

SEABROOK UPDATED FSAR

APPENDIX 2D

GEOLOGIC BEDROCK LOGS OF BORING IN THE SITE AREA

The information contained in this appendix was not revised, but has been extracted from the original FSAR and is provided for historical information.

APPENDIX 2D

LIST OF BORINGS DONE FOR SEABROOK STATION  
(Reference Section 2.5.1.2. and Figures 2.5.9)  
and 2.5.14)

A number of boring programs have been done for various purposes at and near the **Seabrook** Station site. The list in this appendix is meant to serve as an index for these borings.

Some of the logs of these borings are included in this appendix. Other logs can be found in one of three locations:

1. Miscellaneous Site Area Borings, **Seabrook** Station: PSNH Site Document Control Center, Seabrook, N.H.
2. **Seabrook** Station Geotechnical Report - Circulating Water Tunnels, Vols. 1 and 2: Geotechnical Engineers, Inc., Winchester, Mass., June, 1974
3. **Seabrook** Station Geotechnical Reports - Intake Tunnel Extension: Geotechnical Engineers, Inc., Winchester, Mass., September, 1975

An entry in this table for each boring, notes the location of its log.

LIST OF BORINGS DONE FOR  
SEABROOK STATION

<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
A-1	Old Cooling System Design	Hampton Beach State Park	Beach	49'	49'	9 Nov '68	1	Auger Boring
A-2	Old Cooling System Design	Hampton Beach State Park	Beach	48.5'	48.5'	9 Nov '68	1	Auger Boring
A-3	Old cooling System Design	Hampton Beach State Park	Beach	53'	53'	11 Nov '68	1	Auger Boring
A-4	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	11 Nov '68	1	Auger Boring
A-5	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	9 Nov '68	1	Auger Boring
A-6	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	14 Nov '68	1	Auger Boring
A-7	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	14 Nov '68	1	Auger Boring
A-8	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	15 Nov '68	1	Auger Boring
A-9	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	25 Nov '68	1	Auger Boring
A-10	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	15 Nov '68	1	Auger Boring
A-11	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	15 Nov '68	1'	Auger Boring
A-12	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	15 Nov '68	1	Auger Boring
A-14	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	15 Nov '68	1	Auger Boring
A-15	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	15 Nov '68	1	Auger Boring

<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
A-16	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	11 Nov '68	1	Auger Boring
A-17	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	11 Nov '68	1	Auger Boring
A-18	Old Cooling System Design	Hampton Beach State Park	Beach	56'	<b>56'</b>	11 Nov '68	1	<b>Auger</b> Boring
A-19	Old Cooling System Design	Hampton Beach State Park	Beach	56'	56'	14 Nov '68	1	Auger Boring
A-20	Old Cooling <b>System</b> Design	Hampton Beach State Park	Beach	56'	56'	14 Nov '68	1	Auger Boring
A-21	Old Cooling System Design	<b>Hampton</b> Beach State Park	Beach	56'	56'	14 Nov '68	1	Auger Boring
<b>AIT-1</b>	Intake Tunnel	20546N 80140E	<b>+11.4</b>	17.0	315.0	7 Sept '73	2	
<b>AIT-2</b>	Alternate Tunnel Align- ment	20211N <b>81372E</b>	+ 5.1	8.5	300.0	19 Oct '73		
<b>AIT-3</b>	Alternate Tunnel Align- ment	19848N <b>82720E</b>	- 0.2	32.5	<b>292.0</b>	23 Oct '73		
<b>AIT-4</b>	Alternate Tunnel Align- ment	<b>19556N</b> 83798E	+ 5.2	64.0	290.0	14 Nov '73		
<b>AIT-5</b>	Alternate Tunnel Align- ment	19327N <b>84663E</b>	- 2.2	<b>95.0</b>	279.0	9 Nov '73	2	
<b>AIT-6</b>	Alternate Tunnel Align- ment	<b>19117N</b> <b>85438E</b>	+ 2.8	148.5	291.0	29 Oct '73	2	

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
AIT-7	Alternate Tunnel Align- ment	18908N 86222~	- 2.4	132.0	270.0	04 Sept '73	2	
AIT-8	Alternate Tunnel Align- ment	18663N 87143E	-15.0	83.0	268.0	14 Sept '73	2	
AIT-11	Alternate Tunnel Align- ment	18221N 88746E	+ 9.0	6.0	6.0	08 Nov '73	2	Boring Abandoned
AIT-12	Alternate Tunnel Align- ment	18144N 89012E	+13.5	138.5	272.8	24 Oct '73		
AIT-13	Alternate Tunnel Align- ment	17981N 89610E	+10.3	125.0	275.0	03 Oct '73		
AIT-15	Alternate Tunnel Align- ment	17730N 90526E	- 8.6	71.5	238.0	01 Oct '73	2	
AIT-16	Alternate Tunnel Align- ment	17537N 91267E	-14.1	62.5	231.5	11 Oct '73	2	
AIT-17	Intake Tunnel	17366~ 91907E	-24.1	42.5	216.3	06 Oct '73	2	
AIT-18	Alternate Tunnel Align- ment	17182N 92577E	-26.2	45.0	272.0	13 Sept '73	2	
AIT-20	Alternate Tunnel Align- ment	17158N 92663E	-36.3	49.5	81.0	14 Sept '73	2	
AIT-22	Alternate Tunnel Align- ment	171958 92527E	-32.1	36.5	204.5	22 Sept '73	2	

<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
AIT-24	Alternate Tunnel Align- ment	17105N 91945E	-35.6	65.0	65.0	17 Oct '73	2	
AIT-24A	Alternate Tunnel Align- ment	17084N 92927E	-35.6	99.0	198.8	22 Oct '73	2	
AIT-25	Alternate Tunnel Align- ment	<b>16996N</b> 93261E	-37.1	24.0	199.3	25 Oct '73	2	
AIT-26	Intake Tunnel	<b>17146N</b> 89283E	<b>+10.6</b>	67.0	347.8	15 Apr '74	2	Boring Inclined 40°
AIT-27	Alternate Tunnel Align- ment	17223N 90217E	- 7.7	80.0	245.3	01 Mar '74	2	
AIT-28	Alternate Tunnel Align- ment	17254N 90887E	-12.8	80.5	233.0	16 Feb '74	2	
AIT-29	Alternate Tunnel Align- ment	17318N 91383E	-18.2	20.0	230.0	19 Feb '74	2	
AIT-30	Alternate Tunnel Align- ment	17394N 92288E	-29.9	46.0	57/9	22 Feb '74	2	Boring Inclined 38°
AIT-30A	Alternate Tunnel Align- ment	17394N 92288E	-29.5	46.5	221.3	26 Feb '74	2	
AIT-31	Alternate Tunnel Align- ment	17054N 89238E	i-10.7	69.0	346.0	29 Apr '74	2	

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
<b>AIT-32</b>	Alternate Tunnel Align- ment	16918N 90562E	-12.4	59.0	240.0	15 Mar '74	<b>2</b>	
<b>AIT-33</b>	Alternate Tunnel Align- ment	16840N 91054E	-14.4	80.0	162.0	05 Mar '74	2	
<b>AIT-33A</b>	Alternate Tunnel Align- ment	16839N 91054E	-14.4	80.0	241.0	12 Mar '74		
AXT-34	Alternate Tunnel Align- ment	16780N 91515E	-19.6	59.0	230.0	05 Mar '74	2	
<b>AIT-35</b>	Alternate Tunnel Align- ment	<b>16770N</b> 925783	-33.5	30.0	45.5	28 Mar '74	2	
ATT-36	Alternate Tunnel Align- ment	16912N 93045E	-39.1	55.4	69.5	27 Mar '74	2	
<b>AIT-37</b>	Alternate Tunnel Align- ment	16766N 930423	-34.3	17.5	30.5	26 Mar '74	2	
<b>AIT-38</b>	Intake Tunnel Extension	17491N 93300E	-41.2	43.0	212.0	24 June '75	3	
<b>AIT-39</b>	Intake Tunnel Extension	<b>17552N</b> 93840E	-42.1	51.0	195.0	16 June '75	FSAR Appendix 2D	
<b>AIT-39A</b>	Intake Tunnel Extension	17566N 93938E	-39.3	57.0	220.0	29 July '75	<b>3</b>	
<b>AIT-40</b>	Intake Tunnel Extension	<b>17575N</b> <b>94040E</b>	-40.5	78.0	234.0	14 June '75	3	
<b>AIT-41</b>	Intake Tunnel Extension	<b>17597N</b> 94240E	-37.3	75.0	202.0	19 June '75	3	

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
<b>AIT-41A</b>	Intake Tunnel Extension	17500N 94234E	-38.9	62.0	219.0	19 July '75	3	
<b>AIT-42</b>	Intake Tunnel Extension	17909N 97006E	-40.8	52.0	214.0	26 June '75		
<b>AIT-43</b>	Intake Tunnel Extension	17762N 95707E	-48.9	51.0	218.0	16 July '75	3	
<b>AIT-44</b>	Intake Tunnel Extension	17816N 96156E	-51.3	49.0	219.0	12 Aug '75	3	
<b>AIT-45</b>	Intake Tunnel Extension	17901N 969003	-62.8	36.0	191.0	09 July '75	3	
<b>AIT-45A</b>	Intake Tunnel Extension	17893N 96810E	-58.3	38.0	186.0	23 July '75	3	
<b>AIT-45B</b>	Intake Tunnel Extension	17880N 96696E	-54.5	37.0	193.0	24 July '75		
<b>AIT-45C</b>	Intake Tunnel Extension	17865N 966011	-58.3	38.0	194.0	08 Aug '75	3	
AAIT-19	Alternate Tunnel Align- ment	17179N 92412E	-31.8	46.0	210.0	25 Jan '74	2	
AAIT-20	Intake Tunnel	17446N 92908E	-38.7	44.0	210.8	12 Feb '74	2	
AAIT-23	Intake Tunnel	<b>17405N</b> 9270713	-33.8	46.5	210.0	23 Jan '74	2	
AAIT-24	Alternate Tunnel Align- ment	16663N 922213	-27.6	23.0	53.5	01 Feb '74	2	



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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
AAIT-26	Alternate Tunnel Align- ment	16834N 92976E	-38.8	50.0	210.1	14 Feb '74	2	
ADT-1	Discharge Tunnel	20436N 80175E	+12.1	9.5	300.0	07 Sept '73	2	
ADT-2	Discharge Tunnel and Intake Tunnel	201668 80848~	+07.2	15.0	300.0	05 Oct '73	2	
ADT-3	Intake Tunnel	19853N 81686E	+05.4	31.5	300.0	27 Nou '73	2	
ADT-4	Intake Tunnel	195398 <b>82461E</b>	- 0.7	43.5	271.0	09 Oct '73	2	
ADT-5	Intake Tunnel	<b>19279N</b> 83172E	+ 4.2	54.0	271.0	15 Oct '73	2	
ADT-5A	Intake Tunnel	19129N 83560E	+ 5.2	90.5	292.5	19 Dec '73	2	
ADT-6	Alternate Tunnel Align- ment	19052N 842423	- 0.8	100.0	342.0	30 Aug '73	2	
ADT-7	Intake Tunnel	19002N 83901E	- 4.1	108.0	297.0	11 Oct '73	2	
ADT-7A	Intake Tunnel	18853N 84280E	- 3.7	99.0	287.0	14 Jan '74	2	
ADT-8	Intake Tunnel	18717N 84599E	+ 1.1	101.0	256.0	24 Sept '73	2	
ADT-9	Alternate Tunnel Align- ment	18313N 86427~	- 1.5	110.0	323.0	20 Aug '73	2	
ADT-10	Intake Tunnel	18410N 85422~	- 0.3	105.0	280.0	28 Nov '73	2	

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
<b>ADT-10A</b>	Intake Tunnel	182698 85784E	+ 0.1	121.5	275.0	04 Feb '74	2	
ADT-11	Intake Tunnel	18128N <b>86125E</b>	- 0.5	93.0	298.7	02 Oct '73	2	
<b>ADT-11A</b>	Intake Tunnel	17951N 86601E	- 1.8	64.3	270.0	16 Jan '74	2	
ADT-12	Intake Tunnel	<b>17781N</b> <b>87059E</b>	-10.3	103.5	240.3	18 Sept '73	2	
<b>ADT-12A</b>	Intake Tunnel	176628 <b>87344E</b>	-13.5	41.0	260.0	26 Dec '73	2	
ADT-13	Intake Tunnel	17458N <b>87897E</b>	- 8.5	18.8	228.0	29 Sept '73	2	
ADT-14	Discharge Tunnel and Intake Tunnel	17161N <b>88821E</b>	<b>+13.2</b>	25.5	288.0	29 Nov '73	2	Boring Inclined 17°
<b>ADT-15</b>	Discharge Tunnel	16941N 89285E	+ 7.7	47.0	240.0	04 Nov '73	2	
ADT-16	Discharge Tunnel	16553~ 90235E	- 9.1	38.0	243.6	14 Nov '73	FSAR Appendix 2D	
ADT-16A	Discharge Tunnel and Fault investigation	<b>16571N</b> 90280E	- 4.0	33.5	240.3	07 Jan '74	FSAR Appendix 2D	
ADT-16B	Discharge Tunnel and Fault investigation	16545N 90185E	- 8.3	36.3	240.0	14 Jan '74	FSAR Appendix 2D	
ADT-16C	Discharge Tunnel and Fault investigation	16493N 90257E	- 5.5	23.0	238.5	17 Jan '74	FSAR Appendix 2D	
ADT-16D	Discharge Tunnel and Fault investigation	16660N 902198	- 7.8	38.0	241.4	14 Nov '74	FSAR Appendix 2D	

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
ADT-17	Discharge Tunnel	16213N <b>91109E</b>	-14.8	102.3	260.8	06 Oct '73	2	
ADT-17A	Discharge Tunnel	16110N 91380E	-17.7	88.0	225.0	12 Dec '73	2	
<b>ADT-18</b>	Discharge Tunnel	<b>15967N 91745E</b>	-24.0	45.5	225.0	10 Nov '73	2	
ADT-19	Discharge Tunnel	15718N 92402E	-23.5	6.5	197.2	05 Nov '73	2	
ADT-20	Discharge Tunnel	15462~ 93063E	-40.6	10.0	175.1	07 Nov '73	2	
ADT-21	Discharge Tunnel	15208N 93723E	-51.6	43.0	190.3	04 Dec '73	2	
ADT-22	Discharge Tunnel	<b>19904N 94492E</b>	-55.4	54.0	179.9	28 Nov '73	2	
ADT-23	Discharge Tunnel	14879N 94561E	-58.6	41.0	72.5	01 Dec '73	2	
ADT-25	Discharge Tunnel	14931N 94418E	-54.5	59.0	92.0	30 Nov '73	2	
ADT-27	Discharge Tunnel	14637~ 947523	-59.0	10.0	170.0	12 Apr '74	2	
ADT-28	<b>Discharge</b> Tunnel	14526N <b>94809E</b>	-65.4	12.0	165.0	11 Apr '74	2	
ADT-29	Discharge Tunnel	<b>14374N 949151</b>	-47.0	0.0	180.7	11 Apr '74	2	
ADT-30	Discharge Tunnel	<b>14144N 95021E</b>	-63.8	23.0	164.3	05 Apr '74	2	
ADT-31	Discharge Tunnel	13891~ <b>95151E</b>	-53.6	0.5	91.2	21 Mar '74	2	
ADT-31A	Discharge Tunnel	13926N 95150E	-57.3	0.0	167.8	25 Mar '74	2	

<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
ADT-32	Discharge Tunnel	14862N 94622E	-58.8	27.0	169.8	07 Dec '73	2	
ADT-33	Discharge Tunnel and Intake Tunnel	20175N 80459E	+ 9.4	16.6	368.5	79 Mar '74	2	Boring Inclined 33°
ADT-34	Discharge Tunnel	<b>19977N</b> 81201E	+ 5.3	19.0	368.0	20 Mar '74	2	Boring Inclined 34°
ADT-35	Discharge Tunnel	19608N 81992B	- 3.0	40.5	40.5	26 Feb '74	2	
ADT-35A	Discharge Tunnel	<b>19631N</b> 81974E	- 2.3	37.5	300.0	07 Mar '74	2	
ADT-36	Discharge Tunnel	19364N 82706E	- 3.1	4.0	289.7	20 Mar '74	2	
ADT-37	Discharge Tunnel and Intake Tunnel	18947N 83394E	+ 5.3	84.0	354.0	22 Apr '74	2	Boring Inclined 33°
ADT-37A	Discharge Tunnel	18969N 83729E	+ 5.1	----	-----	15 Mar '74	2	Boring Abandoned
ADT-37B	Discharge Tunnel	18963N 83740E	+ 4.0	118.0	350.0	12 Apr '74	2	Boring Inclined 31°
ADT-38	Discharge Tunnel	18962N <b>84445E</b>	- 1.0	78.0	198.0	23 Apr '74	2	
ADT-39	Discharge Tunnel	18470N 85030E	- 1.5	102.0	280.5	19 Feb '74	2	
ADT-40	Discharge Tunnel and Intake Tunnel	<b>17384N</b> 88389E	<b>+12.4</b>	52.0	360.0	26 Apr '74	2	Boring Inclined 37°
ADT-41	Discharge Tunnel	17974N 86307E	- 1.3	60.0	275.0	21 Feb '74	2	
ADT-42	Discharge Tunnel	<b>17616N</b> 87273E	-13.5	40.0	260.0	29 Jan '74	2	

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
ADT-43	Discharge Tunnel	18275N 85525E	+ 0.3	106.0	276.0	08 Mar '74	2	
B-1	W of Turbine Bldg. II	<b>20440N</b> 78830E	<b>+19.2</b>	22.5	99.3	15 Oct '68	1	
B-2	SW Trench, S of' Containment I	20180N 79650E	<b>+14.1</b>	3.9	155.0	29 Oct '68	1	
B-3	~ 200' N of Turbine Bldg. I	21020N 793503	+ 5.5	32.5	100.0	06 Nov '68	1	
B-4	N of Site	22100N 78900E	+ 4.4	40.0	140.0	27 Nov '68	1	
B-5	S of Cooling Tower - Marsh	19900N 79300E	<b>+12.7</b>	13.0	33.0	02 Dec '68	1	
B-6	S of Site in Marsh (?)	19800N 79600E	+ 4.4	32.5	54.9	14 Dec '68	1	
B-J	W side Waste Process Bldg.	20200N 79400E	<b>+12.2</b>	14.0	34.5	18 Dec '68	1	
B-8	N of EFP Bldg. I	20520N 796208	<b>+30.9</b>	04.2	25.3	21 Dec '68	1	
B-9	E of Turbine Bldg. I	<b>20700N</b> 79670E	<b>+20.9</b>	04.0	28.0	31 Dec '68	1	
B-10	Approximately 100' NE of Turbine Bldg. I	<b>20980N</b> 797603	+ 6.7	31.0	51.3	08 Jan '69	1	
B-11	Approximately 250' E of Turbine Bldg. I	21010N 80120E	+ 5.4	35.8	59.6	18 Jan '69	1	
B-12	N of Pumphouse	20750N 79960E	<b>+12.8</b>	----	-----	-----	1	No Log
B-13	N of EFP Bldg. II	20380N 79180E	<b>+15.4</b>	11.0	31.0	20 Mar '69	1	

<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
B-14	SE Corner Admin. Bldg.	20500N 79330E	+18.1	8.0	28.0	19 Mar '69	1	
B-15	Heater Bay I	20740N 79480E	+18.0	11.0	31.0	13 Mar '69	1	
B-16	Fire Protection Water Tanks	20780N 78440E	+17.6	52.5	72.2	20 Feb '69	1	
B-17	N end of Site	21400N 78900E	+16.2	60.0	160.0	12 Mar '69	1	
B-18	~ 325' W of Turbine Bldg. II	20460N 78330E	+20.7	22.5	42.5	14 Feb '69	1	
B-19	N end of Site	21350N 78900E	+15.9	47.0	67.0	26 Mar '69	1	
B-20	N end of Site	21325N 78900E	+ 6.4	34.0	100.0	28 Mar '69	1	
B-21	N end of Site	21800N 78900E	+ 9.4	50.0	150.0	31 Jan '69	1	
B-22	NW of Turbine Bldg. II	20630N 78900E	+11.4	2.5	68.5	08 Apr '69	1	
B-23	N end of Site	21600N 78900E	+10.2	76.0	176.0	18 Feb '69	1	
B-24	N end of Site	21200N 78920E	+12.4	21.0	121.0	24 Feb '69	1	
B-25	SW Trench S of Containment I	20200N 79770E	+18.5	9.0	20.0	24 Jan '69	1	
B-26	Just SW of SW Pumphouse	203208 79920E	+24.1	3.0	23.0	23 Jan '69	1	
B-27	Shaft Transition Area	20570N 80070E	+15.6	6.0	26.0	20 Jan '69	1	

<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
B-28	Center Turbine Bldg. II	20580N 79070E	+19.0	4.0	23.8	11 Feb '69		
B-29	Approximately 250' E of Turbine Bldg, I	20830N 80240E	+ 5.8	42.6	62.5	24 Jan '69		
B-30	W side Control Bldg. II	20270N 78970E	+18.5	7.0	27.0	10 Mar '69		
B-31	Containment I NE quadrant	20440N 79720E	+29.9	3.0	23.0	13 Mar '69		
B-32	NW of Turbine Bldg. II	20680N 78750E	+19.0	9.3	29.8	24 Feb '69		
B-33	Approximately 50' N of Rubine Bldg. I	20920N 79470E	+10.0	18.0	37.8	29 Jan '69		
B-34	Approximately 200' N of Admin. Bldg.	21010N 79210E	+06.3	49.6	69.8	05 Feb '69		
B-35	Approximately Center Turbine Bldg. I	20650N 79540E	+21.5	2.5	41.5	12 Mar '69		
B-36	SE Corner of Turbine Bldg. I	20540N 79575E	+27.4	2.0	67.5	02 Apr '69		
B-37	Containment I NW quadrant	20420N 79625E	+24.4	6.0	46.5	19 Mar '69		
B-38	NE of Containment I CW Trench	20550N 79750E	+32.6	2.3	150.0	13 Mar '69		
B-39	E of Containment I	20455N 797803	+31.9	1.5	70.5	28 Mar '69		
B-40	E of Turbine Bldg. I	20680N 79700E	+26.2	2.5	66.5	24 Mar '69		

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
B-41	NE of Containment I CW Trench	20580N 79825E	<b>+27.6</b>	6.8	67.6	<b>18 Mar '69</b>	1	
B-42	N end of Site	21300N 78900E	<b>+14.3</b>	44.0	164.0	20 Mar '69	1	
B-43	N end of Site	21300N 78550E	<b>+26.2</b>	<b>39.0</b>	59.0	17 Mar '69	1	
B-44	N end of Site	21450N 78380E	<b>+23.2</b>	77.0	<b>100.0</b>	01 Mar '69	1	
B-45	N end of Site	<b>21500N</b> 78500E	<b>+21.1</b>	94.5	114.5	08 Apr '69	1	
B-46	N end of Site	21630N 78500E	<b>+13.3</b>	77.0	99.3	23 Apr '69	1	
B-47	N end of Site	20840N 79740E	<b>+12.2</b>	8.5	28.5	24 July '69	1	
B-48	NE quadrant Turbine Bldg. I	20800N 79600E	<b>+13.2</b>	5.5	26.0	25 July '69	1	
C-1	Old Cooling System Design	21060N 80350E	<b>+ 4.9</b>	22.0	22.0	27 Jan '69	1	
c-2	<b>Old</b> Cooling System Design	21050N 80850E	<b>+ 4.2</b>	50.0	50.0	30 Jan '69	1	
c-3	Old Cooling System Design	21830N <b>81000E</b>	<b>+ 4.7</b>	50.0	50.0	28 Jan '69	1	
c-4	Old Cooling System Design	<b>21020N</b> 81350E	<b>+ 4.0</b>	50.0	50.0	31 Jan '69	1	
c-5	Old Cooling System Design	22570N 81620E	<b>+ 4.5</b>	33.0	33.0	28 Jan '69	1	
C-6	Old Cooling <b>System</b> Design	<b>20990N</b> 81850B	<b>+ 4.8</b>	50.0	50.0	03 Feb '69	1	



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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
c-7	Old Cooling System Design	22300N 82557E	+ 4.9	50.0	50.0	14 Feb '69	1	
C-8	Old Cooling System Design	<b>20990N</b> 82330E	+ 4.8	50.0	50.0	04 Feb '69	1	
c-9	Old Cooling System Design	21900N 83450E	+ 4.5	50.0	50.0	13 Feb '67	1	
<b>C-10</b>	Old Cooling System Design	<b>20850N</b> 82835E	+ 4.3	50.0	50.0	05 Feb '69	1	
c-11	Old Cooling System Design	21200N 84150E	+ 4.5	50.0	50.0	13 Feb '69	1	
c-12	Old Cooling System Design	<b>20675N</b> 83230E	+ 4.0	50.0	50.0	15 Feb '69	1	
c-13	Old Cooling System Design	20500N 84870E	+ 4.5	50.0	50.0	12 Feb '69	1	
c-14	Old Cooling System Design	<b>20450N</b> 83275~	+ 4.0	50.0	50.0	12 Feb '69	1	
c-15	Old Cooling System Design	19800N <b>85580E</b>	+ 0.4	50.0	50.0	18 Feb '69	1	
C-16	Old Cooling System Design	19930N 85860E	+ 2.1	-----	-----	-----	1	No Log
c-17	Old Cooling System Design	19540N 86050E	+ 2.6	50.0	50.0	20 Feb '69	1	
C-18	Old Cooling System Design	19200N 86450E	-----	50.0	50.0	19 Mar '69	1	
c-19	Old Cooling System Design	18890N 86840E	-----	50.0	50.0	19 Mar '69	1	
c-20	<b>Old</b> Cooling System Design	18590N 87230E	0.0	50.0	50.0	20 Mar '69	<b>1</b>	

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
c-21	Old Cooling System Design	18250N 87600E		50.0	50.0	17 Mar '69		
c-22	Old Cooling System Design	18000N 880403	+16.2	50.0	50.0	13 Feb '69	1	
C-23	Old Cooling System Design	17800N 88500E	+14.0	50.0	50.0	17 Feb '69	1	
c-24	Old Cooling System Design	17600N 88950E	+14.0	50.0	50.0	18 Feb '69	1	
C-25	Old Cooling System Design	17410N 89400E	+10.0	50.0	50.0	03 Apr '69	1	
C-26	Old Cooling System Design	17750N 87760E	0.0	50.0	50.0	20 Mar '69	1	
c-27	Old Cooling System Design	20178N 841708	+ 4.0	50.0	50.0	08 Feb '69		
C-28	Old Cooling System Design	20020N 84560E	+ 3.9	50.0	50.0	06 Feb '69	1	
C-29	Old Cooling System Design	19745N 85000E	+ 4.0	50.0	50.0	07 Feb '69	1	
c-30	Old Cooling System Design	19520N 85520E	+ 2.9	50.0	50.0	17 Feb '69	1	
c-31	Old Cooling System Design	19290N 85950E	+ 2.3	50.0	50.0	21 Feb '69	1	
C-32	Old Cooling System Design	20970N 80470E	+ 5.1	30.5	43.0	06 Mar '69	1	
c-33	Old Cooling System Design	20850N 807808	+ 3.6	30.5	30.5	24 Mar '69	1	
c-34	Old Cooling System Design	20750N 81000E		44.0	44.0	24 Mar '69	1	

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
c-35	old Cooling System Design	<b>20640N</b> 81305E	+ 4.3	38.0	38.0	11 Mar '69	1	
C-36	Old Cooling System Design	20800N 80500E	+ 4.5	10.0	15.0	09 Mar '69	1	
c-37	Old Cooling System Design	20710N 80740E	+ 4.3	2.0	07.0	10 Mar '69	1	
C-38	Old Cooling System Design	20540N 80930E	t 5.2	16.5	18.5	10 Mar '69	1	
c-39	Old Cooling System Design	<b>20530N</b> 81200E	+ 4.0	30.0	30.0	11 Mar '69	1	
c-40	<b>Old</b> Cooling System Design	<b>20480N</b> 81700E	+ 4.8	44.4	44.4	03 Apr '69	1	
c-41	<b>Old</b> Cooling System Design	<b>20350N</b> 816503	+ 4.7	35.0	35.0	03 Apr '69	1	
C-42	Old Cooling System Design	<b>20290N</b> 81160E	+ 4.6	30.0	30.0	04 Apr '69	1	
c-43	Old Cooling System Design	20110N 82620E	+ 4.5	30.0	30.0	04 Apr '69	1	
c-44	Old Cooling System Design	20050N 83000E	+ 3.8	32.0	32.0	28 Mar '69	1	
c-45	Old Cooling System Design	19920N 83095E	+ 2.1	34.0	34.0	28 Mar '69	1	
C-46	Old Cooling System Design	19830N 83320E	+ 4.0	33.3	33.3	31 Mar '69	1	
c-47	Old cooling System Design	19740N 83550E	+ 4.0	43.0	43.0	31 Mar '69	1	
c-40	Old Cooling System Design	19650N 83800E	+ 4.1	50.0	50.0	01 Apr '69	1	

<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
c-49	Old Cooling System Design	19550N 84020E	+ 4.0	50.0	50.0	02 Apr '69	1	
c-50	Old Cooling System Design	20290N 828853	+ 3.9	31.0	31.0	02 Apr '69	1	
c-51	Old Cooling System Design	20050N 83150E	+ 3.7	15.0	20.0	Apr '69	1	
c-52	Old Cooling System Design	19960N 83380E	+ 4.0	21.0	21.0	26 Mar, '69	1	
c-53	Old Cooling System Design	19860N 83600E	+ 4.0	36.6	36.6	26 Mar '69	1	
c-54	Old Cooling System Design	19780N 83820E	+ 4.0	50.0	50.0	01 Apr '69	1	
c-55	Old Cooling System Design	19780N 83050E	+ 3.8	40.0	40.0	27 Mar '69	1	
C-56	Old Cooling System Design	19690N 83260E	+ 4.1	38.0	38.0	27 Mar '69	1	
c-57	Old Cooling System Design	19350N 844853	+ 0.5	50.0	50.0	27 Mar '69	1	
C-58	Old Cooling System Design	19180N 84950E	+ 0.1	50.0	50.0	27 Mar '69	1	
c-59	Old Cooling System Design	19000N 85420E	+ 0.5	50.0	50.0	26 Mar '69	1	
C-60	Old Cooling System Design	18820N 85860E	+ 3.8	50.0	50.0	25 Mar '69	1	
C-61	Old Cooling System Design	18510N 86290E	-----	50.0	50.0	25 Mar '69	1	
C-62	Old Cooling System Design	18350N 86800E	0.0	50.0	50.0	24 Mar '69	1	

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
c-63	Old Cooling System Design	18200N 87280E	0.0	50.0	50.0	24 Mar '69		
C-64	Old Cooling System Design	17900N 88270E	+17.8	50.0	50.0	31 Mar '69		
C-65	Old Cooling System Design	17700N 88730E	+13.7	50.0	50.0	01 Apr '69	1	
C-66	Old Cooling System Design	17500N 89180E	+13.3	38.0	38.8	01 Apr '69	1	
C-67	Old Cooling System Design	19845N 82000E	+ 4.5	31.0	31.0	11 Apr '69	1	
C-68	Old Cooling System Design	19650N 82440E	+ 3.9	39.6	32.6	11 Apr '69		
C-69	Old Cooling System Design	19345N 83130E	+ 4.1	39.9	39.9	09 Apr '69		
c-70	Old Cooling System Design	19125N 835953	+ 4.0	50.0	50.0	09 Apr '69		
c-71	Old Cooling System Design	19780N 81370E	+ 4.7	40.5	40.5	22 July '69	1	
C-72	Old Cooling System Design	19550N 81890E	+ 3.6	52.0	52.0	18 July '69		
c-73	Old Cooling System Design	19480N 82310E	+ 4.8	52.0	52.0	21 July '69	1	
c-74	Old Cooling System Design	19140N 82640E	- 4.4	42.8	42.8	16 July '69	1	
c-75	Old Cooling System Design	18620N 82810E	- 3.0	52.0	52.0	15 July '69	1	
C-76	Old Cooling System Design	18460N 83240E	- 1.0	52.0	52.0	15 July '69		

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
C-77	Old Cooling System Design	18690N <b>83650E</b>	- 1.0	52.5	52.5	14 July '69	1	
C-78	Old Cooling System Design	18910N 840503	- 1.0	52.0	52.0	11 July '69	1	
D1-1	SW Trench, between Units I & II	79373E <b>20093N</b>	+ 9.8	16.5	124.0	04 Dec '72	<b>FSAR</b> Appendices <b>2D</b> and <b>2J</b>	
D1-3	SW of Containment II	793103 20218N	<b>+14.0</b>	11.0	65.50	04 Dec '72	" "	
D1-4	(E of) Fuel Storage Bldg. II	<b>79278E</b> <b>20122N</b>	t11.4	15.5	<b>170.00</b>	27 Nov '72	" "	
D1-5	SW Trench N of Cooling Tower	792503 <b>20027N</b>	t16.6	15.3	65.4	24 Nov '72	" "	
D1-6	S of Primary Auxiliary Bldg. II	79156E <b>20054N</b>	<b>+19.2</b>	11.5	33.0	27 Nov '72	" "	
D 1 - 7	Fuel Storage Bldg. II, center	<b>79110E</b> <b>20192N</b>	i-14.3	14.5	118.7	11 Nov '72	" "	
D1-8	Center of Contain- ment II	<b>79213E</b> 20245~	<b>+15.9</b>	<b>9.0</b>	29.5	<b>05 Dec</b> '72	" "	
D1-9	Primary Auxiliary Bldg. II	79060E 20083N	<b>+20.8</b>	1.5	24.5	28 Nov '72	" "	
<b>D1-10</b>	Primary Auxiliary Bldg. II	79088E 20189N	<b>+19.2</b>	8.0	112.00	06 Dec '72	" "	
D1-11	WSFPC II, N end	791163 <b>20276N</b>	<b>+13.8</b>	11.5	<b>65.0</b>	07 Dec '72	" "	
<b>D1-12</b>	Tank Farm II	78963E <b>20111N</b>	<b>+23.9</b>	6.5	29.5	29 Nov '72	" "	
<b>D2-1</b>	DG Bldg. II	78896E 20234N	t21.2	6.0	31.0	06 Dec '72	" "	
<b>D2-3</b>	N of DG Bldg II	<b>78829E</b> 20360 N	<b>+19.4</b>	25.2	60.0	26 Nov '72	" "	

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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
D2-4	Just W of Unit II	78800E 20264N	+16.7	19.0	171.0	24 Nov '72	FSAR Appendices 2D and 2J	
D2-5	Just W of Unit II	78775E 20167N	+16.5	6.5	65.0	01 Dec '72	" " "	
D2-7	Just W of Unit II	78730E 20283N	+16.7	24.5	125.0	28 Dec '72	" " "	
E1-1	Containment I, Center	79677E 20398N	+28.9	0.0	150.1	26 Dec '72	" " "	
E1-2	Control Bldg. I, Center	79500E 20450N	+21.4	6.5	27.2	12 Dec '72	" " "	
E1-3	W side DG Bldg. I	79350E 20400N	+15.2	16.5	42.0	13 Dec '72	" " "	
E1-4	Fuel Storage Bldg. I, Center	79698E 20297N	+20.2	1.5	105.0	19 Dec '72	" " "	
E1-5	Center of Primary Auxiliary Bldg.	79551E 20296N	+16.0	6.5	108.0	19 Dec '72	" " "	
E1-6	N end of Waste Process Bldg.	79400E 20300N	+14.3	1.5	24.0	19 Dec '72	" " "	
E2-1	Containment II, Center	79201E 20247N	+15.9	6.5	159.2	13 Dec '72	" " "	
E2-2	NE of Containment II	79272E 20355N	+13.7	11.5	32.5	14 Dec '72	" " "	
E2-3	W side of Turbine Bldg. II	79002E 20409N	+19	35.0	52.0	04 Dec '73	1	
E2-4	E side of Turbine Bldg. II	79170E 20508N	+18	5.0	26.0	05 Dec '73	1	
E2-5	NE quad Contain- ment II	79212E 20277N	+18	8.0	97.8	29 Apr '74	1	
E2-6	SW corner of PAB I	79551E 20203N	+12	16.9	42.5	06 May '74	1	
E2-7	N end of PAB I	795523 20374N	+17	13.5	115.2	13 May '74	1	

<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
E2-8	SE corner of Cooling Tower	79370E 19997N	+10	7.0	70.0	08 May '74	1	
E2-9	S of Unit I	79568E 20115N	+9	15.0	70.0	01 May '74	1	
E2-10	S of Unit I	79580E 20060N	+8	7.0	70.0	03 May '14	1	
E2-11	Containment I Perimeter	20435E 796118	+25.0	17.7	168.0	27 June '74	FSAR Appendix 2F	Boring Inclined About 40°
E2-12	Containment I Perimeter	20334E 79642 N	+21.5	1.0	165.5	18 June '74	" "	Boring Inclined About 40°
E2-13	Containment I Perimeter	20365E 79745N	+30.5	0.0	169.0	03 July '74	" "	Boring Inclined About 40°
E2-14	Containment I Perimeter	20467E 79713N	+29.9	3.0	166.0	19 June '74	" "	Boring Inclined About 40°
E2-15	Containment II Perimeter	20321E 79179 N	+13.9	11.5	165.0	05 June '74	" "	Boring Inclined About 40°
E2-16	Containment II Perimeter	20227N 79130E	+16.8	9.5	165.2	29 May '74	FSAR Appendix 2F	Boring Inclined About 40°
E2-17	Containment II Perimeter	20117N 79224E	+13.3	19.0	165.0	05 June '74	FSAR Appendix 2F	Boring Inclined About 40°
E2-18	Containment II Perimeter	20270N 79272E	+14.9	14.0	168.0	28 May '74	FSAR Appendix 2F	Boring Inclined About 40°
E2-27	N side of Cooling Tower	79158 E 19990 N	+19	2.5	79.8	15 May '74	1	
E2-28	S side of Cooling Tower	79180E 19930N	+18	1.0	101.8	16 May '74	1	



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<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Referenced</u>	<u>Remarks</u>
F-1'	Alternate Tunnel Align- ment	17600N 86700E	- 3.0	9.5	9.0	17 Apr '73	2	
<b>F-1A</b>	Alternate Tunnel Align- ment	17600N 86694E	- 3.0	15.0	143.8	25 Apr '73	2	
F-2	Alternate Tunnel Align- ment	19189N <b>86875E</b>	- 1.4	13.8	264.4	15 May '73	2	
F-3	Alternate Tunnel Align- ment	19374N 88446E	+ 9.4	87.5	298.8	07 June '73	2	
F-4	Alternate Tunnel Align- ment	18311N 88393E	<b>+16.8</b>	135.3	329.6	02 July '73	<b>FSAR</b> Appendix	2D
F-5	Alternate Tunnel Align- ment	18332N 884303	<b>+15.7</b>	121.3	319.5	31 July '73	2	
F-6	Alternate Tunnel Align- ment	18450N 87945E	- 1.5	124.2	339.0	09 Aug '73	2	
G-1	Fuel Oil Storage Tank	29690N 78370E	<b>+17.3</b>	16.5	16.5	30 Sept '74	FSAR Appendix	21
G-2	Settling Basin Inlet	21380N 78900E	<b>+15.9</b>	14.5	14.5	01 Oct '74	<b>FSAR</b> Appendix	<b>2I</b>

<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
G-3	Settling Basin Outlet	21717N 78949E	+ 9.4	34.8	34.8	01 Oct '74	FSAR Appendix 21	
G-4	Settling Basin	215718 78992E	+ 9.6	22.5	22.5	03 Oct '74	" " "	
G-5	Site Retaining Wall	20969N 79525E	+ 7.8	9.7	09.7	03 Oct '74	" " "	
G-6	Site Retaining Wall	20949N 79349E	+ 8.2	19.5	19.5	03 Oct '74	" " "	
G-7	Site Retaining Wall	20932N 79175E	+ 8.6	23.2	23.2	03 Oct '74	" " "	
G-8	Site Retaining Wall	21006N 79107E	+ 7.3	19.0	19.0	07 Oct '74	" " "	
G-9	Concrete Seawall	20123N 79720E	+ 9.5	10.5	25.5	09 Oct '74	" " "	
G-10	Concrete Seawall	20083N 78587E	+ 7.9	6.5	22.0	08 Oct '74	" " "	
G-11	Concrete Seawall	20042N 79455E	+ 6.8	15.9	31.0	10 Oct '74	" " "	
G-12	Revetment Seawall	19898N 78500E	+ 7.2	11.0	11.0	10 Oct '74	" " "	
G1	Falling Head Permeability	21882N 782913	+16.4	----	----	-----	FSAR Appendix 21	No Log
G2	Falling Head Permeability	21412N 77959E	+25.4	74.0	84.0	27 Jan '69	" " "	
G3	Falling Head Permeability	20436N 77489E	+35.4	11.0	21.0	19 Feb '69	" " "	
G4	Falling Head Permeability	19989N 77116E	+30.1	5.0	15.0	20 Feb '69	" " "	
G5	Falling Head Permeability	19200N 76420E	+40.4	65.0	78.0	04 Mar '69	" " "	

<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
<b>OC1A</b>	Containment I	20413N <b>79671E</b>	<b>+28.0</b>	0.2	46.6	03 July '73	FSAR Appendix 2H	<b>Overcore</b> Hole
<b>P1</b>	Old Cooling System Design	Offshore	- 2.0	42.0	42.0	28 May '69	1	
P2	Old Cooling System Design	Offshore	- 9.0	37.5	36.5	11 June '69	1	
P3	Old Cooling System Design	Offshore	-12.0	74.5	74.5	14 June '69	1	
<b>P4</b>	Old Cooling System Design	Offshore	-15.0	14.1	14.1	04 June '69	1	
P5	Old Cooling System Design	Offshore	-23.0	24.8	24.8	10 June '69	1	
P6	Old Cooling System Design	Offshore	-31.5	48.0	48.0	10 June '69	1	
P7	Old Cooling System Design	Offshore	-38.5	25.0	25.0	15 June '69	1	
P8	Old Cooling System Design	Offshore	-44.0	46.0	46.0	10 June '69	1	
<b>P9</b>	Old Cooling System Design	Offshore	-40.0	17.0	17.0	<b>11</b> June '69	1	
<b>P10</b>	Old Cooling System Design	Offshore	-40.0	21.0	21.0	15 June '69	1	
<b>P11</b>	Old Cooling System Design	Offshore	-19.0	18.5	18.5	14 June '69	1	
PF-1	Portsmouth Fault Investigation	Greenland, NH	<b>+79.1</b>	0.5	267.0	21 Mar '74	FSAR Appendix 2C	Boring Inclined <b>48°</b>
PF-2	Portsmouth Fault Investigation	Greenland, NH	<b>+62.0</b>	65.0	271.0	24 July '74	<b>FSAR</b> Appendix 2C	Boring Inclined <b>40°</b>

CONTINUED: Page 26

<u>Boring No.</u>	<u>Purpose</u>	<u>Location/ Coordinates</u>	<u>Ground Elevation</u>	<u>Soil Bored (Ft)</u>	<u>Total Depth (Ft)</u>	<u>Date Completed</u>	<u>Reference</u>	<u>Remarks</u>
PF-3	Portsmouth Fault Investigation	Greenland, NH	<b>+61.8</b>	40.0	50.0	30 July '74	FSAR Appendix 2C	
PF-3A	Portsmouth Fault Investigation	Greenland, NH	<b>+61.8</b>	80.0	204.3	08 Aug '74	" "	"
SRF-1	Scotland Rd Fault Investigation	Newbury, MA	<b>+18.1</b>	13.0	79.0	06 Dec '73	" "	"
SRF-2	Scotland Rd Fault Investigation	Newbury, MA	<b>+17.6</b>	50.5	77.5	10 Dec '73	" "	"
SRF-3	Scotland Rd Fault Investigation	<b>Newbury,</b> MA	<b>+17.9</b>	42.0	95.0	19 Dec '73	" "	"
SRF-4	Scotland Rd Fault Investigation	Newbury, MA	<b>+17.6</b>	60.0	96.0	03 Jan '74	" "	"
SRF-5	Scotland Rd Fault Investigation	<b>Newbury,</b> MA	<b>+17.6</b>	34.0	197.7	08 Jan '74	" "	" Boring Inclined 45°
SRF-6	Scotland Rd Fault Investigation	<b>Newbury,</b> MA	<b>+17.8</b>	53.0	58.0	08 Jan '74	" "	"
SRF-7	Scotland Rd Fault Investigation	Newbury, MA	<b>+17.5</b>	65.5	255.0	18 Jan '74	" "	" Boring inclined 45°
SRF-8	Scotland Rd Fault Investigation	Newbury, MA	<b>+17.6</b>	49.0	172.0	19 Feb '74	" "	"
SRF-9	Scotland Rd Fault Investigation	Newbury, <b>MA</b>	<b>+17.8</b>	57.0	118.3	03 Jan '74	" "	"

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 99.2'

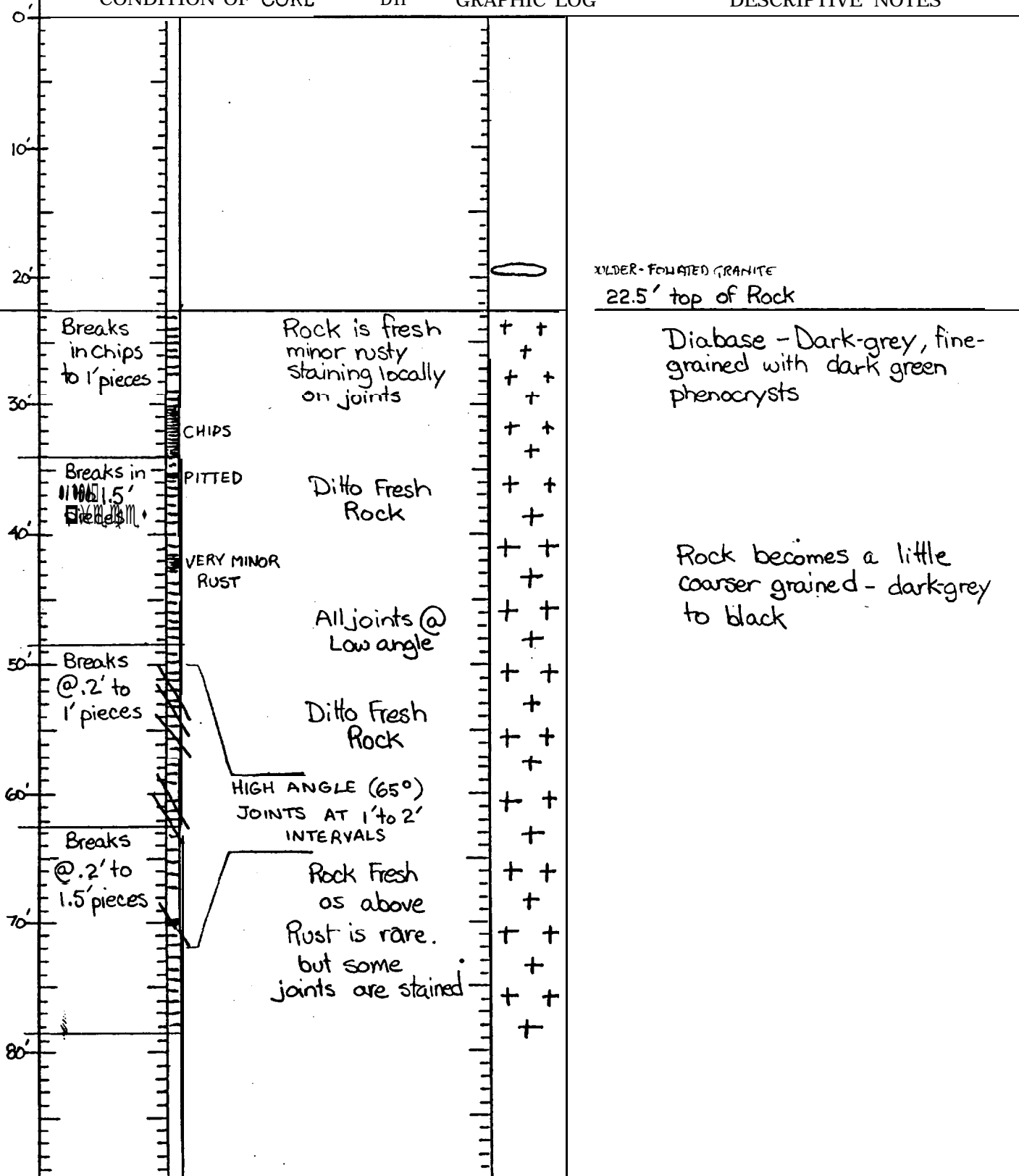
Logged By: J. R. Rand 7/10/72

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES



PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 99.2'

Logged By: J. R. Rand 7/10/72

	CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
60'				
70'				
80'	Breaks @ .1' to 1.5' pieces	Rusty	Rock is fresh. Good drilling. locally is minor rust. Stained on joints	Diabase - Dark-grey, fine-grained with small dark green phenocryst speckling
90'	Breaks @ chips to .8' pieces	Rusty Rusty Rusty Rusty	Rock is fairly fresh to fresh. local rust on joints	Diabase - Dark-grey, fine grained with small dark- green phenocryst speckling
100'				99.2' Bottom of Hole
110'				

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 34.3'

Logged By: J. R. Rand 7/12/72

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES

0'

10'

20'

30'

40'

Breaks  
@ Chips  
to 1.4'  
pieces

CHIPS

CHIPS

CHIPS

Breaks  
@ 1' to 1'  
pieces

Rock moderately  
weathered. Rusty  
stained. Minerals  
discolored. Rock  
is fairly fresh, 80°  
showing rusty  
staining only on  
partings.

Rock is fresh with  
only minor rusty  
staining on some joints.

x x

x x x

~ ~ ~

~ ~ ~

~ ~ ~

~ ~ ~

~ ~ ~

~ ~ ~

~ ~ ~

~ ~ ~

~ ~ ~

13' Top of Rock

Diorite - coarse grained, light grey  
Porphyritic

Mica Schist - very fine grained  
Grey. wavy foliation.

Steep dip to foliation. (80°)  
Locally fine quartzitic rock.

Schist - fine grained grey mica

Schist - sub-vertical foliation

34.3' Bottom of Hole

PROJECT SEABROOK

STATION

DDH B-8

PAGE 1 of 1

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 25.4'

Logged By: J. R. Rand 7/11/72

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES

4.2' Top of Rock

Breaks  
@ chips  
to .8'  
pieces

CHIPS

Rock is fresh  
with only minor  
rusty staining,  
slight mineral  
discoloration on  
some joints

X X X

COARSE

Diorite, fine-grained, Dark-  
grey, massive, with local  
intermix of coarse-grained  
light grey porphyritic diorite.

CHIPS

CHIPS

CHIPS TO  
.6' pieces

CHIPS

Slight to moderate  
weathering, Rust,  
DISCOLORED

X X X

COARSE

X X X

COARSE

At base fine diorite is dis-  
colored to dull brown,  
(mod. weathering)

25.4' Bottom of Hole



PROJECT SEABROOK STATION DDH B-13 PAGE 1 of 1

HOLE LOCATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

BEARING \_\_\_\_\_ INCLINATION \_\_\_\_\_ DEPTH 31.0'

Logged By: J. R. Rand 7/11/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			
10'			11' Top of Rock
Breaks @.1' to 2' pieces	Rock is fresh, Only minor rusty staining locally on joints. Joints @ 30° and 60° dips Rock is fresh Minor Rust Stains		Diorite, intermixed dark grey, fine grained rock and coarser grained, porphyritic light grey rock.
20'	Rusty		COARSE
Rusty			COARSE
30'	2' to .6' pcs.		Predominantly a fine-grained rock type.
			MEDIUM DARK GREY FINE-GRAIN DIORITE
			31' Bottom of Hole
40'			

PAGE | of |

STATION

ELEVATION

## INCLINATION

DEPTH 28.0'

Logged By: J. R. Rand 7/11/72

DIP

DESCRIPTIVE NOTES

o'

10'

20'

32

40'

8' Top of Rock

Breaks  
@ Chips  
to 1.2'  
pieces

RUSTY  
SHIPS

CHIPS

SHIPS

.1' to .8'  
pieces

Rock is fairly fresh, with only slight weathering on veinlets, and minor rusty stains on joints

Rock is fresh

COARSE

COARSE

COARSE

COARSE

Diorite, Dark-grey,  
Fine-grained type predominates

Diorite, mixed dark grey,  
Fine-grained in light grey,  
Coarse-grained porphyritic

8' Bottom of Hole.

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 31.0'

Logged By: J. R. Rand 7/10/72

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES

0					Top of Rock 4' (?)
CHIPS ONLY (may be boulder zone)		May be boulder zone, rock is moderately weathered with dark brown rusty staining	x x x x x x x x x		Porphyritic Diorite (boulder?)
10	chips to .2'		+ + + + +		Diabase Dike(?) or Diabase boulder(?)
.5 to 1.5' pieces	70° joint 60° joint Rusty	Rock is fresh, No rust, joints not slickensided	x x x x x x x x x x x x		Possible TRUE TOP OF ROCK: 13'
20	Diabase @ .1' to 1' intervals	Rock is fresh minor rust as shown	x x x x x x x x x x x x x x x		Bedrock: porphyritic diorite with local zones of medium grey, fine grained diorite.
30	Rusty pitted				80° Min. Silicified zone
31					31' Bottom of Hole
40					

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 160.0'

Logged By: J . R . Rand

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
30'			
40'			
50'			
60'			50' Top of Rock
Core breaks in chips to .3' pieces throughout	Rock is slightly to moderately weathered, Local decomposition, some rusty staining on partings	35° 45°	Metasediment - feldspathic schist, locally quartzitic light grey fine grained rock - evenly foliated.
70'			
80'			
90'			

PROJECT SEABROOK STATION

HOLE LOCATION ELEVATION

BEARING INCLINATION DEPTH 160.0'

Logged By: J. R. Rand

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
80'			
90'			
Breaks @ chips to .2' pieces throughout		Rock is moderately weathered throughout, somewhat softened, bleached, with dull iron staining on joints, tan bleaching in micas. Poor coring rock	Metasediment - fine-grained feldspathic schist, locally light grey quartzitic
100'	40°		
110'	45°		
Breaks @ chips to .4' pieces throughout		Moderately weathered rock, somewhat bleached, Vuggy along foliation planes, Some light rusty staining	Fine-grained, light grey feldspathic schist - Fairly evenly foliated rock
120'	45°	Chips throughout	
130'	50°		
Breaks @ chips to .8' pieces		Moderately to slightly weathered rock	Feldspathic schist - locally interlayered with 1/4" quartzite beds
140'	50°	CHIPS	
150'	50°		
Chips to .6' pieces		Rock become fairly fresh	Feldspathic schist, light grey, fine grained.
160'	55°	CHIPS	
		Rock is fairly fresh, minor rust on partings	
			160' Bottom of Hole

PROJECT SEABROOK STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 67.0'

Logged By: J. R. Rand 7/10/72

0'	CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
10'				
20'				
30'				
40'				
50'				
60'				
70'				
80'				
90'				
100'				

Foliation  
Dip

47' Top of Rock

Rock  
Broken  
@ Chips  
to .3'  
piecesOCCA-  
SIONALLY  
VUGGYRock is slightly  
weathered, dis-  
colored through-  
out, minor  
staining on  
joints and  
partingsMetasedimentary Rock  
feldspathic (quartzitic?) schist.  
Foliation wavy, variable.  
Light grey, fine-grained -  
Rock breaks both on foliation  
and across core.


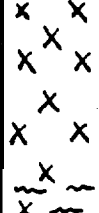


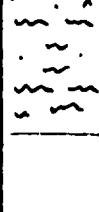
7' Bottom of Hole

PROJECT SEABROOK STATION

HOLE LOCATION ELEVATION

BEARING INCLINATION DEPTH 1000 b'

Logged By: J. R. Rand 7/11/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
20'			
30'			
40'			34' Top of Rock
CHIPS TO 4' pieces throughout	50°		Predominantly metasediment. Quartzitic to feldspathic schist, fine-grained (bleached due to weathering), locally interlayered with bleached decomposed coarse-grained diorite(?)
50'			
No appreciable rusty staining			
60'			
Rock has little strength	50°		TRANSITIONAL (INTRUSIVE) CONTACT Diorite, coarse-grained porphyritic Bleached to light tannish grey, locally layered,
Breaks @ chips to 5' pieces throughout	45°		Gradational into feldspathic, quartzitic schist, light-grey Fine to medium fine grained
CHIPS			
70'			
Rock is moderately weathered, breaks on and across foliation. No rust, but dull powdery stain on joints.	50°		
CHIPS			
80'			
CHIPS			
90'			
Breaks @ chips to .6' pieces	50°		Metasediment - feldspathic schist, fairly fine-grained, evenly foliated. light to medium grey micas locally discolored to tan brown
CHIPS			
100'			100' Bottom of Hole

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 150.0'

Logged By: J. R. Rand 7/11/72  
7/12/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			
10'			
20'			
30'			
40'			
50'			
60'			
70'			
80'			

Note: Smooth or polished surfaces seen on occasional joint planes. Not characteristic of whole rock.

Boulder zone: mixed diorite, granite and dark-grey massive quartzite boulders

32'

50' Base of Boulders - Top of Rock

Breaks @ Chips to .5' pieces

CHIPS

Rock is slightly weathered, some rusty staining on joints and partings, minor solution effects

Schist - feldspathic, locally quartzitic. Light-grey, fine-grained evenly foliated rock

HIPS

SLICKENSIDES

HIPS

CHIPS

CHIPS

CHIPS

Quartzitic

Feldspathic

Chips to 1' pieces

Rock is fairly fresh throughout minor powdery stains on partings

Minor slickensides on joints

Schist - quartzitic Fine-grained, light grey evenly foliated.



PROJECT SEABROOK STATION \_\_\_\_\_

DDH B-21

PAGE 2 of 2

HOLE LOCATION \_\_\_\_\_

ELEVATION \_\_\_\_\_

BEARING \_\_\_\_\_

INCLINATION \_\_\_\_\_

DEPTH 150.0'

Logged By: J. R. Rand 7/12/72

70	CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
80'	Breaks @ Chips to .2' pieces throughout	CHIPS	Rock is fairly fresh but poor drilling — Parts on both joints and partings	Schist, feldspathic as below
90'		CHIPS	Local minor rust staining	
100'	Breaks @ Chips to .6' pieces throughout	CHIPS	Rock is fairly fresh throughout locally subject to Rusty staining on joints and partings	Schist, feldspathic, may be quartzitic locally. Fine-grained, light grey Evenly foliated
110'		CHIPS		
120'	Breaks @ Chips to .8' pieces	CHIPS	Rock is fairly fresh throughout, subject to light staining on joints and partings	Schist, feldspathic, light grey, fine grained. Local feldspar stringers Rock is evenly foliated Quartzitic/Feldspathic
130'		CHIPS STAINED SLICKENSIDES	Some joints show slickensides covered with powder coating	
140'	Breaks @ Chips to .6' pieces	CHIPS	Rock is fresh, minor staining on joints, breaks on both joints and partings	Feldspathic schist, light-medium-grey, fine grained, Evenly foliated rock
150'	Chips to .8' pieces	CHIPS	Rock is fairly fresh through out.	
	Notes: some minor polishing on joints — not characteristically fault slickensides			150' Bottom of Hole

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 176.0'

Logged By: J.R.R and 7/12/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
40'			
50'			50.2'
60'			Boulder zone: mixed diorite, diabase and grey massive quartzite boulders. Not much weathering
70'			67'
80'			76' Top of Rock
Breaks @ chips to .5' pieces	CHIPS MODERATE WEATHERING CHIPS	Rock is slightly weathered, minor discolor- ation, local rusty staining and solution effects on joints and partings	Schist, feldspathic and quartzitic. Light-grey fine-grained, evenly foliated
90'	CHIPS VUGS		
100'	CHIPS chips to 8' pieces	Rock is fairly fresh. Minor staining and minor local feldspar discolor- ation	Schist, feldspathic and quartzitic. Light-grey, fine-grained, evenly foliated
110'	CHIPS 4 chips to .7' pieces		
120'			

PROJECT SEABROOK STATION DDH 8-23 PAGE 2 of 2

HOLE LOCATION ELEVATION

BEARING INCLINATION DEPTH 176.0'

Logged By: J. R. Rand

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
100'			
110'			
120'			
CHIPS to .5' pieces			
CHIPS			
CHIPS			
CHIPS			
CHIPS, VUGGY			
CHIPS			
55°			
Rock is slightly weathered locally. Stain on joints. Occasional solution effects			
58°			
(NO MOVEMENT ON DIABASE CONTACTS)			
INTRUSIVE CONTACT, NO DISPLACEMENT EVIDENCE			
130'			
Breaks @ Chips to .5' pieces			
CHIPS, BLEACHED			
Rock fairly fresh to slightly weathered. Rusty staining on some joints			
58°			
Slightly weathered in meta sediment			
CONTACT DIPS 55° NORMAL TO SCHISTOCITY			
NO DISPLACEMENT EVIDENCE ON CONTACT			
140'			
Breaks @ Chips to .4' pieces			
CHIPS			
CHIPS			
CHIPS			
50°			
Rock is fairly fresh to slightly weathered. Some powdery staining on joints and partings. Some rust stains locally			
EGMATITE VEWLET			
45°			
Schist - Quartzitic, Somewhat feldspathic, fine-grained, medium light grey. Evenly foliated			
150'			
.1' to .6' pieces			
Rock is fresh			
Diabase - fine grained dark grey to black. Speckled phenocrysts.			
160'			
176' Bottom of Hole			
180'			

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 121.0'

Logged By: J. R

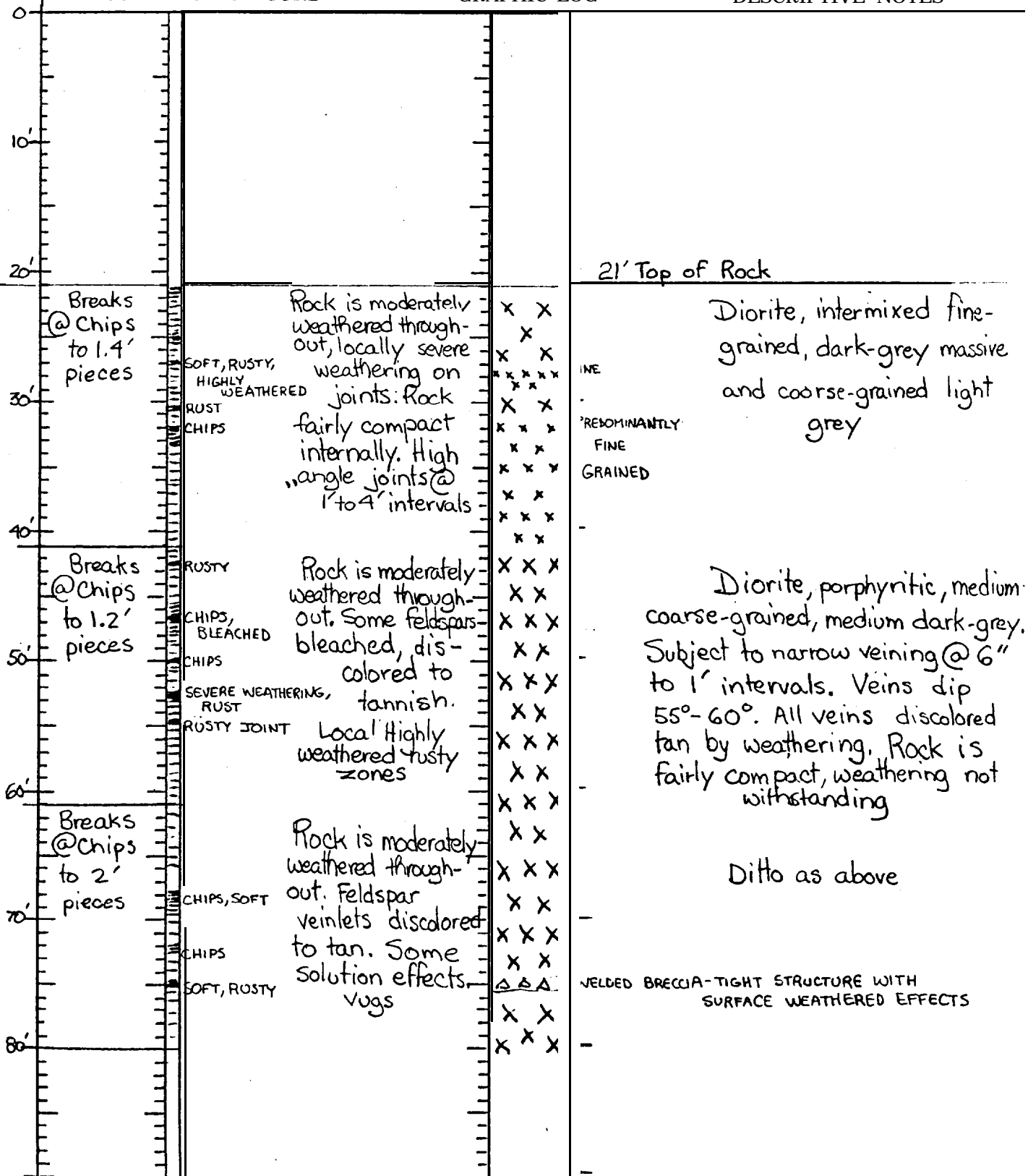
Rand 1/7/1  
27/1

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES



D D H B-24

PAGE 2 of 2

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 121.0'

Logged By: J. R. Rand 7/11/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
70'			
80'			
Breaks @ .3' to 1.5' pieces	RUSTY, WEATHERING	Rock is slightly to moderately weathered. Minor pitting; veinlets discolored to tan. Local rusty zones on joints	Intermixed fine-grained Dark-grey Diorite and light grey coarse-grained Diorite
90'			Fine-grained rock type predominates. Rock discolored a little by weathering.
Breaks @ Chips to 1.5' pieces	CHIPS	Rock is slightly to moderately weathered. Minor pitting. Feldspar veinlets are discolored to tan. Rock not notably weak.	
100'			
Chips to 1.5' pieces	MODERATE WEATHERING, RUST MODERATE WEATHERING, RUST	Rock is slightly to moderately weathered through out. Feldspars discolored in veinlets. Local rusty zones on joints	Intermixed fine-and coarse-grained Diorite. High angles veining at 6" to 1' intervals. Rock is discolored by weathering.
110'			(SLIGHT TO MODERATE WEATHERING - COMPACT)
120'			121' Bottom of Hole
130'			

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

## INCLINATION

DEPTH 23.0'

Logged By: J. R. Rand 7/11/72

CONDITION OF CORE		DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'				3' Top of Rock
Breaks @ Chips to 2.5' pieces	CHIPS, RUSTY		x x x x	FINE
	CHIPS, RUSTY		x x x x	FINE
10'	CHIPS, RUSTY		x x x x	FINE
	CHIPS, RUSTY		x x	FINE
			x x x x	FINE
			x x x	FINE
20'			x x x x	FINE
			x x x x	FINE
			x x x x	
				23' Bottom of Hole

PROJECT SEABROOK

STATION

## HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 23.7'

Logged By: J. R. Rand 7/12/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
Breaks @ chips to .8' pieces		SANDSEAM CHIPS, SOFT SAND SEAM CHIPS CHIPS	4' Top of Rock DIABASE-(BOULDER?) Diorite - intermixed dark-grey, fine-grained and coarse grained, light grey. Rock is predominantly coarse-grained type.
		Rock is slightly to moderately weathered throughout. Some rock Decomposition, and heavy rust on high angle joints.	
		Note: Rock weathering and rust appears due to surface weathering. Between weathered zones rock is fairly fresh internally.	23.7' Bottom of Hole


PROJECT SEABROOK STATION DDH B-30 PAGE 1 of 1

HOLE LOCATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

BEARING \_\_\_\_\_ INCLINATION \_\_\_\_\_ DEPTH 27.0'

Logged By: J. R. Rand 7/10/72

CONDITION OF CORE      DIP      GRAPHIC LOG      DESCRIPTIVE NOTES

0'					
			FOLIATION ↓		7' Top of Rock
10'	Breaks @ .1' to 2' pieces	50° joint 30° joint	Rock is fresh, only local rusty staining on joints. Mostly 60° low angle (30°) joints		Diorite, medium grey, medium coarse-grained, locally with foliated grey granite zones.
20'	1' to 1.5' pieces	30° joint	Rock is fresh. Biotite may be slightly weathered		Porphyritic Diorite, Biotite Spotting
30'					27' Bottom of Hole



PROJECT SEABROOK STATION

DDH 8-31

PAGE \ of 1

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 23.0'

Logged By: J. R. Rand 7/10/72

CONDITION OF CORE		DIP	GRAPHIC LOG	DESCRIPTIVE NOTES	
0'				3' Top of Rock	
Breaks @ Chips to 1' pieces	CHIPS		Rock is slightly weathered, subject to brown iron staining on joints @ 6" to 1' intervals	COARSE	Diorite - intermixed dark-grey fine grained and light-grey coarse-grained types. Coarser-grained rock tends to weather more than Fine-grained
10'	CHIPS			COARSE	
	CHIPS			COARSE	
20'				COARSE	
.1' to .8' pieces	RUSTY VERTICAL JOINT			FINE-GRAINED DIORITE	Porphyritic Diorite
				23' Bottom OF Rock	
30'			Rock is fresh but rusty staining on joints to bottom. Biotite is slightly weathered to show rusty brown streak No slickensides		

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 41.6'

Logged By: J. R. Rand 7/10/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			2.5' Top of Rock
Rock Broken @ chips to 1' pieces			Diorite - fine-grained, medium-dark grey Occasional small white phenocrysts
CHIPS			
CHIPS			
CHIPS			
20'			
CHIPS			
Breaks @ .2' to 1' intervals			Generally fine-grained, medium-light grey Diorite with local zones of porphyritic Diorite
25° joint			
50° joint			
60° joint (minor pyrite)			
MINOR RUST			
2' to 1.2' intervals			DRUSY QUARTZ AND CALCITE LINED VUG
40'			41.6' Bottom of Hole
50'			

PROJECT SEABROOK STATION DDH 8-37 PAGE 1 of 1

HOLE LOCATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

BEARING \_\_\_\_\_ INCLINATION \_\_\_\_\_ DEPTH 44.0'

Logged By: J. R. Rand 7/10/12

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			6' Top of Rock
10'	CHIPS 70° joint	Rock is fresh Some slight weathering and iron staining on joints. Joints @ 30° dip @ 1'-4' intervals	COARSE Diorite - medium fine-grained medium dark-grey, massive
20'	CHIPS MODERATE WEATHERING WITH RUSTY JOINTS 65° joint	Rock is generally fresh with thin rusty staining on joints.	PEGMATITE Medium fine grained medium grey massive Diorite
30'	MINOR RUST 65° joint	Rock is fresh. No rust except as shown. No slickenside	High angle joints @ about 1' intervals
40'	CHIPS	Rock is fresh Not rusty on joints	PEGMATITE WITH GARNET, TOURMALINE(?) AND FINE SULPHIDE STRINGERS
44'			Bottom of Hole
50'			



PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 152.5'

Logged By: J. R. Rand 7/10/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
70'	72.5'		
Breaks @.3'to2' intervals	Rock is fresh. Only very minor slight staining on joints	50° 15' VEIN RELICT BANDING AFTER META-SEDIMENTS EGMATITE	Diorite, fine-grained, medium light grey, with local zones of coarser-grained feldspathic rock
90'	Breaks @.3'to2' intervals	Rock is fresh Minor locally rusty on some joints	Medium-coarse grained Diorite
100'			
110'	Breaks @.5'to1.5' intervals	Rock is fresh through out. Only occasional minor staining on joints Rock not closely jointed. No slickensides	Diorite, massive dark grey medium-fine grained with local zone of coarser- grained light grey porphyritic Diorite Occasional feldspathic veining
120'			
130'	Breaks @ Chips to 2' pieces	Rock is fresh Minor rusty staining on some joint surfaces.	Diorite, dark grey, fine- grained, with occasional coarse grained light grey zones
140'			
150'	Breaks @.4'to2' pieces	Rock is fresh	Predominantly fine-grained Diorite
			Bottom Of Hole

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 72'

Logged By: J. R. Rand 7/10/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0			1.5' Top of Rock-
Breaks @ chips to .8' pieces	chips chips	Rock is slightly weathered, pitted with weak rust staining on joints	Diorite - light grey coarse grained
10'		60° to 70° joints @ 2' intervals	
20'	chips chips		Diorite - medium dark grey, fine grained, massive
Breaks @ chips to 1.5' pieces	chips in key Rusty	Rock is fresh - only occasional very minor rust staining on joints	pegmatite, quartz, feldspar with bull quartz in center
30'			Diorite dark grey fine grained, as above
40'	Breaks @ .1' to 2' pieces	Rock is fresh minor staining on joints	pegmatite veinlet
50'			Diorite, Dark grey, fine grained, with occasional coarse-grained zones
60'	Breaks @ chips to 3.5' pieces	Rock is fresh only minor rusty staining locally on joints	
70'	chips Slight weathering chips	slight weathering @ 64'	Diorite dark grey, fine-grained, with occasional zones of intermixed light grey, coarse grained diorite
80'			Bottom of Hole



PROJECT SEABROOK STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 67.5'

Logged By: J. R. Rand 7/11-12/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			DIORITE BOULDERS 6.9' Top of Rock
10'	Breaks @ Chips to 2' pieces	Rock is fairly fresh, subject to rusty staining, some weakening on joints	FINE Diorite, mixed fine-grained dark-grey and coarse-grained light-grey. Coarse grained predominates
20'	Chips		
30'	Breaks @ Chips to .8' pieces	Rock is fairly fresh internally, except as shown. joints (50°-70°) @ 1' to 4' intervals	FINE Diorite, mixed fine-grained dark-grey and coarse-grained light-grey types as shown
40'	Breaks @ .1' to 1.5' pieces	Rock is fresh, only very minor rusty stains locally on joints. joints @ 30°-40°	FINE Diorite
50'	Breaks @ .3' to 1.8' pieces	Rock is fresh, No rust on joints	Coarse Diorite, mixed fine-grained dark-grey massive and coarse grained light grey
60'			FINE Mixed fine and coarse diorite
70'			67.5' Bottom of Hole



PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 164.4'

Logged By: J. R. Rand 7/10/72

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES

0'

10'

20'

30'

40'

50'

60'

70'

80'

Chips  
to .3'  
piecesBreaks  
@ .1' to .8'  
intervalsminor  
rusty  
stains  
on  
jointsModerately weathered  
bleached brecciated rock,  
small bright green  
specks. Appears to be  
same rock as belowRock is fresh,  
with local minor  
weathering of feldspar  
phenocrysts. Joints  
show minor rusty  
staining. Jointing  
@ 1' intervalsx x x  
x x x  
x x x  
x x x  
x x x

Breccia

x x x  
x x x  
x x x  
x x x  
x x x

veining

+ + +  
+ + +

Top of Rock 44'

Apparently a weathered Diorite(?)  
Locally shows fine angular  
(cemented) breccia textureFine grained, massive,  
medium-grey, locally speckled  
diorite, with prominent feldspar  
quartz veining at high angles.  
Diabasic(?)Rock becomes diabasic,  
Dark-grey, fine-grained with  
dark green phenocrysts



PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 164.4'

Logged BY: J. R. Rand

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
130'			
140'			
140' to 139.3'			
1' to .8' pieces			
Broken @ Chips to .4' pieces			
150'			
160'			
.5' to 1.3' pieces			
pyrite on joint			
No slickensides			
164.4' Bottom of Hole			
170'			

Rock slightly weathered

55°

Rock is slightly weathered through-out minor bleaching, rusty staining or powdering on joints. Diabase bleached to brown

Diabase, aphanitic

Impure quartzite schist, feldspathization (minor)

Fine grained, light grey rock

55°



PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 24'

Logged By: J. R. Rand 12/11/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			
10'			
20'			TOP OF ROCK 18'
CHIPS	most joints low angle at 20-30°		Diorite, fine-grained Dark grey, massive - closely joined at 3" to 1' intervals joints have slickenside-like smearing with chlorite development = <u>slippery</u>
CHIPS	60° Jt.		
CHIPS	50° Jt. - minor slicks - chlorite		
CHIPS	80°-90° Jt. with slicks, chlorite dev't. high angle curved joints - chlorite dev't. throughout on joints		
CHIPS			
40'			Diorite, fine-grained, <u>Dark</u> grey as above massive
	(griller) vugs		
50'			
	(griller) vugs		
60'			Diorite, fine-grained, <u>Dark</u> grey, massive - locally speckled with whitish, rounded phenocrysts
	Core Breaks at 6" to 2' intervals on low angle joints @ 20°-30° dips		
70'			
80'			DIABASE DIKE

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 124'

Logged By: J. R. Rand 12/4/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
<p>70'</p> <p>Low Angle joints form Core breaks</p> <p>80'</p> <p>Chlorite development</p> <p>70° vein, Filled</p> <p>90'</p> <p>Joints are low angle</p> <p>65° joint</p> <p>100'</p> <p>chips</p> <p>45° joint</p> <p>60° joints</p> <p>110'</p> <p>Core breaks on wide-spaced joints</p> <p>120'</p> <p>driller breaks</p> <p>Joints are low angle at 20° average dip</p> <p>driller breaks</p> <p>130'</p>	<p>Rock is fresh</p> <p>Rock is fresh, except at 97.6' to 98.8' where softened on fault zone. Zone is soft but not apparently open.</p> <p>Rock is fresh. Breaks on low angle joints as shown. No rust. Joints show minor pyrite smear.</p>	<p>80°</p> <p>55°</p> <p>45°</p> <p>24' Bottom of Hole</p>	<p>Diabase dike</p> <p>124' 80° intrusive, chilled tight contact</p> <p>Quartz diorite, fine grained, medium grey</p> <p>← May be a faulted contact (?)</p> <p>Rock becomes medium-coarse grained</p> <p>Quartz diorite, intermixed coarse- and fine rock types.</p> <p>97.6' Apparent fault zone, softened by weathering but not rusty or slicken sided. 45° dip</p> <p>Quartz diorite, massive texture, medium coarse grained, not foliated, medium grey.</p>

PROJECT SEABROOK STATION

DDH D1-3

PAGE 1 of 1

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 65.5'

Logged By: J

R. Rand 12/11/72

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES

0

10'

20'

30'

40'

50'

60'

70'

Most joints  
are 20°-30°  
dips

Chips

Chips  
85° joint85°-90°  
joint70° joint,  
flat, not  
smooth35°-90° joint,  
pyrite  
chipsVuggy vein,  
not open  
65° joint on  
foliation.Joints are  
20°-30° dips  
@ 1'-2' intervals.  
70° joint,  
smooth70°-90° joint  
with chlorite  
65° joint

Rock is fresh.

Minor rusty  
stains locally  
on jointsRock is fresh, No  
rust on joints. Joints  
show frequent  
pyrite coatings.  
Rock chips in  
area of high biotite  
or chlorite content.Rock is fresh,  
not rusty  
on joints.Rock is fresh,  
joints locally  
slippery due to  
chlorite, not  
slickensided.

x x x

x x x

x x x

x x x

x x x

x x x

x x x

x x x

x x x

x x x

x x x

x x x

x x x

x x x

x x x

x x x

11' TOP of Rock

Quartz diorite, fine grained  
dark grey. Locally with  
irregular foliation.

Quartz diorite, as above

high chlorite content  
very fine-grained, possible diabase dikeQuartz diorite, predominantly  
fine-grained, medium grey.  
biotite knots Foliated. Foliation varies  
in dip and strike.

coarser grained

welded breccia, tight, 75° foliation

25.5' Bottom of Hole

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 169'

Logged By: J. R. Rand 11/24/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			
10'			
16.5' Top of Rock			
20' Breaks @ .1' to .1' pieces on low angle joints	most joints dip 35°-45° 65° joint at various strikes. Some joints show slickenside effect Minor vuggy @ 23'-24'	Rock is fresh, not rusty on joints. Minor vuggy @ 23'-24'	Quartz diorite, predominantly fine-grained, medium-dark-grey, massive texture
30' Core Broken on joints @ chips to .6' pieces	Most joints @ 30°-40° dips @ close intervals from .1' to .6' apart Chips	Rock is fresh, very minor dusty coatings on joints, but not rusty. Joints frequently show slickensides or smeared chlorite	Quartz diorite, fine grained, medium dark grey, fairly massive but locally shows vague foliation texture. Narrow veinlets sometimes show minor vuggy solution effects
40' Core is extensively broken into sliver-like chips. incipient slickensides?	65° joint shear attitude Higher chlorite content	Rock is fairly fresh, but is softened by close-spaced shearing? Some minor vuggy openings, No rust	Quartz diorite, medium-coarse-grained. Rock is extensively broken in possible shear zone. Rock is inherently slippery due to chlorite. Minor stains but not Rusty.
50' Core Broken @ .1' to .3' pieces Minor light rust stains locally	chips 73' Base of vugs in Rock	Rock is fresh, minor vuggy on high-angle joints. Most such joints are not open-welded	Diorite, fine-grained dark grey locally with medium coarse grained quartz-diorite
60'			
70'			
80'			



PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 169'

Logged By: J. R. Rand 11/24/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
70'			
80'			
Core broken as shown	chips 65° joint set minor chlorite 70° joint, minor crusting, no rust some pyrite cement 70° joint irregular 70° joint	Rock is fresh throughout No rust or weather stains	Medium coarse quartz diorite Diorite, fine grained, dark grey. Local coarser grained zones
90'			
100'			
Core broken as shown	60° joint, minor coating, smooth Sub-vertical joint 70° joint Smooth, clean	Rock is fresh, minor manganese and pyrite smearing on some joints	Diorite, predominantly fine-grained, dark grey. Some minor local coarser-grained patches. Rock is fresh throughout
110'			
120'			
Core broken as shown	70° joint, smooth, clean 75° joint, smooth, clean 70° joint	Rock is fresh, Core is broken closely on 30° joints and occasional 70°-75°. Some manganese and pyrite on joints. Sharp angular breaks	Diorite, fine-grained, dark-grey. Quite massive texture with local foliation ghosts. Rock is fresh, closely jointed at .2' to 1' intervals at varying attitudes and bearings of dip
130'			
140'			
Core broken as shown	45° joint, minor stains 75° joint, clean	Rock is fresh throughout 30° dipping joints are characteristic. Some manganese and pyrite staining on joints.	Diorite, fine grained, dark grey, locally vaguely foliated. Rock is fresh, not weathered throughout.
150'			

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 169'

Logged By: J. R. Rand 11/24/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
<p>140'</p> <p>Core Broken as shown Breaks @ .1' to .8' intervals</p> <p>thin pyrite smears</p> <p>60° joint, clean</p> <p>Chips on some joints</p> <p>No Rust or weather staining</p>	<p>55°</p>	<p>Rock is fresh. Locally joint surfaces are slippery with chlorite development. Most breaks in core on 25° to 30° low angle joints.</p> <p>57.3'</p>	<p>Quartz diorite, medium grey, medium coarse grained.</p> <p>Fine grained, dark grey, massive diorite</p> <p>INTRUSIVE CONTACT</p> <p>Quartz diorite, medium coarse grained</p> <p>- 169' Bottom</p>
<p>150'</p>			
<p>160'</p>			
<p>170'</p>			

PROJECT SEABROOK E/ STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH- 65.3'

Logged By: J. R. Rand 12/13/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			
10'			
Core is broken @ chips to 1' pieces on low- and high-angle joints	Rusty 70° joint, rusty	Rock is fresh. Minor rusty staining on joints	boulder- Quartz diorite, micaceous, foliated
20'	70° joint, rusty, vuggy	At 25'-27' rock is subjected to vuggy solution effects.	5.3' Top of Rock dominantly fine-grained Quartz diorite, mixture of coarse and fine grained rock types
30'	75° joint	Rock is fresh. Prominent rust formation on joints. Joints occur at 1' to 3' intervals	dominantly coarse-grained
40'	70° joint	80°-90° joint, chlorite smeared moderate weathering, heavy rust	high angle (70°-75°) intrusive contact, welded
50'	75° joint, rust coated	Rock is fresh. Rusty coatings on low angle and high angle joints at widespread intervals as shown.	Diabase dike, dark grey to sub-black, fine grained, massive with pyrite specks and knots. Rock closely jointed at various strikes and dips. Low angle (10°-30°) joints predominate.
60'	75° joint, rust coated		Diabase dike, as above, massive, sub-black, fine grained rock.
70'			5.3' Bottom of Hole

PROJECT SEABROOK
STATION

DDH DI- 6
PAGE 1 of 1

HOLE LOCATION
ELEVATION

BEARING
INCLINATION
DEPTH 33.0 '

Logged By: J. R. Rand 12/13/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE	NOTES
0'				
10'				
20'				3.0' Top of Rock
Core Breaks on 30° joints @ 6" to 2' intervals	Rusty Rusty	Rock is fresh, Joints normally are clean, but locally have rusty coating as shown. Joints dip 30° to 40°. No high angle joints.	<div> <div> xxx xx xxx xx xxx xx xxx xx xxx xx </div> <div> xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx </div> </div>	Quartz diorite, medium grained, medium-dark greenish grey, speckled texture, massive.
30'	Rusty			Transitional Contact
				Quartz diorite, coarse grained light grey
40'				3.0' Bottom of Hole

PROJECT SEABROOK STATION

DDH D1-7

PAGE 1 of 2

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 118.7'

Logged By: J. R. Rand 12/12/72

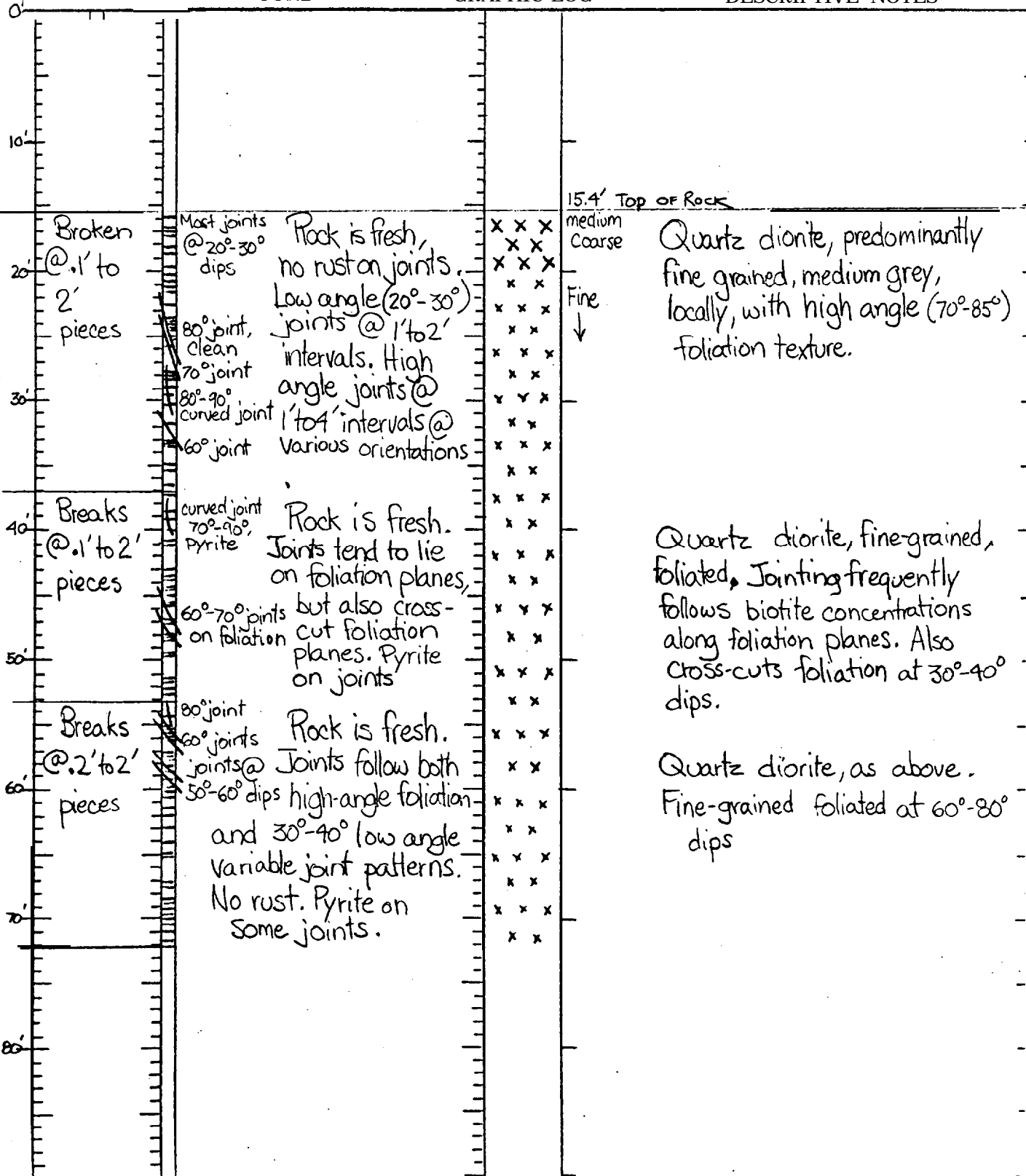
CONDITION

1 OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES





PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 29.5

Logged By: J. R. Rand 12/11/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
<p>0'</p> <p>10'</p> <p>20'</p> <p>30'</p> <p>Core Broken into chips</p> <p>CHIPS →</p> <p>CHIPS →</p> <p>30° dipping joints @ 3"-6" intervals, slightly rusty</p> <p>70° joints, rusty</p> <p>Joints not rusty, pyrite smeared</p>		<p>x x x</p> <p>x x</p> <p>x x x</p> <p>x x</p> <p>x x x</p> <p>x x</p> <p>x x x</p> <p>x x</p> <p>x x x</p> <p>x x</p>	<p>3' Top of Rock</p> <p>Quartz diorite, predominantly medium-fine-grained, locally foliated. Medium-grey color. Some minor vug development to about 20' depth. Foliation is very steep to vertical.</p> <p>29.5' Bottom of Hole</p>





PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH

Logged By: J. R. Rand 12/12/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			
10'			Boulders
12'			Top of Rock
Broken @ Chips to 1' pieces	65° joint 60°-70° joints 30° joint	Rock is fresh. Rusty staining on some joints, not on all joints. Rock breaks normally on 30°-40° dipping joints @ 1' intervals	Quartz diorite, medium-coarse grained, light medium grey. Locally foliated @ high angle (60°-70°) dips.
Breaks @ .3' to 2' intervals on 30°-40° joints	Rusty joint 60°-90° joint with pyrite	Rock is fresh. No rust on joints. High angle joints infrequent. Most breaks on 30°-40° joints	VERY FINE GRAINED ROCK Relict quartzite layer, partially recrystallized by diorite(?)
Breaks @ .2' to 1.5' intervals	70°-90° joint with pyrite Smooth 60° joint with pyrite	Rock is fresh. Not rusty on joints. Most joints are @ 30° dips, not smooth. Some pyrite coatings on high angle joints	Quartz diorite, medium-coarse grained, medium light grey. Locally some foliation @ steep dips. Finer grained near top of section.
Breaks @ .3' to 3' intervals	65° joint	Rock is fresh, not rusty on joints. Most breaks on low-angle 20°-30° joints.	finer grained finer grained Quartz diorite, fine-grained medium grey, foliated. Foliation is steep, 60°-90° and wavy
80'			

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 112'

Logged By: J . R . Rand 12/12/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
Breaks @ Chips to 1' pieces Broken on smooth 85°-90° joint chips	Rock is fresh. Breaks on low angle (10°-30°) joints High angle (85°-90°) joint set @ 90' depth has pyrite coating		very fine-grained rock, massive, welded Quartz diorite, fine-grained, medium-grey, foliated Becomes coarse-grained rock
Breaks @ 1' to 6' pieces throughout 70°-90° rough joint	High angle joints are curved, have chlorite or biotite Smooth surfaces with pyrite		112' Bottom of Hole

PROJECT SEABROOK STATION DDH D1-11 PAGE 1 of 1

HOLE LOCATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

BEARING \_\_\_\_\_ INCLINATION \_\_\_\_\_ DEPTH 65.5'

Logged By: J. R. Rand 12/12/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			
10'			
12.5' Top of Rock			
Broken @ Chips to .6' pieces throughout	85° joint Joints are mostly low-angle @ 10°-30° dips	Rock is slightly weathered to 15' Rock is fresh, with minor rusty stains on joints locally to 18.7' Pyrite coatings on joints below 18.7'	Coarser-grained Finer ↓ Quartz diorite. Predominantly fine-medium grained, medium-grey with local foliation textures. Foliation @ 80° or steeper
Breaks @ .2' to 1.5' pieces	85° joint 85° joint 70° joint	Rock is fresh. Breaks mostly on 10°-30° Low angle joints @ 1'-2' intervals	Coarser dark-greenish diorite
Breaks @ .3' to 2' pieces		Rock is fresh. Joints @ 30°-40° dips @ 1' to 2' intervals	Coarser dark-greenish Quartz diorite, predominantly fine-grained, not notably foliated. Local zones of coarser grained, dark greenish diorite.
65.5' Bottom of Hole			
70'			

PROJECT SEABRCOK STATION DDH DI-12 PAGE I of I  
 HOLE LOCATION \_\_\_\_\_ ELEVATION \_\_\_\_\_  
 BEARING \_\_\_\_\_ INCLINATION \_\_\_\_\_ DEPTH 29.5'  
 Logged By: J R. Rand 12/13/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0' 10' 20' 30'			
Rock Breaks @ .3' to 1' pieces	Joints @ 30°-40° dips throughout	Rock is fresh. Minor rusty staining on some joints	15' Top of Rock micaceous Quartz diorite, fine grained, quite micaceous (biotite) in zones and knots, enclosed in coarse-grained quartz diorite matrix.
Breaks @ .1' pieces .5' to 1.3' pieces	Rusty, slight weathering on joints 65° joint	Rock is fresh, subject to minor weathering and rusty staining on joints. Rock is Fresh, Not Rusty	micaceous rock Micaceous rock type is not apparently metasedimentary. Has rather massive texture
			29.5' Bottom of Hole

PROJECT SEABROOK STATION DDH D2-1 PAGE 1 of 1

HOLE LOCATION \_\_\_\_\_ ELEVATION \_\_\_\_\_

BEARING \_\_\_\_\_ INCLINATION \_\_\_\_\_ DEPTH 31.0'

Logged By: J. R. Rand 12/12/72

	CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'				
6'				Boulders - quartz diorite
				11' Top of Rock
20'	Rock Breaks @ .1' to 1.5' pieces on low angle (30°) joints	85° joint Rock is moderately weathered, rusty, raggy	x x	Quartz diorite, predominantly fine-grained medium grey, with occasional zones of coarser- grained, light-medium-grey matrix.
30'	.1' to .4' pcs.	2' severe weathering, soft MINOR RUST ON ONE JOINT	x x x x x x x x x	Rock becomes a little coarser grained
40'				11' Bottom of Hole

PROJECT SEABROOK STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 60.0'

Logged By: J. R. Rand

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			
10'			
20'			
25.2'			Top of Rock
30'			DIABASE DIKE, WELDED CONTACTS DIP 60°
Core breaks on joints @ Chips to .5 pieces	Chips, minor rust 65° joint, rusty Rusty 60° joint RUSTY	Rock is slightly weathered to about 31'. Fresh below 31'. Joints show local rust coatings and some slight rock weathering	Quartz diorite, fairly coarse-grained, medium-grey micaceous
40'			50° intrusive contact, welded
Core Breaks @ Chips to 1' pieces	Chips, minor rust Most joints @ 30°-40° dips 65° joint	Rock is fairly fresh to fresh. Some dusty coating on joints. Feldspars a little discolored	Diabase dike, sub-black, fine-grained
50'			50° intrusive contact, welded
Chips to 3.3' piece	Chips, minor rust 60° joint, powder coating	Rock is fresh	Quartz diorite, predominantly coarse-grained DIABASE DIKE INCLUSION (?)
60'			50° intrusive contact, welded
			Diabase dike, sub-black, fine grained, crystalline
			Medium-fine-grained
			Shill zone at base - Near a contact (?)
			0.0' Bottom of Hole

PROJECT SEABROOK

STATION

DDH D-2-4

PAGE 1 of 3

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 171.0'

Logged By: J. R. Rand 11/24/72

	CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'				
1d				
20'				21.5' Top of Rock
30'	Core is Broken @ places Shown in "Condition" column	Rock is fresh, not weathered. 30° joint, smooth, clean, no rust 30° joint, no rust 20° joint, clean on 30° dip. Very thin veinlets. No slickensides	65° foliation	fine grained Quartz diorite, medium-grey, medium-coarse-grained, with local fine-grained dark grey diorite zones as shown. Rock is predominantly finer-grained diorite. Fresh, crystalline
40'	Breaks in Core as shown	slight bleaching. Rock is strong.	60° foliation	mixed coarse and fine diorite
50'		30° dip on veinlets in Breccia zone Rock is fresh, as above		Fine-grained 52.1' to 53.5' is welded, healed, solid breccia zone.
60'		Core breaks are characteristically @ 30° dip attitudes		Diorite, as above, mixed coarse-grained light grey quartz diorite matrix, enclosing fine-grained, dark grey diorite inclusions.
70'	Breaks in Core as shown	Rock is fresh, as above. Tends to part on 30° dipping joints, or very thin 30° veinlets		Rock becomes predominantly coarse-grained, with relatively small zones of fine-grained diorite.
80'		driller break		

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH

Logged By: J. R. Rand 11/24/12

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
80'			
88.2'			
Breaks in Core as Shown	Driller breaks 60° joint, clean	Rock is fresh, as above. No rust or staining. Drills well through-out.	Quartz diorite, as above, predominantly coarse-grained medium grey, with occasional patches of fine-grained, dark grey diorite.
Breaks in Core as Shown	Driller break 30° joints 65° joint, clean	No slickensides on joints 60° foliation	
Breaks in Core as Shown	Driller break	Breaks in core as shown are commonly on 30° dipping joints. 60° foliation	Quartz diorite, as above, predominantly coarse-grained.
Breaks in Core as Shown	Driller break 45° joint	Joints are clean, not slickensided, and do not dip uniformly in one direction.	Fine-grained diorite
Breaks in Core as Shown	Driller break	Rock is fresh, as above.	10° veinlets, welded micro-fault, tight coarse 53.0' INTRUSIVE CONTACT, IRREGULAR AT 65° DIP
Breaks in Core as Shown	Driller break		Porphyritic quartz diorite, coarse grained, massive texture, medium grey with slight greenish tings.



HOLE LOCATION

### ELEVATION

BEARING

## INCLINATION

DEPTH 171'

Logged , By: J. R. Rand 11/24/72

CONDITION OF CORE		DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
150'				
160'	Core Broken as shown	Rock is fresh, not weathered		Porphyritic quartz-diorite, massive, coarse-grained, medium-grey.
170'				Bottom of Hole
180'				

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 65.0'

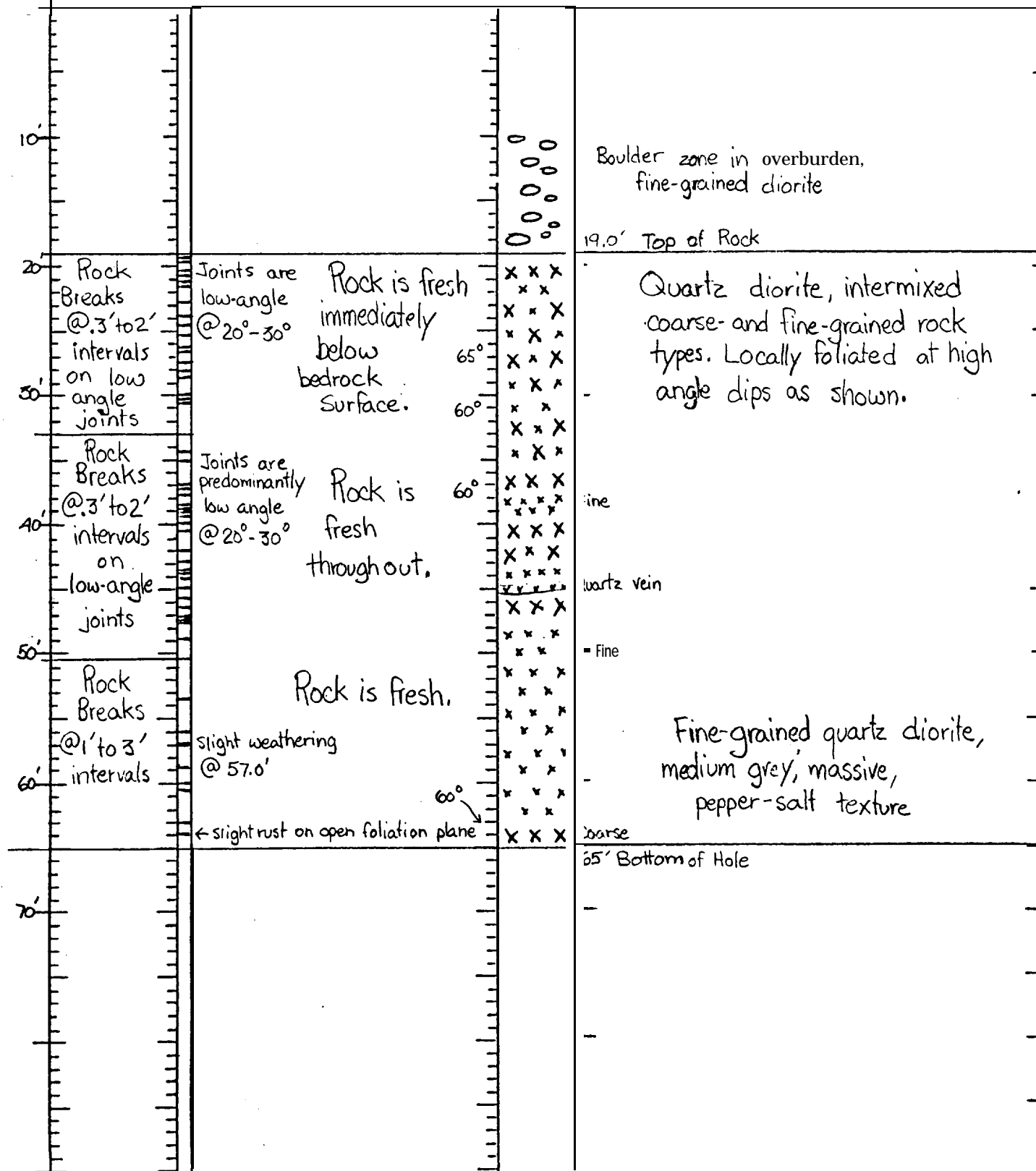
Logged By: J. R. Rand 12/11/72

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES





PROTECT SEABROOK

STATION

HOLE LOCATION

ELEVATION

BEARING

INCLINATION

DEPTH 125.0'

Logged By: J. R. Rand 12/11/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
<p>70'</p> <p>Breaks @ .1' to 1.5' pieces on low-angle joints</p> <p>80'</p> <p>Broken on low angle joints @ .5' to 1' intervals</p> <p>90'</p> <p>Good drilling Breaks @ wide intervals</p> <p>100'</p> <p>110'</p> <p>120'</p> <p>130'</p>	<p>MOST JOINTS @ 20° TO 30° DIPS, @ .3' TO 1' INTERVALS</p> <p>85° TO 90° JOINT</p> <p>JOINTS ARE CLEAN, LOW ANGLE @ 20° TO 30°</p> <p>85° JOINT CALCITE FILLED NO SLICKENSIDES</p> <p>CLEAN LOW ANGLE JOINTS</p> <p>DRILLER</p>	<p>Rock is fresh. Not rusty on joints. Some pyrite coatings on joints</p> <p>Rock is fresh through-out</p> <p>Rock is fresh through-out</p>	<p>Quartz diorite, predominantly micaceous (chloritic) fine-grained, dark-greenish grey</p> <p>DARK MICACEOUS ROCK NOT METASEDIMENTARY</p> <p>Quartz diorite, medium-coarse-grained, medium grey. locally intermixed with fine-grained diorite near top of section.</p> <p>Quartz diorite, intermixed coarse and fine grained rock types</p> <p>125' Bottom of Hole,</p>

PROJECT SEABROOK

STATION

HOLE LOCATION Center of Unit #1

ELEVATION 23.9'

BEARING

INCLINATION

DEPTH 150.1'

Logged By: J. R. Rand

12/26/12

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
			NO OVERBURDEN
			0.0' Top of Rock
Core Breaks on low angle (30°) joints @ 1' intervals	Rusty 70° joint even chips - Rusty 70° joint CHIPS, RUSTY MODERATE WEATHERING MINOR VUGGY	Rock is fresh. Locally affected by slight to moderate weathering on joints as shown. Most joints dip about 30° at .3' to 1' intervals	Quartz diorite, medium fine grained, medium grey. Massive texture (not notably foliated). Locally intruded by pegmatite veinlets as shown.
			EGMATITE VEINLET, 65° DIP EGMATITE VEINLET, 75° DIP
			EGMATITE VEINLET
Breaks on low angle joints @ .5' to 1.5' intervals	CHIPS, RUSTY 60° joint minor rust 60° joint slight weathering 65° joint clean minor rust	Rock is fresh. Slight weathering to minor rusty coatings on some joints.	Quartz diorite, as above, Massive, medium fine grained, medium grey.
Breaks @ .5' to 2' pieces	70° joint, minor rust 70° joint, rough slight weathering 1/2 moderately weathered	Joints are normally clean. Not Rusty Rock is fresh. Low angle joints @ 30° to 35° dips. Joints not rusty except as shown	Quartz diorite as above. Massive medium fine grained, medium grey, low angle (30° to 35°) joints @ .5' to 2' intervals
Breaks @ .3' to 3' pieces	slight weathering slightly weathered, rusty 70° joint, rusty moderately weathered on joint plane 60° joint slightly weathered, rusty	Rock is fresh. Slight to moderate weathering, rust on occasional joints as shown	Rock becomes coarse-grained Quartz diorite @ 72.6' depth. 50° dip on intrusive, welded contact.
			COARSE GRAINED Low angle joints dip 30° to 40° @ .5' to 3' intervals



PROJECT SEABROOK STATION DDH E1-2 PAGE 1 of 1

HOLE LOCATION 20.450 N 79.500 E ELEVATION 21.4'

BEARING \_\_\_\_\_ INCLINATION \_\_\_\_\_ DEPTH \_\_\_\_\_

Logged By: J. R. Rand 12/27/72

	CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0				
10'	Breaks @ .1' to 2.2' pieces	Rusty 70° Jts. minor rust	Rock is fresh - minor rusty stains on joints to 14' depth -  Low angle joints dip about 30° throughout	7.2' Top of Rock  Quartz diorite, mixed fine-grained, dark grey and coarse-grained light grey matrix rock - porphyritic toward base
20'				
30'				
40'				
				27.2' Bottom of Hole

PROJECT SEABROOK

STATION

HOLE LOCATION SITE #2 • 79.350 E 20,400 N

ELEVATION 15.2'

BEARING

INCLINATION

DEPTH

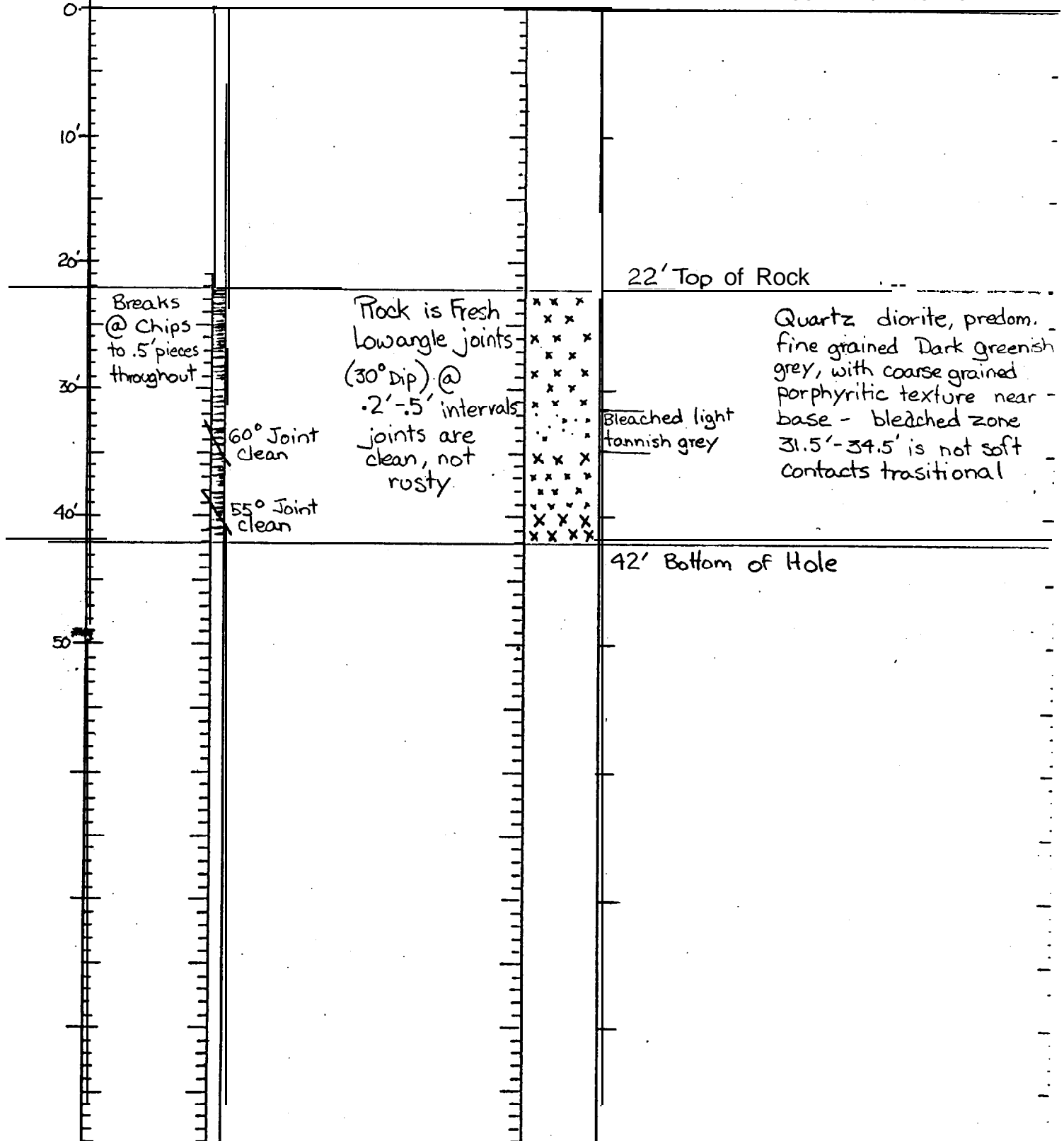
Logged By: J. R. Rand 12/27/72

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES





PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION 20.2'

BEARING

INCLINATION

DEPTH

Logged By: J. R. Rand 12/27/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0			
CHIPS Breaks @ 2' to 2.5' pieces	CHIPS RUSTY 70°-90° ROUGH Jt.  50° Jt. Clean	Rock is fresh below 7' depth - Some minor rust on some joints - low angle joints dip @ 30°-45° at various orientations	Boulders 5' Top of rock Quartz Diorite, mixed fine-grained dark grey and coarse grained light grey matrix - locally foliated at 55°-60° Dips
10'			
Breaks @ .3' to 2.2' pieces	minor rust 70° Jt. on foliation - slight weathered, rusty	Rock is fresh - minor rusty staining on some joints, as noted Low angle joints dip 30° @ .5' to 2' intervals	Quartz Diorite, mixed fine- and coarse-grained types foliated - foliation dips 30°-50° variable
30'			
40'			
50'			
60'			

PROJECT SEABROOK

STATION

HOLE LOCATION 20.300 N 79.700 E

ELEVATION 20.2'

BEARING

INCLINATION

DEPTH

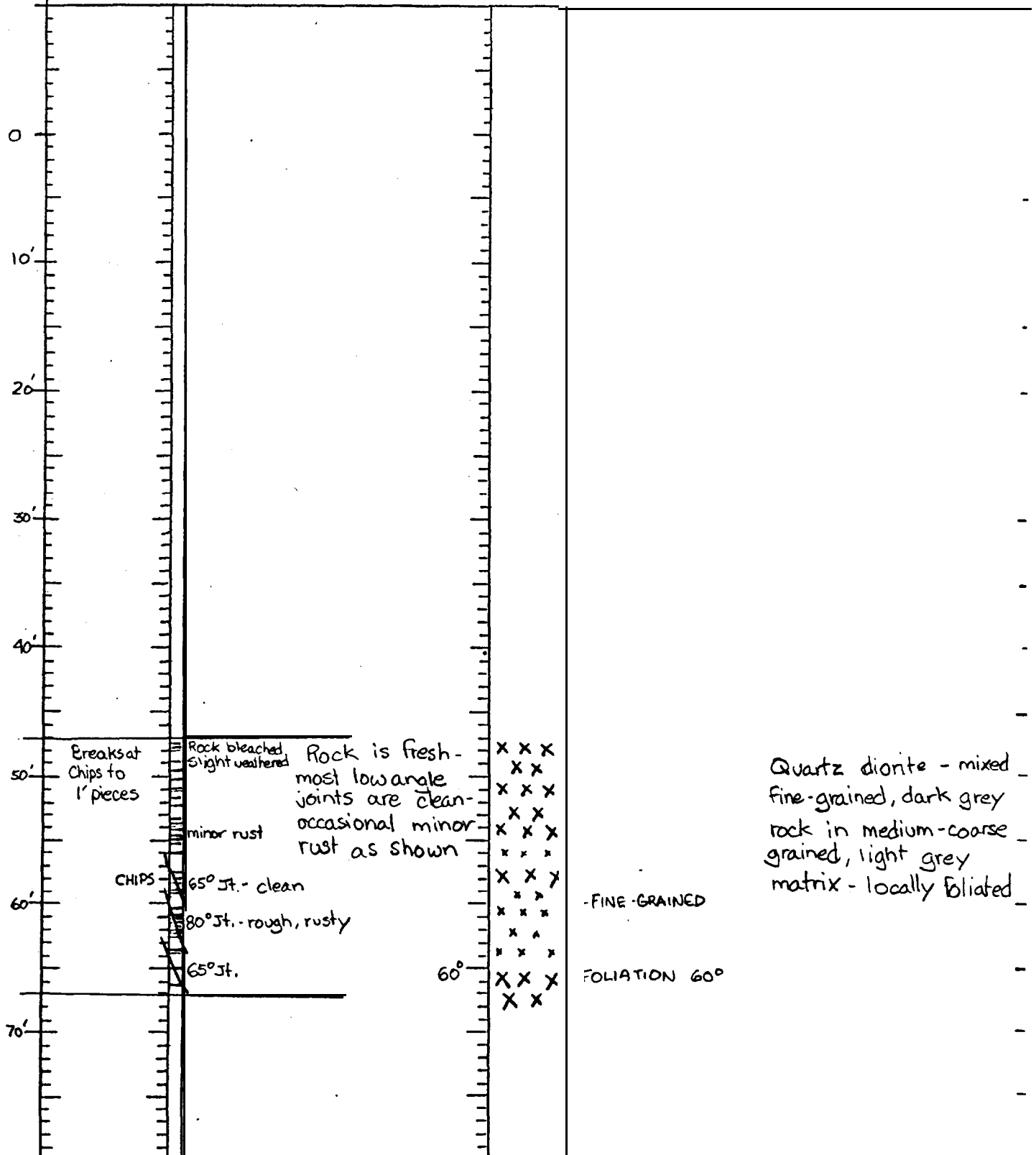
Logged By: J. R. Rand 12/26/72

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES



PROJECT SEABROOK STATION

HOLE LOCATION

ELEVATION 20 2'

BEARING

INCLINATION

DEPTH

Logged By: J. R. Rand 12/26/72

	CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
60'				
70'	Breaks @ .5' to 2' pieces	Low- angle jts. @ 35°-40° DIP	Rock is fresh- good drilling-No high angle joints-35°-40° joints @ 1'-2' intervals-joints are not rusty	Quartz diorite, foliated, mixed fine grained dark-grey and medium- coarse lighter grey matrix- foliation 50°-60° dip
80'				
90'	Breaks @ .3' to 1.5' pieces		Rock is fresh- not rusty on joints-low angle joints dip 10° 30°	Quartz diorite, fine- grained to 98'. Predominant coarse-grained below.
100'		Rough uneven 65° Jt.		
110'				
				05' Bottom of Hole

PROJECT SEABROOK

STATION

DDH E1-5

PAGE 1 of 2

HOLE LOCATION 20.300 N 79.550 E

ELEVATION 16.0'

BEARING

INCLINATION

DEPTH

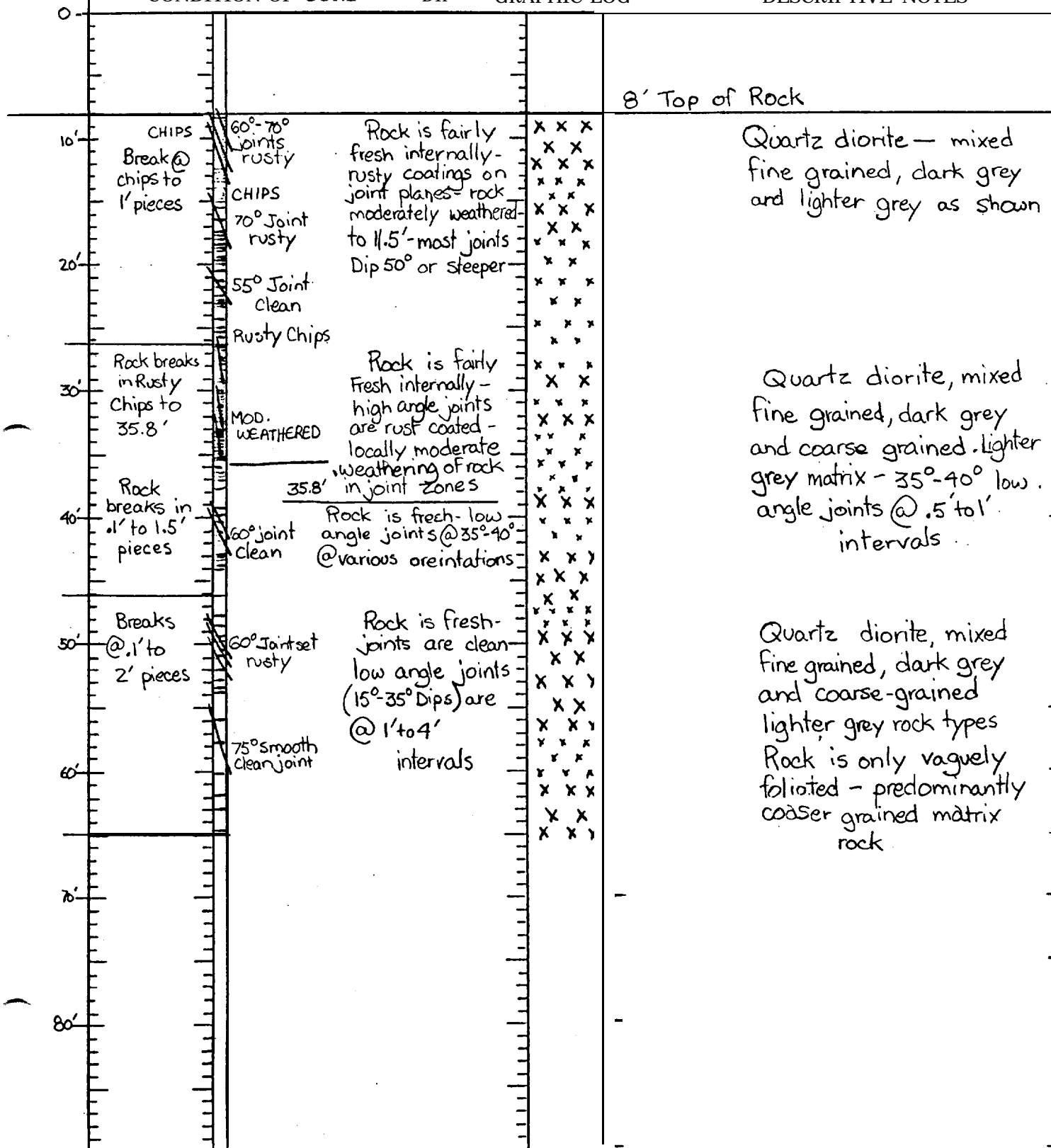
Logged By: J. R. Rand 12/26/72

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES



PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION 16.0'

BEARING

INCLINATION

DEPTH

Logged By: J. R. Rand 12/26/72

	CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
50'				
60'				
70'	Breaks @ .3' to 1.5' pieces	70° rough joint clean		
80'				
90'	Breaks @ .1' to .2' pieces	50° joint on foliation 60° joint 65° joint		
100'	Breaks @ .3' to 4' pieces			
110'				
120'				

Rock is fresh  
low angle joints  
@ 25° to 40°  
@ .5' to 2'  
intervals

Quartz diorite - mixed  
fine grained, dark grey and  
coarse grained lighter grey  
matrix.

Rock is fresh  
low angle joints  
@ 5° - 30°, most  
5° - 10° dips

Quartz diorite, mixed  
fine and coarse-grained  
rock types

Rock is fresh  
low angle joints  
clean, dip 5° - 30°  
(average 5° - 10°)  
No Rust

Quartz diorite, mixed  
fine-grained and coarse  
grained as shown

108' Bottom of hole

PROJECT SEABROOK STATION DDH E1-6 PAGE 1 of 1  
 HOLE LOCATION 20.300 N 79.400 E ELEVATION \_\_\_\_\_  
 BEARING \_\_\_\_\_ INCLINATION \_\_\_\_\_ DEPTH \_\_\_\_\_  
 Loggea By: J. R. Rand 12/27/72

	CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0				4'-Top of Rock
10'	core breaks @ chips to .8' pieces	70° joint chips Rusty chips 70° joint chips slight weathering Rusty	Rock is essentially fresh - locally slightly weathered on joints, minor rust - low angle joints dip 30° occur (a) .2' to 1' intervals	Quartz diorite, mixed fine-grained, dark grey and coarse-grained light grey matrix
20'		55° joint Rusty		agmatite veinlet
30'				24' bottom of hole
40'				

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION 15.9'

BEARING

INCLINATION

DEPTH 159.2'

Logged By: J. R. Rand 12/12/72

	CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'				9' top of Rock
10'	60° joint 85° joint minor rust 80° joint minor rust	Rock is fresh throughout - minor rusty staining on joint surfaces to about 18' depth	x x x x x x x x x x x x x x x	Quartz Diorite - medium-fine grained, medium grey. Vague foliation @ high angle (80°± DIP)
20'	70° joint clean		x x x x x x	
30'	60° joint 65° joint 65° joint 70° joint	Rock is fresh breaks on 30°-40° joints with a few 60°-70° joints. Not rusty on joints	x x x x x x x x x x x x x x x	Quartz Diorite, as above - foliation more prominent @ 50°-70° Dips but variable in direction. Finer grained medium-dark grey diorite patches enclosed in medium fine-grained matrix
40'	70° joint 70° joint Pyrite smear DRILLER	Rock is fresh, no rust. Rock breaks on 30°-40° joints @ 6" to 12" intervals good drilling	x x x x x x x x x x x x x x x x x x	
50'	70° joint Pyrite smear		x x x x x x	Quartz diorite, as above. Becoming a little coarser-grained with depth. Less obviously foliated, more massive texture.
60'	70°-75° joint 65° joint	Rock is fresh High angle jointing becoming more closely spaced @ 2'-4' intervals in hole - joints are wavy but smooth. Pyrite coatings	x x x x x x x x x x x x x x x	Quartz diorite, as above, becomes finer grained, foliated - some tendency to break along smooth foliation planes.
70'	65° joint 65° joint Smooth		x x x x x x	
80'				

PROJECT SEABROOK

STATION

HOLE LOCATION

ELEVATION 15.9'

BEARING

INCLINATION

DEPTH 159.2'

Logged By: J. R. Rand

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
80'			
Most breaks in core @ 30°-40° dips SOFT	70° jt.	Rock is fresh - high angle smooth wavy jointing is closely spaced - frequently on foliation planes but cross-cutting foliation also - pyrite coating on joint planes - some joints are slickenside	Quartz diorite medium-fine grained, medium grey, foliated
Core ground in soft zone Slickenside	70°-90° smooth jt.	Rock is fresh - tends to break up on drilling in zones where Biotite rich - local slickenside striations on joints joints run @ various orientations	WELDED FAULT ZONE - PRESENCE OF BIOTITE ON ZONE MAKES IT WEAK, DIFFICULT TO DRILL - NO RUST OR GOUGE - PYRITE ON SLIP PLANE
Most breaks @ 30° dips	70° jt. smooth	CHIPS - soft core ground	Breccia-welded
High angle joints on weak zone	65° jt. smooth	CHIPS	Breccia welded
Most breaks @ 30°-45° dips	85°-90° jt.	Apparent fault zone - polished slickenside in Biotite - rock soft not rusty, no gouge Slickenside zone does not appear open or subject to groundwater movement	Quartz diorite as above Rock is generally foliated and high angle joints with smooth surfaces tend to occur along foliation
Breaks on low angle (45°) joints @ 6" to 2' intervals		Rock is fresh - some joints show smearing or slickensides joints commonly @ 45° dip on foliation planes	Quartz diorite, fine grained, medium grey, locally with foliation @ 45°-60° usually steep foliation - in apparent fault zone @ 122'-123.5', rock is polished with slickenside @ various angles
.3' to 1' intervals		Rock is Fresh	Quartz diorite, fine grained, medium-dark grey - resembles "granitized" meta-quartzite - well foliated through out @ 40°-60° dips Rock parts (joints) on foliation were somewhat micaceous
	60° 50°	Δ Δ Δ x x x	welded breccia Quartz diorite - coarser grained - foliated @ 50°
159.2' Bottom of hole			



PROJECT SEABROOK

STATION

HOLE LOCATION 20.355 N 79.275 E

ELEVATION

BEARING

INCLINATION

DEPTH

Logged By: J. R. Rand 12/26/72

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			
10'			
12.5'			Top of Rock
Breaks in core @ .1 to 1' pieces	85° joint	Rock is fresh, not rusty on joints Some minor powdery coating on some joints Low angle joints @ 20°-30° dips	Quartz diorite, medium-fine grained, medium-grey, massive texture — locally minor porphyritic, 20°-30° low angle joints @ .2'-.5' intervals
30'	65° joint		
32.5'			Bottom of Hole
40'			

PROJECT SEABROOK NUCLEAR STATIONHOLE LOCATION Hampton Harbor

ELEVATION \_\_\_\_\_

BEARING vertical INCLINATION \_\_\_\_\_DEPTH 143 10

Wx = weathered, wrathering

J.R. Rand  
Logged By: 5 '16 '73

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
0'			UNCONSOLIDATED OVERBURDEN
10'			
15'			15' TOP OF ROCK
BOX 1 15'-36'	Rusty joint-70° Slightly weathered Rusty slight to moderate weathering on joints 75° rough joint, clean 60° rough joint adjacent to joints	ROCK IS ESSENTIALLY FRESH, WITH MINOR RUSTY COATINGS ON PARTINGS, AND LOCALLY SLIGHT TO MODERATE WEATHERING JOINTS	QUARTZ DIORITE, INTERMIXED FINE-GRAINED DARK GREY DIORITE ENCLOSED IN MATRIX OF MEDIUM-COARSE GRAINED LIGHT GREY QUARTZ DIORITE.
BOX 2 36'-54'	Slight to moderate weathering, rusty on joint Minor rusty Minor rusty 7 d cont noous core broken by roller for storage Minor rusty Minor rusty	ROCK IS FRESH- MINOR RUSTY SEAMS ON PARTINGS AS SHOWN	LOCALLY FOLIATED. FOLIATION AT ABOUT 45° DIP NEAR TOP, GOING TO 50° AS SHOWN
BOX 3 54'-74'	30° joints - minor rusty	ROCK IS FRESH- MINOR RUSTY STAINING LOCALLY AS SHOWN ON JOINT SURFACES	WELDED OR FUSED CONTACTS THROUGHOUT
70'	60° Rough joint - Minor rusty		AMPHIBOLITIC - MASSIVE, MEDIUM - COARSE, DARK GREENISH GREY CRYSTALLINE
80'			QUARTZ DIORITE, DARK GREY FINE-GRAINED DIORITE IN MEDIUM COARSE LIGHT GREY QUARTZ DIORITE MATRIX

JUNE 1973

## HOLE LOCATION

### ELEVATION

BEARING

## INCLINATION

DEPTH

J.R. Rand

Logged By : 5/16/73

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
70'			
Box 4 74'-94'			
Minor rust Slight rock weathering			
Rock is fresh, with some minor rusty staining as shown			
Minor rust stain			
Box 5 94'-114'			
Rough 70° joint minor rust			
Rock is fresh			
Driller break Minor rust			
Box 6 114'-133'10"			
112' smooth Rusty Chips-rusty			
SLIGHT ROCK WEATHERING. MINOR VUGGY TEXTURE			
Chips			
Rock is notably vuggy. Breaks on chlorite- rich high angle partings			
124.5'			
Minor rusty			
Rock is fresh			
200° joint			
Box 7 133'10" 143'10"			
Minor rusty stain			
Slight vug development on joint			
143'10"			
150'			
① SAMPLES FOR PHYSICAL TESTING: GEOTECHNICAL ENGINEERS INC. 5/23/73			QUARTZ DIORITE AS ABOVE, GRADING TO MEDIUM GRAINED SUB-MASSIVE QUARTZ-DIORITE WITH SCATTERED FELDSPAR SPECKLING LOCALLY IS SLIGHTLY FOLIATED  COARSE GRAINED SUB-MASSIVE QUARTZ- DIORITE, FELDSPAR SPECKLING BECOMES PROMINENT  QUARTZ DIORITE, INTERMIXED FINE DIORITE IN MEDIUM-COARSE QUARTZ DIORITE MATRIX  ROCK APPEARS CHLORITE-RICH, AND IS WEAKENED BY JOINTING AND MODERATE WEATHERING  QUARTZ DIORITE, INTERMIXED FINE DIORITE AND MEDIUM- COARSE QUARTZ DIORITE MATRIX  TENDS TO MEDIUM-FINE GRAINED ROCK TOWARDS BASE  143'10" BOTTOM OF HOLE

JUNE 1973

JUNE 1973

PROJECT SEABROOK NUCLEAR STATION

HOLE LOCATION Hampton Harbor

ELEVATION

BEARING Vertical

INCLINATION

DEPTH 264 5

Logged By: J.R. Rand  
5/14/73

CONDITION OF CORE

DIP

GRAPHIC LOG

DESCRIPTIVE NOTES

<p>130'</p> <p>140'</p> <p>150'</p> <p>160'</p> <p>170'</p> <p>180'</p> <p>190'</p> <p>200'</p>	<p>Box 1</p> <p>138'-158'</p> <p>Box 2</p> <p>158'-178.5'</p> <p>Box 3</p> <p>178.5'-198.8'</p>	<p>NOTE: CROSS-HATCH MARKS ON "CONDITION" COLUMN EQUAL MEASURED BREAKS, JOINTS OR PARTINGS IN CORE</p> <p>ROCK IS ESSENTIALLY FRESH FROM TOP DOWN. HIGH ANGLE JOINTS AND LOW ANGLE PARTINGS SHOW MINOR RUSTY STAINING. GENERALLY SHOW STRIATED SURFACES BUT ARE NOT POLISHED. PYRITE PARTINGS ON STRIATED SURFACES ARE NOT POLISHED</p> <p>ROCK IS ESSENTIALLY FRESH. MINOR LIGHT GREENISH-GRAY POWDER COATING ON JOINTS AND PARTINGS. PARTINGS DIP ROUGHLY 30°, WHILE JOINTS DIP AT VARIOUS ORIENTATIONS AT 55° TO 70°</p> <p>ROCK IS ESSENTIALLY FRESH. TENDS TO PART FAIRLY EASILY ALONG STRIATED CHLORITE-COATED JOINTS. STRIATED SURFACES ARE RE-MINERALIZED AND DO NOT SUGGEST RECENT MOVEMENT. MINOR RUSTY COATING ON SOME PARTINGS</p>	<p>UNCONSOLIDATED OVERBURDEN</p> <p>138' TOP OF ROCK</p> <p>SCHIST, FELDSPATHIC, WITH DISSEMINATED BIOTITE VAGUELY FOLIATED SOMEWHAT MASSIVE MEDIUM-GRAINED TEXTURE. MEDIUM DARK GREY COLOR. MINERALS ARE NOT SUBJECT TO WEATHERING EFFECTS. FOLIATION SENSE IS AROUND 40° DIP</p> <p>ROCK BREAKS ACROSS FOLIATION. FOLIATION DIPS ABOUT 60°, BUT IS NOT PROMINENT EXCEPT LOCALLY.</p> <p>Garnets locally SCHIST, FELDSPATHIC, MEDIUM-GRAINED, SUB-MASSIVE TEXTURE, WITH LOCAL ZONES OF PROMINENT HIGH-ANGLE FOLIATION. STRIATED CHLORITE RICH JOINT SURFACES ARE COMMON AND ARE MODERATELY SLIPPERY.</p>
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JUNE 13 74

## PROJECT SEABROOK NUCLEAR STATION

HOLE LOCATION \_\_\_\_\_

ELEVATION \_\_\_\_\_

BEARING \_\_\_\_\_

INCLINATION \_\_\_\_\_

DEPTH \_\_\_\_\_

J.R. Rand  
Logged By: 5/14/73

CONDITION OF CORE	DIP	GRAPHIC LOG	DESCRIPTIVE NOTES
190'			
200'	BOX 4 198.8' - 216'	ROCK IS ESSENTIALLY FRESH. JOINTS HAVE MINOR STAINING AND PYRITE CRUSTS. JOINTS ARE STRIATED, WITH CHLORITE. PARTINGS DIP 30°-40° ACROSS FOLIATION. JOINTS ARE NOT NOTABLY RUST-STAINED	SCHIST FELDSPATHIC, AS ABOVE. POSSIBLY A LITTLE COARSER-GRAINED THAN ABOVE.
210'			BECOMING MOTTLED WITH BIOTITE KNOTS AND MASSES ENCLOSED IN FELDSPATHIC MATRIX. CONTORTED FOLIATION. (META-VOLCANIC UNIT?)
220'	BOX 5 216' - 236'	ROCK IS FRESH. CHLORITE-RICH PARTINGS ARE SLIPPERY, BUT ARE COATED WITH PYRITE AND/OR POWDER AND DO NOT SHOW RECENT SLIPPAGE.	SCHIST, AS ABOVE, BECOMING MORE MORE BIOTITE-RICH, FINER-GRAINED BELOW 227'. HIGHLY CONTORTED FOLIATION, BUT RESISTANT TO BREAKING.
230'			
240'	BOX 6 236' - 255' 3"	ROCK IS FRESH. JOINTS AND PARTINGS ARE LOCALLY QUITE SLIPPERY, STRIATED.	SCHIST, FELDSPATHIC, BIOTITE-RICH, HIGHLY CONTORTED FOLIATION. MEDIUM-TO MEDIUM-FINE GRAINED, MEDIUM-DARK GREY. CHLORITE AND PYRITE ON JOINTS.
250'			
260'	BOX 7 255' 3" - 264' 5"	ROCK IS FRESH. PARTINGS ARE SLIPPERY.	
270'			
① SAMPLES FOR PHYSICAL TESTING - GEOTECHNICAL ENGINEERS INC. 5/23/73			264' 5" BOTTOM OF HOLE


JUNE 1973

BORING LOCATION <b>N1831</b>		INCLINATION <b>V e r t i c a l</b>		BEARING		DATE START/FINISH <b>June 8, 1973 / July 2, 1973</b>	
CASING <b>ID 5 in. to 4 in. to 3 in.</b>		CORE SIZE <b>2-1/8 in.</b>		TOTAL DEPTH <b>339.6 ft</b>		DRILLED BY <b>American Drilling and Boring, T. Paquette</b>	
GROUND E.L. (MSL) <b>16.9 ft</b>		DEPTH TO WATER/DATE <b>15.2 ft / July 2, 1973</b>		LOGGED BY <b>Soil - K. Polk; Rock - J. R. Rand</b>			

EL. MSL ft	SAMPLE Depth ft	Type N and/or Rec.	RATE OF AD. min/ft	WATER CONTENT or RQD		PRESSURE TEST		STRIKE, DIP F = Foliation J = Joint C = Contact B = Bedding S = Slickenside	CORE BREAKS	SOIL AND ROCK DESCRIPTIONS (Weathering, defects, etc.) (Type, texture, mineralogy, color, hardness, etc.)
				%	Graphic	gpm psi	Computed k 10 <sup>-4</sup> cm/sec			
16.9		A1								Brown fine to medium sand with gravel pieces up to 4" in size (Fill). Light brown medium sand. Clean: uniform: subrounded mains
		A2								
-10		S3	6							Similar to Sample A2, but brown.
0		S4	41							Light brown fine to medium sand. Clean: uniform.
-20		S5	69							Similar to Sample S4.
		S6	34							Light brown medium sand. Clean: uniform: subrounded grains: contains a trace of coarse sand and fine gravel. Similar to Sample S6.
-30		S7	52							
-20		S8	54							Similar to Sample S6.
		S9	57							Similar to Sample S6.
-40		S10	60							Gray fine to medium sand. Clean: uniform: subrounded grains with a trace of coarse sand.
		S11	74							Gray fine sand. Clean: uniform: contains one 10 mm size grave, and a few black silty sand layers 4 mm thick.
-40		S12	80							Similar to Sample S10, but contains a 15 mm thick layer of gray-brown silty sand having a slight organic odor.
		S13	58							Similar to Sample S10.
		S14	29							Similar to Sample S10, but gray-brown.
		S14A	15				TOP	OF CLAY		Gray fine to medium sand. Clean: uniform.
-70		S15	11		43.3					Gray silty clay. Soft: medium plasticity and sensitivity: contains several silt and silty fine sand layers up to 75 mm thick and one 20 mm thick black organic silt layer. Silt and fine sand layers give a very fast reaction to shaking test. $s_u(tor) = 0.13-0.15 \text{ tsf}$ Gray silty clay. Very soft to soft: medium to high plasticity: medium sensitivity: contains a few fine sand lenses up to 8 mm thick. $s_u(tor) = 0.10-0.13 \text{ tsf}$
-60		S16	1		48.2					Similar to Sample S16. $s_u(tor) = 0.11 \text{ tsf}$
		S17	0		41.9					
		S18	0		44.6					Similar to Sample S16. $s_u(tor) = 0.16-0.18 \text{ tsf}$
-90		S19	0		36.8					Similar to Sample S16. $s_u(tor) = 0.18 \text{ tsf}$
-80		S20	0		36.7					Similar to Sample S16. $s_u(tor) = 0.19-0.21 \text{ tsf}$
-100		S21	0		34.3					Similar to Sample S16. $s_u(tor) = 0.20 \text{ tsf}$
		S22	0		34.2					Similar to Sample S16. $s_u(tor) = 0.17-0.19 \text{ tsf}$
-110		S23	0		28.8					Similar to Sample S16. $s_u(tor) = 0.33-0.30 \text{ tsf}$
-100		S24	0		34.8					Similar to Sample S16. $s_u(tor) = 0.19 \text{ tsf}$
-120		S25	0		30.9					Similar to Sample S16. $s_u(tor) = 0.16-0.18 \text{ tsf}$ . (Lost 20 cu. ft mud @ 125 ft)
		S26	102				TOP	OF TILL		
-130		NX-1	100		0					Gray silty gravelly fine to medium sand. Widely graded: contains angular gravel pieces up to 35 mm in size. Possible till material. $128'10"$ May be top of rock. Chips - moderate wx. May be boulder in $129'6"$ Boulder till bit, no recovery
-120		NX-2	97	4.1	67					135'4" Top of good rock. D Fairly fresh. Slight wx ten- Schist, gneissic. Medium to medium Minor rust decay in feldspar, and locally powdery on joints. coarse grained, medium gray. Not stain prominently foliated. Feldspathic.

<b>LEGEND</b> N - Standard penetration resistance, blows/ft Rec - Length recovered/length cored, % RQD - Length of sound core 4 in. and longer/length cored, % S - Split spoon sample U - Undisturbed samples S - Shelby tube F - Fixed piston O - Osterberg D - Drilling break wx - Weathered, weathering N - Denison P - Pitcher G - GEI k - Coefficient of permeability	<b>NOTES</b> A - Auger sample 1) - $s_u(tor)$ = Shear strength measured with Torvane.	<b>SEABROOK STATION</b> PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE YANKEE ATOMIC ELECTRIC COMPANY  Date: October 4, 1973 Project 7286 PAGE 1 of 2 LOG OF BORING F4
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BORING LOCATION <u>N18311, E88393:</u>		INCLINATION <u>Vertical</u>		BEARING _____		DATE START/FINISH <u>June 8, 1973</u> / <u>July 2, 1973</u>	
CASING ID <u>5 in. to 4 in. to 3 in.</u>		CORE SIZE <u>2-1/8 in.</u>		TOTAL DEPTH <u>329.6</u> ft		DRILLED BY <u>American Drilling and Raring. T. Paquette</u>	
GROUND EL. (MSL) <u>16.8</u> ft		DEPTH TO WATER/DATE <u>11.2</u> ft / <u>July 2, 1973</u>		LOGGED BY <u>Soil - K. Polk; Rock - J. R. Rand</u>			

E.L. ISL ft	SAMPLE		RATE OF ADV. min/ft	WATER CONTENT %	OR RQD Graphic	PRESSURE TEST		STRIKE, Dip F = Foliation J = Joint C = Contact E = Bedding	CORE BREAKS	SOIL AND ROCK DESCRIPTIONS (Weathering, defects, etc.) (Type, texture, mineralogy, color, hardness, etc.)	
	Depth ft	Type and No.				gpm psi	Computed 10 <sup>-4</sup> cm/sec				
284										CONTINUED FROM PREVIOUS PAGE	
290											
296											
300											
304											
308											
312											
316											
320											
324											
328											
329.6											
BOTTOM OF BORING											

N - Standard penetration resistance, blows/ft  
 Rec - Length recovered/length cored, %  
 RQD - Length of sound core 4 in. and longer/length cored, %  
 S - Split spoon sample      G - Groundwater  
 U - Undisturbed samples  
 S - Shelby tube      N - Denison  
 F - Fixed piston      P - Pitcher  
 O - Osterberg      G - GEI  
 D - Drilling break      k - Coefficient of permeability  
 WX - Weathered, weathering

NOTES

**SEABROOK STATION**

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

YANKEE ATOMIC ELECTRIC COMPANY

**united engineers** a subsidiary of Raytheon Company

Date: October 4, 1973 Project 7299

PAGE 3 of 3 LOG OF BORING F4



BORING LOCATION <u>N16553, E90235; Offshore</u>		INCLINATION <u>Vertical</u> BEARING _____		DATE START/FINISH <u>Nov. 10, 1973</u> / <u>Nov. 14, 1973</u>	
CASING ID <u>3 in.</u>		CORE SIZE <u>1-7/8 in.</u>		TOTAL DEPTH <u>243.6</u> ft	
DRILLED BY <u>Warren George, Inc. P. Schaeble, J. Harris</u>					
GROUND EL. (MSL) <u>-9.1</u> t		DEPTH TO WATER/DATE <u>Tidal</u> ft / _____		LOGGED BY <u>Soil = K. Polk; Rock = J. R. Rand</u>	

EL. MSL ft	SAMPLE Depth ft	Type and No.	N or Rec.	RATE OF ADV. min/ft	WATER CONTENT %	or RQD Graphs	PRESSURE TEST Compu psi	STRIKE, DIP = F = Foliation = J = Joint = c = contact = B = Bedding	CORE BREAKS	SOIL MD ROCK (Weathering, defects, etc.)	DESCRIPTIONS (Type, texture, mineralogy, color, hardness, etc.)
-9.1		S1	33		2)						Light gray fine sand. Uniform; clean.
		S2	51		None						Gray medium to coarse sand. Uniform; clean; subangular to subrounded grains.
-20		S3	145								Gray-brown gravelly sand. Widely graded; slightly silty; subangular to subrounded grains; contains several gravel pieces up to 25 mm in size.
		S4	67								Similar to S3, but sand is mostly fine to medium grained.
-20		S5	69								Light gray fine to medium sand. Uniform; clean.
		S6	65								Similar to Sample S5.
-38.0		S7	87								Brown silty sandy gravel. Widely graded; fines are nonplastic; angular to subangular grains; contains gravel pieces up to 30 mm in size.
-40		S7A	87								Light gray gravelly very silty fine sand. Uniform; fines nonplastic; contains several angular gravel pieces up to 15 mm in size.
-41.7		S8	123								Similar to Sample S7A, but contains gravel pieces up to 35 mm in size.
-40		NQ-1	83	0.0	29						Hard, but is affected throughout by slight to moderate bleaching (presume hydrothermal). Joints show minor wx effects. Bleaching does not seem to degrade rock strength.
-60		NQ-2	97	6.0	50						Diortite. Fine-grained. Fused contact dips 55°.
-60		NQ-3	94	5.0	49						Diortite. Fine-grained medium tannish-gray. Moderately bleached. Quartz diortite.
-60		NQ-4	102	5.0	55						
-60		NQ-5	100	4.0	85						
-80		NQ-6	99	6.0	97						
-80		NQ-7	100	8.0	81						
-80		NQ-8	100	6.0	96						
-100		NQ-9	100	1.0	90						
-100		NQ-10	100	5.0	70						
-120		NQ-11	100	5.0	50						
-120		NQ-12	98	5.0	97						
-120		NQ-13	100	1.0	65						
-140		NQ-14	100	5.0	83						
-140		NQ-15	98	5.0	85						
-140		NQ-16	98	5.0	88						
-140		NQ-17	98	5.0	88						
-140		NQ-18	98	5.0	88						
-140		NQ-19	98	5.0	88						
-140		NQ-20	98	5.0	88						
-140		NQ-21	98	5.0	88						
-140		NQ-22	98	5.0	88						
-140		NQ-23	98	5.0	88						
-140		NQ-24	98	5.0	88						
-140		NQ-25	98	5.0	88						
-140		NQ-26	98	5.0	88						
-140		NQ-27	98	5.0	88						
-140		NQ-28	98	5.0	88						
-140		NQ-29	98	5.0	88						
-140		NQ-30	98	5.0	88						
-140		NQ-31	98	5.0	88						
-140		NQ-32	98	5.0	88						
-140		NQ-33	98	5.0	88						
-140		NQ-34	98	5.0	88						
-140		NQ-35	98	5.0	88						
-140		NQ-36	98	5.0	88						
-140		NQ-37	98	5.0	88						
-140		NQ-38	98	5.0	88						
-140		NQ-39	98	5.0	88						
-140		NQ-40	98	5.0	88						
-140		NQ-41	98	5.0	88						
-140		NQ-42	98	5.0	88						
-140		NQ-43	98	5.0	88						
-140		NQ-44	98	5.0	88						
-140		NQ-45	98	5.0	88						
-140		NQ-46	98	5.0	88						
-140		NQ-47	98	5.0	88						
-140		NQ-48	98	5.0	88						
-140		NQ-49	98	5.0	88						
-140		NQ-50	98	5.0	88						
-140		NQ-51	98	5.0	88						
-140		NQ-52	98	5.0	88						
-140		NQ-53	98	5.0	88						
-140		NQ-54	98	5.0	88						
-140		NQ-55	98	5.0	88						
-140		NQ-56	98	5.0	88						
-140		NQ-57	98	5.0	88						
-140		NQ-58	98	5.0	88						
-140		NQ-59	98	5.0	88						
-140		NQ-60	98	5.0	88						
-140		NQ-61	98	5.0	88						
-140		NQ-62	98	5.0	88						
-140		NQ-63	98	5.0	88						
-140		NQ-64	98	5.0	88						
-140		NQ-65	98	5.0	88						
-140		NQ-66	98	5.0	88						
-140		NQ-67	98	5.0	88						
-140		NQ-68	98	5.0	88						
-140		NQ-69	98	5.0	88						
-140		NQ-70	98	5.0	88						
-140		NQ-71	98	5.0	88						
-140		NQ-72	98	5.0	88						
-140		NQ-73	98	5.0	88						
-140		NQ-74	98	5.0	88						
-140		NQ-75	98	5.0	88						
-140		NQ-76	98	5.0	88						
-140		NQ-77	98	5.0	88						
-140		NQ-78	98	5.0	88						
-140		NQ-79	98	5.0	88						
-140		NQ-80	98	5.0	88						
-140		NQ-81	98	5.0	88						
-140		NQ-82	98	5.0	88						
-140		NQ-83	98	5.0	88						
-140		NQ-84	98	5.0	88						
-140		NQ-85	98	5.0	88						
-140		NQ-86	98	5.0	88						
-140		NQ-87	98	5.0	88						
-140		NQ-88	98	5.0	88						
-140		NQ-89	98	5.0	88						
-140		NQ-90	98	5.0	88						
-140		NQ-91	98	5.0	88						
-140		NQ-92	98	5.0	88						
-140		NQ-93	98	5.0	88						
-140		NQ-94	98	5.0	88						
-140		NQ-95	98	5.0	88						
-140		NQ-96	98	5.0	88						
-140		NQ-97	98	5.0	88						
-140		NQ-98	98	5.0	88						
-140		NQ-99	98	5.0	88						
-140		NQ-100	98	5.0	88						

**LEGEND**

Rec - Standard penetration resistance, blows/ft

RQD - Length recovered/length cored, %

S - Length of sound core 4 in. and longer/length cored, %

U - Split spoon sample

U - Undisturbed samples

S - Shelby tube

F - Fixed piston

O - Osterberg

D - Drilling break

wx - Weathered, weathering

N - Denison

P - Pitcher

G - GEI

k - Coefficient of permeability

**NOTES**

1)- Roller bit to 40.5 ft

2)- No clays present; therefore no water contents were determined.

3)- This is only a partial list of dip and strike data.

• 300 lb. hammer used.

**SEABROOK STATION**

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

YANKEE ATOMIC ELECTRIC COMPANY

**United Engineers** & Constructors Inc.

Date: November 23, 1973 Project 7286

PAGE 2 1 LOG OF BORING ADT 16

BORING LOCATION <b>N16553, E90235, Offshore</b>			INCLINATION <u>Vertical</u> BEARING _____		DATE <b>START/FINISH</b> <u>Nov. 10, 1973</u> / Nov. 14, 1973	
CASING <u>3 in.</u>			I-T/S <u>in. ft</u> TOTAL DEPTH <u>243.6</u> ft		DRILLED BY <u>warren George, Inc.; P. Schaeble, J. Harris</u>	
GROUND EL. (MSL) <u>9.1</u>			DEPTH TO WATER/DATE <u>Tidal</u> ft /		LOGGED BY <u>Soil - K. Polk; Rock - J. Rand</u>	

EL. MSL ft.	Depth ft.	SAMPLE Type and No.	RATE OF ADV. ft/min	WATER CONTENT %	or RQD %	PRESSURE psi	T E 10 <sup>-4</sup> cm/sec	S T J = Joint C = contact B = Bedding	STRIKE DIP	CORE PREP	SOIL AND ROCK DESCRIPTIONS (Weathering, defects, etc.) (Type, texture, mineralogy, color, hardness, etc.)	
											CONTINUED FROM PREVIOUS PAGE	
-152.9	143.6	NQ-1	100	5.1	70			N81E, 35SE J			<p>Fresh and hard. Drills well. Only very minor wx effects on joints and Partings.</p> <p>Diorite. Fine-grained, medium dark gray. Irregularly foliated throughout.</p> <p>Diabase</p>	
-160	150	NQ-1	100	4.1	97		0.0	N42W, 30NE J				
		NQ-1	100	6.1	88			N 5W, 76NE S				
		NQ-1	100	5.1	94			N 0E, 44NE J				
-160	160	NQ-1	100	5.1	94			N78W, 60SW			<p>Pyrone</p> <p>Fresh and hard. Drills well. Diabase is tan-bleached, but adjacent diorite is not bleached. Sharp contacts.</p> <p>166' Diabase. Unbleached.</p> <p>168' Intrusive contact dips 50°</p> <p>170.3' Diabase. Bleached tan. Fine-grained. Hard</p> <p>173.8' Fused contact dips 80°</p>	
		NQ-1	100	5.1	100			N26E, 71NW J				
		NQ-1	100	5.1	69		0.04	N80W, 78NE J				
		NQ-1	100	5.1	100			N13W, 68SW S				
-180	170	NQ-1	100	5.1	69		0.04	N20E, 70SE J			<p>Diorite. Fine-grained, medium gray.</p> <p>183.5' Irregular fused intrusive contact</p> <p>183.5' Fine Diabase. Tan/bleached throughout</p> <p>Coarse</p> <p>High angle. fused fault (?) Contact</p>	
		NQ-1	100	5.1	100			N30W, 40NE J				
		NQ-1	100	6.1	87			N82W, 48NE J				
		NQ-1	100	4.1	81			N73W, 30NE J				
-200	190	NQ-1	100	5.1	60		0.03	N21W, 49NE J			<p>Slickensides - Apparently welded</p> <p>Slickensides</p> <p>Pyrone</p> <p>Bleached</p> <p>Moderate wx</p> <p>Moderate wx</p> <p>Highly polished smooth slickensides, dip 66°</p> <p>Highly polished slickensides</p> <p>Slight wx</p> <p>D</p> <p>Slight wx</p> <p>Talc</p>	
		NQ-1	100	5.1	60			N55E, SONW				
		NQ-1	100	5.1	90			N88E, 34NW S				
		NQ-1	99	5.1	90			N15E, 72SE S				
-200	200	NQ-1	100	6.0	66			N20E, 35SE J			<p>Fresh and hard. Locally subject to slight to moderate wx effects on joint surfaces. Highly polished slickensides at 113'. Also at 117.6'.</p> <p>Hard, but bleached throughout to light greenish tan. Presumed hydrothermal bleach.</p> <p>Hard, but bleached throughout. Drills well. Minor surface wx effects on joints. Joints are not slickensided.</p>	
		NQ-1	100	5.0	60			N58E, 46NW J				
		NQ-1	97	5.0	60			N75E, 27SE J				
		NQ-1	100	5.0	67		0.02	N88E, 44NW S				
-220	210	NQ-1	100	5.0	67		0.02	N12E, 55NW J			<p>2020' Fused feldspathized contact</p> <p>Tan aphanitic rock-quartz eyes.</p> <p>Quartzite</p> <p>Bleached (hydrothermal?).</p> <p>Diorite. Mixed medium fine quartz diorite. Coarse grained quartz diorite and quartzitic.</p>	
		NQ-1	100	5.0	82			N57E, 12NW S				
		NQ-1	100	5.0	67			N75E, 57SE J				
		NQ-1	100	5.0	67			N64W, 64NE S				
-220	220	NQ-1	100	5.1	67			N40E, 65NW J			<p>2126' Diorite. Bleached throughout to light greenish tan. Fine-grained quartzose.</p> <p>2260' Fused contact dips about 80°</p> <p>Diabase. Bleached to light greenish tan. Fine-grained with darker green mineral speckling.</p>	
		NQ-1	100	5.1	67			N16E, 34NE S				
		NQ-1	100	5.8	88			N32E, 32SE S				
		NQ-1	100	5.6	52		0.01	N41W, 35NE J				
-240	230	NQ-1	100	5.6	52		0.01	N57E, 66NW J			<p>2386' Fused contact. Irregular dip</p> <p>Diorite. Bleached. Fine-grained, greenish tan.</p>	
		NQ-1	96	5.0	81			N44W, 74SW S				
		NQ-1	96	5.0	81			N90E, 35S J				
		NQ-1	100	5.0	80			N45E, 42NW J				
-240	240	NQ-1	100	5.0	80			N23E, 76SE J				
-243.6	243.6							BOTTOM OF BORING				

**LEGEND**

N - Standard penetration resistance, blows/ft

Rec - Length recovered/length cored, %

RQD - Length of sound core 4 in. and longer/length cored, %

S - Split spoon sample

U - Undisturbed samples

S - Shelby tube

F - Fixed piston

O - Osterberg

D - Drilling break

wx - Weathered, weathering

N - Denison

P - Pitcher

G - GRI

k - Coefficient of permeability

**NOTES**

X = Oriented core.

**SEABROOK STATION**

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

YANKEE ATOMIC ELECTRIC COMPANY

**united engineers** constructors inc.

a subsidiary of Raytheon Company

Date: November 23, 1973 Project 7266

PAGE 2 of 2 LOG OF BORING ADT 16



BORING LOCATION <u>N16871, E90280; Offshore</u>		INCLINATION <u>Vertical</u>		BEARING _____		DATE START/FINISH <u>Jan. 4, 1974 / Jan. 7, 1974</u>	
CMWG ID <u>3 in.</u>		CORE SIZE <u>1-7/8 in.</u>		TOTAL DEPTH <u>240.3</u> ft		DRILLED BY <u>Warren George, Inc.; P. Schaeble, J. Harris</u>	
GROUND EL (MSL) <u>-4.0</u> ft		DEPTH TO WATER/DATE _____		Tidal _____		LOGGED BY <u>Soil - K. Polk; Rock - J.R. Rand</u>	

EL. MSL ft	SAMPLE Depth ft	Type No.	N or R ec.	RATE OF ADV. in./ft	WATER CONTENT %	or RQD %	PRESSURE TEST		STRIKE, DIP F = Foliation J = Joint C = Contact B = Bedding	CORE BREAKS	SOIL AND ROCK DESCRIPTIONS (Weathering, defects, etc., Type, texture, mineralogy, color, hardness, etc.,
							SPM psi	Computed 10' cm/sec			
S = Slick CONTINUED FROM PREVIOUS PAGE											
-150	100	NQ-17			94				N10E, 23SW N10E, 30SE N45W, 27SW J N60W, 25SW J		Fresh and hard. Drills very well. Joints and partings are fresh, not slickensided.
-160	100	NQ-18			100				N25W, 56NE J		
-160	100	NQ-19			100				N61W, 35SW J N84E, 67SE F N11W, 18SW S N23E, 50SE F N47E, 76SE F		Fresh and hard. Drills well. Joints and partings clean. Tends locally to part on high-angle foliation.
-160	62	NQ-20			92				N25E, 76SE J N 5E, 34NW J N50W, 26NE J		
-160	85	NQ-21			85				N74W, 60NE J		
-160	98	NQ-22			94						
-160	100	NQ-23			100						
-180	100	NQ-24			97						
-180	100	NQ-25			100						
-180	100	NQ-26			100						
-180	100	NQ-27			100						
-180	100	NQ-28			100						
-180	100	NQ-29			100						
-180	100	NQ-30			100						
-180	100	NQ-31			100						
-180	100	NQ-32			100						
-180	100	NQ-33			100						
-180	100	NQ-34			100						
-180	100	NQ-35			100						
-180	100	NQ-36			100						
-180	100	NQ-37			100						
BOTTOM CIP BORING											

**LEGEND**

N - Standard penetration resistance, blows/ft  
RQD - Length of sound core 4 in. and longer/length cored, %  
S - Split spoon sample  
U - Undisturbed samples

S - Shelby tube    N - Denton  
F - Fixed piston    P - Pfister  
O - Osterberg    G - GEI

D - Drilling break    k - Coefficient of permeability  
wx - Weathered, weathering

**NOTES**

(6) This is only a partial list of dip and strike data.

**SEABROOK STATION**  
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
YANKEE ATOMIC ELECTRIC COMPANY

**united engineers & constructors inc.**

Date: January 14, 1974      Project 7284

PAGE 2 of 2      LOG OF BORING      ADT16A

BORING LOCATION <u>N16545, E90185; Offshore</u>		INCLINATION <u>Vertical</u>		BEARING _____		DATE START/FINISH <u>Jan. 8, 1974</u> / <u>Jan. 14, 1974</u>	
CASING ID <u>3 in.</u>		CORE SIZE <u>1-7/8 in.</u>		TOTAL DEPTH <u>240.0</u> ft		DRILLED BY <u>Warren George, Inc.; P. Schaebler, J. Harris</u>	
GROUND EL. (MSL) <u>ft 5.3</u>		DEPTH TO WATER/DATE _____		Tidal <u>ft /</u>		LOGGED BY <u>Soil - K. Polk; Rook - J. R. Rand</u>	

E L MSL ft	SAMPLE			RATE OF ADV. min/ft	WATER or RQD CONTENT		PRESSURE psi	TEST Computed 10 <sup>-4</sup> cm/sec	STRIKE, DIP F = Foliation J = Joint C = Contact B = Bedding	CORE BREAKS	SOIL AND ROCK DESCRIPTIONS (Weathering, defects, etc., (Type, texture, mineralogy, color, hardness, etc.,)
	Depth ft	Type No.	N or Rec.		%	Graphic					
-8.3											
-10											
-20											
-36.3											
-40											
-50											
-60											
-70											
-80											
-90											
-100											
-110											
-120											
-130											
-140											
-150											
-160											
-170											
-180											
-190											
-200											
-210											
-220											
-230											
-240											

<p>N - Standard penetration resistance, blows/ft</p> <p>Rec - Length recovered/length cored, %</p> <p>RQD - Length of sound core 4 in. and longer/length cored, %</p> <p>S - Split spoon sample</p> <p>U - Undisturbed sample</p> <p>S - Shelby tube</p> <p>F - Fixed piston</p> <p>O - Osterberg</p> <p>D - Drilling break</p> <p>W - Weathered... weathering</p> <p>N - Denison</p> <p>P - Pitcher</p> <p>G - GE</p> <p>k - Coefficient of permeability</p>	<p>NOTES</p> <p>1) No samples taken.</p> <p>2) Roller bitted to 38.0 ft.</p> <p>3) NC clays present; therefore no water contents were determined.</p> <p>4) Drill time for entire boring 1mm 8 to 15 minutes per foot.</p> <p>x - Oriented core</p>	<p><b>SEABROOK STATION</b></p> <p>PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE</p> <p>YANKEE ATOMIC ELECTRIC COMPANY</p> <p> <b>united engineers</b> a subsidiary of Northern Company</p> <p>Date: April 11, 1974 Project 7286</p> <p>PAGE 2 of 2 LOG OF BORING ADP-16B</p>
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BORING LOCATION <b>N16546, E90185; Offshore</b>		INCLINATION <b>Vertical</b>		BEARING		DATE START/FINISH <b>Jan. 8, 1974 / Jan. 14, 1974</b>	
CASING ID <b>3 in.</b>		CORE SIZE <b>1-7/8 in.</b>		TOTAL DEPTH <b>240.0 ft</b>		DRILLED BY <b>Warren George, Inc.; P. Schaeble, J. Harris</b>	
GROUND EL. (MSL) <b>8.3 ft</b>		DEPTH TO WATER/DATE <b>Tidal</b>		ft /		LOGGED BY <b>Soil - K. Polk; Rock - J. R. Rand</b>	

EL. MSL ft	SAMPLE Depth ft	Type No.	N or Rec.	RATE OF ADV. min/ft	WATER CONTENT %	or RQD Graphic	PRESSURE TEST applied psi	Computed 10 <sup>-3</sup> k cm/sec	STRIKE, DIP F = Foliation J = Joint C = Contact B = Bedding	CORE BREAKS	SOIL AND ROCK DESCRIPTIONS (Weathering, defects, etc.) (Type, texture, mineralogy, color, hardness, etc.)	
CONTINUED FROM PREVIOUS PAGE												
162.4	NQ-14	100		100					N36W, 58NE S N35W, 34SW C			47.5' Open contact dips 29°
150	NQ-15	100		100					N13W, 38SW J N26E, 53NW J	Fresh. Hard. Drills well. Joints and partings are not slickensided.		50.4' Diabase. Dark gray. Open contact dips 35°
160	NQ-16	100		100					N72W, 51SW F			Diorite. Quartzose. Fine grained, medium dark gray. Wavy, foliated. Steep dips.
160	NQ-17	100		88					N36W, 41NE S N26W, 31NE S N82E, 52NWS N78E, 68SE J	Graphite-polished		
170	NQ-18	100		93					N 6W, 21NE S N82W, 76SW F	Minor polish	Fresh and hard. Drills well. Joints and partings show only very minor surface wx effects. Minor bleaching at 169-170'.	Fused, welded breccia
180	NQ-19	100		73					N31E, 34NW S N 6W, 41NE F N29W, 32SW S N50W, 52NE J N59E, 76SE F	Graphite		Diorite. Fine-grained dark gray. Irregular wavy foliation. Slightly bleached, medium-grained at 168' and 169'. Fused contacts.
180	NQ-20	100		100					N41E, 43NW J N 0E, 58NE F			
180	NQ-21	97		97					N63W, 50SW J			
180	NQ-22	100		97					N72W, 71NE J N86W, 35SW F N89E, 80NE S N89E, 51SW F		Fresh and hard. Drills very well. Not slickensided.	Diorite. Fine-grained, medium dark gray quartz diorite. Vaguely to widely foliated throughout.
180	NQ-23	100		100					N46E, 60SE J			
180	NQ-24	100		88					N85W, 79NE S N64E, 59SE F N25W, 42SW J			
180	NQ-25	100		95					N32E, 57SE J			
180	NQ-26	100		100					N79W, 47SW J N75E, 49NW F N22E, 31NW J	D	Fresh and hard. Not slickensided. Drills well. Only very minor surface wx effects on joints and partings.	Diorite. Mixed fine-grained dark gray quartz diorite and medium-coarse, medium gray granodiorite. Locally foliated.
180	NQ-27	100		90					N52W, 33NE J	Minor slickensides		
180	NQ-28	100		98					N32E, 41SE S N52E, 52SE J	Pyrite		Fine-grained, dark gray.
180	NQ-29	100		98						Minor wx		
180	NQ-30	92		90						Surface powder	Fresh, but bleached by hydrothermal alteration. Not wx. Not slickensided.	225.9' Fused contact dips about 60°
180	NQ-31	100		97					N41E, 36SE F N80E, 71NW J	D		Quartz diorite. Granodiorite. Medium coarse-grained, medium light greenish-gray. Feldspar veining is tight.
180	NQ-32	100		100					N31E, 33SE J N52E, 57NW S		Fresh. Bleached. High-angle veinlets.	Bleached throughout
180	NQ-33	100		94						Striated-slickensides		Bleached
180										Not polished		
BOTTOM OF BORING												

**LEGEND**

N - Standard penetration resistance, blows/ft

RQD - Length of sound core 4 in. and longer/length cored, %

S - Split spoon sample

U - Undisturbed samples

S - Shelby tube

F - Fixed piston

O - Osterberg

D - Drilling break

wx - Weathered, weathering

N - Denison

P - Pitcher

G - GEI

k - Coefficient of permeability

**NOTES**

**SEABROOK STATION**  
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

YANKEE ATOMIC ELECTRIC COMPANY

**united engineers**  
a subsidiary of Northern Company

Date: April 11, 1974 Project 7286

PAGE 2 2 of LOG OF BORING ADT 16B

BORING LOCATION <u>N16493, E90257; Offshore</u> INCLINATION <u>Vertical</u> BEARING _____ DATE START/FINISH <u>Jan. 14, 1974</u> , <u>Jan. 17, 1974</u>									
CASING m <u>3 in.</u>		CORE SIZE <u>1-7/8 in.</u>		TOTAL DEPTH <u>238.5</u> ft		DRILLED BY <u>Warren George, Inc.: P. Schaeble, J. Harris</u>			
GROUND EL (MSL) <u>-9.5</u> ft		DEPTH TO WATER/DATE _____		Tidal _____ ft /		LOGGED BY <u>Soil - K. Polk; Rock - J. R. Rand</u>			

EL. ASL ft	SAMPLE			RATE OF ADV. min/ft	WATER or RQD CONTENT		PRESSURE TEST		STRIKE, DIP F = Foliation J = Joint C = Contact B = Bedding S = Slickenside	CORE BREAKS	SOIL AND ROCK DESCRIPTIONS (Weathering, defects, etc.) (Type, texture, mineralogy, color, hardness, etc.)	
	Depth ft	Type No	N or Rec		%	Graphic	psi	Computed 10 <sup>-4</sup> k/cm/sec				
5.5												
10												
20												
30												
40												
50												
60												
70												
80												
90												
100												
110												
120												
130												
140												
150												
160												
170												
180												
190												
200												
210												
220												
230												
240												
250												
260												
270												
280												
290												
300												

N - Standard penetration resistance, blows/ft  
Rec - Length recovered/length cored, %  
RQD - Length of sound core 4 in. and longer/length cored, %  
S - Split spoon \* OD = Groundwater  
U - Undisturbed samples

S - Shelby tube    N - Denison  
F - Fixed piston    P - Pitcher  
O - Osterberg    G - GEI

D - Drilling break    k - Coefficient of permeability  
WX - Weathered, weathering

NOTES

1) Washed through soil O-33". No samples taken.

2) - No clays present; therefore no water contents were determined.

x - Oriented core.

**SEABROOK STATION**  
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
YANKEE ATOMIC ELECTRIC COMPANY  
  
Date: April 17, 1974      Project 7286

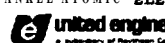
PAGE 2 1 of      LOG OF BORING    ADT 16C

BORING LOCATION <u>N16493, E90257; Offshore</u>		INCLINATION <u>Vertical</u>		BEARING <u></u>		DATE START/FINISH <u>Jan. 14, 1974</u> , <u>Jan. 17, 1974</u>	
CASING ID <u>3 in.</u>		CONE SIZE <u>1-7/8 in.</u>		TOTAL DEPTH <u>238.5</u> ft		DRILLED BY <u>Warren George, Inc.; P. Schaeble, J. Harris</u>	
GROUND EL. (MSL) <u>-5.5</u> ft		DEPTH TO WATER/DATE <u>Tidal</u> ft /		LOGGED BY <u>Soil - K. Polk; Bock - J. R. Rand</u>			

EL. MSL ft	SAMPLE Depth ft	Type No.	N or Rec.	RATE OF ADV. min/ft	WATER CONTENT %	or RQD Graphic	PRESSURE TEST Computed 10 <sup>-4</sup> k cm/sec	STRIKE, DIP F = Folliation J = Joint C = Contact B = Bedding	CORE BREAKS	SOIL AND ROCK DESCRIPTIONS (Weathering, defects, etc.) (Type, texture, mineralogy, color, hardness, etc.)	
CONTINUED FROM PREVIOUS PAGE											
143.6	x NQ-29	100	10.0	92				N82E, 22SE S N20E, 56SE J N59W, 52NE J N69E, 33SE J		Joints and partings not slickensided.	Diabase. Fine-grained, dark gray. Grades to medium-grained at 145'. Becomes white feldspar speckled at 151'.
150	x NQ-30	98	8.8	95						Feldspar specs throughout	
160	x NQ-31	100	9.4	37				N50W, 43NE J N66W, 69NE J		Fresh and hard. Drills well. Joints and partings locally show striations, minor slickensides.	Diabase. Fine-grained, dark gray.
160	NQ-32	100	9.0	73					Striated		
170	NQ-33	100	8.2	82					Striated		
170	NQ-34	100	9.0	65						166.9' Open contact dips 38°	Diorite. Fine-grained, medium gray. Quartzose, diabase inclusion is irregular, fused.
180	NQ-35	100	7.2	87						177.0' 8" granodiorite at base. Fused contact dips 70°	Diabase. Fine-grained, dark gray with calcite phenocrysts 183' to 186'.
180	x NQ-36	100	8.5	79				N53E, 29SE J N39W, 57NE J N26E, 66NW J N26E, 64NW J	Open joint Calcite coated		
190	x NQ-37	100	9.6	98						Calcite speckling	Diabase, as above.
200	x NQ-38	100	8.2	80				N54W, 62NE S			
200	x NQ-39	100	9.5	47				N58W, 44NE J N63W, 69SW J N41E, 74NW J	Chlorite Chlorite Slippery	194.5' Open contact dips 14°	Diorite. Fine-grained, medium dark gray quartzose. Fairly well foliated throughout.
200	x NQ-40	100	9.7	50				N 4W, 18NE J N41E, 35NW J N44W, 84NE J N63W, 55SW J	Chlorite Rough Irregular joints		
210	x NQ-41	100	8.9	23				N45E, 73NW J N32E, 34SE J N16E, 39SE J N63E, 35SW J N62W, 43SW J	Calcite, pyrite on foliation	Fresh and hard throughout. Joints and partings show only minor surface wx effects. Fresh and hard. Minor surface wx effects on partings.	Prominent pyrite mineralization with calcite. Fused breccia at 208.8 to 210.4'. Fused contact dips 5°
220	x NQ-42	100	9.0	45				N58E, 18NW J N83W, 10NW J			
220	x NQ-43	100	9.1	58					Striated Calcite-slickensided	217.4' Brown chert some. Not bleached.	Diabase. Fine at top.
230	x NQ-44	98	9.7	90				N78E, 65SE J N17E, 41SE S			Diabase. Medium-fine grained, dark gray with hair-line calcite veinlets.
230	x NQ-45	100	8.6	82							
240	x NQ-46	100	9.5	90				N53W, 70NE J N46E, 45SE J	Calcite lined	235.5' Rock gradually becomes bleached, transitional contact	
240	x NQ-47	93	9.1	93				N 1E, 34NE J		bleach over .5' core	
240								BOTTOM OF BORING			

<b>LEGEND</b> R - Standard penetration resistance, blows/ft Rec - Length recovered/length cored, % RQD - Length of sound core 4 in. and longer/length cored, % S - Split spoon sample U - Undisturbed samples S - Shelby tube    N - Denison F - Fixed piston    P - Pitcher O - Osterberg    G - GEI D - Drilling break    k - Coefficient of permeability wx - Weathered, weathering	<b>NOTES</b> x - Oriented core.  x - Oriented core.	<b>SEABROOK STATION</b> PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE YANKEE ATOMIC ELECTRIC COMPANY  Date: April 17, 1974    Project 7286 PAGE 2 of 2    LOG OF BORING ADT 16C
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BORING LOCATION <u>N16600, E90219; Offshore</u>		INCLINATION <u>Vertical</u>		BEARING _____		DATE START/FINISH <u>Nov. 10, 1974</u> / <u>Nov. 14, 1974</u>	
CASING ID <u>3 in.</u>		CORE SIZE <u>1-7/8 in.</u>		TOTAL DEPTH <u>341.4</u> <u>A</u>		DRILLED BY <u>Warren George, Inc.; P. Schaeble, J. Harris</u>	
GROUND EL (MSL) <u>-7.8 ft</u>		DEPTH TO WATER/DATE <u>Tidal</u> <u>ft/</u> <u>-</u>		LOGGED BY <u>Soil - K. Polk; Bock - J. R. Rand</u>			

EL. 4SL ft	SAMPLE			RATE OF ADV. min/ft	WATER CONTENT or RQD		PRESSURE TEST		STRIKE, DIP F = Foliation J = Joint C = Contact B = Bedding	SOIL AND ROCK DESCRIPTIONS (Weathering, defects, etc., (Type, texture, mineralogy, color, hardness, etc.))	
	Depth ft	Type and No.	N or Rec.		%	Graphic	gpm psi	Computed k 10 <sup>-4</sup> cm/sec		Ca	Bt
7.8											S = Slickenside
10											
20											
30											
38.0											
40											
42		NQ-1	00	7.0	19						Minor polish
44		NQ-1	00	7.0	46						Minor polish
46		NQ-1	00	5.0	52						Fresh and hard. Closely spaced high-angle joints. Joints are polished at 42.3' and 44.5'.
48		NQ-1	00	6.0	48						Vertical joint
50		NQ-1	82	5.0	53						
52		NQ-1	99	7.0	35						Fresh and hard. Drills well. Polished surface shiny at 70.1'.
54		NQ-1	00	6.0	76						Polished slickensides at 70.1'
56		NQ-1	99	6.0	79						Fresh and hard. Drills well. High-angle joints are smooth, planar. Not polished. Minor surface wx effects.
58		NQ-1	00	6.0	74						
60		NQ-1	00	6.0	79						Smooth
62		NQ-1	00	6.0	79						Pyrite-minor polish
64		NQ-1	97	7.0	67						Smooth joints
66		NQ-1	96	8.0	62						Fresh and hard. Not bleached. Joints are characteristically planar. Smooth locally show high polish.
68		NQ-1	100	8.0	88						55° joints-high polish-smooth 65° joints-smooth 65° joints-smooth
70		NQ-1	100	1.0	33						Vertical joint
72		NQ-1	100	8.0	80						Chlorite
74		NQ-1	100	8.0	72						Thin chlorite coating on non-polished joints.
76		NQ-1	100	8.0	27						Fresh, hard. Not bleached. Some smooth joints. Not highly polished.
78		NQ-1	100	8.0	27						Calcite filling
80		NQ-1	100	8.0	27						Minor polish
82		NQ-1	100	8.0	27						
84		NQ-1	100	8.0	27						
86		NQ-1	100	8.0	27						
88		NQ-1	100	8.0	27						
90		NQ-1	100	8.0	27						
92		NQ-1	100	8.0	27						
94		NQ-1	100	8.0	27						
96		NQ-1	100	8.0	27						
98		NQ-1	100	8.0	27						
100		NQ-1	100	8.0	27						
102		NQ-1	100	8.0	27						
104		NQ-1	100	8.0	27						
106		NQ-1	100	8.0	27						
108		NQ-1	100	8.0	27						
110		NQ-1	100	8.0	27						
112		NQ-1	100	8.0	27						
114		NQ-1	100	8.0	27						
116		NQ-1	100	8.0	27						
118		NQ-1	100	8.0	27						
120		NQ-1	100	8.0	27						
122		NQ-1	100	8.0	27						
124		NQ-1	100	8.0	27						
126		NQ-1	100	8.0	27						
128		NQ-1	100	8.0	27						
130		NQ-1	100	8.0	27						
132		NQ-1	100	8.0	27						
134		NQ-1	100	8.0	27						
136		NQ-1	100	8.0	27						
138		NQ-1	100	8.0	27						
140		NQ-1	100	8.0	27						
142		NQ-1	100	8.0	27						
144		NQ-1	100	8.0	27						
146		NQ-1	100	8.0	27						
148		NQ-1	100	8.0	27						
150		NQ-1	100	8.0	27						

**NOTES**

1) - Washed through soil O-38". No samples taken.

2) - No clays present; therefore no water contents were determined.

x - Oriented core.

### SEABROOK STATION

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

YANKEE ATOMIC ELECTRIC COMPANY

**united engineers** a construction inc.

Date: April 16, 1974
Project 7286

PAGE 1 of 2
LOG OF BORING A D T 160

N - Standard penetration resistance, blows/ft  
 Rec - Length recovered/length cored, %  
 RQD - Length of sound con 4 in. and longer/length cored, %  
 S - Split spoon sample  
 U - Undisturbed samples  
 S - Shelby tube N - Denison  
 F - Fixed piston P - Pitcher  
 O - Osterberg G-GE,  
 D - Drilling break 'k - Coefficient of  
 wx Weathered, weathering permeability

**NOTES**

1) - Washed through soil O-38". No samples taken.

2) - No clays present; therefore no water contents were determined.

x - Oriented core.

**SEABROOK STATION**  
 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
 YANKEE ATOMIC ELECTRIC COMPANY  
**united engineers** a construction inc.

Date: April 16, 1974

Project 7286

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LOG OF BORING A D T 160

BORING LOCATION				INCLINATION		DATE START/FINISH	
N16600, E90219; Offshore				Vertical		Nov. 10, 1974 / Nov. 14, 1974	
CASING ID		CORE SIZE	TOTAL DEPTH	DRILLED BY			
3 in.		1-7/8 in.	241.4 ft	Warren George, Inc.; P. Schaeble, J. Harris			
GROUND EL (MSL)		DEPTH TO WATER/DATE		LOGGED BY			
-7.8 ft		Tidal		Soil K. Pout; Rock - J. R. Rand			
EL. 68L	SAMPLE	RATE OF ADV.	WATER CONTENT	OR RQD	PRESSURE TEST	STRIKE, DIP	SOIL AND ROCK DESCRIPTIONS
ft	Depth Type and No.	N or Rec. in./ft	%	Graphic	Computed psi k 10 <sup>-3</sup> cm/sec	F = Foliation J = Joint C = Contact B = Bedding	(Weathering, defects, etc., (Type, texture, mineralogy, color, hardness, etc.))
S = Slickenside							
CONTINUED FROM PREVIOUS PAGE							
144.5	NQ-19	100	7.0	63		N76W, 67NE N64W, 52NE N38W, 24SW J N89E, 32SE J N48E, 13NW N66E, 13NW J N55E, 24NW J N 6W, 23NE J	Fused contact dips 56° Diabase. Fine-grained, dark gray with fine calcite specks scattered throughout.
150	NQ-20	100	9.0	85			
160	NQ-21	100	9.0	66			
160	NQ-22	100	9.0	93			
170	NQ-23	98	9.0	72			
170	NQ-24	100	9.0	92			
180	NQ-25	100	9.0	ST			
180	NQ-26	100	10.0	62			
190	NQ-27	100	10.0	48			
200	NQ-28	100	12.0	22			
200	NQ-29	98	11.0	72			
210	NQ-30	100	10.0	66			
210	NQ-31	98	13.0	78			
220	NQ-32	100	13.0	87			
220	NQ-33	9	12.0	65			
230	NQ-34	100	15.0	54			
230	NQ-35	100	14.0	49			
240	NQ-36	100	12.0	41			
240	NQ-37	100	12.0	46			
240	NQ-38	100	12.0	17			
241.4	BOTTOM OF BORING						
<p>Fresh and hard. Drills very well. Joints and partings are clean. Local minor calcite coating on joints. Not smooth or slickensided.</p> <p>Fresh and hard. Drills very well. Joints and partings are not smooth or slickensided. No bleaching.</p> <p>Fresh and hard. Drills well. Joints and partings are fairly fresh. Calcite fillings in some joints.</p> <p>Fresh and hard. Drills well. Only very minor local surface wx effects on joints and partings. Not slickensided.</p> <p>Fresh and hard. Drills very well. Joints and partings show only very minor surface wx effects.</p> <p>Fresh and hard. Drills well. Minor surface wx effects on joints and partings.</p>							
<p>Diabase. Fine-grained dark gray with prominent white calcite phenocrysts.</p> <p>Diabase. Fine-grained dark gray with fine calcite specks scattered throughout.</p> <p>Diabase. Fine-grained dark gray with prominent white calcite phenocrysts.</p> <p>Fused, chilled contact dips 60°</p> <p>Diorite. Medium grained.</p> <p>Open contact dips 25-30° - Calcite</p> <p>Diabase. Fine-grained, near black. Diorite inclusion at base.</p> <p>Fused contact-80-85° dip-calcite</p> <p>Brown chill zone</p> <p>Diabase. Fine-grained, dark gray.</p> <p>Fused, undulating contact</p> <p>50° Vein-fused fault</p> <p>Diorite. Medium-coarse grained; medium grained quartzose.</p> <p>Fine</p> <p>Diorite. Predominantly medium coarse grained, notably quartzose medium gray. Local zones of fine-grained quartzose diorite. Granodiorite, locally porphyritic.</p> <p>Fine</p> <p>Diorite. Predominantly medium coarse grained, with white feldspathic spotting locally.</p> <p>Welded Medium gray. Not bleached. breccia</p> <p>Pink feldspar</p> <p>Diorite. Fine-grained, dark gray.</p>							

**LEGEND**

N - Standard penetration resistance, blows/ft  
Rec - Length recovered/length cored, %  
RQD - Length of sound core 4 in. and longer/length cored, %  
S - Split spoon sample  
U - Undisturbed samples


S - Shelby tube    N - Denison  
F - Fixed piston    P - Pitcher  
O - Osterberg    G - GEI

b - Drilling break  
wx - Weathered, weathering

k - Coefficient of permeability

**NOTES**

**SEABROOK STATION**  
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
YANKEE ATOMIC ELECTRIC COMPANY

 **United Engineers** a subsidiary of Raytheon Company

Date: April 18, 1974      Project 7286

PAGE 2 of 2      LOG OF BORING ADT16D

BORING LOCATION <u>Offshore N17552, E93840</u>		INCLINATION <u>Vertical</u>		BEARING _____		DATE START/FINISH <u>June 15, 1975</u> / <u>June 16, 1975</u>	
CASING ID <u>3-6</u> in.		CORE SIZE <u>1-7/8</u> in.		TOTAL DEPTH <u>195.3</u> ft		DRILLED BY <u>Warren George Inc.; J. Johnston, P. Scheable</u>	
GROUND EL <u>-42.4</u> ft		DEPTH TO WATER/DATE <u>Tidal</u> ft / _____		LOGGED BY <u>Soil/Rock - F. X. Bellini</u>			

EL. ft	SAMPLE		RATE OF ADV. min/ft	WATER CONTENT or RQD		PRESSURE TEST		STRIKE, DIP		CORE BREAKS	SOIL AND ROCK DESCRIPTIONS (Weathering, defects, etc., Type, texture, mineralogy, color, hardness, etc.,)
	Depth ft	Type and No.		N or Rec.	Graphic	gpm	Computed psi 10 <sup>-4</sup> cm/sec	F = Foliation J = Joint C = contact = Slickensides			
-42.4		S1A	28								Light brown, uniform, clean fine sand. Dark gray sandy, slightly silty gravel. Widely graded. Fines are non-plastic. Contains angular to subangular medium to coarse sand and gravel pieces up to 30mm long, and few shell fragments.
		S2	63								Light gray, fine to medium grained sand, clean and uniform. Rounded to subrounded grains.
		S3	81								Similar to Sample 2.
-50		S4	2								Layered gray fine grained silty sand and gray silty clay (small recovery).
		S5	0								Gray silty clay. Medium plasticity, very slow reaction to shaking test. medium to high dry strength. Contains a few pockets of fine sand up to 5mm thick.
		S6	0								Similar to Sample 5, but with 10-30mm light and dark gray layers and a 4mm fine sand layer.
		S7	0								Similar to Sample 6.
-80		S8A	0								Similar to Sample 6.
		S8C	46								Layered gray clay, silt and silty fine sand, 2-15mm thick. silt shows fast reaction to gray gravelly silty sand to sandy silt, widely graded. Fines are non-plastic. Contains angular to subrounded gravel up to 15mm long.
		S9	102								Similar to Sample 8C, but with gravel up to 30mm long.
		S10	39								Similar to Sample 8C, but with gravel up to 35mm long.
-100		1)									
		NQ-1	100	2-1/2		70		57° F			Sl wx Fresh, hard, drills well. Localized zones of very broken rock. Minor fault with displacement evident at 59'. Sl wx of feldspathic coatings. Some healed joints evident. R=43
		NQ-2	100	2-1/2		73		60° J			Chips Sl wx Pyrite
		NQ-3	100	3-1/2		82		70° J			Irregular surface Chlorite R=43
-120		NQ-4	100	3-1/2		64					Chips Wx slicked surfaces R=35-39 (broke)
		NQ-5	98	4		79	0.0	80° J			D Fresh, hard, drills very well. Joint surfaces clean to slightly wx. R=44 (broke)
		NQ-6	100	3		94	1.1				Sl wx Fresh, hard. Does not tend to break along fabric. R=40 (broke)
-140		NQ-7	91	4		74	1.2	70° J			Sl wx R=44 (broke)
		NQ-8	00	4		78	1.4				Clean R=46
		NQ-9	90	4		1.8	0.01				Sl wx Fresh, hard, drills very well R=35 (broke)
-160		NQ-10	00	4		13	0.11	70° J			Clean R=44 (broke)
		NQ-11	00	4		10.0	0	70° J			Sl wx Fresh, hard, drills very well R=35 (broke)
-17.6											Quartz vein Healed fault Schistose Bleached Quartz vein Bleached
											Quartzite, dark gray, fine grained, uniform. Weak gneissic texture, bleached tan to green gray in some places. Quartz feldspar muscovite and biotite visible. Some small quartz and calcite present. Many thin altered feldspathic veins throughout. Bleached
											Quartzite, dark gray fine gr. uniform. Weakly schistose and locally bleached. Fabric locally well developed. Locally garnetiferous
											Quartz vein Bleached 89.5
											Bleached Calcicite, bleached tan, fine to med. grained with well developed fabric 92.3
											Quartzite, as above
											Quartz vein
											Quartzite, as above.
											Quartz vein Minor bleaching Quartzite, dark gray, fine gr. uniform. General weak gneissosity, locally well developed. Some localized bleaching. Minor texture. Garnetiferous bleaching Minor bleaching Healed fault

N = Standard penetration resistance, blows/ft  
Rec = Length recovered/length cored. %  
RQD = Length of sound core 4 in. and longer/length cored. %  
S = Split spoon sample  
U = Undisturbed samples

S = Shelby tube  
F = Fixed piston  
O = Osterberg

D = Drilling break  
wx = Weathered, weathering

N = Denison  
P = Pitcher  
G = GEI

k = Coefficient of permeability

NOTES

1) Roller Bitted Rock 5X.0-56.0 ft.

**SEABROOK STATION**

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

YANKEE ATOMIC ELECTRIC COMPANY

**United Engineers** a construction inc.

Date: August 6, 1975 Project 7286

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BORING LOCATION <u>Offshore N17552, F33840</u>		INCLINATION <u>Vertical</u>		B E A R I N G		DATE START/FINISH <u>June 15, 1915</u> / <u>June 16, 1975</u>	
CASING ID <u>3-6 in.</u>		CORE SIZE <u>1-7/8 in.</u>		TOTAL DEPTH <u>195.3 ft</u>		DRILLED BY <u>Warren George Inc.; J. Johnston, P. Scheable</u>	
GROUND EL. <u>-42.4 ft</u>		DEPTH TO WATER/DATE <u>Tidal</u> ft /		LOGGED BY <u>Soil/Rack - F. X. Bellini</u>			

EL. ft	SAMPLE		RATE OF ADV. min/ft	WATER CONTENT or RQD		PRESSURE TEST		STRIKE, DIP F = Foliation J = Joint C = Contact S = Slickensides	CORE BREAKS	SOIL AND ROCK DESCRIPTIONS	
	Depth ft	Type and No.		N or Rec.	%	Graphic	gpm psi			Computed -4 k 10 cm/sec	(Weathering, defects, etc.)
CONTINUED FROM PREVIOUS PAGE											
187.6 - 145.5		NQ-11	98	4	93			80° J		R=36 (broke)	Bleaching
				4				40° F		R=34 (broke)	Quartzite, as above, but showing general minor bleaching, heavy where indicated.
				4				40° F		Fresh, hard, drills very well. Minor, healed faults at 150.0, 151.5, 152.0 and 154.5 ft.	Bleaching
200				5				50° F			Weak gneissosity
				5				30° F			Sheared?
				5				60° J			Bleaching
160		NQ-12	100	6	82			90° J		No slicks	
				6				80° J		Chips	
				6						Core lost	
		NQ-13	100	10	0		6.8 172.4	0.45		Fresh, hard, jts. generally sl wx to clean, some localized zones of very broken rock. R=53	Bleaching
				6				60° J			Diabase, very dark gray to black, fine grained near contacts, fine to med. grained near center. Internal contacts suggest composite origin. Locally bleached to light brown or tan.
		NQ-14	92	5	55			60° J		Sl wx	
				6				65° J			
				6				60° J			
220		NQ-15	100	6	20			90° J		Sl wx	
				6				65° J		R=49	
		NQ-16	99	5	75			60° J			
				4				70° J		No slicks	
				4				80° J		R=0 (broke)	Fused, internal contact
				5				40° C		Fresh, hard, drills well, jts. clean to sl wx	Schistose lens
		NQ-17	100	5	89		11.6 131.6	1.01		Chips, core lost?	Diabase, as above, with occasional dark gray schistose lenses.
				5						D	Schistose lens
237.6 - 195.3				5							
BOTTOM OF BORING											

<b>LEGEND</b> N - Standard penetration resistance, blows/ft Rec - Length recovered/length cored, % RQD - Length of sound core 4 in. and longer/length cored, % S - Split spoon sample U - Undisturbed samples S - Shelby tube F - Fixed piston O - Osterberg D - Drilling break wx - Weathered, weathering	<b>NOTES</b> N - Denison P - Pitcher G - GEI k - Coefficient of permeability	<b>SEABROOK STATION</b> PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE YANKEE ATOMIC ELECTRIC COMPANY  <small>a subsidiary of Raytheon Company</small> Date: August 6, 1975 <span style="float: right;">Project 7286</span> PAGE <u>2</u> of <u>2</u> <span style="float: right;">LOG OF BORING AIT-39</span>
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