing Elev.: 4151.2'  
 Bottom Hole Coord: Not surveyed      @      Ref: None  
 Rig On Location: 12-04-85      Spudded: 12-05-85      Completed: 12-09-85  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECo  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	45'	6"	5"	13.6#	1/4"	0'	45'	

Total Depth: 45'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	1.50		3.67	5.17

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N43			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill/Core/Sample     0.48	Mobe & Demobe     0.77	Rig Repairs     0.15	
Trips     0.10	Core	W.O. Equipment	
Dress Drilling	Log	Fish	
Assembly	Unload Hole	Clean Out Fill	
Fluid Probe	Run Mandrel	Ream Hole	
Connections	Hydrological	Plug Back	
Open Hole	Tests	Drill Out Plugs	
		Secured W/Crews	
Main Hole DOT 0.58 Days			
Casing Operation Time (COT)			
Run Casing			
Run Casing			
Cement Casing			
Cement Casing			
Drill Out Shoe			
Main Hole COT:     Days	Main Hole OST: 0.77 Days	Main Hole ODT: 0.15 Days	
Total Main Hole Construction Time:     Days			
Remarks:			
TOTAL ELAPSED TIME			
Total Site Prep. Time	Days	Remarks:	
Total Main Hole Construction	1.50 Days		
Secured W/O Crew Site Prep.	Days		
Secured W/O Crew Main Hole Const.	3.67 Days		
Total Suspended Time (No Rig)	Days		
TOTAL ELAPSED TIME	5.17 Days		

**USW UZ-N43**  
**HOLE HISTORY**

12-04-85 Moved in CME 550, rig #85136. (Crew worked to 2400 hours.)

12-05-85 Rigged up and repaired rig master clutch to 1300 hours. Drilled 6" hole from 0' to 16' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Took cores #1 thru #4 (drive samples) from 0' to 18'. Worked on hammer bit from 1500 hours to 1600 hours.

12-06-85 Opened core hole and drilled 6" hole from 16' to 40' cased with 5-1/2" casing. Took core #5 (drive sample) from 21' to 22.6'. Cut cores (rotary) #6 and #7 from 30' to 39' using 4.25" x 4.00" x 2.40" diamond core bits and 5' HCQ barrel with air. Broke crown of core bit at 35'. Secured rig for weekend.

12-09-85 Rig secured from 12-06-85 to 12-09-85. Drilled 6" hole from 40' to 45' cased with 5-1/2" casing. Rigged down and moved to next location. Hole completed 12-09-85.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	2.0	100
2		6.0 - 8.0	2.0	2.0	100
3		11.0 - 13.0	2.0	0.5	25
4		16.0 - 18.0	2.0	2.0	100
5		21.0 - 22.6	1.6	1.6	100
	6	30.0 - 35.0	5.0	2.9	58
	7	35.0 - 39.0	4.0	3.0	75

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.

USW UZ-N43  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 13.7 m (45') using ODEX 115 system. Five drive samples and two cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 12-09-85.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry M. Corrington  
 Date: 7/27/87

Hole No.: USW UZ-N44		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: Off Site	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 766,192.5' E 563,139.6'			
Ground Elev.: 4161.5'	Pad Elev.: N/A	Top Casing Elev.: 4163.7'	
Bottom Hole Coord: Not surveyed		@	Ref: None
Rig On Location: 12-17-85	Spudded: 12-18-85	Completed: 12-19-85	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECO			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	
35'	36'	4.25"						

Total Depth: 36'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.57		1.33	1.90

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N44			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill/Core/Sample <u>0.40</u>	Mobe & Demobe <u>0.17</u>	Rig Repairs	
Trips	Core	W.O. Equipment	<u>2</u>
Dress Drilling	Log	Fish	
Assembly	Unload Hole	Clean Out Fill	
Fluid Probe	Run Mandrel	Ream Hole	
Connections	Hydrological	Plug Back	
Open Hole	Tests	Drill Out Plugs	
		Secured W/Crews	
Main Hole DOT <u>0.40</u> Days			
Casing Operation Time (COT)			
Run Casing			
Run Casing			
Cement Casing			
Cement Casing			
Drill Out Shoe			
Main Hole COT: Days	Main Hole OST: <u>0.17</u> Days	Main Hole ODT: Days	
Total Main Hole Construction Time: <u>0.57</u> Days			
Remarks:			
TOTAL ELAPSED TIME			
Total Site Prep. Time	Days	Remarks:	
Total Main Hole Construction	<u>0.57</u> Days		
Secured W/O Crew Site Prep.	Days		
Secured W/O Crew Main Hole Const.	<u>1.33</u> Days		
Total Suspended Time (No Rig)	Days		
TOTAL ELAPSED TIME	<u>1.90</u> Days		

**USW UZ-N44**  
**HOLE HISTORY**

12-17-85      Moved in CME 550, rig #85136 and worked on equipment.

12-18-85      Drilled 6" hole from 0' to 5' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Cut core #1 (rotary core) from 5' to 10' using a 4.25" x 2.40" diamond core bit and 5' HCQ barrel. Opened core hole and drilled 6" hole to 15' cased with 5-1/2" casing. Cut core #2 (rotary core) from 15' to 17.8'. Opened core hole and drilled 6" hole to 26'. Cut core #3 (rotary core) from 26' to 27'.

12-19-85      Completed core #3 (rotary core) from 26' to 28'. Opened core hole and drilled 6" hole to 35' cased with 5-1/2" casing. Cut core #4 (rotary core) from 35' to 36'. Rigged down and moved to next location. Hole completed 12-19-85.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
	1	5.0 - 10.0	5.0	4.3	86
	2	15.0 - 17.8	2.8	2.0	71
	3	26.0 - 28.0	2.0	2.0	100
	4	35.0 - 36.0	1.0	1.1	110

\* No drive samples taken per USGS records.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.

USW UZ-N44  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 10.7 m (35') using ODEX 115 system. Four 108 mm (4.25") cores were taken during drilling to a total depth of 11.0 m (36') with hole opened to 152 mm (6") to 10.7 m (35') after coring. Hole completed 12-19-85.



**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *John D. Cornington*  
 Date: *May 8, 1987*

Hole No.: USW UZ-N45		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: Off Site	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 765,976.7' E 563,429.2'			
Ground Elev.: 4129.9'	Pad Elev.: N/A	Top Casing Elev.: 4131.9'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 12-09-85	Spudded: 12-09-85	Completed: 12-12-85	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REEC			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	45'	6"	5"	13.6#	1/4"	0'	45'	

Total Depth: 45'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.68		2.25	2.93

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N45			
<b>Drilling Operation</b> Time (DOT)	<b>Other Scheduled</b> Time (OST)	<b>Operational Delay</b> Time (ODT)	
Drill/Core/Sample 0.46	Mobe & Demobe 0.10	Rig Repairs 0.08	
Trips 0.04	Core	W.O. Equipment	
Dress Drilling	Log	Fish	
Assembly	Unload Hole	Clean Out Fill	
Fluid Probe	Run Mandrel	Ream Hole	
Connections	Hydrological	Plug Back	
Open Hole	Tests	Drill Out Plugs	
		Secured W/Crews	
Main Hole DOT 0.50 Days			
<b>Casing Operation</b> Time (COT)			
Run Casing			
Run Casing			
Cement Casing			
Cement Casing			
Drill Out Shoe			
Main Hole COT: Days Main Hole OST: 0.10 Days Main Hole ODT: 0.08 Days			
Total Main Hole Construction Time: 0.68 Days			
Remarks:			
TOTAL ELAPSED TIME			
Total Site Prep. Time Days		Remarks:	
Total Main Hole Construction 0.68 Days			
Secured W/O Crew Site Prep. Days			
Secured W/O Crew Main Hole Const. 2.25 Days			
Total Suspended Time (No Rig) Days			
TOTAL ELAPSED TIME 2.93 Days			

**USW UZ-N45**  
**HOLE HISTORY**

12-09-85 Moved in CME 550, rig #85136 and rigged up. Took core #1 (drive sample) from 0' to 2'. Opened sample hole and drilled 6" hole to 11' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Took core #2 (drive sample) from 6' to 8'.

12-10-85 Drilled 6" hole from 11' to 35' cased with 5-1/2" casing. Took cores #3 thru #8 (drive samples) from 11' to 35.3'. Cut cores #9 and #10 (rotary cores) from 35.3' to 39' using 4.25" x 2.40" diamond core bit and 5' HCQ barrel with air.

12-11-85 Rig secured to 1400 hours for CPR class. Opened 4.25" hole and drilled 6" hole to 40' cased with 5-1/2" casing. Cut 4.25" x 2.40" core #11 (rotary core) from 40' to 43'.

12-12-85 Opened core hole and drilled 6" hole from 40' to 45' cased with 5-1/2" casing. Rigged down and moved to next location. Hole completed 12-12-85.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	2.0	100
2		6.0 - 8.0	2.0	2.0	100
3		11.0 - 13.0	2.0	2.0	100
4		16.0 - 18.0	2.0	2.0	100
5		21.0 - 23.0	2.0	2.0	100
6		25.0 - 27.0	2.0	2.0	100
7		30.0 - 32.0	2.0	1.75	88
8		35.0 - 35.3	0.3	0.3	100
	9	35.3 - 35.5	0.2	0.2	100
	10	35.5 - 39.0	3.5	2.5	71
	11	40.0 - 43.0	3.0	3.0	100

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.

USW UZ-N45  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 13.7 m (45') using ODEX 115 system. Eight drive samples and three 108 mm (4.25") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 12-12-85.



**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: James D. Corington  
 Date: July 18, 1987

Hole No.: USW UZ-N46		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: Off Site	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 772,262.3' E 559,747.7'			
Ground Elev.: 4500.5'	Pad Elev.: N/A	Top Casing Elev.: 4502.8'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 01-21-86	Spudded: 01-21-86	Recompleted: 01-31-86	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECo			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	99'	6"	5"	13.6#	1/4"	0'	99'	

Total Depth: 99'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	1.85		3.56	5.41

Remarks:

Prepared By: JW:LLF:ps      Time Breakdown on Next Page

## TIME BREAKDOWN

### MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N46

<b>Drilling Operation Time (DOT)</b>	<b>Other Scheduled Time (OST)</b>	<b>Operational Delay Time (ODT)</b>
Drill/Core/Sample <u>1.25</u>	Mobe & Demobe <u>0.33</u>	Rig Repairs <u>0.06</u>
Trips <u>0.15</u>	Core                                         _____	W.O. Equipment                   _____
Dress Drilling                   _____	Log     _____	Fish                                        _____
Assembly                           _____	Unload Hole                           _____	Clean Out Fill                        _____
Fluid Probe                       _____	Run Mandrel                           _____	Ream Hole                              _____
Connections                       _____	Hydrological                           _____	Plug Back                              _____
Open Hole                          _____	Tests                                        _____	Drill Out Plugs                        _____
_____	_____	Secured W/Crews <u>0.06</u>
_____	_____	_____
Main Hole DOT <u>1.40</u> Days	_____	_____
_____	_____	_____
<b>Casing Operation Time (COT)</b>	_____	_____
Run Casing                        _____	_____	_____
Run Casing                        _____	_____	_____
Cement Casing                   _____	_____	_____
Cement Casing                   _____	_____	_____
Drill Out Shoe                   _____	_____	_____
_____	_____	_____
_____	_____	_____

Main Hole COT:	Days	Main Hole OST: 0.33	Days	Main Hole ODT: 0.12	Days
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**Total Main Hole Construction Time: 1.85 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: * Includes recompletion time. Inactive time between completions totaled 4.00 days.
Total Main Hole Construction	<u>1.85</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>3.56</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
<b>TOTAL ELAPSED TIME</b>	<b>5.41 *</b>	<b>Days</b>	

**USW UZ-N46**  
**HOLE HISTORY**

01-21-86 Moved in CME 550, rig #85136 and rigged up. Cut cores #1 (rotary core) from 0' to 5' and #2 (rotary core) from 5' to 10' using 4.25" x 2.40" diamond core bit, 5' HCQ barrel, and air.

01-22-86 Opened 4.25" hole and drilled 6" hole from 0' to 30' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Cut cores (rotary) #3 from 10' to 15', #4 from 15' to 20', #5 from 20' to 25', #6 from 25' to 30', #7 from 30' to 35', #8 from 35' to 40', and #9 from 40' to 42'.

01-23-86 Opened 4.25" hole and drilled 6" hole from 30' to 59' cased with 5-1/2" casing. Cut cores (rotary) #10 from 45' to 50', #11 from 50' to 54.6', and #12 from 54.6' to 58'.

01-24-86 Rigged down and moved out. Hole completed 01-24-86.

01-29-86 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 59' to 84' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Cut cores (rotary) #13 from 77' to 79', #14 from 79' to 80', and #15 from 80' to 81.5' using 4.25" x 2.40" diamond core bit, 5' HCQ barrel, and air.

01-30-86 Drilling secured to 1330 hours due to weather. Cut core #16 (rotary core) from 84' to 89'. Secured rig at 1430 hours due to weather.

01-31-86 Opened 4.25" hole and drilled 6" hole from 84' to 99' cased with 5-1/2" casing. Cut cores (rotary) #17 from 89' to 94' and #18 from 94' to 99'. Rigged down and moved out. Hole recompleted 01-31-86.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
	1	0.0 - 5.0	5.0	5.0	100
	2	5.0 - 10.0	5.0	5.0	100
	3	10.0 - 15.0	5.0	5.0	100
	4	15.0 - 20.0	5.0	5.0	100
	5	20.0 - 25.0	5.0	5.0	100
	6	25.0 - 30.0	5.0	5.0	100
	7	30.0 - 35.0	5.0	5.0	100
	8	35.0 - 40.0	5.0	5.0	100
	9	40.0 - 42.0	2.0	2.0	100
	10	45.0 - 50.0	5.0	5.0	100
	11	50.0 - 54.6	4.6	4.6	100
	12	54.6 - 58.0	3.4	3.4	100
	13	77.0 - 79.0	2.0	2.0	100
	14	79.0 - 80.0	1.0	1.0	100
	15	80.0 - 81.5	1.5	1.5	100
	16	84.0 - 89.0	5.0	5.0	100

CORE RECORD (Cont.)

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
	17	89.0 - 94.0	5.0	5.0	100
	18	94.0 - 99.0	5.0	5.0	100

\* No drive samples taken per USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary samples taken with a core bit and 5' long core barrel.



USW UZ-N46  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 18.0 m (59') using ODEX 115 system. Twelve 108 mm (4.25") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 01-24-86. 152 mm (6") hole cased with 140 mm (5-1/2") casing was then drilled to a total depth of 30.2 m (99') using ODEX 115 system. Six additional cores were taken for a total of eighteen cores during drilling with hole opened to 152 mm (6") after coring. Hole recompleted 01-31-86.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jimmy Dell Covington  
 Date: Feb 8, 1987

Hole No.: USW UZ-N47		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: Off Site	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 771,967.5' E 559,783.5' O		
Ground Elev.: 4480.4'	Pad Elev.: N/A	Top Casing Elev.: 4482.7'
Bottom Hole Coord: Not surveyed @		Ref: None
Rig On Location: 01-24-86	Spudded: 01-24-86	Completed: 01-29-86
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REECo		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	85'	6"	5"	13.6#	1/4"	0'	85'	
85'	86'	4.25"						

Total Depth: 86' Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	1.10		4.00	5.10

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

## TIME BREAKDOWN

### MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N47

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill/Core/Sample	0.71	Mobe & Demobe	0.19	Rig Repairs	0.12
Trips	0.08	Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.79 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					
Main Hole COT: Days		Main Hole OST: 0.19 Days		Main Hole ODT: 0.12 Days	
Total Main Hole Construction Time: 1.10 Days					
Remarks:					

### TOTAL ELAPSED TIME

Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	1.10	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	4.00	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	5.10	Days	

USW UZ-N47  
HOLE HISTORY

01-24-86 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 35' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Took cores #1 thru #7 (drive samples) from 0' to 31'. Cut core #8 (rotary core) from 35' to 39' using 4.25" x 2.40" diamond core bit, 5' HCQ barrel, and air. Secured rig for weekend.

01-27-86 Rig secured from 01-24-86 to 01-27-86. Opened 4.25" hole and drilled 6" hole from 35' to 55' cased with 5-1/2" casing. Cut cores (rotary) #9 from 39' to 41' and #10 from 55' to 57'.

01-28-86 Opened 4.25" hole and drilled 6" hole from 55' to 85' cased with 5-1/2" casing. Cut cores (rotary) #11 from 70' to 71', #12 from 71' to 74', #13 from 74' to 75', #14 from 75' to 80', #15 from 80' to 85', and #16 from 85' to 86'.

01-29-86 Rigged down and moved out. Hole completed 01-29-86.

CORE RECORD

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	2.0	100
2		5.0 - 7.0	2.0	2.0	100
3		10.0 - 12.0	2.0	2.0	100
4		15.0 - 17.0	2.0	2.0	100
5		20.0 - 22.0	2.0	2.0	100
6		25.0 - 27.0	2.0	2.0	100
7		30.0 - 31.0	1.0	1.0	100
	8	35.0 - 39.0	4.0	4.0	100
	9	39.0 - 41.0	2.0	2.0	100
	10	55.0 - 57.0	2.0	2.0	100
	11	70.0 - 71.0	1.0	0.9	90
	12	71.0 - 74.0	3.0	3.0	100
	13	74.0 - 75.0	1.0	0.8	80
	14	75.0 - 80.0	5.0	5.0	100
	15	80.0 - 85.0	5.0	5.0	100
	16	85.0 - 86.0	1.0	1.4	140

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.

USW UZ-N47  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 25.9 m (85') using ODEX 115 system. Seven drive samples and nine 108 mm (4.25") cores were taken to a total depth of 26.2 m (86') during drilling with hole opened to 152 mm (6") to 25.9 m (85') after coring. Hole completed 01-29-86.

**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: Jerry J. Hall  
Date: May 8, 1987

Hole No.: USW UZ-N48      Type Hole: Unsaturated Zone Neutron  
User: USGS      Area: Off Site      Site Prep. W.O. #: None  
Location: NTS      County: Nye      W.O. #: 3404-196  
Surface Coordinates: N 760,834.9' E 562,413.6'  
Ground Elev.: 4211.1'      Pad Elev.: N/A      Top Casing Elev.: 4213.1'  
Bottom Hole Coord: Not surveyed      @      Ref: None  
Rig On Location: 01-07-86      Spudded: 01-07-86      Completed: 01-08-86  
Circulating Media: ODEX 115  
Main Rig & Contractor: CME 550/REECo  
No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	

Total Depth: 35'      Plugs: None  
Junk: None  
Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.60		1.33	1.93

Remarks:

Prepared By: JW:LLF:ps      Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N48			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill/Core/Sample 0.33	Mobe & Demobe 0.21	Rig Repairs 0.06	
Trips	Core	W.O. Equipment	
Dress Drilling	Log	Fish	
Assembly	Unload Hole	Clean Out Fill	
Fluid Probe	Run Mandrel	Ream Hole	
Connections	Hydrological	Plug Back	
Open Hole	Tests	Drill Out Plugs	
		Secured W/Crews	
Main Hole DOT 0.33 Days			
Casing Operation Time (COT)			
Run Casing			
Run Casing			
Cement Casing			
Cement Casing			
Drill Out Shoe			
Main Hole COT: Days	Main Hole OST: 0.21 Days	Main Hole ODT: 0.06 Days	
Total Main Hole Construction Time: 0.60 Days			
Remarks:			
TOTAL ELAPSED TIME			
Total Site Prep. Time	Days	Remarks:	
Total Main Hole Construction	0.60 Days		
Secured W/O Crew Site Prep.	Days		
Secured W/O Crew Main Hole Const.	1.33 Days		
Total Suspended Time (No Rig)	Days		
TOTAL ELAPSED TIME	1.93 Days		

USW UZ-N48  
HOLE HISTORY

01-07-86 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 5' cased with 5-1/2", 13.6# casing using ODEX 115 system with air. Cut core #1 (rotary core) from 5' to 6' using 4.25" x 2.40" diamond core bit and 5' HCQ barrel.

01-08-86 Opened 4.25" hole and drilled 6" hole from 5' to 35' cased with 5-1/2" casing. Cut 4.25" core #2 (rotary core) from 15' to 16' and core #3 (rotary core) from 25' to 26'. Rigged down. Hole completed 01-08-86.

01-09-86 Moved out rig and equipment.

CORE RECORD

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
	1	5.0 - 6.0	1.0	0.5	50
	2	15.0 - 16.0	1.0	1.0	100
	3	25.0 - 26.0	1.0	1.0	100

\* No drive samples taken per USGS records.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.



USW UZ-N48  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 10.7 m (35') using ODEX 115 system. Three 108 mm (4.25") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 01-08-86.

**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: *Jerry Tall Covington*  
Date: *May 18, 1987*

Hole No.: USW UZ-N49      Type Hole: Unsaturated Zone Neutron  
User: USGS      Area: Off Site      Site Prep. W.O. #: None  
Location: NTS      County: Nye      W.O. #: 3404-196  
Surface Coordinates: N 760,860.4' E 562,321.8'  
Ground Elev.: 4228.5'      Pad Elev.: N/A      Top Casing Elev.: 4230.5'  
Bottom Hole Coord: Not surveyed      @      Ref: None  
Rig On Location: 01-09-86      Spudded: 01-09-86      Completed: 01-10-86  
Circulating Media: ODEX 115  
Main Rig & Contractor: CME 550/REECo  
No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	
35'	36'	4.25"						

Total Depth: 36'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	*Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.43		0.67	1.10

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN	
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## MAIN HOLE CONSTRUCTION

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
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Main Hole DOT 0.22 Days	_____	_____
	_____	_____

Run Casing	_____	_____	_____
Run Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Drill Out Shoe	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

**Total Main Hole Construction Time: 0.43 Days**

Remarks:

TOTAL ELAPSED TIME	
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**USW UZ-N49**  
**HOLE HISTORY**

01-09-86      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 35' cased with 5-1/2", 13.6# casing using ODEX 115 system with air. Took core #1 (drive sample) from 0' to 2'. Cut core #2 (rotary core) from 12' to 13' and core #3 (rotary core) from 35' to 36' using 4.25" x 2.40" diamond core bit.

01-10-86      Worked on ODEX tools. Rigged down and moved out. Hole completed 01-10-86.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	1.5	75
	2	12.0 - 13.0	1.0	1.0	100
	3	35.0 - 36.0	1.0	0.5	50

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.

USW UZ-N49  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 10.7 m (35') using ODEX 115 system. A drive sample and two 108 mm (4.25") cores were taken during drilling to a total depth of 11.0 m (36') with hole opened to 152 mm (6") to 10.7 m (35') after coring. Hole completed 01-10-86.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jimmy Neil Covington*  
 Date: *May 8, 1987*

Hole No.: USW UZ-N50      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: Off Site      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 760,775.9' E 562,911.7'  
 Ground Elev.: 4173.2'      Pad Elev.: N/A      Top Casing Elev.: 4175.0'  
 Bottom Hole Coord: Not surveyed      @      Ref: None  
 Rig On Location: 08-23-84      Spudded: 08-24-84      Completed: 08-24-84  
 Circulating Media: ODEX 115

Main Rig & Contractor: CME 550/REECo

No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	20'	6"	5"	13.6#	1/4"	0'	20'	

Total Depth: 20'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.18		0.67	0.85

Remarks:

Prepared By: JW:LLF:ps

-Time Breakdown on Next Page

TIME BREAKDOWN	
1	00:00:00
2	00:00:00
3	00:00:00
4	00:00:00
5	00:00:00
6	00:00:00
7	00:00:00
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9	00:00:00
10	00:00:00
11	00:00:00
12	00:00:00
13	00:00:00
14	00:00:00
15	00:00:00
16	00:00:00
17	00:00:00
18	00:00:00
19	00:00:00
20	00:00:00
21	00:00:00
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87	00:00:00
88	00:00:00
89	00:00:00
90	00:00:00
91	00:00:00
92	00:00:00
93	00:00:00
94	00:00:00
95	00:00:00
96	00:00:00
97	00:00:00
98	00:00:00
99	00:00:00
100	00:00:00

## MAIN HOLE CONSTRUCTION

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
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Rig Repairs	_____
W.O. Equipment	_____
Fish	_____
Clean Out Fill	_____
Ream Hole	_____
Plug Back	_____
Drill Out Plugs	_____
Secured W/Crews	_____

**Casing Operation  
Time (COT)**

[illegible]

**Total Main Hole Construction Time: 0.18 Days**

[illegible]

TOTAL ELAPSED TIME	
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Remarks:

TOTAL ELAPSED TIME <u>0.85</u> Days		
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USW UZ-50  
HOLE HISTORY

08-23-84      Moved in CME 550, rig #85136 and rigged up.

08-24-84      Drilled 6" hole from 0' to 20' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 08-24-84.





USW UZ-N50  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 6.1 m (20') using ODEX 115 system. Hole completed 08-24-84.

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**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: *James Hall Carrington*  
Date: *May 8, 1987*

Hole No.: USW UZ-N51		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: Off Site	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 760,860.8' E 562,909.4'		
Ground Elev.: 4169.0'	Pad Elev.: N/A	Top Casing Elev.: 4170.8'
Bottom Hole Coord: Not surveyed @		Ref: None
Rig On Location: 08-24-84	Spudded: 08-24-84	Completed: 08-24-84
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REECo		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	20'	6"	5"	13.6#	1/4"	0'	20'	

Total Depth: 20'      Plugs: None  
Junk: None  
Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.10			0.10

Remarks:

Prepared By: JW:LLF:ps      Time Breakdown on Next Page

**TIME BREAKDOWN**

## MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N51

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	<u>0.08</u>	Mobe & Demobe	<u>0.02</u>	Rig Repairs	<u>          </u>
Trips	<u>          </u>	Core	<u>          </u>	W.O. Equipment	<u>          </u>
Dress Drilling	<u>          </u>	Log	<u>          </u>	Fish	<u>          </u>
Assembly	<u>          </u>	Unload Hole	<u>          </u>	Clean Out Fill	<u>          </u>
Fluid Probe	<u>          </u>	Run Mandrel	<u>          </u>	Ream Hole	<u>          </u>
Connections	<u>          </u>	Hydrological	<u>          </u>	Plug Back	<u>          </u>
Open Hole	<u>          </u>	Tests	<u>          </u>	Drill Out Plugs	<u>          </u>
	<u>          </u>		<u>          </u>	Secured W/Crews	<u>          </u>
	<u>          </u>		<u>          </u>		<u>          </u>
Main Hole DOT	<u>0.08 Days</u>		<u>          </u>		<u>          </u>
			<u>          </u>		<u>          </u>
Casing Operation			<u>          </u>		<u>          </u>
Time (COT)			<u>          </u>		<u>          </u>
Run Casing	<u>          </u>		<u>          </u>		<u>          </u>
Run Casing	<u>          </u>		<u>          </u>		<u>          </u>
Cement Casing	<u>          </u>		<u>          </u>		<u>          </u>
Cement Casing	<u>          </u>		<u>          </u>		<u>          </u>
Drill Out Shoe	<u>          </u>		<u>          </u>		<u>          </u>
	<u>          </u>		<u>          </u>		<u>          </u>
	<u>          </u>		<u>          </u>		<u>          </u>
Main Hole COT:	<u>Days</u>	Main Hole OST:	<u>0.02 Days</u>	Main Hole ODT:	<u>Days</u>
Total Main Hole Construction Time:	<u>0.10 Days</u>				
Remarks:					

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	0.10	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	_____	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	0.10	Days	

USW UZ-N51  
HOLE HISTORY

08-24-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 20' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 8-24-84.

USW UZ-N51  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 6.1 m (20') using ODEX 115 system. Hole completed 08-24-84.

FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI

Approved: Jerry D. Conington  
Date: May 5, 1987

Hole No.: USW UZ-N52		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: Off Site	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 760,893.8' E 562,908.8'		
Ground Elev.: 4172.2'	Pad Elev.: N/A	Top Casing Elev.: 4174.2'
Bottom Hole Coord: Not surveyed	@	Ref: None
Rig On Location: 08-24-84	Spudded: 08-24-84	Completed: 08-24-84
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REECO		
No. Of Compressors & Capacity: 1/GD 900		

[illegible]

Total Depth: 25'	Plugs: None
------------------	-------------

Junk: None

Logging Data: None

### Rigs Used

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 500	Aux.	0.12			0.12

Remarks:

Prepared By: JW:LLF:ps

### Time Breakdown on Next Page



**USW UZ-N52**  
**HOLE HISTORY**

08-24-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 25' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 8-24-84.



USW UZ-N52  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 7.6 m (25') using ODEX 115 system. Hole completed 08-24-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry J. Covington  
 Date: May 8, 1987

Hole No.: UE-25 UZN #56		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: 25	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 760,393.5' E 565,480.0'			
Ground Elev.: 3959.8'	Pad Elev.: N/A	Top Casing Elev.: 3961.6'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 08-23-84	Spudded: 08-23-84	Completed: 08-23-84	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECO			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	60'	6"	5"	13.6#	1/4"	0'	60'	

Total Depth: 60'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.19			0.19

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN					
MAIN HOLE CONSTRUCTION					
Hole No.: UE-25 UZN #56					
Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.15	Move & Demove	0.04	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.15 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					
Main Hole COT: Days		Main Hole OST: 0.04 Days		Main Hole ODT: Days	
Total Main Hole Construction Time: 0.19 Days					
Remarks:					
TOTAL ELAPSED TIME					
Total Site Prep. Time				Remarks:	
Total Main Hole Construction		0.19			
Secured W/O Crew Site Prep.					
Secured W/O Crew Main Hole Const.					
Total Suspended Time (No Rig)					
TOTAL ELAPSED TIME		0.19			

UE-25 UZN #56  
HOLE HISTORY

08-23-84

Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 60' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 08-23-84.

UE-25 UZN #56  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 18.3 m (60') using ODEX 115 system. Hole completed 08-23-84.

**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: *Greg Tall Cornington*  
Date: *Aug 8, 1987*

Hole No.: UE-25 UZN #60	Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25
Location: NTS	County: Nye
Surface Coordinates: N 759,756.9' E 566,567.0'	W.O. #: 3404-196
Ground Elev.: 3892.1'	Pad Elev.: N/A
Bottom Hole Coord: Not surveyed	Top Casing Elev.: 3894.1'
Rig On Location: 08-21-84	Spudded: 08-21-84
Circulating Media: ODEX 115	Completed: 08-23-84
Main Rig & Contractor: Joy #2/REEC	
No. Of Compressors & Capacity: 1/GD 900	

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	

Total Depth: 35'      Plugs: None  
Junk: None  
Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85173	Joy #2	XIII	0.73		1.33	2.06

Remarks:

Prepared By: JW:LLF:ps      Time Breakdown on Next Page

**TIME BREAKDOWN**

## MAIN HOLE CONSTRUCTION

File No.: UE-25 UZN #60

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	<u>0.15</u>	Mobe & Demobe	<u>0.19</u>	Rig Repairs	<u>0.35</u>
Trips	<u>0.04</u>	Core	<u>      </u>	W.O. Equipment	<u>      </u>
Dress Drilling	<u>      </u>	Log	<u>      </u>	Fish	<u>      </u>
Assembly	<u>      </u>	Unload Hole	<u>      </u>	Clean Out Fill	<u>      </u>
Fluid Probe	<u>      </u>	Run Mandrel	<u>      </u>	Ream Hole	<u>      </u>
Connections	<u>      </u>	Hydrological	<u>      </u>	Plug Back	<u>      </u>
Open Hole	<u>      </u>	Tests	<u>      </u>	Drill Out Plugs	<u>      </u>
	<u>      </u>		<u>      </u>	Secured W/Crews	<u>      </u>
	<u>      </u>		<u>      </u>		<u>      </u>
Main Hole DOT	<u>0.19 Days</u>		<u>      </u>		<u>      </u>
			<u>      </u>		<u>      </u>
Casing Operation Time (COT)	<u>      </u>		<u>      </u>		<u>      </u>
Run Casing	<u>      </u>		<u>      </u>		<u>      </u>
Run Casing	<u>      </u>		<u>      </u>		<u>      </u>
Cement Casing	<u>      </u>		<u>      </u>		<u>      </u>
Cement Casing	<u>      </u>		<u>      </u>		<u>      </u>
Drill Out Shoe	<u>      </u>		<u>      </u>		<u>      </u>
	<u>      </u>		<u>      </u>		<u>      </u>
	<u>      </u>		<u>      </u>		<u>      </u>
Main Hole COT:	<u>Days</u>	Main Hole OST:	<u>0.19 Days</u>	Main Hole ODT:	<u>0.35 Days</u>
Total Main Hole Construction Time:	<u>0.73 Days</u>				
Remarks:					

**TOTAL ELAPSED TIME**

Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.73	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	1.33	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME		2.06	Days

UE-25 UZN #60  
HOLE HISTORY

08-21-84      Moved in Joy #2, rig #85173 and rigged up. Drilled 6" hole from 0' to 6' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Ran sampler shoe from 7' to 8', drive tool broke. Drilled 6" hole from 8' to 9', hydraulic system lost pressure. Secured rig.

08-22-84      Worked on rig equipment 5 hours. Drilled 6" hole from 9' to 35' and cased with 5-1/2" casing. Laid down drill pipe.

08-23-84      Moved out rig. Hole completed 08-23-84.



**UE-25 UZN #60**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 10.7 m (35') using ODEX 115 system. Hole completed 08-23-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jimmy Dill Cornington  
 Date: July 8, 1987

Hole No.: USW UZ-N65      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: Off Site      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 758,627.1' E 562,537.1'  
 Ground Elev.: 4371.9'      Pad Elev.: N/A      Top Casing Elev.: 4373.9'  
 Bottom Hole Coord: Not surveyed @      Ref: None  
 Rig On Location: 11-27-84      Spudded: 11-27-84      Completed: 11-27-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECO  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	50'	6"	5"	13.6#	1/4"	0'	50'	

Total Depth: 50'      Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.15			0.15

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN	
1	10:00 AM
2	10:15 AM
3	10:30 AM
4	10:45 AM
5	11:00 AM
6	11:15 AM
7	11:30 AM
8	11:45 AM
9	12:00 PM
10	12:15 PM
11	12:30 PM
12	12:45 PM
13	1:00 PM
14	1:15 PM
15	1:30 PM
16	1:45 PM
17	2:00 PM
18	2:15 PM
19	2:30 PM
20	2:45 PM
21	3:00 PM
22	3:15 PM
23	3:30 PM
24	3:45 PM
25	4:00 PM
26	4:15 PM
27	4:30 PM
28	4:45 PM
29	5:00 PM
30	5:15 PM
31	5:30 PM
32	5:45 PM
33	6:00 PM
34	6:15 PM
35	6:30 PM
36	6:45 PM
37	7:00 PM
38	7:15 PM
39	7:30 PM
40	7:45 PM
41	8:00 PM
42	8:15 PM
43	8:30 PM
44	8:45 PM
45	9:00 PM
46	9:15 PM
47	9:30 PM
48	9:45 PM
49	10:00 PM
50	10:15 PM
51	10:30 PM
52	10:45 PM
53	11:00 PM
54	11:15 PM
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56	11:45 PM
57	12:00 AM
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64	1:45 AM
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74	4:15 AM
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78	5:15 AM
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81	6:00 AM
82	6:15 AM
83	6:30 AM
84	6:45 AM
85	7:00 AM
86	7:15 AM
87	7:30 AM
88	7:45 AM
89	8:00 AM
90	8:15 AM
91	8:30 AM
92	8:45 AM
93	9:00 AM
94	9:15 AM
95	9:30 AM
96	9:45 AM
97	10:00 AM
98	10:15 AM
99	10:30 AM
100	10:45 AM

## MAIN HOLE CONSTRUCTION

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
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Drill	0.13	Mobe & Demobe	0.02	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	

[illegible]

Casing Operation	_____	_____
Time (COT)	_____	_____

Run Casing	_____	_____	_____
Run Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Drill Out Shoe	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

<b>Main Hole COT:</b>	<b>Days</b>	<b>Main Hole OST: 0.02</b>	<b>Days</b>	<b>Main Hole ODT:</b>	<b>Days</b>
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**Total Main Hole Construction Time: 0.15 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks:
Total Main Hole Construction	<u>0.15</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	_____	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>0.15</u>	Days	

USW UZ-N65  
HOLE HISTORY

11-27-84 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 50' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 11-27-84.

USW UZ-N65  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 15.2 m (50') using ODEX

**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: *James Dell Carrington*  
Date: *May 8, 1987*

Hole No.: USW UZ-N66      Type Hole: Unsaturated Zone Neutron  
User: USGS      Area: Off Site      Site Prep. W.O. #: None  
Location: NTS      County: Nye      W.O. #: 3404-196  
Surface Coordinates: N 758,433.5' E 561,881.1'  
Ground Elev.: 4355.5'      Pad Elev.: N/A      Top Casing Elev.: 4357.5'  
Bottom Hole Coord: Not surveyed      @      Ref: None  
Rig On Location: 11-27-84      Spudded: 11-27-84      Completed: 11-28-84  
Circulating Media: ODEX 115  
Main Rig & Contractor: CME 550/REECo  
No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	50'	6"	5"	13.6#	1/4"	0'	50'	

Total Depth: 50'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.12			0.12

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N66			
<b>Drilling Operation Time (DOT)</b>	<b>Other Scheduled Time (OST)</b>	<b>Operational Delay Time (ODT)</b>	
Drill <span style="float: right;">0.10</span> Trips _____ Dress Drilling _____ Assembly _____ Fluid Probe _____ Connections _____ Open Hole _____ _____ _____ _____	Mobe & Demobe <span style="float: right;">0.02</span> Core _____ Log _____ Unload Hole _____ Run Mandrel _____ Hydrological _____ Tests _____ _____ _____ _____	Rig Repairs _____ W.O. Equipment _____ Fish _____ Clean Out Fill _____ Ream Hole _____ Plug Back _____ Drill Out Plugs _____ Secured W/Crews _____ _____ _____ _____	
Main Hole DOT 0.10 Days			
<b>Casing Operation Time (COT)</b>			
Run Casing _____ Run Casing _____ Cement Casing _____ Cement Casing _____ Drill Out Shoe _____ _____ _____ _____			
Main Hole COT: _____ Days Main Hole OST: 0.02 Days Main Hole ODT: _____ Days			
Total Main Hole Construction Time: 0.12 Days			
Remarks: _____			
_____			
_____			
_____			
TOTAL ELAPSED TIME			
Total Site Prep. Time _____ Days		Remarks: _____	
Total Main Hole Construction <span style="float: right;">0.12</span> Days		_____	
Secured W/O Crew Site Prep. _____ Days		_____	
Secured W/O Crew Main Hole Const. _____ Days		_____	
Total Suspended Time (No Rig) _____ Days		_____	
TOTAL ELAPSED TIME <span style="float: right;">0.12</span> Days		_____	
		_____	

USW UZ-N66  
HOLE HISTORY

- 11-27-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 25' cased with 5-1/2", 1/4" wall casing using ODEX 115 system.
- 11-28-84      Drilled 6" hole from 25' to 50' cased with 5-1/2" casing. Rigged down and moved out. Hole completed 11-28-84.



USW UZ-N66  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 15.2 m (50') using ODEX 115 system. Hole completed 11-28-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *James J. Bell*  
 Date: *May 5, 1984*

Hole No.: USW UZ-N67      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: Off Site      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 753,634.2' E 563,799.0'  
 Ground Elev.: 3920.2'      Pad Elev.: N/A      Top Casing Elev.: 3922.2'  
 Bottom Hole Coord: Not surveyed      @      Ref: None  
 Rig On Location: 07-24-84      Spudded: 07-25-84      Completed: 07-25-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECO  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	25'	6"	5"	13.6#	1/4"	0'	25'	

Total Depth: 25'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.27		0.67	0.94

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN					
MAIN HOLE CONSTRUCTION					
Hole No.: USW UZ-N67					
Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.08	Move & Demove	0.19	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.08 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					
Main Hole COT: Days		Main Hole OST: 0.19 Days		Main Hole ODT: Days	
Total Main Hole Construction Time: 0.27 Days					
Remarks:					
TOTAL ELAPSED TIME					
Total Site Prep. Time				Remarks:	
Total Main Hole Construction		0.27			
Secured W/O Crew Site Prep.					
Secured W/O Crew Main Hole Const.		0.67			
Total Suspended Time (No Rig)					
TOTAL ELAPSED TIME		0.94			

USW UZ-N67  
HOLE HISTORY

07-24-84      Moved in CME 550, rig #85136 and rigged up.

07-25-84      Drilled 6" hole from 0' to 25' cased with 5-1/2", 1/4" wall casing  
using ODEX 115 system. Made trip out, rigged down, and moved out.  
Hole completed 07-25-84.

**USW UZ-N67**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 7.6 m (25') using ODEX 115 system. Hole completed 07-25-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry Hall Covington  
 Date: July 8, 1987

Hole No.: USW UZ-N68 | Type Hole: Unsaturated Zone Neutron  
 User: USGS | Area: Off Site | Site Prep. W.O. #: None  
 Location: NTS | County: Nye | W.O. #: 3404-196  
 Surface Coordinates: N 753,962.4' E 564,005.8'  
 Ground Elev.: 3924.7' | Pad Elev.: N/A | Top Casing Elev.: 3926.7'  
 Bottom Hole Coord: Not surveyed @ | Ref: None  
 Rig On Location: 07-25-84 | Spudded: 07-25-84 | Completed: 07-25-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REEC  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	55'	6"	5"	13.6#	1/4"	0'	55'	

Total Depth: 55' | Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.16			0.16

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

## TIME BREAKDOWN

## MAIN HOLE CONSTRUCTION

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
----------------------------------	-------------------------------	---------------------------------

Drill	0.08	Mobe & Demobe	0.08	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	

Casing Operation	_____	_____
Time (COT)	_____	_____

[illegible]

**Total Main Hole Construction Time: 0.16 Days**

Remarks:

TOTAL ELAPSED TIME	
--------------------	--

Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	0.16	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	_____	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	0.16	Days	

USW UZ-N68  
HOLE HISTORY

07-25-84 . Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 55' and cased with 5-1/2", 1/4" wall casing at 55' using ODEX 115 system. Made trip out, rigged down, and moved out. Hole completed 07-25-84.



USW UZ-N68  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 16.8 m (55') using ODEX 115 system. Hole completed 07-25-84.

**FENIX & SCISSION, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: Jerry Dell Covington  
Date: May 8, 1987

Hole No.: USW UZ-N69 | Type Hole: Unsaturated Zone Neutron  
User: USGS | Area: Off Site | Site Prep. W.O. #: None  
Location: NTS | County: Nye | W.O. #: 3404-196  
Surface Coordinates: N 754,460.9' E 564,401.7'  
Ground Elev.: 3918.2' | Pad Elev.: N/A | Top Casing Elev.: 3920.2'  
Bottom Hole Coord: Not surveyed @ | Ref: None  
Rig On Location: 07-25-84 | Spudded: 07-26-84 | Completed: 07-26-84  
Circulating Media: ODEX 115  
Main Rig & Contractor: CME 550/REECO  
No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	

Total Depth: 35' | Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.18		0.67	0.85

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN	
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## MAIN HOLE CONSTRUCTION

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
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Drill	0.08	Mobe & Demobe	0.06	Rig Repairs	
Trips		Core		W.O. Equipment	0.04
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	

Casing Operation	_____	_____
Time (COT)	_____	_____

TIME (001)			
Run Casing	_____	_____	_____
Run Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Drill Out Shoe	_____	_____	_____
	_____	_____	_____

**Total Main Hole Construction Time: 0.18 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.18	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	0.67	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	0.85	Days	

USW UZ-N69  
HOLE HISTORY

07-25-84      Moved in CME 550, rig #85136 and rigged up.

07-26-84      Drilled 6" hole from 0' to 35' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 07-26-84.

USW UZ-N69  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 10.7 m (35') using ODEX 115 system. Hole completed 07-26-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry Hall Corington  
 Date: Feb 8, 1987

Hole No.: USW UZ-N70 | Type Hole: Unsaturated Zone Neutron  
 User: USGS | Area: Off Site | Site Prep. W.O. #: None  
 Location: NTS | County: Nye | W.O. #: 3404-196  
 Surface Coordinates: N 769,250.7' E 560,164.7'  
 Ground Elev.: 4542.1' | Pad Elev.: N/A | Top Casing Elev.: 4544.2'  
 Bottom Hole Coord: Not surveyed @ | Ref: None  
 Rig On Location: 02-05-86 | Spudded: 02-06-86 | Completed: 02-10-86  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECO  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	

Total Depth: 35' | Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.81		4.00	4.81

Remarks:  
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Prepared By: JW:LLF:ps | Time Breakdown on Next Page

TIME BREAKDOWN					
MAIN HOLE CONSTRUCTION					
Hole No.: USW UZ-N70					
Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill/Core/Sample	0.17	Mobe & Demobe	0.60	Rig Repairs	0.04
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.17 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					
Main Hole COT: Days		Main Hole OST: 0.60 Days		Main Hole ODT: 0.04 Days	
Total Main Hole Construction Time: 0.81 Days					
Remarks:					
TOTAL ELAPSED TIME					
Total Site Prep. Time			Days	Remarks:	
Total Main Hole Construction		0.81	Days		
Secured W/O Crew Site Prep.			Days		
Secured W/O Crew Main Hole Const.		4.00	Days		
Total Suspended Time (No Rig)			Days		
TOTAL ELAPSED TIME		4.81	Days		

**USW UZ-N70**  
**HOLE HISTORY**

02-05-86      Moved in CME 550 and equipment.

02-06-86      Rigged up. Drilled 6" hole from 0' to 17' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Cut cores (rotary) #1 from 7' to 8.5' and #2 from 12' to 13' using 4.25" x 2.40" diamond core bit, 5' HCQ barrel, and air.

02-07-86      Drilled 6" hole from 17' to 35' cased with 5-1/2" casing. Cut cores (rotary) #3 from 17' to 19', #4 from 22' to 24', #5 from 27' to 29', and #6 from 32' to 34'. Secured rig for weekend.

02-10-86      Rig secured from 02-07-86 to 02-10-86. Rigged down and moved out. Hole completed 02-10-86.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
	1	7.0 - 8.5	1.5	1.5	100
	2	12.0 - 13.0	1.0	0.0	0
	3	17.0 - 19.0	2.0	2.0	100
	4	22.0 - 24.0	2.0	2.0	100
	5	27.0 - 29.0	2.0	1.9	95
	6	32.0 - 34.0	2.0	2.0	100

\* No drive samples taken per USGS records.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.



**USW UZ-N70**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 10.7 m (35') using ODEX 115 system. Six 108 mm (4.25") cores were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 02-10-86.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry D. Corington  
 Date: May 8, 1987

Hole No.: USW UZ-N71 | Type Hole: Unsaturated Zone Neutron  
 User: USGS | Area: Off Site | Site Prep. W.O. #: None  
 Location: NTS | County: Nye | W.O. #: 3404-196  
 Surface Coordinates: N 761,025.9' E 558,405.6'  
 Ground Elev.: 4924.9' | Pad Elev.: N/A | Top Casing Elev.: 4926.8'  
 Bottom Hole Coord: Not surveyed @ | Ref: None  
 Rig On Location: 05-18-84 | Spudded: 05-18-84 | Completed: 05-18-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REEC  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	52'	6"	5"	13.6#	1/4"	0'	52'	

Total Depth: 52' | Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.34			0.34

Remarks:  
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Prepared By: JW:LLF:ps | Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N71			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill _____ 0.17	Mobe & Demobe _____ 0.17	Rig Repairs _____	
Trips _____	Core _____	W.O. Equipment _____	
Dress Drilling _____	Log _____	Fish _____	
Assembly _____	Unload Hole _____	Clean Out Fill _____	
Fluid Probe _____	Run Mandrel _____	Ream Hole _____	
Connections _____	Hydrological _____	Plug Back _____	
Open Hole _____	Tests _____	Drill Out Plugs _____	
		Secured W/Crews _____	
Main Hole DOT 0.17 Days			
Casing Operation Time (COT)			
Run Casing _____			
Run Casing _____			
Cement Casing _____			
Cement Casing _____			
Drill Out Shoe _____			
Main Hole COT: _____ Days	Main Hole OST: 0.17 Days	Main Hole ODT: _____ Days	
Total Main Hole Construction Time: 0.34 Days			
Remarks:			
TOTAL ELAPSED TIME			
Total Site Prep. Time _____	Days	Remarks:	
Total Main Hole Construction _____ 0.34	Days		
Secured W/O Crew Site Prep. _____	Days		
Secured W/O Crew Main Hole Const. _____	Days		
Total Suspended Time (No Rig) _____	Days		
TOTAL ELAPSED TIME _____ 0.34	Days		

USW UZ-N71  
HOLE HISTORY

05-18-84

Moved in CME 550 rig #85136 and rigged up. Drilled 6" hole from 0' to 52' and cased with 5-1/2" O.D., 1/4" wall casing using ODEX 115 drilling system. Rigged down and moved out. Hole completed 05-18-84.

USW UZ-N71  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 15.8 m (52') using ODEX 115 system. Hole completed 05-18-84.

**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: *James D. H. Brington*  
Date: *May 8, 1984*

Hole No.: USW UZ-N72			Type Hole: Unsaturated Zone Neutron		
User: USGS		Area: Off Site		Site Prep. W.O. #: None	
Location: NTS		County: Nye		W.O. #: 3404-196	
Surface Coordinates: N 761,067.9' E 558,626.1'					
Ground Elev.: 4889.2'		Pad Elev.: N/A		Top Casing Elev.: 4891.1'	
Bottom Hole Coord: Not surveyed			@		Ref: None
Rig On Location: 11-19-84		Spudded: 11-20-84		Completed: 11-20-84	
Circulating Media: ODEX 115					
Main Rig & Contractor: CME 550/REECO					
No. Of Compressors & Capacity: 1/GD 900					

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	30'	6"	5"	13.6#	1/4"	0'	30'	

Total Depth: 30'      Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.39		0.67	1.06

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

**TIME BREAKDOWN**

## MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N72

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill _____ 0.10	Mobe & Demobe _____ 0.25	Rig Repairs _____
Trips _____	Core _____	W.O. Equipment _____ 0.04
Dress Drilling _____	Log _____	Fish _____
Assembly _____	Unload Hole _____	Clean Out Fill _____
Fluid Probe _____	Run Mandrel _____	Ream Hole _____
Connections _____	Hydrological _____	Plug Back _____
Open Hole _____	Tests _____	Drill Out Plugs _____
		Secured W/Crews _____
Main Hole DOT 0.10 Days		
Casing Operation Time (COT)		
Run Casing _____		
Run Casing _____		
Cement Casing _____		
Cement Casing _____		
Drill Out Shoe _____		
Main Hole COT: _____ Days	Main Hole OST: 0.25 Days	Main Hole ODT: 0.04 Days
Total Main Hole Construction Time: 0.39 Days		

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	<u>0.39</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>0.67</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>1.06</u>	Days	

USW UZ-N72  
HOLE HISTORY

11-19-84      Moved in CME 550, rig #85136 and equipment.

11-20-84      Rigged up and repaired clutch. Drilled 6" hole from 0' to 30'  
cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged  
down and moved out. Hole completed 11-20-84.



USW UZ-N72  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 9.1 m (30') using ODEX 115 system. Hole completed 11-20-84.

Approved: James Neil Covington  
Date: May 8, 1987

[illegible]

Logging Data: None

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.21		0.67	0.88

Remarks:

**Time Breakdown on Next Page**

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N73			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill <u>0.13</u>	Mobe & Demobe <u>0.06</u>	Rig Repairs	
Trips	Core	W.O. Equipment	<u>0.02</u>
Dress Drilling	Log	Fish	
Assembly	Unload Hole	Clean Out Fill	
Fluid Probe	Run Mandrel	Ream Hole	
Connections	Hydrological	Plug Back	
Open Hole	Tests	Drill Out Plugs	
		Secured W/Crews	
Main Hole DOT <u>0.13</u> Days			
Casing Operation Time (COT)			
Run Casing			
Run Casing			
Cement Casing			
Cement Casing			
Drill Out Shoe			
Main Hole COT: _____ Days	Main Hole OST: <u>0.06</u> Days	Main Hole ODT: <u>0.02</u> Days	
Total Main Hole Construction Time: <u>0.21</u> Days			
Remarks:			
TOTAL ELAPSED TIME			
Total Site Prep. Time	_____ Days	Remarks:	
Total Main Hole Construction	<u>0.21</u> Days		
Secured W/O Crew Site Prep.	_____ Days		
Secured W/O Crew Main Hole Const.	<u>0.67</u> Days		
Total Suspended Time (No Rig)	_____ Days		
TOTAL ELAPSED TIME	<u>0.88</u> Days		

USW UZ-N73  
HOLE HISTORY

11-20-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 15' cased with 5-1/2", 1/4" wall casing using ODEX 115 system.

11-21-84      Drilled 6" hole from 15' to 30' cased with 5-1/2" casing. Rigged down and moved out. Hole completed 11-21-84.

USW UZ-N73  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 9.1 m (30') using ODEX 115 system. Hole completed 11-21-84.

**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: *Jerry Neil Conington*  
Date: *May 8, 1987*

Hole No.: USW UZ-N74		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: Off Site	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 761,362.2' E 558,559.9'			
Ground Elev.: 4903.7'	Pad Elev.: N/A	Top Casing Elev.: 4905.7'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 02-14-86	Spudded: 02-18-86	Completed: 02-18-86	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECo			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	
35'	37'	4.25"						

Total Depth: 37'      Plugs: None  
Junk: None  
Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.41		3.67	4.08

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N74			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill/Core/Sample <u>0.14</u>	Mobe & Demobe <u>0.27</u>	Rig Repairs	_____
Trips	Core	W.O. Equipment	_____
Dress Drilling	Log	Fish	_____
Assembly	Unload Hole	Clean Out Fill	_____
Fluid Probe	Run Mandrel	Ream Hole	_____
Connections	Hydrological	Plug Back	_____
Open Hole	Tests	Drill Out Plugs	_____
_____	_____	Secured W/Crews	_____
_____	_____	_____	_____
Main Hole DOT <u>0.14</u> Days	_____	_____	_____
Casing Operation Time (COT)	_____	_____	_____
Run Casing	_____	_____	_____
Run Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Drill Out Shoe	_____	_____	_____
_____	_____	_____	_____
Main Hole COT: _____ Days	Main Hole OST: <u>0.27</u> Days	Main Hole ODT: _____ Days	_____
Total Main Hole Construction Time: <u>0.41</u> Days			
Remarks:			
_____			
_____			
_____			
_____			
TOTAL ELAPSED TIME			
Total Site Prep. Time	_____ Days	Remarks:	
Total Main Hole Construction	<u>0.41</u> Days	_____	
Secured W/O Crew Site Prep.	_____ Days	_____	
Secured W/O Crew Main Hole Const.	<u>3.67</u> Days	_____	
Total Suspended Time (No Rig)	_____ Days	_____	
TOTAL ELAPSED TIME	<u>4.08</u> Days	_____	
_____		_____	

**USW UZ-N74**  
**HOLE HISTORY**

02-14-86 Moved in CME 550, rig #85136 and rigged up. Secured rig for weekend and holiday.

02-18-86 Rig secured from 02-14-86 to 02-18-86. Drilled 6" hole from 0' to 35' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Cut cores (rotary) #1 from 12' to 14', #2 from 26' to 28', and #3 from 35' to 37' using 4.25" x 2.40" diamond core bit, 5' HCQ barrel, and air. Rigged down and moved out. Hole completed 02-18-86.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
	1	12.0 - 14.0	2.0	2.0	100
	2	26.0 - 28.0	2.0	1.0	50
	3	35.0 - 37.0	2.0	0.6	30

\* No drive samples taken per USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.



**USW UZ-N74**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to 10.7 m (35') using ODEX 115 system. Three 108 mm (4.25") cores were taken during drilling to a total depth of 11.3 m (37') with hole opened to 152 mm (6") to 10.7 m (35') after coring. Hole completed 02-18-86.

**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: *John Nell Cornington*  
Date: *May 8, 1987*

Hole No.: USW UZ-N75      Type Hole: Unsaturated Zone Neutron  
User: USGS      Area: Off Site      Site Prep. W.O. #: None  
Location: NTS      County: Nye      W.O. #: 3404-196  
Surface Coordinates: N 761,462.4' E 559,075.9'  
Ground Elev.: 4799.0'      Pad Elev.: N/A      Top Casing Elev.: 4801.1'  
Bottom Hole Coord: Not surveyed      @      Ref: None  
Rig On Location: 02-18-86      Spudded: 02-19-86      Completed: 02-20-86  
Circulating Media: ODEX 115

Main Rig & Contractor: CME 550/REECo  
No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	
35'	37'	4.25"						

Total Depth: 37'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.54		1.33	1.87

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN	
1	10:00 AM
2	10:15 AM
3	10:30 AM
4	10:45 AM
5	11:00 AM
6	11:15 AM
7	11:30 AM
8	11:45 AM
9	12:00 PM
10	12:15 PM
11	12:30 PM
12	12:45 PM
13	1:00 PM
14	1:15 PM
15	1:30 PM
16	1:45 PM
17	2:00 PM
18	2:15 PM
19	2:30 PM
20	2:45 PM
21	3:00 PM
22	3:15 PM
23	3:30 PM
24	3:45 PM
25	4:00 PM
26	4:15 PM
27	4:30 PM
28	4:45 PM
29	5:00 PM
30	5:15 PM
31	5:30 PM
32	5:45 PM
33	6:00 PM
34	6:15 PM
35	6:30 PM
36	6:45 PM
37	7:00 PM
38	7:15 PM
39	7:30 PM
40	7:45 PM
41	8:00 PM
42	8:15 PM
43	8:30 PM
44	8:45 PM
45	9:00 PM
46	9:15 PM
47	9:30 PM
48	9:45 PM
49	10:00 PM
50	10:15 PM
51	10:30 PM
52	10:45 PM
53	11:00 PM
54	11:15 PM
55	11:30 PM
56	11:45 PM
57	12:00 AM
58	12:15 AM
59	12:30 AM
60	12:45 AM
61	1:00 AM
62	1:15 AM
63	1:30 AM
64	1:45 AM
65	2:00 AM
66	2:15 AM
67	2:30 AM
68	2:45 AM
69	3:00 AM
70	3:15 AM
71	3:30 AM
72	3:45 AM
73	4:00 AM
74	4:15 AM
75	4:30 AM
76	4:45 AM
77	5:00 AM
78	5:15 AM
79	5:30 AM
80	5:45 AM
81	6:00 AM
82	6:15 AM
83	6:30 AM
84	6:45 AM
85	7:00 AM
86	7:15 AM
87	7:30 AM
88	7:45 AM
89	8:00 AM
90	8:15 AM
91	8:30 AM
92	8:45 AM
93	9:00 AM
94	9:15 AM
95	9:30 AM
96	9:45 AM
97	10:00 AM
98	10:15 AM
99	10:30 AM
100	10:45 AM

## MAIN HOLE CONSTRUCTION

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
----------------------------------	-------------------------------	---------------------------------

TIME (EST.)		TIME (EST.)		TIME (EST.)	
Drill/Core/Sample	0.23	Mobe & Demobe	0.23	Rig Repairs	0.08
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	

Casing Operation	_____	_____
Time (COT)	_____	_____

Run Casing	_____	_____	_____
Run Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Drill Out Shoe	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

**Total Main Hole Construction Time: 0.54 Days**

1994. Main note consideration. PMS: 0001 0079

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____	
Total Main Hole Construction	<u>0.54</u>	Days		
Secured W/O Crew Site Prep.	_____	Days		
Secured W/O Crew Main Hole Const.	<u>1.33</u>	Days		
Total Suspended Time (No Rig)	_____	Days		
TOTAL ELAPSED TIME		<u>1.87</u>	Days	_____

**USW UZ-N75**  
**HOLE HISTORY**

02-18-86      Moved CME 550, rig #85136 and equipment on location.

02-19-86      Rigged up. Drilled 6" hole from 0' to 35' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Took core #1 (drive sample) from 0' to 2'. Cut cores (rotary) #1 from 6' to 10', #2 from 16' to 18', #3 from 26' to 28', and #4 from 35' to 37', using 4.25" x 2.40" diamond core bit, 5' HCQ barrel, and air. Rigged down.

02-20-86      Moved out rig. Hole completed 02-20-86.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	1.7	85
	2	6.0 - 10.0	4.0	4.0	100
	3	16.0 - 18.0	2.0	1.0	50
	4	26.0 - 28.0	2.0	1.7	85
	5	35.0 - 37.0	2.0	1.2	60

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.

USW UZ-N75  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 10.7 m (35') using ODEX 115 system. One drive sample and four 108 mm (4.25") cores were taken during drilling to a total depth of 11.3 m (37') with hole opened to 152 mm (6") to 10.7 m (35') after coring. Hole completed 02-20-86.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry J. Lorington  
 Date: May 8, 1987

Hole No.: USW UZ-N76      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: Off Site      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 761,353.2' E 559,047.7'  
 Ground Elev.: 4958.0'      Pad Elev.: N/A      Top Casing Elev.: 4963.6'  
 Bottom Hole Coord: Not surveyed      @      Ref: None  
 Rig On Location: 11-21-84      Spudded: 11-21-84      Completed: 11-26-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECo  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	40'	6"	5"	13.6#	1/4"	0'	35'	

Total Depth: 40'      Plugs: None  
 Junk: Casing drive shoe below casing  
 Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.56		4.67	5.23

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N76			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill <span style="float: right;">0.23</span>	Mobe & Demobe <span style="float: right;">0.08</span>	Rig Repairs <span style="float: right;">0.10</span>	
Trips <span style="float: right;">_____</span>	Core <span style="float: right;">_____</span>	W.O. Equipment <span style="float: right;">0.15</span>	
Dress Drilling <span style="float: right;">_____</span>	Log <span style="float: right;">_____</span>	Fish <span style="float: right;">_____</span>	
Assembly <span style="float: right;">_____</span>	Unload Hole <span style="float: right;">_____</span>	Clean Out Fill <span style="float: right;">_____</span>	
Fluid Probe <span style="float: right;">_____</span>	Run Mandrel <span style="float: right;">_____</span>	Ream Hole <span style="float: right;">_____</span>	
Connections <span style="float: right;">_____</span>	Hydrological <span style="float: right;">_____</span>	Plug Back <span style="float: right;">_____</span>	
Open Hole <span style="float: right;">_____</span>	Tests <span style="float: right;">_____</span>	Drill Out Plugs <span style="float: right;">_____</span>	
<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	Secured W/Crews <span style="float: right;">_____</span>	
<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	
Main Hole DOT 0.23 Days			
Casing Operation Time (COT)	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>
Run Casing <span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>
Run Casing <span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>
Cement Casing <span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>
Cement Casing <span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>
Drill Out Shoe <span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>
<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>
<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>
Main Hole COT: _____ Days Main Hole OST: 0.08 Days Main Hole ODT: 0.25 Days			
Total Main Hole Construction Time: 0.56 Days			
Remarks: _____			
_____			
_____			
_____			
TOTAL ELAPSED TIME			
Total Site Prep. Time <span style="float: right;">_____</span>	Days	Remarks: _____	
Total Main Hole Construction <span style="float: right;">0.56</span>	Days	_____	
Secured W/O Crew Site Prep. <span style="float: right;">_____</span>	Days	_____	
Secured W/O Crew Main Hole Const. <span style="float: right;">4.67</span>	Days	_____	
Total Suspended Time (No Rig) <span style="float: right;">_____</span>	Days	_____	
<span style="float: right;">_____</span>	_____	_____	
TOTAL ELAPSED TIME <span style="float: right;">5.23</span>	Days	_____	

**USW UZ-N76**  
**HOLE HISTORY**

- 11-21-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 3' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Worked on swivel and secured rig at 1600 hours for holidays and weekend.
- 11-26-84      Rig secured from 11-21-84 to 0800 hours, 11-26-84. Drilled 6" hole from 3' to 40' cased with 5-1/2" casing. Bit plugged two times due to damp clay formation. Casing drive shoe broke off casing. Worked casing and tools to 35' before freeing hammer bit, unable to work casing back to bottom. Rigged down and moved out. Hole completed 11-26-84.



USW UZ-N76  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 12.2 m (40') using ODEX 115 system. Drive shoe broke off casing and casing was worked up to 10.7 m (35') to free bit. Hole completed 11-26-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *James D. Covington*  
 Date: *May 8, 1987*

Hole No.: USW UZ-N77      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: Off Site      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 755,526.1' E 554,397.2'  
 Ground Elev.: 3900.5'      Pad Elev.: N/A      Top Casing Elev.: 3902.3'  
 Bottom Hole Coord: Not surveyed      @      Ref: None  
 Rig On Location: 11-29-84      Spudded: 11-30-84      Completed: 11-30-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECO  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	50'	6"	5"	13.6#	1/4"	0'	50'	

Total Depth: 50'      Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.60		0.67	1.27

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N77			
<b>Drilling Operation</b> <b>Time (DOT)</b>	<b>Other Scheduled</b> <b>Time (OST)</b>	<b>Operational Delay</b> <b>Time (ODT)</b>	
Drill <u>0.23</u> Trips _____ Dress Drilling _____ Assembly _____ Fluid Probe _____ Connections _____ Open Hole _____ _____ _____	Mobe & Demobe <u>0.37</u> Core _____ Log _____ Unload Hole _____ Run Mandrel _____ Hydrological _____ Tests _____ _____ _____	Rig Repairs _____ W.O. Equipment _____ Fish _____ Clean Out Fill _____ Ream Hole _____ Plug Back _____ Drill Out Plugs _____ Secured W/Crews _____ _____ _____	
Main Hole DOT 0.23 Days			
<b>Casing Operation</b> <b>Time (COT)</b>			
Run Casing _____ Run Casing _____ Cement Casing _____ Cement Casing _____ Drill Out Shoe _____ _____ _____			
Main Hole COT: _____ Days Main Hole OST: 0.37 Days Main Hole ODT: _____ Days			
Total Main Hole Construction Time: 0.60 Days			
Remarks: _____			
_____			
_____			
_____			
_____			
TOTAL ELAPSED TIME			
Total Site Prep. Time _____ Days		Remarks: _____	
Total Main Hole Construction <u>0.60</u> Days		_____	
Secured W/O Crew Site Prep. _____ Days		_____	
Secured W/O Crew Main Hole Const. <u>0.67</u> Days		_____	
Total Suspended Time (No Rig) _____ Days		_____	
TOTAL ELAPSED TIME <u>1.27</u> Days		_____	
		_____	

**USW UZ-N77**  
**HOLE HISTORY**

11-29-84      Moved in CME 550, rig #85136 and rigged up.

11-30-84      Drilled 6" hole from 0' to 50' cased with 5-1/2", 1/4" wall casing  
using ODEX 115 system. Rigged down and moved out. Hole completed  
11-30-84.

**USW UZ-N77**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 15.2 m (50') using ODEX 115 system. Hole completed 11-30-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *James Dell Covington*  
 Date: *July 8, 1987*

Hole No.: USW UZ-N78 | Type Hole: Unsaturated Zone Neutron  
 User: USGS | Area: Off Site | Site Prep. W.O. #: None  
 Location: NTS | County: Nye | W.O. #: 3404-196  
 Surface Coordinates: N 757,557.8' E 556,262.3'  
 Ground Elev.: 4182.2' | Pad Elev.: N/A | Top Casing Elev.: 4184.2'  
 Bottom Hole Coord: Not surveyed @ | Ref: None  
 Rig On Location: 12-10-84 | Spudded: 12-10-84 | Completed: 12-11-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECo  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	30'	6"	5"	13.6#	1/4"	0'	30'	

Total Depth: 30' | Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.25		0.67	0.92

Remarks:  
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Prepared By: JW:LLF:ps | Time Breakdown on Next Page

TIME BREAKDOWN					
MAIN HOLE CONSTRUCTION					
Hole No.: USW UZ-N78					
Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.15	Mobe & Demobe	0.08	Rig Repairs	0.02
Trips     ○		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.15 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					
Main Hole COT: _____ Days		Main Hole OST: 0.08 Days		Main Hole ODT: 0.02 Days	
Total Main Hole Construction Time: 0.25 Days					
Remarks: _____					
_____					
_____					
_____					
TOTAL ELAPSED TIME					
Total Site Prep. Time		_____ Days	Remarks: _____		
Total Main Hole Construction		0.25	_____		
Secured W/O Crew Site Prep.		_____ Days	_____		
Secured W/O Crew Main Hole Const.		0.67	_____		
Total Suspended Time (No Rig)		_____ Days	_____		
TOTAL ELAPSED TIME		0.92	_____		
		_____ Days	_____		

USW UZ-N78  
HOLE HISTORY

12-10-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 30' cased with 5-1/2", 1/4" wall casing using ODEX 115 system.

12-11-84      Rigged down and moved out. Hole completed 12-11-84.

○



USW UZ-N78  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 9.1 m (30') using ODEX 115 system. Hole completed 12-11-84 .

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**FENIX & SCISSION, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *John Hall Cornington*  
 Date: *May 8, 1987*

Hole No.: USW UZ-N79      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: Off Site      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 757,733.2' E 556,333.9'  
 Ground Elev.: 4154.9'      Pad Elev.: N/A      Top Casing Elev.: 4156.9'  
 Bottom Hole Coord: Not surveyed @      Ref: None  
 Rig On Location: 12-07-84      Spudded: 12-07-84      Completed: 12-10-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECo  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	32'	6"	5"	13.6#	1/4"	0'	32'	

Total Depth: 32'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.33		2.67	3.00

Remarks:  
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Prepared By: JW:LLF:ps      Time Breakdown on Next Page

**TIME BREAKDOWN**

## MAIN HOLE CONSTRUCTION

File No.: USW UZ-N79

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill _____ 0.18	Mobe & Demobe _____ 0.15	Rig Repairs _____
Trips _____	Core _____	W.O. Equipment _____
Dress Drilling _____	Log _____	Fish _____
Assembly _____	Unload Hole _____	Clean Out Fill _____
Fluid Probe _____	Run Mandrel _____	Ream Hole _____
Connections _____	Hydrological _____	Plug Back _____
Open Hole _____	Tests _____	Drill Out Plugs _____
_____	_____	Secured W/Crews _____
_____	_____	_____
Main Hole DOT 0.18 Days	_____	_____
Casing Operation Time (COT)	_____	_____
Run Casing _____	_____	_____
Run Casing _____	_____	_____
Cement Casing _____	_____	_____
Cement Casing _____	_____	_____
Drill Out Shoe _____	_____	_____
_____	_____	_____
_____	_____	_____
Main Hole COT: _____ Days	Main Hole OST: 0.15 Days	Main Hole ODT: _____ Days
Total Main Hole Construction Time: 0.33 Days		

**TOTAL ELAPSED TIME**

Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.33	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	2.67	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	3.00	Days	

**USW UZ-N79**  
**HOLE HISTORY**

12-07-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 12' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Secured rig for weekend.

12-10-84      Rig secured from 12-07-84 to 12-10-84. Drilled 6" hole from 12' to 32' cased with 5-1/2" casing. Rigged down and moved out. Hole completed 12-10-84.

USW UZ-N79  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 9.8 m (32') using ODEX 115 system. Hole completed 12-10-84.

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**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *James J. Bell*  
 Date: *July 18, 1987*

Hole No.: USW UZ-N80 | Type Hole: Unsaturated Zone Neutron  
 User: USGS | Area: Off Site | Site Prep. W.O. #: None  
 Location: NTS | County: Nye | W.O. #: 3404-196  
 Surface Coordinates: N 757,634.3' E 557,201.1'  
 Ground Elev.: 4332.2' | Pad Elev.: N/A | Top Casing Elev.: 4334.2'  
 Bottom Hole Coord: Not surveyed @ | Ref: None  
 Rig On Location: 12-06-84 | Spudded: 12-06-84 | Completed: 12-07-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REEC  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	52'	6"	5"	13.6#	1/4"	0'	52'	

Total Depth: 52' | Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.49		0.67	1.16

Remarks:

Prepared By: JW:LLF:ps | Time Breakdown on Next Page

TIME BREAKDOWN	
1	00:00:00
2	00:00:00
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97	00:00:00
98	00:00:00
99	00:00:00
100	00:00:00

## MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N80

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.31	Mobe & Demobe	0.18	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.31 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					
Main Hole COT:	Days	Main Hole OST:	0.18 Days	Main Hole ODT:	Days
Total Main Hole Construction Time:	0.49 Days				

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	<u>0.49</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>0.67</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>1.16</u>	Days	

USW UZ-N80  
HOLE HISTORY

12-06-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 42' cased with 5-1/2", 1/4" wall casing using ODEX 115 system.

12-07-84      Drilled 6" hole from 42' to 52' cased with 5-1/2" casing. Rigged down and moved out. Hole completed 12-7-84.



USW UZ-N80  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 15.8 m (52') using ODEX 115 system. Hole completed 12-07-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jerry Jell Covington*  
 Date: *May 8, 1987*

Hole No.: USW UZ-N81		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: Off Site	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 757,807.1' E 555,595.1'		
Ground Elev.: 4065.2'	Pad Elev.: N/A	Top Casing Elev.: 4066.9'
Bottom Hole Coord: Not surveyed @		Ref: None
Rig On Location: 12-03-84	Spudded: 12-03-84	Completed: 12-06-84
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REECO		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	70'	6"	5"	13.6#	1/4"	0'	70'	

Total Depth: 70' Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.92		2.00	2.92

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N81			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill <span style="float: right;">0.31</span>	Mobe & Demobe <span style="float: right;">0.17</span>	Rig Repairs <span style="float: right;">0.44</span>	
Trips <span style="float: right;">_____</span>	Core <span style="float: right;">_____</span>	W.O. Equipment <span style="float: right;">_____</span>	
Dress Drilling <span style="float: right;">_____</span>	Log <span style="float: right;">_____</span>	Fish <span style="float: right;">_____</span>	
Assembly <span style="float: right;">_____</span>	Unload Hole <span style="float: right;">_____</span>	Clean Out Fill <span style="float: right;">_____</span>	
Fluid Probe <span style="float: right;">_____</span>	Run Mandrel <span style="float: right;">_____</span>	Ream Hole <span style="float: right;">_____</span>	
Connections <span style="float: right;">_____</span>	Hydrological <span style="float: right;">_____</span>	Plug Back <span style="float: right;">_____</span>	
Open Hole <span style="float: right;">_____</span>	Tests <span style="float: right;">_____</span>	Drill Out Plugs <span style="float: right;">_____</span>	
<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	Secured W/Crews <span style="float: right;">_____</span>	
<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	
Main Hole DOT 0.31 Days	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	
Casing Operation Time (COT)	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	
Run Casing <span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	
Run Casing <span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	
Cement Casing <span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	
Cement Casing <span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	
Drill Out Shoe <span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	
<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	
<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	<span style="float: right;">_____</span>	
Main Hole COT: _____ Days	Main Hole OST: 0.17 Days	Main Hole ODT: 0.44 Days	
Total Main Hole Construction Time: 0.92 Days			
Remarks: _____			
_____			
_____			
_____			
_____			
TOTAL ELAPSED TIME			
Total Site Prep. Time	_____ Days	Remarks: _____	
Total Main Hole Construction	0.92 Days	_____	
Secured W/O Crew Site Prep.	_____ Days	_____	
Secured W/O Crew Main Hole Const.	2.00 Days	_____	
Total Suspended Time (No Rig)	_____ Days	_____	
TOTAL ELAPSED TIME	2.92 Days	_____	
_____			

**USW UZ-N81**  
**HOLE HISTORY**

12-03-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 1' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Worked on swivel from 1445 hours.

12-04-84      Made up repaired swivel, pin broke off in kelly at repair weld. Took swivel and kelly to area 6 machine shop.

12-05-84      Made up repaired swivel and kelly. Drilled 6" hole from 1' to 70' cased with 5-1/2" casing.

12-06-84      Rigged down and moved out. Hole completed 12-06-84.

USW UZ-N81  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 21.3 m (70') using ODEX 115 system. Hole completed 12-06-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jimmy Dell Covington*  
 Date: *2 Aug 8, 1987*

Hole No.: USW UZ-N82		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: Off Site	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 757.498.1' E 554.689.7'			
Ground Elev.: 3974.8'	Pad Elev.: N/A	Top Casing Elev.: 3976.7'	
Bottom Hole Coord: Not surveyed @		Ref: None	
Rig On Location: 11-30-84	Spudded: 11-30-84	Completed: 12-03-84	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECO			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record				Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To
0'	40'	6"	5"	13.6#	1/4"	0'	40'

Total Depth: 40'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.37		2.67	3.04

Remarks:

Prepared By: JW:LLF:ps      Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N82			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill <u>0.27</u>	Mobe & Demobe <u>0.10</u>	Rig Repairs	<u>          </u>
Trips <u>          </u>	Core <u>          </u>	W.O. Equipment	<u>          </u>
Dress Drilling <u>          </u>	Log <u>          </u>	Fish	<u>          </u>
Assembly <u>          </u>	Unload Hole <u>          </u>	Clean Out Fill	<u>          </u>
Fluid Probe <u>          </u>	Run Mandrel <u>          </u>	Ream Hole	<u>          </u>
Connections <u>          </u>	Hydrological <u>          </u>	Plug Back	<u>          </u>
Open Hole <u>          </u>	Tests <u>          </u>	Drill Out Plugs	<u>          </u>
<u>          </u>	<u>          </u>	Secured W/Crews	<u>          </u>
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Main Hole DOT <u>0.27</u> Days		<u>          </u>	<u>          </u>
<u>          </u>		<u>          </u>	<u>          </u>
Casing Operation Time (COT)		<u>          </u>	<u>          </u>
Run Casing <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Run Casing <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Cement Casing <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Cement Casing <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Drill Out Shoe <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Main Hole COT: <u>          </u> Days		Main Hole OST: <u>0.10</u> Days	Main Hole ODT: <u>          </u> Days
Total Main Hole Construction Time: <u>0.37</u> Days			
Remarks:			
<u>          </u>			
<u>          </u>			
<u>          </u>			
<u>          </u>			
TOTAL ELAPSED TIME			
Total Site Prep. Time	<u>          </u>	Days	Remarks:
Total Main Hole Construction	<u>0.37</u>	Days	<u>          </u>
Secured W/O Crew Site Prep.	<u>          </u>	Days	<u>          </u>
Secured W/O Crew Main Hole Const.	<u>2.67</u>	Days	<u>          </u>
Total Suspended Time (No Rig)	<u>          </u>	Days	<u>          </u>
TOTAL ELAPSED TIME	<u>3.04</u>	Days	<u>          </u>
			<u>          </u>

**USW UZ-N82**  
**HOLE HISTORY**

11-30-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 10' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Secured rig for weekend.

12-03-84      Rig secured from 11-30-84 to 0800 hours, 12-03-84. Drilled 6" hole from 10' to 40' cased with 5-1/2", 1/4" wall casing. Rigged down and moved out. Hole completed 12-03-84.




USW UZ-N82  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 12.2 m (40') using ODEX 115 system. Hole completed 12-03-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry D. Hill Covington  
 Date: April 8, 1987

Hole No.: USW UZ-N83      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: Off Site      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 760,624.2' E 556,349.0'        
 Ground Elev.: 4157.4'      Pad Elev.: N/A      Top Casing Elev.: 4159.6'  
 Bottom Hole Coord: Not surveyed      @      Ref: None  
 Rig On Location: 12-12-84      Spudded: 12-12-84      Completed: 12-13-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECO  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	70'	6"	5"	13.6#	1/4"	0'	70'	

Total Depth: 70'      Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.52		0.67	1.19

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

**TIME BREAKDOWN**

## MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N83

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill _____ 0.39	Mobe & Demobe _____ 0.13	Rig Repairs _____
Trips _____	Core _____ ○	W.O. Equipment _____ ○
Dress Drilling _____	Log _____	Fish _____
Assembly _____	Unload Hole _____	Clean Out Fill _____
Fluid Probe _____	Run Mandrel _____	Ream Hole _____
Connections _____	Hydrological _____	Plug Back _____
Open Hole _____	Tests _____	Drill Out Plugs _____
		Secured W/Crews _____
Main Hole DOT 0.39 Days		
Casing Operation		
Time (COT)		
Run Casing _____		
Run Casing _____		
Cement Casing _____		
Cement Casing _____		
Drill Out Shoe _____		

Main Hole COT:	Days	Main Hole OST: 0.13	Days	Main Hole ODT:	Days
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**Total Main Hole Construction Time: 0.52 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.52	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	0.67	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	1.19	Days	

USW UZ-N83  
HOLE HISTORY

- 12-12-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 14' cased with 5-1/2", 1/4" wall casing using ODEX 115 system.
- 12-13-84      Drilled 6" hole from 14' to 70' cased with 5-1/2" casing. Rigged down and moved off hole. Hole completed 12-13-84.

USW UZ-N83  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 21.3 m (70') using ODEX 115 system. Hole completed 12-13-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jimmy Todd Corrington  
 Date: May 8, 1987

Hole No.: USW UZ-N84	Type Hole: Unsaturated Zone Neutron
User: USGS	Area: Off Site
Location: NTS	County: Nye
Surface Coordinates: N 760,717.0' E 555,887.8'	W.O. #: 3404-196
Ground Elev.: 4111.8'	Pad Elev.: N/A
Bottom Hole Coord: Not surveyed	Top Casing Elev.: 4113.8'
Rig On Location: 12-11-84	Spudded: 12-12-84
Circulating Media: ODEX 115	Completed: 12-12-84
Main Rig & Contractor: CME 550/REECo	Recompleted: 12-19-84
No. Of Compressors & Capacity: 1/GD 900	

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	45'	6"	5"	13.6#	1/4"	0'	45'	

Total Depth: 45'      Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.71		1.33	2.04

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N84			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill _____ 0.13	Mobe & Demobe _____ 0.35	Rig Repairs _____ 0.15	
Trips _____	Core _____	W.O. Equipment _____ 0.08	
Dress Drilling _____	Log _____	Fish _____	
Assembly _____	Unload Hole _____	Clean Out Fill _____	
Fluid Probe _____	Run Mandrel _____	Ream Hole _____	
Connections _____	Hydrological _____	Plug Back _____	
Open Hole _____	Tests _____	Drill Out Plugs _____	
_____	_____	Secured W/Crews _____	
_____	_____	_____	
Main Hole DOT 0.13 Days		_____	
Casing Operation Time (COT)	_____	_____	
Run Casing _____	_____	_____	
Run Casing _____	_____	_____	
Cement Casing _____	_____	_____	
Cement Casing _____	_____	_____	
Drill Out Shoe _____	_____	_____	
_____	_____	_____	
_____	_____	_____	
Main Hole COT: _____ Days		Main Hole OST: 0.35 Days	Main Hole ODT: 0.23 Days
Total Main Hole Construction Time: 0.71 Days			
Remarks:			
TOTAL ELAPSED TIME			
Total Site Prep. Time _____	Days	Remarks: * Includes recompletion	
Total Main Hole Construction _____ 0.71	Days	time. Inactive time between	
Secured W/O Crew Site Prep. _____	Days	completions totaled 5.98 days.	
Secured W/O Crew Main Hole Const. _____ 1.33	Days		
Total Suspended Time (No Rig) _____	Days		
TOTAL ELAPSED TIME _____ 2.04 *		Days	

USW UZ-N84  
HOLE HISTORY

12-11-84 Moved in CME 550, rig #85136, rigged up, and waited on drilling assembly repair.

12-12-84 Made up new pilot bit on hammer assembly. Drilled 6" hole from 0' to 30' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 12-12-84.

12-18-84 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 30' to 31' cased with 5-1/2" casing.

12-19-84 Drilled 6" hole from 31' to 45' cased with 5-1/2" casing. Rigged down and moved out. Hole recompleted 12-19-84.



USW UZ-N84  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 9.1 m (30') using ODEX 115 system. Hole completed 12-12-84. 152 mm (6") hole cased with 140 mm (5-1/2") casing was then drilled to a total depth of 13.7 m (45'). Hole recompleted 12-19-84.

**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: *Jimmy Hall Cornington*  
Date: *May 8, 1987*

Hole No.: UE-25 UZN #85	Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25
Location: NTS	Site Prep. W.O. #: None
County: Nye	W.O. #: 3404-196
Surface Coordinates: N 750,715.8' E 577,567.8'	
Ground Elev.: 3337.1'	Pad Elev.: N/A
Bottom Hole Coord: Not surveyed	Top Casing Elev.: 3338.7'
Rig On Location: 05-06-85	Ref: None
Spudded: 05-06-85	Completed: 05-08-85
Circulating Media: ODEX 115	
Main Rig & Contractor: Joy #2/REECo	
No. Of Compressors & Capacity: 1/GD 900	

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	80'	6"	5"	13.6#	1/4"	0'	80'	

Total Depth: 80' Plugs: None  
Junk: None  
Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85173	Joy #2	XIII	0.96		1.38	2.34

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: UE-25 UZN #85			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill/Sample <u>0.48</u>	Mobe & Demobe <u>0.29</u>	Rig Repairs <u>0.04</u>	
Trips <u>0.15</u>	Core _____	W.O. Equipment _____	
Dress Drilling _____	Log _____	Fish _____	
Assembly _____	Unload Hole _____	Clean Out Fill _____	
Fluid Probe _____	Run Mandrel _____	Ream Hole _____	
Connections _____	Hydrological _____	Plug Back _____	
Open Hole _____	Tests _____	Drill Out Plugs _____	
_____	_____	Secured W/Crews _____	
_____	_____	_____	
Main Hole DOT <u>0.63</u> Days	_____	_____	
Casing Operation Time (COT)	_____	_____	
Run Casing _____	_____	_____	
Run Casing _____	_____	_____	
Cement Casing _____	_____	_____	
Cement Casing _____	_____	_____	
Drill Out Shoe _____	_____	_____	
_____	_____	_____	
_____	_____	_____	
Main Hole COT: _____ Days	Main Hole OST: <u>0.29</u> Days	Main Hole ODT: <u>0.04</u> Days	
Total Main Hole Construction Time: <u>0.96</u> Days			
Remarks: _____			
_____			
_____			
_____			
TOTAL ELAPSED TIME			
Total Site Prep. Time _____	Days	Remarks: _____	
Total Main Hole Construction <u>0.96</u>	Days	_____	
Secured W/O Crew Site Prep. _____	Days	_____	
Secured W/O Crew Main Hole Const. <u>1.38</u>	Days	_____	
Total Suspended Time (No Rig) _____	Days	_____	
TOTAL ELAPSED TIME <u>2.34</u>	Days	_____	
_____			

UE-25 UZN #85

HOLE HISTORY

- 05-06-85 Moved in Joy #2, rig #85173 and rigged up. Drilled 6" hole from 0' to 4' cased with 5-1/2", 13.6# casing using ODEX 115 system. Took soil sample #1 from 2' to 4'.
- 05-07-85 Drilled 6" hole from 4' to 47' cased with 5-1/2" casing. Took eight 2' samples to 49' during drilling using 4-1/2" drive shoe.
- 05-08-85 Drilled 6" hole from 47' to 80' cased with 5-1/2" casing. Took seven 2' samples during drilling. Laid down ODEX tools, rigged down and moved out. Hole completed 05-08-85.

Soil samples using 4-1/2" x 2' drive sampler:

<u>Sample No.</u>	<u>Interval</u>	<u>Recovery</u>
1	2.0 - 4.0	2.0
2	7.0 - 8.5	1.5
3	12.0 - 14.0	2.0
4	17.0 - 19.0	2.0
5	22.0 - 24.0	0.0
6	27.0 - 29.0	2.0
7	32.0 - 34.0	2.0
8	37.0 - 39.0	2.0
9	42.0 - 44.0	2.0
10	47.0 - 49.0	2.0
11	54.0 - 56.0	2.0
12	57.0 - 59.0	2.0
13	62.0 - 64.0	2.0
14	67.0 - 69.0	2.0
15	72.0 - 74.0	2.0
16	77.0 - 79.0	2.0

**UE-25 UZN #85**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 24.4 m (80') using ODEX 115 system. Sixteen soil samples were taken during drilling with hole opened to 152 mm (6") after sampling. Hole completed 05-08-85.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jerry D. Corcoran*  
 Date: *2/24/87*

Hole No.: USW UZ-N86		Type Hole: Unsaturated Zone Neutron
User: USGS	Area: Off Site	Site Prep. W.O. #: None
Location: NTS	County: Nye	W.O. #: 3404-196
Surface Coordinates: N 760,614.5' E 556,460.3'		
Ground Elev.: 4171.9'	Pad Elev.: N/A	Top Casing Elev.: 4174.3'
Bottom Hole Coord: Not Surveyed @		Ref: None
Rig On Location: 12-18-84	Spudded: 12-18-84	Completed: 12-18-84
Circulating Media: ODEX 115		
Main Rig & Contractor: CME 550/REEC		
No. Of Compressors & Capacity: 1/GD 900		

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	30'	6"	5"	13.6#	1/4"	0'	30'	

Total Depth: 30' Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.33			0.33

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

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## MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N86

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.08	Mobe & Demobe	0.25	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.08 Days					
Casing Operation					
Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					

<b>Main Hole COT:</b>	<b>Days</b>	<b>Main Hole OST: 0.25</b>	<b>Days</b>	<b>Main Hole ODT:</b>	<b>Days</b>
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**Total Main Hole Construction Time: 0.33 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks:
Total Main Hole Construction	<u>0.33</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	_____	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>0.33</u>	Days	

**USW UZ-N86**  
**HOLE HISTORY**

12-18-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 30' cased with 5-1/2", 1/4" casing using ODEX 115 system. Rigged down and moved out. Hole completed 12-18-84.



USW UZ-N86  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 9.1 m (30') using ODEX 115 system. Hole completed 12-18-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *John M. Corington*  
 Date: *May 8, 1987*

Hole No.: USW UZ-N87	Type Hole: Unsaturated Zone Neutron
User: USGS	Area: Off Site
Location: NTS	County: Nye
Surface Coordinates: N 760,714.1' E 555,887.1'	Site Prep. W.O. #: None
Ground Elev.: 4111.6'	W.O. #: 3404-196
Pad Elev.: N/A	Top Casing Elev.: 4113.8'
Bottom Hole Coord: Not surveyed	@ Ref: None
Rig On Location: 12-20-84	Spudded: 12-20-84
Circulating Media: ODEX 115	Completed: 12-20-84
Main Rig & Contractor: CME 550/REECo	
No. Of Compressors & Capacity: 1/GD 900	

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	45'	6"	5"	13.6#	1/4"	0'	45'	

Total Depth: 45' Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.34			0.34

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

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### MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N87

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.17	Mobe & Demobe	0.17	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.17 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					

Main Hole COT:	Days	Main Hole OST: 0.17	Days	Main Hole ODT:	Days
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**Total Main Hole Construction Time: 0.34 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	<u>0.34</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	_____	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>0.34</u>	Days	

**USW UZ-N87**  
**HOLE HISTORY**

12-20-84

Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 45' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. USGS ran time domain reflectometry test at 5', 10', and 15'. Rigged down and moved out. Hole completed 12-20-84.

USW UZ-N87  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 13.7 m (45') using ODEX 115 system. Time domain reflectometry test was run at 1.5 m (5'), 3.0 m (10'), and 4.6 m (15'). Hole completed 12-20-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: James Paul Covington  
 Date: 20 Aug 85

Hole No.: USW UZ-N88 | Type Hole: Unsaturated Zone Neutron  
 User: USGS | Area: Off Site | Site Prep. W.O. #: None  
 Location: NTS | County: Nye | W.O. #: 3404-196  
 Surface Coordinates: N 760,796.9' E 556,551.2'  
 Ground Elev.: 4201.7' | Pad Elev.: N/A | Top Casing Elev.: 4204.2'  
 Bottom Hole Coord: Not surveyed @ | Ref: None  
 Rig On Location: 12-17-84 | Spudded: 12-17-84 | Completed: 12-17-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECo  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	30'	6"	5"	13.6#	1/4"	0'	30'	

Total Depth: 30' | Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.37		0.67	1.04

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N88			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill/Core/Sample <u>0.12</u>	Mobe & Demobe <u>0.25</u>	Rig Repairs	
Trips	Core	W.O. Equipment	
Dress Drilling	Log	Fish	
Assembly	Unload Hole	Clean Out Fill	
Fluid Probe	Run Mandrel	Ream Hole	
Connections	Hydrological	Plug Back	
Open Hole	Tests	Drill Out Plugs	
		Secured W/Crews	
Main Hole DOT <u>0.12</u> Days			
Casing Operation Time (COT)			
Run Casing			
Run Casing			
Cement Casing			
Cement Casing			
Drill Out Shoe			
Main Hole COT: _____ Days	Main Hole OST: <u>0.25</u> Days	Main Hole ODT: _____ Days	
Total Main Hole Construction Time: <u>0.37</u> Days			
Remarks:			
TOTAL ELAPSED TIME			
Total Site Prep. Time	_____ Days	Remarks:	
Total Main Hole Construction	<u>0.37</u> Days		
Secured W/O Crew Site Prep.	_____ Days		
Secured W/O Crew Main Hole Const.	<u>0.67</u> Days		
Total Suspended Time (No Rig)	_____ Days		
TOTAL ELAPSED TIME	<u>1.04</u> Days		

USW UZ-N88  
HOLE HISTORY

12-17-84      Moved in CME 550, rig #85136 and rigged up. Took sample \* from 0' to 1' using 4-1/2" x 2' hammer spoon sampler. Reamed and drilled 6" hole from 0' to 30' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Secured rig on location. Hole completed 12-17-84.

12-18-84      Moved out rig.

\* USGS records not available for drive sample data. ○



USW UZ-N88  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 9.1 m (30') using ODEX 115 system. Drive sample was taken from surface to 0.3 m (1') during drilling. Hole completed 12-17-84.

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**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: James J. Bell, Coring Team  
 Date: October 5, 1987

Hole No.: USW UZ-N89      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: Off Site      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 760,610.4' E 555,588.7'  
 Ground Elev.: 4089.6'      Pad Elev.: N/A      Top Casing Elev.: 4091.6'  
 Bottom Hole Coord: Not surveyed      @      Ref: None  
 Rig On Location: 12-19-84      Spudded: 12-19-84      Completed: 12-19-84  
 Circulating Media: ODEX 115

Main Rig & Contractor: CME 550/REECo

No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	45'	6"	5"	13.6#	1/4"	0'	45'	

Total Depth: 45'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.54		0.67	1.21

Remarks:

Prepared By: JW:LLF:ps

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## MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N89

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill 0.17	Mobe & Demobe 0.37	Rig Repairs
Trips	Core	W.O. Equipment
Dress Drilling	Log	Fish
Assembly	Unload Hole	Clean Out Fill
Fluid Probe	Run Mandrel	Ream Hole
Connections	Hydrological	Plug Back
Open Hole	Tests	Drill Out Plugs
		Secured W/Crews
Main Hole DOT 0.17 Days		
Casing Operation		
Time (COT)		
Run Casing		
Run Casing		
Cement Casing		
Cement Casing		
Drill Out Shoe		

Main Hole COT: _____ Days		Main Hole OST: 0.37 Days		Main Hole ODT: _____ Days	
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**Total Main Hole Construction Time: 0.54 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks:
Total Main Hole Construction	<u>0.54</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	<u>0.67</u>	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME <u>1.21</u> Days			

USW UZ-N89  
HOLE HISTORY

12-19-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 45' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 12-19-84.

12-20-84      Completed rigging down and moving out.

○

USW UZ-N89  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 13.7 m (45') using ODEX 115 system. Hole completed 12-19-84.

○

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jeff Hall Covington  
 Date: May 8, 1987

Hole No.: USW UZ-N90      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: Off Site      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 760,608.4' E 555,587.2'  
 Ground Elev.: 4089.6'      Pad Elev.: N/A      Top Casing Elev.: 4091.6'  
 Bottom Hole Coord: Not surveyed @      Ref: None  
 Rig On Location: 12-14-84      Spudded: 12-14-84      Completed: 12-17-84  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECo  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	45'	6"	5"	13.6#	1/4"	0'	45'	

Total Depth: 45'      Plugs: None  
 Junk: None  
 Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.41		2.67	3.08

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

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99	10:30 AM
100	10:45 AM

### MAIN HOLE CONSTRUCTION

Hole No.: USW UZ-N90

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill/Core/Sample	<u>0.33</u>	Mobe & Demobe	<u>0.06</u>	Rig Repairs	_____
Trips	<u>0.02</u>	Core	_____	W.O. Equipment	_____
Dress Drilling	_____	Log	_____	Fish	_____
Assembly	_____	Unload Hole	_____	Clean Out Fill	_____
Fluid Probe	_____	Run Mandrel	_____	Ream Hole	_____
Connections	_____	Hydrological	_____	Plug Back	_____
Open Hole	_____	Tests	_____	Drill Out Plugs	_____
	_____		_____	Secured W/Crews	_____
	_____		_____		_____
Main Hole DOT	0.35 Days		_____		_____
			_____		_____
Casing Operation			_____		_____
Time (COT)			_____		_____
Run Casing	_____		_____		_____
Run Casing	_____		_____		_____
Cement Casing	_____		_____		_____
Cement Casing	_____		_____		_____
Drill Out Shoe	_____		_____		_____
	_____		_____		_____
	_____		_____		_____

<b>Main Hole COT:</b>	<b>Days</b>	<b>Main Hole OST: 0.06</b>	<b>Days</b>	<b>Main Hole ODT:</b>	<b>Days</b>
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**Total Main Hole Construction Time: 0.41 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.41	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	2.67	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	3.08	Days	

**USW UZ-N90**  
**HOLE HISTORY**

- 12-14-84 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 31' cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Took cores #1 thru #5 (drive samples) from 2' to 4', 6' to 8', 11' to 13', 16' to 18', and 20' to 22'. Secured rig for weekend.
- 12-17-84 Rig secured from 12-14-84 to 12-17-84. Took core #6 (drive sample) from 31' to 33' using 4-1/2" x 2' hammer spoon sampler. Reamed and drilled 6" hole from 31' to 45' cased with 5-1/2" casing. Rigged down and moved out. Hole completed 12-17-84.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary **</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		2.0 - 4.0	2.0	1.0	50
2		6.0 - 8.0	2.0	2.0	100
3		11.0 - 13.0	2.0	2.0	100
4		16.0 - 18.0	2.0	2.0	100
5		20.0 - 22.0	2.0	2.0	100
6		31.0 - 33.0	2.0	1.0	50

\* Drive sample data obtained from geologist's field notes.

\*\* No rotary cores taken.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.



USW UZ-N90  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 13.7 m (45') using ODEX 115 system. Six drive samples were taken to 10.1 m (33') during drilling with hole opened to 152 mm (6") after sampling. Hole completed 12-17-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *John D. Corvington*  
 Date: *March 8, 1987*

Hole No.: UE-29 UZN #91 Type Hole: Unsaturated Zone Neutron  
 User: USGS Area: 29 Site Prep. W.O. #: None  
 Location: NTS County: Nye W.O. #: 3404-196  
 Surface Coordinates: N 797,275.0' E 585,340.9'  
 Ground Elev.: 3946.9' Pad Elev.: N/A Top Casing Elev.: 3949.7'  
 Bottom Hole Coord: Not surveyed @  Ref: None  
 Rig On Location: 01-15-86 Spudded: 01-16-86 Completed: 01-21-86  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REECo  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record					Casing Record			
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	89'	6"	5"	13.6#	1/4"	0'	89'	
89'	94'	4.25"						

Total Depth: 94' Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	1.37		4.67	6.04

Remarks:  
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 \_\_\_\_\_  
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Prepared By: JW:LLF:ps Time Breakdown on Next Page

## TIME BREAKDOWN

### MAIN HOLE CONSTRUCTION

Hole No.: UE-29 UZN #91

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill/Core/Sample <u>0.91</u>	Mobe & Demobe <u>0.42</u>	Rig Repairs <u>0.04</u>
Trips _____	Core _____	W.O. Equipment _____
Dress Drilling _____	Log _____	Fish _____
Assembly _____	Unload Hole _____	Clean Out Fill _____
Fluid Probe _____	Run Mandrel _____	Ream Hole _____
Connections _____	Hydrological _____	Plug Back _____
Open Hole _____	Tests _____	Drill Out Plugs _____
_____	_____	Secured W/Crews _____
_____	_____	_____
_____	_____	_____
Main Hole DOT <u>0.91</u> Days	_____	_____
Casing Operation Time (COT)	_____	_____
Run Casing _____	_____	_____
Run Casing _____	_____	_____
Cement Casing _____	_____	_____
Cement Casing _____	_____	_____
Drill Out Shoe _____	_____	_____
_____	_____	_____
_____	_____	_____
Main Hole COT: _____ Days	Main Hole OST: <u>0.42</u> Days	Main Hole ODT: <u>0.04</u> Days
Total Main Hole Construction Time: <u>1.37</u> Days		

Remarks:

### TOTAL ELAPSED TIME

Total Site Prep. Time _____ Days	Remarks:
Total Main Hole Construction <u>1.37</u> Days	_____
Secured W/O Crew Site Prep. _____ Days	_____
Secured W/O Crew Main Hole Const. <u>4.67</u> Days	_____
Total Suspended Time (No Rig) _____ Days	_____
TOTAL ELAPSED TIME <u>6.04</u> Days	_____

**UE-29 UZN #91**  
**HOLE HISTORY**

01-15-86 Moved CME 550 rig #85136 and equipment on location.

01-16-86 Rigged up. Drilled 6" hole from 0' to 50' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. While drilling, took cores (drive samples) #1 from 0' to 2', #2 from 5' to 7', #3 from 10' to 12', #4 from 15' to 17', #5 from 20' to 22', #6 from 25' to 27', #7 from 30' to 32', and #8 from 40' to 42' using 4" x 2' hammer tube sampler.

01-17-86 Drilled 6" hole from 50' to 69' cased with 5-1/2" casing. Took cores #9 thru #11 (drive samples) from 52' to 62'. Cut core #12 (rotary core) from 69' to 74' using 4.25" x 2.40" diamond core bit and 5' HCQ barrel. Encountered mud at 55' and water at 61' then hole dried up at 67'. Secured rig for weekend.

01-20-86 Rig secured from 01-17-86 to 01-20-86. Opened 4.25" hole and drilled 6" hole from 69' to 74' cased with 5-1/2" casing. Cut core #13 from 74' to 79'. Opened core hole and drilled 6" hole to 89'. Cut core #14 from 89' to 94'. Water encountered in hole would not dry up.

01-21-86 Rigged down and moved out. Hole completed 01-21-86.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	2.0	100
2		5.0 - 7.0	2.0	2.0	100
3		10.0 - 12.0	2.0	2.0	100
4		15.0 - 17.0	2.0	2.0	100
5		20.0 - 22.0	2.0	2.0	100
6		25.0 - 27.0	2.0	1.5	75
7		30.0 - 32.0	2.0	2.0	100
8		40.0 - 42.0	2.0	2.0	100
9		50.0 - 52.0	2.0	2.0	100
10		55.0 - 57.0	2.0	2.0	100
11		60.0 - 62.0	2.0	2.0	100
	12	69.0 - 74.0	5.0	5.0	100
	13	74.0 - 79.0	5.0	5.0	100
	14	89.0 - 94.0	5.0	5.0	100

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.  
Rotary cores taken with a core bit and 5' long core barrel.

UE-29 UZN #91  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 27.1 m (89') using the ODEX 115 system. Eleven drive samples and three 108 mm (4.25") cores were taken during drilling to a total depth of 28.7 m (94') with hole opened to 152 mm (6") to 27.1 m (89') after coring. Hole completed 01-21-86.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jerry R. McCammon*  
 Date: *May 5, 1987*

Hole No.: UE-29 UZN #92 \*      Type Hole: Unsaturated Zone Neutron  
 User: USGS      Area: 25      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 778,009.5' E 583,558.5'  
 Ground Elev.: 3669.2'      Pad Elev.: N/A      Top Casing Elev.: 3672.5'  
 Bottom Hole Coord: Not surveyed @      Ref: None  
 Rig On Location: 01-10-86      Spudded: 01-13-86      Completed: 01-15-86  
 Circulating Media: ODEX 115  
 Main Rig & Contractor: CME 550/REEC  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	105'	6"	5"	13.6#	1/4"	0'	105'	
105'	120'	4.25"						

Total Depth: 120'      Plugs: None  
 Junk: None  
 Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	1.17		4.00	5.17

Remarks: \* Originally thought to be located within Area 29 but later it was determined to be in Area 25.

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

**TIME BREAKDOWN**

## MAIN HOLE CONSTRUCTION

File No.: UE-29 UZN #92

Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)
Drill/Core/Sample _____ 0.69	Mobe & Demobe _____ 0.48	Rig Repairs _____
Trips _____	Core _____	W.O. Equipment _____
Dress Drilling _____	Log _____	Fish _____
Assembly _____	Unload Hole _____	Clean Out Fill _____
Fluid Probe _____	Run Mandrel _____	Ream Hole _____
Connections _____	Hydrological _____	Plug Back _____
Open Hole _____	Tests _____	Drill Out Plugs _____
_____	_____	Secured W/Crews _____
_____	_____	_____
Main Hole DOT 0.69 Days	_____	_____
Casing Operation	_____	_____
Time (COT)	_____	_____
Run Casing _____	_____	_____
Run Casing _____	_____	_____
Cement Casing _____	_____	_____
Cement Casing _____	_____	_____
Drill Out Shoe _____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Main Hole COT:	Days	Main Hole OST: 0.48	Days	Main Hole ODT:	Days
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**Total Main Hole Construction Time: 1.17 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	1.17	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.	4.00	Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	5.17	Days	

**UE-29 UZN #92**  
**HOLE HISTORY**

01-10-86 Moved CME 550, rig #85136 and equipment on location. Secured rig for weekend.

01-13-86 Rig secured from 01-10-86 to 01-13-86. Rigged up. Drilled 6" hole from 0' to 40' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Took cores #1 thru #9 (drive samples) from 0' to 42'.

01-14-86 Opened 4" hole and drilled 6" hole from 40' to 90' cased with 5-1/2" casing. Took core #10 (drive sample) from 45' to 47' and core #11 (drive sample) from 50' to 52'. Cut cores (rotary) #12 from 60' to 65', #13 from 65' to 70', #14 from 70' to 75', and #15 from 90' to 92' using 4.25" x 2.40" diamond core bit and 5' HCQ barrel with air.

01-15-86 Opened 4.25" hole and drilled 6" hole from 90' to 105' cased with 5-1/2" casing. Cut cores (rotary) #16 from 105' to 110', #17 from 110' to 115', and #18 from 115' to 120'. Rigged down and moved out. Hole completed 01-15-86.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 2.0	2.0	2.0	100
2		5.0 - 7.0	2.0	2.0	100
3		10.0 - 12.0	2.0	2.0	100
4		15.0 - 17.0	2.0	2.0	100
5		20.0 - 22.0	2.0	2.0	100
6		25.0 - 27.0	2.0	0.0	0
7		30.0 - 32.0	2.0	2.0	100
8		35.0 - 37.0	2.0	2.0	100
9		40.0 - 42.0	2.0	2.0	100
10		45.0 - 47.0	2.0	2.0	100
11		50.0 - 52.0	2.0	2.0	100
	12	60.0 - 65.0	5.0	5.0	100
	13	65.0 - 70.0	5.0	5.0	100
	14	70.0 - 75.0	5.0	5.0	100
	15	90.0 - 92.0	2.0	2.0	100
	16	105.0 - 110.0	5.0	5.0	100
	17	110.0 - 115.0	5.0	5.0	100
	18	115.0 - 120.0	5.0	5.0	100

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.



**UE-29 UZN #92**  
**REVIEW OF HOLE CONDITIONS**

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a depth of 32.0 m (105') using ODEX 115 system. Eleven drive samples and seven 108 mm (4.25") cores were taken during drilling to a total depth of 36.6 m (120') with hole opened to 152 mm (6") to 32.0 m (105') after coring. Hole completed 01-15-86.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: Jerry D. Hall Covington  
 Date: July 8, 1987

Hole No.: USW UZ-N93	Type Hole: Unsaturated Zone Neutron
User: USGS	Area: Off Site
Location: NTS	County: Nye
Surface Coordinates: N 759,584.3' E 558,320.7'	Site Prep. W.O. #: None
Ground Elev.: 4924.0'	W.O. #: 3404-196
Pad Elev.: N/A	Top Casing Elev.: 4926.0'
Bottom Hole Coord: Not surveyed	@
Rig On Location: 07-27-84	Ref: None
Spudded: 07-27-84	Completed: 07-27-84
Circulating Media: ODEX 115	
Main Rig & Contractor: CME 550/REECo	
No. Of Compressors & Capacity: 1/GD 900	

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	40'	6"	5"	13.6#	1/4"	0'	40'	

Total Depth: 40' Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.33			0.33

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

# TIME BREAKDOWN

## MAIN HOLE CONSTRUCTION

File No.: USW UZ-N93

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.12	Mobe & Demobe	0.21	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.12 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					
Main Hole COT:	Days	Main Hole OST: 0.21	Days	Main Hole ODT:	Days
Total Main Hole Construction Time: 0.33	Days				
Remarks:					

TOTAL ELAPSED TIME	
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Total Site Prep. Time	_____	Days	Remarks: _____ _____ _____ _____ _____
Total Main Hole Construction	<u>0.33</u>	Days	
Secured W/O Crew Site Prep.	_____	Days	
Secured W/O Crew Main Hole Const.	_____	Days	
Total Suspended Time (No Rig)	_____	Days	
TOTAL ELAPSED TIME	<u>0.33</u>	Days	

USW UZ-N93  
HOLE HISTORY

07-27-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from to 40' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 07-27-84.

USW UZ-N93  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 12.2 m (40') using ODEX 115 system. Hole completed 07-27-84.

**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: James D. Corvington  
Date: May 8, 1987

Hole No.: USW UZ-N94      Type Hole: Unsaturated Zone Neutron  
User: USGS      Area: Off Site      Site Prep. W.O. #: None  
Location: NTS      County: Nye      W.O. #: 3404-196  
Surface Coordinates: N 759,723.5' E 558,236.2'  
Ground Elev.: 4926.1'      Pad Elev.: N/A      Top Casing Elev.: 4928.1'  
Bottom Hole Coord: Not surveyed      @      Ref: None  
Rig On Location: 08-15-84      Spudded: 08-15-84      Completed: 08-15-84  
Circulating Media: ODEX 115

Main Rig & Contractor: CME 550/REECo

No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	30'	6"	5"	13.6#	1/4"	0'	30'	

Total Depth: 30'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.22			0.22

Remarks:

Prepared By: JW:LLF:PS

Time Breakdown on Next Page

TIME BREAKDOWN					
MAIN HOLE CONSTRUCTION					
Hole No.: USW UZ-N94					
Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.14	Mobe & Demobe	0.08	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.14 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					
Main Hole COT: Days		Main Hole OST: 0.08 Days		Main Hole ODT: Days	
Total Main Hole Construction Time: 0.22 Days					
Remarks:					
TOTAL ELAPSED TIME					
Total Site Prep. Time		Days		Remarks:	
Total Main Hole Construction		0.22			
Secured W/O Crew Site Prep.		Days			
Secured W/O Crew Main Hole Const.		Days			
Total Suspended Time (No Rig)		Days			
TOTAL ELAPSED TIME		0.22			
		Days			

USW UZ-N94  
HOLE HISTORY

08-15-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 30' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 08-15-84.



USW UZ-N94  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 9.1 m (30') using ODEX 115 system. Hole completed 08-15-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *James Hall Covington*  
 Date: *May 8, 1987*

Hole No.: USW UZ-N95		Type Hole: Unsaturated Zone Neutron	
User: USGS	Area: Off Site	Site Prep. W.O. #: None	
Location: NTS	County: Nye	W.O. #: 3404-196	
Surface Coordinates: N 759,899.0 E 558,172.3'			
Ground Elev.: 4929.0'	Pad Elev.: N/A	Top Casing Elev.: 4931.0'	
Bottom Hole Coord: Not surveyed		@	Ref: None
Rig On Location: 08-15-84	Spudded: 08-15-84	Completed: 08-16-84	
Circulating Media: ODEX 115			
Main Rig & Contractor: CME 550/REECo			
No. Of Compressors & Capacity: 1/GD 900			

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	20'	6"	5"	13.6#	1/4"	0'	20'	

Total Depth: 20'      Plugs: None  
 Junk: None  
 Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.16		0.67	0.83

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN					
MAIN HOLE CONSTRUCTION					
Hole No.: USW UZ-N95					
Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.06	Mobe & Demobe	0.10	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.06 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					
Main Hole COT: Days		Main Hole OST: 0.10 Days		Main Hole ODT: Days	
Total Main Hole Construction Time: 0.16 Days					
Remarks:					
TOTAL ELAPSED TIME					
Total Site Prep. Time			Days	Remarks:	
Total Main Hole Construction		0.16	Days		
Secured W/O Crew Site Prep.			Days		
Secured W/O Crew Main Hole Const.		0.67	Days		
Total Suspended Time (No Rig)			Days		
TOTAL ELAPSED TIME		0.83	Days		

USW UZ-N95  
HOLE HISTORY

08-15-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 20' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system.

08-16-84      Rigged down and moved out. Hole completed 08-16-84.

USW UZ-N95  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 6.1 m (20') using ODEX 115 system. Hole completed 08-16-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: John J. McConington  
 Date: May 8, 1987

Hole No.: USW UZ-N96	Type Hole: Unsaturated Zone Neutron
User: USGS	Area: Off Site
Location: NTS	County: Nye
Surface Coordinates: N 759,445.8' E 558,403.1'	W.O. #: 3404-196
Ground Elev.: 4893.4'	Pad Elev.: N/A
Bottom Hole Coord: Not surveyed @	Top Casing Elev.: 4895.4'
Rig On Location: 08-16-84	Spudded: 08-16-84
Circulating Media: ODEX 115	Completed: 08-16-84
Main Rig & Contractor: CME 550/REECo	
No. Of Compressors & Capacity: 1/GD 900	

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	35'	6"	5"	13.6#	1/4"	0'	35'	

Total Depth: 35' Plugs: None

Junk: None

Logging Data: None

Rigs Used						
Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.27			0.27

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N96			
<b>Drilling Operation Time (DOT)</b> Drill <span style="float: right;">0.08</span> Trips _____ Dress Drilling _____ Assembly _____ Fluid Probe _____ Connections _____ Open Hole _____ _____ _____ _____	<b>Other Scheduled Time (OST)</b> Mobe & Demobe <span style="float: right;">0.19</span> Core _____ Log _____ Unload Hole _____ Run Mandrel _____ Hydrological _____ Tests _____ _____ _____ _____	<b>Operational Delay Time (ODT)</b> Rig Repairs _____ W.O. Equipment _____ Fish _____ Clean Out Fill _____ Ream Hole _____ Plug Back _____ Drill Out Plugs _____ Secured W/Crews _____ _____ _____ _____	
Main Hole DOT 0.08 Days			
<b>Casing Operation Time (COT)</b> Run Casing _____ Run Casing _____ Cement Casing _____ Cement Casing _____ Drill Out Shoe _____ _____ _____ _____			
Main Hole COT: _____ Days			
Main Hole OST: 0.19 Days			
Main Hole ODT: _____ Days			
Total Main Hole Construction Time: 0.27 Days			
Remarks: _____			
_____			
_____			
_____			
TOTAL ELAPSED TIME			
Total Site Prep. Time _____ Days		Remarks: _____	
Total Main Hole Construction <span style="float: right;">0.27</span> Days		_____	
Secured W/O Crew Site Prep. _____ Days		_____	
Secured W/O Crew Main Hole Const. _____ Days		_____	
Total Suspended Time (No Rig) _____ Days		_____	
TOTAL ELAPSED TIME <span style="float: right;">0.27</span> Days		_____	
		_____	

USW UZ-N96  
HOLE HISTORY

08-16-84      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 35' and cased with 5-1/2", 1/4" wall casing using ODEX 115 system. Rigged down and moved out. Hole completed 08-16-84.



USW UZ-N96  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 10.7 m (35') using ODEX 115 system. Hole completed 08-16-84.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *Jimmy Hall Corrington*  
 Date: *May 8, 1987*

Hole No.: UE-25 UZN #97	Type Hole: Unsaturated Zone Neutron
User: USGS	Area: 25
Location: NTS	County: Nye
Surface Coordinates: N 763,093.8' E 565,320.6'	W.O. #: 3404-196
Ground Elev.: 3958.1'	Pad Elev.: N/A
Bottom Hole Coord: Not surveyed	Top Casing Elev.: 3960.1'
Rig On Location: 11-25-85	Ref: None
Spudded: 11-25-85	Completed: 11-26-85
Circulating Media: ODEX 115	
Main Rig & Contractor: CME 550/REECO	
No. Of Compressors & Capacity: 1/GD 900	

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	60'	6"	5"	13.6#	1/4"	0'	60'	

Total Depth: 60'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.56	0.04	0.67	1.27

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: UE-25 UZN #97			
Drilling Operation Time (DOT)	Other Scheduled Time (OST)	Operational Delay Time (ODT)	
Drill/Core/Sample <u>0.39</u>	Mobe & Demobe <u>0.13</u>	Rig Repairs	_____
Trips <u>0.04</u>	Core	W.O. Equipment	_____
Dress Drilling	Log	Fish	_____
Assembly	Unload Hole	Clean Out Fill	_____
Fluid Probe	Run Mandrel	Ream Hole	_____
Connections	Hydrological	Plug Back	_____
Open Hole	Tests	Drill Out Plugs	_____
_____	_____	Secured W/Crews	<u>0.04</u>
_____	_____	_____	_____
Main Hole DOT <u>0.43</u> Days	_____	_____	_____
_____	_____	_____	_____
Casing Operation Time (COT)	_____	_____	_____
Run Casing	_____	_____	_____
Run Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Cement Casing	_____	_____	_____
Drill Out Shoe	_____	_____	_____
_____	_____	_____	_____
Main Hole COT: _____ Days	Main Hole OST: <u>0.13</u> Days	Main Hole ODT: <u>0.04</u> Days	
Total Main Hole Construction Time: <u>0.60</u> Days			
Remarks: _____			
_____			
_____			
_____			
TOTAL ELAPSED TIME			
Total Site Prep. Time	_____ Days	Remarks: _____	
Total Main Hole Construction	<u>0.60</u> Days	_____	
Secured W/O Crew Site Prep.	_____ Days	_____	
Secured W/O Crew Main Hole Const.	<u>0.67</u> Days	_____	
Total Suspended Time (No Rig)	_____ Days	_____	
TOTAL ELAPSED TIME	<u>1.27</u> Days	_____	

**UE-25 UZN #97**  
**HOLE HISTORY**

- 11-25-85 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 26' cased with 5-1/2", 13.6# casing using ODEX 115 system taking drive samples as directed by USGS. Took cores #1 thru #6 (drive samples) from 0' to 26.5'. Secured drilling from 1330 hours to 1430 hours due to weather conditions.
- 11-26-85 Opened sample hole and drilled 6" hole to 55' cased with 5-1/2" casing taking drive samples as directed by USGS. Took cores #7 thru #11 (drive samples) from 30' to 48'. Cut 4" core #12 (rotary core) from 55' to 60' using 4" x 2.40" core bit and HCQ barrel and air. Opened 4" hole to 6" from 55' to 60' cased with 5-1/2" casing. Rigged down and moved to new location. Hole completed 11-26-85.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
1		0.0 - 1.0	1.0	1.0	100
2		6.0 - 8.0	2.0	2.0	100
3		11.0 - 13.0	2.0	2.0	100
4		16.0 - 18.0	2.0	2.0	100
5		21.0 - 23.0	2.0	2.0	100
6		25.0 - 26.5	1.5	1.5	100
7		30.0 - 32.0	2.0	2.0	100
8		35.0 - 37.0	2.0	2.0	100
9		40.0 - 42.0	2.0	2.0	100
10		45.0 - 47.0	2.0	2.0	100
11		47.0 - 48.0	1.0	0.0	0
	12	55.0 - 60.0	5.0	2.5	50

\* Drive sample data obtained from USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.

UE-25 UZN #97  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 18.3 m (60') using ODEX 115 system. Eleven samples and one 102 mm (4") core were taken during drilling with hole opened to 152 mm (6") after coring. Hole completed 11-26-85.

**FENIX & SCISSON, INC.  
HOLE HISTORY DATA  
NNWSI**

Approved: *Jerry Hall Corrigton*  
Date: *July 8, 1987*

Hole No.: USW UZ-N98      Type Hole: Unsaturated Zone Neutron  
User: USGS      Area: Off Site      Site Prep. W.O. #: None  
Location: NTS      County: Nye      W.O. #: 3404-196  
Surface Coordinates: N 767,996.2'      E 562,083.5'  
Ground Elev.: 4223.1'      Pad Elev.: N/A      Top Casing Elev.: 4225.1'  
Bottom Hole Coord: Not surveyed      @      Ref: None  
Rig On Location: 02-20-86      Spudded: 02-20-86      Completed: 02-25-86  
Circulating Media: ODEX 115  
Main Rig & Contractor: CME 550  
No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	75'	6"	5"	13.6#	1/4"	0'	31'	

Total Depth: 75'      Plugs: None

Junk: None

Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.89		4.00	4.89

Remarks:

Prepared By: JW:LLF:ps

Time Breakdown on Next Page

TIME BREAKDOWN			
MAIN HOLE CONSTRUCTION			
Hole No.: USW UZ-N98			
<b>Drilling Operation</b> <b>Time (DOT)</b>	<b>Other Scheduled</b> <b>Time (OST)</b>	<b>Operational Delay</b> <b>Time (ODT)</b>	
Drill/Core/Sample <u>0.68</u> Trips <u>0.06</u> Dress Drilling _____ Assembly _____ Fluid Probe _____ Connections _____ Open Hole _____ _____ _____ _____	Mobe & Demobe <u>0.15</u> Core _____ Log _____ Unload Hole _____ Run Mandrel _____ Hydrological _____ Tests _____ _____ _____ _____	Rig Repairs _____ W.O. Equipment _____ Fish _____ Clean Out Fill _____ Ream Hole _____ Plug Back _____ Drill Out Plugs _____ Secured W/Crews _____ _____ _____ _____	
Main Hole DOT <u>0.74</u> Days			
<b>Casing Operation</b> <b>Time (COT)</b>			
Run Casing _____ Run Casing _____ Cement Casing _____ Cement Casing _____ Drill Out Shoe _____ _____ _____ _____			
Main Hole COT: _____ Days Main Hole OST: <u>0.15</u> Days Main Hole ODT: _____ Days			
Total Main Hole Construction Time: <u>0.89</u> Days			
Remarks:			
TOTAL ELAPSED TIME			
Total Site Prep. Time _____ Days		Remarks:	
Total Main Hole Construction <u>0.89</u> Days			
Secured W/O Crew Site Prep. _____ Days			
Secured W/O Crew Main Hole Const. <u>4.00</u> Days			
Total Suspended Time (No Rig) _____ Days			
TOTAL ELAPSED TIME <u>4.89</u> Days			

**USW UZ-N98**  
**HOLE HISTORY**

02-20-86 Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 26' cased with 5-1/2", 13.6# casing using ODEX 115 system and air.

02-21-86 Drilled 6" hole from 26' to 50' cased with 5-1/2" casing. Cut cores (rotary) #1 from 26' to 30', #2 from 30' to 34', #3 from 34' to 35', #4 from 35' to 40', #5 from 40' to 45', #6 from 45' to 49', and #7 from 50' to 55' using 4.25" x 2.40" diamond core bit, 5' HCQ barrel, and air. Checked hole from 1200 hours to 1300 hours at 45', no fluid seepage indicated. Secured rig for weekend.

02-24-86 Rig secured from 02-21-86 to 02-24-86. Opened 4.25" hole and drilled 6" hole from 50' to 75' cased with 5-1/2" casing. Cut cores (rotary) #8 from 55' to 60', #9 from 60' to 65', #10 from 65' to 70' and #11 from 70' to 75' using 4.25" x 2.40" drag bit. Pulled 5 joints of 5-1/2" casing up to 50'.

02-25-86 Pulled 5-1/2" casing up to 31'. Rigged down and moved out. Hole completed 02-25-86.

**CORE RECORD**

<u>Drive *</u> <u>Sample No.</u>	<u>Rotary</u> <u>Core No.</u>	<u>Interval</u>	<u>Footage</u> <u>Cored</u>	<u>Footage</u> <u>Recovered</u>	<u>%</u> <u>Recovery</u>
	1	26.0 - 30.0	4.0	3.0	75
	2	30.0 - 34.0	4.0	4.0	100
	3	34.0 - 35.0	1.0	1.0	100
	4	35.0 - 40.0	5.0	5.0	100
	5	40.0 - 45.0	5.0	5.0	100
	6	45.0 - 49.0	4.0	3.0	75
	7	50.0 - 55.0	5.0	5.0	100
	8	55.0 - 60.0	5.0	5.0	100
	9	60.0 - 65.0	5.0	5.0	100
	10	65.0 - 70.0	5.0	5.0	100
	11	70.0 - 75.0	5.0	5.0	100

\* No drive samples were taken per USGS records.

Drive samples taken with a 2' long spoon or tube.

Rotary cores taken with a core bit and 5' long core barrel.



USW UZ-N98  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing with 140 mm (5-1/2") casing was drilled to a total depth of 22.9 m (75') using ODEX 115 system. Eleven 108 mm (4.25") cores were taken during drilling with hole opened to 152 mm (6") after coring. 140 mm (5-1/2") casing was pulled up to 9.4 m (31'). Hole completed 02-25-86.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *John M. Livingston*  
 Date: *7/28/87*

Hole No.: UE-25 UZNC #1 | Type Hole: UZN Calibration \*  
 User: USGS | Area: 25 | Site Prep. W.O. #: None  
 Location: NTS | County: Nye | W.O. #: 3404-196  
 Surface Coordinates: N 764,670.6' E 566,158.9'  
 Ground Elev.: 3928.5' | Pad Elev.: N/A | Top Casing Elev.: 3930.7'  
 Bottom Hole Coord: N/A @ | Ref: None  
 Rig On Location: 02-26-86 | Spudded: 02-26-86 | Completed: 02-26-86  
 Circulating Media: ODEX 115, Air  
 Main Rig & Contractor: CME 550/REEC  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record				Casing Record				
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	5'	6"						

Total Depth: 5' | Plugs: Backfilled 04-01-86 \*\*  
 Junk: None  
 Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.08			0.08

Remarks: \* Unsaturated Zone Neutron Calibration  
 \*\* A ditch was then dug through the location.

Prepared By: LLF:11h | Time Breakdown on Next Page

**TIME BREAKDOWN**

## MAIN HOLE CONSTRUCTION

Hole No.: UE-25 UZNC #1

Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (OOT)	
Drill	0.04	Mobe & Demobe	0.04	Rig Repairs	
Trips		Core		W.O. Equipment	
Dress Drilling		Log		Fish	
Assembly		Unload Hole		Clean Out Fill	
Fluid Probe		Run Mandrel		Ream Hole	
Connections		Hydrological		Plug Back	
Open Hole		Tests		Drill Out Plugs	
				Secured W/Crews	
Main Hole DOT 0.04 Days					
Casing Operation Time (COT)					
Run Casing					
Run Casing					
Cement Casing					
Cement Casing					
Drill Out Shoe					

Main Hole COT:	Days	Main Hole OST: 0.04	Days	Main Hole ODT:	Days
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**Total Main Hole Construction Time: 0.08 Days**

Remarks:

TOTAL ELAPSED TIME	
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Total Site Prep. Time		Days	Remarks:
Total Main Hole Construction	0.08	Days	
Secured W/O Crew Site Prep.		Days	
Secured W/O Crew Main Hole Const.		Days	
Total Suspended Time (No Rig)		Days	
TOTAL ELAPSED TIME	0.08	Days	

**UE-25 UZNC #1**  
**HOLE HISTORY**

- 02-26-86      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 5' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Top of 5-1/2" casing 2' above surface. Rigged down and moved out. Hole completed 02-26-86.
- 04-01-86      Drilling crew pulled 5-1/2" x 7' casing shoe joint and backfilled hole. A ditch was then dug through the location.

UE-25 UZNC #1  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 1.5 m (5') using ODEX 115 system and air. Top of 140 mm (5-1/2") casing was 0.6 m (2') above surface. Hole completed 02-26-86. 140 mm (5-1/2") casing was pulled, hole backfilled, and ditch dug through the location, 04-01-86.

**FENIX & SCISSON, INC.**  
**HOLE HISTORY DATA**  
**NNWSI**

Approved: *John H. Cornington*  
 Date: *May 18, 1987*

Hole No.: UE-25 UZNC #2      Type Hole: UZN Calibration \*  
 User: USGS      Area: 25      Site Prep. W.O. #: None  
 Location: NTS      County: Nye      W.O. #: 3404-196  
 Surface Coordinates: N 764,668.4'      E 566,157.5'  
 Ground Elev.: 3928.4'      Pad Elev.: N/A      Top Casing Elev.: 3930.5'  
 Bottom Hole Coord: N/A      @      Ref: None  
 Rig On Location: 02-26-86      Spudded: 02-26-86      Completed: 02-26-86  
 Circulating Media: ODEX 115, Air  
 Main Rig & Contractor: CME 550/REEC  
 No. Of Compressors & Capacity: 1/GD 900

Bore Hole Record			Casing Record					
From	To	Size	I.D.	Wt/Ft.	Wall	From	To	Ft <sup>3</sup> Cement
0'	5'	6"						

Total Depth: 5'      Plugs: Backfilled 04-01-86 \*\*  
 Junk: None  
 Logging Data: None

**Rigs  
Used**

Rig No.	Name	Class	Days Operating	Sec. W/Crew	Sec. W/O Crew	Total Days On Location
85136	CME 550	Aux.	0.08			0.08

Remarks: \* Unsaturated Zone Neutron Calibration  
 \*\* A ditch was then dug through the location.

Prepared By: LLF:11h      Time Breakdown on Next Page

TIME BREAKDOWN					
MAIN HOLE CONSTRUCTION					
Hole No.: UE-25 UZNC #2					
Drilling Operation Time (DOT)		Other Scheduled Time (OST)		Operational Delay Time (ODT)	
Drill	0.04	Mobe & Demobe	0.04	Rig Repairs	_____
Trips	_____	Core	_____	W.O. Equipment	_____
Dress Drilling	_____	Log	_____	Fish	_____
Assembly	_____	Unload Hole	_____	Clean Out Fill	_____
Fluid Probe	_____	Run Mandrel	_____	Ream Hole	_____
Connections	_____	Hydrological	_____	Plug Back	_____
Open Hole	_____	Tests	_____	Drill Out Plugs	_____
	_____		_____	Secured W/Crews	_____
	_____		_____		_____
Main Hole DOT 0.04 Days			_____		_____
Casing Operation Time (COT)			_____		_____
Run Casing	_____		_____		_____
Run Casing	_____		_____		_____
Cement Casing	_____		_____		_____
Cement Casing	_____		_____		_____
Drill Out Shoe	_____		_____		_____
	_____		_____		_____
	_____		_____		_____
Main Hole COT: _____ Days		Main Hole OST: 0.04 Days		Main Hole ODT: _____ Days	
Total Main Hole Construction Time: 0.08 Days					
Remarks: _____					
_____					
_____					
_____					
TOTAL ELAPSED TIME					
Total Site Prep. Time		_____	Days	Remarks: _____	
Total Main Hole Construction		0.08	Days	_____	
Secured W/O Crew Site Prep.		_____	Days	_____	
Secured W/O Crew Main Hole Const.		_____	Days	_____	
Total Suspended Time (No Rig)		_____	Days	_____	
TOTAL ELAPSED TIME		0.08	Days	_____	
				_____	

**UE-25 UZNC #2**  
**HOLE HISTORY**

- 02-26-86      Moved in CME 550, rig #85136 and rigged up. Drilled 6" hole from 0' to 5' cased with 5-1/2", 13.6# casing using ODEX 115 system and air. Top of 5-1/2" casing was 2' above surface. Rigged down and moved out. Hole completed 02-26-86.
- 04-01-86      Drilling crew pulled 5-1/2" x 7' casing shoe joint and backfilled hole. A ditch was then dug through the location.



UE-25 UZNC #2  
REVIEW OF HOLE CONDITIONS

152 mm (6") hole cased with 140 mm (5-1/2") casing was drilled to a total depth of 1.5 m (5') using ODEX 115 system and air. Top of 140 mm (5-1/2") casing was 0.6 m (2') above surface. Hole completed 02-26-86. 140 mm (5-1/2") casing was pulled, hole backfilled, and a ditch dug through the location, 04-01-86.