S Radon

TOR

Olin CHEMICALS
LOWER RIVER RD., P.O. BOX 248, CHARLESTON, TN 37310

January 14, 1993

Phillip Masters
Hazardous Waste Facilities Branch
United States Environmental Protection Agency
Region II
26 Federal Plaza, Room 1037
New York, New York 10278

Re: DuPont Well Construction Drawings
Olin Corporation
Niagara Falls, NY, Plantsite
EPA ID No. NYD002123461, Index No. RCRA-3013-0208
RCRA Facility Investigation

Dear Mr. Masters:

Per your request, enclosed are the construction (completion) drawings for DuPont A-, B-, C-, and CD-zone monitoring wells bordering Olin property. We are including drawings from these wells so your information about the relevant geology at each location is as complete as possible. Olin proposes to use data from a subset of this group (see list below) to evalute migration from Olin property. The subset consists of those wells that DuPont samples under their groundwater monitoring program. Olin believes this subset is appropriate because: the DuPont C-zone wells monitor intervals that are not major water-bearing fractures (except 22C), well 19CD-2 monitors the same interval as 19CD-1, and well 22A has been decommissioned because it was dry.

Well List
(DuPont Data Sent to EPA January 8, 1992)

14A	19B	22C
15A	20B	15CD
19A	22B	19CD-1
20A		26CD

We sent you the data from DuPont's most recent two samplings of these wells on January 8. While the data do not include mercury, Olin's most widespread contaminant, we believe they are adequate to evaluate migration from Olin property. The data include most other constituents found in significant concentration on Olin property. The data are recent and of high quality based on the validation. The data include hexachlorocyclohexane (BHC) data, which can be used in particular to illustrate that little horizontal migration has occurred in the past. BHC is considered an Olin fingerprint compound in this area. It is more soluble in groundwater than mercury and is very stable. BHC was detected at very low concentrations in only two wells, 15CD and 19CD-1. BHC was not detected in the other nine wells under consideration.

We hope that your review of the data leads you to the same conclusion we reached. If it does not, we suggest that any additional analytical burden be focused on mercury from selected wells, with use of DuPont data for the organics.

Please call (615-336-4308) if you have any questions about this submission or any of the work under the RFI.

Sincerely,

OLIN CORPORATION

J. C. Brown
Manager, Environmental Technology

\jcb\178
Enclosure

cc: P. Counterman (2)
W. G. McGlasson
K. R. McIntosh
G. C. Meyer
J. P. Mitchell
S. F. Radon
A. D. Rheingold
Permits Admin. Branch - EPA

3571 Niagara Falls Boulevard
North Tonawanda
New York 14120
(716) 692-7172
Fax (716) 692-1512

Woodward-Clyde Consultants

January 12, 1993

Mr. James C. Brown
Olin Chemicals
Lower River Road
Charleston, Tennessee 37310

Re: Well Completion Diagrams for Du Pont Monitoring Wells

Dear Mr. Brown:

Mr. R. Gentilucci of Du Pont has authorized Woodward-Clyde Consultants (WCC) to provide Olin with copies of construction diagrams for Du Pont Niagara Plant monitoring wells located near the perimeter of the Olin Buffalo Avenue Plant. Well construction diagrams are attached for the following Du Pont wells: 14A, 15A, 19A, 20A, 19B, 20B, 22B, 14C, 15C, 19C, 22C, 26C, 15CD, 19CD-1, 19CD-2, and 26CD.

Four of these wells (14C, 15C, 19C and 26C) monitor bedrock intervals which are not considered to penetrate major water-bearing fracture zones at the site, and are therefore not included in Du Pont's groundwater monitoring program. In addition, one well (19CD-2) is not sampled by Du Pont because groundwater in this interval is monitored using Well 19CD-1. The remaining 11 of these wells are sampled periodically by Du Pont for selected chemical analyses.

If you have any questions on the attached drawings, please contact the undersigned.

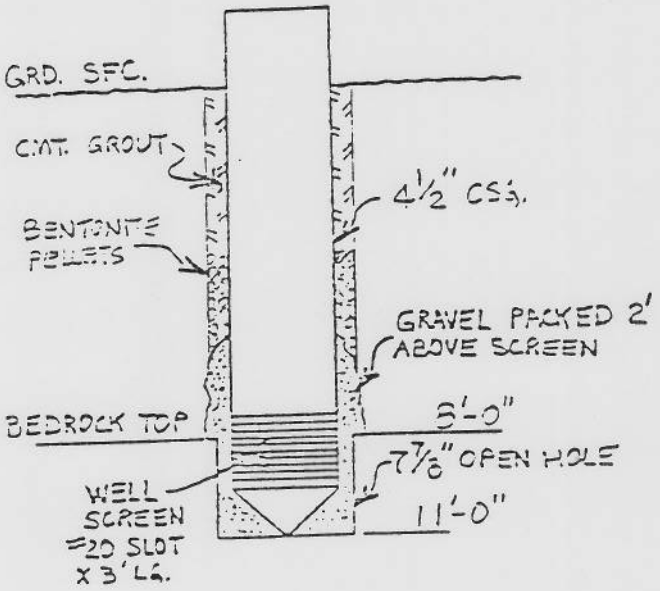
Sincerely,

Kelly R. McIntosh, P.E., P.HGW.
Associate

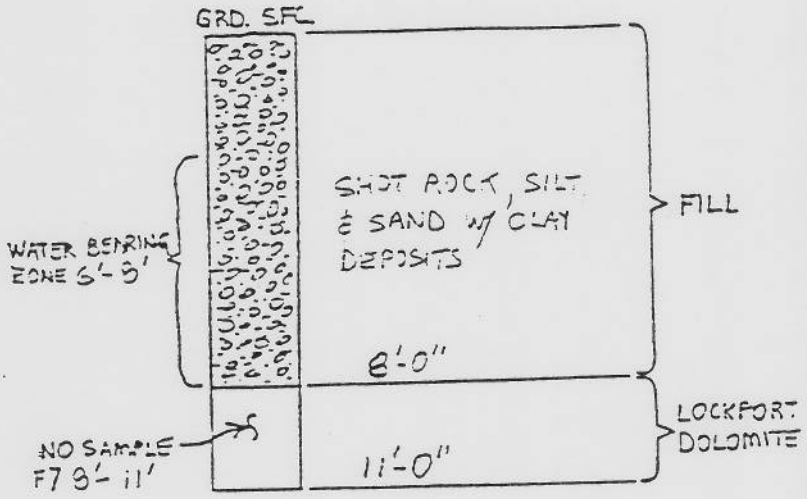
KRM:jee

Attachments

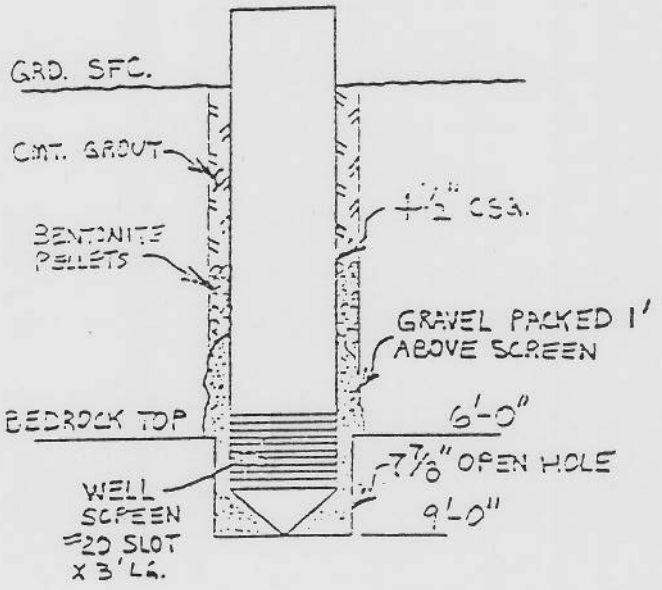
WELL #14-A



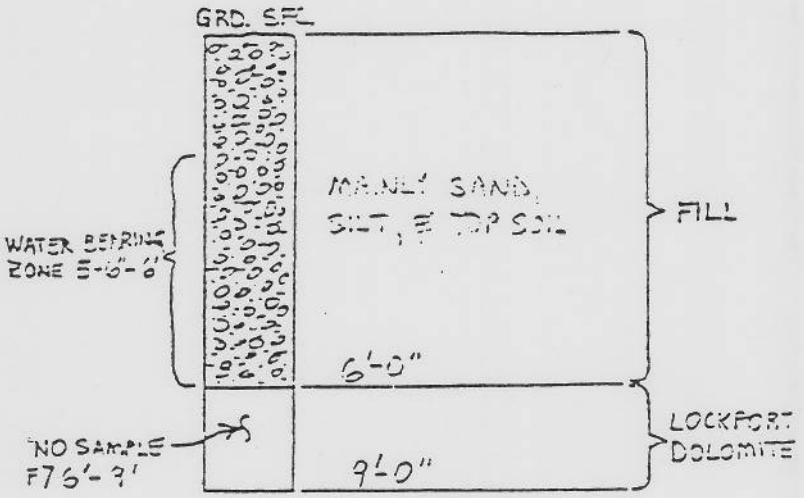
GEOLOGY OF #14-A



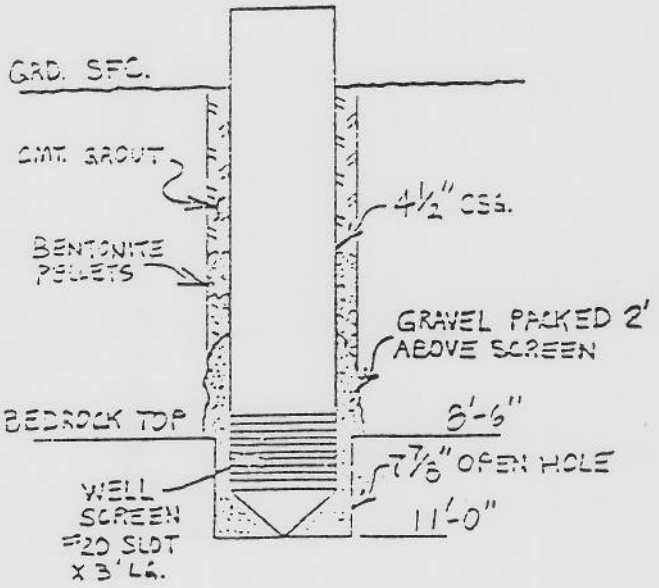
WELL #15-A



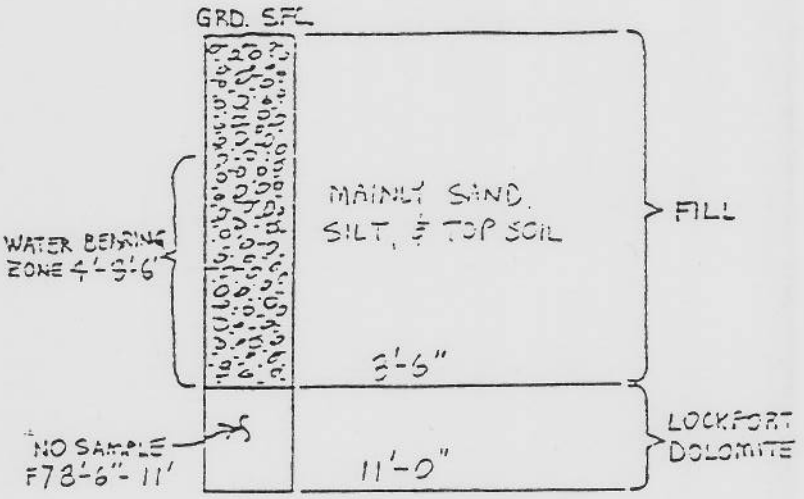
GEOLOGY OF #15-A



WELL # 19-A



GEOLOGY OF # 19-A



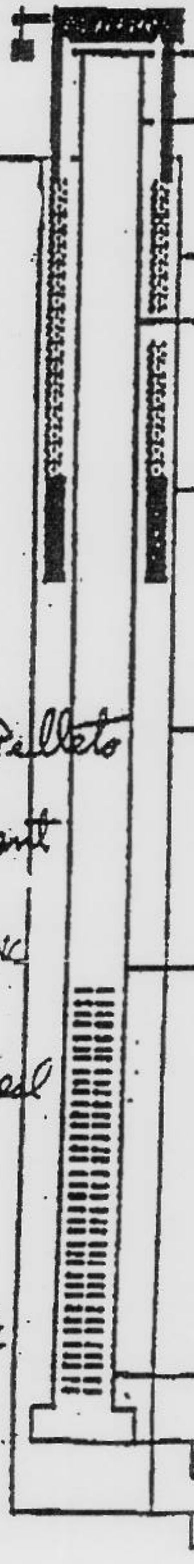
SUMMARY OF WELL INSTALLATION Sodium Area - Bldg 18

BUFFALO DRILLING COMPANY, INC. IN CENTER OF ASPHALT DRIVE, GATE 18
955 Niagara Street
Buffalo, New York 14213

MW 20-AR

CLIENT: H.F Parling
PROJECT: Dupont
FILE NO:

BORING NO: B-1
DATE STARTED: 1-29-91
DATE COMPLETED: —



Ground Elevation

Type of protective casing:

Height of riser above ground surface: ~~Flush mount~~

Type of backfill: Grout Bent mix

Type of riser: 4" Black pipe 2.50' long

Depth of top of seal: 1.5'

Type of seal: Bent Pellets

Depth of bottom of seal: 2.0'

Type of sand pack: #2 QROK

Depth to top of sand pack: 2.0

Depth of top of well screen: 2.5'

Type of well screen: 20 Slot SS 2-0" long

½ pail Bent Pellets
~~[illegible]~~ Bags cement
1½ Bags #4 QROK
Grout Bent mix seal
6 ~~[illegible]~~ QROK
6 Pellets
2½ of #4 QROK
6" #2 QROK
6 Pellets

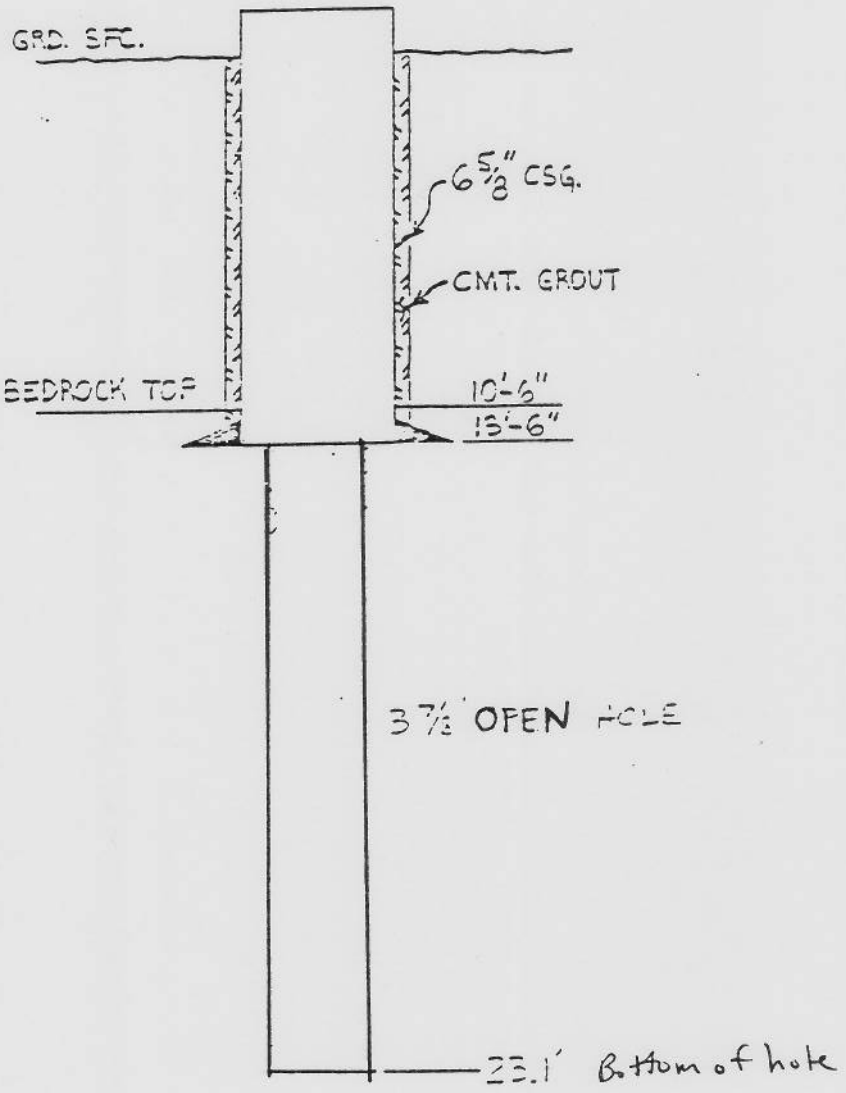
Post-it™ brand fax transmittal memo 7671	# of pages ▸ 4
To Scott McIntyre	From Tammy Dutch
Co. WCC	Co. Du Pont
Dept.	Phone # 278-5312
Fax # 692-1512	Fax # 278-5195

Depth of bottom of well screen: 4.5'

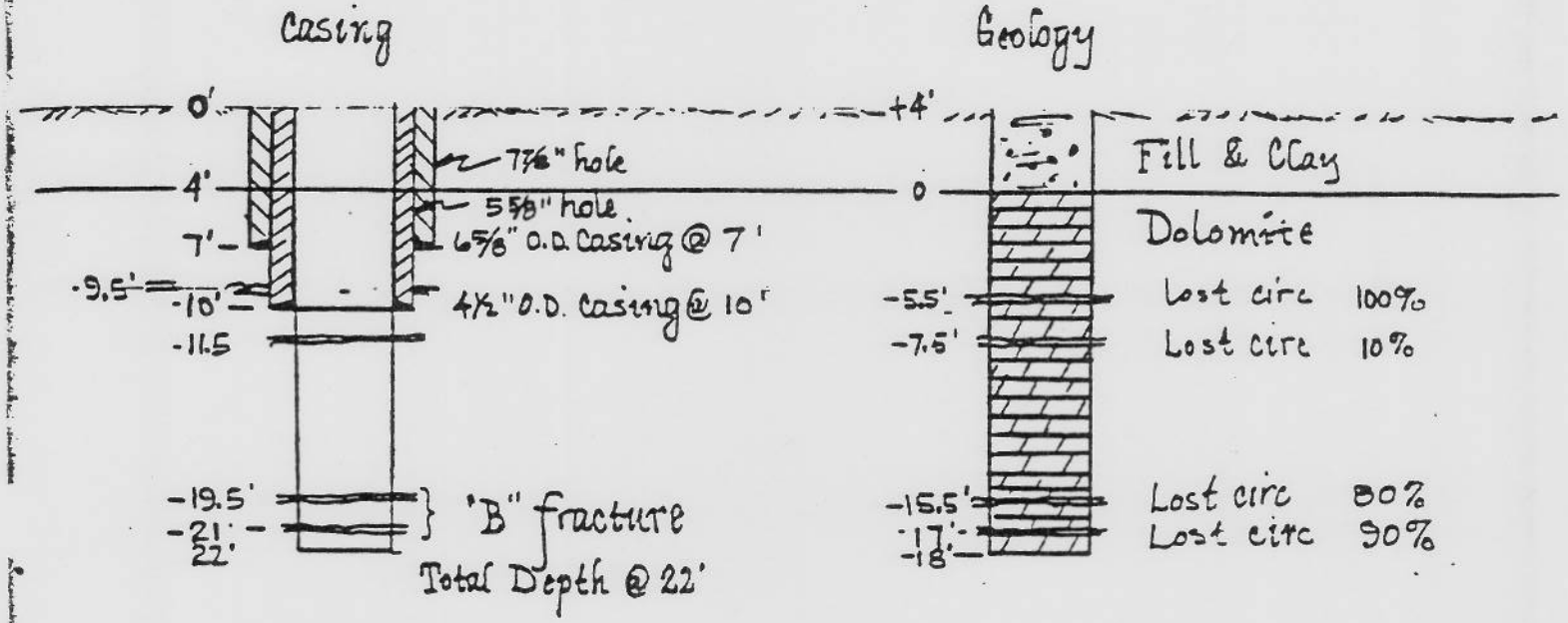
Depth of tip of well: 4.5'

Depth of borehole: 5.5'

WELL # 19-E


GRD. SFC.
6 5/8" CSG.
CMT. GROUT
BEDROCK TOP
10'-6"
13'-6"
3 7/8" OPEN HOLE
23.1' Bottom of hole

DuPont Exploratory Drilling Program
Well No 20-B
Spud 5-16-84 Hassell E. Hunter Plant Site 5-18-84



No odors detected

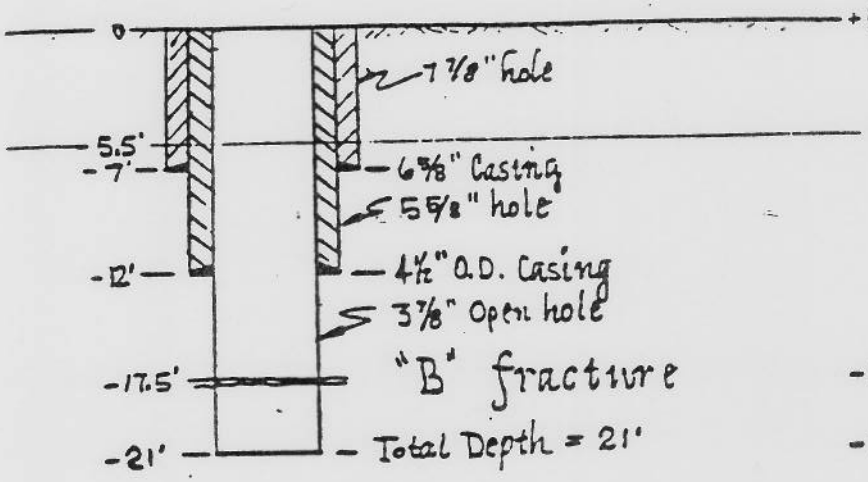
5-18-84

Scale 1" = 10'

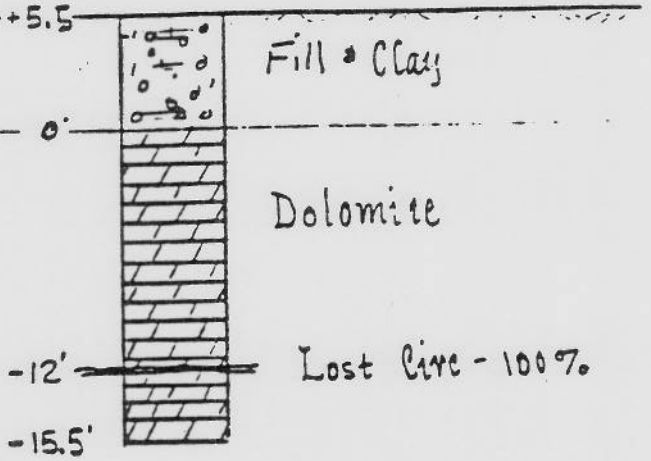
surface elevation 570.1

DuPont Exploratory Drilling Program 22-B
Well No. 22-B
Spud 5-14-84 Hassell E. Hunter 5-15-84

Casing



Geology



No odor detected

5/15/84

Scale 1" = 10'

S-46-A REV. 1-78

ENGINEERING DUPONT COMPUTATION SHEET

SHEET NO. ____

TITLE OF PROJ. OR STUDY DuPont Exploratory Drilling Program PROJ. OR STUDY NO. ____

SUBJECT Well No. 14-C WORKS Plant Site

COMPUTER H.E. Hunter DATE 10-6 19 83

Casing

- 0
- 7⅞" hole
- 8
- 11
- 6½" casing @ 11'
- 5⅞" hole
- 20
- 25
- 4½" O.D. casing @ 25'
- 30
- 33
- ? from cores (maybe?)
- 40
- 3⅞" hole
- 50
- 60
- 66
- fracture - Lost circ.
- 70
- open hole

Depth from Surface

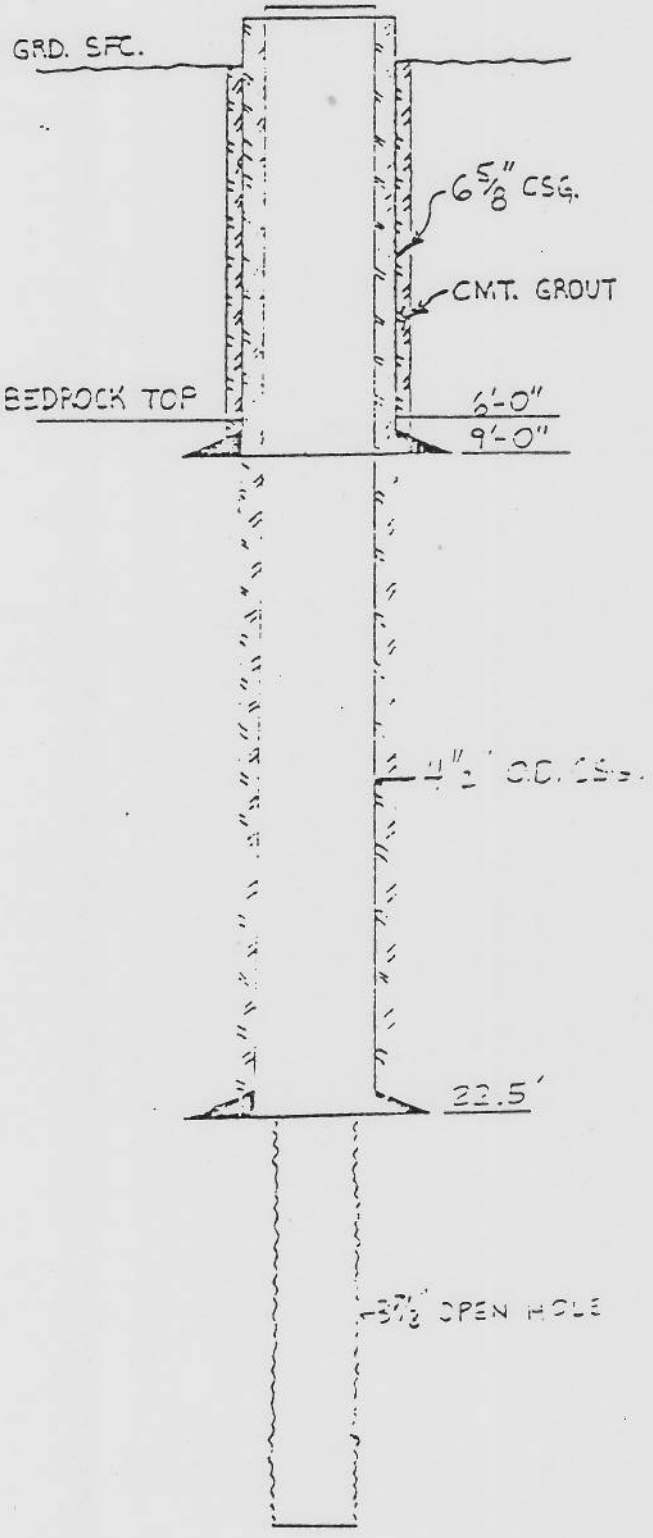
Geology

- +8
- Fill
- 0
- 10
- Dolomite (see core description)
- 20
- 25
- ? No Lost circ — Possible fracture (Co.
- 30
- 40
- 50
- 58
- fracture - Lost circ.
- 60
- 62
- T.D

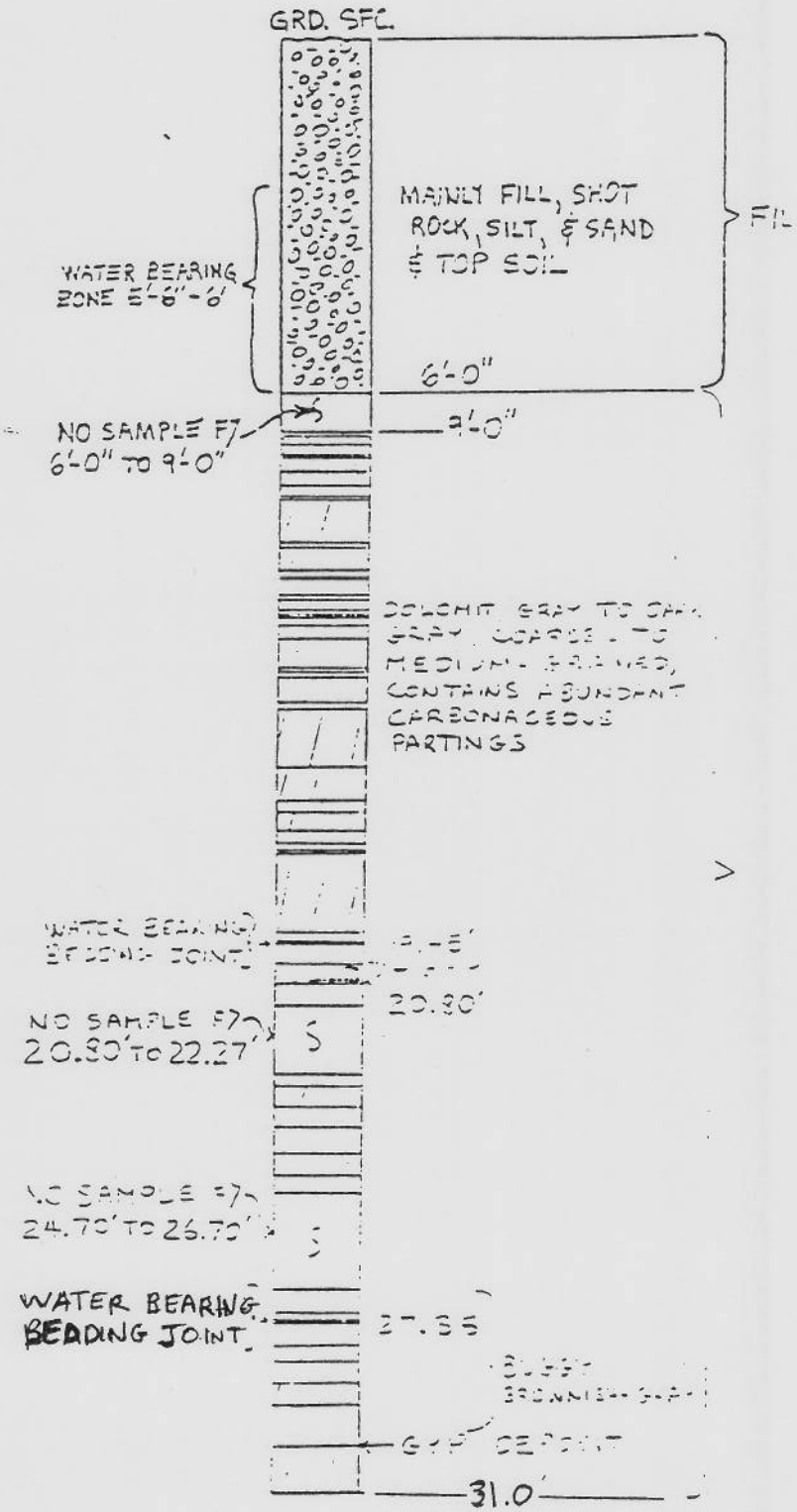
Depth from Bedrock

HH 10/6/83

WELL #15-C



GEOLOGY OF #15-C

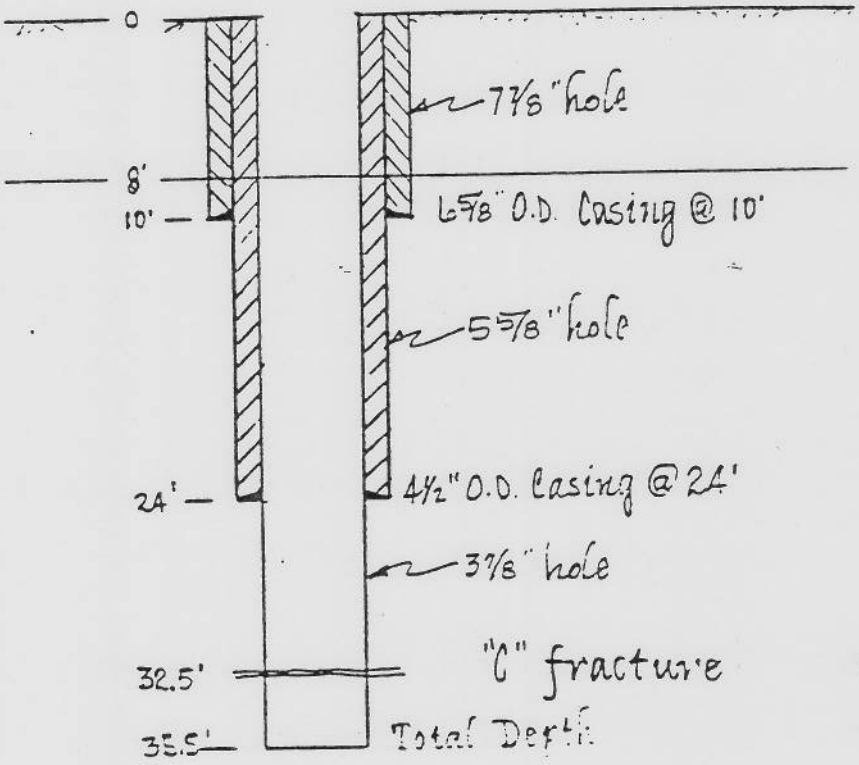


DuPont Exploratory Drilling Program
Well No. 19-C
Spud 5-21-84

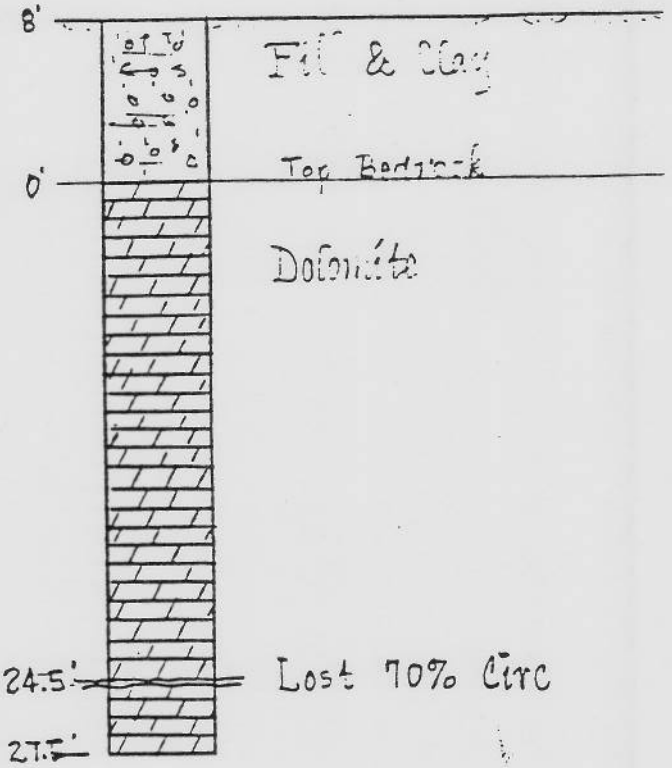
Hassell E. Hunter

19-C
Plant Site
5-22-84

Casing



Geology



No odor detected

HJH 5/22/84

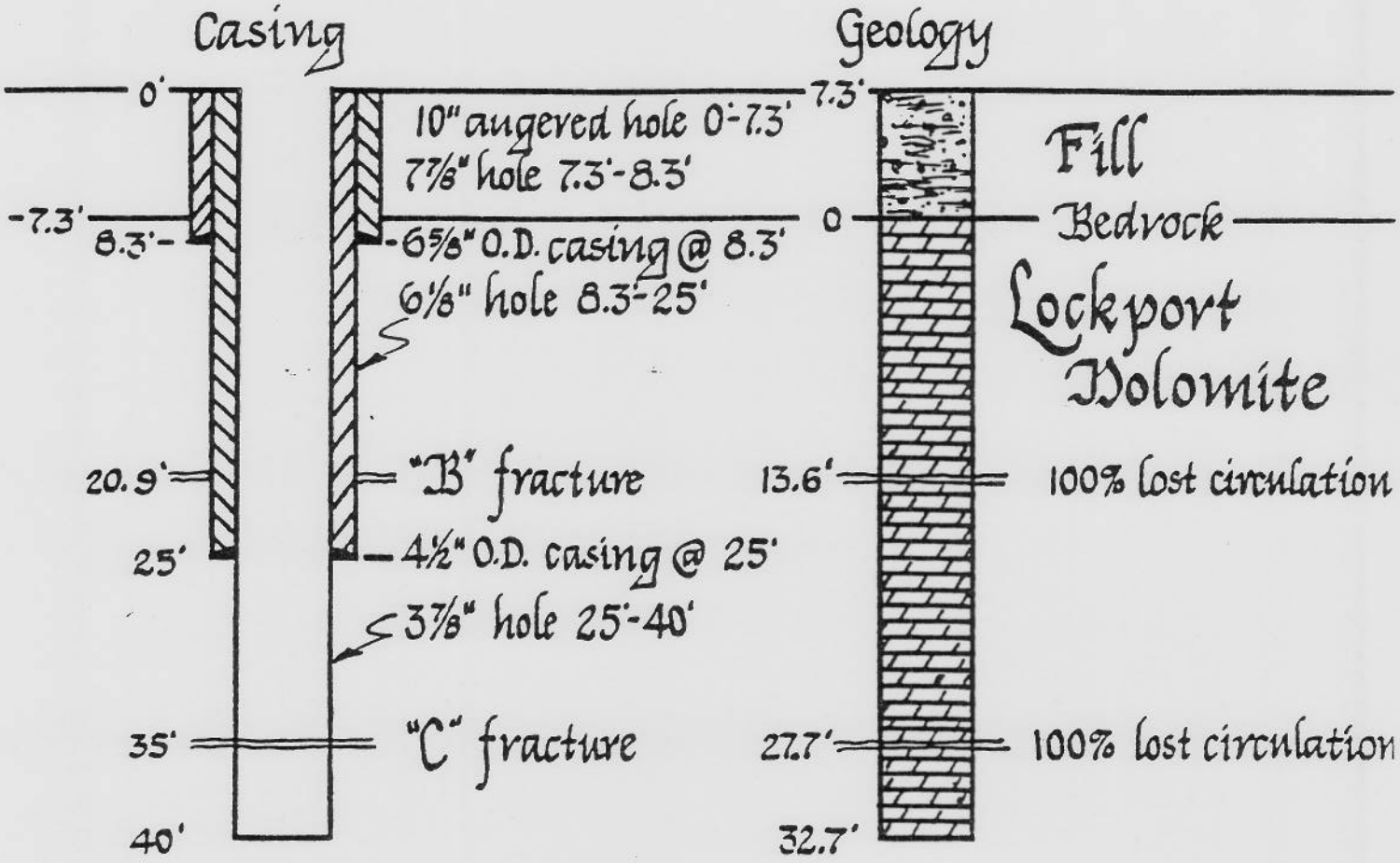
Scale 1" = 10'

Du Pont Monitoring Wells
Plant Well No. 26-C

26-C
Plant Site 26

Spudded February 10, 1986 Hassell Hunter February 12 1986

Plant Well No. 26-C



Total Depth = 40'

Core #1 8.3'-18.3'
Core #2 18.3'-25'
Core #3 25'-35'
Core #4 35'-40'

2-12-86

Vertical Scale 1"=10'

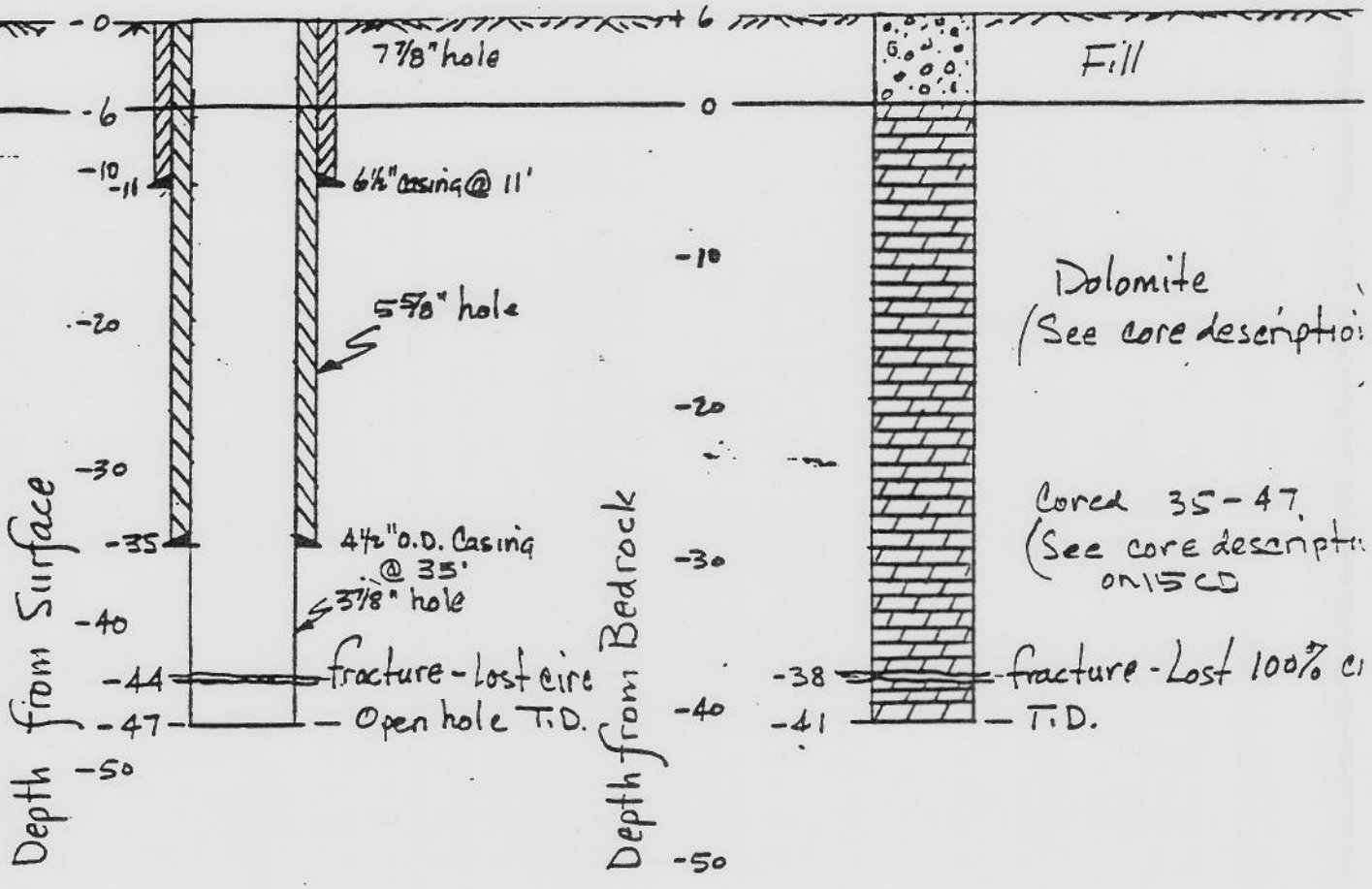
TITLE OF PROJ. OR STUDY DuPont Exploratory Drilling Program PROJ. OR STUDY NO. ____

SUBJECT Well No. 15-CD WORKS Plant Site

COMPUTER H.E. Hunter DATE ____ 19 ____

Casing

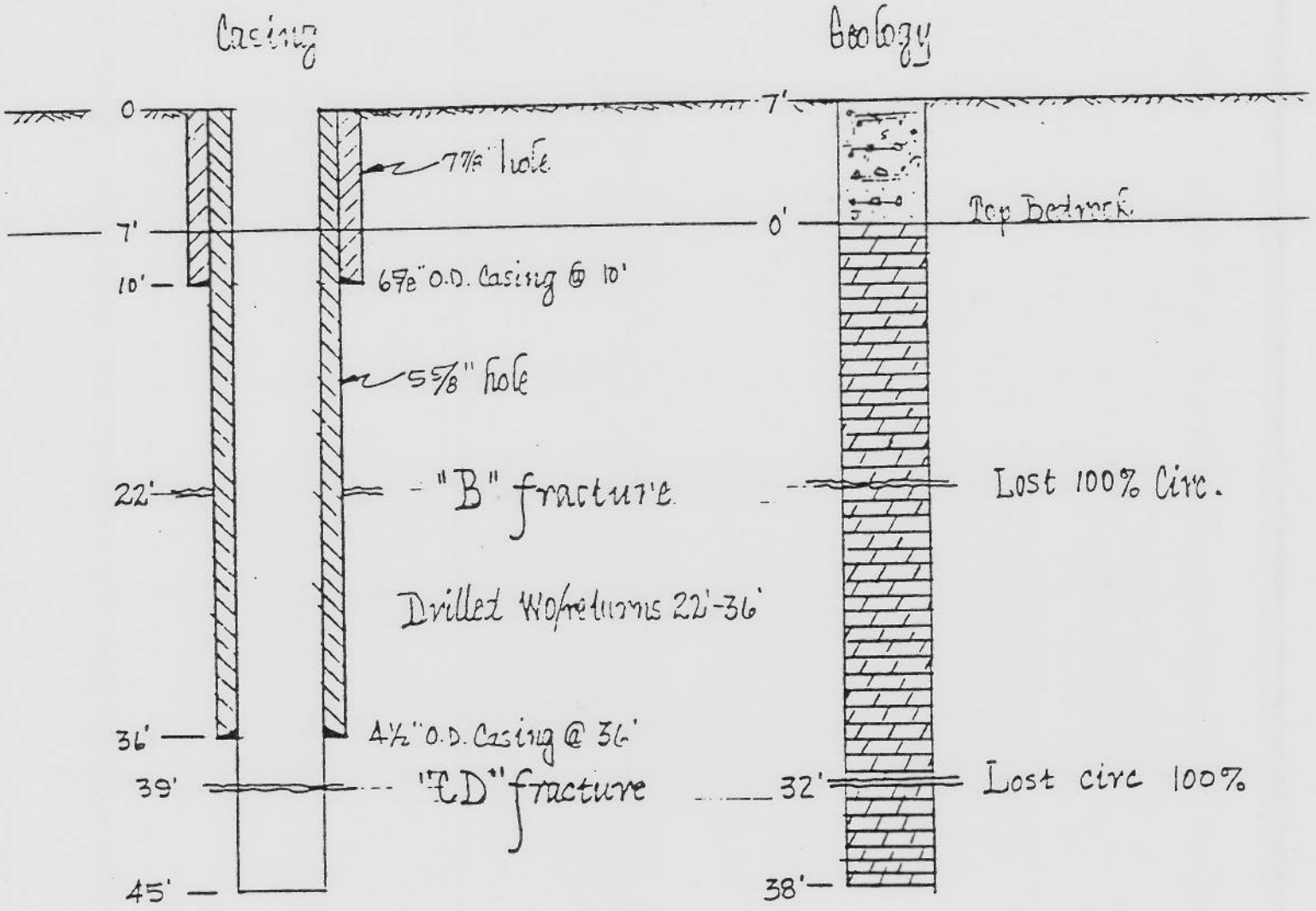
Geology



DuPont Exploratory Drilling Program
Well No 19-CD #1
Spud 5-23-84

Hassell E. Hunter

Plant Site 19
5-25-84



No Odors

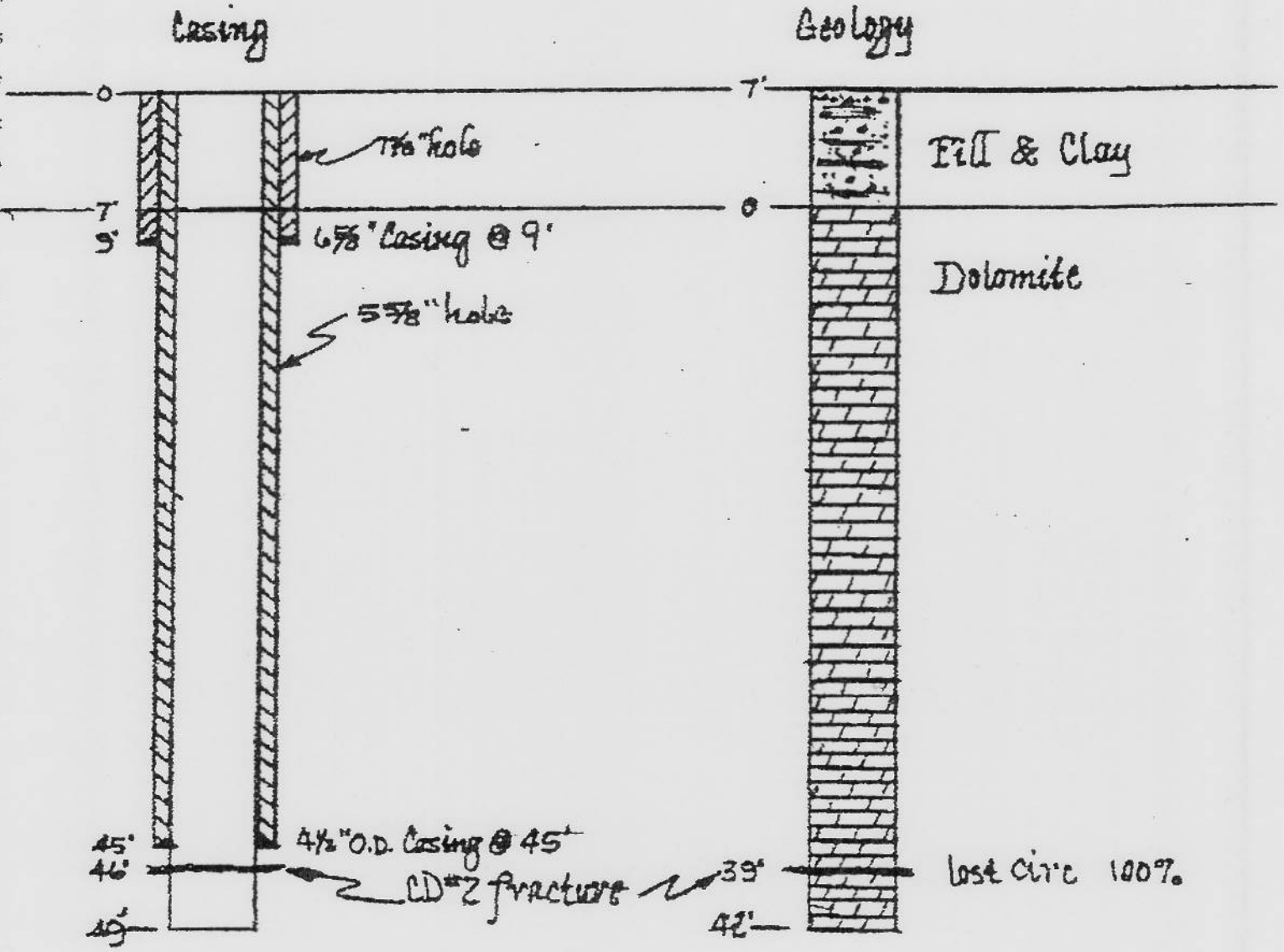
5/25/84

Scale 1" = 10'

DuPont Exploratory Drilling Program 19-CD#

Well No. 19-CD#2

Spud 5-4-84 Hassell E. Hunter 5-6-84

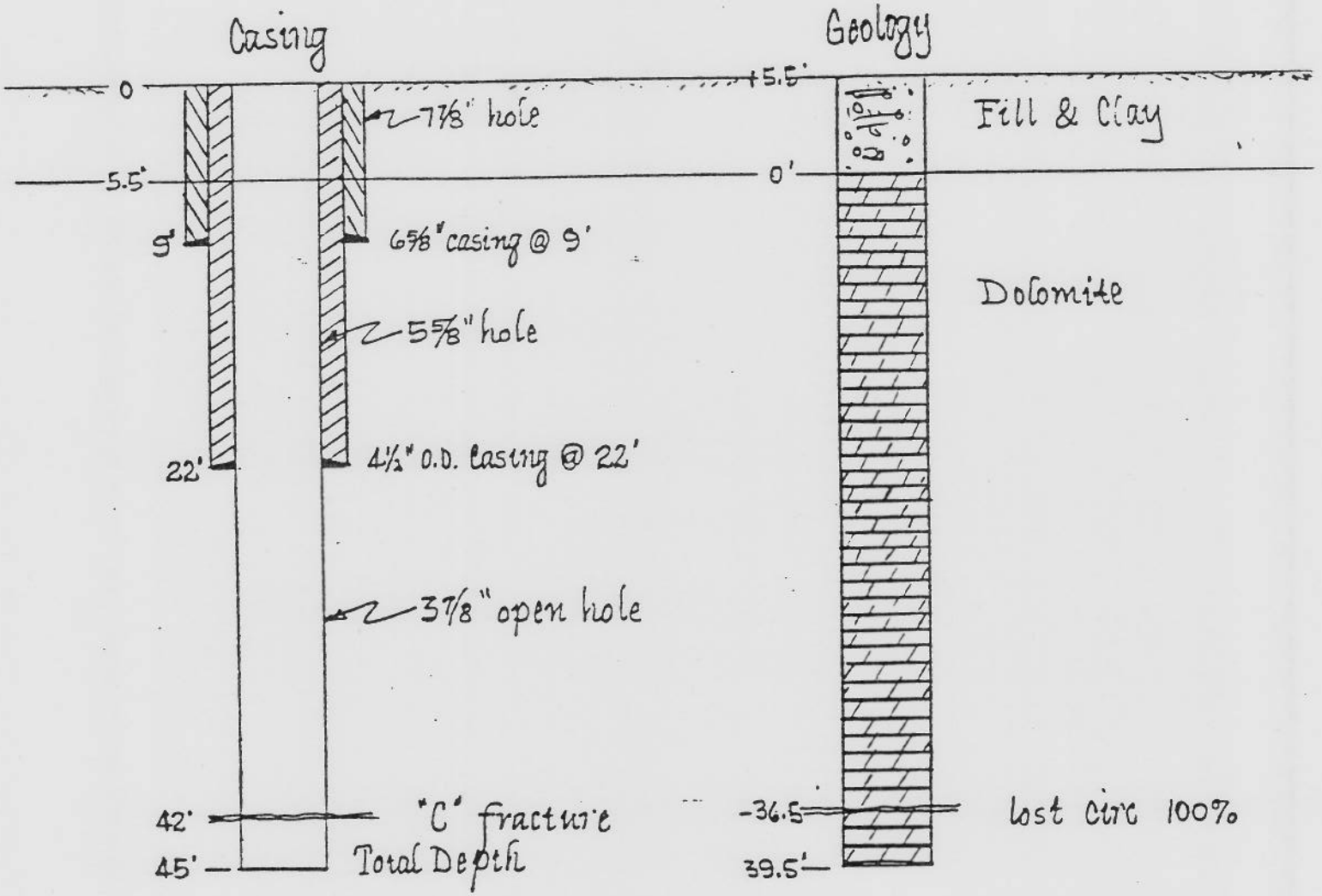


No Odor Encountered

6/4/84

DuPont Exploratory Drilling Program
Well No 22-C
Spud 5-15-84

22-C
Parking Lot
Hassell E Hunter 5-17-84



No odor detected

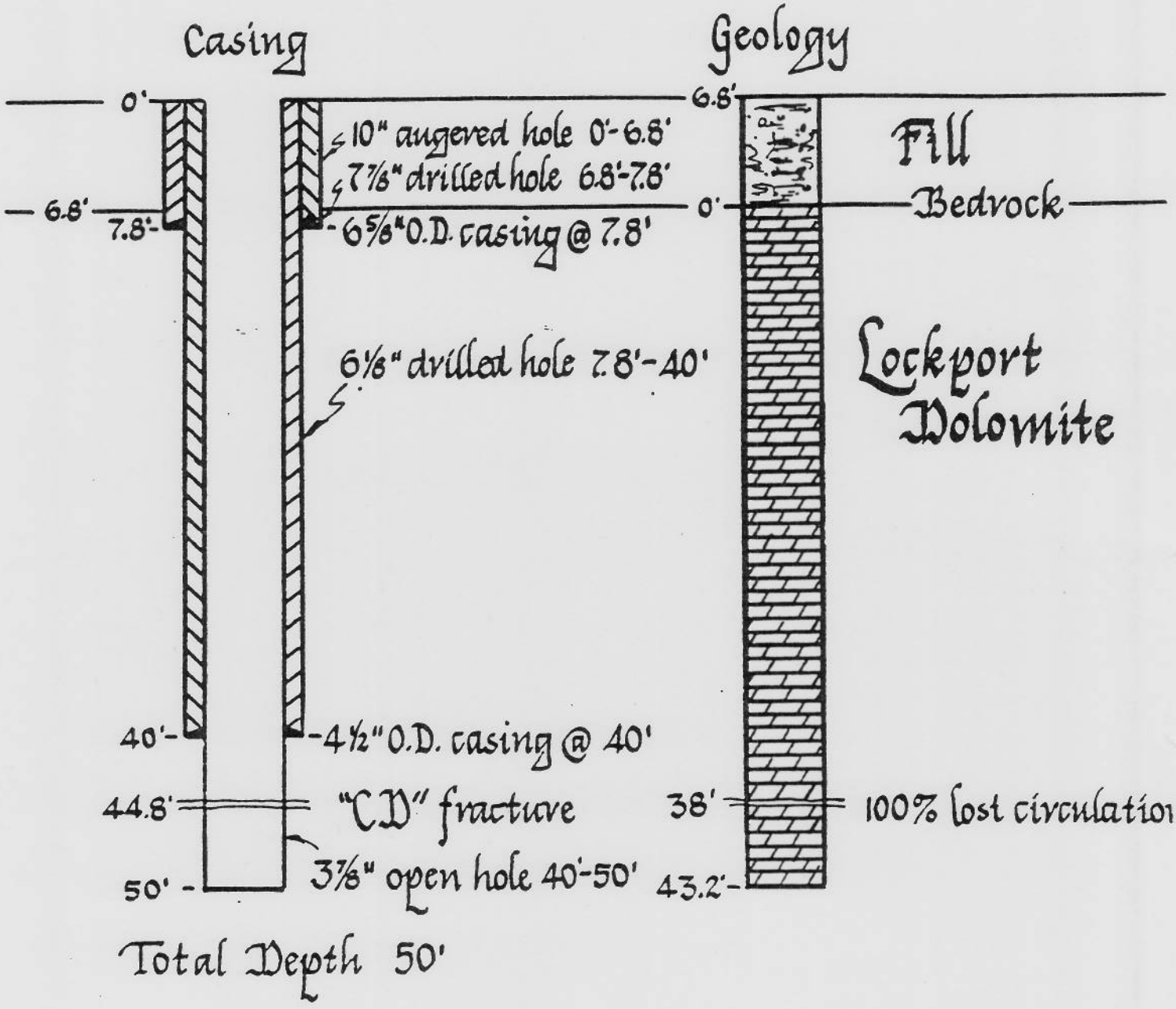
5/17/84

Scale 1" = 10'

Du Pont Monitoring Wells
Plant Well No. 26-CD
Spudded February 10, 1986 Hassell Hunter February 14, 1986

26-C
Plant Site 2

Plant Well No. 26-CD



Total Depth 50'

Core #1 40'- 45.7'
Core #2 45.7'- 50'

Vertical Scale 1" = 10'

HH 2-14-86