

ORIGINAL (BLUE PEN)

L.S. ELEV. = +253 FT

33°30'29" x 80°51'54"

1 of 114

Ft Run # Lithology Description

0 Run 1

253 FT

Corehole: ORG-393
City, State: ORANGEBURG, SC
Date: 4/23/97
Geologist: D. PROWELL USGS

G. COHN
K. WATERS } SEDNR
J. GELICCI }
J. SELF-TRAIL } US
E. COBBES, JR } USG
E. COBBES, III } DPT

NO RECOVERY

2

4.0 FT RECOVERY

CLAYEY SAND; F-VC, ANGULAR,
POORLY SORTED QUARTZ; VF (1-2 mm)
WELL ROUNDED QTZ. GRAVEL;
TRACE LARGE (<20 mm) GRAVEL; SAND
70-80%, 20-30% CLAY; TRACE
MICA; OPAQUE HEAVIES; FELDSPAR;
CIRCULAR TUBES AT 6'-7' SUGGEST
ROOTING; POORLY BEDDED;

UNC-WILMINGTON SAMPLES
RL = RICHARD LAWS
H97-- = BILL HARRIS

RAY CHRISTOPHER'S SAMPLES
= RAYC.

6 Run 1
Run 2

2.3 FT RECOVERY

MODERATE YELLOWISH BROWN (10YR 5/4)
TO MODERATE REDDISH BROWN (10R 4/6)
CLAYEY SAND + SILT; F-VF,

8

SUB-ANGULAR, WELL SORTED,
QUARTZ SAND AND SILT; 20-40%
WHITE CLAY MATRIX; 1% MICA,
1% VF OPAQUE HEAVIES; WELL
LAMINATED WITH 1-5 mm BEDS;
15°-20° X-BEDS; EVIDENCE OF OXIDATION
STAINING

10

Run 2

NO RECOVERY

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FOSSILS: STRUCTURE: COLOR

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 4/23/97 Geologist: D. PROWELL
10	Run 3		CLAYEY SAND AND SILT SAME AS ABOVE -	
12		1.8 FT RECOVERY	VERY PALE ORANGE (10YR 8/2). STAINS: MODERATE REDDISH ORANGE (10R 6/6) (NO GNC)	
14			NO RECOVERY	
16	Run 3 Run 4		CLAYEY SAND; F-VC, ANGULAR TO SUB-ANGULAR, MODERATE TO POORLY SORTED QUARTZ SAND; 30-40% CLAY MATRIX; 1% MICA, TRACE OPAQUE HEAVIES; 0.5 FT ALTERNATING FINER + COARSER LAYERS; LOCAL IRON STAINING	
18		3.1 FT RECOVERY	WHITE (N9) STAINS: DARK YELLOWISH ORANGE (10YR 6/L)	
20	Run 4		NO RECOVERY	

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 4/23/97 Geologist: D. PROWELL
20	Run #		CLAYEY SAND; SAME AS ABOVE; HEAVILY STAINED	
			DARK YELLOWISH ORANGE (10YR 6/8) (NO UNC)	
22			CLAYEY SAND AND SILT, F-VF, SUB- ANGULAR, WELL SORTED QTZ. SAND AND SILT, 20-30% CLAY MATRIX, 2% MICA, 1% OPAQUE HEAVIES; MOTTLED TEXTURE, IRON OXIDATION; DARK YELLOWISH ORANGE (10YR 6/8)	
		3.1 FT RECOVERY		
24			NO RECOVERY	FINING UPWARDS SEQUENCE: 40.5' TO 21.6'
	Run #			
	Run #		CLAYEY SAND AND SILT, F-M, ANGULAR, MODERATELY SORTED QTZ. SAND AND SILT, 15-25% CLAY; 2-3% MICA, TRACE OPAQUE HEAVIES; MOTTLED TEXTURE; DARK YELLOWISH ORANGE (10YR 6/8)	
26				
			NO RECOVERY	
28				
		1.2 FT RECOVERY		
			NO RECOVERY	
30	Run #			

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 4/23/97 Geologist: D. PROWELL
30	Run 6		<u>CLAYEY SAND; F-VC</u> SUB-ANGULAR TO SUB-ROUNDED, POORLY SORTED QUARTZ SAND IN 5 - 25% CLAY MATRIX; 2-3% MICA; 1% OPAQUE HEAVIES, TRACE FELDSPAR; TRACE CARBON/MANGANESE?; CRUDELY BEDDED IN FINING UPWARDS SEQUENCE;	
32				
34				
			DARK YELLOWISH ORANGE (10YR 6/6)	
			NO RECOVERY	
	Run 6 Run 7		<u>CLAYEY SAND</u> ; SAME AS ABOVE BUT COARSER WITH LESS CLAY	
36				
			MODERATE YELLOWISH BROWN (10YR 5/4)	
38				
			NO RECOVERY	
40	Run 7			

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft	Run #	Lithology	Description	Corehole: ORG - 393 City, State: ORANGEBURG, SC Date: 4/23/97 Geologist: D. PROWELL
40	Run 8		CLAYEY SAND, SAME AS ABOVE	
42	Run 8		SANDY, SILTY CLAY; F-VF, SUB-ANGULAR, WELL SORTED QTZ. SAND AND SILT IN 50-70% CLAY MATRIX; 1-2% MICA, TRACE VF OPAQUE HEAVIES, PYRITE IN CONCRETIONS, LIGNITE/CARBON; THINLY LAMINATED BEDS LOCALLY UNDULATING; LOCAL THIN BEDS ^(1cm) OF F-VC CLAYEY QTZ. SAND; ALTERNATING ZONES OF ORANGE & WHITE STAINING WHERE CARBON IS LEACHED OUT;	
44	Run 8		STAINS: DARK YELLOWISH ORANGE (10YR 6/6) DARK GRAY (N-3)	
			NO RECOVERY	
46	Run 9		SANDY, SILTY CLAY, SAME AS ABOVE	
48	Run 9		DARK GRAY (N3)	
50	Run 9		STAINS: DARK YELLOWISH ORANGE (10YR 6/6) CLAYEY SAND, SEE NEXT PAGE	

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Fe	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 4/23/97 Geologist: D. PROWELL
50	Run 10		<u>CLAYEY SAND, F-C,</u> SUB-ANGULAR TO SUB-ROUNDED, MODERATELY SORTED QTZ. SAND; 10-25% CLAY MATRIX; WEAKLY BEDDED WITH SUGGESTION OF X-BEDS; 1-2% MICA, 1% OPAQUE HEAVIES, LOCAL BLEBS OF CARBON/MANGANESE; LOCAL VERY THIN FLASER(?) CLAY STRINGERS;	
52		3.3 FT RECOVERY		
			DARK YELLOWISH ORANGE (10YR 6/6)	
54			NO RECOVERY	
	Run 10		<u>CLAYEY SAND, SAME AS ABOVE</u>	
56				
		3.0 FT RECOVERY		
			DARK YELLOWISH ORANGE (10YR 6/6)	
			<u>SILICIFIED SAND; F-M SAND CLASTS/LAYERS</u> WITH SiO ₂ CEMENT, MANGANESE/IRON NODULES, NO CO ₃ .	
58			<u>CLAYEY SAND; VF-F, ANGULAR, WELL</u> SORTED QTZ SAND; -SEE NEXT PAGE-	
			CONTACT?	
			NO RECOVERY	
60	Run 11			

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft Run # Lithology

Description

Corehole: ORG-393

City, State: ORANGEBURG, SC

Date: 4/23/97

Geologist: D. PROWELL

60

RUN 12

CLAYEY SAND; VF-F,

ANGULAR, WELL SORTED QTZ. SAND,
1% MICA, TRACE VF-OPAQUE HEAVIES;
5-15% CLAY MATRIX; CRUDELY
BEDDED WITH SUGGESTION OF X-BEDS;
LOCALLY CONTAINS THIN CARBON.

62

4.4 FT RECOVERY

ZONES AND SiO_2 SAND BEDS (< 1 cm);
LOCALLY CALCAREOUS BELOW 65 FT
WITH POSSIBLE MICROFOSSIL TESTS
FROM 65-66 FT.; SiO_2 REPLACED
SHELL FRAGMENTS AT 66 FT.;
SMALL GRANULAR PO_4 OR GLAUCONITE
FROM 65-66 FT.; LARGELY STAINED
FROM ORANGE IRON;

64

DARK YELLOWISH ORANGE (10YR 6/6)

NO RECOVERY

RUN 12

RUN 13

MARL; VF-F, ANGULAR, WELL-SORTED QTZ.
SAND AND CLAY IN WEAK CO_3 MATRIX;
1-2% GLAUCONITE AND PO_4 (?); SPARSE
SILICIFIED SHELLS;

FIRST
 CO_3 SiO_2 SHELLS

66

2.2 FT RECOVERY

PALE OLIVE (10Y 6/2) CONTACT (NO UNC.)

LIMESTONE: IMPURE, WITH 5-10% QTZ
SAND, 5-10% SHELL FRAGMENTS, 5%
CLAY; POORLY TO MODERATELY
SORTED; WEAKLY INDURATED EXCEPT
FOR LOCAL 0.5 FT BEDS OF
Purer CO_3 ; SPARSE MOLLUSK(?) SHELLS
EXTEND ACROSS CORE DIAMETER;
IRON OXIDATION SPOTS SUGGEST
WEATHERING OF VF-OPAQUE
HEAVIES;

SAND TYPE L.S.

RUN 13

RUN 14

3.0 FT RECOVERY

68

YELLOWISH GRAY (5Y 7/2)

70

RUN 14

65.7'
66.0'
PALED

RL 374

68.1'
68.4'
PALED

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FOSSILS: STRUCTURE: COLOR

Ft Run # Lithology

Description

Corehole: ORG-393

City, State: ORANGEBURG, SC

Date: 4/23/97

Geologist: D. PROWELL

LIMESTONE; IMPURE

SHELLY + SANDY; SEE PREVIOUS PAGE

RL373

72

4.7 FT RECOVERY

73.1'
73.4'
PALED

74

YELLOWISH GRAY (5Y 7/2)

RUN 15
RUN 16

NO RECOVERY

76

HARD SANDY LIMESTONE BROKEN (BY DRILL?) INTO
CLASTS; SPARSE VC-QTZ. GRAINS, MOLLUSK AND
BRYOZOAN FRAGMENTS, SiO₂ SAND FRAGMENTS.

CONTACT (UNG?)

RL372 *

MARL; VF-F SAND AND SILT IN
70-90% CALCAREOUS CLAY/MARL;
1-2% MICA, TRACE GLAUCONITE,
SPARSE PHOSPHATE AND SHELL
FRAGMENTS; WELL-BEDDED;
LOCALLY MORE OR LESS SAND;
UPPER 2.0 FT IS LEACHED TO
PALE GREEN COLOR;

LEACHED

LT TAN
LT GRAY

78

5.4 FT RECOVERY

78.2'
78.4'
PALED

RL371

RUN 16

GREENISH GRAY (5G 6/1)

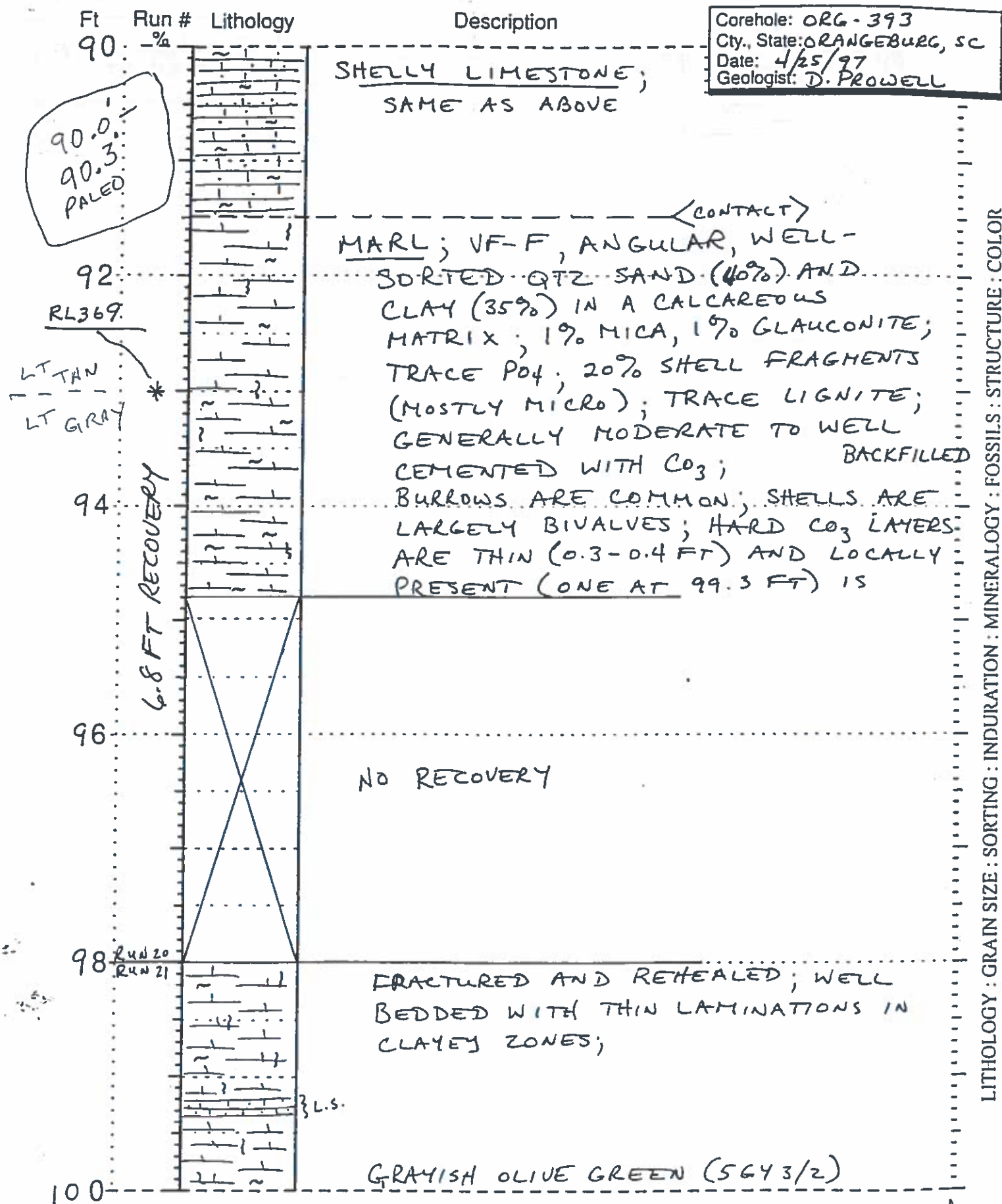
LT GRAY
LT TAN

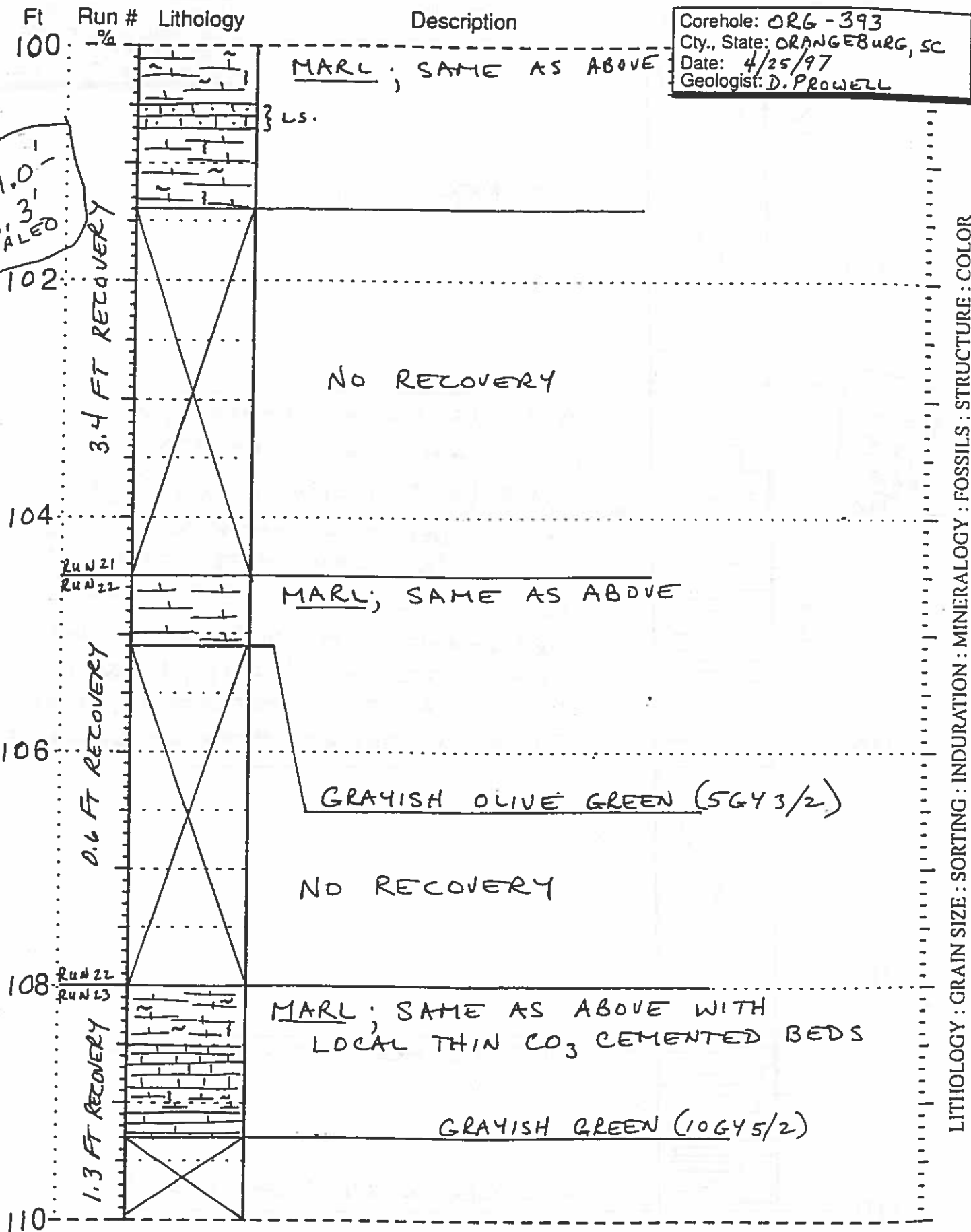
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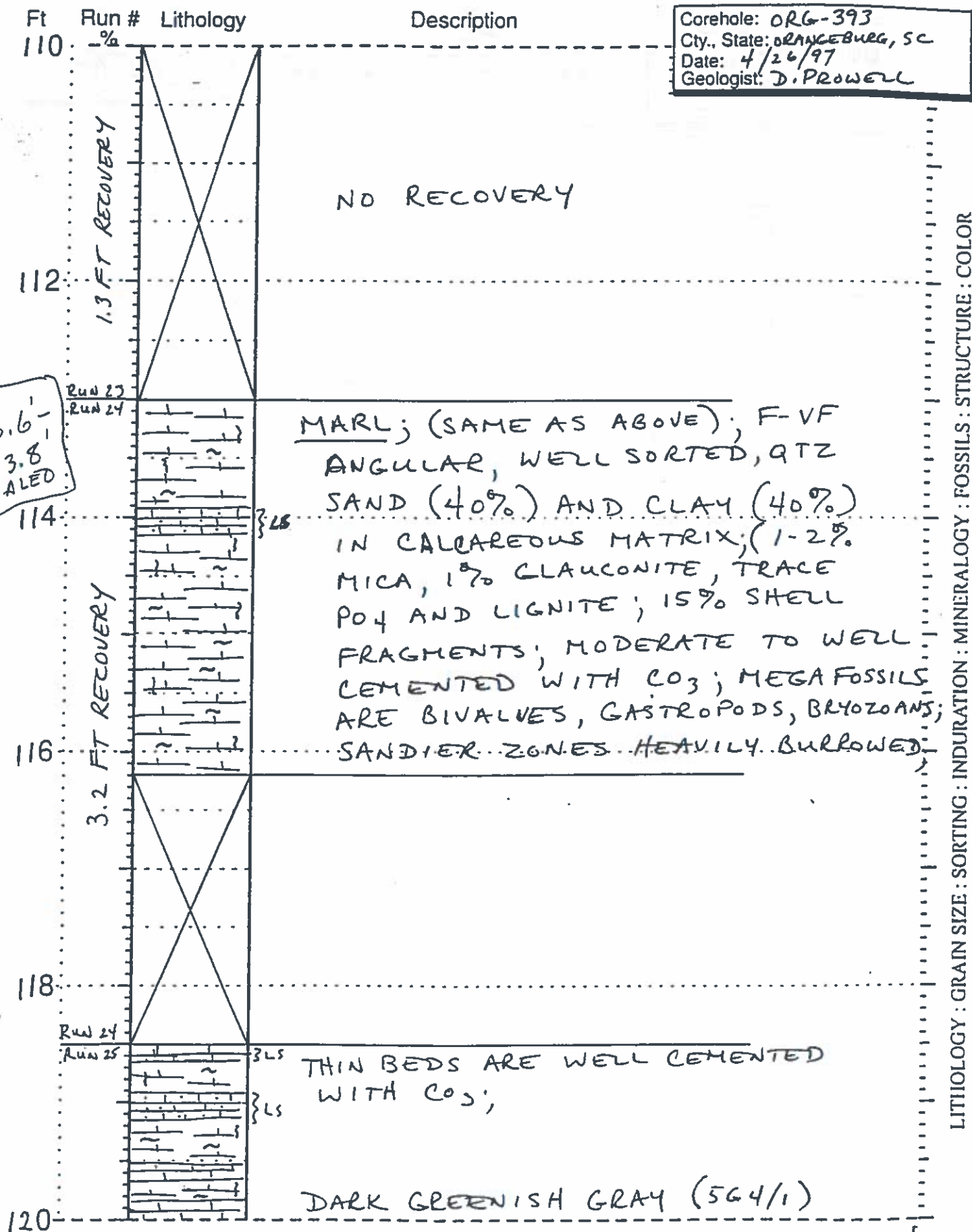
LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FOSSILS: STRUCTURE: COLOR

Ft	Run #	Lithology	Description	Corehole: ORG - 393 City, State: ORANGEBURG, SC Date: 4/24/97 Geologist: D. PROWELL
80	RUN 17		MARL; SEE PREV. PAGE	
81.0' 81.3' PALED				
82			YELLOWISH GRAY (5Y 7/2)	
RL 370			LIMESTONE CLASTS FROM BELOW WITH MARL AROUND EDGE	
4.5 FT RECOVERY			CONTACT SHELLY LIMESTONE; PRIMARY AND SECONDARY CALCIUM CARBONATE WITH 5-10% F-C QTZ. SAND; 20-30% SHELL FRAGMENTS; POORLY SORTED; LOCAL CO ₃ CEMENTED BEDS (0.3 - 0.5 FT.) OTHERWISE SEDIMENT IS BROKEN INTO COARSE GRANULES; SHELLS	
84				
			NO RECOVERY	
	RUN 17 RUN 18 1.0 FT RECOVERY RUN 18 RUN 19		ARE MOLLUSKS, PELECYPODS, BRYOZOANS, UNIDENTIFIED MICROFOSSILS; FRAGMENTED TEXTURE;	
86				
0.4 FT RECOVERY			NO RECOVERY	
88	RUN 19 RUN 20		SHELLY LIMESTONE (SAME AS ABOVE)	
			YELLOWISH GRAY (5Y 8/1) TO WHITE (N 9)	
90			CONTACT	

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR







Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 4/26/97 Geologist: D. PROWELL
120			MARL; SAME AS ABOVE; SPARSE BONE FRAGMENTS AND SMALL SHARK TEETH PRESENT; TRACE LIGNITE AND BONE PO ₄ GRAINS.	
122			SHARK TOOTH	
123.0				
123.3			SHARK TOOTH	
124				
126				
128			GRAYISH OLIVE GREEN (5GY 3/2)	
128	RUN 25 RUN 26		NO RECOVERY	
130				

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft Run # Lithology

Description

Corehole: ORG-393

City, State: ORANGEBURG, SC

Date: 4/26/97

Geologist: D. PROWELL

130

%

MARL; SAME AS ABOVE;
SLIGHT INCREASE
IN % CO₂ AND QUANTITY OF
MICROFOSSIL TESTS; NUMEROUS
MACROFOSSIL FRAGMENTS (MOSTLY
VERY SMALL) (ALMOST NO LARGE
SHELLS).

132

} LS

134

8.8 FT RECOVERY

136

← SHARK TOOTH

LIGHT OLIVE GRAY (5Y 5/2)

NO RECOVERY

138

RUN 26
RUN 27

MARL; SAME AS ABOVE BUT WITH
INCREASING CO₂; DECREASING
BURROWING; RANDOM SPARSE PO₄
GRAINS

140

GREENISH GRAY (5GY 6/1)

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft Run # Lithology Description

Corehole: ORG-393
 Cty., State: ORANGEBURG, SC
 Date: 4/26/97
 Geologist: D. PROWELL

140

%

MARL; SEE PREV.
 PAGE

← SHARK TOOTH

142

PALED
 143.3
 143.6

10.0 FT RECOVERY

144

146

↓ INCREASE IN F-VC P₀₄

148

RUN 27
 RUN 28

148.5
 148.6
 PALED

150

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 4/24/97 Geologist: D. PROWELL
150			<u>MARL</u> ; VF-F, WELL-SORTED QTZ. SAND (20%) AND CLAY (50%) IN CALCIUM CARBONATE MATRIX; ABUNDANT MICROFOSSILS AND MEGAFOSSIL FRAGMENTS; 1-2% F-VC ROUNDED PD4, 1% GLAUCONITE; PD4 IS ESPECIALLY ABUNDANT FROM 146 TO 153; SPARSE BURROWS; 153 TO 158 LARGE BROWN BIVALVE SHELLS ARE COMMON; CALCIFIED TUBES ARE ALSO COMMON;	
152				
154				
156				
158			GREENISH GRAY (5G6/1) NO RECOVERY	
160			<u>MARL</u> ; SAME AS ABOVE WITH INCREASE IN F-VC PD4 GRAINS TO 3-4%; 1-2% GLAUCONITE; AND COMMON LARGE BROWN BIVALVE FRAGMENTS; MODERATELY CEMENTED WITH CO ₃ .	

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FOSSILS: STRUCTURE: COLOR

Ft Run # Lithology

Description

Corehole: ORG-393

City, State: ORANGEBURG, SC

Date: 4/26/97

Geologist: D. PROWELL

160

- 1/2

MARL, PHOSPHATIC

(SEE PREV. PAGE);

SAME AS ABOVE BUT WITH 30-40% PO₄ AND GLAUCONITE.

PALEO

161.0'

161.3'

162

OLIVE GRAY (5Y 3/2)

4.5 FT. RECOVERY

164

NO RECOVERY

166

168

Run 29
Run 30

MARL, PHOSPHATIC; SAME AS ABOVE,
BUT WITH 50-60% F-VC PO₄
AND GLAUCONITE; COMMON MICRO-
FOSSILS AND MEGAFOSSIL FRAGMENTS;
SEMI-CONSOLIDATED WITH CO₃
CEMENT;

2L368, H9701 *

170

GRAYISH OLIVE GREEN (5GY 3/2)

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft	Run #	Lithology	Description	Corehole: ORG - 393 City, State: ORANGEburg, SC Date: 4/26/97 Geologist: D. PROWELL
170	-		<u>MARL; PHOSPHATIC</u> (SEE PREV. PAGE) (LOCALLY 60-70% PO ₄ AND GLAUCONITE)	
170.9'- 171.0' PALEO	4.5 FT RECOVERY		GRAYISH OLIVE GREEN (SGY 3/2)	
172			GRAYISH OLIVE GREEN (SGY 3/2)	
RUN 30	RUN 31		NO RECOVERY	
H9703	174	5.0 FT RECOVERY		<u>MARL; PHOSPHATIC</u> (SEE PREV. PAGE) (LOCALLY 50-60% PO ₄ AND GLAUCONITE - F-VC); SHELL FRAGMENTS COMMON, MANY ROUNDED; TRACE VC-ROUNDED QTZ. (PROBABLE LAG BED)
176				
H9702				
178	RUN 31 RUN 32		{ BURROWED CONTACT	<unc>
RL 367	*		<u>SANDY CLAY TO MARL; F-VC, SUB-ANGULAR, WELL SORTED QTZ. SAND AND SILT IN 60-70% CLAY MATRIX; WELL COMPACTED WITH A WEAK (FIZZ) CO₃ CEMENT; 1% MICA, 5-30% GLAUCONITE, COMMON VF-CARBONACEOUS MATTER; WELL LAMINATED; WEATHERED SPARSE</u>	
180				

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft Run # Lithology

Description

Corehole: ORG-393
 Cty., State: ORANGEBURG, SC
 Date: 4/27/97
 Geologist: D. PROWELL

180

%

SHELL FRAGMENTS,
 SHARK TOOTH; BURROWED UPPER CONTACT
 WITH GLAUCONITIC MARL BACKFILLING
 BURROWS.

180.0'
 180.3'
 PALEO

182

H9707

PALEO
 183.4'
 183.6'

184

8.6 FT RECOVERY *

H9706 186

*

OLIVE GRAY (5Y 3/2)

NO RECOVERY

H9705
* 188Run 32
Run 33

CLAYEY SAND; F-VC, ROUNDED, POORLY
 SORTED QTZ SAND AND SPARSE F-QTZ.
 GRAVEL (3-4 mm); 20-30% CLAY MATRIX;
 5-10% GLAUCONITE, 1% MICA, TRACE
 BLUE QTZ., CARBONACEOUS, NO FOSSILS,
 MASSIVE TEXTURE; OLIVE GRAY (5Y 3/2).

H9701

*

(LAG)

IRREGULAR SURFACE

RL366

*

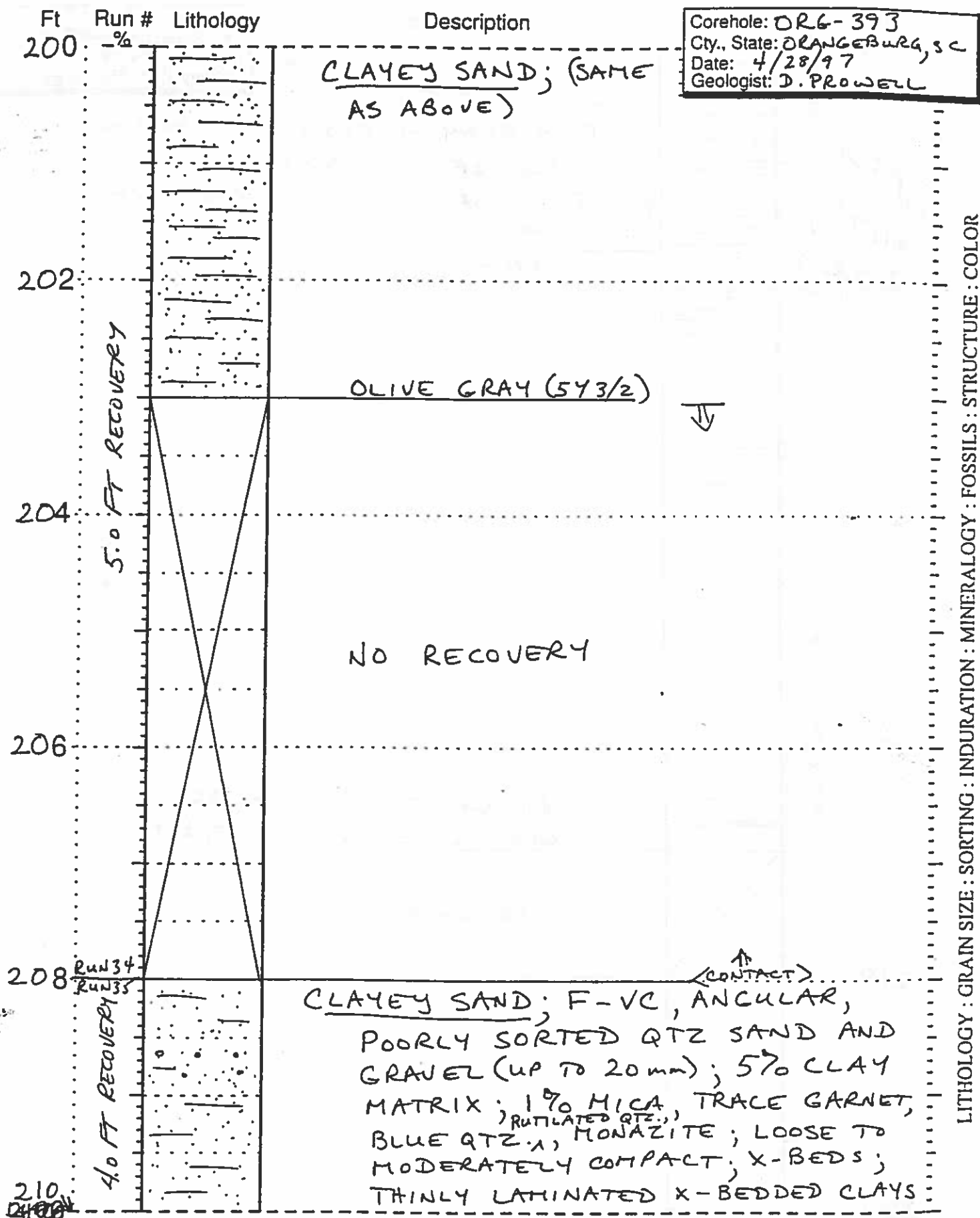
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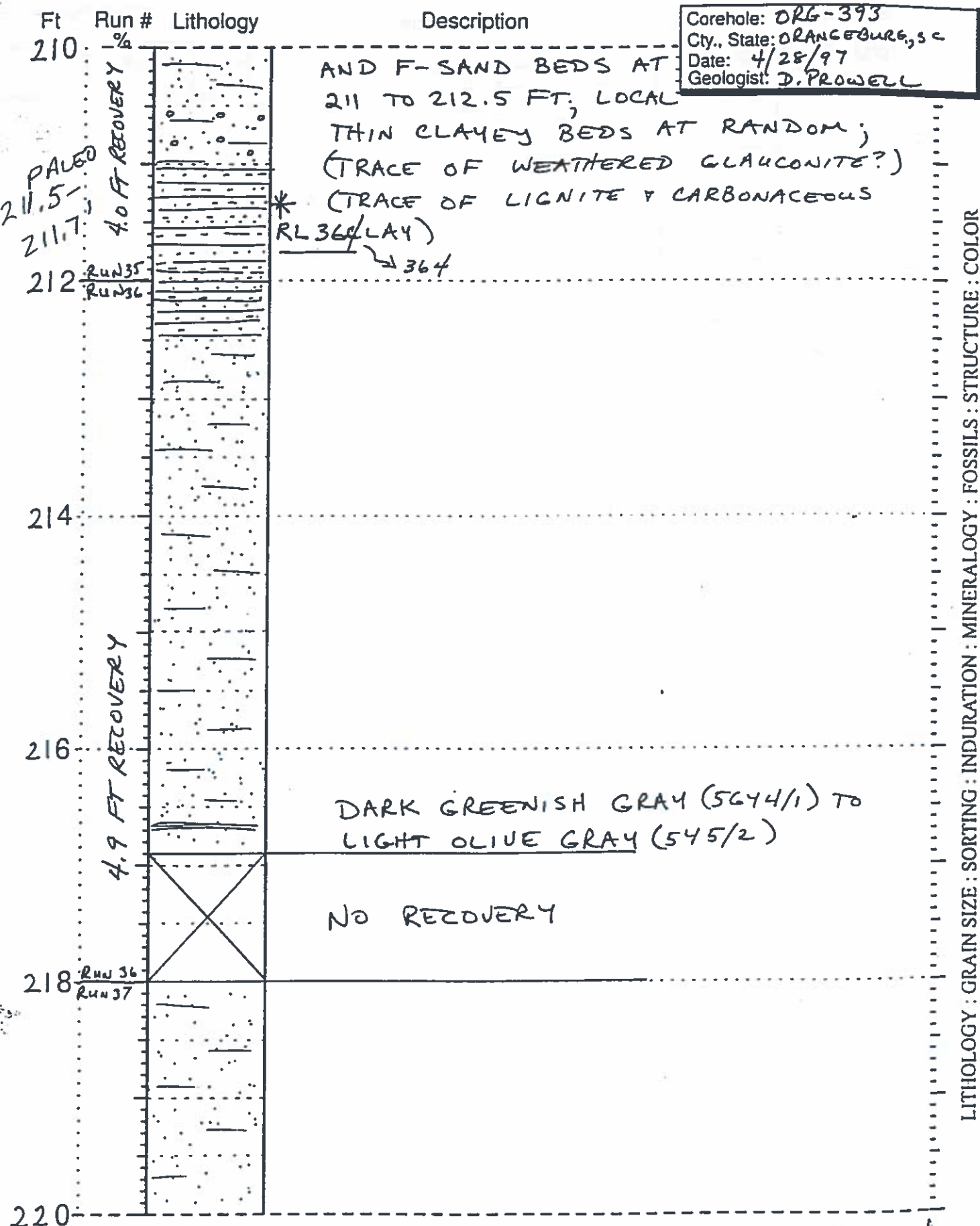
SILTY CLAY (SEE NEXT PAGE)

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 4/28/97 Geologist: D. PROWELL
190				
190.0 - 190.3		Paleo		
192			SILTY CLAY; VF-F ANGULAR, WELL-SORTED SILT AND SAND IN 60% CLAY MATRIX; 2-4% MICA, 1-2% GLAUCONITE; TRACE OPAQUE HEAVIES; WELL-LAMINATED, GRAYISH GREEN (10GY 5/2)	
RL365				
194				
H9708				
196				
196.0 - 196.3				
198				
200				

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR





Ft Run # Lithology Description

Corehole: ORG-393
 City, State: ORANGEBURG, SC
 Date: 4/29/97
 Geologist: D. PROWELL

220

CLAYEY SAND;
 (SAME AS ABOVE)

222

222.0 -
 222.2' Paleo

9.1 FT RECOVERY

3 CLAY

224

226

NO RECOVERY

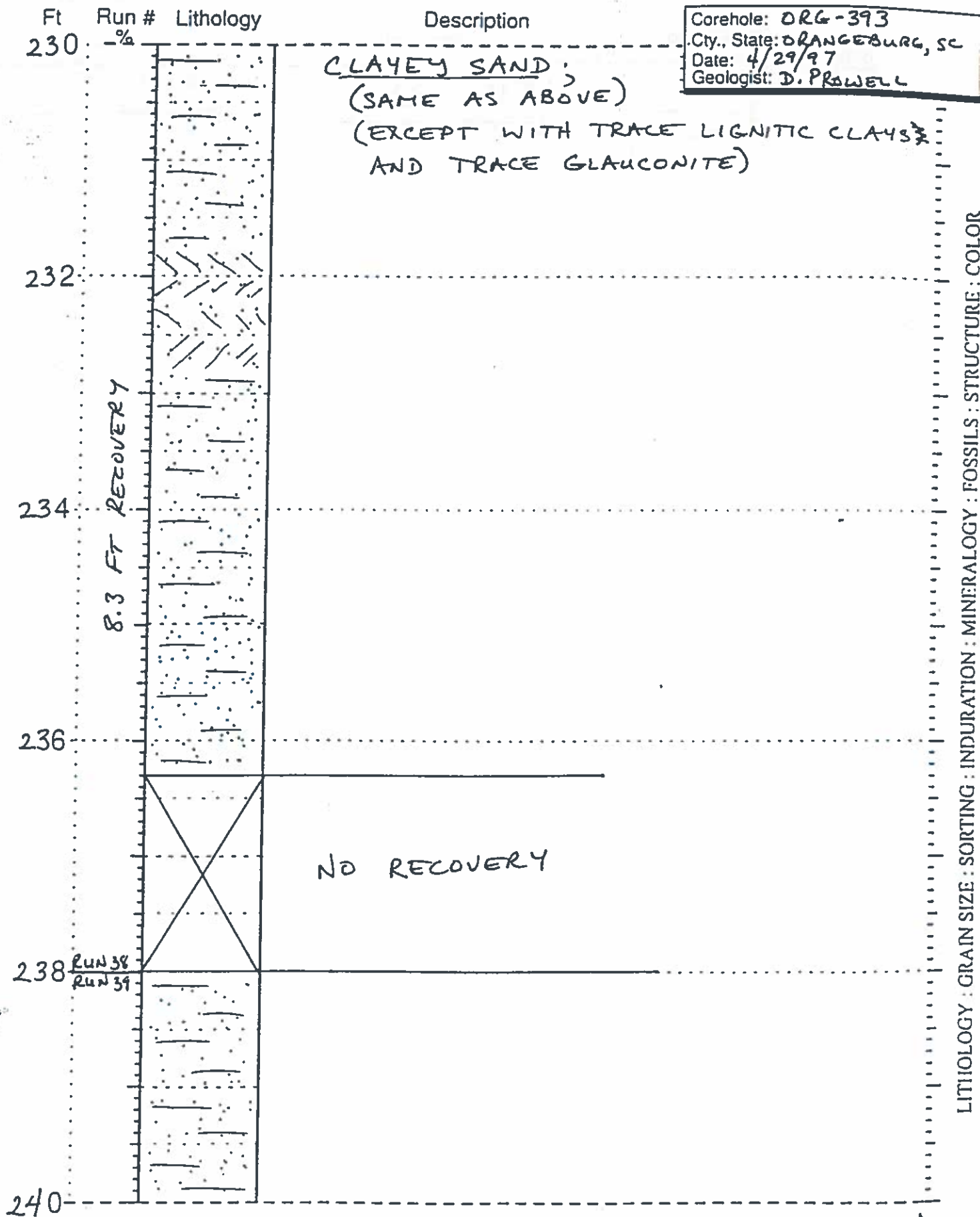
228 Run 37
Run 38 *RL
363

228.7
 - 229.1
 PALED
 Dinos

THINLY BEDDED CLAY + SAND

230

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR



Ft	Run #	Lithology	Description	Corehole: ORG-393 Cty., State: ORANGEBURG, SC Date: 4/29/97 Geologist: D. PROWELL
240	-		CLAYEY SAND; (SAME AS ABOVE) (EXCEPT WITH INCREASED LIGNITE/CARBONACEOUS CLAY AND TRACE UNWEATHERED GLAUCONITE).	
242				
244				
246				
248	Run 39 Run 40		CLAYEY SAND; (SAME AS ABOVE)	
250		} 1 cm GRAVEL		

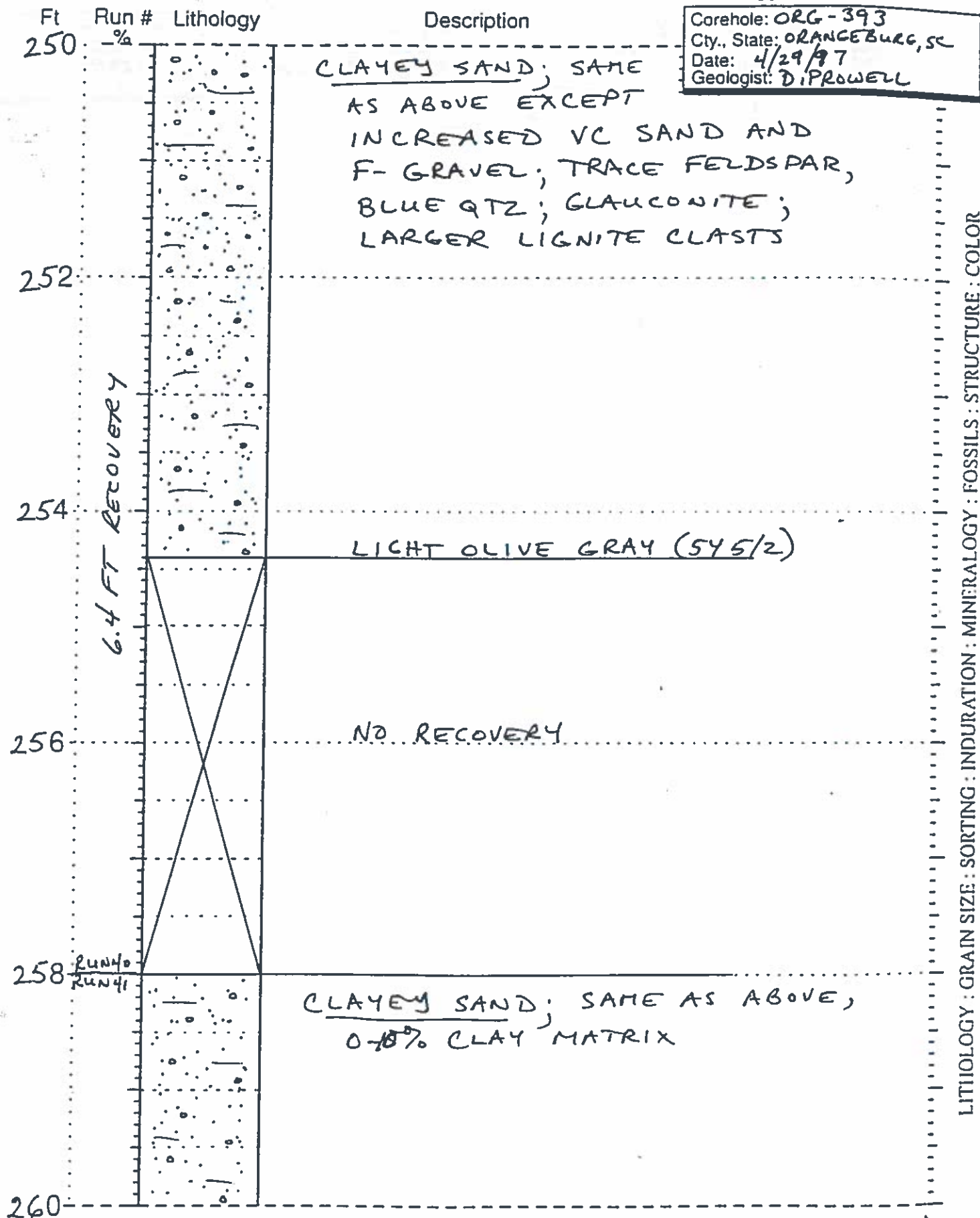
7.2 FT RECOVERY

LIGHT OLIVE GRAY (5Y5/2)

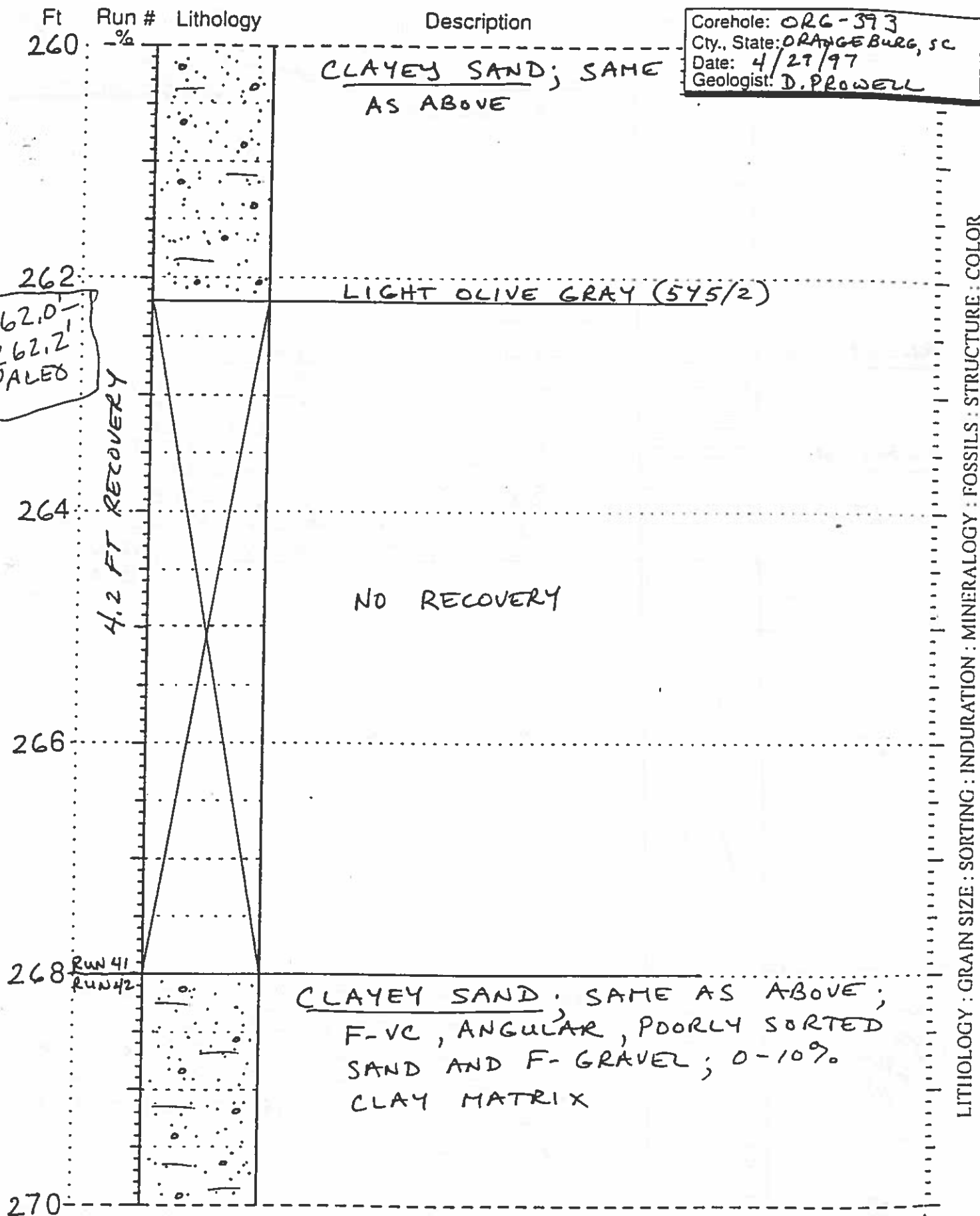
NO RECOVERY

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

26 of



Corehole: ORG-393
 Cty., State: ORANGEBURG, SC
 Date: 4/27/97
 Geologist: D. PROWELL



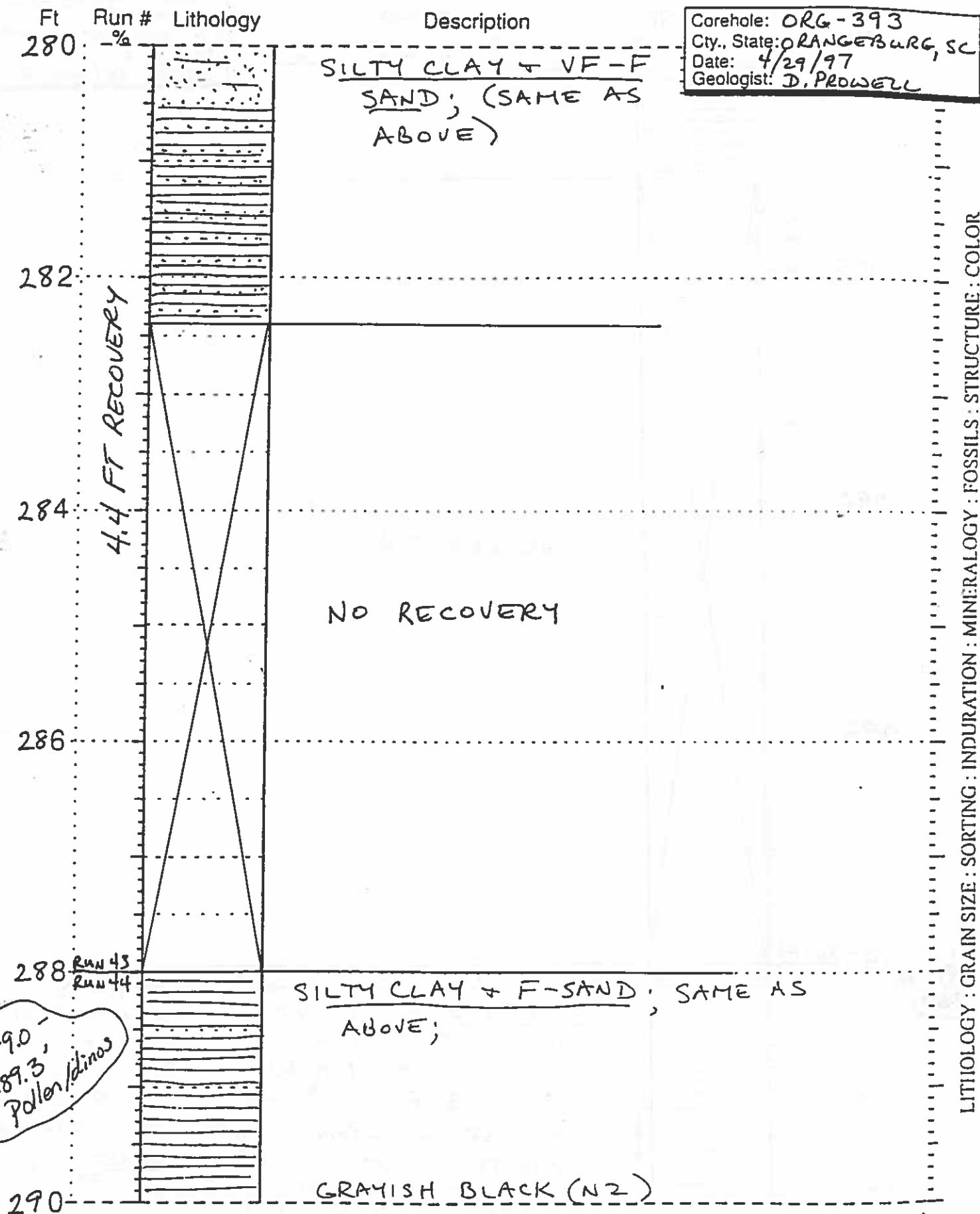
Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 4/24/97 Geologist: D. PROWELL
270	---	---	CLAYEY SAND; SAME AS ABOVE	
272	---	---		
RL 362	---	---	NO COARSE BED	
RL 361 *	---	---	LIGHT OLIVE GRAY (5Y5/2) CONTACT SILTY CLAY + VF SAND; WAXY VERY CARBONACEOUS CLAY WITH 10% SILT, 1-2% VF MICA, LIGNITE COMMON; LOCAL INTERBEDS (1-4" THICK) OF F-VF SUB-ROUNDED, WELL-SORTED QTZ. SAND; 5% MICA; LOW ANGLE X-BEDS LOCALLY COATED WITH FINE LIGNITE; WELL LAMINATED; LOCAL PYRITIZED ROOTS/TUBES; GRAYISH BLACK (N2)	
274	---	---		
276	---	---	NO RECOVERY	
278	RUN 42 RUN 43	---	SILTY CLAY + VF SAND; (SAME AS ABOVE EXCEPT FOR F-VC, SUB- ANGULAR, POORLY SORTED QTZ SAND BED FROM 280-280.5 FT.; VERY LIGNITIC WITH PYRITE-CEMENTED SAND CLASTS	
280	---	---		

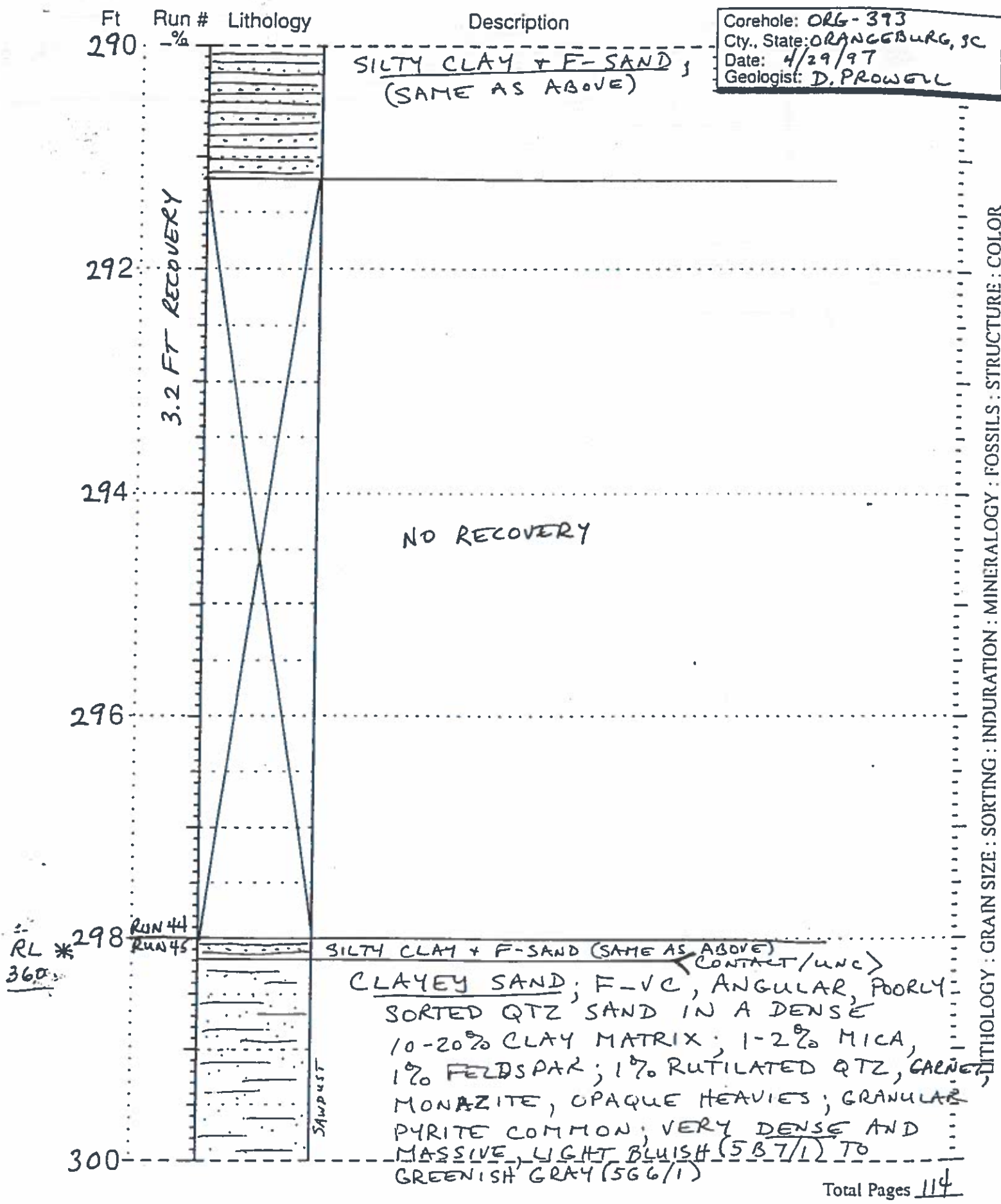
278.0-
278.3
Poller

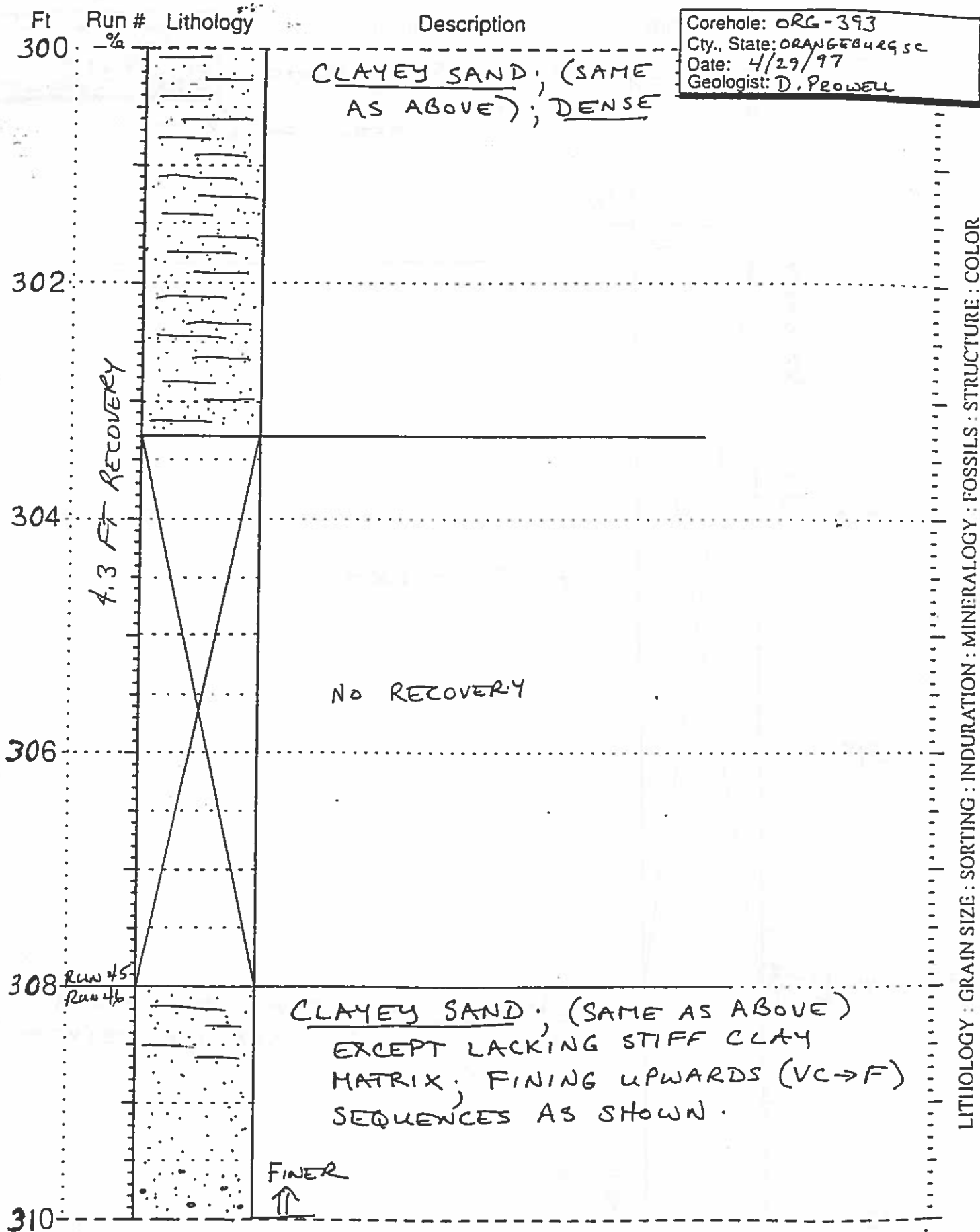
6.4 FT. RECOVERY*

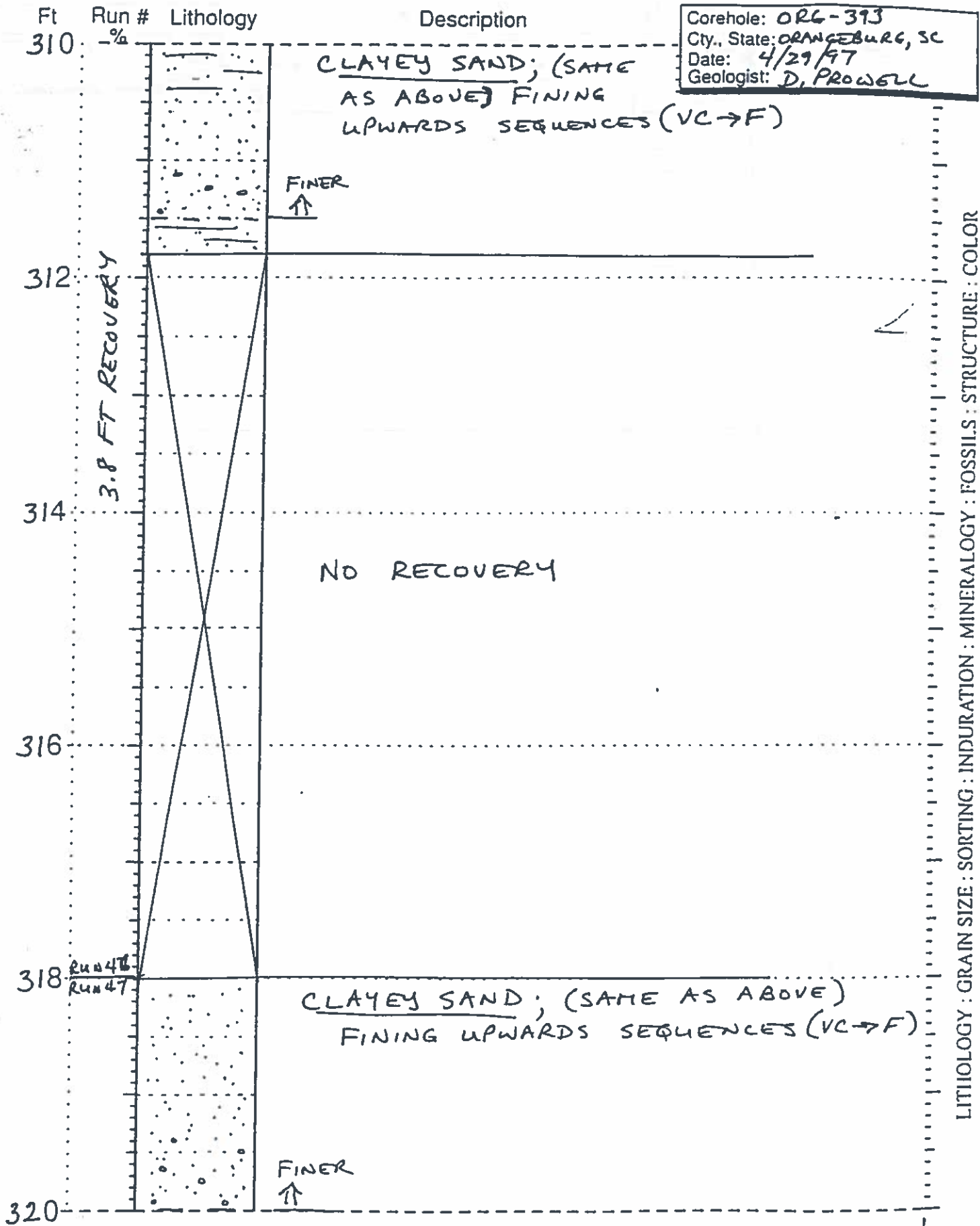
LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

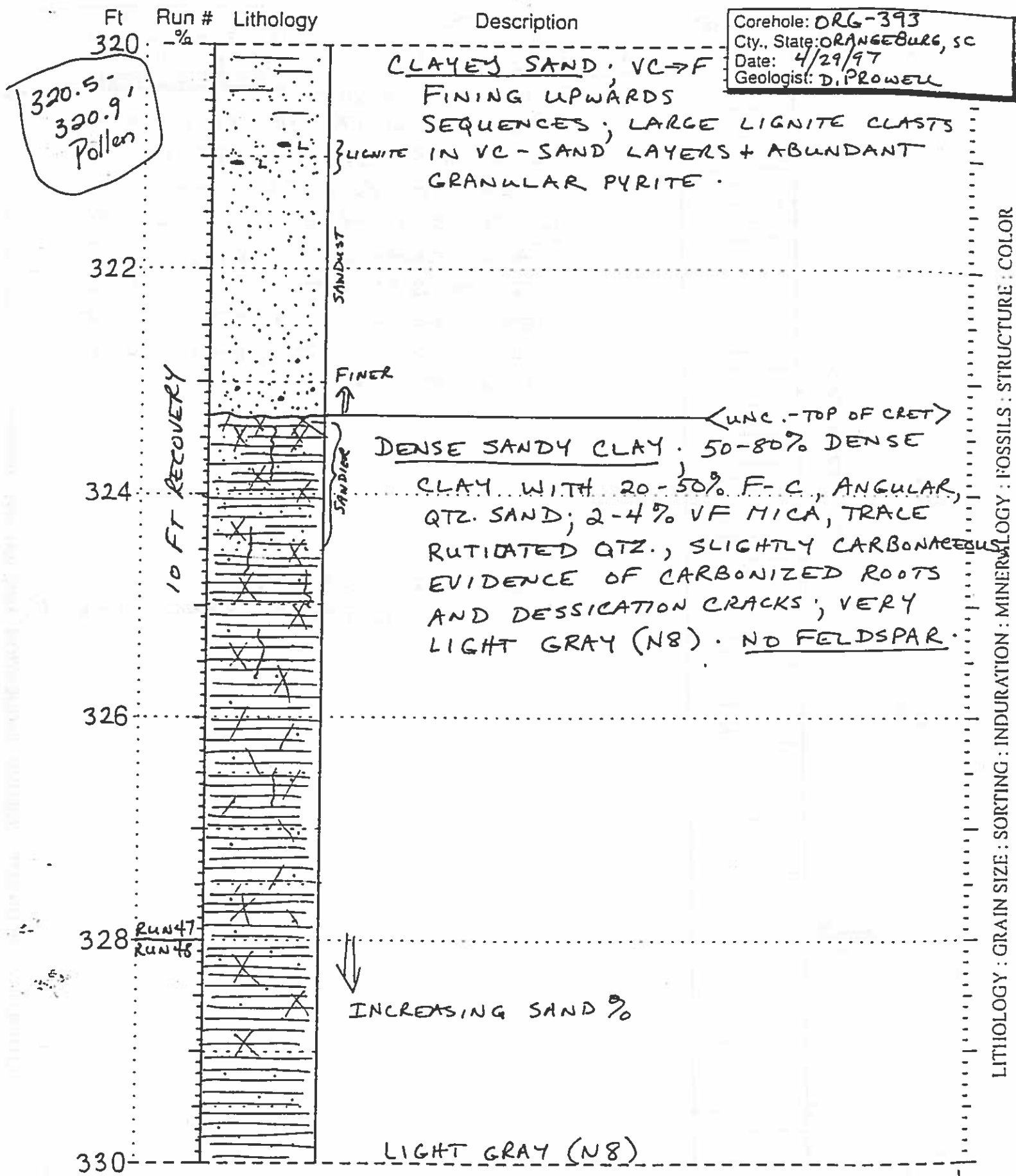
Corehole: ORG-393
 Cty., State: ORANGEBURG, SC
 Date: 4/29/97
 Geologist: D. PROWELL











Ft	Run #	Lithology	Description	Corehole: ORG - 393 City, State: ORANGEBURG, SC Date: 4/29/97 Geologist: D.C. PROWELL
330	-		CLAYEY SAND; SAME AS ABOVE EXCEPT WITH 70-80% SAND IN STIFF CLAY MATRIX; LOCAL F-GRAVEL (3mm); GRADING COARSER WITH DEPTH. [PALE ORANGE STAINING FROM 330.5 FT TO 341 FT.] VERY POORLY SORTED; DENSE AND INDURATED; ABUNDANT MICA (5-7%).	
332				
334				
336				
338	Run 48 Run 49		VERY LIGHT GRAY (N8) STAINING; GRAYISH ORANGE (10YR7/4)	
340				

10 FT RECOVERY

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 4/30/77 Geologist: D. PROWELL
340	-		CLAYEY SAND; SAME AS ABOVE; VERY COMPACT; 3-5% MICA.	
342				
344				
346				
			VERY LIGHT GRAY (N8)	
			NO RECOVERY	
348	RUN 49 RUN 50		SAND; F-C, SUB-ANGULAR, POORLY TO MODERATELY SORTED QTZ SAND, 0-5% CLAY MATRIX, POORLY CONSOLIDATED; 2-4% MICA; TRACE MONAZITE, OPAQUE HEAVIES, LIGNITE. LOW ANGLE X-BEDS IN THIN LAYERS; VERY LIGHT GRAY (N8)	
350				

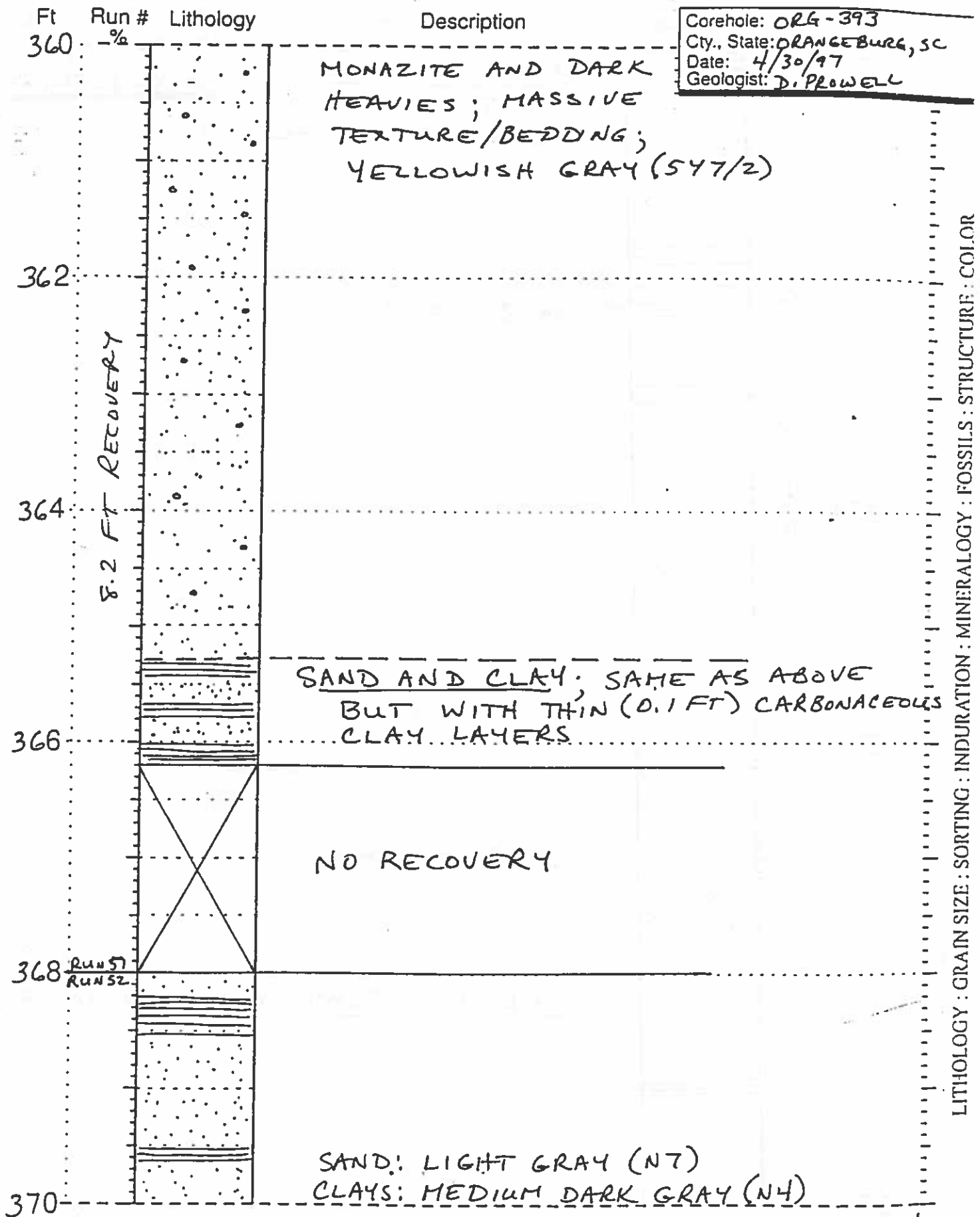
9.1 FT RECOVERY

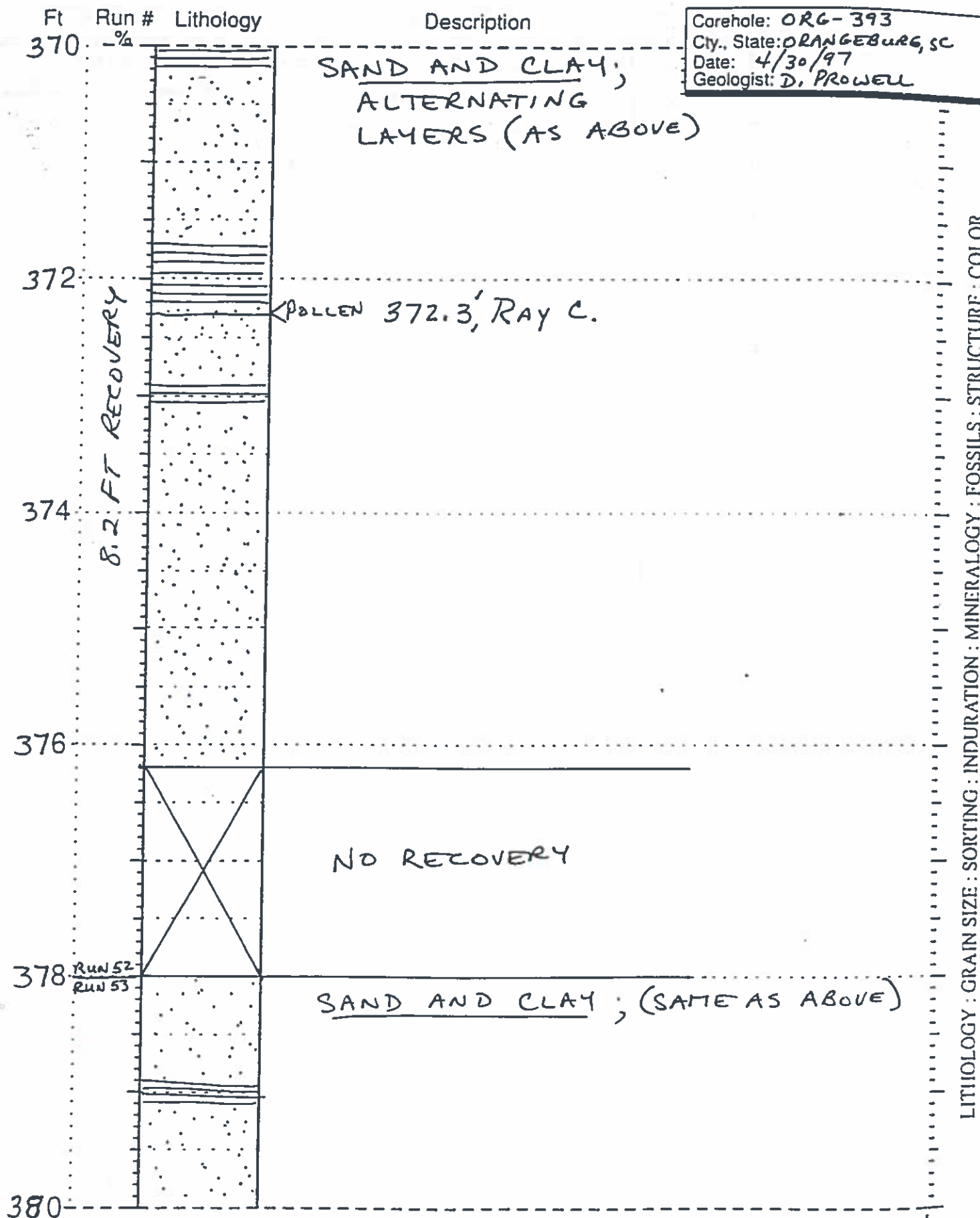
LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

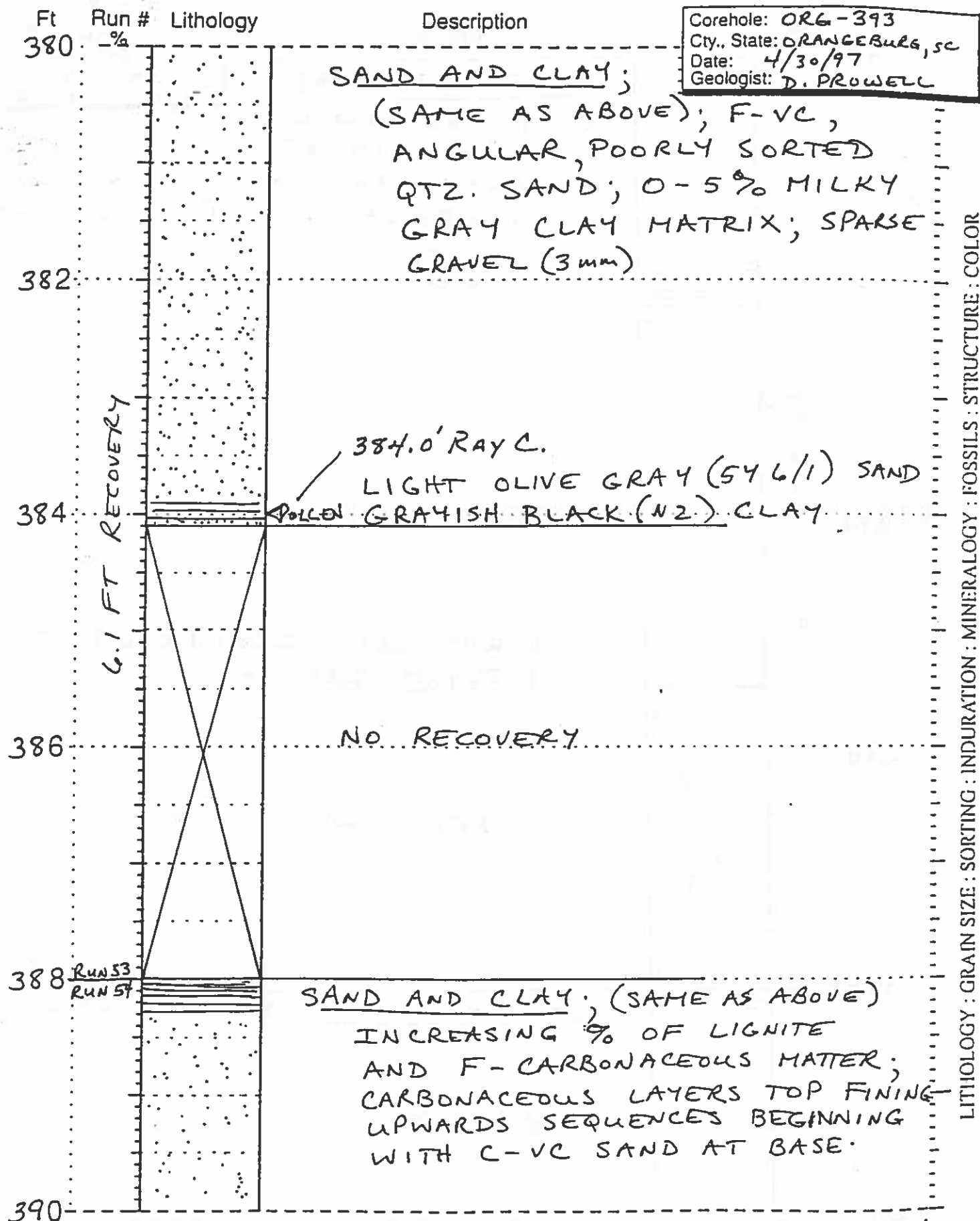
Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 4/30/97 Geologist: D. PROWELL
350			<u>SAND</u> ; SAME AS ABOVE EXCEPT LOCAL THIN BEDS INCLUDE VC SAND FRACTION. THIN UNDULATING BEDS SUGGEST MARGINAL MARINE CONDITIONS; MATRIX CLAYS ARE WHITE, AND LOOSELY COMPACTED; PYRITIZED CARBON AND LAYER DISCOLORATIONS SUGGEST VERY THINLY BEDDED CARBONACEOUS SANDS WERE ONCE PRESENT; VERY MICACEOUS WITH SOME GRAINS UP TO 3mm.	
352				
354				
356				
358	RUN 50 RUN 51		VERY LIGHT GRAY (N8) NO RECOVERY	
360			GRADATIONAL <u>SAND</u> ; F-VC, ANGULAR, POORLY SORTED, QTZ. SAND, 0-5% MILKY CLAY MATRIX, 1-3% QTZ. GRAVEL (UP TO 5mm); WHITE CLAY BALLS (UP TO 8mm); 1-2% MICA, TRACE	

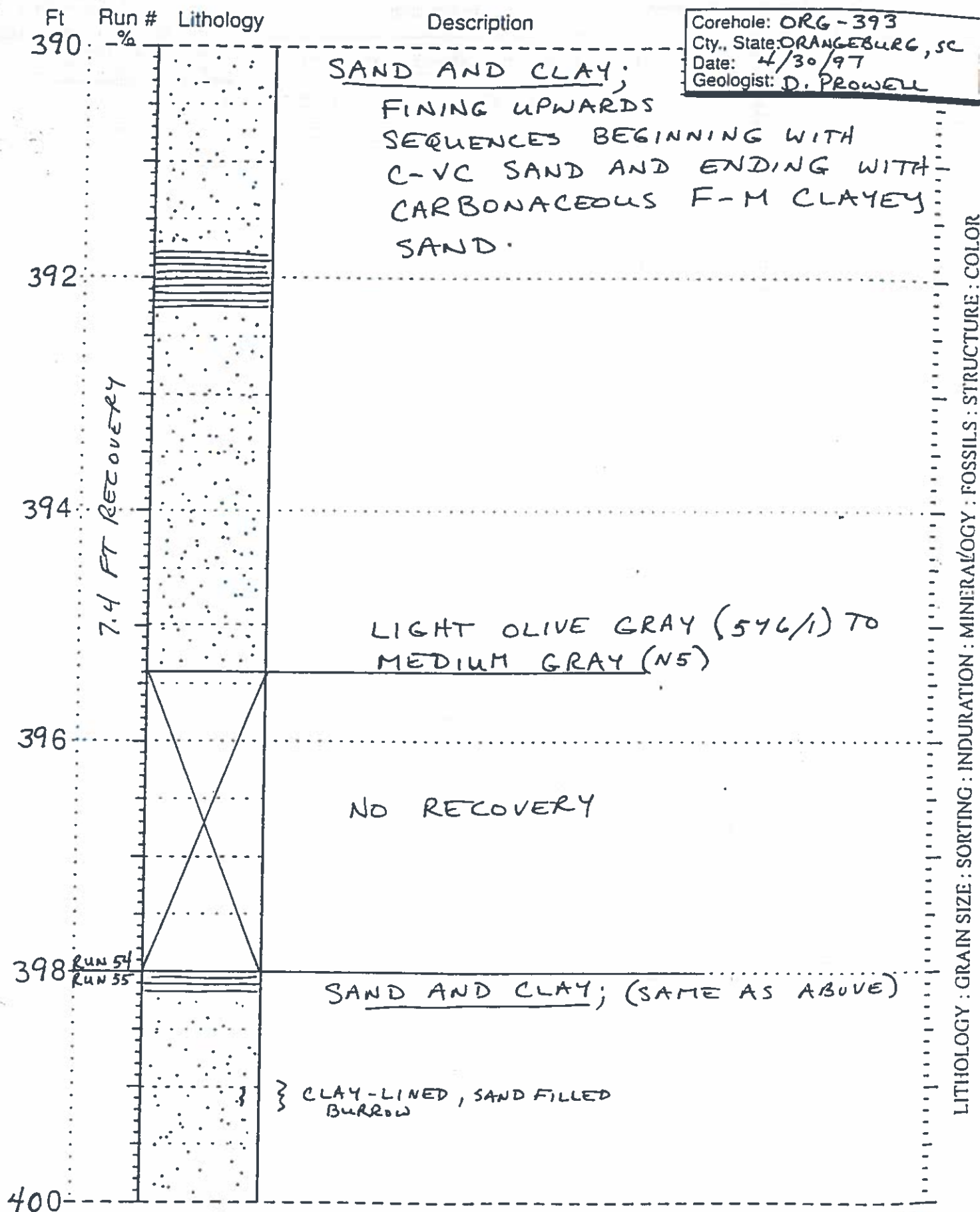
9.9 FT RECOVERY

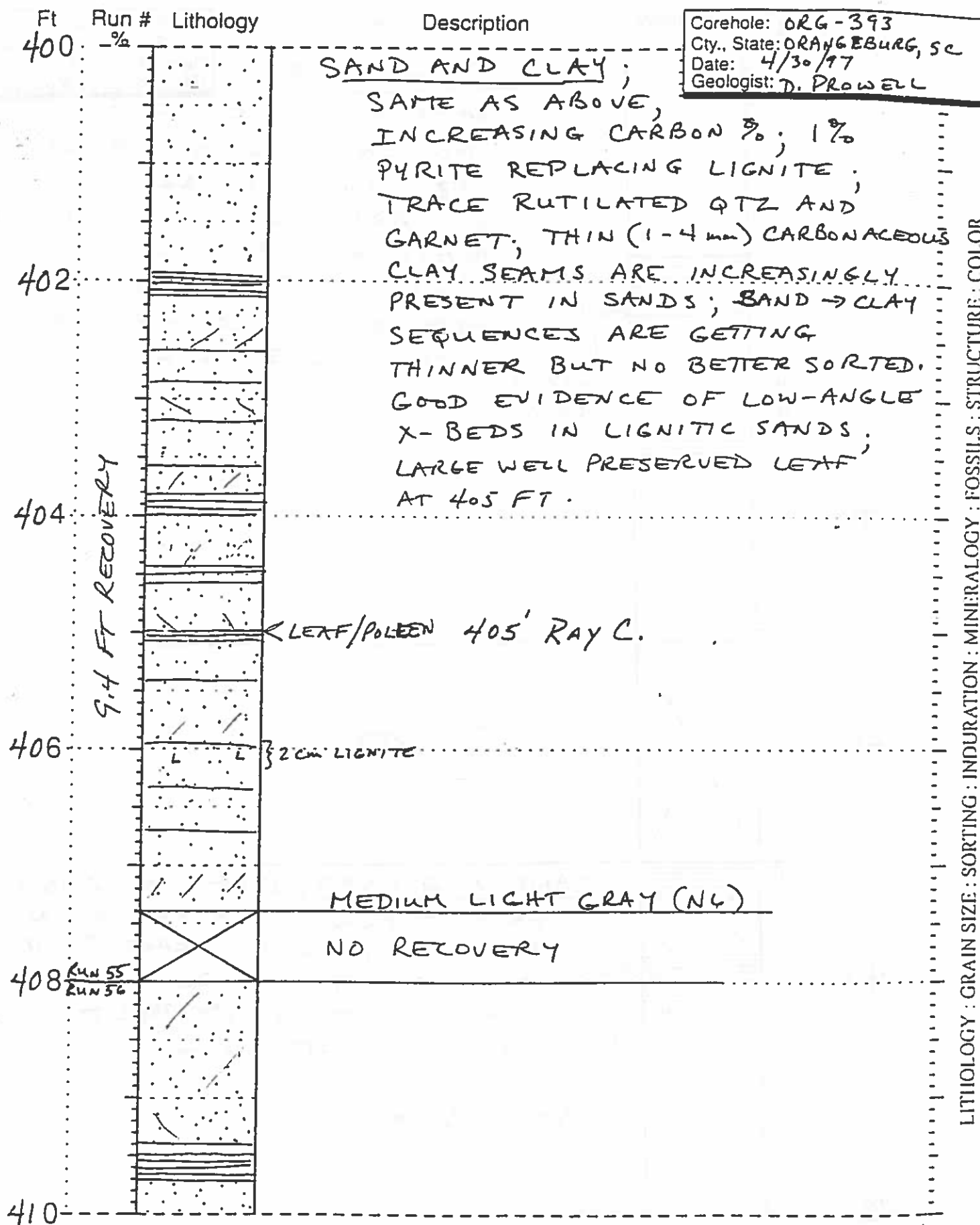
LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR



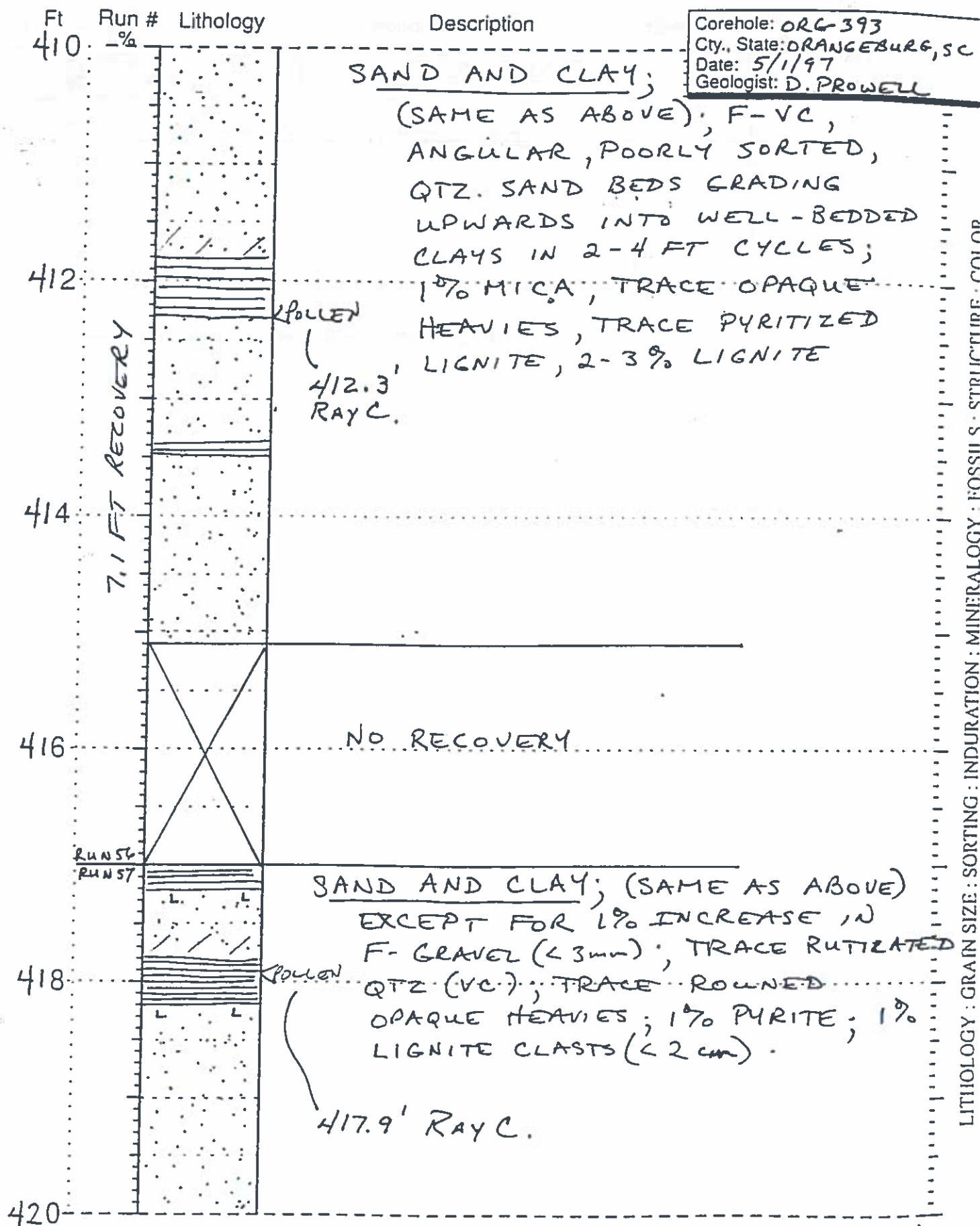






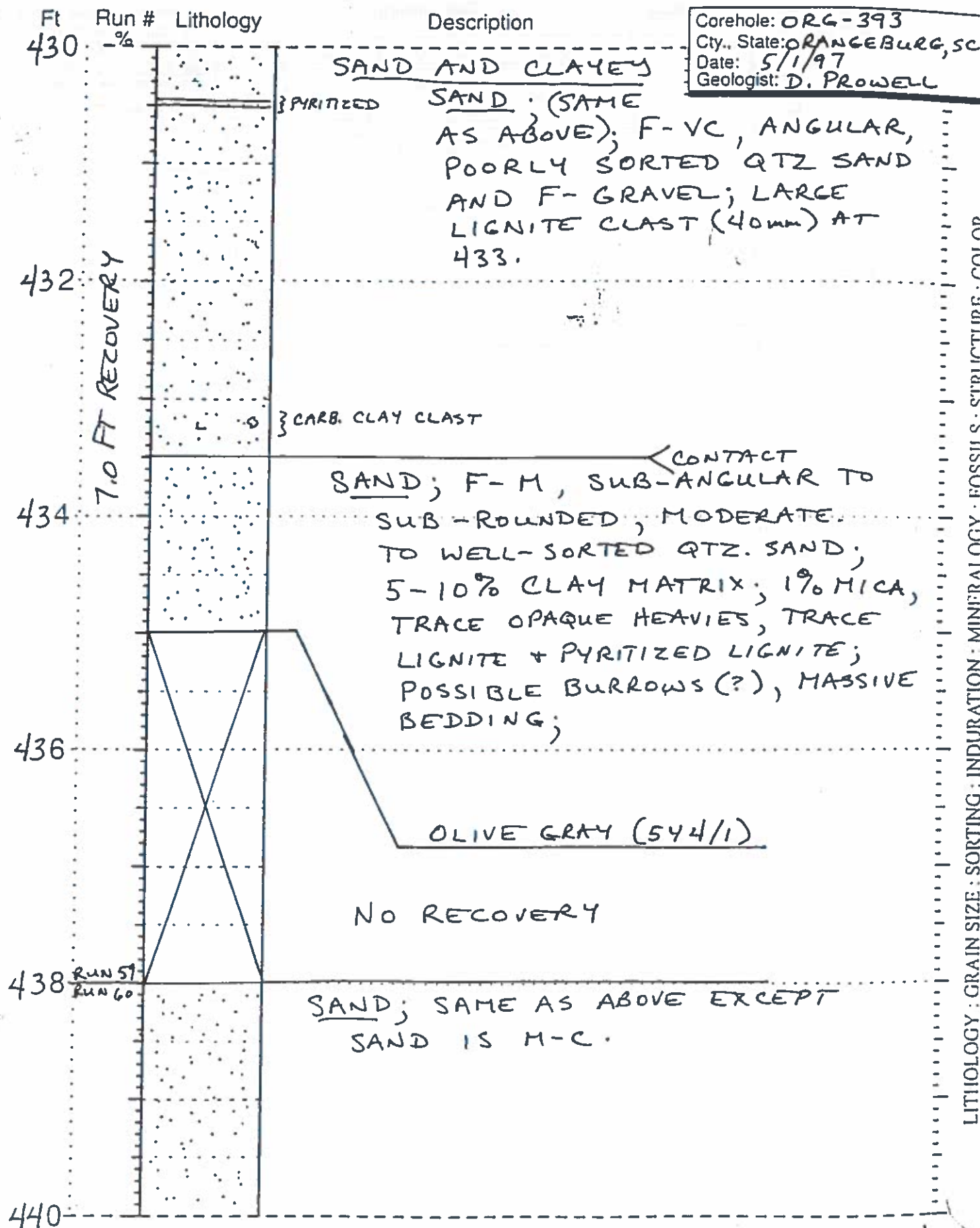


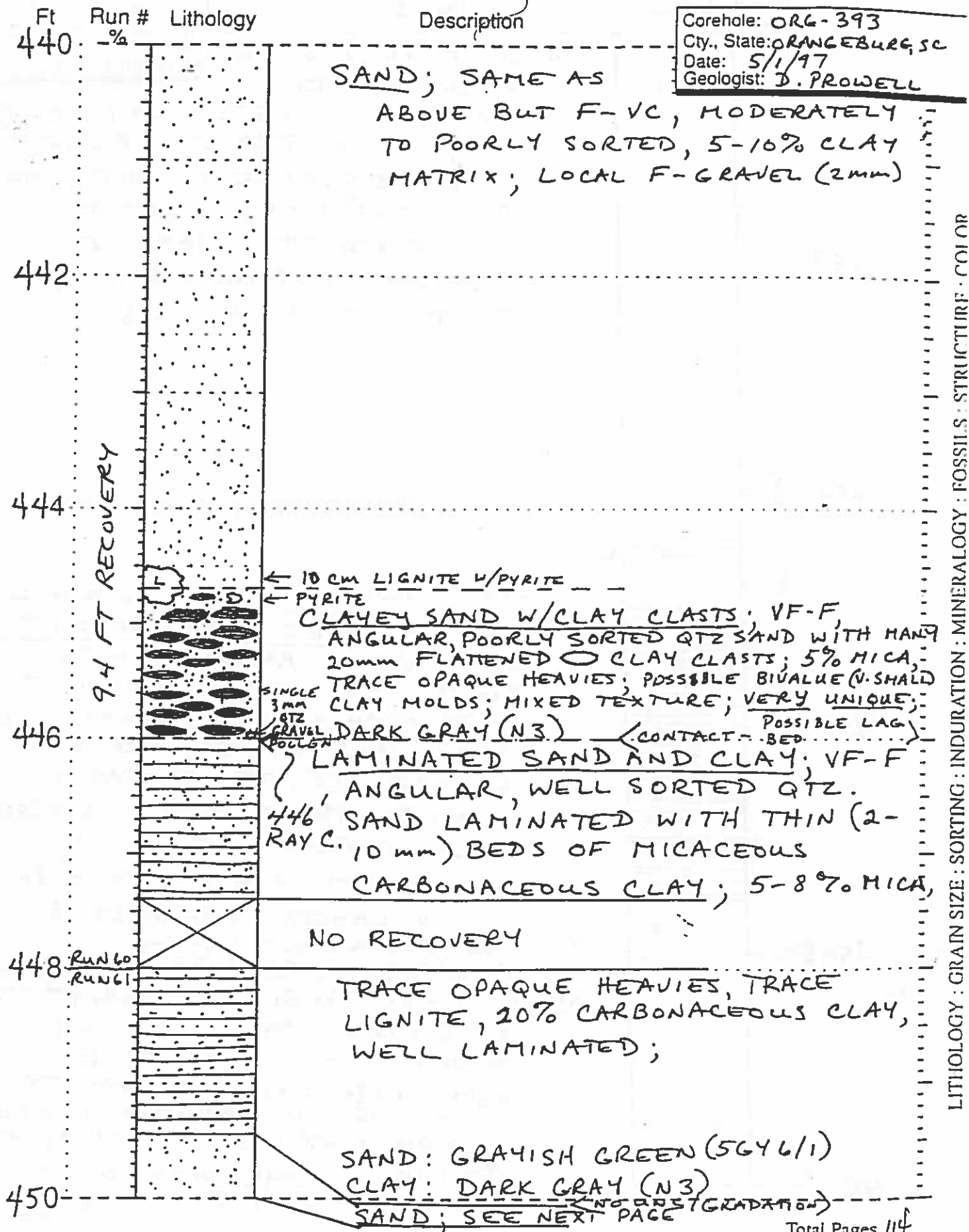
LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR



Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/1/97 Geologist: D. PROWELL
420			<u>SAND AND CLAY;</u> (SAME AS ABOVE) EXCEPT FOR AN INCREASE IN GRAVEL AND A DECREASE IN CARBON; FINING UPWARDS SAND SEQUENCES STILL PREVAIL.	
422		5.4 FT RECOVERY	YELLOWISH GRAY (5Y 7/2) TO LIGHT OLIVE GRAY (5Y 5/2)	
			NO RECOVERY	
	Run 57 Run 58		<u>SAND AND CLAYEY SAND;</u> SAME AS ABOVE BUT WITHOUT CLAY LAYERS; CARBONACEOUS CLAYEY SAND AT 425-425.5 FT.	
424				
		2.9 FT RECOVERY	LIGHT OLIVE GRAY (5Y 6/1)	
426			NO RECOVERY	
428	Run 58 Run 59		CARBON <u>SAND AND CLAYEY SAND;</u> SAME AS ABOVE; LOCAL LIGNITE CONCENTRATIONS AND CARBON. CLAYEY SAND; THIN (3-5 mm) PYRITIZED BEDS AT 430.5 FT.	
430				

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR





Ft	Run #	Lithology	Description	Corehole: ORC-393 City, State: ORANGEBURG, SC Date: 5/1/97 Geologist: D. PROWELL
450	-%		SAND; F-VC, ANGULAR, POORLY SORTED, QTZ. SAND; 0-5% CLAY MATRIX, 1-3% MICA, TRACE OPAQUE HEAVIES; TRACE LIGNITE AND PYRITIZED LIGNITE; TRACE RUTILATED QTZ; MASSIVE TEXTURE; LOCALLY (THIN 2 cm) BEDS SAND + CARBONACEOUS CLAY;	
452				
454				
456				
458	RUN 61 RUN 62			
460				

10 FT RECOVERY

C

LIGHT GRAY (NT)

CONTACT/NO UNCL

SAND LAMINATED WITH CARBONACEOUS

CLAY; VF-F, ANGULAR, WELL-SORTED QTZ. SAND LAMINATED

WITH MICACEOUS CARBONACEOUS

CLAY; 4-5% MICA, TRACE GLAUCONITE, TRACE OPAQUE

HEAVIES; TRACE PYRITE, SPARSE LIGNITE FRAGMENTS (15 mm);

WELL LAMINATED WITH 3-8 mm CLAY LAYERS SEPARATED BY

20-50 mm SAND LAYERS.

LIGHT OLIVE GRAY (546/1) (CONTACT/NO UNCL?)

SAND; F-VC, ANGULAR, POORLY

SORTED QTZ. SAND; 5% CLAY MATRIX; 1-3% MICA, TRACE

GLAUCONITE + OPAQUE HEAVIES, LOCAL LIGNITIC FRAGMENTS (2.5 cm)

AND PYRITIZED LIGNITE; MASSIVE

TEXTURE; POORLY CONSOLIDATED;

LIGHT OLIVE GRAY (546/1)

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/1/97 Geologist: D. PROWELL
460	-%		<u>SAND</u> ; SAME AS ABOVE WITH LOCAL THIN (0.1 - 0.5 FT) CARBONACEOUS, LIGNITIC CLAY BEDS; POSSIBLE IN-SITU WEATHERED FELDSPARS AND (OR) WHITE CLAY BLEBS.	
462				
464				
466				
468				
470				

9.2 FT RECOVERY

CARB. CLAY + PYLITIZED LIGNITE

LIGHT OLIVE GRAY (546/1) TO DARK GRAY (N3)

NO RECOVERY

SAND LAMINATED WITH

CLAY; VF-F, ANGULAR, WELL-SORTED QTZ. SAND LAMINATED WITH THIN LAYERS OF CARBONACEOUS CLAY. 5-8% MICA, TRACE OPAQUE HEAVIES, TRACE PYRITE. WELL LAMINATED (3-5 mm CLAYS) (10-30 mm SANDS) LIGHT OLIVE GRAY (546/1) SANDS DARK GRAY (N3) CLAYS

CONTACT/NO. UNK.

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/1/97 Geologist: D. PROWELL
470	-2		SAND LAMINATED WITH CLAY. SAME AS ABOVE; SOME CLAY LAYERS 30-40 mm THICK; EVIDENCE OF LOW ANGLE X-BEDS. (MAJOR CLAY BEDS SHOWN)	
472				
474				
476				
478			LIGHT OLIVE GRAY (5Y6/1) SANDS DARK GRAY (N3) CLAYS	
478			NO RECOVERY	
480	Run 63 Run 64		SAND AND CLAY; F-VC, SUB-ANGULAR; POORLY SORTED, QTZ. SAND CONTAINING BEDS (0.4 FT THICK) OF CARBONACEOUS CLAY; 2-4% MICA, TRACE OPAQUE HEAVIES, 1% LIGNITE (<1 cm FRAGS.); LOCAL LIGNITE-RICH THIN (2-4 mm) LAYERS; MASSIVE TO WELL LAMINATED (70%)	CONTACT/NO UNC

9.5 FT RECOVERY

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FOSSILS: STRUCTURE: COLOR

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/1/97 Geologist: D. PROWELL
480	-		SAND AND 30% CLAY LIGHT OLIVE GRAY (5Y6/1) SAND; DARK GRAY (N3) CLAY; EVIDENCE OF LOW ANGLE X-BEDS; (MAJOR CLAY BEDS SHOWN)	
482				
484				
486				
488				
490				

9.5 FT RECOVERY

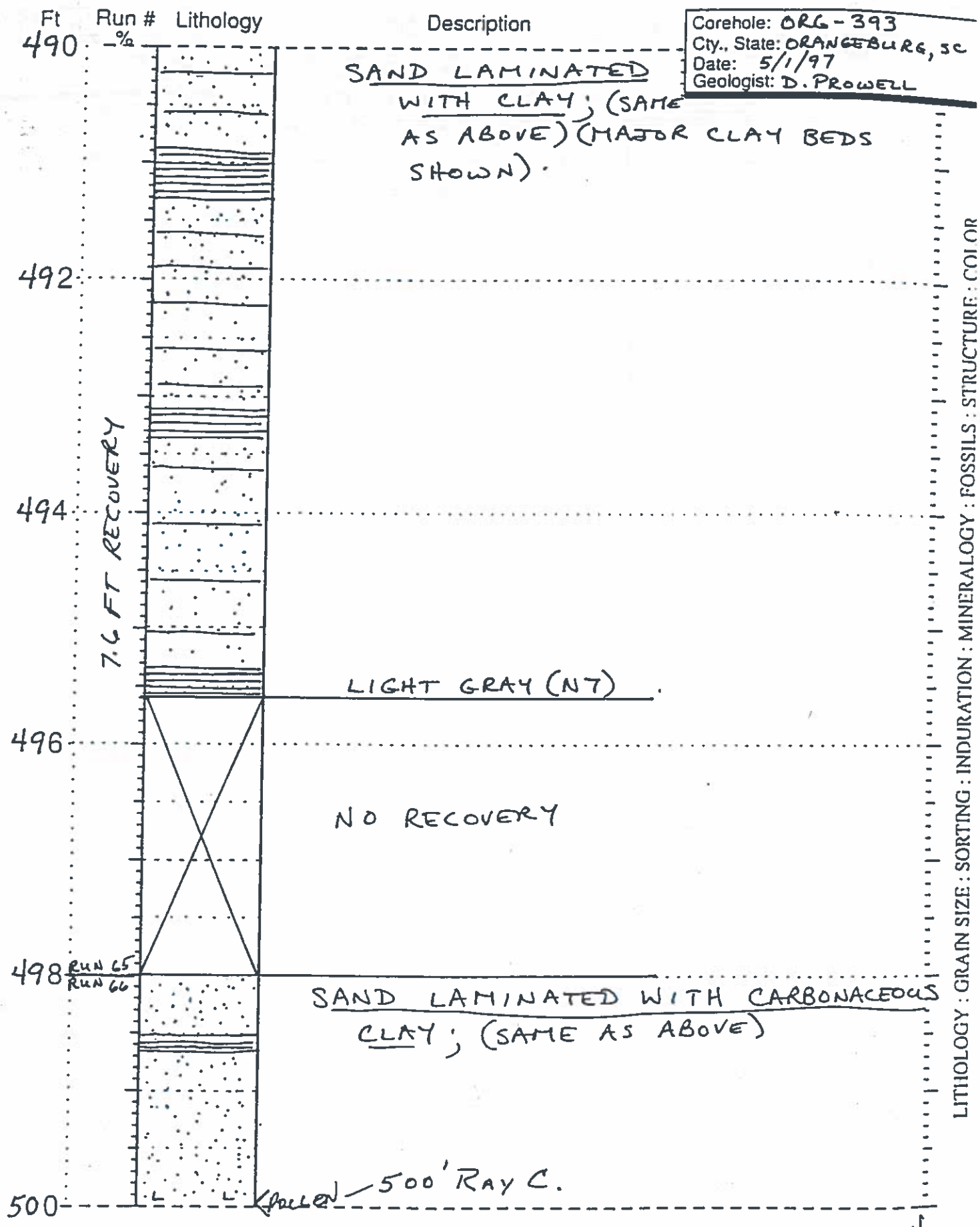
LIGHT OLIVE GRAY (5Y6/1) SANDS
 DARK GRAY (N3) CLAYS
 SAND LAMINATED WITH CLAY; VF-F,
 ANGULAR, WELL-SORTED, QTE.
 SAND LAMINATED WITH THIN
 CARBONACEOUS CLAY LAYERS;
 5-8% MICA, 1% LIGNITE, TRACE MONAZITE,
 OPAQUE HEAVIES, TRACE PYRITE;
 EVIDENCE OF LOW ANGLE X-BEDS
 IN LIGNITIC SANDS; CORE IS 70%
 SAND - 30% CLAY; (MAJOR CLAY BEDS
 SHOWN)

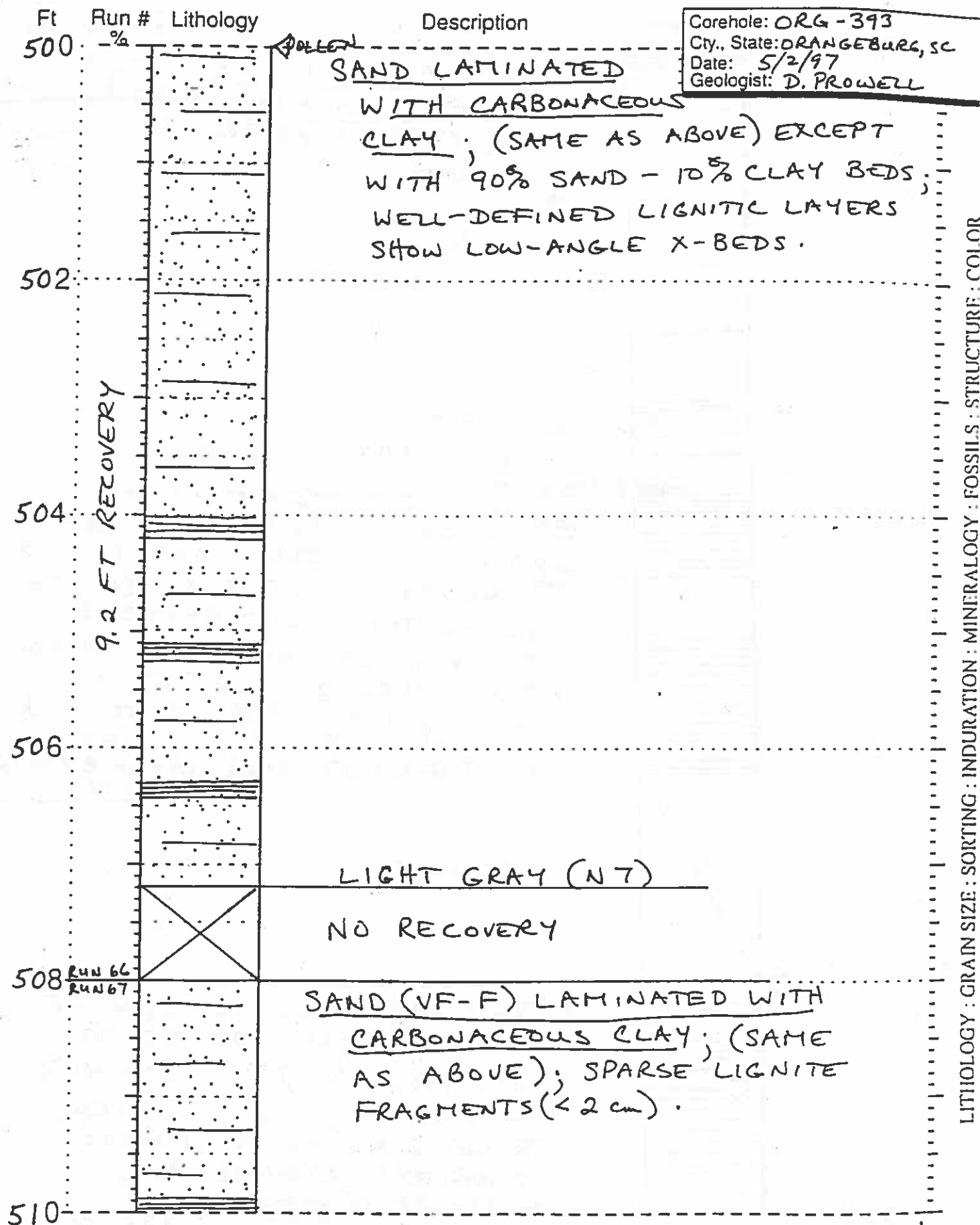
LIGHT GRAY (N7)

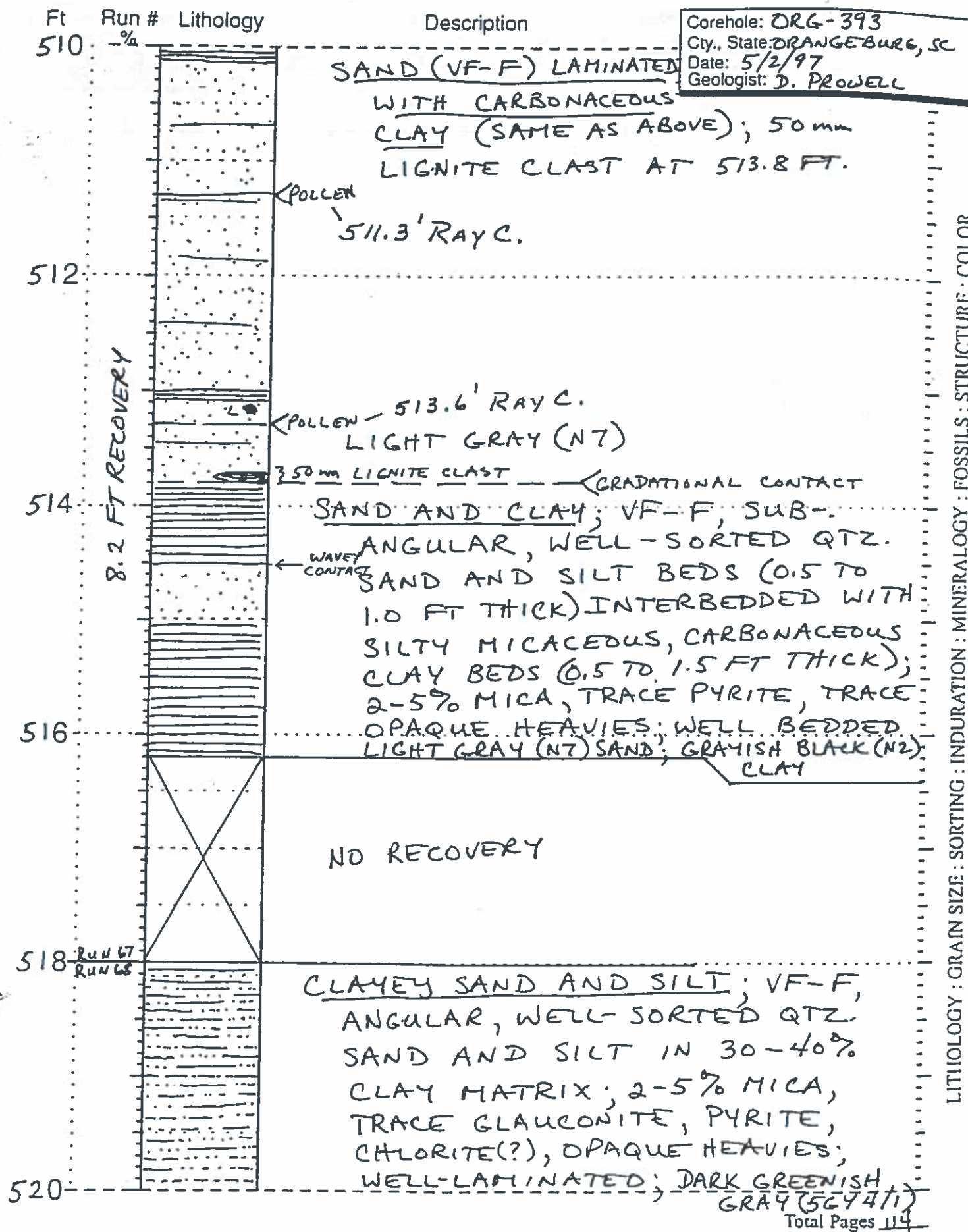
NO RECOVERY

(pale) 489.3' RAY C.

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

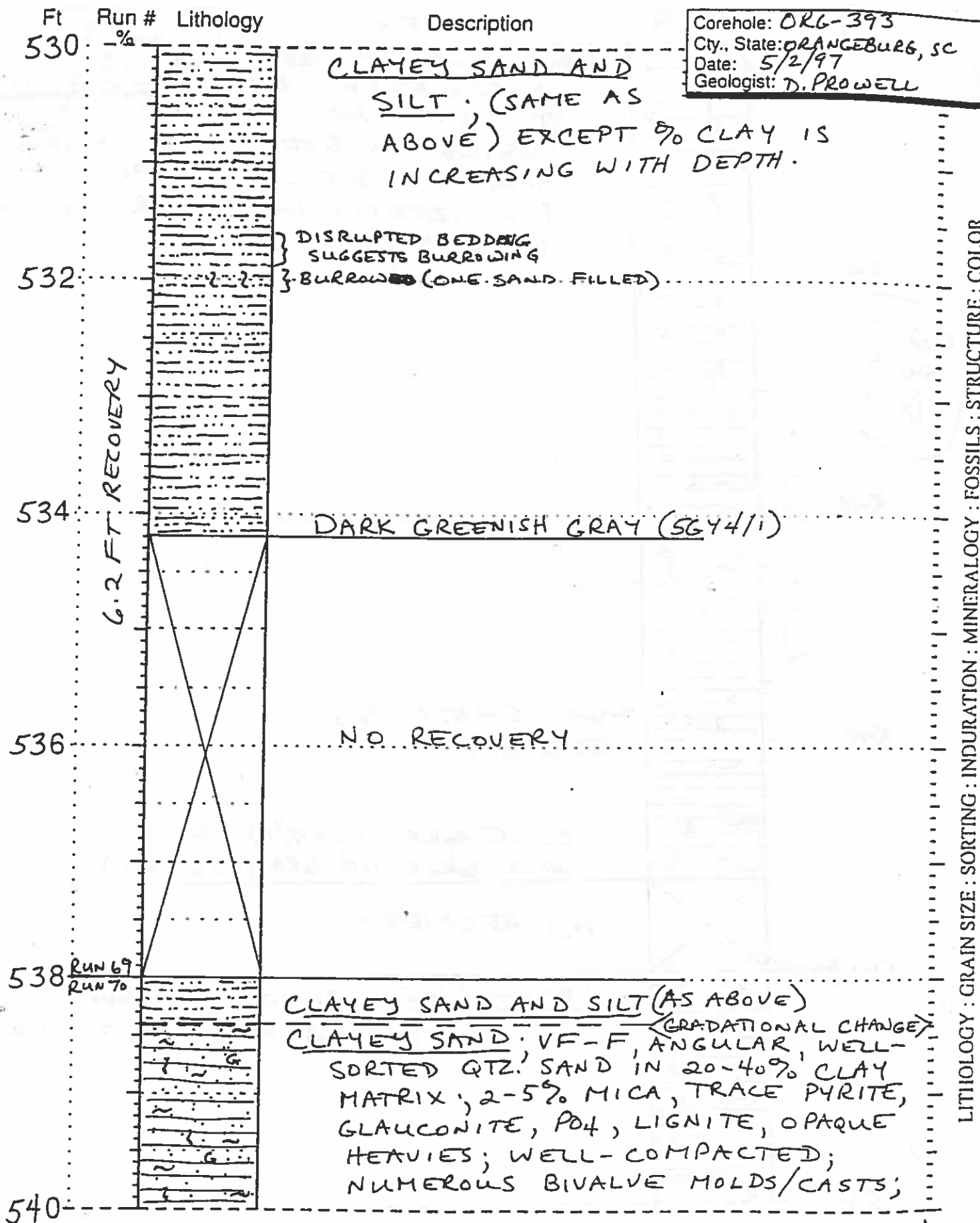






Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/2/97 Geologist: D. PROWELL
520			CLAYEY SAND AND SILT; (SAME AS ABOVE)	
522			← Pollen = 522' RAY C. DARK GREENISH GRAY (5644/1)	
524			NO RECOVERY	
526				
528	Run 68 Run 69		CLAYEY SAND AND SILT; (SAME AS ABOVE); ONE SAND-FILLED BURROW AT 532 FT. SILT-VF SAND, MUDDY (DECREASING UP), MICACEOUS (VF-M, 1-5%), NO ACID FIZZ, INDISTINCT TEXTURE MOTTLING SUGGEST BIOTURBATION	
530				

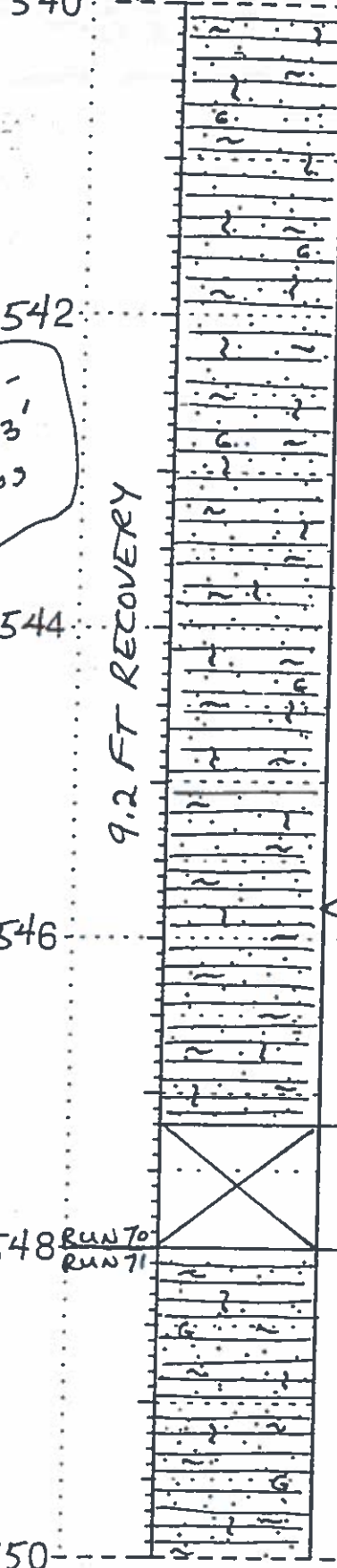
LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR



Ft Run # Lithology

Description

Corehole: ORG-393
 City, State: ORANGEBURG, SC
 Date: 5/2/97
 Geologist: D. PROWELL



THIN (2-5mm) CLAYEY LAYERS EVERY 0.1 TO 0.3 FT. ARE INCLINED AND SUGGEST X-BEDDING; COMMON SMALL SAND-FILLED BURROWS; PYRITIZED(?) LIGNITE OR REDDISH MINERALIZED NODULES.

542.0 -
 542.3
 Dinos

9.2 FT RECOVERY

COLLEN 545.8' RAY C.

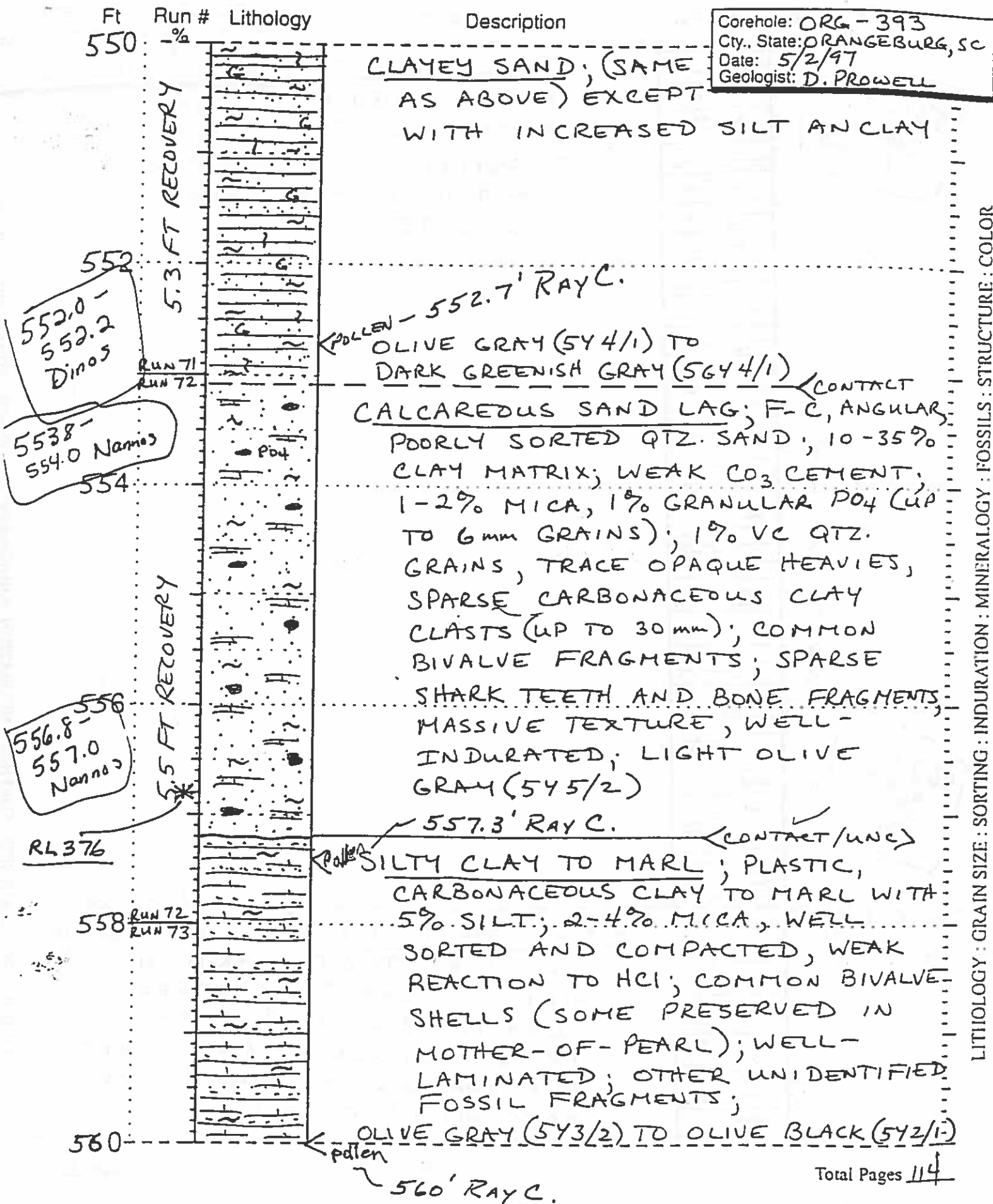
OLIVE GRAY (544/1) TO DARK GREENISH GRAY (5GY 4/1)

NO RECOVERY

548 RUN TO RUN 71

CLAYEY SAND; SAME AS ABOVE BUT WITH INCREASED SILT AND CLAY

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR



Ft Run # Lithology

Description

Corehole: ORG-393
 City, State: ORANGEBURG, SC
 Date: 5/2/97
 Geologist: D. PROWELL

560

-%

SILTY CLAY TO MARL

(SAME AS ABOVE); WEAKLY
 CALCAREOUS AND VERY
 FOSSILIFEROUS; MUCH OF HCl
 REACTION MAY BE FROM
 FOSSIL TESTS.

562

564

566

568

RUN 73
RUN 74

570

10.2 FT RECOVERY

— — — — — <CONTACT/NO UNC>
 SANDY, SILTY MARL; VF-F, ANGULAR,
 WELL SORTED QTZ. SAND AND
 SILT IN 20-30% CALCAREOUS
 CLAY MATRIX; 4-5% MICA;
 TRACE GLAUCONITE/CHLORITE(?);
 COMMON BIVALVE FRAGMENTS
 AND COMPLETE SHELLS;

561.8-
562.0
Nannos

567.0-
567.2
Paleo

Ft	Run #	Lithology	Description	Corehole: ORG-393
570			EVIDENCE OF LOCAL HEAVY BIOTURBATION; OTHERWISE ALTERNATING 1-2 CM BEDS OF CALCAREOUS SAND AND CALCAREOUS SILTY CLAY BELOW 572.5 FT.	Cty., State: ORANGEBURG, SC Date: 5/2/97 Geologist: D. PROWELL
572				
574				
576				
578			OLIVE GRAY (573/2)	
580			NO RECOVERY	
582			SANDY, SILTY MARL (SAME AS ABOVE) (SANDIER SECTIONS 578.3' ARE WELL BIOTURBATED) RAY C.	

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft Run # Lithology

Description

Corehole: ORG-393
 City, State: ORANGEBURG, SC
 Date: 5/4/97
 Geologist: D. PROWELL

580

-%

SANDY, SILTY MARL

(SAME AS ABOVE) (WELL PRESERVED
 BIVALVES; MOST OF SANDIER SECTIONS
 ARE WELL BIOTURBATED).

582

584

584.9-
 585.0
 Paleo

10.0 FT RECOVERY

586

588 RUN 75
RUN 76

GRADATIONAL CONTACT
 CLAYEY MARL AND CO₃ SAND; VF-F,
 ANGULAR; WELL-SORTED CALCAREOUS

SAND INTERBEDDED WITH BEDS
 OF CLAYEY MARL; INDIVIDUAL
 BEDS ARE 0.5 TO 2.0 FT THICK;
 2-4% MICA, 1% GLAUCONITE,
 TRACE CHLORITE(?), TRACE OPAQUE
 HEAVIES; ABUNDANT MEGAFOSSIL

pollen
 588.4
 Ray C.

590

589.5-
 589.7
 Paleo

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FOSSILS: STRUCTURE: COLOR

Corehole: ORG-393
 Cty., State: ORANGEBURG, SC
 Date: 5/4/97
 Geologist: D. PROWELL

Ft	Run #	Lithology	Description
590	-%		SHELLS (MOSTLY BIVALVES); SAND BEDS ARE MASSIVE AND BIOTURBATED, CLAYEY MARL IS WELL-LAMINATED WITH VERY THIN (1-2mm) SAND/SILT LAMINATIONS;
592			
594			
596			
598			
600			

8.5 FT RECOVERY

Pollen - 594.9' RAY C.

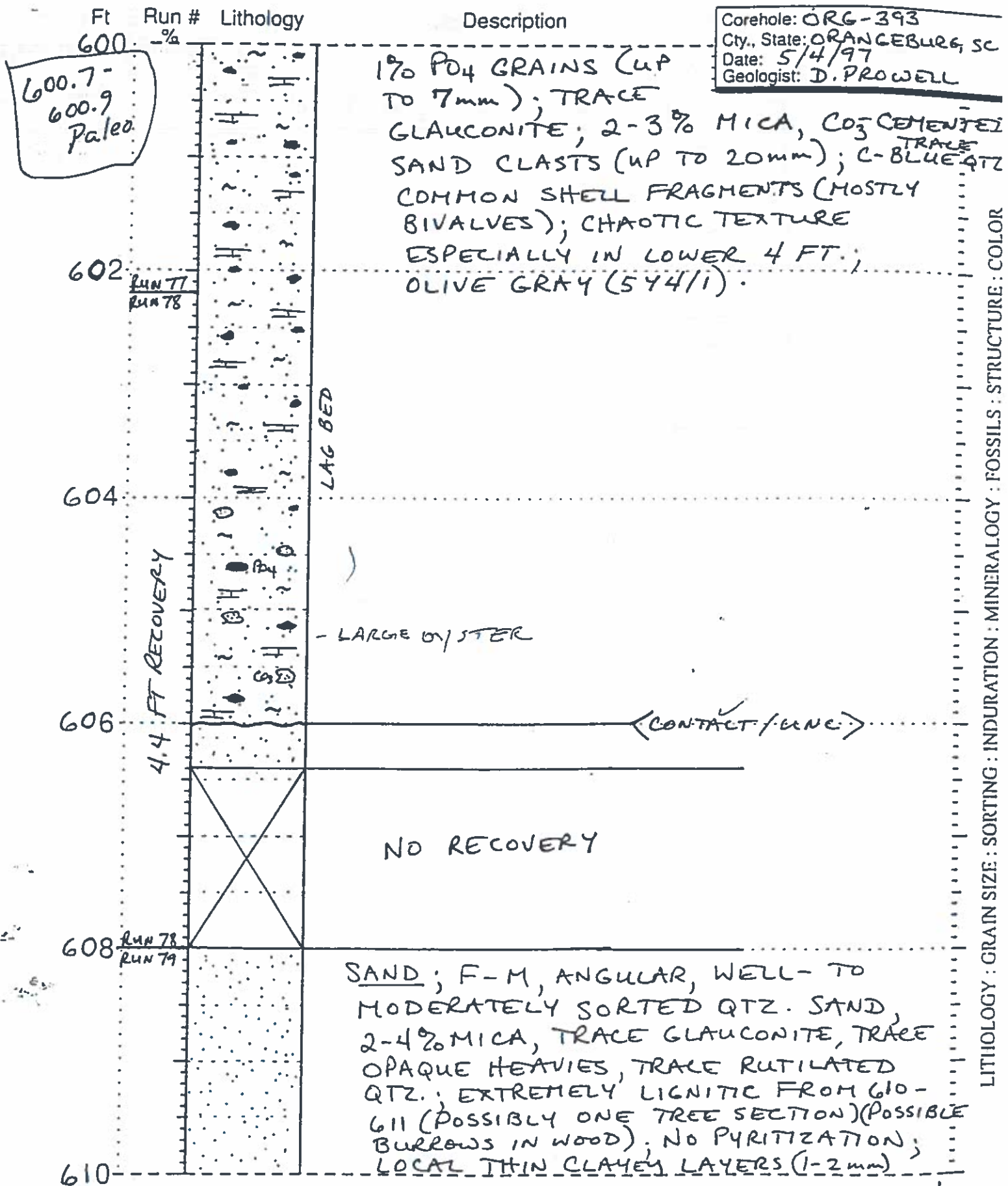
DARK GRAYISH GREEN (5G4 4/i) SANDS
 DARK GRAY (N3) CLAYEY MARL

NO RECOVERY

CLAYEY MARL + CO₃ SAND; (SAME AS ABOVE)

CALCAREOUS SAND LAG; ^{CONTACT} F-C, ANGULAR, POORLY SORTED, QTZ SAND, 10-30% CLAY MATRIX, IN CO₃ CEMENT;

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR



LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft Run # Lithology

Description

Corehole: ORG-393

City, State: ORANGEBURG, SC

Date: 5/4/97

Geologist: D. PROWELL

610

%

ARE CHARACTERIZED BY
CARBONACEOUS CLAY;
WELL-BEDDED WITH LOW ANGLE X-BEDS.

CLAYEY MARL; VF-F, ANGULAR,
WELL-SORTED QTZ. SAND (10%) IN
STICKY CALCAREOUS CLAY/MARL;
S-10% MICA; 5% PYRITIZED LEAVES/
WOOD (THIN LAYERS - 1mm); COMMON
WHOLE BIVALVE SHELLS AND
SHELL FRAGMENTS; POSSIBLE PO₄
BONE FRAGMENTS; POORLY
LAMINATED WITH SHELL
FRAGMENTS

pollen
612.1'
RAY C.

6.4 FT RECOVERY

612

612.4-
612.6
Paleo

614

RL 377

OLIVE GRAY (5Y 3/2)

NO RECOVERY

RUN 79
RUN 80

616

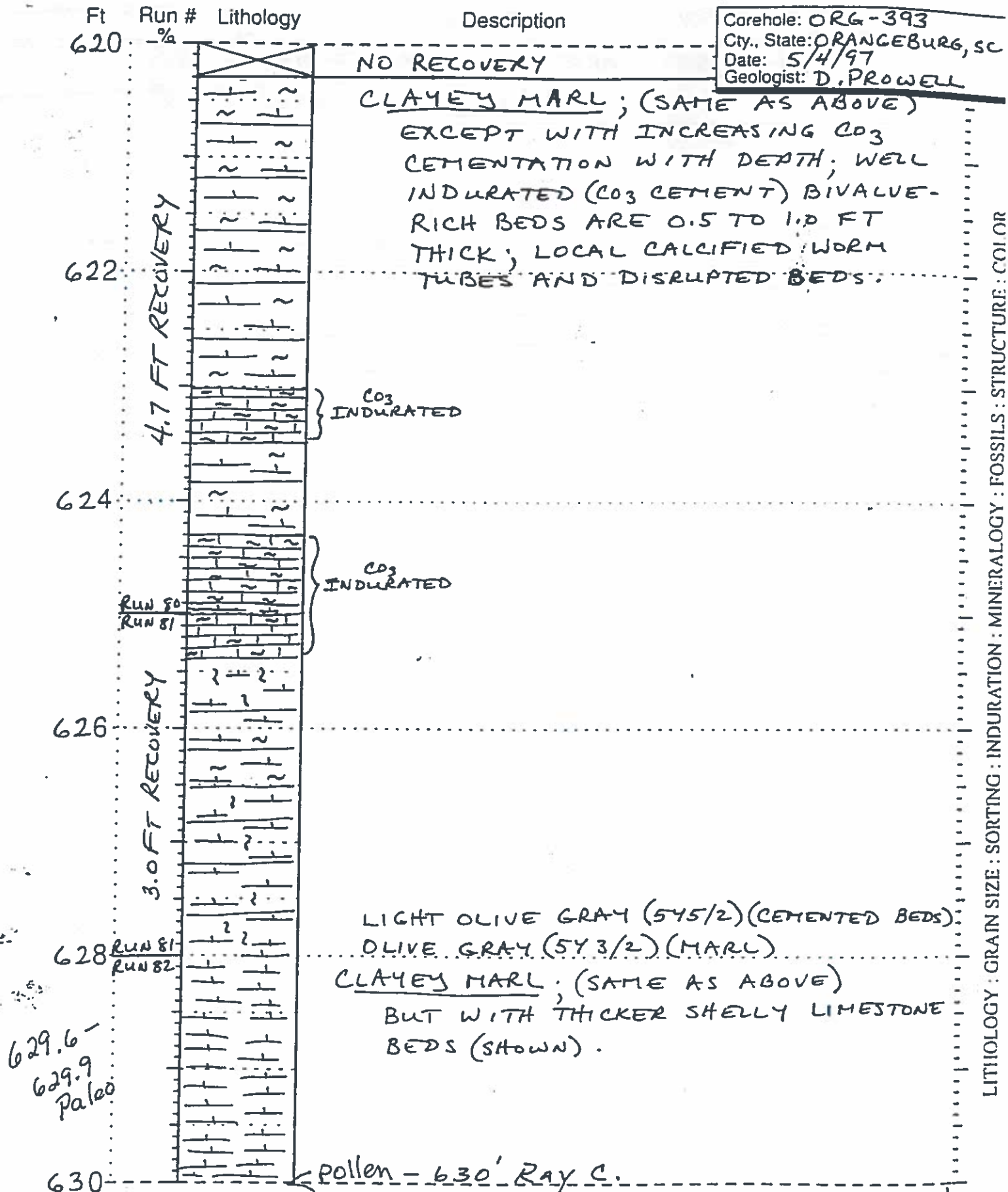
NO RECOVERY

618

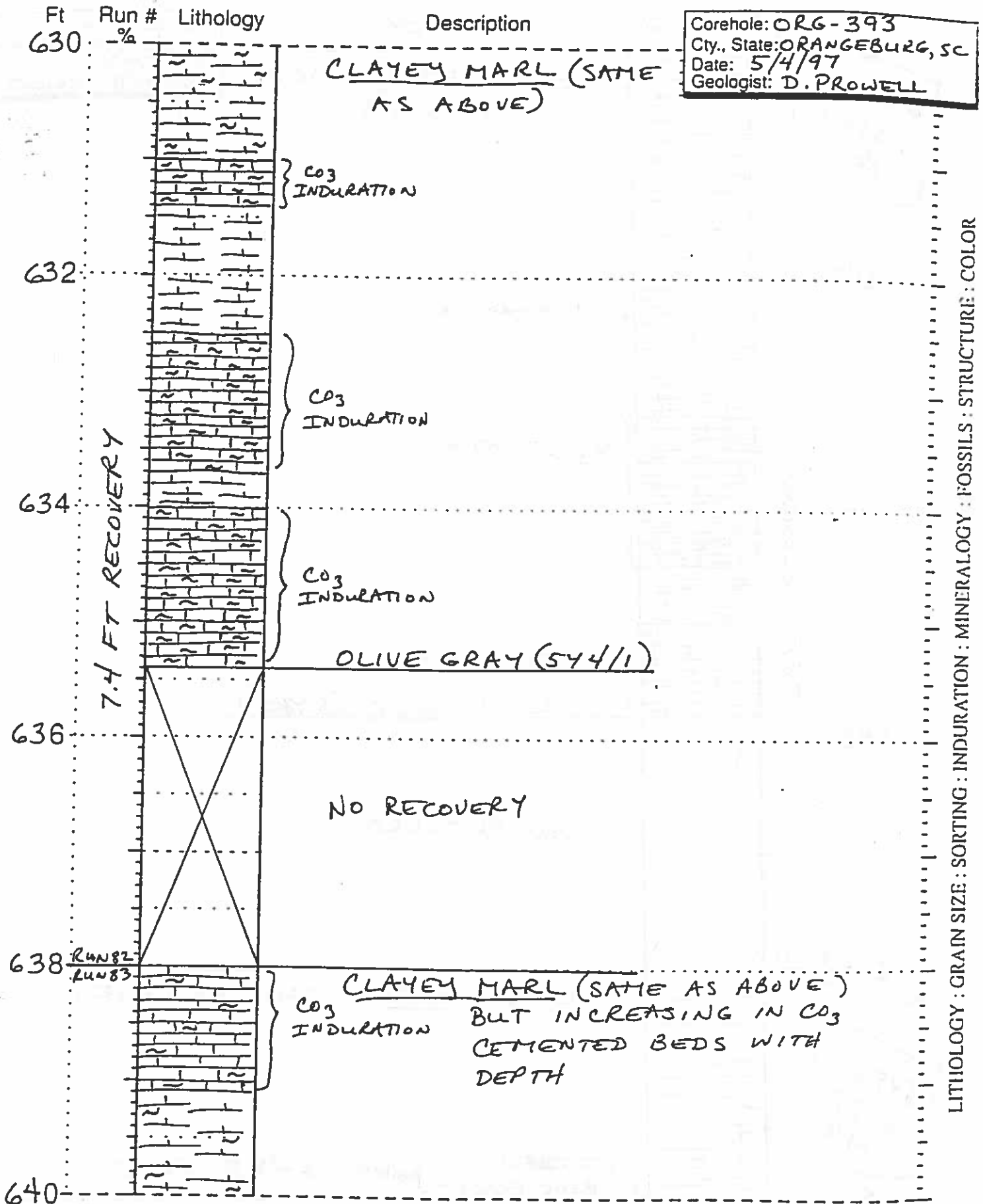
618.3-
618.5
Paleo

620

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR



Corehole: ORG-393
 Cty., State: ORANGEBURG, SC
 Date: 5/4/97
 Geologist: D. PROWELL



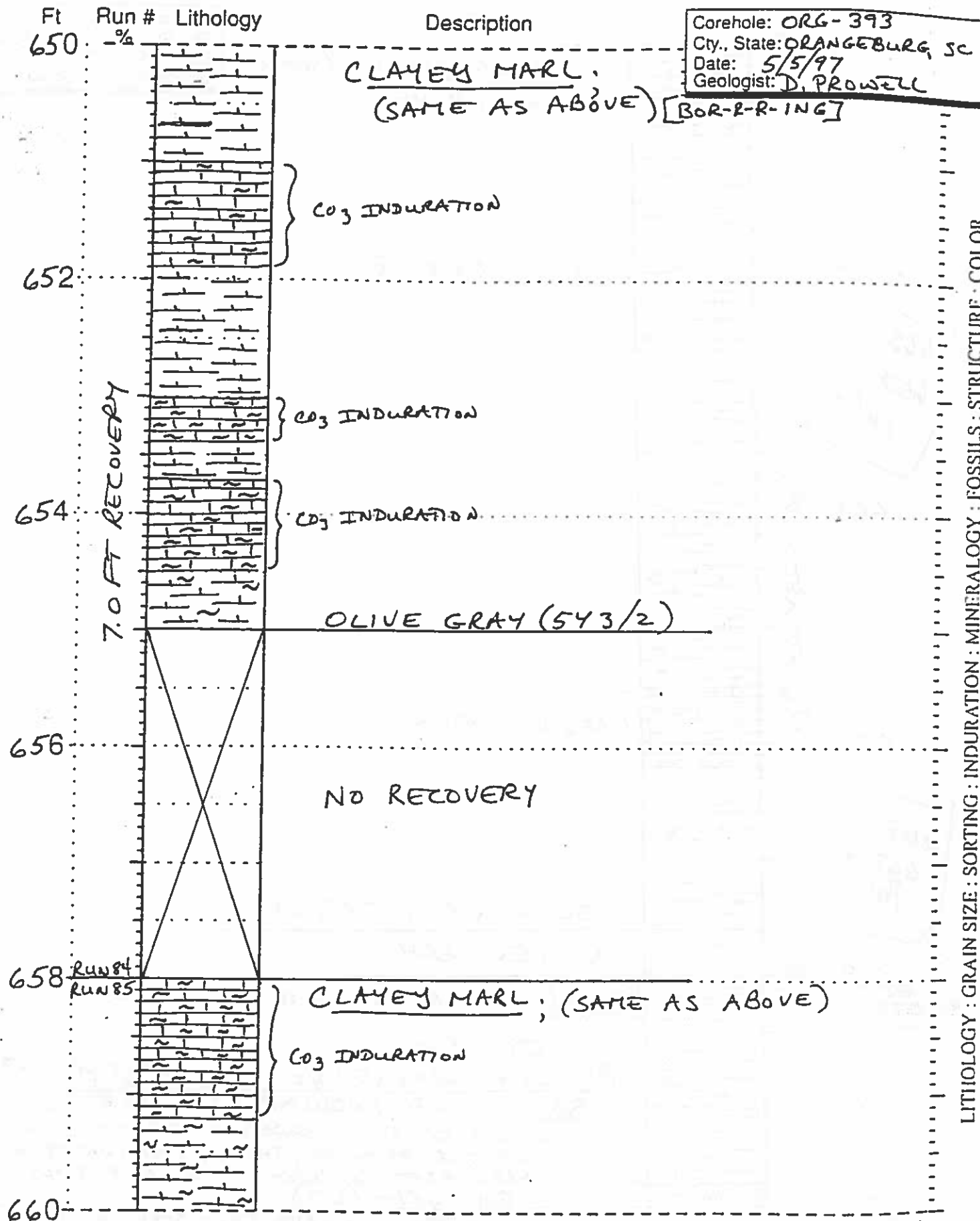
Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/5/97 Geologist: D. PROWELL
640			CLAYEY MARL (SAME AS ABOVE)	
642			CO ₃ INDURATION	
644			CO ₃ INDURATION	
646			OLIVE GRAY (5Y 3/2)	
648			NO RECOVERY	
649.6 - 649.7			CLAYEY MARL ; (SAME AS ABOVE)	
650			VERTEBRAE + BONE FRAGS < pollen - 649.8' RAY C.	

640.0 -
640.1
Paleo

7.8 FT RECOVERY

LITHIOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

649.6 -
649.7
Paleo



Ft Run # Lithology

Description

Corehole: DRG-393
 Cty., State: ORANGEBURG, SC
 Date: 5/5/97
 Geologist: D. PROWELL

660

%

CLAYEY MARL; (SAME
 AS ABOVE)

662

Pollen - 662' RAY C.

662.1 -
 662.2
 Paleo

664

9.6 FT RECOVERY

666

CO₃ INDURATION

667.0 -
 667.2
 Paleo

OLIVE GRAY (5Y 3/2)

NO RECOVERY

*668 RUN 85
 RUN 86
 RL 3.78

CO₃ CLAYEY MARL; (SAME AS ABOVE)
 INDURATION

Pollen 669.0 RAY C.
 OLIVE GRAY (5Y 3/2)

APPROX. (668.8 → 670)
 CONTACT / UNC

SAND; VF-F, ANGULAR, WELL-SORTED;
 2% MICA, 1% GLAUCONITE, TRACE LIGNITE
 + OPAQUE HEAVIES; THINLY LAMINATED WITH
 CARBONACEOUS CLAY; NO CO₃ OR FOSSILS,
 LIGHT GRAY (NT)

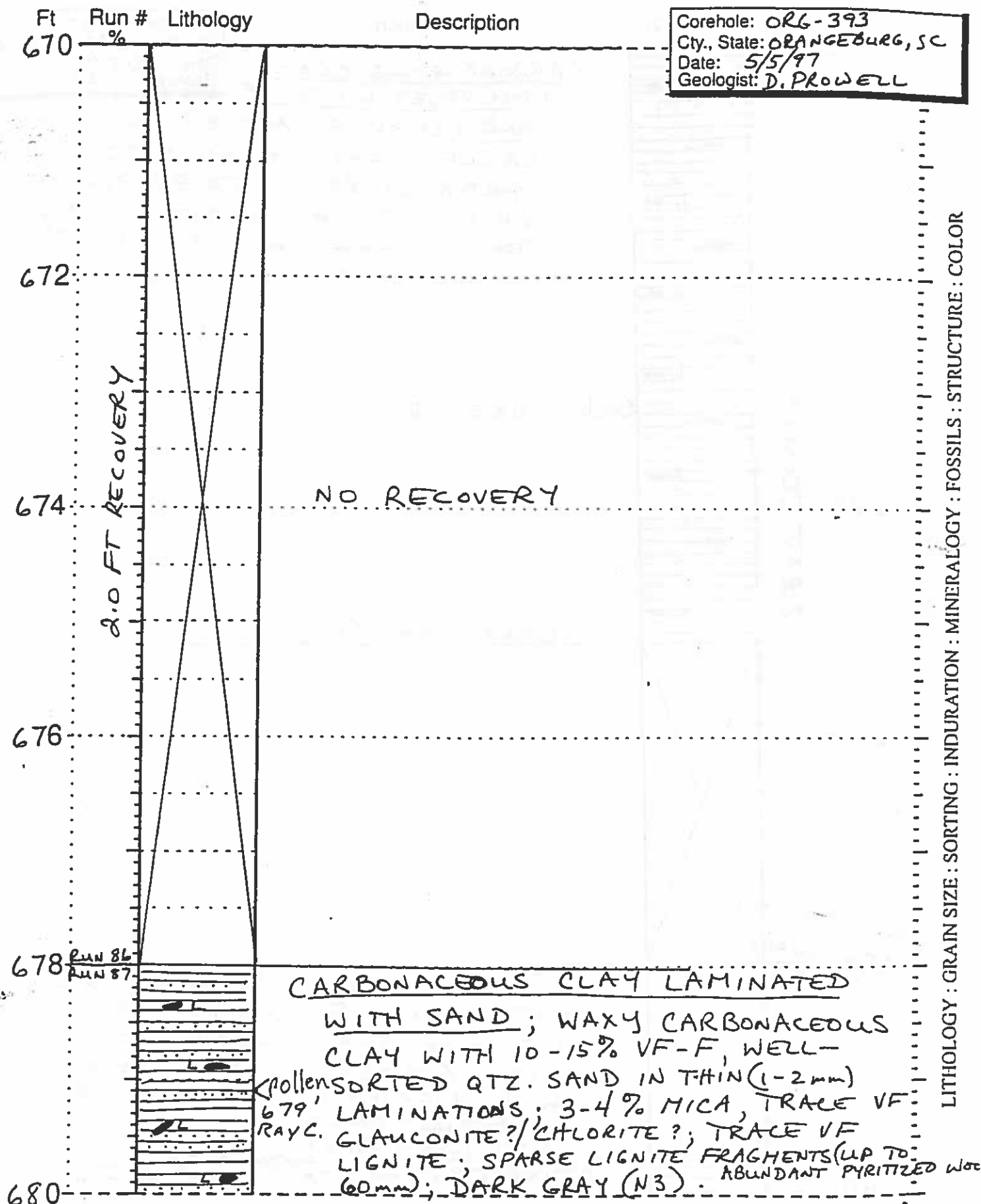
670

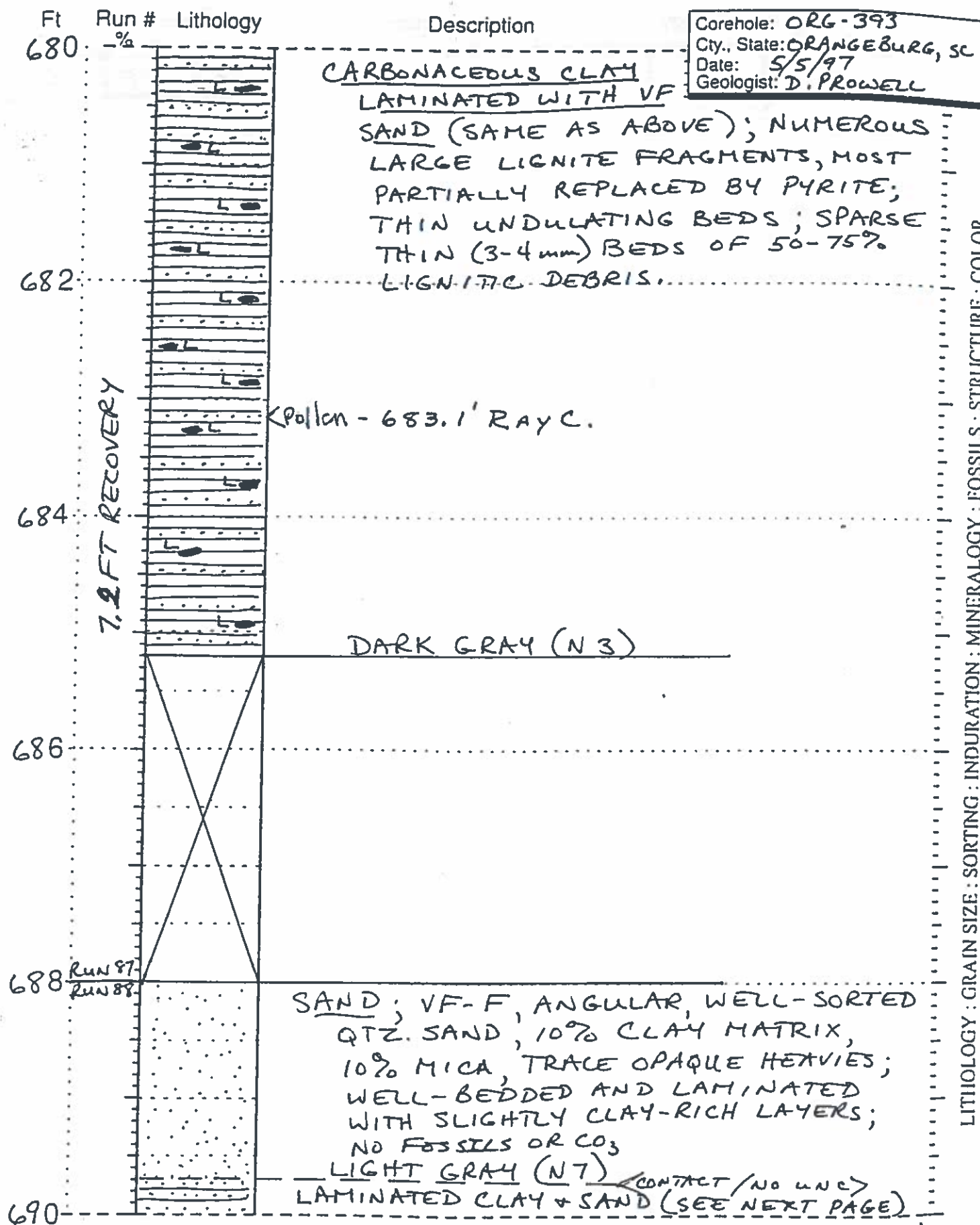
THIS SAMPLE RECOVERED FROM SHOE AND MAY
 BE FROM LOWER 8 FT OF RUN.

Total Pages 114

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Corehole: ORG-393
 Cty., State: ORANGEBURG, SC
 Date: 5/5/97
 Geologist: D. PROWELL





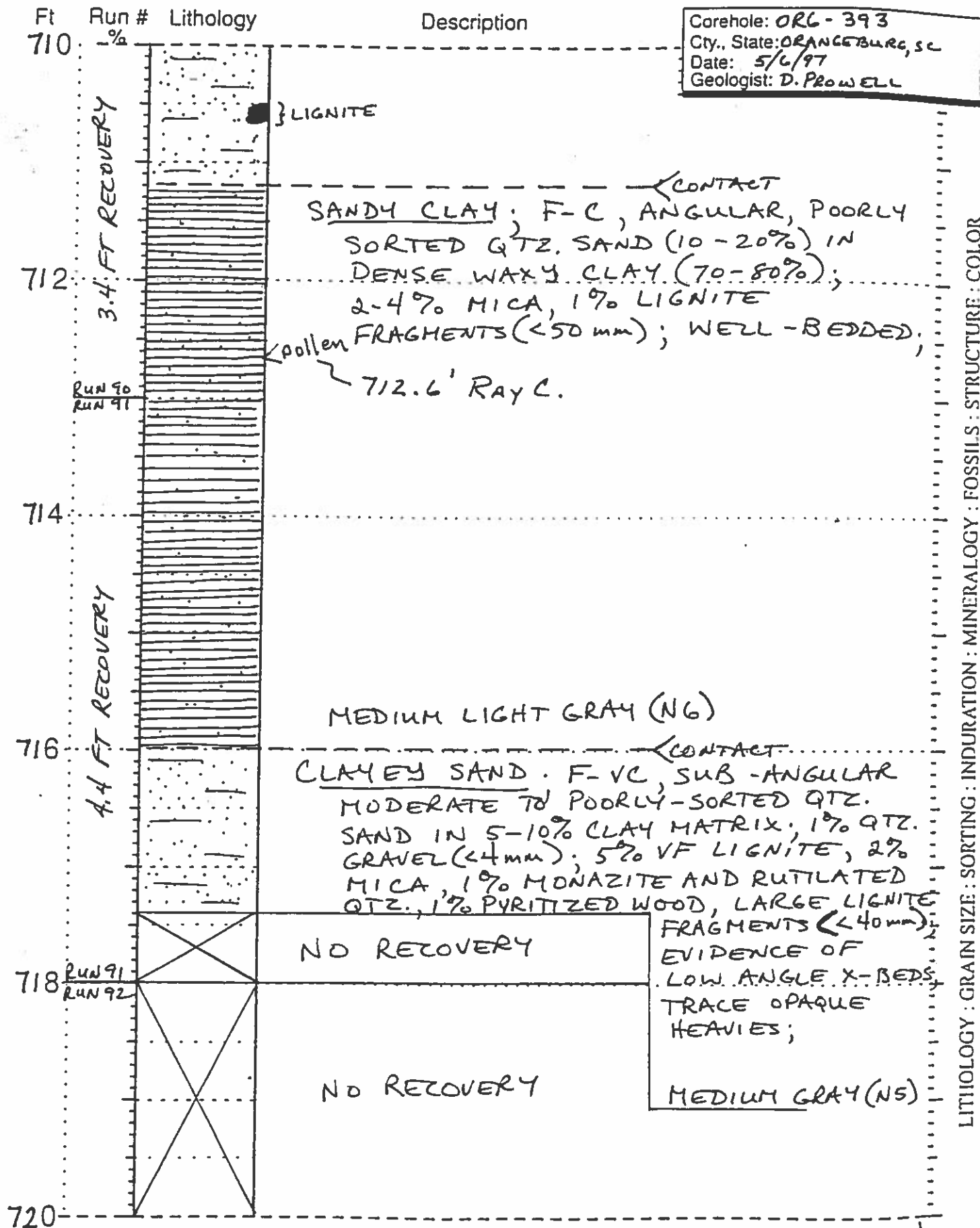
LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/5/97 Geologist: D. PROWELL
690			<u>CARBONACEOUS</u> <u>CLAY LAMINATED</u> <u>WITH SAND;</u>	
692				
694			BROWNISH BLACK (5YR 2/1) <u>CLAYEY SAND</u> ; F-YC, ANGULAR TO SUB-ANGULAR, POORLY SORTED QTZ. SAND, 10-15% SOFT MILKY	<CONTACT UNC?>
			NO RECOVERY	
696			CLAY MATRIX, POORLY CONSOLIDATED, 2-3% M.I. CA, TRACE MONAZITE,..... TRACE RUTILATED QTZ.; TRACE OPAQUE HEAVIES; LOCAL LIGNITE (<70mm) FRAGMENTS PARTIALLY REPLACED WITH PYRITE; 1% QTZ. GRAVEL (<8mm) IN THIN BEDS (0.3-0.5 FT); SPARSE CLAY BALLS (<10mm); POORLY CONSOLIDATED; EVIDENCE OF X-BEDS,	
698				
700			VERY LIGHT GRAY (N8) TO LIGHT GRAY (N7)	

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/6/97 Geologist: D. PROWELL
700			CLAYEY SAND ; (SAME AS ABOVE)	
702	4.0 FT RECOVERY		NO RECOVERY	
704				
706	4.2 FT RECOVERY		VERY LIGHT GRAY (N8) TO LIGHT GRAY (N7)	
708			NO RECOVERY	
			NO RECOVERY	
710			CLAYEY SAND (SAME AS ABOVE)	

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR



Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/4/97 Geologist: D. PROWELL
720	%		NO RECOVERY	
722			CLAYEY SAND; (SAME AS ABOVE) BUT WITH INCREASED CARBONACEOUS MATTER.	
724			MEDIUM DARK GRAY (N4) LIGNITE	
724.4- 724.6 Paleo	6.4 FT RECOVERY		CLAY; STIFF, DENSE, WAXY, CLAY CONTAINING 2-5% MICA, 5-10% F-VC QTZ SAND, LOCAL THIN (0.1-0.3 FT THICK) F-VC CLAYEY SAND BEDS, EVIDENCE OF BACKFILLED ROOTS/M.M.D. CRACKS; RED/PURPLE STAIN OVERPRINT; EVIDENCE OF SLICKENSIDES AND DESSICATION CRACKS; SANDS SHOW 1% RUTILATED QTZ AND MONAZITE;	
726				
728	RUN 92 RUN 93		LIGHT GRAY (N7)	CAPE FEAR TYPE CLAYS
730			PALE RED (5R6/2) STAINS LIGHT OLIVE GRAY (5Y6/1)	

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FOSSILS: STRUCTURE: COLOR

Ft Run # Lithology

Description

Corehole: ORG-393
 City, State: ORANGEBURG, SC
 Date: 5/6/97
 Geologist: D. PROWELL

730

Run #

CLAY; (SAME AS ABOVE)

732

734

10 FT RECOVERY

736

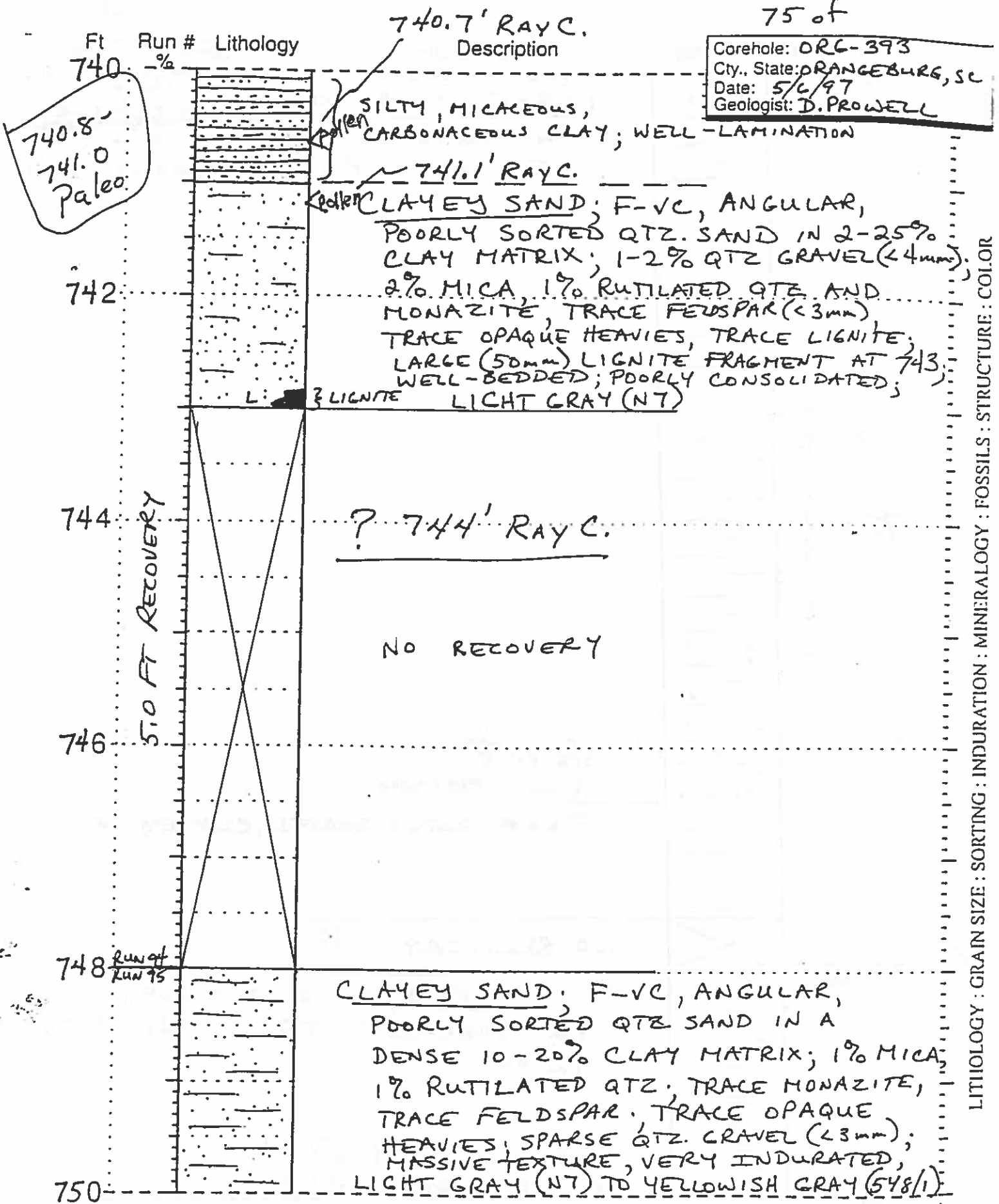
738 RUN 93
 RUN 94

MEDIUM DARK GRAY (N4)

MODERATE YELLOWISH BROWN (10YR 5/4)
 STAINING IN ROOTS/FRACTURES

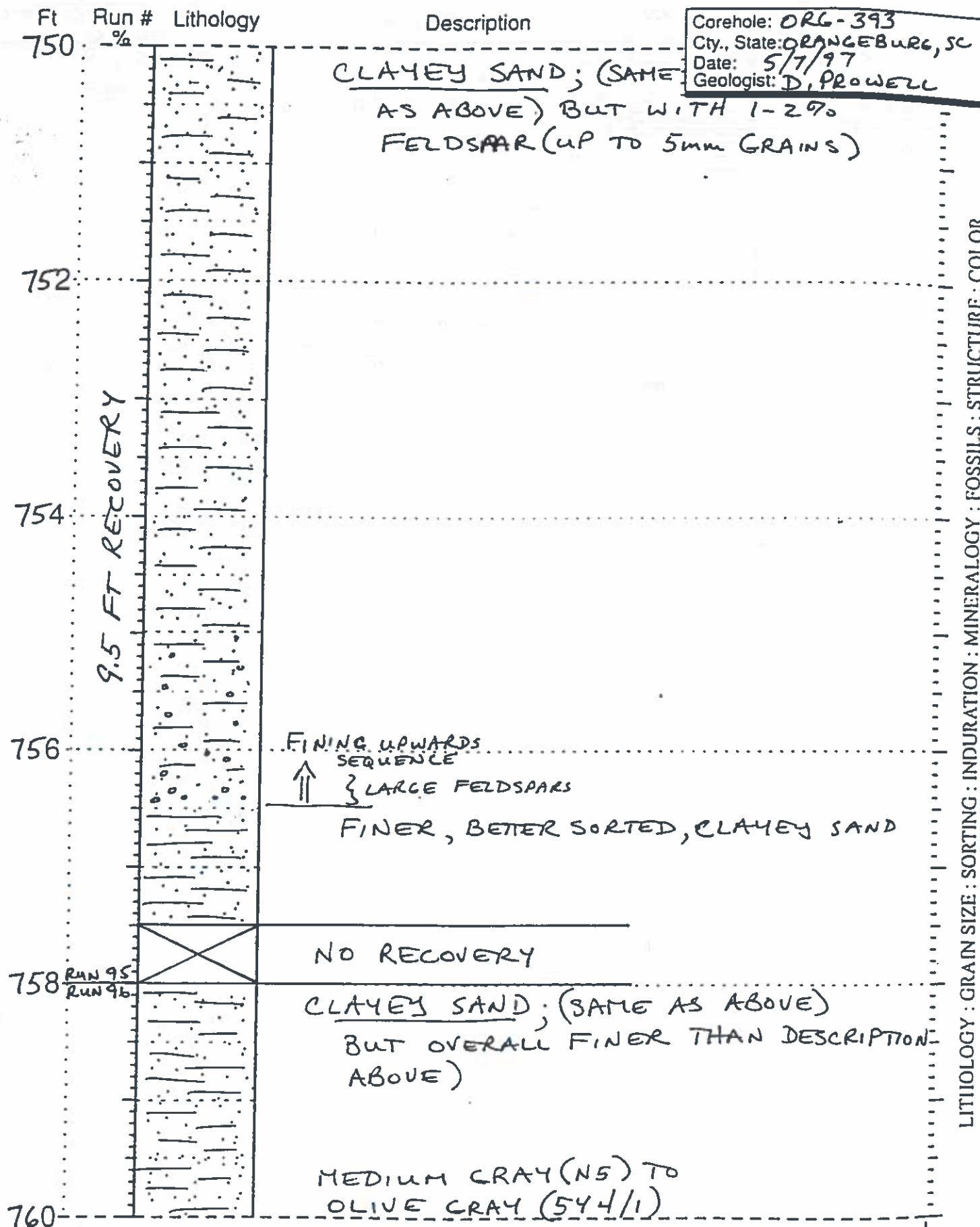
740

LIGHT GRAY (N7)



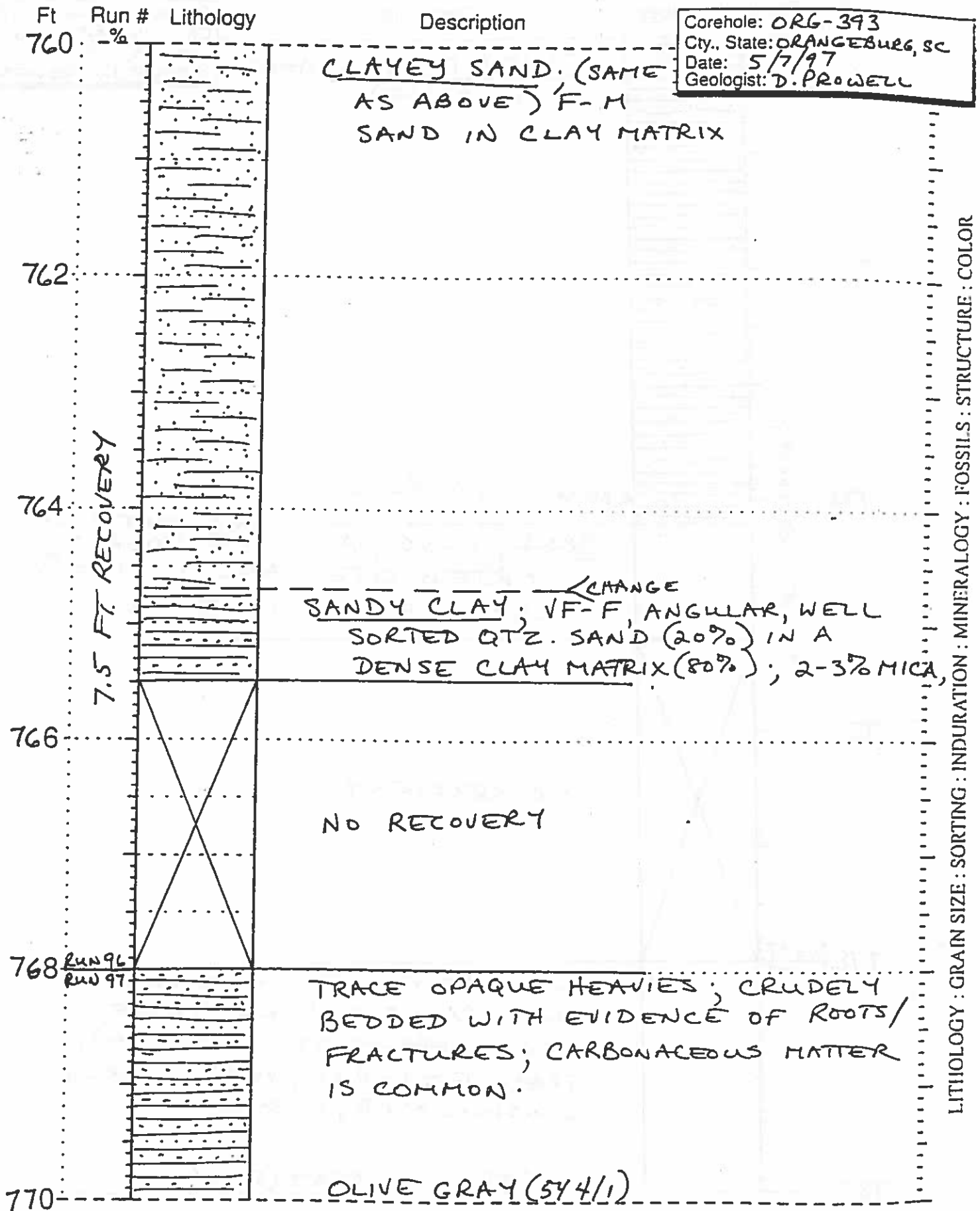
Corehole: ORG-393
City, State: ORANGEBURG, SC
Date: 5/6/97
Geologist: D. PROWELL

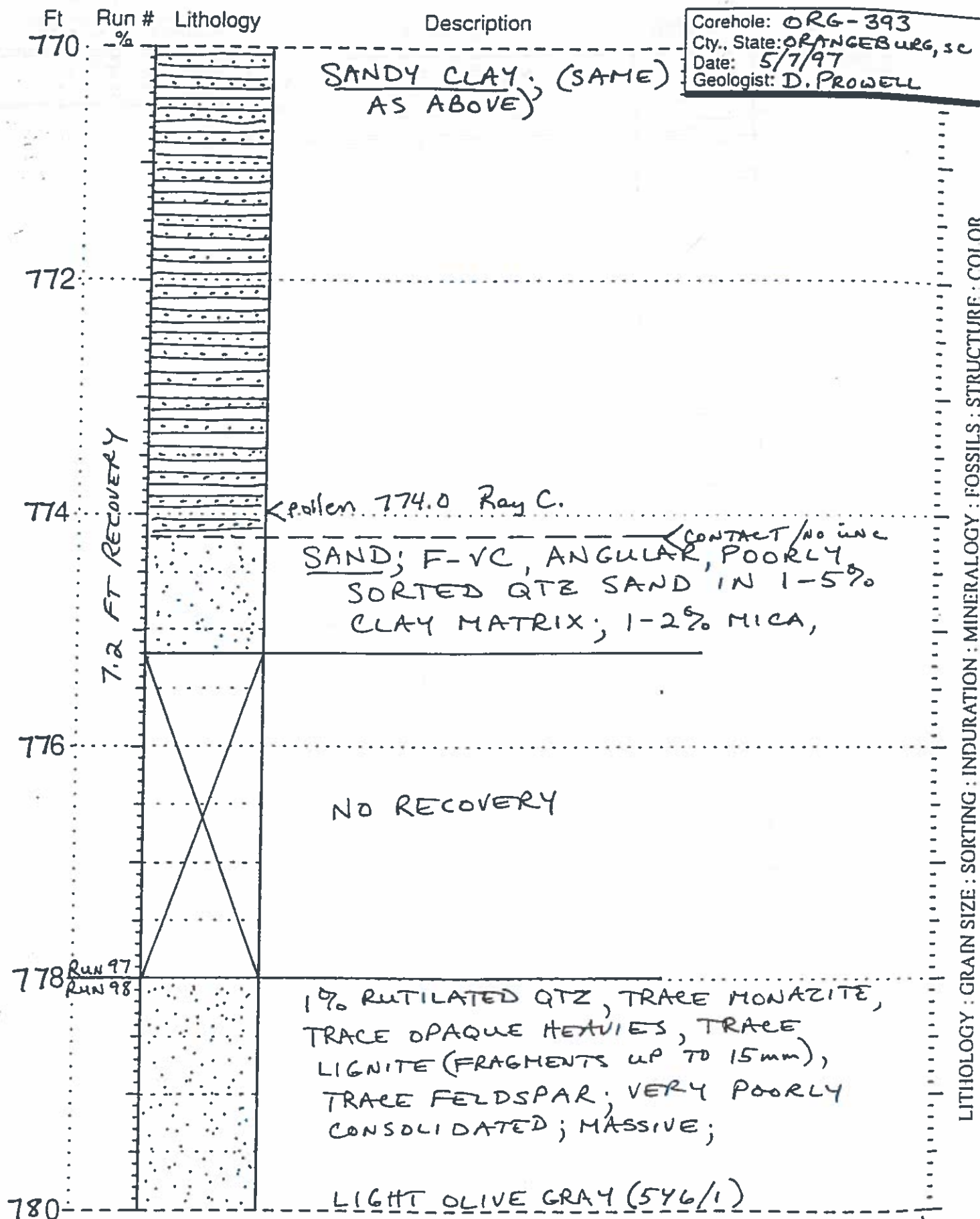
LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR

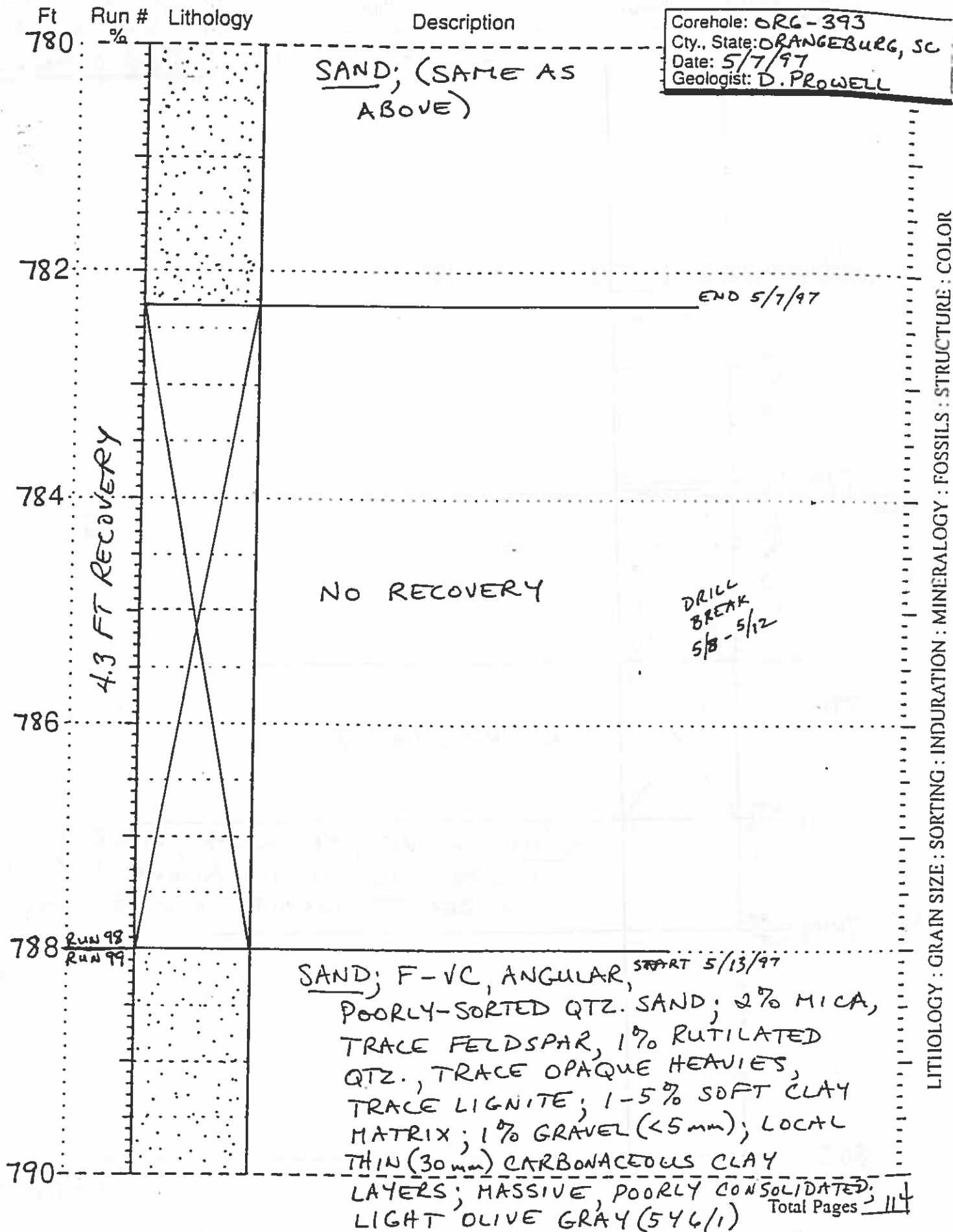


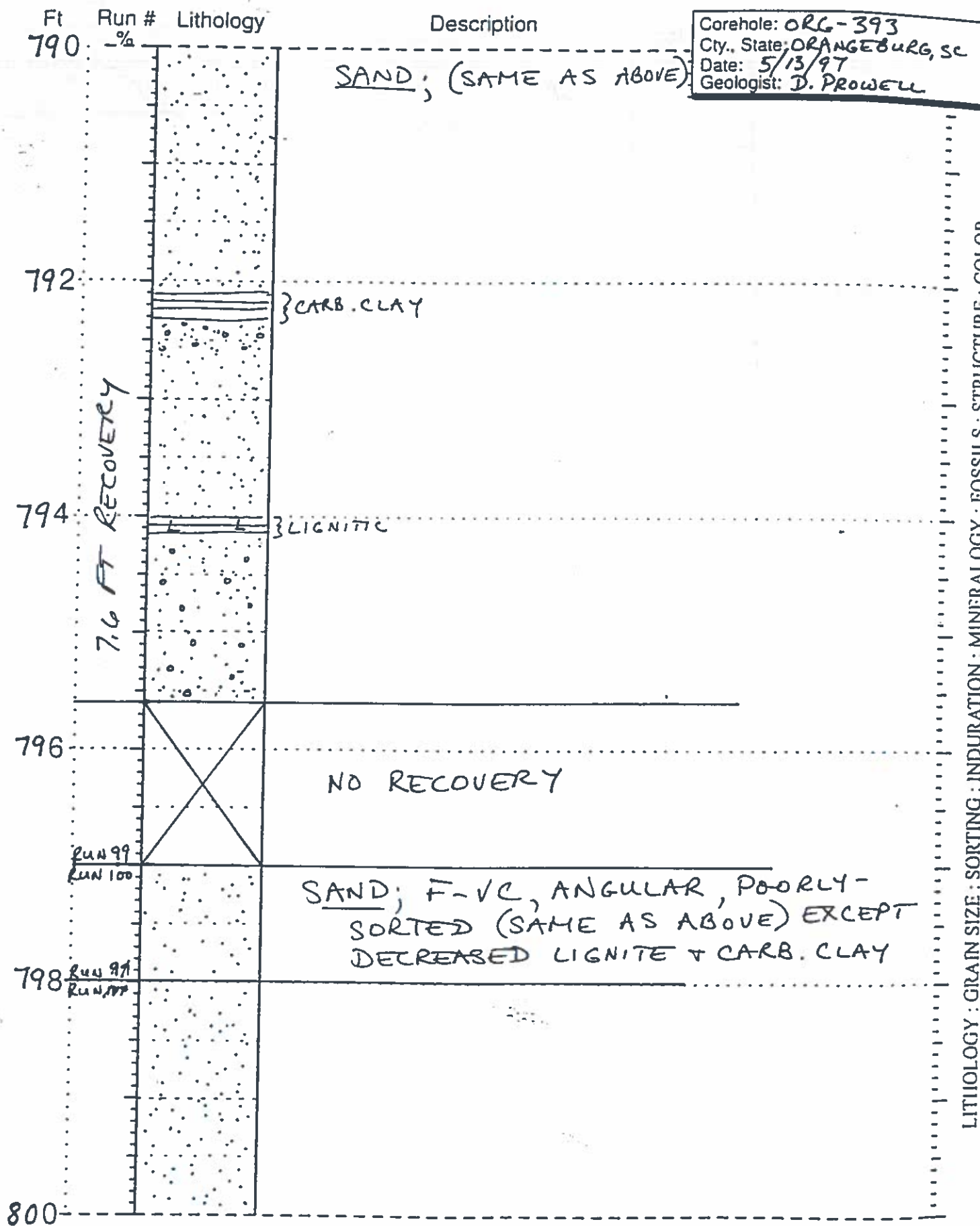
77.0 f

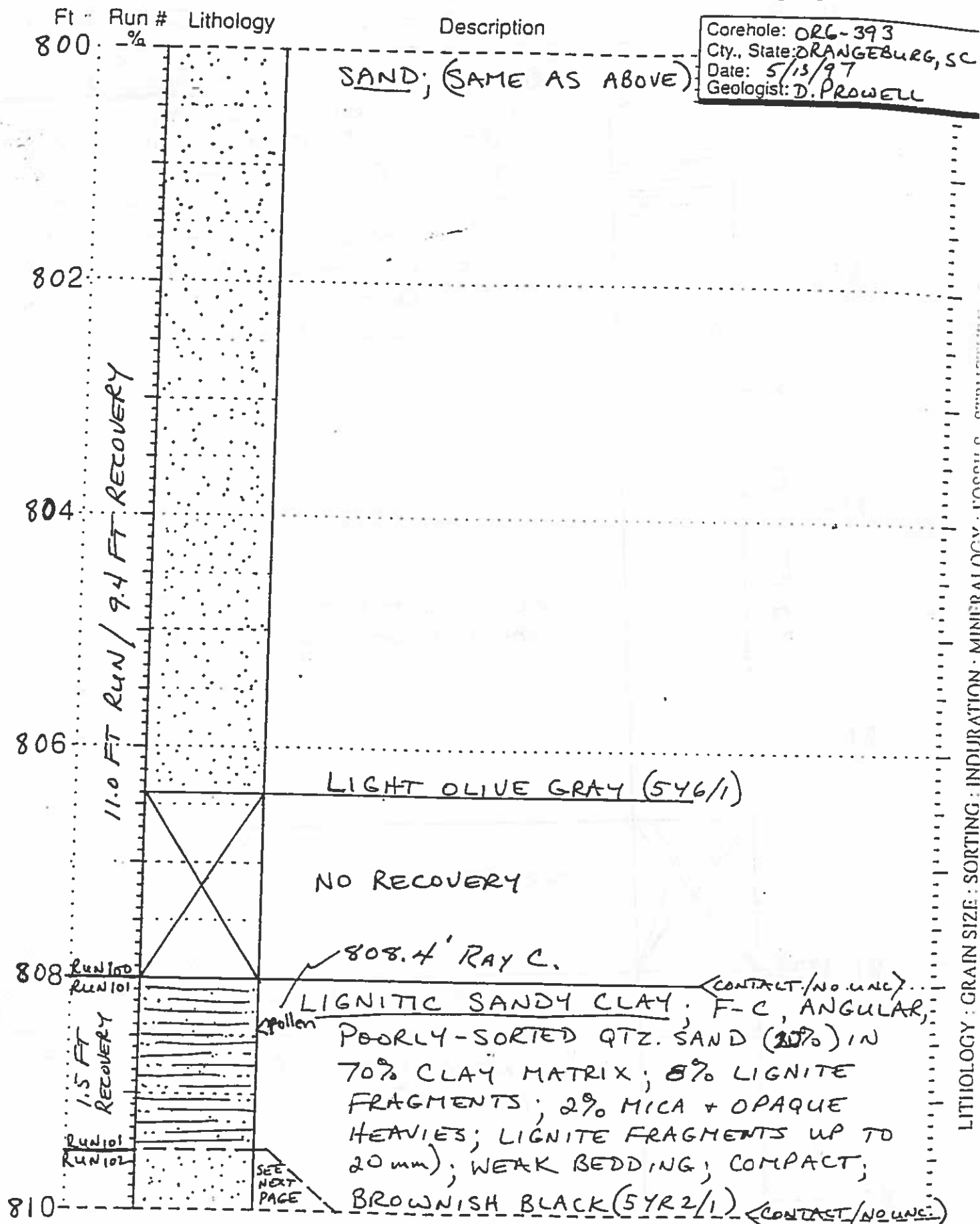
Corehole: ORG-393
 Cty., State: ORANGEBURG, SC
 Date: 5/7/97
 Geologist: D. PROWELL

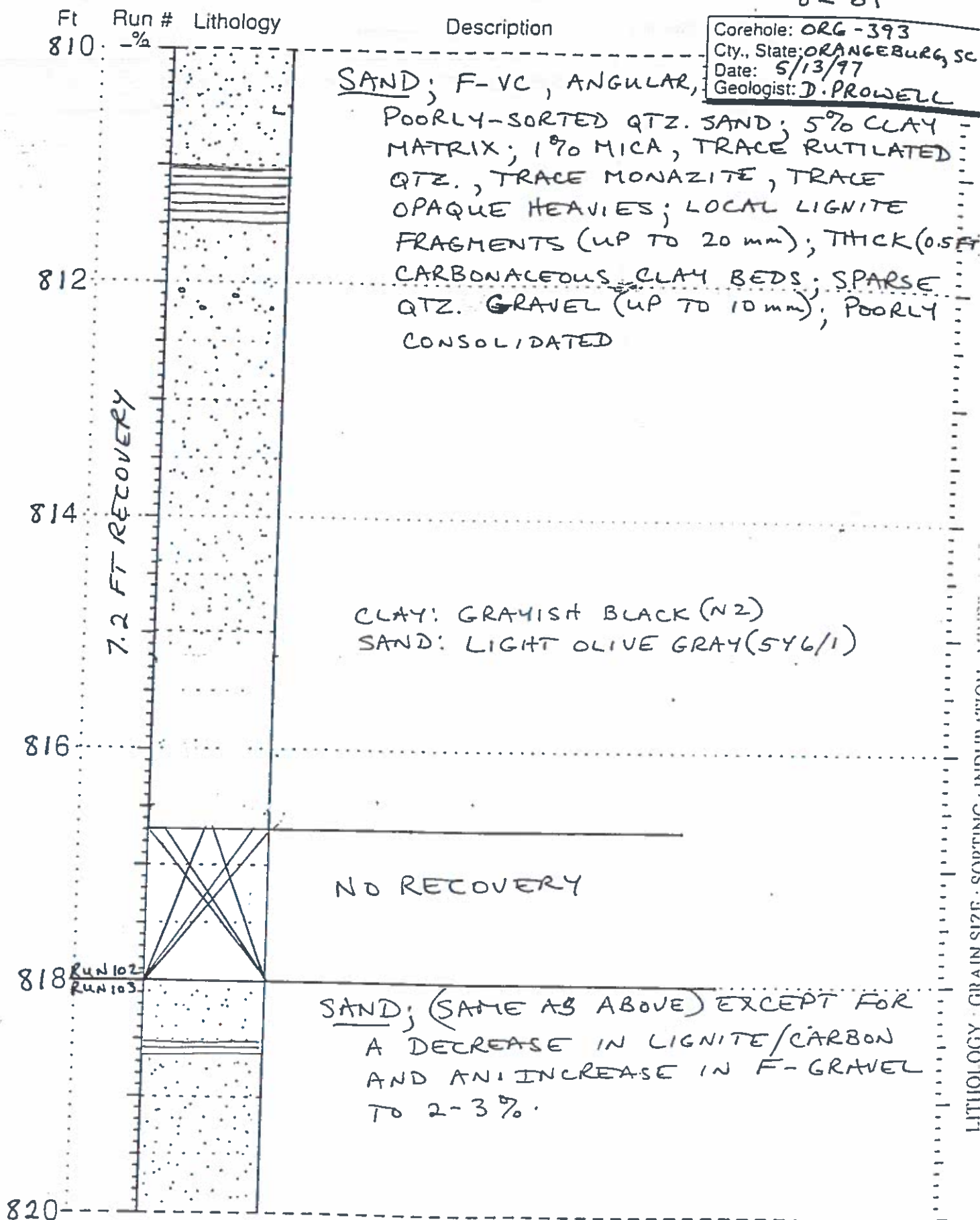


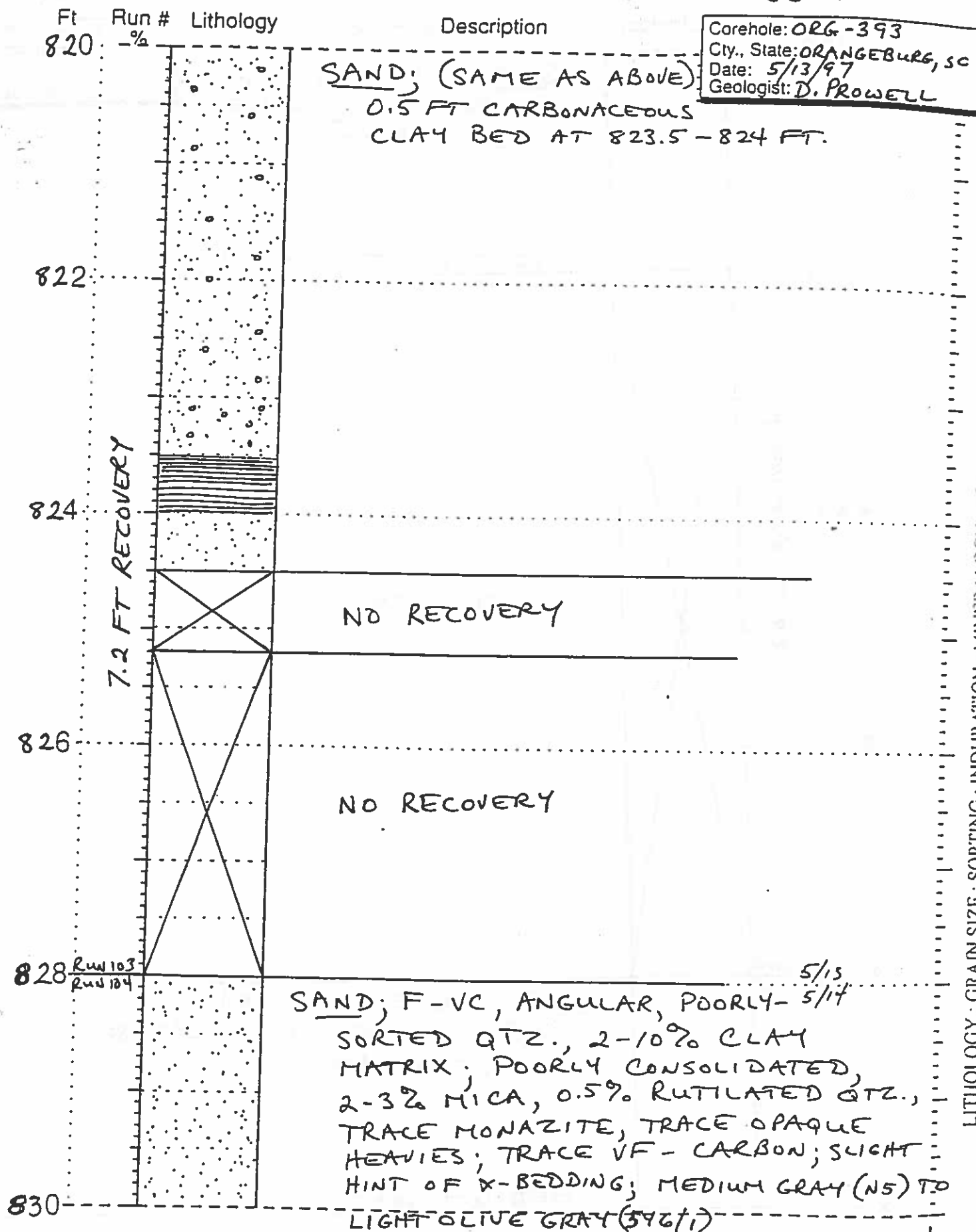


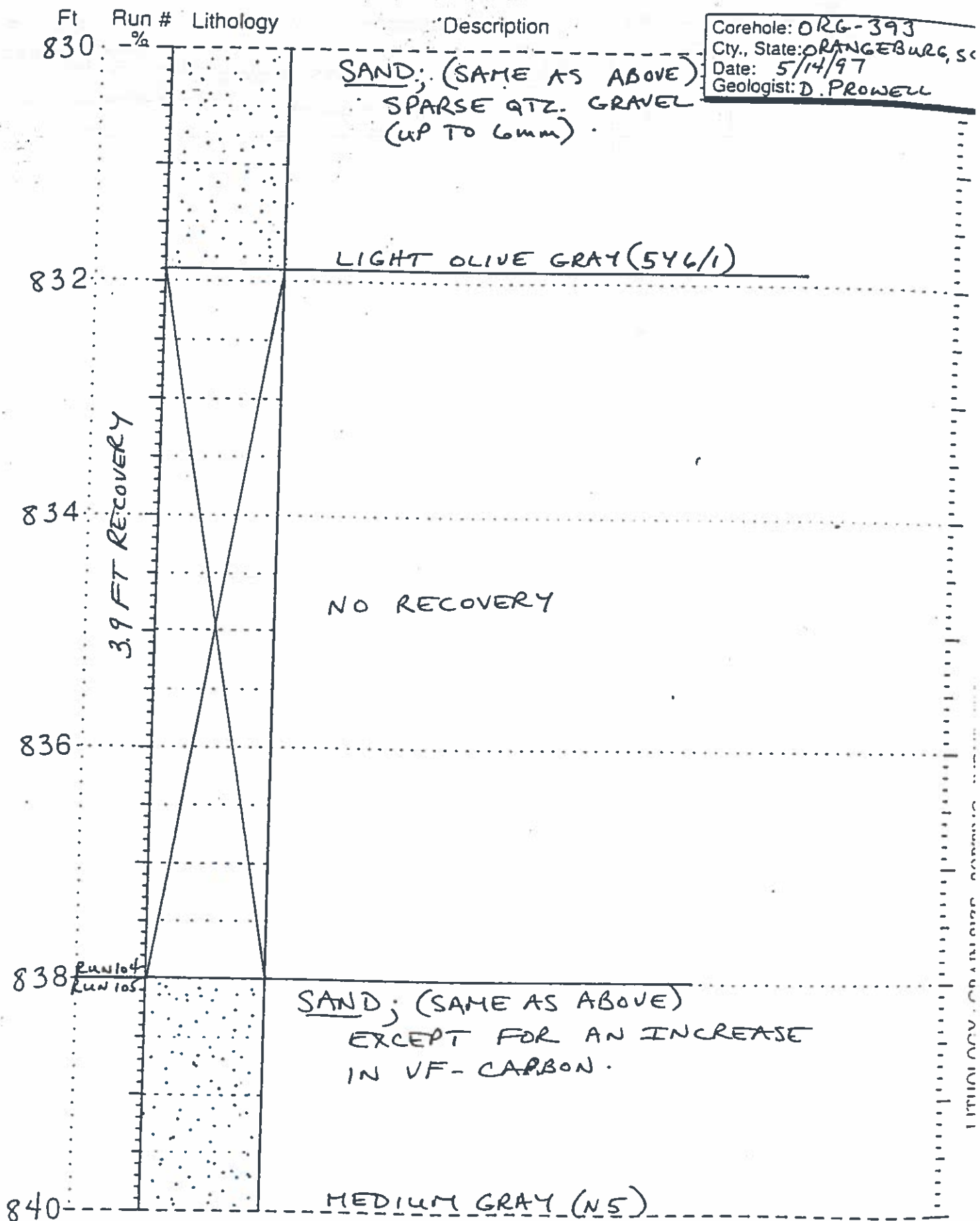










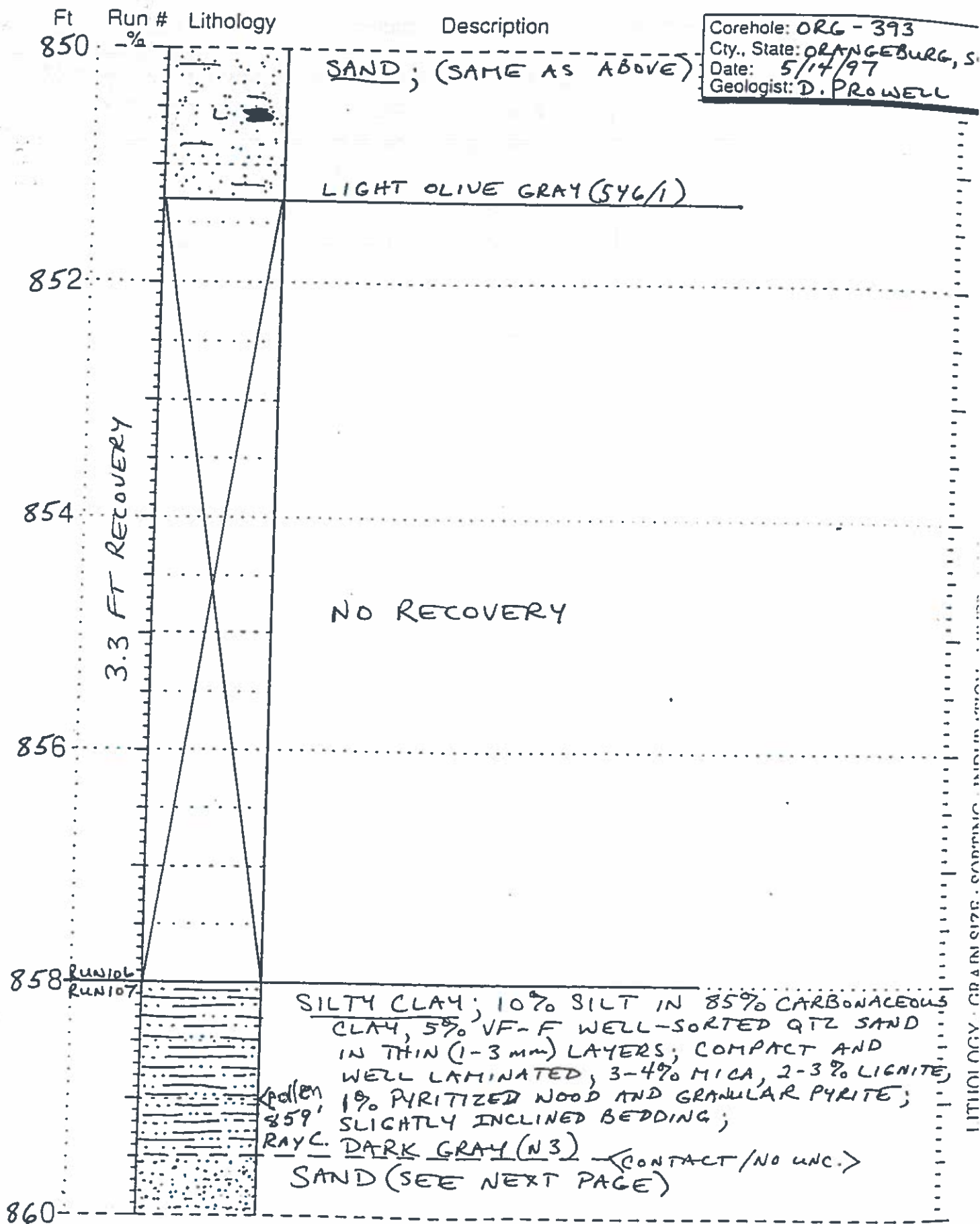


Ft	Run #	Lithology	Description
840	-2		<p>SAND; (SAME AS ABOVE) EXCEPT FOR DECREASE IN VF-CARBON AND TWO 60mm LIGNITE FRAGMENTS AT 845-845.5; TRACE LIGNITE AT 841 AND 842 FT; SPARSE PYRITE REPLACEMENT IN LARGE LIGNITE. SPARSE LOCAL QTZ. GRAVEL (<6mm) IN THIN (0.5 FT) BEDS.</p>
842			
844			
846			
848	Run 105 Run 106	<p>LIGHT OLIVE GRAY (5Y6/1)</p> <p>NO RECOVERY</p>	<p>SAND; F-C, ANGULAR, POORLY-SORTED QTZ., 10-25% CARBONACEOUS CLAY MATRIX, 1-2% MICA, 1% LIGNITE, TRACE PYRITE, LOCALLY WELL-SORTED, VF-F₇ SAND BEDS, LOCAL LIGNITE FRAGMENTS (<55mm) AND PYRITIZED ROOTS(?).</p>
850			<p>LIGHT OLIVE GRAY (5Y6/1) TO DARK GRAY (N3).</p>

Corehole: ORG-393
 City, State: ORANGEBURG, SC
 Date: 5/14/97
 Geologist: D. PROWELL

9.8 FT RECOVERY

LITHOLOGY: GRAIN SIZE · SORTING · INDURATION · MINERALOGY



Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/14/97 Geologist: D. PROWELL
860			SAND; F-VC, ANGULAR POORLY-SORTED QTZ; 1-2% MICA, TRACE OPAQUE HEAVIES, TRACE RUTILATED QTZ., TRACE YELLOW QTZ., TRACE CARBON (VF) MASSIVE TO WEAKLY-BEDDED, 5% CLAY MATRIX; ABUNDANT LIGNITE AND PYRITIZED LIGNITE FROM 865 TO 867 FT; LIGNITE FRAGMENTS ARE UP TO 50mm;	
862				
864				
866				
868	Run 107 Run 108			
870				

9.2 FT RECOVERY

PYRITE

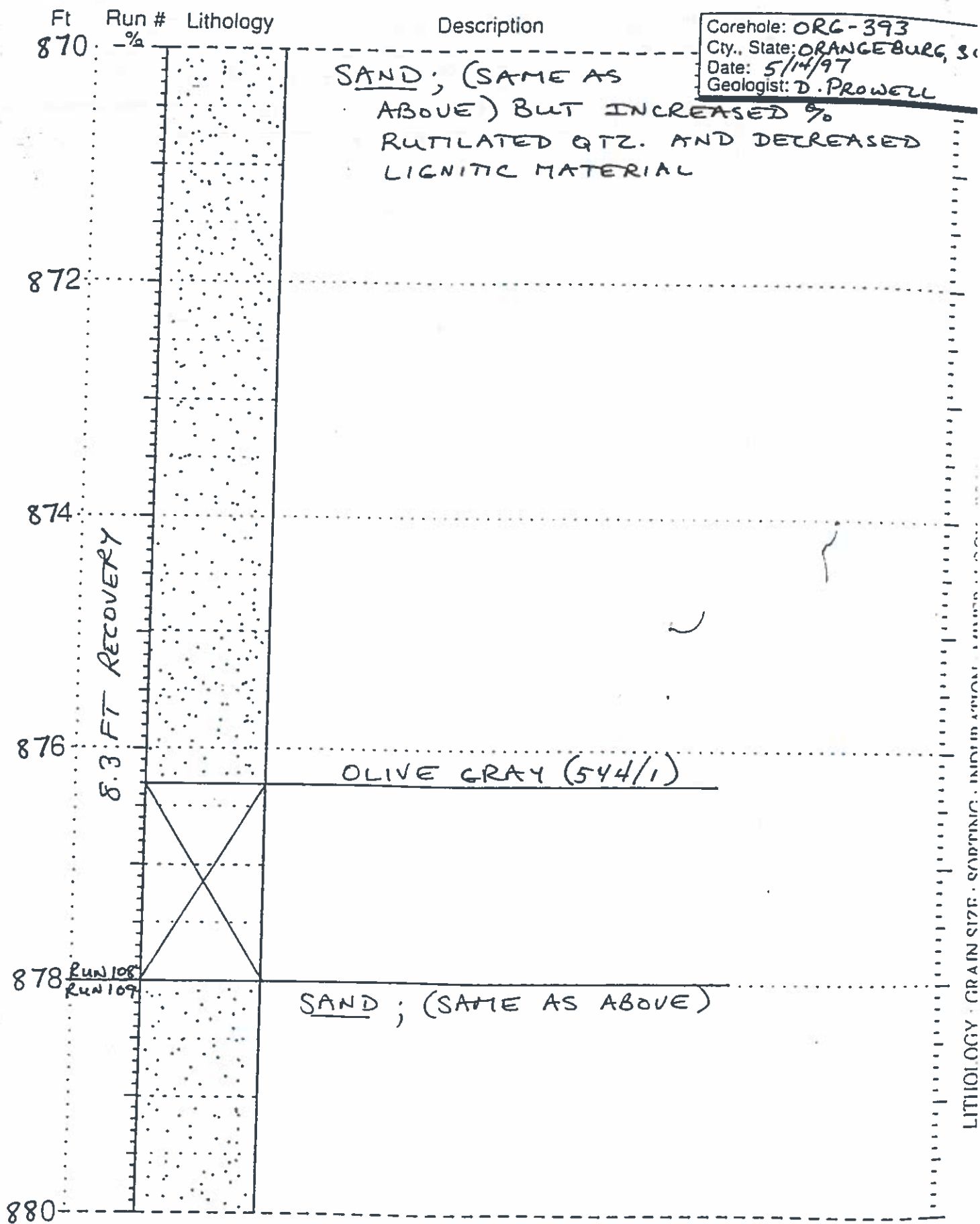
PYRITE

LIGHT OLIVE GRAY (546/1)

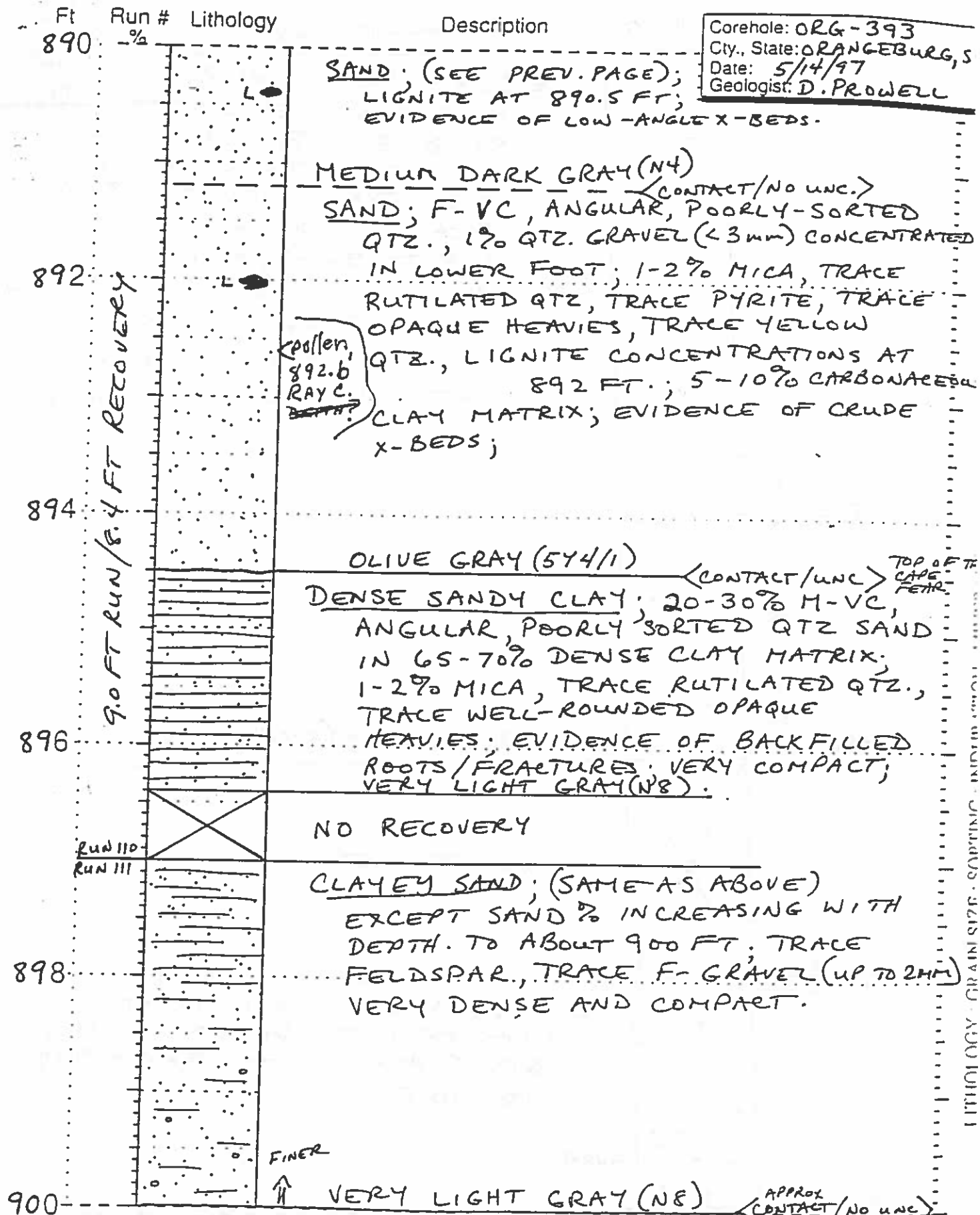
NO RECOVERY

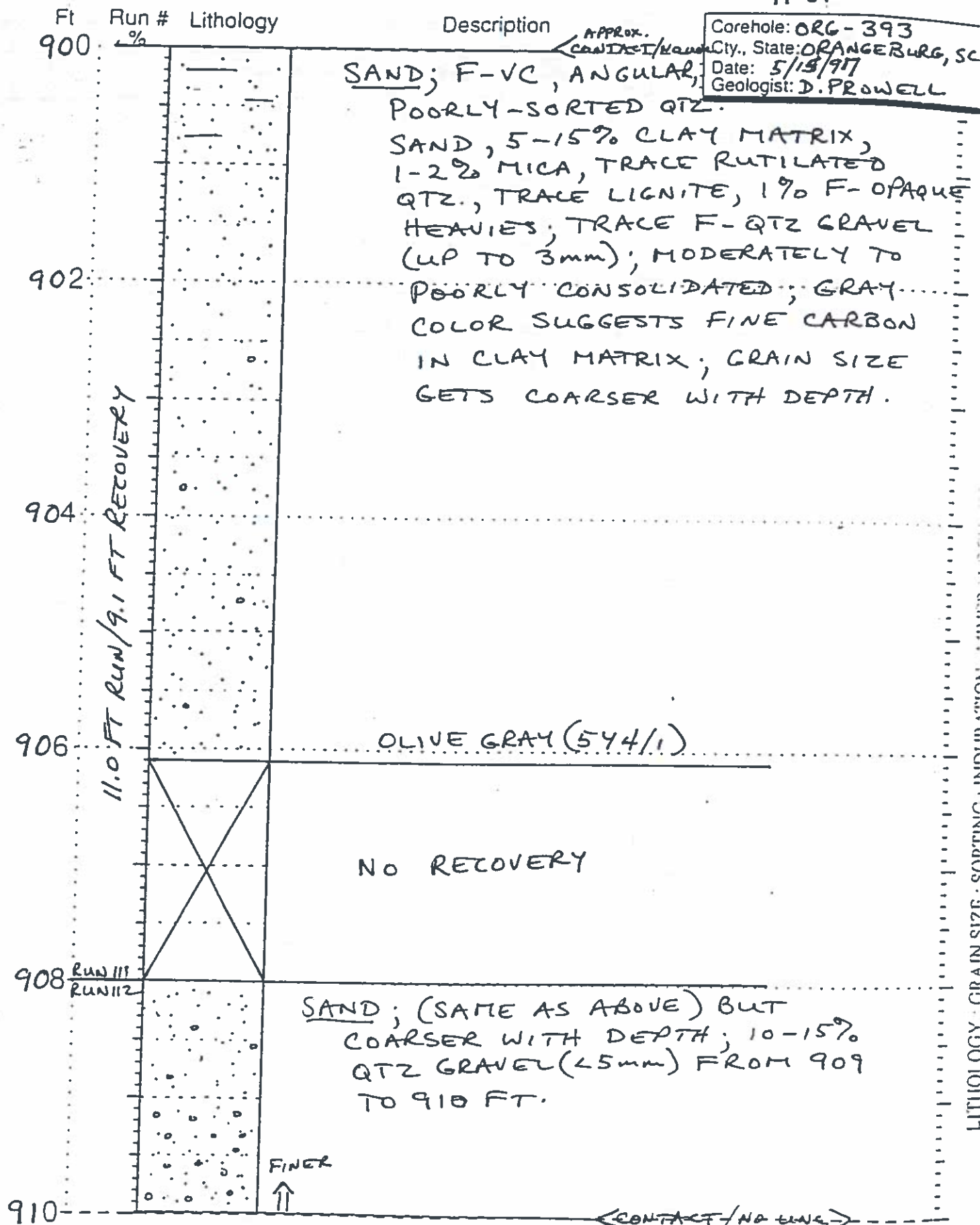
SAND; (SAME AS ABOVE) BUT
OVERALL COARSER GRAINED;
SPARSE QTZ GRAVEL (UP TO 4mm).LIGHT OLIVE GRAY (546/1) TO
MEDIUM GRAY (NS)

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FOSSE: COMMENTS:



Ft	Run #	Lithology	Description	Corehole: ORG-393
880	%		<u>SAND</u> ; (SAME AS ABOVE)	Cty., State: ORANGEBURG, SC Date: 5/14/97 Geologist: D. PROWELL
882				
884				
886				
888			OLIVE GRAY (544/1)	
			NO RECOVERY	
888	RUN 109 RUN 110		<u>SAND</u> ; (SAME AS ABOVE) LARGE LIGNITE FRAGMENTS FROM 888-889 FT; PYRITIZED LIGNITE (< 3mm) AT 889.5 FT.	5/14 5/15
890			<u>SAND</u> ; F-M, ANGULAR, MODERATELY SORTED, QTZ, 1-2% MICA, TRACE RUTILATED QTZ, TRACE YELLOW QTZ, TRACE PYRITE, THINLY BEDDED WITH MORE OR LESS CLAY MATRIX, 5-10% CARBONACEOUS CLAY MATRIX; (MARINE?)	(CONTACT/NO CONC)





Corehole: ORG-393
 City, State: ORANGEBURG, SC
 Date: 5/19/97
 Geologist: D. PROWELL

LITHOLOGY - GRAIN SIZE - CAPTIONS - IN ORDER OF DEPTH

Ft	Run #	Lithology	Description
910			<p>SAND; F-JC, ANGULAR, POORLY-SORTED, QTZ. SAND, 5% CLAY MATRIX; 1% MICA, TRACE RUTILATED QTZ., TRACE OPAQUE HEAVIES, TRACE LIGNITE; POORLY CONSOLIDATED, MASSIVE, FAINT SIGNS OF X-BEDS, SAND GETS COARSER WITH DEPTH; 15mm PYRITE-CEMENTED SAND NODULE AT 915.3 FT.</p>
912			
914			
916			
918			
920			

Corehole: ORG-393
 City, State: ORANGEBURG, SC
 Date: 5/15/95
 Geologist: D. PROWELL

8.3 FT RECOVERY

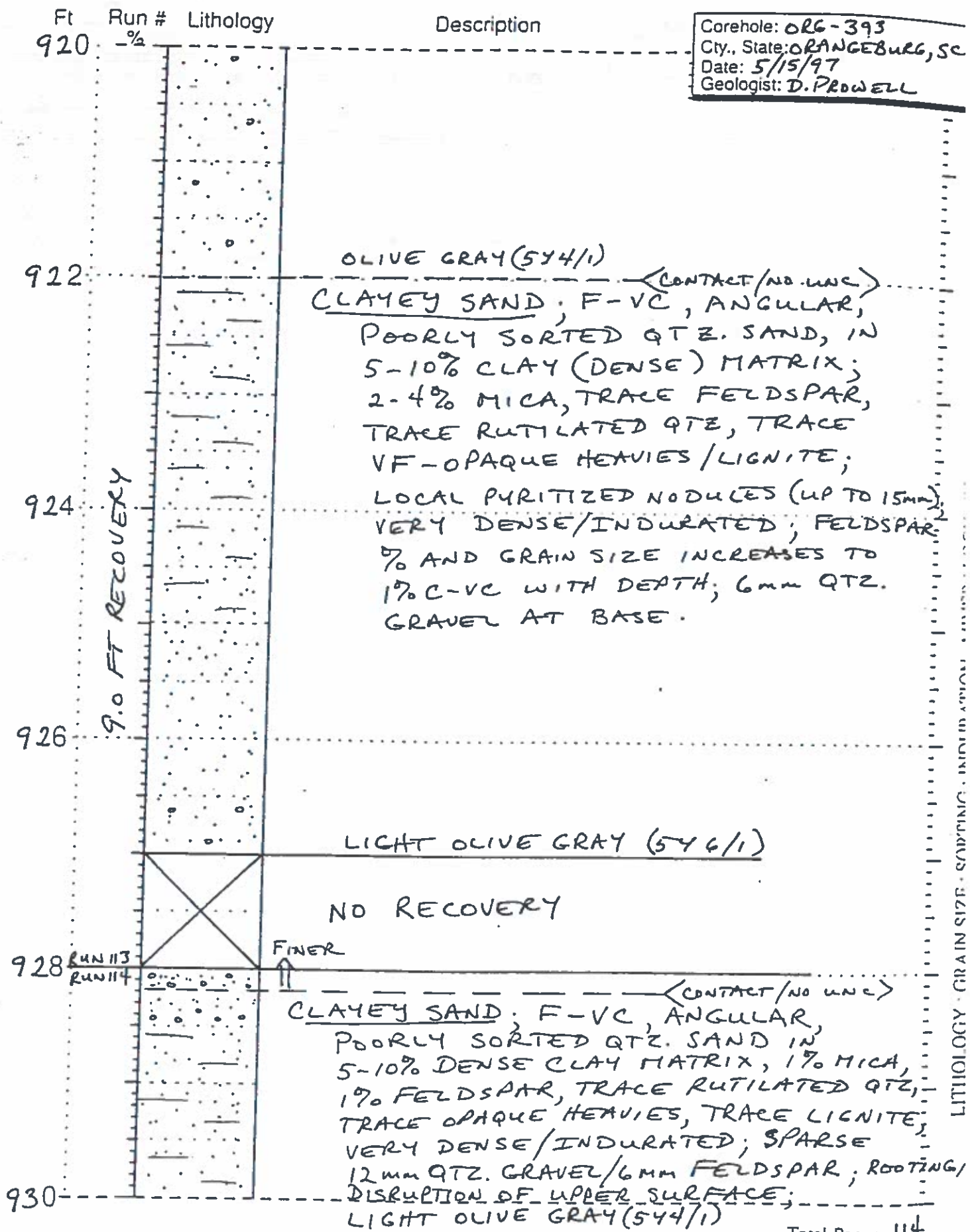
P. O. } PYRITE

LIGHT OLIVE GRAY (546/1)

NO RECOVERY

SAND; (SAME AS ABOVE), POORLY CONSOLIDATED, SPARSE 5mm QTZ GRAVEL; SLIGHTLY COARSER WITH DEPTH.

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FOSSEIL: ORIGIN: FACIES



Ft	Run #	Lithology	Description	Corehole: DRG-393 City, State: ORANGEBURG, SC Date: 5/15/97 Geologist: D. PROWELL
930			CLAYEY SAND; (SAME AS ABOVE) BUT WITH TRACE MONAZITE, INCREASE IN FELDSPAR TO 2%; GRAIN SIZE INCREASES WITH DEPTH; BASE 1.5 FT OF SECTION CONTAINS 10-15% GRAVEL (RD. SMOKEY QTZ. UP TO 15 mm, RD. FELDSPAR UP TO 12 mm, RUTILATED QTZ. UP TO 4 mm)	
932				
934				
936			FINER CLAYEY SAND GRADING DOWNWARD TO SAND AND GRAVEL; F-VC, ANGULAR, POORLY SORTED QTZ SAND, 2-3% MICA, 1% FELDSPAR, TRACE RUTILATED QTZ AND OPAQUE	
938	RUN 114 RUN 115		NO RECOVERY	
			HEAVIES; 2% GRAVEL (10 mm QTZ.; 6 mm FELDSPAR) IN BASAL 0.5 FT. VERY DENSE AND INDURATED; VERY POORLY BEDDED;	
			LIGHT OLIVE GRAY (546/1) TO OLIVE GRAY (544/1)	
940			CLAYEY SAND GRADING DOWNWARD TO SAND AND GRAVEL; (SEE NEXT PAGE)	

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FOSSILS: STRATIGRAPHY: CORRELATION

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/15/97 Geologist: D. PROWELL
940			CLAYEY SAND GRADING DOWNWARD TO SAND AND GRAVEL (SAME AS SEQUENCE ABOVE) EXCEPT BASAL GRAVEL IS 6mm QTZ AND 3mm FELDSPAR. LIGHT OLIVE GRAY (SYG/1) TO MEDIUM GRAY (NS) <CONTACT/NO UNC.> CLAYEY SAND GRADING DOWNWARD TO SAND AND GRAVEL (SAME AS SEQUENCE ABOVE)	
942			FINER ↑ VERY LIGHT GRAY (NS) CLAYEY SAND GRADING DOWNWARD TO VC-QTZ SAND AND GRIT; (SAME AS ABOVE) BUT W/O COARSE GRAVEL	
944			FINER ↑ VERY LIGHT GRAY (NS) CLAYEY SAND GRADING DOWNWARD TO VC-QTZ SAND AND GRIT; (SAME AS ABOVE) BUT WITH EVIDENCE OF ROOTING/FILLED FRACTURES AT TOP AND 2-3% VC- RUTILATED QTZ IN LOWER FOOT.	
946			VERY LIGHT GRAY (NS)	
948	RUN 115 RUN 116		NO RECOVERY	
950			FINER ↑ VERY LIGHT GRAY (NS) CLAYEY SAND GRADING DOWNWARD TO SAND AND GRAVEL; (SAME AS ABOVE) WITH EVIDENCE OF ROOTING/FILLED FRACTURES AT TOP; <30mm QTZ AND 5mm FELDSPAR GRAVEL AT BASE.	

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: POROSITY

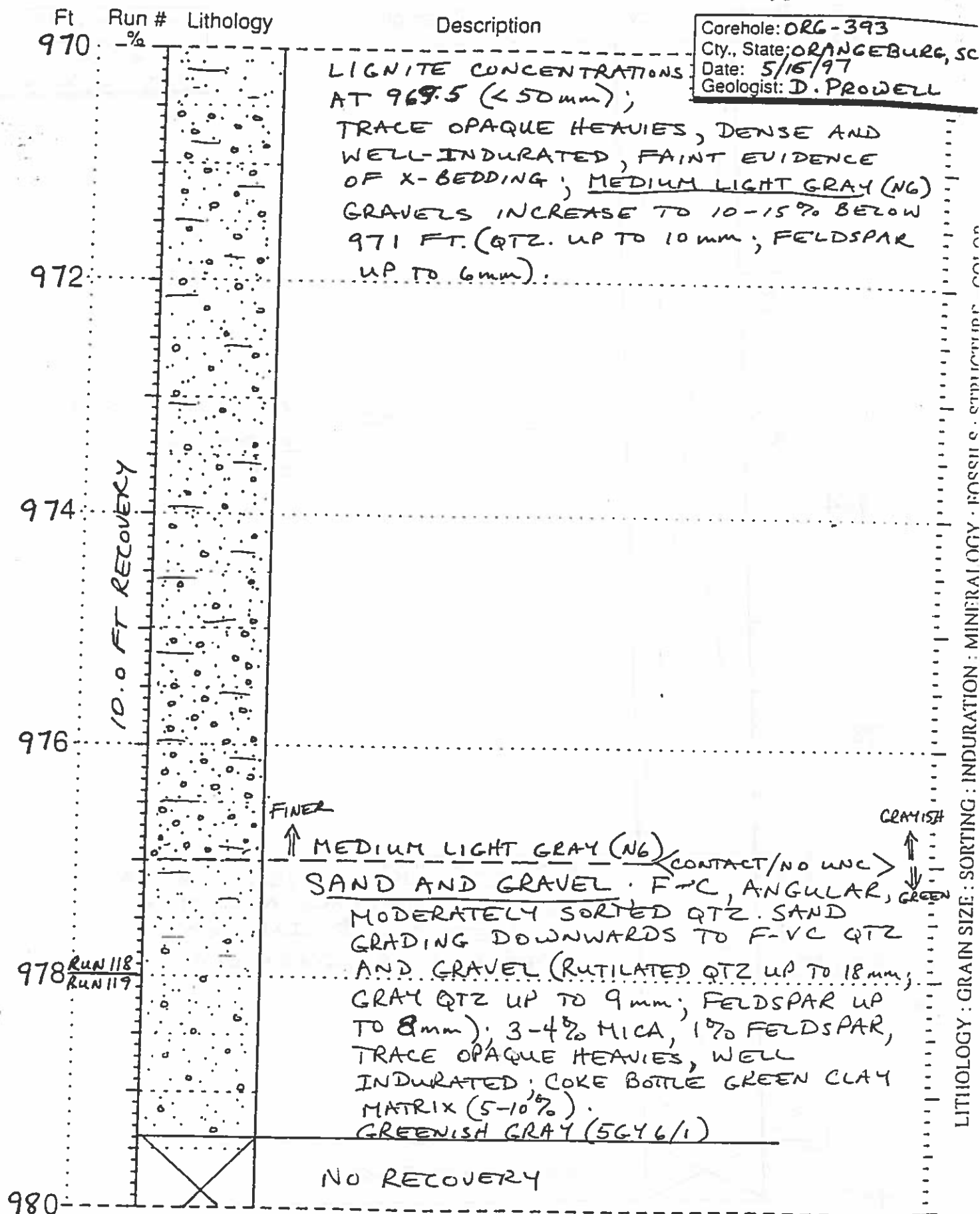
Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/15/97 Geologist: D. PROWELL
950	%		<u>CLAYEY SAND GRADING DOWNWARD TO SAND AND GRAVEL</u> ; (SAME AS ABOVE) BUT WITH <u>LARGE GRAVEL</u> (<30mm) NEAR BASE.	
952			3 12 mm RED CRYSTALLINE QTZ. GRAVEL	
954		10.5 FT RECOVERY		
956			3 <30 mm QTZ. GRAVEL (SMOKEY QTZ.)	
958	RUN 116 RUN 117		<u>CLAYEY SAND AND GRAVEL</u> ^{<CONTACT/NO UNC} ANGULAR, POORLY SORTED, QTZ. SAND WITH 5-10% GRAVEL (QTZ. UP TO 15 mm, FELDSPAR UP TO 14 mm) IN 5-10% CLAY MATRIX; 2-5% MICA, TRACE OPAQUE HEAVIES, 1% FELDSPAR; DENSE AND WELL INDURATED, MASSIVE TEXTURE; LIGHT OLIVE GRAY (5Y 6/1) LOCAL IRON STAINING FROM 958-962.5 DARK YELLOWISH ORANGE (10YR 6/6)	
960				

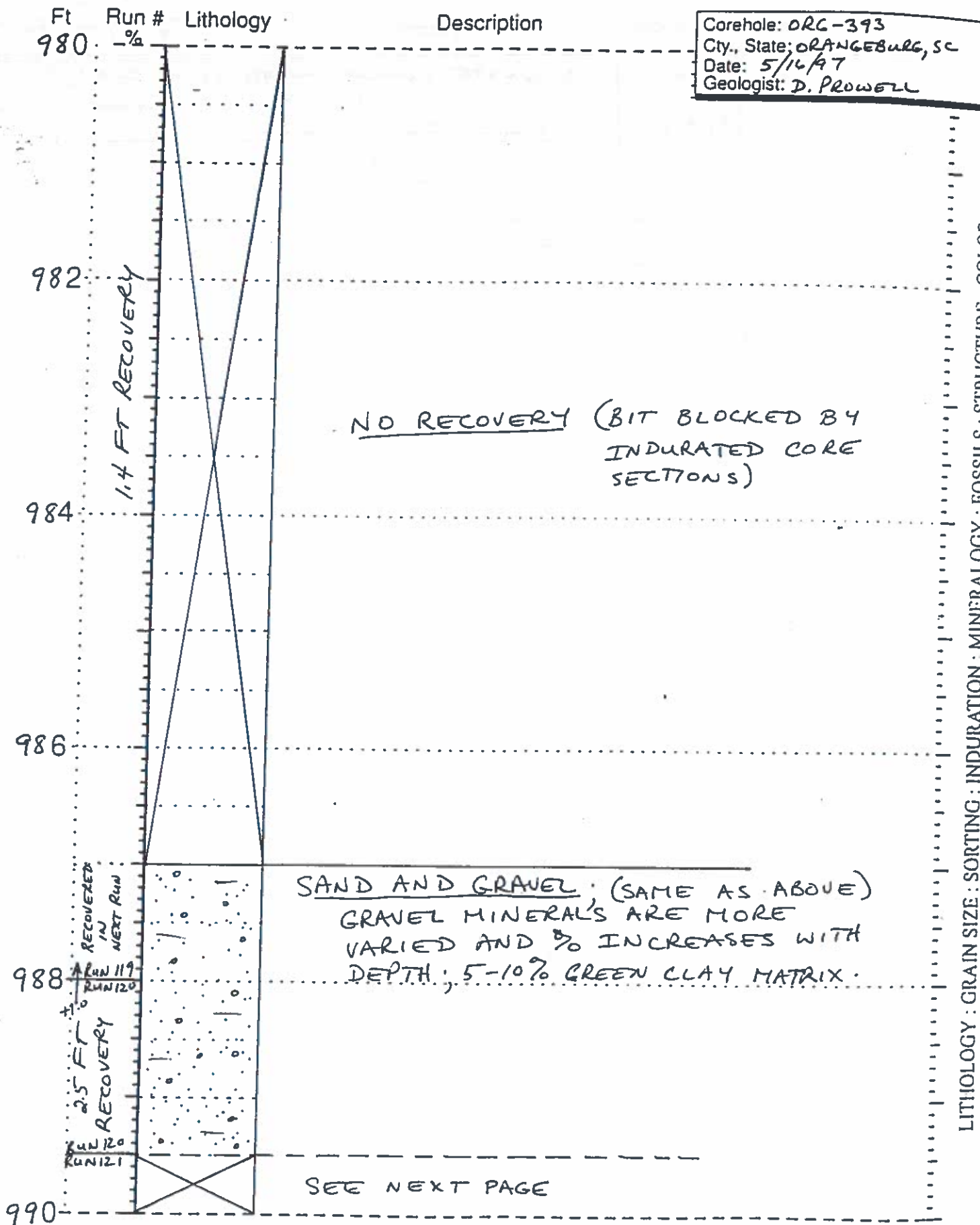
LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FOSSEIL: CRYSTALLOGRAPHY

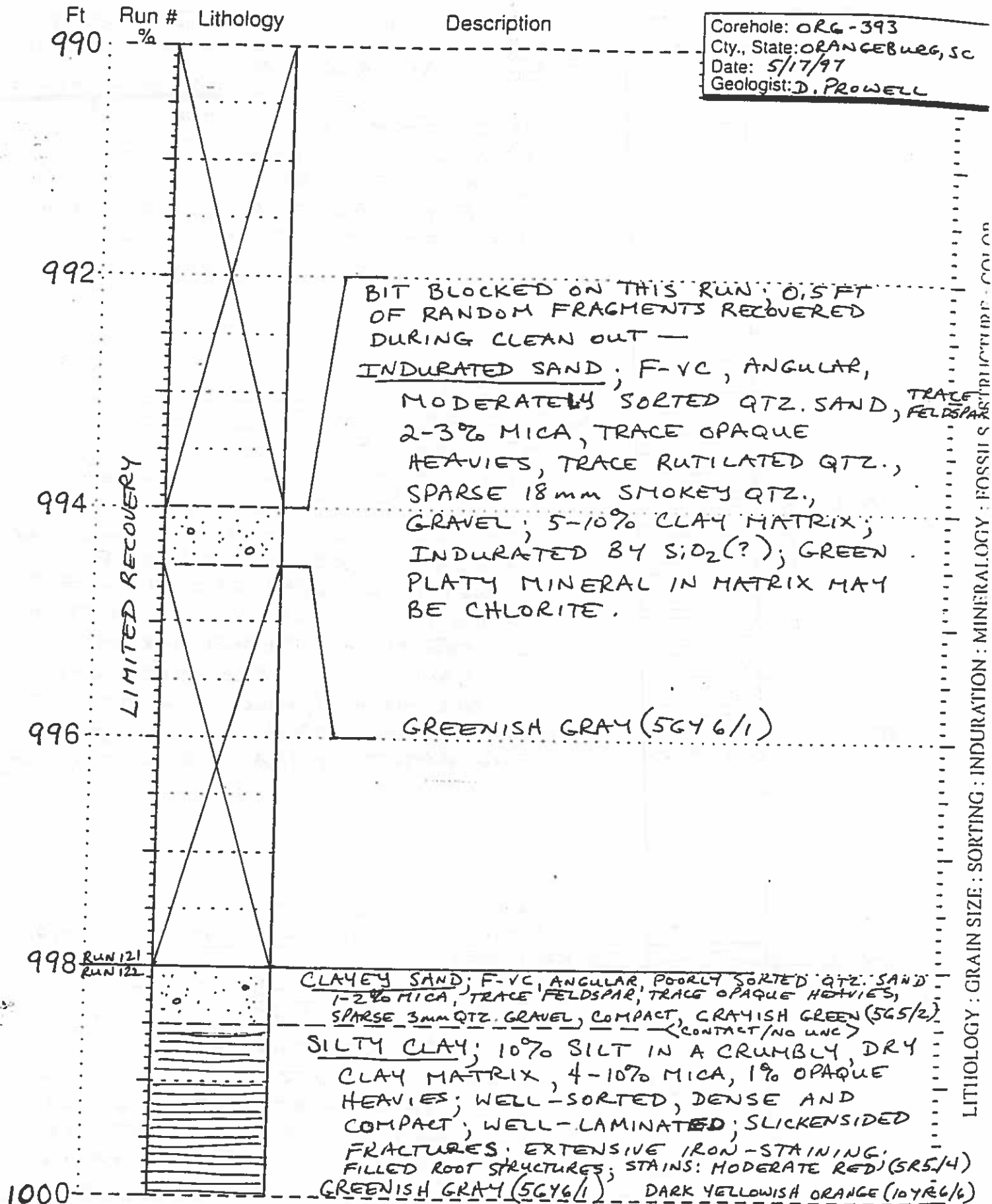
Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/15/97 Geologist: D. PROWELL
960			CLAY SAND AND GRAVEL; (SAME AS ABOVE); 25 mm CLAY CLAST AT 960.5 FT. AND 961.5 FT.; MUCH LESS CLAY MATRIX (LOOSELY CONSOLIDATED) IN LOWER FOOT; LOWER FOOT HAS 10-20% GRAVEL (GRAY QTZ UP TO 10 mm; RUTILATED QTZ UP TO 7 mm; WHITE QTZ	
962				
964				
966				
968	RUN 117 RUN 118		<p>↑ FINGER</p> <p>LIGHT OLIVE GRAY (546/1) CLAYEY SAND GRADING DOWNWARD TO SAND AND GRAVEL; F-M, ANGULAR MODERATELY-SORTED QTZ. SAND GRADING DOWNWARD TO F-VC SAND TO F-VC GRAVELLY SAND; 2-4% MICA; 1% FELDSPAR, TRACE RUTILATED QTZ.</p>	
970				

10.2 FT RECOVERY

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSEIL & STRATIGRAPHY



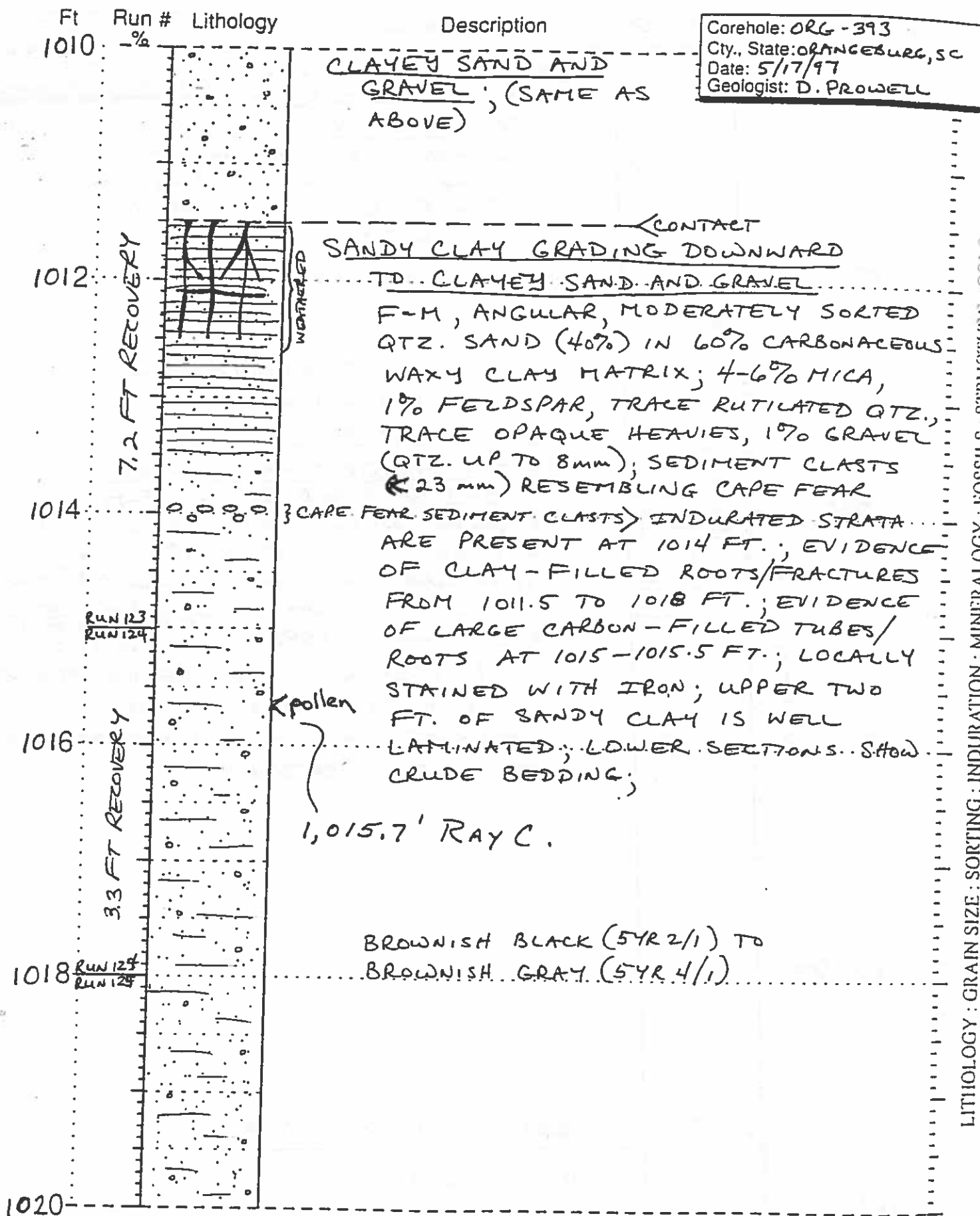




Ft	Run #	Lithology	Description
1000			<div>Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/17/97 Geologist: D. PROWELL</div> <p>CLAYEY SAND; F-VC, ANGULAR, POORLY SORTED QTZ. SAND; 5-10% CLAY MATRIX; 1% F-C GRAVEL (UP TO 12mm); 5-10% MICA (LOCAL 0.1 FT BEDS ARE 40-50% MICA); 1% FELDSPAR; TRACE OPAQUE HEAVIES; WELL INDURATED AND DENSE</p>
1002			
1004			<p>OLIVE GRAY (5Y4/1)</p> <p>CLAYEY SAND GRADING DOWNWARD INTO SAND AND GRAVEL; F-M, ANGULAR, MODERATELY SORTED QTZ. SAND IN 5-10% CLAY MATRIX. GRADING DOWN TO F-VC, ANGULAR POORLY SORTED QTZ SAND AND GRAVEL (12mm GRAY QTZ; 4mm FELDSPAR); 5-10% MICA (LOCAL 0.1 FT BEDS ARE 40-50% MICA); SPARSE GREEN VC-SAND/GRAVEL GRAINS (CHLORITE IN QTZ MATRIX?/MICROCLINE TEXTURE); (UP TO 3mm); MASSIVE AND WELL INDURATED; LOCAL IRON STAINING;</p>
1006			
1008	RUN 122 RUN 123		<p>GRAYISH GREEN (10GY5/2) STAINS: DARK YELLOWISH ORANGE (10YR6/6)</p> <p>NO RECOVERY</p> <p>CLAYEY SAND AND GRAVEL; F-VC, ANGULAR, POORLY SORTED QTZ. SAND IN 5-10% CLAY MATRIX; 1% GRAVEL (12mm QTZ.); 5-10% MICA, (LOCAL THIN BEDS CONTAIN 20-25% VC-MICA); TRACE RUTILATED QTZ., TRACE YELLOW QTZ., TRACE OPAQUE HEAVIES; WELL INDURATED, MASSIVE OLIVE GRAY (5Y4/1).</p>
1010			

9.8 FT RECOVERY

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FACIES: CONTAMINATION



LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOLIATION : STRUCTURE

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/17/97 Geologist: D. PROWELL
1020			(SANDY CLAY GRADING DOWNWARD TO) CLAYEY SAND AND GRAVEL (SAME UNIT AS ABOVE) GRAVELS ARE CONFINED TO THIN BEDS (15mm RUTILATED QTZ., 8mm SHOKEY QTZ, 5mm FELDSPAR); CRUDE BEDDING, LOCAL IRON STAINING.	
1022			STAINS: MODERATE YELLOWISH BROWN MEDIUM GRAY (N5) TO OLIVE GRAY (5Y4/1)	
1024			(CONTACT/NO UNC) SANDY CLAY GRADING DOWNWARD TO CLAYEY SAND AND GRAVEL. F-M, ANGULAR, WELL-SORTED QTZ. SAND (35%) IN A 60% CLAY MATRIX GRADING DOWNWARD INTO F-VC, ANGULAR, POORLY- SORTED QTZ. SAND AND GRAVEL (5mm QTZ., 6mm FELDSPAR) IN 5-15% CLAY MATRIX, 1-2% MICA, 1% FELDSPAR, TRACE OPAQUE HEAVIES, TRACE RUTILATED QTZ.; WELL LAMINATED IN UPPER 1.5 FT, MASSIVE TO CRUDELY BEDDED;	
1026				
1028	RUN 125 RUN 126			
1030			GRAYISH GREEN (10GY5/2) NO RECOVERY (?)	

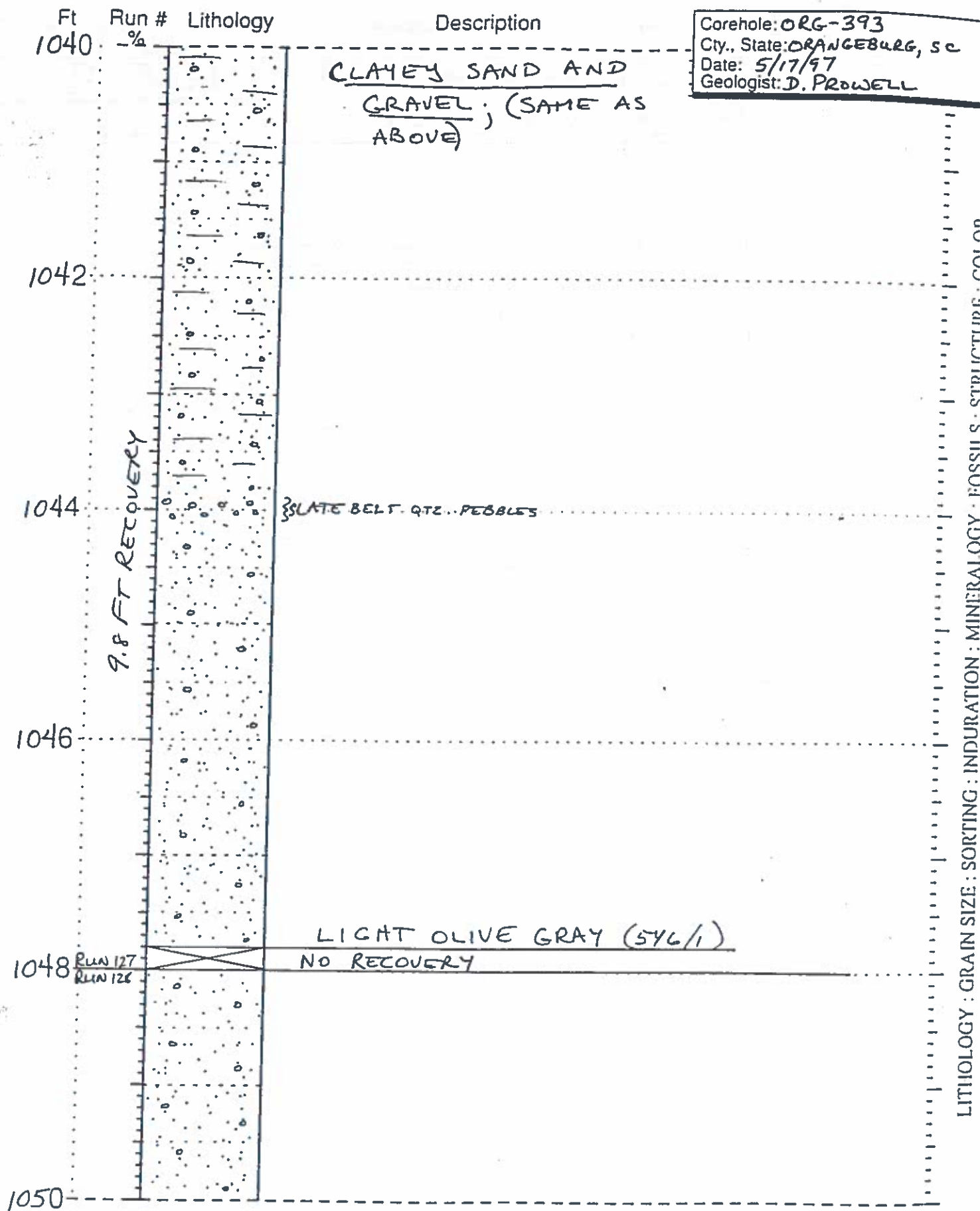
10.2 FT RECOVERY

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOLIOLE : CRACKING

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/17/97 Geologist: D. PROWELL
1030			NO RECOVERY (?)	
			CLAYEY SAND AND GRAVEL (SEE DESC. ABOVE)	
			GRAYISH GREEN (10GY 5/2) (CONTACT/NO UNC)	
1032			CLAYEY SAND; F-VC, ANGULAR, POORLY-SORTED QTZ SAND, 5-10% CLAY MATRIX; 5-10% MICA (≤ 8 mm); TRACE RUTILATED QTZ, TRACE OPAQUE HEAVIES, 1% LIGNITE (≤ 35 mm); 1% GRAVEL (7 mm RUTILATED QTZ, 25 mm SMOKEY QTZ); TRACE FELDSPAR, MASSIVE TO POORLY-BEDDED; INDURATED	
1034			LIGHT OLIVE GRAY (5Y 6/1)	
			NO RECOVERY (?)	
			CLAYEY SAND AND GRAVEL; F-VC, ANGULAR, POORLY SORTED QTZ. SAND AND 10% GRAVEL (SMOKEY QTZ ≤ 30 mm, RUTILATED QTZ ≤ 19 mm, WHITE QTZ ≤ 16 mm, FELDSPAR ≤ 3 mm); (SPARSE SLATE BELT FOLIATED QTZ/ROCK PEBBLES); 1-2% MICA, 1% FELDSPAR, TRACE GARNET, TRACE OPAQUE HEAVIES, TRACE LIGNITE (≤ 30 mm); MODERATELY COMPACT/CEMENTED; WEAKLY BEDDED;	
1036				
1038	RUN 126 RUN 127			
1040			LIGHT OLIVE GRAY (5Y 6/1)	

8.5 FT RECOVERY

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR



Ft	Run #	Lithology	Description	Corehole: ORG - 393 City, State: ORANGEBURG, SC Date: 5/18/97 Geologist: D. PROWELL
1050			<u>CLAYEY SAND AND GRAVEL</u> ; (SAME AS ABOVE)	
1052			GRAVELLY SAND COMMON CLAY CLASTS	
1054			QTZ AND FELDSPAR CLAY CLASTS UP TO 0.5 INCH	
SHARP			GRAYISH GREEN (10GY5/2) CLAYEY SAND GRADING DOWNWARD INTO SAND AND GRAVEL; F-C, ANGULAR, POORLY-SORTED QTZ. SAND GRADING DOWNWARD INTO F-VC QTZ. SAND	CONTACT/NO UNC.
1056				
			NO RECOVERY	
1058	RUN 128 RUN 129		AND GRAVEL (8mm SMOKEY QTZ; 10mm SLATE BELT QTZ./ROCK PEBBLE; 3mm FELDSPAR); 2-3% MICA, TRACE BLUE QTZ., TRACE RUTILATED QTZ., TRACE GARNET, TRACE OPAQUE HEAVIES, (RED + ORANGE) TRACE FELDSPAR; SEMI-CONSOLIDATED TO WELL-INDURATED, MASSIVE TEXTURE, GREENISH GRAY (5GY5/2)	
1060				

LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FASSEL: STRUCTURE: COLOR

Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/18/97 Geologist: D. PROWELL
1060	-%		CLAYEY SAND AND GRAVEL; (SAME AS ABOVE)	
1062				
1064				
1066				
1068	RUN 129 RUN 130			
1070				

10.0 FT RECOVERY

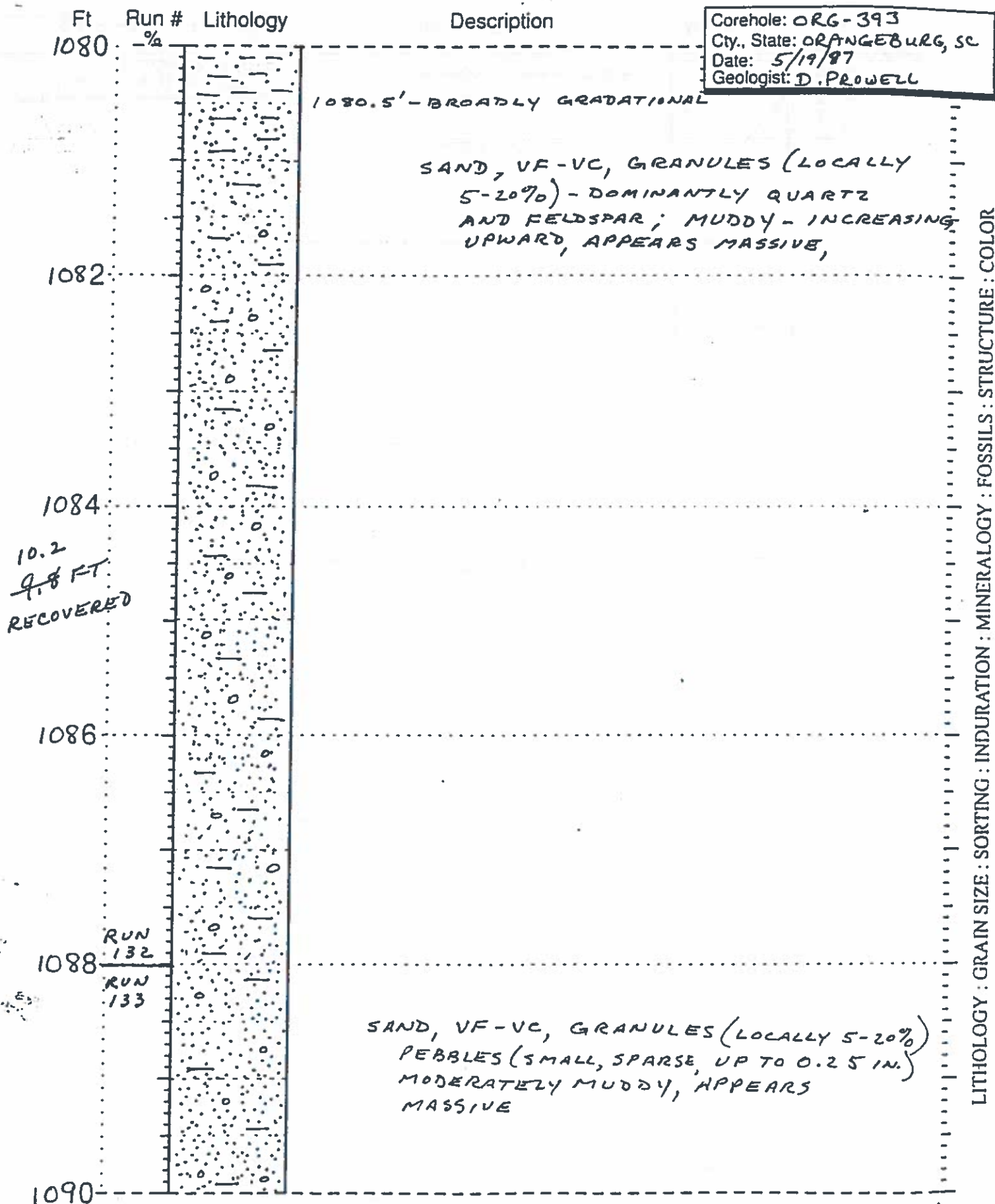
GRAYISH GREEN (10645/2) (CONTACT/NO LWC)
 CLAYEY SAND GRADING DOWNWARD
 INTO SAND AND GRAVEL; F- C,
 ANGULAR, POORLY SORTED, QTZ. SAND
 IN 25-30% CLAY MATRIX GRADING
 INTO F-VC; ANGULAR QTZ. SAND
 AND GRAVEL (SMOKEY QTZ ≤ 30 mm; ^{FELDSPAR} ≤ 6 mm;
 RUTILATED QTZ ≤ 20 mm) 3-4% OF CORE;
 3-4% MICA, 1% FELDSPAR, TRACE
 OPAQUE HEAVIES; WELL-INDURATED;
 MASSIVE TEXTURE;

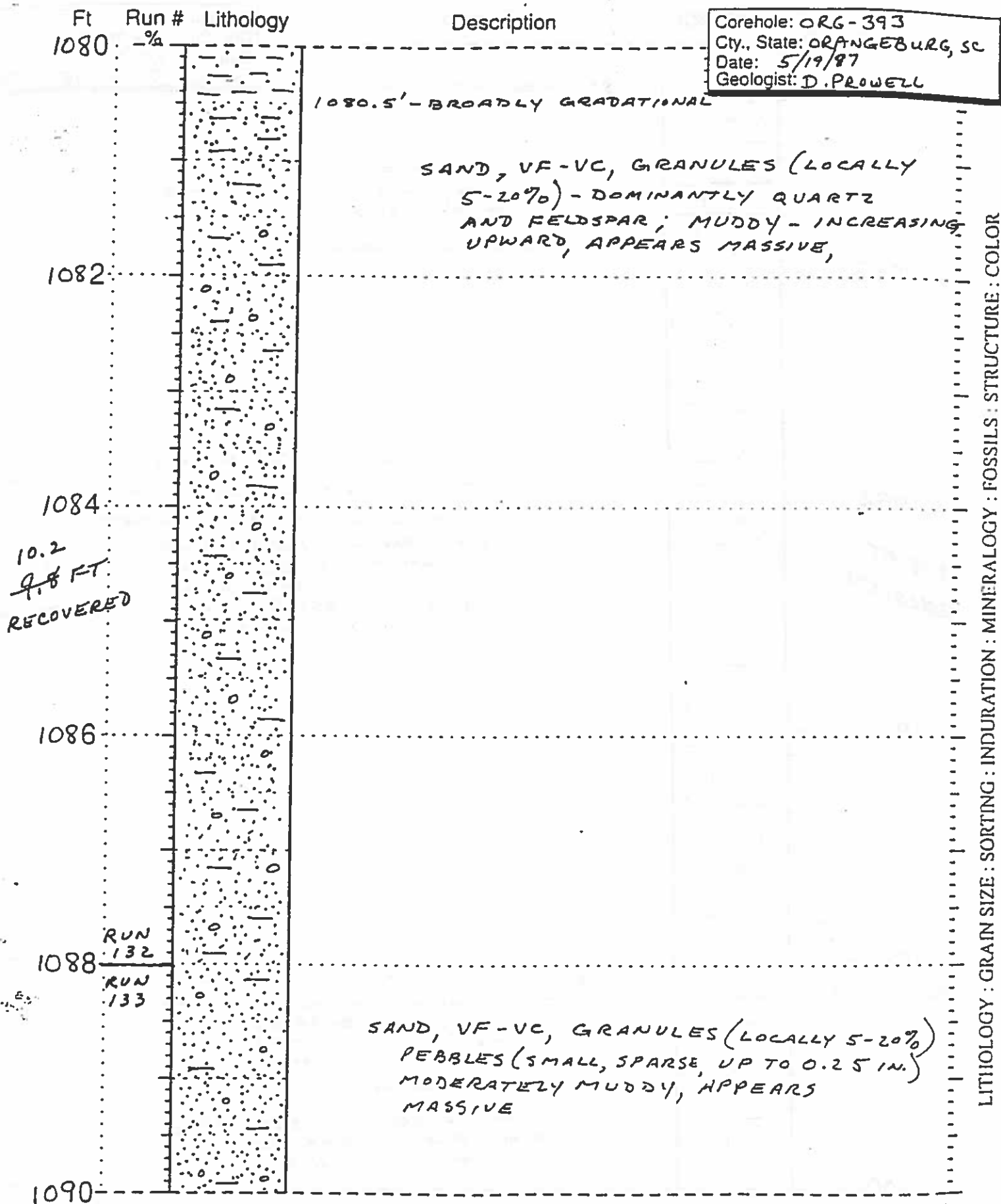
GRAYISH GREEN (10645/2)

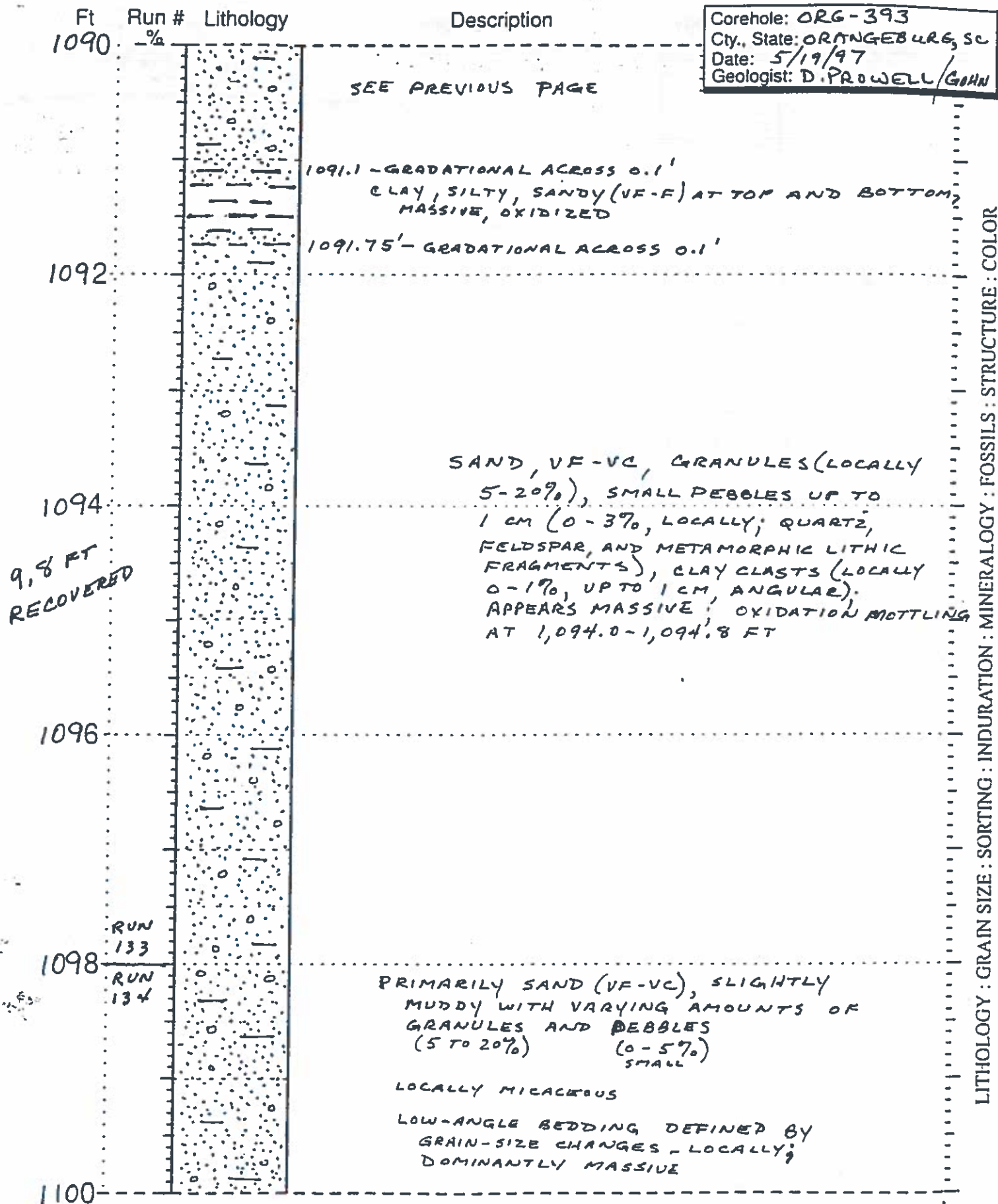
LITHOLOGY: GRAIN SIZE: SORTING: INDURATION: MINERALOGY: FACIES: ORIGIN: AGE: ANALYSIS: COMMENTS:

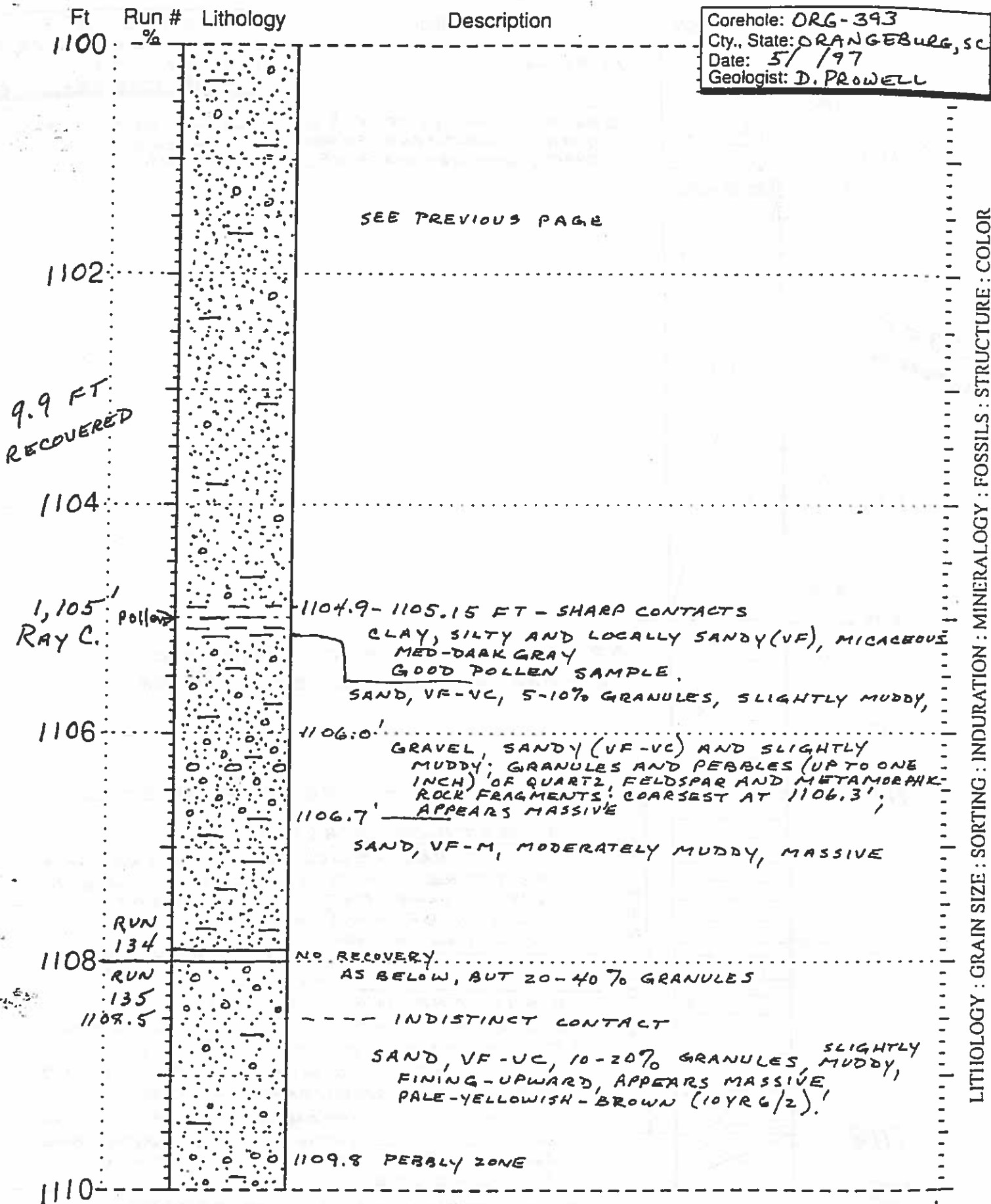
Ft	Run #	Lithology	Description	Corehole: ORG-393 City, State: ORANGEBURG, SC Date: 5/18/97 Geologist: D. PROWELL
1070			SEE PREV. PAGE	
		2.4 FT RECOVERY	NO RECOVERY	
	RUN 130 RUN 131		CLAYEY SAND AND GRAVEL (BOTTOM OF UNIT ABOVE)	
1072				
			DUSKY YELLOW GREEN (5G5/2) CLAYEY SAND GRADING DOWNWARD INTO SAND AND GRAVEL; F-M, ANGULAR, WELL-SORTED QTZ. SAND IN 10-20% CLAY MATRIX (UPPER 1.9 FT.) QUICKLY GRADING INTO F-VL, ANGULAR, POORLY SORTED QTZ. SAND AND GRAVEL (SMOKEY QTZ-7mm, FELDSPAR (5mm); 2-3% MICA, 1% FELDSPAR, TRACE GARNET, TRACE OPAQUE HEAVIES; WELL-INDURATED; UPPER 1.9 FT SHOWS FAINT BEDDING DISRUPTED BY BACKFILLED BURROWS/ ROOTS; BEDDING APPEAR UNDULATORY AND LOCAL IRON STAINING IS PRESENT; BELOW 1074.9 FT BEDDING IS MASSIVE; UPPER BEDS: LIGHT OLIVE GRAY (5Y4/1) STAINS: DARK YELLOWISH ORANGE (10YR6/6) LOWER BEDS: GRAYISH GREEN (5G5/2)	
1074				
1076				
			NO RECOVERY	
1078	RUN 131 RUN 132		CLAY, SILTY, SANDY (VF-C, 5-10%, DISSEMINATED), RED AND YELLOW OXIDATION COLORS ABOVE 1079.5', POSSIBLE ROOT CASTS AND WEAK RED FABRIC IN TOP 0.5 FT	5/18 5/19
		10.3 FT RECOVERY		
1080				

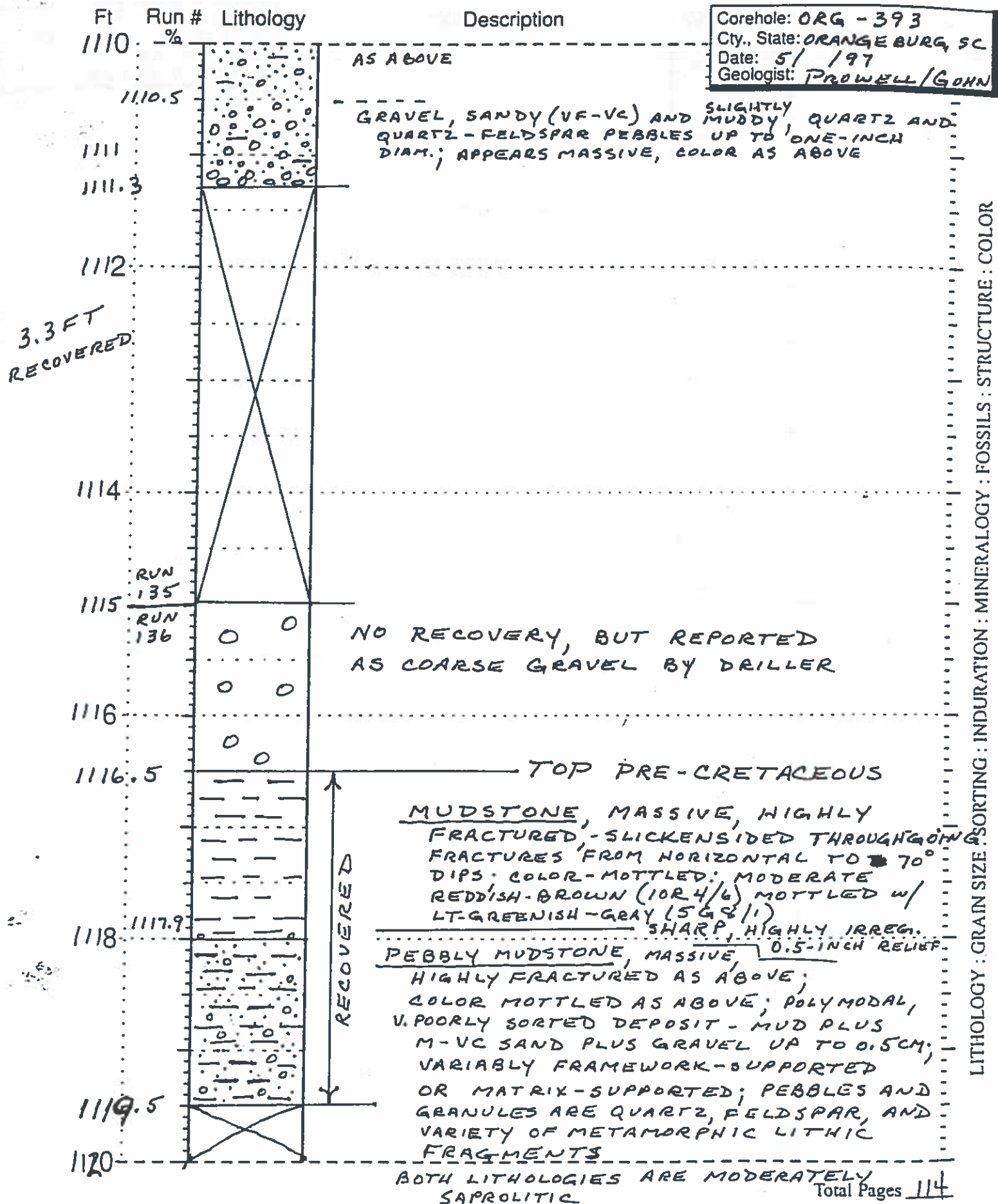
LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR











Ft Run # Lithology Description

Corehole: ORG-393
 City, State: ORANGEBURG, SC
 Date: 5/197
 Geologist: D. PROWELL/GOWN

1120

%

1122

1124

RUN
136RUN
137

"HANDFULL" OF MATERIAL - RED MUDSTONE
 OR PEBBLY MUDSTONE

1126

1128

RUN
137RUN
138

NO
 RECOVERY

COLLECTED 1129
 1,129'
 RAYC.

1130

RUN
139

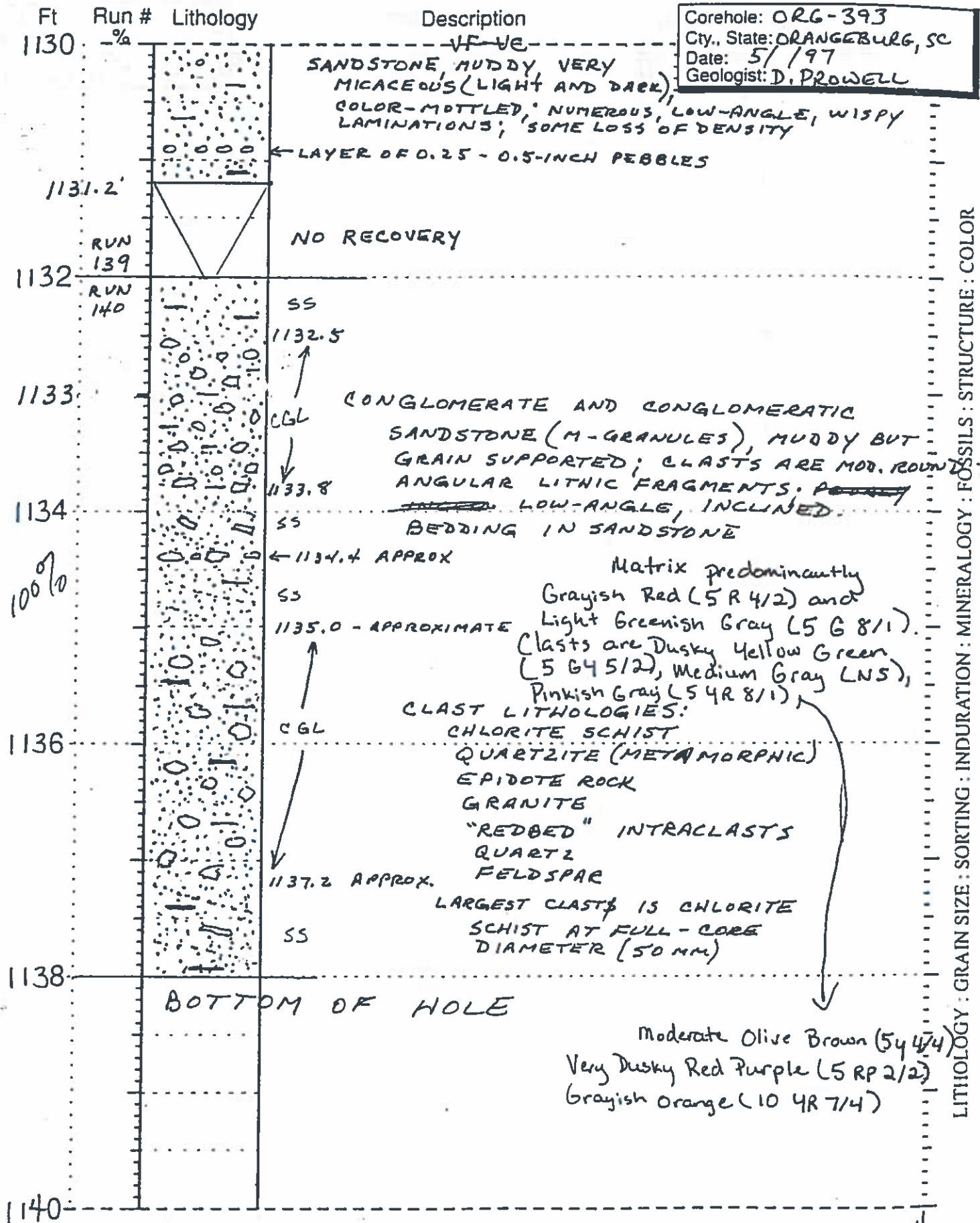
0 0
 0 0
 0 0

SEE
 NEXT
 PAGE

↓ RUN ON 5/21/97 AFTER GEOPHYSICAL
 LOGGING
 MUDSTONE, PEBBLY, V. POORLY SORTED,
 POLYMODAL (CLAY, SILT, SAND GRANULES, AND
 PEBBLES UP TO 2 INCHES IN MAX DIAM.),
 FRACTURED (SLICKENSIDED SURFACES),
 AT LOW TO MODERATE DIPS; LARGER
 GRAINS ARE PRIMARILY LITHIC FRAGMENTS;
 MINOR COLOR MOTTLING; MINOR LOSS OF DENSITY

Total Pages 114

LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR



LITHOLOGY : GRAIN SIZE : SORTING : INDURATION : MINERALOGY : FOSSILS : STRUCTURE : COLOR