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GEOLOGICAL SURVEY

GEOLOGIC DATA FOR BOREHOLE ERDA-9, EDDY COUNTY, NEW MEXICO

By

C. L. Jones

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## GEOLOGIC DATA FOR BOREHOLE ERDA-9, EDDY COUNTY, NEW MEXICO

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C. L. Jones

### ABSTRACT

Borehole ERDA-9 is an exploratory well drilled in eastern Eddy County, New Mexico to evaluate and test salt beds for disposal of nuclear wastes. The drilling was done between April 28 and June 4, 1976.

Lithologic and stratigraphic details of the geologic section in ERDA-9 are described herein. The section includes: (1) the Mescalero caliche and the Gatuna Formation of Pleistocene age, (2) the Santa Rosa Sandstone of Triassic age, and (3) the Dewey Lake Red Beds, the Rustler Formation, the Salado Formation, and part of the Castile Formation; all of Permian age.

### INTRODUCTION

Borehole ERDA-9 is an exploratory well drilled at the center of a proposed site for a waste isolation pilot plant (WIPP) in eastern Eddy County, N. Mex. (fig. 1). Specific objectives in the drilling of the well were to: (1) determine lithologic and stratigraphic details of salt beds and other rocks at the WIPP site, (2) examine the structure of the rocks, (3) conduct inhole geophysical surveys to define rock properties, and (4) obtain core samples for laboratory analysis and testing of the salt beds and associated rocks.

The drilling of ERDA-9 was done on behalf of the U.S. Department of Energy (formerly the U.S. Energy Research and Development Administration). Technical direction was provided by Sandia Laboratories; the drilling operations and related supporting services provided by supply and logging companies were supervised by Fenix & Scisson, Inc. The examination of drill cuttings and cores was the responsibility of the U.S. Geological Survey.

Basic data concerning the geologic section in ERDA-9 are tabulated herein. Physical details of the location and drilling of ERDA-9 are summarized in table 1; stratigraphic members of the geologic section are listed in table 2; and the rocks are identified and described in table 3. Other aspects of the geology and the test results obtained on core samples will be reported elsewhere.

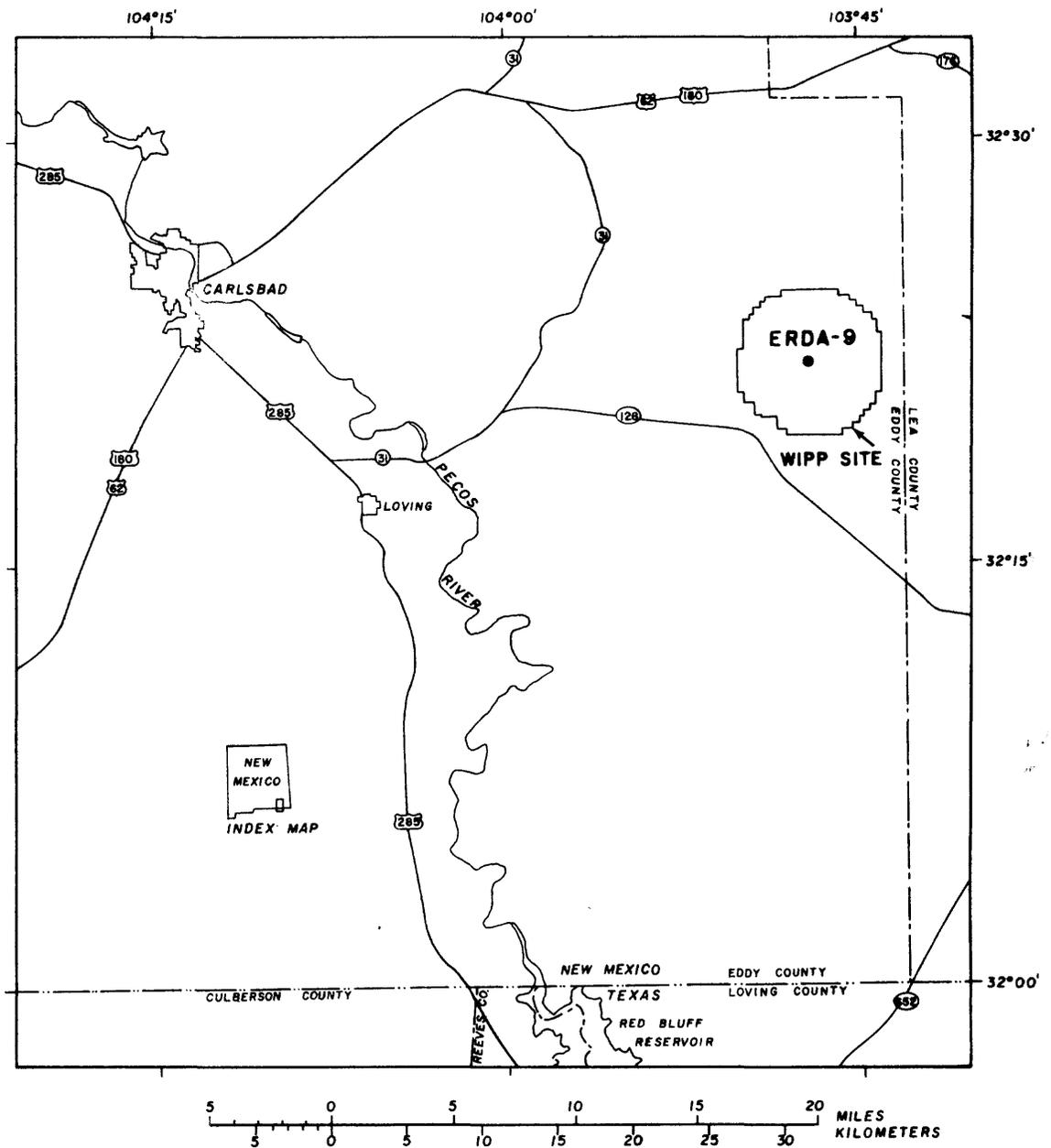


Figure 1.--Location of borehole ERDA-9 and the WIPP (Waste Isolation Pilot Plant) site.

A descriptive lithologic log of ERDA-9 (table 3) was compiled from examination of rotary drill cuttings through a binocular microscope and visual examination of core at the drill site. The results of the examination are interpreted and correlated with selected geophysical logs on figure 2a, b, and c to portray the lithology of the geologic section in ERDA-9. The correlation involved the matching of lithology as established by examination with specific rock properties as recorded by gamma-ray, density, acoustic velocity, and other inhole geophysical surveys. The matching of lithology and rock properties provides a useful method for determining the depth intervals from which cuttings and cores were recovered in drilling operations, and for detecting errors in depth determination by drill-rod measurement.

In this compilation inch-pound units are used. The use of these units is dictated by: (1) the consideration that measurements should be reported in the same units as those in which original observations were recorded, and (2) the need to facilitate ready comparison of measurements made by surveyors in establishing the geographic coordinate of ERDA-9, by drillers in determining well depth, and by geophysical loggers in recording inhole variations in rock properties with depth. If metric equivalents of the units are desired, the following conversion factors are provided:

<u>Multiply English unit</u>	<u>By</u>	<u>To obtain metric unit</u>
foot (ft)	0.3048	meter (m)
inch (in.)	25.4	millimeter (mm)
inch (in.)	2.54	centimeter (cm)
pounds per square inch (lb/in <sup>2</sup> )	0.006895	megapascal (MPa)

#### Description of ERDA-9

Borehole ERDA-9 is located in eastern Eddy County, N. Mex., near the SE cor. sec. 20, T. 22 S., R. 31 E. The borehole was drilled between April 28 and June 4, 1976, to a depth of 2,889 feet measured from a KB (kelly bushing) altitude of 3,420.4 feet above MSL (mean sea level). Cuttings were collected at 5-foot intervals from the land surface (11.6 ft below KB, 3,408.9 ft above MSL) to a depth of 1,090 feet (2,330.4 ft above MSL), and consecutive cores were then taken to a depth of 2,876.6 feet (543.8 ft above MSL). Core recovery was generally good, exceeding 95 percent of cored interval. In contrast to this situation, however, depth determination by drill-pipe measurement was poor, and the depth interval assigned by the driller to individual cores at the time of removal from the borehole was subsequently found to be too shallow in amounts ranging from a minimum of 5.7 feet to a maximum of 25.1 feet (table 1).

Table 1.--Abridged history of borehole ERDA-9

LOCATION: Sec. 20, T. 22 S., R. 31 E.  
 267.23 feet from south line  
 176.74 feet from east line  
 (Revised location, according to resurvey made on November 28, 1978)

ALTITUDE: LS (Land surface) 3,408.86 feet  
 KB (Kelly bushing) 3,420.41 feet  
 (Revised altitudes, according to resurvey made on November 28, 1978)

Datum for depth measurements given in tables 1, 2 and 3 is KB.

LITHOLOGIC LOG PREPARED BY: C. L. Jones, B. M. Madsen, and D. F. Fuqua  
 April 29 to June 4, 1976

GEOPHYSICAL LOGS PREPARED BY: Dresser Atlas

DRILLING CONTRACTOR: Sonora Drilling Co.

CORING CONTRACTOR: International Diamond Coring, Inc.

DRILLING RECORD: Commenced drilling on April 28, 1976, and completed on June 4, 1976, at 2,889 feet below Kelly bushing.

Conductor pipe (16 inch OD) set and cemented at 40 feet below LS (52 feet, i.e. 51.55 feet below KB).

Drilled 9 7/8 inch hole from 52 to 1,076 feet below KB.

Opened hole to 15 inches from 52 to 1,090 feet below KB; 10 3/4 inch casing set at 1,045 feet below KB and cemented to surface (hole deepened 14 feet (1,076 to 1,090 feet) during operation).

Drilled 7 23/32 inch hole while taking consecutive cores from 1,090 to 2,877 feet. Coring directed by International Diamond Coring, Inc.

Opened hole to 9 7/8 inches from 1,090 to 2,889 feet (hole deepened 12 feet (2,877 to 2,889 feet) during operation).

Set 7 inch OD casing at 2,883 feet, and cemented annulus with 122 feet<sup>3</sup> of class "H" cement.

Filled casing with oil-base mud, and prepared borehole for temporary abandonment.

All depth measurements used by core engineer, core handlers, and core photographers are in error by an amount ranging from a minimum of 5.7 feet to a maximum of 25.1 feet. The amount of correction to be added to individual core segments to determine the true depth below the KB is tabulated below.

Core No.	Driller's Depth interval (feet)	Correction Factor (feet)	Correct depth <sup>1</sup> below KB (feet)	Core interval		Percent recovered
				Feet cut	Feet recovered	
1	1076.0-1089.0	+14.2	1090.2-1106.5	16.3	13.0	93
	1089.0-1131.0	+17.5	1106.5-1144.6	38.1	37.7	
2	1131.0-1148.5	+13.6	1144.6-1163.1	18.5	17.5	96
	1148.5-1183.0	+14.6	1163.1-1197.3	34.2	33.2	
3	1183.0-1239.0	+14.3	1197.3-1252.2	54.9	51.8	94
4	1239.0-1246.0	+13.2	1252.2-1260.2	8.0	7.0	89
	1246.0-1269.5	+14.2	1260.2-1288.6	28.4	23.5	
	1269.5-1291.0	+19.1	1288.6-1306.4	17.8	17.8	
5	1291.0-1343.0	+15.4	1306.4-1358.7	52.3	52.3	100

Table 1.--Abridged history of borehole ERDA-9--Continued

Core No.	Driller's Depth interval (feet)	Correction Factor (feet)	Correct depth <sup>1</sup> below KB (feet)	Core interval Feet cut	Feet recovered	Percent recovered
6	1343.0-1395.0	+15.7	1358.7-1409.7	51.0	51.0	100
7	1395.0-1435.0	+14.7	1409.7-1450.3	40.6	40.0	99
	1435.0-1447.0	+15.3	1450.3-1462.0	11.7	11.7	
8	1447.0-1465.2	+15.0	1462.0-1480.8	22.3	20.9	
	1465.2-1486.1	+15.6	1480.8-1503.1	22.3	20.9	94
	1486.1-1496.0	+17.0	1503.1-1513.2	10.1	9.1	
9	1496.0-1528.1	+16.8	1513.2-1547.0	33.8	32.1	97
	1528.1-1553.0	+18.5	1547.0-1570.8	23.8	23.5	
10	1553.0-1605.0	+17.8	1570.8-1623.3	52.5	49.5	94
11	1605.0-1621.5	+18.3	1623.3-1640.8	17.5	16.5	98
	1621.5-1657.0	+19.3	1640.8-1676.0	35.2	35.2	
12	1657.0-1709.0	+19.0	1676.0-1729.0	53.0	52.1	98
13	1709.0-1761.0	+20.0	1729.0-1781.2	52.2	52.2	100
14	1761.0-1813.0	+20.2	1781.2-1833.2	52.0	50.5	97
No core, drilled		5.1	1833.2-1838.3	0	0	
15	1813.0-1865.0	+25.3	1838.3-1890.3	52.0	47.2	93
15A	1865.0-1867.0	+22.3	Recovered part of Core No. 15	0	1.3	
16	1868.0-1878.2	+22.3	1890.3-1901.5	11.2	10.2	96
	1878.2-1919.0	+23.3	1901.5-1940.6	39.1	38.2	
17	1919.0-1940.6	+21.6	1940.6-1963.2	22.6	21.6	98
	1940.6-1971.0	+22.6	1963.2-1992.7	29.5	29.5	
18	1971.0-2023.0	+21.7	1992.7-2046.0	53.3	53.3	100
19	2023.0-2075.0	+23.0	2046.0-2096.5	50.5	50.5	100
20	2075.0-2106.0	+21.5	2096.5-2129.0	32.5	31.7	98
21	2106.0-2158.0	+23.0	2129.0-2181.0	52.0	51.7	98
22	2158.0-2210.0	+23.0	2181.0-2233.7	52.7	52.7	100
23	2210.0-2262.0	+23.7	2233.7-2285.0	51.3	50.7	99
24	2262.0-2314.0	+23.0	2285.0-2337.6	52.6	52.1	99
25	2314.0-2369.0	+23.6	2337.6-2393.2	55.6	55.6	100
26	2369.0-2422.0	+24.2	2393.2-2446.2	53.0	53.0	100
27	2422.0-2474.0	+24.2	2446.2-2497.5	51.3	50.2	98
28	2474.0-2526.0	+23.5	2497.5-2549.7	52.2	52.2	100
29	2526.0-2578.0	+23.7	2549.7-2603.1	53.4	53.1	99
30	2578.0-2630.0	+25.1	2603.1-2655.1	52.0	49.7	96
30A	2630.0-2634.0	+25.1	2655.1-2658.7	3.6	1.1	33
Depth correction by driller		+19.0	2634.0-2653.0	0	0	
31	2653.0-2709.0	+ 5.7	2658.7-2714.7	56.0	55.4	99
32	2709.0-2763.0	+ 5.7	2714.7-2768.7	54.0	54.0	100
33	2763.0-2818.0	+ 5.7	2768.7-2824.1	55.4	55.4	100
34	2818.0-2820.0	+ 6.1	2824.1-2827.3	3.2	2.7	84
35	2820.0-2869.0	+ 7.3	2827.3-2876.6	49.3	49.3	100

<sup>1</sup>From compensated neutron log run by Dresser Atlas, June 6, 1976.

On removal from the borehole, all core was cleaned to remove a surficial coating of the oil-base mud used as a drilling fluid. After cleaning, the core was marked according to the depth interval reported by the driller, examined visually for geologic details, photographed, wrapped and sealed in polyethylene plastic, and then transported to the warehouse for storage until sampled for analysis and testing. It should be noted that core sampled for analysis and testing are marked according to driller's depth, and not their true depth below the KB at ERDA 9.

After completion of the drilling operation, a suite of wireline geophysical logs was run the full length of the borehole under open-hole, fluid-filled conditions. The suite of wireline logs included: (1) a gamma-ray curve that recorded variation in the distribution of radioactive elements, (2) a neutron curve that recorded variations in the distribution of hydrogen, (3) a spectral gamma curve that recorded variations in the distribution of individual radioactive elements--potassium, uranium, and thorium, (4) a gamma-gamma curve that recorded variations in rock density, and (5) an acoustic-velocity curve that recorded variation in elastic velocity. Considered together, the suite of wireline logs also served to: (1) facilitate the recognition and correlation of rock units, (2) assure identification of major lithologies (dolomite, anhydrite, polyhalite, and other rocks) associated with salt beds, and (3) provide a depth determination independent of that indicated by drill-rod measurement.

#### GEOLOGIC DATA

Borehole ERDA-9 penetrated consolidated sedimentary rocks totaling 2,877 feet in thickness (table 2). The rocks include a younger group of continental and marine red beds ranging from Quaternary to Permian in age, and an older group of marine evaporites (dolomite, anhydrite, halite, and associated potassium-bearing rocks) of Permian age. The red beds and evaporites are described in table 2 in the same descending order of youngest to oldest in which they are penetrated by the drill bit in the hole. This procedure preserves the order in which the rocks are described in the stratigraphic summary and in the lithologic log (fig. 2; table 3).

#### Quaternary System

The Quaternary System in ERDA-9 includes an unnamed deposit of eolian sand of Holocene age, and the Mescalero caliche and Gatuna Formation of Pleistocene age. The eolian sands are ubiquitous, and conceal the consolidated bedrock over much of the WIPP site. They are readily accessible for study and observation, and are not discussed further.

Table 2.--Stratigraphic summary of borehole ERDA-9

Rock unit	Depth interval <sup>1</sup> Feet
Kelly bushing (KB) to land surface (LS)	0-12
Holocene deposits <sup>2</sup>	12-22
Pleistocene rocks	
Mescalero caliche	22-27
Gatuna Formation	27-54
Triassic rocks	
Santa Rosa Sandstone	54-63
Permian rocks	
Dewey Lake Red Beds	63-550
Rustler Formation	550-860
Dissolution residue	580-592
Magenta Dolomite Member	608-632
Dissolution residue	691-710
Culebra Dolomite Member	716-739
Dissolution residue	742-748
Salado Formation	860-2836
Upper unit	860-1362
MB <sup>3</sup> 100	<sup>4</sup> 939
MB <sup>3</sup> 101	<sup>4</sup> 984
MB <sup>3</sup> 102	<sup>4</sup> 1026
MB <sup>3</sup> 103	1040-1050
MB <sup>3</sup> 104	<sup>4</sup> 1061
MB <sup>3</sup> 105	<sup>4</sup> 1075
MB <sup>3</sup> 106	1093-1094
MB <sup>3</sup> 107	<sup>4</sup> 1132
MB <sup>3</sup> 108	<sup>4</sup> 1142
MB <sup>3</sup> 109	1165-1188
MB <sup>3</sup> 110	not present
MB <sup>3</sup> 111	<sup>4</sup> 1238
MB <sup>3</sup> 112	1256-1258
MB <sup>3</sup> 113	1282-1284
MB <sup>3</sup> 114	<sup>4</sup> 1306
MB <sup>3</sup> 115	1340-1344
MB <sup>3</sup> 116	1354-1356
McNutt potash unit <sup>5</sup>	1362-1742
Vaca Triste Sandstone Member <sup>6</sup>	1365-1367
11th ore zone <sup>7</sup>	1420-1422
MB <sup>3</sup> 117	1431-1433
MB <sup>3</sup> 118	1455-1463
MB <sup>3</sup> 119	<sup>4</sup> 1482
10th ore zone <sup>7</sup>	1487-1493
MB <sup>3</sup> 120	1501-1502

Table 2.--Stratigraphic summary of borehole ERDA-9--Continued

Rock unit	Depth interval <sup>1</sup> Feet
9th ore zone <sup>7</sup>	1507-1512
MB <sup>3</sup> 121	1515-1517
MB <sup>3</sup> 122	<sup>4</sup> 1524
8th ore zone <sup>7</sup>	1531-1542
Union anhydrite <sup>5</sup>	1549-1557
7th ore zone <sup>7</sup>	1572-1576
6th ore zone <sup>7</sup>	1590-1593
5th ore zone <sup>7</sup>	1597-1603
MB <sup>3</sup> 123	1630-1637
MB <sup>3</sup> 124	1645-1653
4th ore zone <sup>7</sup>	1659-1669
3rd ore zone <sup>7</sup>	1676-1688
2nd ore zone <sup>7</sup>	1696-1698
MB <sup>3</sup> 125	not present
1st ore zone <sup>7</sup>	1712-1723
MB <sup>5</sup> 126	<sup>4</sup> 1742
Lower unit	1742-2836
MB <sup>3</sup> 127	1768-1770
MB <sup>3</sup> 128	1778-1781
MB <sup>3</sup> 129	1803-1805
MB <sup>3</sup> 130	<sup>4</sup> 1815
MB <sup>3</sup> 131	<sup>4</sup> 1884
MB <sup>3</sup> 132	1914-1915
MB <sup>3</sup> 133	1933-1935
MB <sup>3</sup> 134	1976-1989
MB <sup>3</sup> 135	<sup>4</sup> 2006
MB <sup>3</sup> 136	2043-2058
MB <sup>3</sup> 137	<sup>4</sup> 2075
MB <sup>3</sup> 138	2120-2121
MB <sup>3</sup> 139	2177-2180
MB <sup>3</sup> 140	2241-2251
MB <sup>3</sup> 141	2320-2330
MB <sup>3</sup> 142	2377-2391
MB <sup>3</sup> 143	2450-2456
MB <sup>3</sup> 144	2493-2506
Cowden Anhydrite Member <sup>8</sup>	2540-2563
Castile Formation	2836-2889

<sup>1</sup>Depth interval recorded by compensated neutron curve.

<sup>2</sup>Includes artificial fill for drill pad.

<sup>3</sup>Marker bed--a laterally persistent stratigraphic unit composed of anhydrite and (or) polyhalite, and used for correlation purposes.

<sup>4</sup>Base of rock unit.

<sup>5</sup>Informal unit of Salado Formation.

<sup>6</sup>Of Adams, 1944.

<sup>7</sup>Beds of argillaceous halite that locally contain deposits of potassium and magnesium minerals in southeastern New Mexico.

<sup>8</sup>Of Giesey and Fulk, 1941.

#### Mescalero Caliche

From 22 to 27 feet below the KB, the bit penetrated a well-indurated illuvial deposit known informally as the Mescalero caliche. The Mescalero consists of white, chalky limestone which contains discrete grains of quartz floating in a calcite matrix and shattered sandstone fragments from the underlying Gatuna Formation.

#### Gatuna Formation

Pale-reddish sandstone representing the Gatuna Formation extends from 27 to 54 feet below the KB. The sandstone is very fine to fine grained, calcareous and friable, and includes debris derived from older red beds.

#### Triassic System

##### Santa Rosa Sandstone

A 9-foot interval, from 54 to 63 feet below KB, of pale-red, grayish-orange, and light-gray, medium- to coarse-grained sandstone is believed to represent the basal part of the Santa Rosa Sandstone. The rock resembles Santa Rosa outcrops to the north and east of ERDA-9, but it may be debris from the Santa Rosa that now forms the basal Gatuna Formation.

#### Permian System

The Permian System in ERDA-9 includes, in descending order, the Dewey Lake Red Beds, the Rustler Formation, the Salado Formation, and a part of the Castile Formation.

##### Dewey Lake Red Beds

Extending from 63 to 550 feet in ERDA-9 is a lithologically distinctive but monotonous succession of reddish-brown, dolomitic siltstone and mudstone known as the Dewey Lake Red Beds; sparse interbeds of fine- to coarse-grained sandstone occur here and there in the formation. Much of its reddish-brown rock is irregularly mottled greenish-gray in splotchy, nodular and lenticular masses. Many bedding surfaces are sprinkled with plates of biotite. Veinlets of white, fibrous selenite are common in the lower 325 feet of the formation, and their presence attests to the absence of circulating ground water unsaturated with the respect to calcium sulfate since vein formation.

### Rustler Formation

The Rustler Formation, 550-860 feet below KB, is chiefly anhydrite and fine-grained clastic rocks with interbeds of dolomite and clayey halite. Clastic rocks in the upper and middle parts of the formation are structureless, unconsolidated clays and silts that are dissolution residues derived from clayey and silty halite; whereas those in the lower part of the formation are well-indurated mudstone and clayey siltstone with halite cement. Gypsum rims the anhydrite immediately above and below the dissolution residues and above and below the dolomite interbeds.

The dolomite in the Rustler forms two distinctive stratigraphic units, that are, respectively 58 and 166 feet (608 and 616 feet below KB) below the top of the formation. The unit is known as the Magenta Dolomite Member and the lower as the Culebra Dolomite Member. The Magenta is a fine-grained, silty dolomite with a platy (laminated) structure, composed of detrital dolomite and silt; whereas the Culebra is thin-bedded, well-crystallized dolomite of chemical origin that contains solution pits from which calcium sulfate (gypsum and anhydrite) has been leached. Both the Magenta and the Culebra are aquifers of regional importance.

### Salado Formation

The Salado Formation, 860 feet and extending to 2,836 feet below the KB at ERDA-9, contains the salt beds of main interest at the WIPP site. The Salado is chiefly rock salt and contains many short to long intervals showing alternation of polyhalitic (or anhydritic) halite and argillaceous halite in beds ranging from a few inches to a few feet in thickness (Jones, 1973). Interbedded at irregular intervals are prominent beds of anhydrite, polyhalite, and siltstone, and many thin seams and partings of claystone. A few salt beds near the middle of the formation contain crystals and nodular masses of kainite(?), bloedite(?) and, possibly, other uncommon potassium and magnesium minerals. The formation is free of dissolution residues related to the removal of salt by ground water, and the rocks are unfractured and lacking in the deformation textures and structures found in folded and faulted salt beds.

The Salado Formation is divided into an unnamed upper unit, a middle unit known informally as the McNutt potash unit, and an unnamed lower unit (fig. 2; table 2). The three units are broadly similar in bedding characteristics, lithology and most other geologic details, but they differ in economic significance and in possible use for waste disposal experimentation.

The upper unit of the Salado Formation is 860-1,362 feet below the KB at ERDA-9. The unit is chiefly an alternation of reddish-orange, light-red, or white polyhalitic halite and brown, argillaceous halite in beds a few inches to a few feet thick, it contains some beds of red to

orange polyhalite and gray anhydrite as much as 10 feet thick. Two widely separated beds of clayey, halitic sandstone occur in the upper part of the unit. Thin seams or partings of gray and brown claystone underlie most of the polyhalite and anhydrite beds, and cap many beds of argillaceous halite.

The McNutt potash unit, from 1,362 to 1,742 feet in ERDA-9, has economically significant potash resources in New Mexico. In ERDA-9, however, it is free of potassium-ore minerals, and there is considerable lithologic resemblance to the upper unit. The McNutt consists of alternating thin beds of white and reddish-orange to orange polyhalitic halite and gray to brown, argillaceous halite, separated at irregular short to long intervals by beds of red polyhalite and gray anhydrite as much as 8 feet thick. Thin seams or partings of gray to brown claystones are widespread, capping beds of argillaceous halite or underlying the anhydrite and polyhalite beds. Thin beds of clayey, halitic siltstone occur in the upper part of the McNutt.

The lower unit of the Salado Formation, which is 1,742-2,836 feet below the KB at ERDA-9, includes the salt beds of interest for waste disposal purposes at the WIPP site. The unit contains irregular short to long intervals of rock salt separated by thinner beds of red and orange polyhalite and gray anhydrite. The rock salt intervals show a thin-bedded alternation of brown to gray, argillaceous halite and orange and reddish-orange polyhalitic halite in the upper part of the unit, and alternation of gray argillaceous halite and gray anhydritic halite in the lower part. Partings of brown and gray claystone cap some of the argillaceous halite beds, and underlie most of the polyhalite and anhydrite beds.

The rock salt in the lower unit contains the least clay and silt of any rock in the Salado, and much of it is free of polyhalite and other hydrous minerals. In much of the rock, the crystals of halite are more or less equidimensional with well-interlocked margins, and there is commonly present a residual core or halite relic showing well-developed growth lines. Halite relics, or remnants of primary crystal, attest to a considerable, long-term stability, as this is the form in which halite crystallized from Permian seawater some 220-230 m.y. ago. Clearly, for eons the rock salt in the lower Salado has been shielded from ground water unsaturated with respect to sodium chloride.

#### Castile Formation

At 2,836 feet below the KB at ERDA-9, the salt beds of the Salado Formation give way downward to anhydrite of the Castile Formation. The Castile is the oldest formation in ERDA-9 and extends to the bottom of the borehole at 2,839 feet. The rock is gray, fetid, and dense; it has a nodular to laminar structure, and contains anhydrite pseudomorphs after gypsum. Magnesite(?) fills the interstices between nodular masses of anhydrite and the anhydrite pseudomorphs.

Table 3.--Lithologic log of borehole ERDA-9

[KB depth intervals given below have been adjusted to eliminate driller's depth errors identified in Table 1. No sample or no core designates intervals where cuttings or cores were not recovered during drilling operations]

Lithologic description	Depth interval Feet
Kelly bushing (KB at 3420.4 ft) to land surface (LS at 3408.9 ft)-----	0-12.0
No sample-- cellar dug in artificial fill and dune sand-----	12.0-17.0
Sand, light-brown, very fine grained, unconsolidated, eolian-----	17.0-22.0
Caliche, white, chalky, and sandy-----	22.0-27.0
Sandstone, pale-reddish-brown, very fine grained to fine-grained, calcareous, silty and friable-----	27.0-52.0
No sample-----	52.0-57.0
Sandstone, pale-red, grayish-orange and light-gray, medium- to coarse-grained, friable-----	57.0-62.0
Same as above, and reddish-brown siltstone dotted with greenish-gray reduction spots, dolomitic, biotitic-----	62.0-72.0
Siltstone and mudstone, reddish-brown peppered with greenish-gray spots, dolomitic; and red to brown sandstone, silty, very fine grained to fine-grained-----	72.0-82.0
Same as above, but bedding surface of siltstone and sandstone is dotted with biotite plates-----	82.0-92.0
Siltstone and mudstone, dark-reddish-brown peppered with greenish-gray spots-----	92.0-107.0
No sample-----	107.0-112.0
Siltstone and mudstone, dark-reddish-brown peppered with greenish-gray spots, biotitic and dolomitic-----	112.0-167.0
Same as above, and medium-reddish-brown, very fine grained to fine-grained silty sandstone-----	167.0-172.0
Siltstone and mudstone, dark-reddish-brown peppered with greenish-gray spots, dolomitic and biotitic-----	172.0-182.0
Same as above, and white to light-gray, very fine grained sandstone-----	182.0-187.0
Siltstone and mudstone, dark-reddish-brown peppered with greenish-gray spots, biotitic and dolomitic-----	187.0-192.0
Same as above, and medium-reddish-brown, very fine grained silty sand- stone-----	192.0-197.0
Siltstone and mudstone, dark-reddish-brown peppered with greenish-gray spots, biotitic and dolomitic-----	197.0-217.0
Sandstone, white and light-brown to medium-brown, fine- to medium- grained; contains well-rounded, frosted quartz grains-----	217.0-222.0
Siltstone and mudstone, dark-reddish-brown peppered with greenish-gray spots, biotitic, dolomitic; chips of white fibrous selenite-----	222.0-227.0
Siltstone, dark-reddish-brown peppered with greenish-gray spots, biotitic, dolomitic; minor dark-reddish-brown mudstone and chips of white, fibrous selenite-----	227.0-247.0

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth Interval Feet
Siltstone and mudstone, medium-reddish-brown to dark-reddish-brown peppered with greenish-gray spots, biotitic, dolomitic; chips of white fibrous selenite-----	247.0-252.0
Same as above, and white, light-brown and dark-reddish-brown, medium-grained sandstone-----	252.0-267.0
Same as above, but free of sandstone-----	267.0-282.0
Same as above, but contains light-brown, fine-grained sandstone-----	282.0-402.0
Siltstone and mudstone, medium-reddish-brown peppered with greenish-gray spots, dolomitic, biotitic; chips of white fibrous selenite-----	402.0-462.0
Same as above, and medium-brown to medium-reddish-brown, very fine grained, silty sandstone-----	462.0-482.0
Same as above, but fibrous selenite shows various stages of recrystallization to equigranular fine-crystalline gypsum-----	482.0-487.0
Same as above, but no selenite or gypsum-----	487.0-562.0
Anhydrite, white to very light gray, fine-crystalline-----	562.0-592.0
Same as above, and medium-reddish-brown to reddish-orange, unconsolidated silt	592.0-602.0
Anhydrite, white and light-gray, fine-crystalline; contains minor white fine-crystalline gypsum-----	602.0-617.0
Dolomite, light-gray, fine-grained, silty, platy-----	617.0-637.0
Anhydrite, light-gray and white, fine crystalline-----	637.0-642.0
No sample-----	642.0-652.0
Anhydrite, light-gray, fine-crystalline-----	652.0-702.0
No sample-----	702.0-712.0
Anhydrite, light-gray, fine-crystalline, and gypsum, white, fine crystalline-----	712.0-722.0
Dolomite, very light gray, fine-crystalline, pitted; and minor light-gray mudstone-----	722.0-742.0
Mudstone, gray and pale-brown-----	742.0-752.0
Anhydrite, light-gray, fine-crystalline, white, fine-crystalline gypsum, and minor white, fibrous selenite-----	752.0-762.0
Siltstone, reddish-brown, argillaceous-----	762.0-777.0
Same as above, and light-gray, fine-crystalline anhydrite-----	777.0-782.0
Siltstone, reddish-brown and medium-reddish-orange, argillaceous-----	782.0-792.0
No sample-----	792.0-797.0
Siltstone, reddish-brown, argillaceous-----	797.0-802.0
Siltstone, reddish-brown and medium-reddish-orange, argillaceous-----	802.0-807.0
No sample-----	807.0-812.0
Siltstone, reddish-brown to medium-reddish-orange, argillaceous-----	812.0-817.0
Siltstone, light-gray to light-bluish-gray-----	817.0-852.0

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Same as above; and reddish-brown siltstone-----	852.0-857.0
Siltstone, light-gray and reddish-brown-----	857.0-862.0
Halite-----	862.0-887.0
Halite and medium-brown siltstone-----	887.0-897.0
Halite-----	897.0-942.0
Halite and minor light-orange, dense polyhalite-----	942.0-947.0
Halite-----	947.0-967.0
Halite and minor medium-brown siltstone-----	967.0-982.0
Same as above, and minor light-orange, dense polyhalite-----	982.0-1002.0
Halite-----	1002.0-1022.0
Halite and minor light-orange, dense polyhalite-----	1022.0-1027.0
No sample-----	1027.0-1032.0
Halite-----	1032.0-1037.0
No sample-----	1037.0-1090.2
Changed from rotary rock bit to diamond core bit Top of first core	1090.2
Halite, white to pale-orange, medium-crystalline, polyhalitic-----	1090.2-1093.1
Polyhalite, red, dense, halitic-----	1093.1-1093.7
Halite, brown, medium-crystalline, sparingly argillaceous and very sparingly polyhalitic-----	1093.7-1094.7
Halite, pale-orange, medium-crystalline, very sparingly polyhalitic-----	1094.7-1096.4
Halite, brown and gray, medium-crystalline, sparingly argillaceous-----	1096.4-1097.3
Halite, pale-red, medium-crystalline, very sparingly polyhalitic-----	1097.3-1098.0
Polyhalite, dense, red; contains remnants of gray, dense anhydrite sprinkled with halite pseudomorphs after gypsum-----	1098.0-1098.4
Halite, brown, fine- to medium-crystalline, very argillaceous; contains brown clay partings at 1098.4, 1099.8, and 1100.7 feet-----	1098.4-1100.7
Halite, pale-orange and white, medium-crystalline, very sparingly polyhalitic (core shattered and crushed 1101.6-1103.2 ft)-----	1100.7- 1103.2
No core-----	1103.2-1106.5
Halite, brown, medium-crystalline, very argillaceous-----	1106.5-1107.0
Halite, pale-orange, medium-crystalline, sparingly polyhalitic-----	1107.0-1108.5
Halite, brown and light-orange, medium-crystalline, alternately sparingly argillaceous and polyhalitic in layers about 0.5 foot thick-----	1108.5-1113.9
Halite, light-orange, medium-crystalline, very sparingly polyhalitic-----	1113.9-1116.5
Polyhalite, dense, pale-yellowish-orange-----	1116.5-1116.8
Halite, pale-orange and white, medium-crystalline, very sparingly polyhalitic-----	1116.8-1121.4
Halite, brown, medium-crystalline, very argillaceous-----	1121.4-1122.5

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, brownish-gray, medium-crystalline, sparingly argillaceous-----	1122.5-1125.5
Halite, brown, fine- to medium-crystalline, very argillaceous-----	1125.5-1126.1
Halite, pale-orange, medium-crystalline, sparingly polyhalitic-----	1126.1-1127.5
Halite, gray and brown, medium-crystalline, sparingly argillaceous-----	1127.5-1129.0
Halite, pale-red, medium-crystalline, sparingly polyhalitic-----	1129.0-1131.4
Polyhalite, pale-red, dense; forms nodular to lenticular masses in pale-red halite matrix-----	1131.4-1131.8
Halite, pale-red, medium-crystalline, sparingly polyhalitic-----	1131.8-1140.6
Polyhalite, red, dense, halitic-----	1140.6-1141.5
Halite, gray and brown, medium-crystalline, sparingly argillaceous and polyhalitic-----	1141.5-1144.2
No core-----	1144.2-1144.6
Halite, brownish-gray, medium-crystalline, argillaceous and sparingly polyhalitic-----	1144.6-1148.6
Halite, light-gray, medium-crystalline, very sparingly argillaceous and polyhalitic-----	1148.6-1151.3
Halite, white, medium-crystalline-----	1151.3-1154.8
Halite, brown, fine- to medium-crystalline, argillaceous-----	1154.8-1155.6
Halite, orange, medium-crystalline, polyhalitic throughout, very sparingly argillaceous 1155.6-1156.7 feet-----	1155.6-1160.3
Halite, brown, medium-crystalline, argillaceous-----	1160.3-1162.1
No core-----	1162.1-1163.1
Halite, brown, medium-crystalline, argillaceous-----	1163.1-1164.5
Anhydrite, light-gray, dense; contains halite pseudomorphs after gypsum-----	1164.5-1169.1
Polyhalite, red, dense, halitic-----	1169.1-1170.4
Anhydrite, gray dense; contains halite pseudomorphs after gypsum-----	1170.4-1170.9
Halite, light-gray, medium-crystalline, anhydritic throughout and polyhalitic 1173.7-1175.2 feet; capped by gray clay parting at 1171.5 feet-----	1170.9-1176.5
Anhydrite, light-gray, dense-----	1176.5-1177.0
Halite, colorless, coarse-crystalline-----	1177.0-1177.2
Anhydrite, light-gray, dense-----	1177.2-1177.4
Halite, pale pinkish-tan, medium- to coarse-crystalline; interbedded seamlets of light-gray anhydrite at intervals of 0.3-0.5 feet-----	1177.4-1179.9
Anhydrite, light-gray, dense; contains halite lenses and halite pseudomorphs after gypsum-----	1179.9-1181.1
Anhydrite, light-gray, dense, nodular (embedded in light gray clay)-----	1181.1-1181.8
Anhydrite, light-gray, dense, contains seamlets of halite pseudomorphs after gypsum-----	1181.8-1183.1
Halite, reddish-orange, medium crystalline, polyhalitic-----	1183.1-1185.1

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Polyhalite, pinkish-tan, dense; contains abundant seamlets and remnants of light-gray anhydrite-----	1185.1-1188.0
Halite, pale-orange, medium-crystalline, sparingly polyhalite; contains interbedded layers of gray argillaceous halite, 0.3-0.5 feet thick at 1,188.6-1,119.2 feet, and seam of red polyhalite, 0.1 foot thick at 1193.5 feet-----	1188.0-1193.0
Halite, gray, medium-crystalline, argillaceous and very sparingly polyhalitic-----	1193.0-1193.4
Halite, reddish-orange, medium-crystalline, polyhalitic-----	1193.4-1194.6
Halite, brown and light-pinkish-tan, medium-crystalline, argillaceous and very sparingly polyhalitic; capped by a brown clay parting at 1195.2 feet-----	1194.6-1196.3
No core-----	1196.3-1197.3
Halite, brown, medium-crystalline, argillaceous and sparingly polyhalitic; contains brown clay partings at 1198.7, 1199.5, and 1201.7 feet-----	1197.3-1202.3
Halite, pale-red, and pinkish-tan, medium-crystalline, sparingly polyhalitic-----	1202.3-1206.1
Halite, pale-brownish-gray, medium-crystalline, very sparingly argillaceous-----	1206.1-1207.5
Halite, reddish-orange to pale-red, medium-crystalline, sparingly polyhalitic with a concentration of nodular, red, dense polyhalite at 1211.9-1215.8 feet-----	1207.5-1222.4
Halite, brown, fine- to medium-crystalline, very argillaceous; contains brown clay partings at 1222.4 and 1223.4 feet (core shattered and crushed 1222.4-1223.4 feet)-----	1222.4-1223.4
Halite, brown and gray, medium-crystalline, argillaceous-----	1223.4-1226.8
Halite, reddish-orange, medium-crystalline, very polyhalitic-----	1226.8-1229.3
Polyhalite, red, dense, very halitic-----	1229.3-1229.7
Halite, gray, medium-crystalline, very sparingly argillaceous and polyhalitic-----	1229.7-1230.8
Halite, pale-red and pinkish-tan, medium-crystalline, sparingly polyhalitic but contains a concentration of nodular polyhalite at 1232.8-1233.3 feet-----	1230.8-1237.8
Polyhalite, pale-pinkish-orange, dense-----	1237.8-1238.2
Halite, pale-pinkish-tan, medium-crystalline, very sparingly polyhalitic-----	1238.2-1243.7
Halite, brown, fine- to medium-crystalline, very argillaceous and very sparingly polyhalitic (core shattered and crushed)-----	1243.7-1245.3
Halite, pale-pinkish-tan, medium-crystalline, very sparingly polyhalitic-----	1245.3-1245.8

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, brownish-gray, medium-crystalline, argillaceous and very sparingly polyhalitic-----	1245.8-1249.1
No core-----	1249.1-1252.2
Halite, brown, medium-crystalline, argillaceous-----	1252.2-1254.0
Halite, gray and reddish-orange, sparingly argillaceous 1254.0-1254.9 feet and sparingly polyhalitic 1254.9-1256.0 feet-----	1254.0-1256.0
Polyhalite, red, dense-----	1256.0-1257.1
Halite, white, medium- and coarse-crystalline-----	1257.1-1257.7
Polyhalite, red, dense, halitic-----	1257.7-1258.1
Halite, gray, medium-crystalline, very sparingly argillaceous; capped by gray clay parting 1258.1 feet-----	1258.1-1259.2
No core-----	1259.2-1260.2
Halite, light-orange, medium-crystalline, very sparingly polyhalitic-----	1260.2-1261.3
Halite, gray, fine- to medium-crystalline, argillaceous; capped by a greenish-gray clay parting at 1261.4 feet-----	1261.3-1263.2
Halite, grayish-orange, medium-crystalline, sparingly polyhalitic but contains discrete concentrations of nodular polyhalite 1266.8-1267.3 and 1268.3-1268.8 feet, sparingly argillaceous 1264.3-1265.3 and 1268.3-1268.8 feet-----	1263.2-1271.2
Halite, brown, fine- to medium-crystalline, very argillaceous; capped by a brown clay parting 1271.3 feet-----	1271.2-1271.7
Halite, gray and pale-orange, medium crystalline, very sparingly polyhalitic-----	1271.7-1272.7
Halite, brownish-gray, medium-crystalline, argillaceous and sparingly polyhalitic-----	1272.7-1275.7
Polyhalite, red, dense-----	1275.7-1276.0
Halite, brownish-gray, medium-crystalline, argillaceous, very sparingly polyhalitic-----	1276.0-1277.5
Halite, white and light-red, medium-crystalline, sparingly polyhalitic-----	1277.5-1282.4
Polyhalite, red, dense; contains interbed of white, medium-crystalline halite 1282.8-1283.0 feet-----	1282.4-1283.7
No core-----	1283.7-1288.6
Halite, pale-orange, medium-crystalline, sparingly polyhalitic; contains interbed of light-gray, argillaceous halite 1289.1-1289.3 feet-----	1288.6-1290.3
Halite, pale-orange, medium-crystalline, sparingly polyhalitic; contains interbed of light-gray, argillaceous halite 1292.3-1292.6 feet-----	1290.3-1295.2
Halite, gray, fine- to medium-crystalline, sparingly argillaceous; contains interbeds of light-orange, polyhalitic halite 1295.7-1296.0 and 1297.7-1298.0 feet; capped by brown clay parting 1295.3 feet-----	1295.2-1298.2
Halite, brown, fine- to medium-crystalline, very argillaceous; contains brown clay partings 1298.3, 1298.8, and 1299.3 feet-----	1298.2-1299.3

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, brownish-gray, medium-crystalline, sparingly argillaceous-----	1299.3-1301.2
Halite, pale-orange, medium-crystalline, sparingly polyhalitic-----	1301.2-1305.6
Polyhalite, pale-red, dense, sparingly halitic-----	1305.6-1306.4
Halite, colorless, medium-crystalline, very sparingly polyhalitic (core shattered and in wafers)-----	1306.4-1308.4
Halite, brown, medium-crystalline, argillaceous (core shattered and in wafers)-----	1308.4-1311.4
Halite, light-orange, medium-crystalline, very sparingly poly- halitic (core shattered and in wafers)-----	1311.4-1315.9
Polyhalite, pale-orange, dense-----	1315.9-1316.3
Halite, pale-orange, medium-crystalline, very sparingly poly- halitic (core shattered and crushed)-----	1316.3-1316.9
Halite, brown, medium-crystalline, sparingly argillaceous and polyhalitic (core shattered and crushed)-----	1316.9-1317.4
Halite, light-orange, medium-crystalline, polyhalitic (core shattered, crushed, and in wafers)-----	1317.4-1323.9
Halite, brownish-gray, medium-crystalline, argillaceous, contains brown clay parting at 1325.7 feet-----	1323.9-1326.3
Halite, brown, fine-crystalline, very argillaceous; contains brown clay partings at 1326.3, 1326.8, and 1327.5 feet-----	1326.3-1327.5
Halite, brownish-gray and light-orange, medium-crystalline, sparingly argillaceous and polyhalitic; contains brown clay partings at 1328.4 and 1330.0 feet-----	1327.5-1330.5
Polyhalite, red, dense-----	1330.5-1330.7
Halite, brown, medium-crystalline, argillaceous (core shattered and crushed)-----	1330.7-1332.0
Halite, brown and gray, medium-crystalline, argillaceous and very sparingly polyhalitic-----	1332.0-1335.9
Halite, light-orange, medium-crystalline, sparingly polyhalitic-----	1335.9-1340.3
Anhydrite, very light gray, dense, halitic-----	1340.3-1341.1
Polyhalite, pale-red, dense, sparingly halitic, and very sparingly argillaceous 1343.7-1343.9 feet; underlain by gray clay parting-----	1341.1-1343.9
Halite, colorless and white, medium-crystalline, sparingly anhydritic-----	1343.9-1346.1
Halite, light-gray, medium-crystalline, very sparingly argillaceous-----	1346.1-1347.2
Halite, buff to light-tan, medium-crystalline, very sparingly polyhalitic-----	1347.2-1353.6
Polyhalite, buff and pale-pinkish-orange, dense; contains embayed remnants of light-gray, dense, anhydrite; underlain by gray clay parting-----	1353.6-1355.6
Halite, light-pinkish-tan and buff, medium-crystalline, very sparingly polyhalitic-----	1355.6-1358.7

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, pale-orange, medium-crystalline, very sparingly polyhalitic-----	1358.7-1361.7
Halite, brown, fine- to medium-crystalline, very argillaceous, very sparingly polyhalitic-----	1361.7-1365.2
Siltstone, brown, sparingly argillaceous-----	1365.2-1367.7
Halite, brown, medium-crystalline, very argillaceous, silty and polyhalitic-----	1367.7-1372.2
Halite, reddish-orange, medium-crystalline, polyhalitic-----	1372.2-1375.0
Polyhalite, red, dense-----	1375.0-1375.1
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1375.1-1377.2
Halite, light-gray to pinkish-tan, medium-crystalline, very sparingly argillaceous-----	1377.2-1379.5
Halite, pale-orange and white, medium-crystalline, sparingly polyhalitic-----	1379.5-1381.7
Halite, light gray, medium-crystalline, sparingly argillaceous; capped by a brown clay parting 1381.7 feet-----	1381.7-1382.0
Halite, light-orange, medium-crystalline, very sparingly polyhalitic-----	1382.0-1382.6
Halite, brownish-gray, fine-crystalline, argillaceous; underlain by brown clay parting 1383.2 feet-----	1382.6-1383.2
Halite, pale-orange and pinkish-tan, medium-crystalline, sparingly polyhalitic; contains interbeds of sparingly argillaceous halite 1383.7-1384.1, 1387.7-1387.9, and 1394.7-1395.0 feet, and brown clay partings 1384.1, 1387.1, and 1387.7 feet-----	1383.2-1395.4
Halite, brown, fine-crystalline, very argillaceous; contains brown clay partings 1395.4 and 1395.9 feet-----	1395.4-1396.2
Halite, brown and reddish-orange, fine- and medium-crystalline, argillaceous and very polyhalitic-----	1396.2-1397.1
Halite, light-brown, medium-crystalline, sparingly argillaceous-----	1397.1-1397.7
Halite, pale-orange, medium-crystalline, very sparingly polyhalitic-----	1397.7-1398.7
Halite, brown and gray, medium-crystalline, argillaceous and sparingly polyhalitic-----	1398.7-1401.2
Halite, light-orange, medium-crystalline, sparingly polyhalitic-----	1401.2-1402.0
Polyhalite, red, dense-----	1402.0-1402.2
Halite, reddish-orange, medium-crystalline, polyhalitic-----	1402.2-1402.7
Halite, light-gray, medium-crystalline, very sparingly argillaceous-----	1402.7-1403.1
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1403.1-1406.1
Siltstone, light-brown, argillaceous and halitic-----	1406.1-1407.7
Halite, light-brown, medium-crystalline, argillaceous-----	1407.7-1408.7
Halite pinkish-tan and light-reddish-orange, medium-crystalline, very sparingly polyhalitic-----	1408.7-1410.7
Halite, gray, medium-crystalline, sparingly argillaceous and polyhalitic-----	1410.7-1411.9

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1411.9-1415.2
Halite, gray, medium-crystalline, sparingly argillaceous-----	1415.2-1415.9
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1415.9-1419.5
Kainite(?), pale-yellowish-brown, fine-crystalline; halitic and sparingly argillaceous and polyhalitic-----	1419.5-1420.1
Halite, gray and brown, fine-crystalline, argillaceous and sparingly polyhalitic; contains kainite(?) pseudomorphs after langbeinite-----	1420.1-1420.9
Halite, brown, fine- to medium-crystalline, argillaceous and sparingly polyhalitic-----	1420.9-1422.2
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1422.2-1425.5
Halite, gray, medium-crystalline, very sparingly argillaceous-----	1425.5-1425.8
Halite, reddish-orange, medium-crystalline, polyhalitic-----	1425.8-1431.2
Polyhalite, red, dense; interbedded with seamlets of gray clay 1431.9-1432.5 feet-----	1431.2-1432.5
Kainite(?), pale-yellowish-gray, fine-crystalline, argillaceous; capped and underlain by greenish-gray clay partings-----	1432.5-1432.7
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic; contains interbeds of light-gray and light-brown argillaceous halite 1432.7-1432.9, 1433.6-1433.8, and 1437.7-1438.0 feet, and a brown clay parting 1433.6 feet-----	1432.7-1438.0
Halite, gray and pale-orange, medium-crystalline, sparingly argillaceous and polyhalitic-----	1438.0-1438.8
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1438.8-1440.4
Halite, brownish-gray, fine- to medium-crystalline, argillaceous and sparingly polyhalitic-----	1440.4-1443.2
Halite, gray, medium-crystalline, sparingly argillaceous and polyhalitic-----	1443.2-1447.2
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1447.2-1448.1
Polyhalite, red, dense-----	1448.1-1448.3
Halite, reddish-orange, medium-crystalline, polyhalitic-----	1448.3-1449.7
No core-----	1449.7-1450.3
Halite, gray, medium-crystalline, sparingly argillaceous-----	1450.3-1451.3
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1451.3-1454.9
Polyhalite, pale-pinkish-orange, dense, sparingly halitic 1456.5-1457.0 feet-----	1454.9-1457.0
Halite, light-gray to buff, medium-crystalline, argillaceous, 1457.0-1457.2 feet; capped by greenish-gray clay parting 1457.0 feet-----	1457.0-1460.1
Polyhalite, pale-pinkish-orange, dense, very halitic-----	1460.1-1460.6

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, pale-orange, medium-crystalline, sparingly polyhalitic-----	1460.6-1462.0
Polyhalite, pale-pinkish-orange, dense-----	1462.0-1462.6
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic; contains interbeds of light-gray sparingly argillaceous halite 1462.6- 1462.9 and 1464.9-1465.1 feet and brown clay parting at 1462.6 feet-----	1462.6-1465.8
Halite, gray and brown, fine-to medium-crystalline, very argillaceous and sparingly polyhalitic; contains brown and gray clay partings 1466.4, 1467.3, 1467.6, 1469.0, and 1469.8 feet-----	1465.8-1470.2
Halite, pale-orange, medium-crystalline, sparingly polyhalitic; contains interbeds of orange and red polyhalite 1478.4-1478.5, 1478.8-1478.9 and 1480.1-1480.2 feet-----	1470.2-1480.2
No core-----	1480.2-1480.8
Halite, orange, medium-crystalline, polyhalitic; contains interbed of red polyhalite 1481.1-1481.2 feet-----	1480.8-1481.6
Polyhalite, red, dense, sparingly halitic 1481.6-1482.0 feet; contains sparse seamlets of gray clay 1481.7-1482.2 feet-----	1481.6-1482.2
Halite, gray and orange, medium-crystalline, argillaceous; contains gray clay partings 1482.8, 1483.0, and 1483.6 feet-----	1482.2-1483.6
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic; contains seamlet of red polyhalite 1485.7 feet-----	1483.6-1487.1
Halite, gray, medium-crystalline, sparingly argillaceous-----	1487.1-1488.1
Halite, reddish-orange, nodular crystalline, sparingly polyhalitic-----	1488.1-1489.9
Halite, greenish-gray, fine-crystalline, very argillaceous; capped by greenish-gray clay parting 1489.9 feet-----	1489.9-1490.2
Halite, brown, fine-crystalline, very argillaceous and sparingly polyhalitic contains brown clay parting 1490.7 feet-----	1490.2-1493.1
Halite, gray, medium-crystalline, sparingly argillaceous; contains patches of orange, sparingly polyhalitic halite-----	1493.1-1496.1
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic; contains seamlets of red polyhalite-----	1496.1-1501.3
Polyhalite, red, dense-----	1501.3-1501.7
No core-----	1501.7-1503.1
Halite, greenish-gray, medium-crystalline, sparingly argillaceous-----	1503.1-1504.0
Halite, pale-orange, medium-crystalline, sparingly polyhalitic-----	1504.0-1507.3
Halite, gray, fine-to medium-crystalline, argillaceous; very sparingly polyhalitic; contains brown clay parting 1508.1 feet and greenish- gray clay parting 1507.5 feet-----	1507.3-1508.9
Halite, brownish-gray, medium-crystalline, argillaceous-----	1508.9-1512.2
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1512.2-1515.2
Polyhalite, red, dense, sparingly halitic; contains gray clay parting 1515.2 feet-----	1515.2-1517.2

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, pale-orange, medium-crystalline, polyhalitic-----	1517.2-1523.5
Polyhalite, reddish-brown, dense-----	1523.5-1524.3
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic; contains interbed of gray, very sparingly argillaceous halite 1524.8-1525.1 feet-----	1524.3-1525.6
Halite, brown, fine- to medium-crystalline, argillaceous-----	1525.6-1527.1
Halite, pale-reddish-orange and white, medium-crystalline, sparingly polyhalitic throughout and very sparingly argillaceous 1531.1-1531.4 and 1536.5-1536.8 feet (core crushed 1531.1-1531.4 feet)-----	1527.1-1536.8
Halite, brown, fine- to medium-crystalline, very argillaceous (core shattered and crushed 1536.8-1540.8 feet)-----	1536.8-1542.1
Halite, gray, fine- and medium-crystalline, polyhalitic halite-----	1542.1-1545.3
No core-----	1545.3-1547.0
Halite, orange, fine-crystalline, sparingly polyhalitic; contains desiccation cracks filled with gray argillaceous halite-----	1547.0-1548.7
Anhydrite, gray, dense, contains interbedded seamlets of halite, laminae of magnesite and nodules of polyhalite-----	1548.7-1551.7
Polyhalite, pale-pinkish-orange to red, dense; contains laminae of magnesite and embayed remnants of gray, dense anhydrite-----	1551.7-1554.5
Anhydrite, gray, dense, contains laminae of magnesite-----	1554.5-1555.0
Polyhalite, red, dense; contains laminae of magnesite-----	1555.0-1556.4
Anhydrite, gray, dense-----	1556.4-1556.8
Halite, gray, medium-crystalline, sparingly argillaceous; capped by gray clay parting 1556.8 feet-----	1556.8-1557.6
Halite, pale-reddish-orange, medium-crystalline, sparingly polyhalitic-----	1557.6-1564.6
Halite, brownish-gray, fine- to medium-crystalline, sparingly argillaceous and very sparingly polyhalitic; contains brown clay parting at 1564.9 feet-----	1564.6-1565.7
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic throughout and very sparingly argillaceous 1565.6-1565.8 feet-----	1565.7-1567.5
Halite, brownish-gray, medium-crystalline, very sparingly argillaceous-----	1567.5-1568.8
Halite, reddish-orange, medium-crystalline, very sparingly poly- halitic-----	1568.8-1569.8
Halite, brownish-gray, medium-crystalline, sparingly argillaceous-----	1569.8-1570.5
No core-----	1570.5-1570.8
Halite, light brown and pinkish-tan, fine- to medium-crystalline, very sparingly argillaceous and polyhalitic; capped by brown clay parting 1570.8 feet-----	1570.8-1572.2
Halite, gray and brown, fine- and medium-crystalline, very argillaceous and sparingly polyhalitic-----	1572.2-1574.1

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, orange, fine-crystalline, sparingly polyhalitic; contains spotty patches and linear masses of brown, very argillaceous halite-----	1574.1-1576.1
Halite, brownish-gray, medium-crystalline, argillaceous-----	1576.1-1579.3
Halite, pale orange and pinkish-tan, medium crystalline; contains patches of gray, medium-crystalline, sparingly argillaceous halite-----	1579.3-1584.7
Halite, light brownish-gray, medium-crystalline, very sparingly argillaceous-----	1584.7-1587.2
Halite, pale reddish-orange, medium-crystalline, very sparingly polyhalitic-----	1587.2-1588.0
Halite, light brownish-gray, medium-crystalline, very sparingly argillaceous-----	1588.0-1590.0
Halite, brown, fine-crystalline, very argillaceous; capped by brown clay parting 1590.0 feet-----	1590.0-1590.4
Halite, brownish-gray, medium-crystalline, sparingly argillaceous-----	1590.4-1593.3
Halite, white and pale red, medium-crystalline, very sparingly polyhalitic-----	1593.3-1597.2
Halite, light-brownish-gray, fine- to medium-crystalline, sparingly argillaceous; capped by brown clay parting 1597.2 feet-----	1597.2-1603.3
Halite, gray, fine-crystalline, sparingly argillaceous; contains crude seams and patches of orange, fine-crystalline, poly- halitic halite-----	1603.3-1606.9
Halite, reddish-orange and white, medium-crystalline, sparingly polyhalitic-----	1606.9-1611.6
Halite, brownish-gray, fine- to medium-crystalline, sparingly argillaceous; contains patches of orange, fine-crystalline halite capped by gray clay parting 1611.6 feet-----	1611.6-1618.8
Halite, pinkish-tan, medium-crystalline, sparingly polyhalitic; contains patches of gray, very sparingly argillaceous halite-----	1618.8-1620.3
No core-----	1620.3-1623.3
Halite, light-gray and pinkish-tan, medium-crystalline, sparingly polyhalitic throughout and sparingly argillaceous 1623.3-1625.3 feet-----	1623.3-1629.8
Anhydrite, light-gray, dense; contains laminae of magnesite-----	1629.8-1632.0
Polyhalite, pinkish-orange to pale-red, dense; contains embayed remnants light-gray anhydrite dotted with halite pseudomorphs after gypsum-----	1632.0-1637.2
Halite, pale-red, medium-crystalline, sparingly polyhalitic-----	1637.2-1639.8
No core-----	1639.8-1640.8
Halite, pale-red, medium-crystalline, sparingly polyhalitic-----	1640.8-1644.8
Anhydrite, light- to medium-gray, dense; contains halite lenses and halite pseudomorphs after gypsum 1643.8-1646.8 feet and interlamination of magnesite and anhydrite pseudomorphs after gypsum 1646.8-1650.7 feet-----	1644.8-1651.7

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Claystone, light-gray-----	1651.7-1651.9
Polyhalite, red, dense, nodular with light-gray mudstone-filled interstices-----	1651.9-1652.9
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1652.9-1658.0
Halite, gray, fine-crystalline, very argillaceous; capped by gray clay parting 1658.0 feet-----	1658.0-1658.8
Halite, buff and pale-orange, medium-crystalline, very sparingly polyhalitic-----	1658.8-1665.3
Halite, gray and orange, medium-crystalline, argillaceous and sparingly polyhalitic; contains nodular masses of bloedite(?)-----	1665.3-1668.9
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic; contains seamlet of red polyhalite 1670.8 feet, and nodular masses of bloedite(?) 1670.2-1671.5 feet-----	1668.9-1673.0
Halite, brown, fine to medium-crystalline, very argillaceous, capped and underlain by brown clay parting-----	1673.0-1673.7
Halite, reddish-orange and white, medium-crystalline-----	1673.7-1676.0
Halite, brownish-gray, medium-crystalline, sparingly argillaceous-----	1676.0-1677.0
Halite, brownish-orange, medium-crystalline, sparingly polyhalitic and argillaceous-----	1677.0-1677.9
Halite, brownish-gray, medium-crystalline, sparingly argillaceous-----	1677.9-1679.5
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1679.5-1681.4
Halite, brownish-gray, medium-crystalline, sparingly argillaceous-----	1681.4-1682.2
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1682.2-1682.9
Halite, brownish-gray, medium-crystalline, sparingly argillaceous-----	1682.9-1683.3
Halite, pale-red and white, medium-crystalline, sparingly polyhalitic; contains remnants of primary halite crystals, and interbeds of brownish-gray, very sparingly argillaceous halite 1688.0-1688.2, 1693.1-1694.3, and 1695.4-1695.7 feet-----	1683.3-1695.7
Halite, brown, fine- and medium-crystalline, very argillaceous, contains brown clay partings 1695.7, 1697.3, and 1698.1 feet-----	1695.7-1698.2
Halite, white and pale-red, medium-crystalline, sparingly poly- halitic; contains seamlet of red polyhalite 1700.2 feet, and interbed of gray, very sparingly argillaceous halite 1704.9- 1705.4 feet-----	1698.2-1708.2
Halite, brown, fine- and medium-crystalline, very argillaceous; contains brown clay partings 1708.2 and 1708.5 feet-----	1708.2-1710.0
Halite, colorless, coarse-crystalline (lenticular pod)-----	1710.0-1710.6
Halite, brownish-gray, medium-crystalline, argillaceous; capped by brown clay parting 1710.6 feet-----	1710.6-1712.1
Halite, brownish-gray, medium-crystalline, sparingly argillaceous-----	1712.1-1714.2
Halite, brownish-gray, medium-crystalline, argillaceous-----	1714.2-1717.5

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, pale-reddish-orange, medium-crystalline, sparingly polyhalitic throughout and very sparingly argillaceous 1722.2-1722.5 feet-----	1717.5-1722.5
Halite, brown, fine- and medium-crystalline, very argillaceous-----	1722.5-1725.0
Halite, brownish-gray, medium-crystalline, argillaceous, sparingly polyhalitic-----	1725.0-1728.1
No core-----	1728.1-1729.0
Halite, brownish-gray, medium-crystalline, sparingly argillaceous and sparingly polyhalitic-----	1729.0-1733.4
Halite, gray and brown, fine- to medium-crystalline, very argillaceous-----	1733.4-1735.1
Halite, brownish-orange to reddish-orange, medium-crystalline, polyhalitic and sparingly argillaceous-----	1735.1-1737.5
Halite, red and white, medium-crystalline, polyhalitic; contains remnants of primary halite crystals-----	1737.5-1741.3
Halite, red, medium-crystalline, contains abundant seams and veinlets of red polyhalite-----	1741.3-1742.0
Halite, gray, fine-crystalline, very argillaceous; contains greenish-gray clay parting 1742.2 feet-----	1742.0-1742.2
Halite, very light pink, medium-crystalline, very sparingly polyhalitic-----	1742.2-1742.7
Halite, brown, fine-crystalline, very argillaceous; contains seamlet of brown clay at 1743.4 feet-----	1742.7-1743.0
Halite, brown with gray mottling, fine-crystalline, sparingly argillaceous; contains seamlet of brown clay at 1743.4 feet-----	1743.0-1745.5
Halite, buff, medium-crystalline, sparingly polyhalitic-----	1745.5-1748.0
Halite, brownish-gray, medium-crystalline, sparingly argillaceous and polyhalitic; banded in light and darker shades of brownish-gray with slightly darker bands-----	1748.0-1752.0
Halite, brown, medium-crystalline, argillaceous-----	1752.0-1757.0
Halite, brownish-gray, medium-crystalline, sparingly argillaceous and polyhalitic; contains isolated patches of orange, finely crystalline halite-----	1757.0-1762.3
Halite, white and red alternating in bands, medium-crystalline, sparingly polyhalitic; contains remnants of primary halite crystals-----	1762.3-1768.3
Polyhalite, red, mottled dark-reddish-gray-----	1768.3-1769.7
Halite, red, medium-crystalline, polyhalitic-----	1769.7-1770.5
Halite, reddish-orange and gray, medium-crystalline, polyhalitic and sparingly argillaceous; contains clay seamlet, at 1770.7 feet and nodular masses of red polyhalite 1770.5-1771.4 feet-----	1770.5-1772.0
Halite, white and yellowish-orange, medium-crystalline, sparingly polyhalitic-----	1772.0-1778.1

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Polyhalite, pale-red, dense, halitic-----	1778.1-1778.4
Halite, pale-yellowish-orange, medium-crystalline, sparingly polyhalitic----	1778.4-1779.2
Polyhalite, pale-yellowish-orange, dense-----	1779.2-1779.7
Halite, pale-yellowish-orange, fine- to medium-crystalline, sparingly poly- halitic-----	1779.7-1779.9
Polyhalite, very light pink, dense-----	1779.9-1780.1
Halite, pale-red, medium-crystalline, sparingly polyhalitic-----	1780.1-1780.5
Polyhalite, red with an irregular brownish-red mottling and banding; contains seamlet of greenish-gray clay at 1780.0 feet and greenish-gray clay parting at 1780.1 feet-----	1780.5-1781.2
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic, sparingly argillaceous 1783.0-1783.2 feet; contains remnants of primary halite crystals-----	1781.2-1785.2
Halite, dark-gray, medium-crystalline, sparingly argillaceous; contains gray clay parting at 1785.2 feet-----	1785.2-1785.8
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic; contains remnants of primary halite crystals-----	1785.8-1787.2
Halite, dark-gray and brown, medium-crystalline, argillaceous through- out but contains about 50 percent clay 1791.9-1792.4 feet, contains dark gray clay parting at 1787.2 and 1788.6 feet, and brown and light- gray clay parting at 1789.2 and 1791.2 feet-----	1787.2-1793.4
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic; contains streaky and patchy masses of brown argillaceous halite and a brown clay parting at 1794.2 feet-----	1793.4-1796.2
Halite, brown, fine-crystalline, very argillaceous; contains brown clay seamlets at 1796.2 and 1797.0 feet-----	1796.2-1797.0
Halite, brown, medium-crystalline, argillaceous; contains brown clay parting at 1797.6 feet-----	1797.0-1797.6
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic; contains narrow seams of argillaceous halite and a brown clay parting at 1797.9 feet-----	1797.6-1803.3
Polyhalite, red, dense-----	1803.3-1805.2
Halite, gray, fine-crystalline, argillaceous; contains greenish-gray clay parting at 1805.2 feet-----	1805.2-1805.4
Halite, brownish-gray, fine- to medium-crystalline, argillaceous; contains clay partings at 1807.5 and 1808.0 feet-----	1805.4-1808.2
Halite, buff to pale-orange, medium-crystalline, sparingly poly- halitic; contains remnants of primary halite crystals-----	1808.2-1812.2
Halite, reddish-orange, medium-crystalline, polyhalitic throughout and sparingly argillaceous at 1815.4-1816.0 feet; capped by a 0.1 foot band of halitic red polyhalite-----	1812.2-1816.0
Halite, brownish-gray, medium-crystalline, sparingly argillaceous; contains brown clay seamlet at 1816.0 feet-----	1816.0-1817.2

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic; contains a seamlet of red polyhalite at 1819.6 feet; and bands of sparingly argillaceous, light-gray halite at 1819.9-1820.1, 1820.5-1820.9, and 1821.6-1822.0 feet-----	1817.2-1824.6
Halite, light-gray, medium-crystalline, very sparingly argillaceous-----	1824.6-1825.0
Halite, gray, fine-crystalline, very argillaceous; contains greenish-gray clay parting at 1825.0 feet-----	1825.0-1825.2
Halite, brownish-gray, fine- to medium-crystalline, argillaceous; contains brown clay seamlet at 1826.8 feet-----	1825.2-1826.9
Halite, white and reddish-orange in crude banding, medium-crystalline, sparingly polyhalitic; contains seamlet of red polyhalite at 1831.2 feet and remnants of primary halite grains-----	1826.9-1831.7
No core (Not recovered)-----	1831.7-1833.2
No core (Drilled with rock bit while cleaning out hole)-----	1833.2-1838.3
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic-----	1838.3-1839.1
Halite, light-gray, medium-crystalline, argillaceous throughout but somewhat rich in clay 1839.1-1839.5 feet-----	1839.1-1840.3
Halite, brown, fine-crystalline, argillaceous; contains brown clay seamlet at 1840.6 feet-----	1840.3-1840.6
Halite, light brownish-gray, medium-crystalline, sparingly argillaceous-----	1840.6-1842.5
Halite, white, medium-crystalline-----	1842.5-1847.1
Halite, light grayish-white, medium-crystalline, very sparingly argillaceous and polyhalitic (core crushed 1848.3-1849.3 feet)-----	1847.1-1851.3
Halite, white, medium-crystalline, very sparingly polyhalitic (core crushed 1851.7-1852.3 and 1854.3-1854.8 feet)-----	1851.3-1854.8
Halite, gray, medium-crystalline, sparingly argillaceous and polyhalitic; contains a near-vertical, clay-filled desiccation crack-----	1854.8-1858.7
Halite, buff and very light gray, medium-crystalline; very sparingly argillaceous 1860.2-1860.7 feet-----	1858.7-1861.0
Halite, red, medium-crystalline, polyhalitic-----	1861.0-1864.1
Halite, red, fine- to medium-crystalline, very polyhalitic-----	1864.1-1864.4
Polyhalite, red, dense-----	1864.4-1864.6
Halite, red, fine- to medium-crystalline, very polyhalitic-----	1864.6-1865.0
Halite, gray, fine- to medium-crystalline, argillaceous; contains gray and brown clay partings at 1865.0 and 1865.6 feet-----	1865.0-1866.6
Halite, brownish-gray, medium-crystalline, sparingly argillaceous and polyhalitic, contains isolated patches of light gray halite-----	1866.6-1869.0
Halite, reddish-orange, medium-crystalline, sparingly polyhalitic, and sparingly argillaceous between 1869.7-1870.2 feet-----	1869.0-1870.2
Halite, brown, fine-crystalline, very argillaceous; contains clay parting at 1870.8 feet-----	1870.2-1870.8

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, pale-yellow, fine- to medium-crystalline; contains interbeds of gray, sparingly argillaceous halite-----	1870.3-1871.4
Halite, brownish-gray, medium-crystalline, sparingly argillaceous; contains brown and gray clay partings at 1871.6 feet-----	1871.4-1873.3
Halite, pale-orange, medium-crystalline, sparingly polyhalitic-----	1873.3-1874.6
Halite, gray, fine- and medium-crystalline, argillaceous; contains brown and gray clay parting at 1874.9 feet-----	1874.6-1875.2
Halite, pale-orange, medium-crystalline, polyhalitic; contains seamlets of pale-orange to pinkish-orange polyhalite, dotted through unit at intervals of 0.2-0.4 foot; contains remnants of primary halite crystals-----	1875.2-1883.4
Polyhalite, red, dense; underlain by gray clay parting at 1884.0 feet-----	1883.4-1884.0
Halite, gray, medium-crystalline, sparingly argillaceous; contains isolated patches of light-orange halite-----	1884.0-1885.5
No core-----	1885.5-1887.3
Halite, light-orange, medium-crystalline, sparingly polyhalitic-----	1887.3-1888.1
Halite, light-brown, fine- to medium-crystalline, sparingly argillaceous-----	1888.1-1888.6
No core-----	1888.6-1890.3
Halite, colorless to very light orange, medium-crystalline, sparingly polyhalitic-----	1890.3-1890.7
Polyhalite, orange, dense, halitic-----	1890.7-1890.8
Halite, light-orange, medium-crystalline, very sparingly polyhalitic-----	1890.8-1892.5
Halite, light-brownish-gray, fine- to medium-crystalline, argillaceous throughout and sparingly polyhalitic 1893.3-1894.4; contains gray clay parting at 1892.5 feet and brown clay parting at 1893.3 feet-----	1892.5-1894.8
Halite, light-orange and colorless, polyhalitic throughout and very sparingly argillaceous 1895.7-1895.9 feet-----	1894.8-1896.7
Halite, colorless to light-yellowish-brown, medium-crystalline, sparingly polyhalitic-----	1896.7-1898.4
Halite, very light brown, medium-crystalline, argillaceous and sparingly polyhalitic 1900.0-1900.5 feet-----	1898.4-1900.5
No core-----	1900.5-1901.5
Halite, very light brown and brownish-gray, medium-crystalline, argillaceous; contains brown clay partings at 1901.6, 1902.6, and 1903.3 feet-----	1901.5-1906.8
Halite, very light orange, medium-crystalline, very sparingly polyhalitic; contains concentration of red polyhalite nodules 1909.5-1909.6 feet-----	1906.8-1909.6
Halite, very light gray, medium-crystalline, argillaceous, very sparingly polyhalitic-----	1909.6-1910.0

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, colorless to very light yellow, very sparingly polyhalitic-----	1910.0-1913.4
Halite, orange and colorless, fine- to medium-crystalline, poly- halitic-----	1913.4-1914.1
Polyhalite, orange, dense; underlain by greenish-gray clay parting-----	1914.1-1915.0
Halite, light-orange and colorless, fine- to medium-crystalline, sparingly polyhalitic-----	1915.0-1915.5
Halite, light-gray, fine- to medium-crystalline, sparingly argillaceous and polyhalitic; contains patches of orange halite 1915.5-1916.3 feet, greenish-gray clay parting 1916.3 feet, brown clay parting 1917.7 feet, and gray clay parting 1919.1 feet-----	1915.5-1919.1
Halite, light-orange, fine- and medium-crystalline, polyhalitic; contains sparse seamlets of orange polyhalite 1919.1-1921.9 feet and seams of orange to buff polyhalite, about 0.2 foot thick, at intervals of about 0.5 foot 1921.9-1932.2 feet; contains pod of colorless, very coarse crystalline halite 1926.3-1927.0 feet-----	1919.1-1932.2
Halite, colorless to buff, coarse-crystalline, very polyhalitic-----	1932.2-1932.7
Polyhalite, orange, dense; grade into gray, dense anhydrite 1934.1- 1934.5 feet; underlain by brown clay parting 1934.5 feet-----	1932.7-1934.5
Halite, light-orange and gray, medium-crystalline, polyhalitic throughout and sparingly argillaceous 1934.5-1935.0 feet-----	1934.5-1937.4
Halite, light-gray, medium-crystalline, sparingly argillaceous and very sparingly polyhalitic-----	1937.4-1939.7
No core-----	1939.7-1940.6
Halite, light-gray, medium-crystalline, sparingly argillaceous and very sparingly polyhalitic-----	1940.6-1942.0
Halite, light-orange, medium-crystalline, sparingly polyhalitic; contains remnants of primary halite crystals-----	1942.0-1945.6
Halite, light-gray, medium-crystalline, sparingly argillaceous and very sparingly polyhalitic; contains gray clay parting at 1949.0 feet-----	1945.6-1953.4
Halite, light-orange, fine- to medium-crystalline, sparingly polyhalitic-----	1953.4-1953.8
Halite, light-gray, fine- to medium-crystalline, argillaceous and very sparingly polyhalitic-----	1953.8-1955.1
Halite, light-orange and buff, fine- to medium-crystalline, polyhalitic-----	1955.1-1959.6
Polyhalite, buff and orange, dense, halitic-----	1959.6-1959.9
Anhydrite, gray, dense, halitic and polyhalitic; underlain by gray clay parting 1960.3 feet-----	1959.9-1960.3
Halite, light-orange, fine- to medium-crystalline, very sparingly polyhalitic-----	1960.3-1960.5
Polyhalite, buff, dense; contains laminae of gray, dense anhydrite-----	1960.5-1960.6
Halite, light-gray, fine- to medium-crystalline, anhydritic-----	1960.6-1960.8
Anhydrite, gray, dense; contains halite pseudomorphs after gypsum up to 0.1 foot in height, 1961.1-1961.6 feet-----	1960.8-1961.9
Claystone, gray, magnesian(?)-----	1961.9-1962.0

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Anhydrite, gray, dense-----	1962.0-1962.2
No core-----	1962.2-1963.2
Halite, light-greenish-gray, fine- to medium-crystalline, argillaceous and polyhalitic; contains gray clay parting at 1965.3 feet and patches of light-orange halite-----	1963.2-1965.6
Halite, light-orange, fine- to medium-crystalline, polyhalitic; contains remnants of primary halite crystals and is underlain by seam of buff polyhalite, 0.1 foot thick 1968.0 feet-----	1965.6-1968.0
Halite, very light orange, fine-crystalline, sparingly polyhalitic; contains interbeds of light-gray, fine-crystalline, argillaceous halite, about 0.3 foot thick, at intervals 0.5-1.0 feet-----	1968.0-1973.1
Halite, buff, light-gray, and colorless, fine- to medium-crystalline, sparingly argillaceous and polyhalitic-----	1973.1-1976.0
Anhydrite, gray, dense; contains prominent halite pseudomorphs after gypsum, ranging up to 0.4 feet in height, between 1977.9 and 1986.0 feet, markedly nodular 1987.6-1988.5 feet; underlain by gray clay seam 0.1 foot thick-----	1976.0-1988.6
Halite, light-gray, medium-crystalline, sparingly argillaceous and anhydritic-----	1988.6-1992.9
Anhydrite, gray, dense, halitic-----	1992.9-1993.2
Halite, light-gray, fine- to medium-crystalline, sparingly poly- halitic and very argillaceous-----	1993.2-1996.4
Halite, very light gray, fine- to medium-crystalline, very sparingly polyhalitic-----	1996.4-1997.9
Halite, light-gray, fine- to medium-crystalline, sparingly poly- halitic and argillaceous-----	1997.9-2002.4
Halite, very light yellow, fine-crystalline, sparingly polyhalitic, underlain by grayish-green clay parting at 2005.1 feet-----	2002.4-2005.1
Anhydrite, gray, dense, magnesite; contains halite pseudomorphs after gypsum-----	2005.1-2006.4
Halite, light-gray, fine- to medium-crystalline, sparingly polyhalitic and very sparingly argillaceous-----	2006.4-2008.0
Halite, gray and orange, fine-crystalline, argillaceous and sparingly polyhalitic-----	2008.0-2012.2
Halite, very light gray, fine- to medium-crystalline, sparingly polyhalitic and very sparingly argillaceous-----	2012.2-2016.0
Halite, colorless, fine- to medium-crystalline, sparingly polyhalitic-----	2016.0-2017.0
Halite, brown, fine- to medium-crystalline, argillaceous and sparingly polyhalitic; contains brown clay partings at 2018.1, 2018.9, and 2020.5 feet-----	2017.0-2020.9
Halite, light-brown, fine- to medium-crystalline, argillaceous and sparingly polyhalitic-----	2020.9-2022.9

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, light-grayish-green and brown, fine-to medium-crystalline, argillaceous and sparingly polyhalitic-----	2066.6-2067.4
Halite, light-orange and light-brown, very sparingly polyhalitic and argillaceous-----	2067.4-2068.6
Halite, light-brown, fine-crystalline, sparingly argillaceous; contains lenses of coarse-crystalline, colorless halite-----	2068.6-2070.7
Halite, very light yellow, medium-crystalline, polyhalitic and interlayered with seamlets of orange polyhalite; contains lens of coarse-crystalline, colorless halite at 2072.9 feet-----	2070.7-2074.2
Halite, orange-to light-orange, medium-crystalline, very polyhalitic, contains a 0.1-foot thick seam of orange, dense polyhalite at 2074.5 feet-----	2074.2-2074.5
Anhydrite, gray, dense, moderately polyhalitic-----	2074.5-2074.7
Halite, very light yellow, medium-crystalline, very sparingly polyhalitic-----	2074.7-2075.6
Halite, light-brown, fine-to coarse-crystalline, polyhalitic and argillaceous-----	2075.6-2077.1
Halite, light-yellow, fine-to medium-crystalline, moderately polyhalitic-----	2077.1-2077.4
Halite, light-brownish-yellow, very fine to medium-crystalline, sparingly argillaceous-----	2077.4-2079.0
Halite, very light yellow to light-brown, medium-crystalline, sparingly polyhalitic and argillaceous-----	2079.0-2080.4
Halite, light-yellow, medium-to coarse-crystalline, sparingly polyhalitic-----	2080.4-2080.9
Halite, light-brown, medium-crystalline, argillaceous and sparingly polyhalitic-----	2080.9-2083.2
Halite, very light brown, fine-to coarse-crystalline, sparingly polyhalitic and very sparingly argillaceous-----	2083.2-2088.8
Halite, brown and very light brown, medium-crystalline, argillaceous and very sparingly polyhalitic; contains brown clay partings at 2089.7 and 2091.4 feet-----	2088.8-2093.7
Halite, light-brown, medium-to coarse-crystalline, polyhalitic and sparingly argillaceous-----	2093.7-2095.4
Halite, light-brown, medium-to coarse-crystalline, argillaceous and sparingly polyhalitic; contains a clay-filled desiccation crack, 0.1 foot thick at 2096.0 feet-----	2095.4-2096.5

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, very light orange, fine- to medium-crystalline, sparingly polyhalitic, very sparingly argillaceous 2024.6-2024.7 feet-----	2022.9-2026.9
Halite, light-brown, fine- to medium-crystalline, argillaceous and sparingly polyhalitic-----	2026.9-2030.7
Halite, light-yellow, fine- to medium-crystalline, sparingly polyhalitic-----	2030.7-2034.4
Halite, light-brown, fine- to medium-crystalline, argillaceous and sparingly polyhalitic; contains brown clay parting at 2034.7 feet-----	2034.4-2036.0
Halite, light-orange, medium-crystalline, sparingly polyhalitic; contains remnants of primary halite crystals-----	2036.0-2038.7
Halite, dark-brown, fine-crystalline, very argillaceous; contains brown clay parting at 2039.0 feet-----	2038.7-2039.4
Halite, brown and light-yellow, fine-crystalline, argillaceous and polyhalitic; contains coarse-crystalline masses of colorless halite (recrystallized) and a grayish-green clay parting at 2041.4 feet-----	2039.4-2041.4
Polyhalite, reddish-orange, dense, halitic-----	2041.4-2041.9
Halite, colorless, coarse-crystalline (recrystallized); contains veinlets of dense, reddish-orange polyhalite-----	2041.9-2043.2
Polyhalite, reddish-orange, dense, very sparingly argillaceous; contains lenticular masses and crystals of very coarse crystalline colorless halite-----	2043.2-2046.3
Anhydrite, very light gray to dark-gray, dense; halitic-----	2046.3-2048.4
Polyhalite, reddish-orange, dense, nodular; contains remnants of dense, gray anhydrite-----	2048.4-2049.2
Anhydrite, gray, dense; contains nodules of dense, reddish-orange polyhalite 2049.2-2050.2 feet and pseudomorphs of polyhalite after gypsum, as much as 0.2 foot in height, throughout remainder of unit-----	2049.2-2056.4
Anhydrite, gray, dense; contains halite pseudomorphs after gypsum, gray clay seam 2057.8-2058.1 feet and nodules of polyhalite between 2057.6- 2057.8 feet-----	2056.4-2058.1
Halite, light-orange, fine- to medium-crystalline, very sparingly polyhalitic; contains seamlets of polyhalite at 2058.4 and 2059.0 feet-----	2058.1-2060.0
Anhydrite, gray, dense; contains halite pseudomorphs after gypsum throughout unit and gray clay parting at 2060.4 feet-----	2060.0-2060.4
Halite, light-brown, fine- to medium-crystalline, argillaceous 2060.4-2061.4 feet and sparingly polyhalitic-----	2060.4-2062.7
Halite, light-orange, medium-crystalline, sparingly polyhalitic-----	2062.7-2064.7
Halite, light-brown, fine- to medium-crystalline, sparingly argillaceous and polyhalitic-----	2064.7-2066.6

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, light-yellow, medium-to coarse-crystalline, sparingly polyhalitic throughout and argillaceous from 2097.5-2098.1 feet; contains nodule of white polyhalite at 2098.1 feet; underlain by brown clay seam, ranging from 0.05-0.25 foot thick-----	2096.5-2098.5
Halite, light-gray, medium-to coarse-crystalline, anhydritic and sparingly argillaceous-----	2098.5-2098.8
Halite, light-orange, medium-to coarse-crystalline, polyhalitic throughout and locally very sparingly argillaceous-----	2098.8-2100.6
Halite, brown, medium-crystalline, very argillaceous; contains brown clay parting at 2101.7 feet-----	2100.6-2101.8
Halite, light-orange, medium-crystalline, polyhalitic-----	2101.8-2106.3
Halite, brown and light-yellow, fine-to medium-crystalline, argillaceous and sparingly polyhalitic; contains lense of coarse-crystalline, colorless halite, and a brown clay parting at 2106.3 feet; core crushed 2108.4-2108.7 feet-----	2106.3-2108.7
Halite, light-yellow, medium-crystalline; argillaceous 2108.7-2109.5 and 2110.1-2110.7 feet-----	2108.7-2110.7
Halite, light-yellow, medium-crystalline, sparingly polyhalitic-----	2110.7-2112.5
Halite, light-yellow, medium-crystalline, argillaceous; underlain by crudely developed clay parting at 2112.8 feet-----	2112.5-2112.8
Halite, light-yellow, medium-to coarse-crystalline, sparingly polyhalitic-----	2112.8-2115.5
Halite, light-yellow, medium-to coarse-crystalline, sparingly argillaceous-----	2115.5-2116.1
Halite, light-orange, medium-crystalline, polyhalitic throughout, but contains concentrated veinlets and seamlets of polyhalite 2118.1-2119.6 feet; locally argillaceous-----	2116.1-2120.4
Anhydrite, gray, dense, halitic 2120.9-2121.1 feet; underlain by brown clay parting at 2121.1 feet-----	2120.4-2121.1
Halite, light-brown, fine-to medium-crystalline, argillaceous-----	2121.1-2125.9
Halite, very light orange, medium-crystalline, sparingly polyhalitic-----	2125.9-2128.2
No core-----	2128.2-2129.0
Halite, very light yellow and brown, medium-crystalline, sparingly argillaceous-----	2129.0-2131.2
Halite, very light yellow, medium-crystalline, sparingly anhydritic-----	2131.2-2134.6
Anhydrite, gray, dense, halitic; underlain by brown clay parting at 2134.7 feet-----	2134.6-2134.7
Halite, very light yellow, fine-to medium-crystalline, very sparingly anhydritic-----	2134.7-2135.3
Halite, light-yellow and brown, argillaceous and very sparingly polyhalitic-----	2135.3-2136.6

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, light-yellow, medium-to coarse-crystalline, very sparingly polyhalitic-----	2136.6-2137.4
Halite, light-brown and light-yellow, medium-crystalline, argillaceous throughout and sparingly polyhalitic 2139.4-2139.8 feet; contains brown clay partings at 2137.4 and 2139.7 feet-----	2137.4-2140.9
Halite, light-orange and light-brown, medium-to coarse-crystalline, very sparingly polyhalitic throughout and sparingly argillaceous 2141.4-2142.1 feet-----	2140.9-2142.1
Halite, light-orange, medium-crystalline, sparingly polyhalitic and anhydritic-----	2142.1-2143.9
Anhydrite, light-gray, dense; underlain by light-gray magnesian clay parting at 2144.8 feet-----	2143.9-2144.8
Halite, light-brown, medium-crystalline, argillaceous; contains brown clay parting at 2145.8 feet-----	2144.8-2145.8
Halite, light-yellow, medium-crystalline, sparingly polyhalitic-----	2145.8-2151.1
Halite, light-yellow and brown, fine-crystalline, very sparingly argillaceous-----	2151.1-2152.3
Halite, light-brown, fine- to medium-crystalline, moderately argillaceous and polyhalitic-----	2152.3-2154.5
Halite, light-orange, fine- to medium-crystalline, sparingly polyhalitic throughout and very sparingly argillaceous 2154.5-2156.5 feet-----	2154.5-2158.5
Halite, light-brown, fine- to medium-crystalline, argillaceous throughout and sparingly polyhalitic 2162.7-2163.7 feet-----	2158.5-2163.7
Halite, light-gray, medium-crystalline, argillaceous and sparingly polyhalitic-----	2163.7-2164.7
Halite, light-yellow, medium- to coarse-crystalline, sparingly polyhalitic-----	2164.7-2166.9
Halite, light-greenish-gray, fine- to medium-crystalline, argillaceous-----	2166.9-2167.4
Halite, light-brown, fine- to medium-crystalline, very sparingly argillaceous throughout and sparingly polyhalitic 2168.0-2168.5 feet-----	2167.4-2170.5
Halite, light-gray and orange, medium-crystalline, moderately polyhalitic and very sparingly argillaceous; contains concentrations of polyhalite nodules 2170.5-2170.7 feet-----	2170.5-2171.0
Halite, light-yellow and light-brown, medium- to coarse-crystalline, sparingly polyhalitic throughout and markedly argillaceous 2171.9-2172.1 and 2172.6-2172.8 feet-----	2171.0-2174.9
Halite, light-gray, fine- to coarse-crystalline, sparingly polyhalitic and argillaceous-----	2174.9-2176.5
Halite, orange and colorless, medium-crystalline, polyhalitic-----	2176.5-2177.3
Anhydrite, gray, dense, polyhalitic 2177.3-2178.1 feet; underlain by light-gray magnesian(?) clay parting at 2180.2 feet-----	2177.3-2180.3

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, very light brown, fine- to medium-crystalline, very sparingly argillaceous-----	2180.3-2180.7
No core-----	2180.7-2181.0
Halite, very light gray, medium-crystalline, argillaceous and very sparingly polyhalitic-----	2181.0-2184.2
Halite, light-orange, medium-crystalline, sparingly polyhalitic; underlain by irregular seamlet of light-yellow, dense polyhalite-----	2184.2-2138.2
Halite, light-gray, fine- to medium-crystalline, sparingly argillaceous and very sparingly polyhalitic; capped by greenish-gray clay parting at 2188.2 feet-----	2188.2-2190.3
Halite, light-orange, medium-crystalline, sparingly polyhalitic-----	2190.3-2194.8
Halite, light-gray, medium-crystalline, sparingly argillaceous and locally very sparingly polyhalitic; contains greenish-gray clay parting at 2197.0 and 2197.5 feet-----	2194.8-2197.3
Halite, light-gray, medium-crystalline, very sparingly argillaceous and polyhalitic-----	2197.8-2200.2
Halite, light-orange, medium-crystalline, sparingly polyhalitic throughout and very sparingly argillaceous 2200.2-2201.2 feet-----	2200.2-2203.5
Halite, light-gray, medium-crystalline, very sparingly argillaceous and polyhalitic-----	2203.5-2204.6
Halite, light-orange, medium-crystalline, sparingly polyhalitic-----	2204.6-2205.6
Polyhalite, orange, dense, halitic-----	2205.6-2205.8
Halite, light-orange, medium-crystalline, sparingly polyhalitic-----	2205.8-2206.5
Anhydrite, gray, dense, halitic; underlain by 0.03-foot-thick seam of gray clay at 2206.8 feet-----	2206.5-2206.8
Halite, light-gray, fine- to medium-crystalline, very sparingly argillaceous and sparingly polyhalitic 2207.6-2207.8 feet-----	2206.8-2209.9
Halite, light-gray, medium-crystalline, very sparingly argillaceous-----	2209.9-2211.9
Halite, light-gray, medium- to coarse-crystalline, very sparingly argillaceous 2213.3-2214.0 feet-----	2211.9-2214.0
Halite, light-gray, light-orange, and light-brown, medium-crystalline, argillaceous and sparingly polyhalitic-----	2214.0-2217.6
Halite, light-brown, fine- to medium-crystalline, argillaceous-----	2217.6-2219.1
Halite, light-orange, medium-crystalline, sparingly polyhalitic-----	2219.1-2219.6
Halite, light-gray, fine- to medium-crystalline, argillaceous-----	2219.6-2220.2
Halite, light-yellow and light-gray, medium-crystalline, polyhalitic throughout and very sparingly argillaceous 2222.2-2223.2 feet-----	2220.2-2223.2
Halite, light-orange, fine- to medium-crystalline, polyhalitic throughout and very sparingly argillaceous 2223.2-2223.7 feet-----	2223.2-2224.6
Halite, light-gray, medium- to coarse-crystalline, argillaceous and sparingly polyhalitic; contains greenish-gray clay parting at 2225.0 feet-----	2224.6-2227.3

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, very light gray, medium-crystalline, sparingly polyhalitic and very sparingly argillaceous-----	2227.3-2228.9
Halite, light-orange and light-gray to colorless, medium- crystalline, very sparingly polyhalitic-----	2228.9-2233.7
Halite, light-orange, fine-to medium-crystalline, sparingly polyhalitic-----	2233.7-2239.9
Polyhalite, yellowish-gray, dense, anhydritic-----	2239.9-2240.1
Halite, light-orange, fine-to medium-crystalline, sparingly polyhalitic-----	2240.1-2241.3
Anhydrite, gray, dense, polyhalitic; contains layers of halite pseudomorphs after gypsum-----	2241.3-2244.4
Anhydrite, gray and yellowish-gray, dense, crudely laminated in upper part and nodular in lower part; contains polyhalite pseudo- morphs after gypsum 2244.6-2245.0 feet and halite pseudomorphs after gypsum 2247.0-2247.4 feet; contains gray clay parting at 2247.0 feet-----	2244.4-2247.4
Clay, gray, magnesite(?)-----	2247.4-2248.0
Anhydrite, gray, dense, laminated, sparingly halitic-----	2248.0-2250.5
Halite, very light yellow, fine-to medium-crystalline, sparingly polyhalitic throughout and locally very sparingly argillaceous at intervals of about 0.5 feet-----	2250.5-2256.0
Anhydrite, gray, dense; underlain by a gray clay seam-----	2256.0-2256.2
Halite, light-brown, fine-to medium-crystalline, argillaceous-----	2256.2-2257.5
Halite, light-orange, fine-to medium-crystalline, sparingly poly- halitic throughout and locally very sparingly argillaceous; contains greenish-gray clay parting at 2257.9 feet-----	2257.5-2257.9
Halite, light-gray, fine-to medium-crystalline, sparingly argillaceous and very sparingly polyhalitic-----	2257.9-2259.3
Halite, light-orange, medium-to coarse-crystalline, sparingly polyhalitic throughout and very sparingly argillaceous 2259.3-2259.8 feet-----	2259.3-2261.9
Halite, greenish-gray to colorless and light-orange, medium-crystalline, sparingly argillaceous and polyhalitic; contains greenish-gray clay partings at 2261.9 and 2263.1 feet-----	2261.9-2263.1
Halite, light-orange, fine-to medium-crystalline, sparingly poly- halitic; contains interbedded greenish-gray, sparingly argillaceous halite, in seams 0.2-0.4 foot thick at intervals of about 0.5 feet-----	2263.1-2269.4
Halite, light-brown, medium-crystalline, argillaceous and very sparingly polyhalitic-----	2269.4-2270.4
Halite, light-orange, medium-crystalline, sparingly polyhalitic; contains interbedded seams of gray, sparingly argillaceous halite, 0.2-0.3 foot thick, at intervals of about 1.0 foot and gray clay parting at 2275.6 feet-----	2270.4-2277.9

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, light-brown, medium-crystalline, argillaceous-----	2277.9-2280.1
Halite, light-gray, medium-crystalline, sparingly argillaceous and polyhalitic-----	2280.1-2284.4
No core-----	2284.4-2285.0
Halite, light-orange, medium-crystalline, sparingly polyhalitic-----	2285.0-2285.1
Halite, light-brown, medium-crystalline, sparingly argillaceous and very sparingly polyhalitic-----	2285.1-2299.0
Halite, light-gray and light-brown, fine- to coarse-crystalline, very sparingly argillaceous and polyhalitic-----	2299.0-2305.5
Halite, light-yellow, medium-crystalline-----	2305.5-2306.6
Halite, light-brown, fine- to medium-crystalline, sparingly argillaceous-----	2306.6-2306.8
Halite, light-gray, medium-crystalline, sparingly polyhalitic-----	2306.8-2307.6
Halite, light-brown, fine- to medium-crystalline, sparingly argillaceous and polyhalitic-----	2307.6-2308.7
Halite, orange and light-yellow, fine- to medium-crystalline, polyhalitic-----	2308.7-2310.0
Halite, light-brown, medium-crystalline, polyhalitic and argillaceous-----	2310.0-2310.6
Halite, light-orange and colorless, fine- to medium-crystalline, polyhalitic-----	2310.6-2317.9
Polyhalite, orange, dense, nodular, contains abundant halite-----	2317.9-2318.5
Halite, light-orange, fine- to medium-crystalline, polyhalitic-----	2318.5-2320.4
Polyhalite, orange, dense, nodular halite-----	2320.4-2321.9
Halite, light-orange, fine- to medium-crystalline, polyhalitic; contains remnants of primary halite crystals-----	2321.9-2322.5
Polyhalite, dark-red, dense, halitic-----	2322.5-2329.0
Claystone, greenish-gray-----	2329.0-2329.9
Halite, light-brown, medium- to coarse-crystalline, argillaceous-----	2329.9-2337.1
No core-----	2337.1-2337.6
Halite, light-brown, medium- to coarse-crystalline, argillaceous-----	2237.6-2342.6
Halite, light-orange, medium-crystalline, polyhalitic and locally very sparingly argillaceous-----	2342.6-2347.7
Halite, light-yellow and light-orange, polyhalitic and locally sparingly argillaceous; contains a lense of colorless, coarse crystalline (recrystallized) halite, 0.2 foot thick at 2355.0 feet-----	2347.7-2355.4
Halite, light-orange, fine- to medium-crystalline, polyhalitic and locally very sparingly argillaceous-----	2355.4-2361.6
Halite, light-brown, fine- to medium-crystalline, very sparingly argillaceous and polyhalitic-----	2361.6-2362.2
Halite, light-orange, fine- to medium-crystalline, sparingly polyhalitic-----	2362.2-2363.3

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, light-greenish-gray, fine- to medium-crystalline, sparingly argillaceous and very sparingly polyhalitic-----	2363.3-2365.2
Halite, light-orange, fine- to medium-crystalline, sparingly polyhalitic-----	2365.2-2367.2
Halite, light-orange, fine- to medium-crystalline, polyhalitic throughout and locally very sparingly argillaceous; contains remnants of primary halite crystals-----	2367.2-2372.8
Halite, light-orange, fine- to coarse-crystalline; contains nodular to lenticular pods of polyhalite and colorless, coarse crystalline halite-----	2372.8-2377.0
Anhydrite, gray, dense, halitic and polyhalitic-----	2377.0-2377.5
Anhydrite, light-gray, dense, polyhalitic; contains halite pseudomorphs after gypsum near center of unit-----	2377.5-2381.3
Halite, very light orange, fine-crystalline; contains seamlets of white anhydrite at intervals of 0.4-0.8 foot, remnants of primary halite crystals, and lense of coarse crystalline, colorless halite, 0.3 foot thick at top of unit-----	2381.3-2390.0
Anhydrite, gray, dense, laminated; contains a gray clay parting at 2390.0 feet, and halite pseudomorphs after gypsum 2390.0-2390.3 feet-----	2390.0-2390.9
Claystone, gray, magnesian(?)-----	2390.9-2391.4
Halite, light-orange, fine- to medium-crystalline, anhydritic 2391.8-2392.0 feet; contains remnants of primary halite crystals-----	2391.4-2392.0
Anhydrite, gray, dense, laminated, halitic-----	2392.0-2392.5
Halite, light-gray, fine- to medium-crystalline, sparingly argillaceous-----	2392.5-2393.2
Halite, light-orange, fine- to medium-crystalline, polyhalitic; interbedded with layers of light-gray fine-crystalline, sparingly argillaceous halite, about 0.5 foot thick, at intervals of about 1.0 foot; contains remnants of primary halite crystals-----	2393.2-2398.3
Halite, colorless, coarse crystalline; contains remnants of light- orange, fine- to medium-crystalline halite-----	2398.3-2398.9
Halite, light-gray, fine- to medium-crystalline, very sparingly argillaceous-----	2398.9-2404.6
Halite, light-orange, fine- to medium-crystalline, polyhalitic; contains remnants of primary halite crystals-----	2404.6-2406.1
Halite, light-gray to very light gray and very light brown, fine- to coarse-crystalline, sparingly argillaceous and polyhalitic-----	2406.1-2408.1
Halite, very light yellow to light-orange, fine- to medium-crystalline, polyhalitic and locally very sparingly argillaceous-----	2408.1-2417.5
Halite, light-gray to very light gray, fine- to medium-crystalline, sparingly argillaceous and polyhalitic-----	2417.5-2420.2
Halite, light-orange, fine- to medium-crystalline, sparingly polyhalitic; interbedded at intervals of about 0.5 foot with layers of greenish-gray, fine- to medium-crystalline, argillaceous halite, about 0.5 foot thick-----	2420.2-2428.2

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, light-gray, medium-crystalline, sparingly argillaceous-----	2428.2-2428.6
Halite, very light yellowish-gray, fine- to medium-crystalline, very sparingly argillaceous and polyhalitic-----	2428.6-2433.1
Halite, light-orange and light-yellow, medium- to coarse- crystalline, sparingly polyhalitic; contains remnants of primary halite crystals-----	2433.1-2438.1
Polyhalite, orange, dense, anhydritic, and halitic-----	2438.1-2439.4
Anhydrite, buff and light-gray, polyhalitic and halitic-----	2439.4-2440.5
Claystone, gray-----	2440.5-2440.6
Halite, light-gray, fine- to medium-crystalline, very sparingly argillaceous and polyhalitic; contains remnants of primary halite crystals-----	2440.6-2442.2
Halite, light-orange, fine- to medium-crystalline, sparingly poly- halitic throughout and sparingly argillaceous 2442.2-2443.5 feet; contains remnants of primary halite crystals-----	2442.2-2448.9
Halite, colorless, coarse-crystalline, anhydritic-----	2448.9-2449.6
Anhydrite, light-gray, dense, sparingly halitic-----	2449.6-2455.4
Claystone, gray-----	2455.4-2455.5
Halite, light-yellow, fine- to medium-crystalline, very sparingly argillaceous; contains remnants of primary halite crystals-----	2455.5-2458.1
Halite, light-gray, fine- to medium-crystalline, sparingly argillaceous; contains gray clay parting at 2458.4 feet-----	2458.1-2460.9
Halite, light yellow, fine- and coarse-crystalline, sparingly anhydritic; contains remnants of primary halite crystals-----	2460.9-2462.0
Halite, light-gray, medium-crystalline, very sparingly argillaceous-----	2462.0-2463.2
Halite, light-yellow, medium-crystalline, sparingly anhydritic; contains a lenticle of colorless, coarse-crystalline halite between 2464.6-2465.1 feet, and remnants of primary halite crystals throughout unit-----	2463.2-2465.6
Halite, light-yellow, fine- to medium-crystalline, sparingly anhydritic; contains remnants of primary halite crystals, and is interbedded at intervals of about 0.8 foot, with seams of gray, fine-crystalline, sparingly argillaceous halite-----	2465.6-2472.0
Halite, light-yellow, fine- to medium-crystalline, sparingly anhydritic; contains veinlike masses of colorless, coarse- crystalline halite at 2473.9-2474.1 and 2474.7-2474.8 feet-----	2472.0-2474.8
Anhydrite, gray, dense; contains halite pseudomorphs after gypsum, and is underlain by seam of gray clay-----	2474.8-2475.5
Halite, light-gray, fine- to medium-crystalline, sparingly argillaceous; contains lenses and crystals of colorless, coarse crystalline halite, and partings of gray clay at 2478.4 feet-----	2475.5-2479.4

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, light-yellowish-gray to light-gray, medium- to coarse-crystalline, very sparingly argillaceous-----	2479.4-2481.4
Halite, light-orange, fine-crystalline; contains remnants of primary halite crystals-----	2481.4-2482.2
Halite, very light yellow, medium- to coarse-crystalline, very sparingly argillaceous; contains remnants of primary halite crystals-----	2482.2-2485.5
Halite, light-yellow, medium-crystalline, very sparingly argillaceous; contains lense of colorless, coarse-crystalline halite between 2487.2-2487.7 feet-----	2485.5-2487.7
Halite, light-yellow, medium-crystalline, anhydritic; contains remnants of primary halite crystals-----	2487.7-2491.0
Anhydrite, gray, dense, halitic-----	2491.0-2491.2
Halite, light-yellow, fine- to medium-crystalline, anhydritic; contains remnants of primary halite crystals and lense of colorless, coarse-crystalline halite between 2491.7-2492.1 feet-----	2491.2-2492.8
Anhydrite, gray, dense, halitic; underlain by parting of gray clay at 2493.9 feet-----	2492.3-2493.9
Halite, gray to colorless, medium- to coarse-crystalline, very sparingly argillaceous; contains lens of colorless, coarse-crystalline (recrystallized) halite between 2494.3-2495.0 feet-----	2493.3-2496.2
Halite, light-yellow, fine-crystalline-----	2496.2-2496.4
No core-----	2496.4-2497.5
Halite, very light yellow, fine- to medium-crystalline, anhydritic; contains remnants of primary halite crystals-----	2497.5-2498.2
Anhydrite, gray, dense; contains halite pseudomorphs after gypsum 2499.5-2500.0 feet-----	2498.2-2501.9
Halite, light-yellow, fine- to medium-crystalline, sparingly anhydritic; contains remnants of primary halite crystals-----	2501.9-2504.7
Anhydrite, gray, dense, sparingly halitic 2504.7-2505.2 feet-----	2504.7-2505.5
Halite, light-gray, fine- to medium-crystalline, very sparingly argillaceous 2505.5-2508.4 feet and sparingly anhydritic throughout-----	2505.5-2512.5
Halite, light-yellow to very light yellow, fine- to coarse-crystalline, very sparingly argillaceous; contains lenticular mass of colorless, coarse-crystalline halite at 2513.5 feet-----	2512.5-2517.5
Halite, very light gray, medium- to coarse-crystalline, very sparingly argillaceous throughout and very sparingly anhydritic 2519.2-2526.5 feet---	2517.5-2526.5
Halite, very light gray to light-gray, medium- to coarse-crystalline, very sparingly anhydritic; contains remnants of primary halite 2531.9-2536.8 feet-----	2526.5-2536.8

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, light-gray, medium- to coarse-crystalline, sparingly anhydritic-----	2536.8-2540.3
Anhydrite, gray, dense; halitic 2542.4-2542.9 feet, very sparingly magnesitic-----	2540.3-2546.8
Anhydrite, gray, dense, pseudomorphs after gypsum and inter- laminated with light-gray to white magnesite; fetid 2549.7-2556.5 feet; contains a set of en echelon vertical halite-filled dilation veins at 2555.1-2557.1 feet; sparingly argilla- ceous 2556.5-2557.2 feet-----	2546.8-2557.4
Magnesite, light-gray to white, argillaceous; contains nodules and laminae of gray, dense anhydrite-----	2557.4-2560.3
Halite, light-gray, medium-crystalline, anhydritic-----	2560.3-2560.9
Anhydrite, gray, dense, halitic, underlain by parting of gray magnesitic(?) clay at 2562.5 feet-----	2560.9-2562.5
Halite, light-gray, fine- to medium-crystalline, very sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2562.5-2569.4
Anhydrite, gray, dense, halitic and magnesitic-----	2569.4-2569.6
Halite, very light gray, fine- to medium-crystalline, sparingly anhydritic; contains remnants of primary halite crystals-----	2569.6-2571.4
Anhydrite, gray, dense, magnesitic; underlain by gray clay part- ing at 2571.7 feet-----	2571.4-2571.7
Halite, gray, fine- to medium-crystalline, very sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2571.7-2576.0
Anhydrite, gray, dense, magnesitic and very halitic-----	2576.0-2576.6
Halite, light-gray, fine- to medium-crystalline, sparingly anhydritic; contains remnants of primary halite crystals, irregular seamlet of polyhalite, seams of colorless halite, and patches of colorless, coarse-crystalline (recrystallized) halite-----	2576.6-2586.5
Anhydrite, gray, dense, very halitic; underlain by seam of gray magnesite claystone 0.03 foot thick-----	2586.5-2587.3
Halite, light-gray, fine- to medium-crystalline, very sparingly anhydritic; contains irregular seamlets of anhydrite and remnants of primary halite crystals-----	2587.3-2593.0
Anhydrite, gray, dense, sparingly halitic-----	2593.0-2593.5
Halite, light-gray, medium-crystalline, very sparingly anhydritic; contains remnants of primary halite crystals-----	2593.5-2595.1
Anhydrite, light-gray, dense, sparingly halitic-----	2595.1-2595.4
Halite, very light yellowish gray, medium-crystalline, very sparingly anhydritic; contains remnants of primary halite crystals-----	2595.4-2597.4

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Anhydrite, gray, dense, very sparingly halitic 2597.4-2597.8 and 2598.7-2598.8 feet; underlain by gray clay parting at 2599.3 feet-----	2597.4-2599.3
Halite, light-gray, fine- to medium-crystalline, very sparingly anhydritic; contains remnants of primary halite crystals-----	2599.3-2600.8
Anhydrite, light-gray, dense, very sparingly halitic-----	2600.8-2601.3
Halite, light-gray, fine- to medium-crystalline, very sparingly anhydritic; contains remnants of primary halite crystals-----	2601.3-2602.8
No core-----	2602.8-2603.1
Halite, light-gray, fine- to coarse-crystalline, very sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2603.1-2616.8
Halite, very light yellow, medium-crystalline, very sparingly anhydritic; contains remnants of primary halite crystals-----	2616.8-2618.0
Anhydrite, gray, dense, sparingly halitic, fetid; underlain by gray, magnesian clay seamlet at 2619.5 feet-----	2618.0-2619.5
Halite, light-gray, fine- to medium-crystalline, very sparingly anhydritic and argillaceous; contains halite-filled desiccation cracks, and remnants of primary halite crystals-----	2619.5-2623.4
Halite, colorless, coarse-crystalline, very sparingly anhydritic-----	2623.4-2624.6
Halite, light-gray, fine- to medium-crystalline, very sparingly anhydritic throughout and locally very sparingly argillaceous, fetid; contains remnants of primary halite crystals-----	2624.6-2638.7
Halite, colorless, coarse-crystalline, very sparingly anhydritic and argillaceous-----	2638.7-2641.1
Halite, light-gray, fine- to medium-crystalline, very sparingly anhydritic and argillaceous-----	2641.1-2652.8
No core-----	2652.8-2655.1
Halite, light-gray, medium-crystalline, very sparingly anhydritic and argillaceous-----	2655.1-2656.2
No core-----	2656.3-2658.7
Halite, colorless to light-gray, medium- to coarse crystalline-, very sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2658.7-2661.6
Halite, light-gray, medium-crystalline, very sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2661.6-2666.7
Halite, light-gray, medium- to coarse-crystalline, very sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2666.7-2671.9
Halite, light-gray, fine- to medium-crystalline, very sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2671.9-2674.1

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Halite, light-gray, medium-to coarse-crystalline, very sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2674.1-2677.3
Halite, light-gray, fine-to medium-crystalline, very sparingly anhydritic and argillaceous; contains patches of colorless coarse-crystalline halite and remnants of primary halite crystals-----	2677.3-2685.5
Halite, colorless to light-gray, coarse-crystalline, very sparingly anhydritic and argillaceous at 2687.9-2688.3, 2688.7-2689.1, and 2689.6-2690.3 feet-----	2685.5-2691.7
Halite, light-gray, medium-to coarse-crystalline, very sparingly anhydritic and argillaceous; contains a patch of colorless, coarse-crystalline halite at 2692.9 feet and remnants of primary halite crystals-----	2691.7-2703.9
Halite, light-gray, medium-to coarse-crystalline, sparingly anhydritic and very sparingly argillaceous; contains remnants of primary halite crystals-----	2703.9-2704.9
Halite, light-gray, medium-crystalline, sparingly anhydritic and very sparingly argillaceous; contains remnants of primary halite crystals-----	2704.9-2710.5
Halite, light-gray, medium-crystalline, argillaceous and anhydritic-----	2710.5-2712.3
Anhydrite, light-gray, dense, halitic-----	2712.3-2712.5
Halite, light-gray, medium-crystalline, sparingly anhydritic and argillaceous-----	2712.5-2714.1
No core-----	2714.1-2714.7
Halite, gray, medium-crystalline, sparingly anhydritic and argillaceous; contains a seamlet of gray, dense anhydrite at 2715.8 feet and remnants of primary halite crystals-----	2714.7-2723.1
Halite, very light gray, medium-crystalline, laminated, sparingly anhydritic; contains remnants of primary halite crystals-----	2723.1-2724.5
Halite, white, fine-to medium-crystalline, laminated, sparingly anhydritic; contains remnants of primary halite crystals-----	2724.5-2726.2
Anhydrite, very light gray, dense, mottled, very halitic; contains gray clay parting at 2726.7 feet-----	2726.2-2726.9
Halite, light-gray and white, medium-crystalline, sparingly anhydritic throughout and very sparingly argillaceous 2726.9-2729.1 feet; contains near horizontal seamlets of white anhydrite 2729.1-2731.8 feet, and remnants of primary halite crystals-----	2726.9-2731.8
Anhydrite, gray and white, dense, irregularly laminated, halitic and magnesitic(?)-----	2731.8-2733.5
Halite, light-gray, medium-crystalline, sparingly anhydritic; contains remnants of primary halite crystals-----	2733.5-2734.0

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Anhydrite, white and buff, dense, laminated, halitic and very sparingly magnesitic(?); underlain by gray clay parting at 2734.7 feet-----	2734.0-2734.7
Halite, light-gray, medium-crystalline, sparingly anhydritic; contains remnants of primary halite crystals-----	2734.7-2735.2
Anhydrite, buff and light-gray, dense, irregularly laminated, halitic; underlain by gray clay parting at 2735.5 feet-----	2735.2-2735.5
Halite, gray, medium-crystalline, laminated, sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2735.5-2742.4
Halite, light-gray and white, medium-to coarse-crystalline, laminated, sparingly anhydritic; contains remnants of primary halite crystals-----	2742.4-2745.1
Anhydrite, buff and gray, dense, laminated, halitic-----	2745.1-2745.7
Halite, light-gray, medium-crystalline, sparingly anhydritic; contains remnants of primary halite crystals-----	2745.7-2746.1
Anhydrite, buff and light-gray, dense, irregularly laminated, halitic-----	2746.1-2747.7
Halite, light-gray, fine- to medium-crystalline, laminated, sparingly anhydritic; contains remnants of primary halite crystals-----	2747.7-2752.0
Anhydrite, buff and gray, dense, irregularly laminated in upper part and nodular in lower part, halitic 2752.0-2752.4 feet; underlain by a seamlet of gray magnesitic clay, 2 cm thick at 2755.8 feet-----	2752.0-2755.8
Halite, light-gray, medium-crystalline, sparingly anhydritic and very sparingly argillaceous; contains remnants of primary halite crystals-----	2755.8-2761.5
Halite, light-gray, fine- to medium-crystalline, sparingly anhydritic; contains patches of colorless, coarse-crystalline halite, remnants of primary halite crystals throughout unit, and near-vertical halite-filled desiccation cracks 2763.7-2765.7 feet-----	2761.5-2768.7
Halite, light-gray, medium-crystalline, laminated, sparingly anhydritic; contains remnants of primary halite crystals-----	2768.7-2772.3
Anhydrite, gray, dense, laminated, halitic 2772.3-2772.5 feet; underlain by gray clay parting at 2772.6 feet-----	2772.3-2772.6
Halite, light-gray, medium-crystalline, laminated, very sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2772.6-2779.0
Halite, white, medium-crystalline; contains remnants of primary halite crystals-----	2779.0-2779.5
Halite, light-gray, medium-crystalline, laminated, very sparingly anhydritic; contains remnants of primary halite crystals-----	2779.5-2782.7

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Anhydrite, gray and buff, dense, very halitic-----	2782.7-2782.9
Halite, light-gray, medium-crystalline, sparingly anhydritic; contains remnants of primary halite crystals-----	2782.9-2783.2
Anhydrite, gray and very light gray, dense; contains gray clay parting at 2783.4 feet-----	2783.2-2783.7
Halite, colorless and very light yellow, sparingly anhydritic; contains remnants of primary halite crystals-----	2783.7-2784.9
Anhydrite, gray, dense, laminated, halitic 2784.9-2785.2, 2786.3-2786.4, and 2786.7-2787.1 feet; contains interbed of light-gray, fine- crystalline halite 2788.1-2788.5 feet-----	2784.9-2791.9
Claystone, gray, anhydritic, and halitic-----	2791.9-2792.2
Halite, light-gray, medium-crystalline, sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2792.2-2793.1
Anhydrite, light-gray, dense, laminated, very halitic-----	2793.1-2793.3
Halite, light-gray, medium-crystalline, sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2793.3-2793.9
Anhydrite, light gray, dense, halitic 2793.9-2794.7 feet-----	2793.9-2794.9
Halite, light-gray, fine- to medium-crystalline, sparingly anhydritic and argillaceous; contains remnants of primary halite crystals throughout, and a network of anhydrite veinlets 2797.2-2798.2 feet-----	2794.9-2800.8
Anhydrite, gray, dense, laminated, halitic-----	2800.8-2802.3
Halite, light-gray, medium-crystalline, laminated, sparingly anhydritic; contains remnants of primary halite crystals-----	2802.3-2803.8
Anhydrite, light-gray, dense, very halitic-----	2803.8-2804.0
Halite, very light gray, fine- to medium-crystalline; contains remnants of primary halite crystals-----	2804.0-2804.2
Anhydrite, gray, dense, very halitic-----	2804.2-2804.7
Halite, light-gray, fine- to medium-crystalline, sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2804.7-2805.5
Anhydrite, light-gray, dense, very halitic-----	2805.5-2805.7
Halite, very light gray, medium-crystalline, sparingly anhydritic-----	2805.7-2806.0
Anhydrite, light-gray, dense, halitic-----	2806.0-2806.2
Halite, very light gray, fine- to medium-crystalline, sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2806.2-2807.4
Anhydrite, gray, dense, laminated, halitic at top of unit; under- lain by gray clay seam, 0.03 foot thick at 2811.0 feet-----	2807.4-2811.0
Halite, light-gray, fine- to medium-crystalline, sparingly anhydritic and very sparingly argillaceous; contains irregular seam of anhydrite 2812.4-2812.6 and 2812.9-2813.1 feet; and remnants of primary halite crystals throughout unit-----	2811.0-2813.6

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Anhydrite, gray, dense, laminated, halitic-----	2813.6-2814.7
Halite, very light gray, medium-crystalline, sparingly argillaceous and very sparingly anhydritic; contains remnants of primary halite crystals-----	2814.7-2815.5
Anhydrite, gray, dense, very halitic, very sparingly magnesitic-----	2815.5-2816.3
Halite, light-gray, medium-crystalline, sparingly anhydritic and very sparingly argillaceous; contains remnants of primary halite crystals-----	2816.3-2817.6
Anhydrite, gray, dense, halitic-----	2817.6-2818.0
Halite, light-gray, medium-crystalline, sparingly anhydritic and very sparingly argillaceous; contains remnants of primary halite crystals-----	2818.0-2819.9
Anhydrite, gray, dense, sparingly halitic; underlain by seamlet of grayish-white magnesite at 2820.4 feet-----	2819.9-2820.4
Halite, light-gray, medium-crystalline, sparingly anhydritic and very sparingly argillaceous; contains remnants of primary halite crystals throughout, and seamlet of anhydrite about 0.03 foot thick at 2822.2 feet-----	2820.4-2822.6
Anhydrite, gray, dense, very halitic-----	2822.6-2822.9
Halite, light-gray, fine- to medium-crystalline, sparingly anhydritic and very sparingly argillaceous; contains remnants of primary halite crystals-----	2822.9-2824.1
Halite, light-gray and white, medium-crystalline, laminated in lower part, sparingly anhydritic; contains remnants of primary halite crystals 2825.0-2826.1 feet-----	2824.1-2826.1
Anhydrite, light-gray, dense, laminated, halitic-----	2826.1-2826.7
Halite, very light gray, medium-crystalline-----	2826.7-2826.8
No core-----	2826.8-2827.3
Anhydrite, light-gray, dense, halitic, fetid-----	2827.3-2827.8
Halite, white, medium-crystalline, laminated, very sparingly anhydritic, fetid; contains remnants of primary halite crystals-----	2827.8-2829.5
Halite, light-gray, medium-crystalline, very sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2829.5-2836.3
Anhydrite, gray, dense, nodular to laminated in light and darker shades of gray, fetid; interstices between nodules filled with magnesite(?)-----	2836.3-2846.3
Anhydrite, gray, dense, crudely banded to laminated in light and darker shades of gray, locally nodular and pseudomorphs after gypsum, fetid, and very sparingly magnesitic-----	2846.3-2876.6
No core (Drilled while opening hole from 7 23/32 inches to 9 7/8 inches prior to running wireline geophysical logs)-----	2876.6-2889.0
Total depth by wireline log-----	2889.0

Table 3.--Lithologic log of borehole ERDA-9--Continued

Lithologic description	Depth interval Feet
Anhydrite, gray, dense, laminated, halitic-----	2813.6-2814.7
Halite, very light gray, medium-crystalline, sparingly argillaceous and very sparingly anhydritic; contains remnants of primary halite crystals-----	2814.7-2815.5
Anhydrite, gray, dense, very halitic, very sparingly magnesitic-----	2815.5-2816.3
Halite, light-gray, medium-crystalline, sparingly anhydritic and very sparingly argillaceous; contains remnants of primary halite crystals-----	2816.3-2817.6
Anhydrite, gray, dense, halitic-----	2817.6-2818.0
Halite, light-gray, medium-crystalline, sparingly anhydritic and very sparingly argillaceous; contains remnants of primary halite crystals-----	2818.0-2819.9
Anhydrite, gray, dense, sparingly halitic; underlain by seamlet of grayish-white magnesite at 2820.4 feet-----	2819.9-2820.4
Halite, light-gray, medium-crystalline, sparingly anhydritic and very sparingly argillaceous; contains remnants of primary halite crystals throughout, and seamlet of anhydrite about 0.03 foot thick at 2822.2 feet-----	2820.4-2822.6
Anhydrite, gray, dense, very halitic-----	2822.6-2822.9
Halite, light-gray, fine- to medium-crystalline, sparingly anhydritic and very sparingly argillaceous; contains remnants of primary halite crystals-----	2822.9-2824.1
Halite, light-gray and white, medium-crystalline, laminated in lower part, sparingly anhydritic; contains remnants of primary halite crystals 2825.0-2826.1 feet-----	2824.1-2826.1
Anhydrite, light-gray, dense, laminated, halitic-----	2826.1-2826.7
Halite, very light gray, medium-crystalline-----	2826.7-2826.8
No core-----	2826.8-2827.3
Anhydrite, light-gray, dense, halitic, fetid-----	2827.3-2827.8
Halite, white, medium-crystalline, laminated, very sparingly anhydritic, fetid; contains remnants of primary halite crystals-----	2827.8-2829.5
Halite, light-gray, medium-crystalline, very sparingly anhydritic and argillaceous; contains remnants of primary halite crystals-----	2829.5-2836.3
Anhydrite, gray, dense, nodular to laminated in light and darker shades of gray, fetid; interstices between nodules filled with magnesite(?)-----	2836.3-2846.3
Anhydrite, gray, dense, crudely banded to laminated in light and darker shades of gray, locally nodular and pseudomorphs after gypsum, fetid, and very sparingly magnesitic-----	2846.3-2876.6
No core (Drilled while opening hole from 7 23/32 inches to 9 7/8 inches prior to running wireline geophysical logs)-----	2876.6-2889.0
Total depth by wireline log-----	2889.0

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