HAZARDOUS SITE CONTROL DIVISION

Remedial Planning/ Field Investigation Team (REM/FIT)

ZONE II

CONTRACT NO. 68-01-6692

CH2M HILL
Ecology & Environment

A111.903

Phase I Task Report

Indian Bend Wash
Remedial Investigation
Scottsdale, Arizona

Volume II of III -
APPENDICES A, B, and C

July 2, 1984

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Purpose:	Phase I Task Report
Site:	Indian Bend Wash Remedial Investigation Scottsdale, Arizona
	Volume II of III - APPENDICES A, B, and C
Date Remedial Investigation Began:	July 2, 1984
TDD Number:	R-09-8401-02E
Report Number:	
FIT Investigators:	Robert Enkeboll Kelly Hranac
Report Prepared By:	Kelly Hranac Robert Enkeboll
Report Date:	August 11, 1986
Submitted To:	Harry E. Demarest, Chief Field Inspections Section Toxics and Waste Management Division U.S. Environmental Protection Agency San Francisco, CA 94105

APPENDIX A

Monitor Well Construction Diagrams

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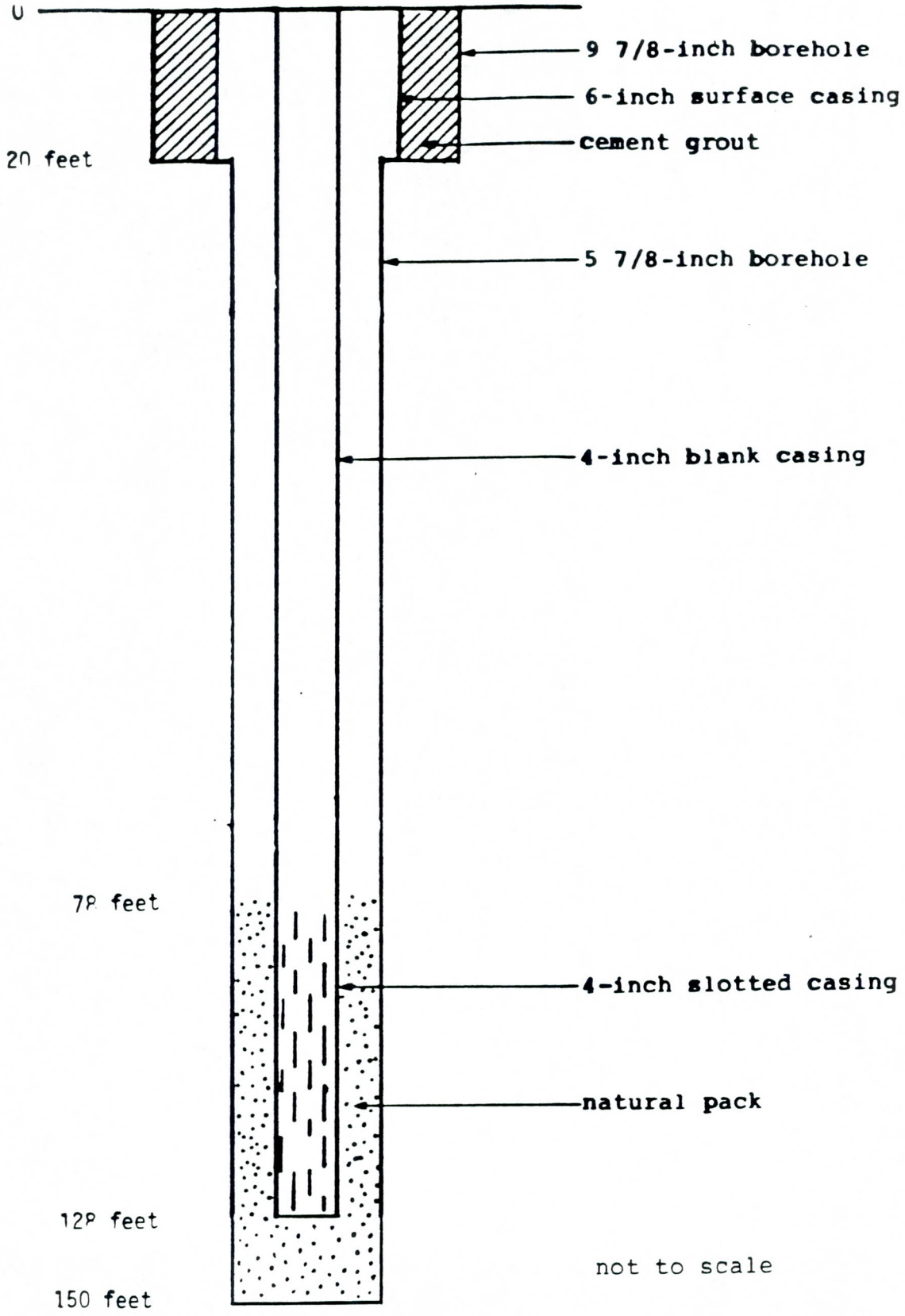
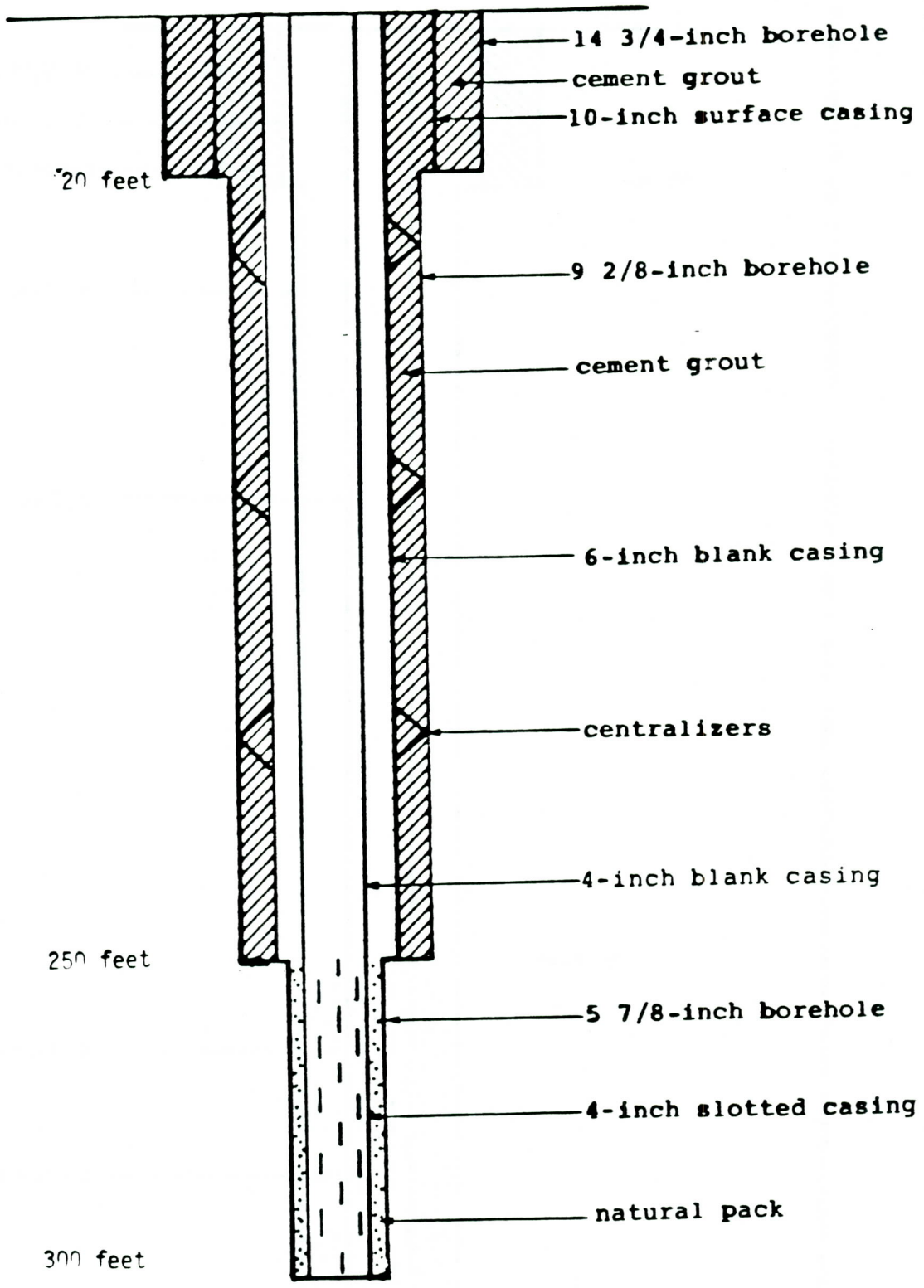
CONSTRUCTION DIAGRAM

Monitor Well EPA - 1UA



CONSTRUCTION DIAGRAM

Monitor Well EPA - 1MA



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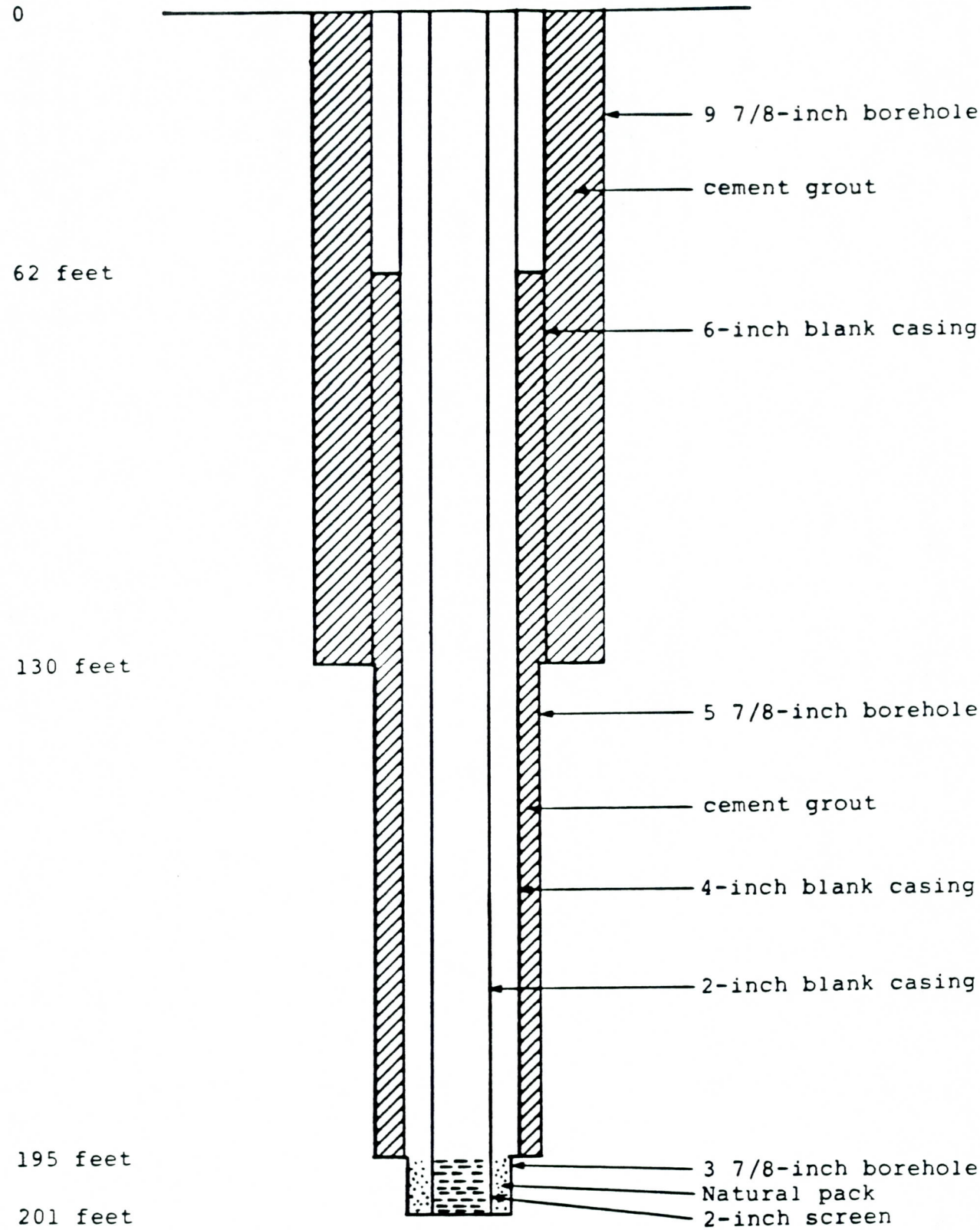
CONSTRUCTION DIAGRAM
PIEZOMETER EPA - 1MP



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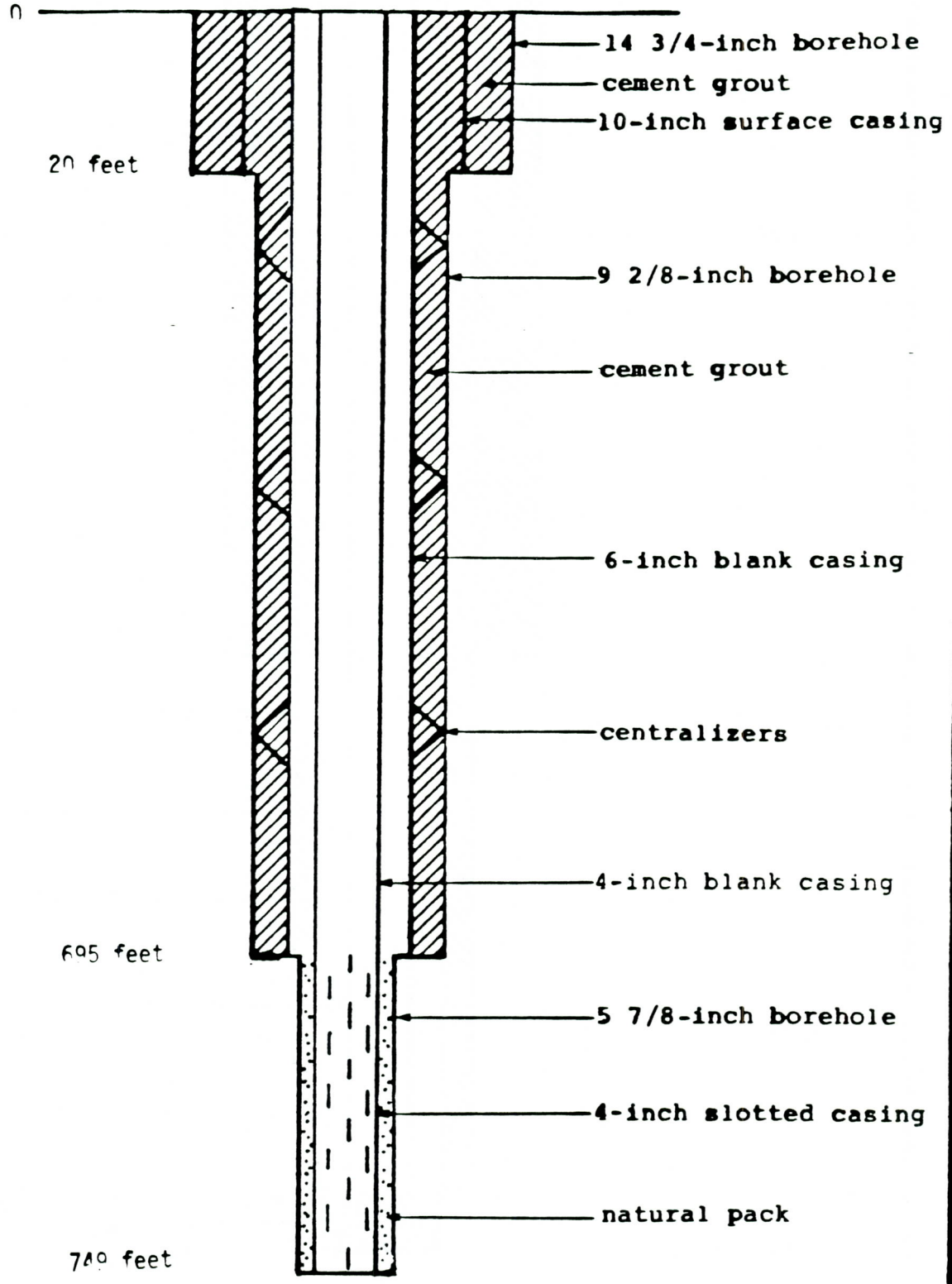
CONSTRUCTION DIAGRAM

Monitor Well EPA - 1LA



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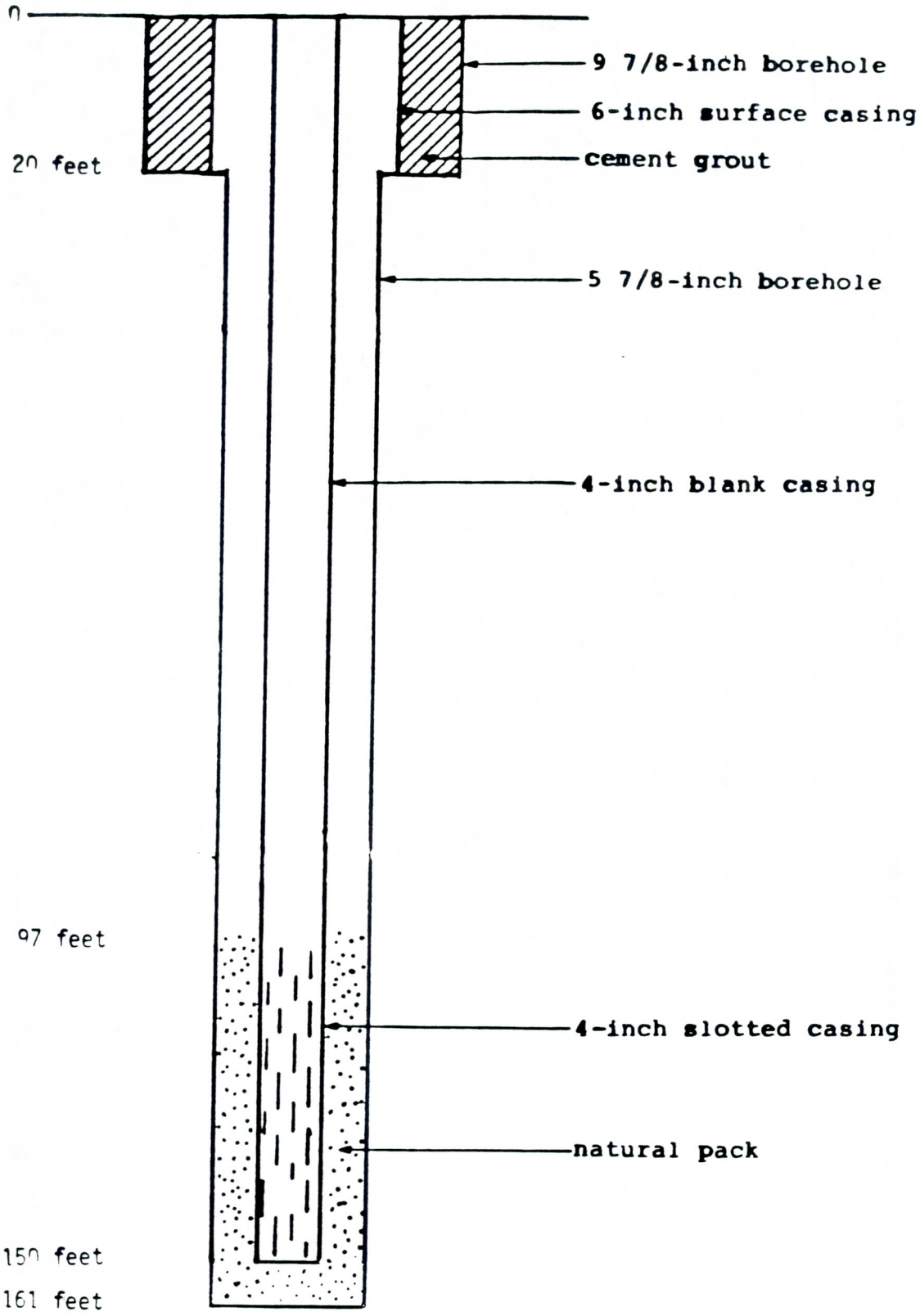
CONSTRUCTION DIAGRAM

Monitor Well EPA - 2UA



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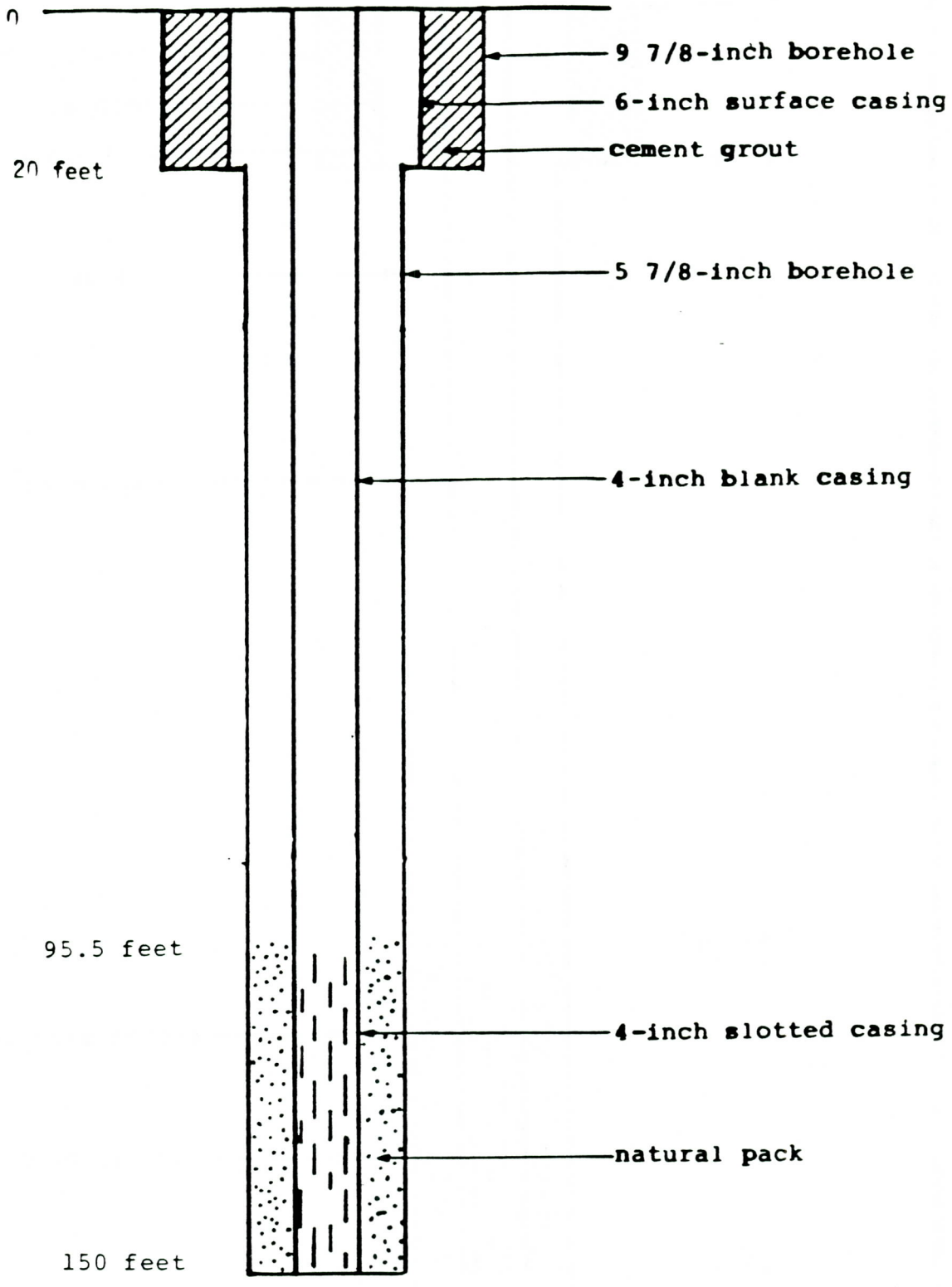
CONSTRUCTION DIAGRAM
Monitor Well, EPA - 3UA



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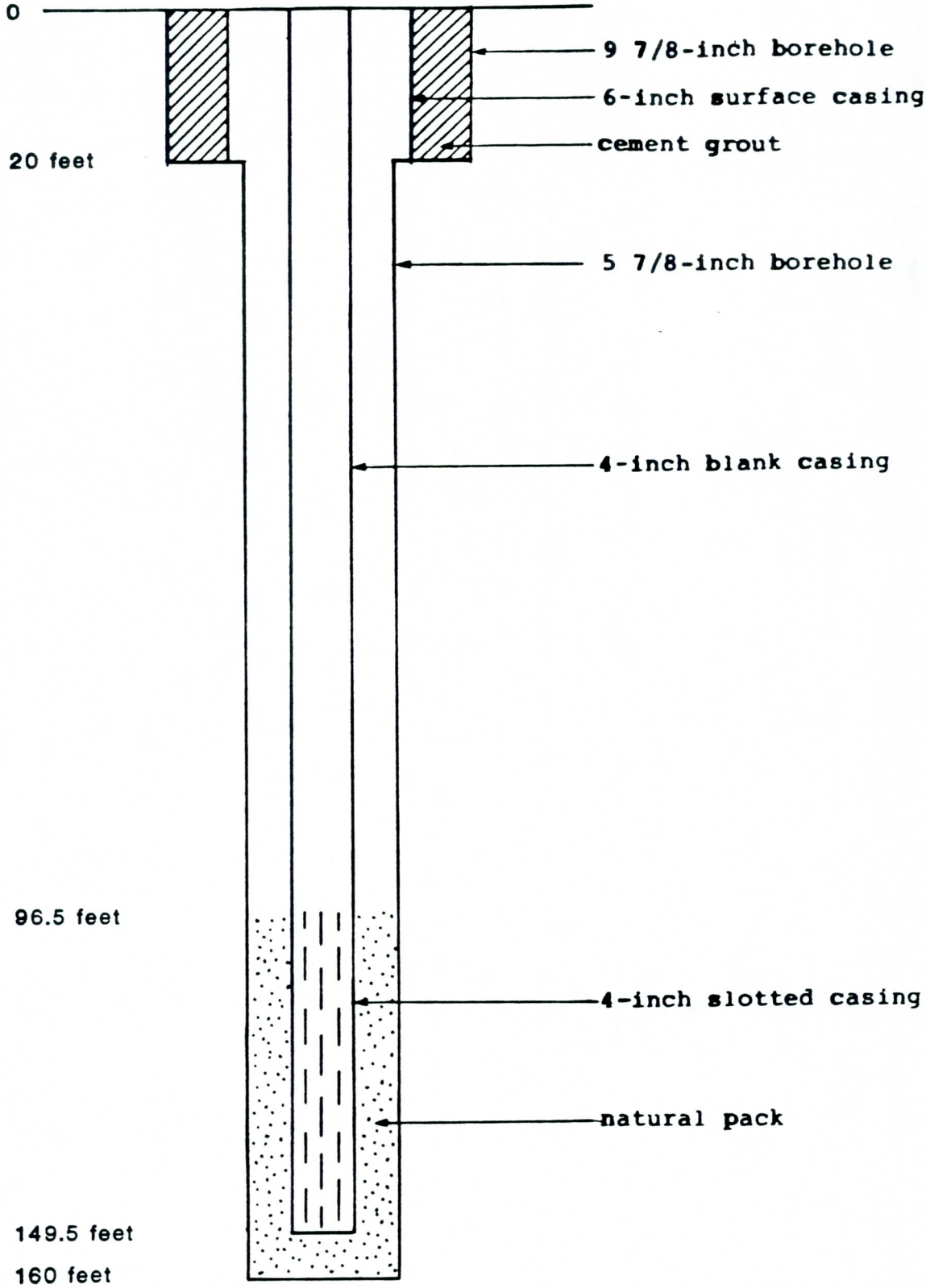
CONSTRUCTION DIAGRAM

MONITOR WELL EPA - 4UA



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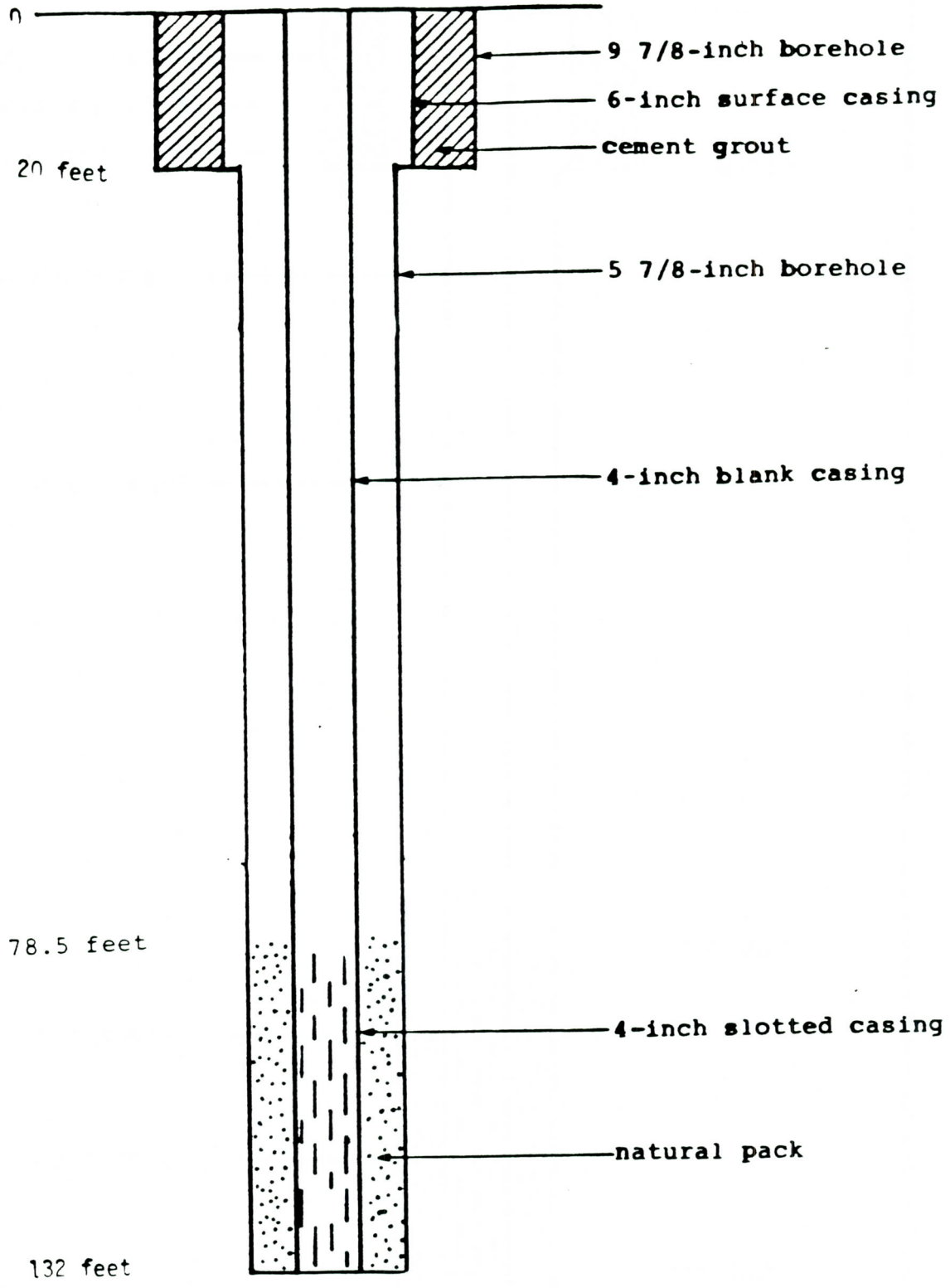
CONSTRUCTION DIAGRAM

Monitor Well EPA - 5UA



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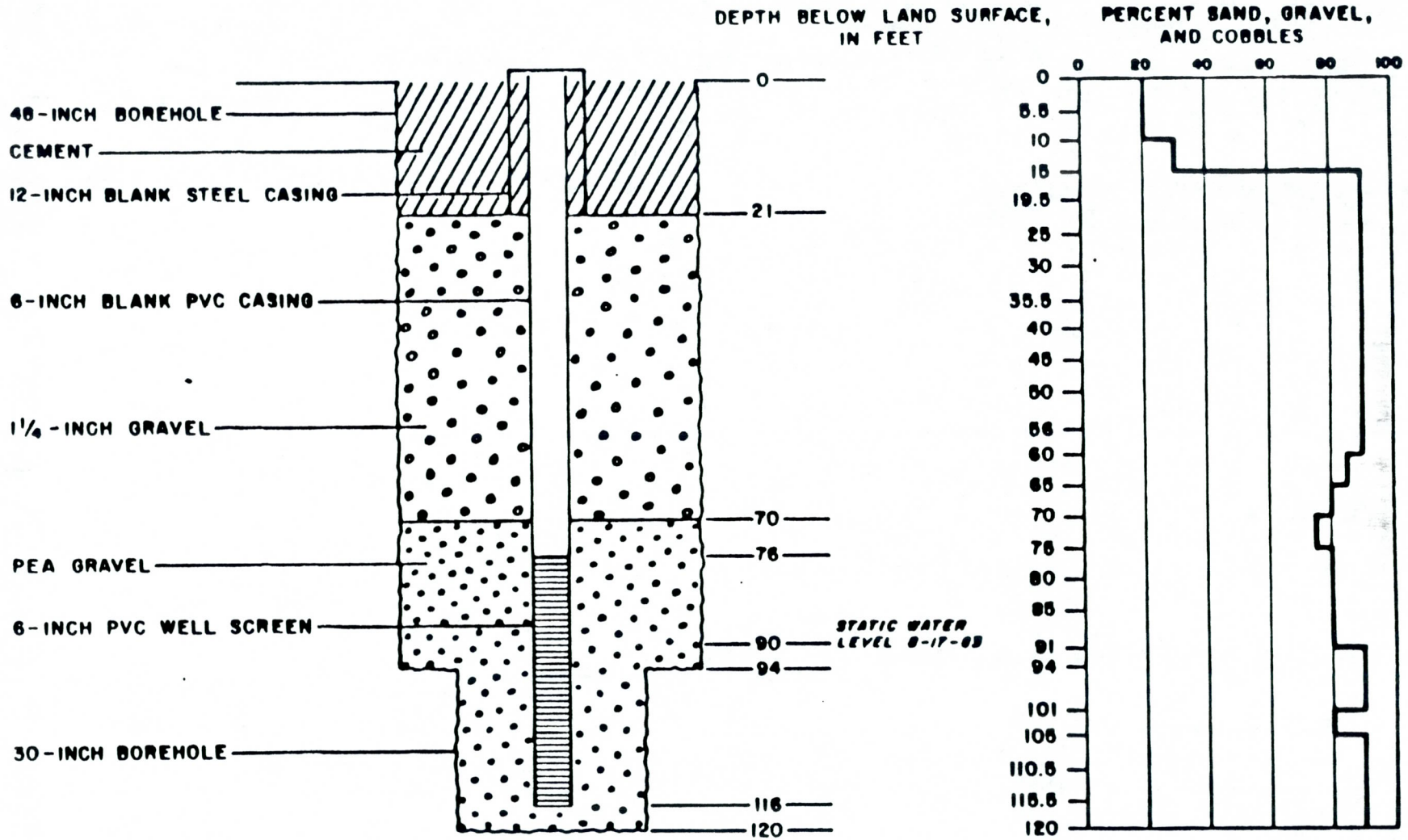
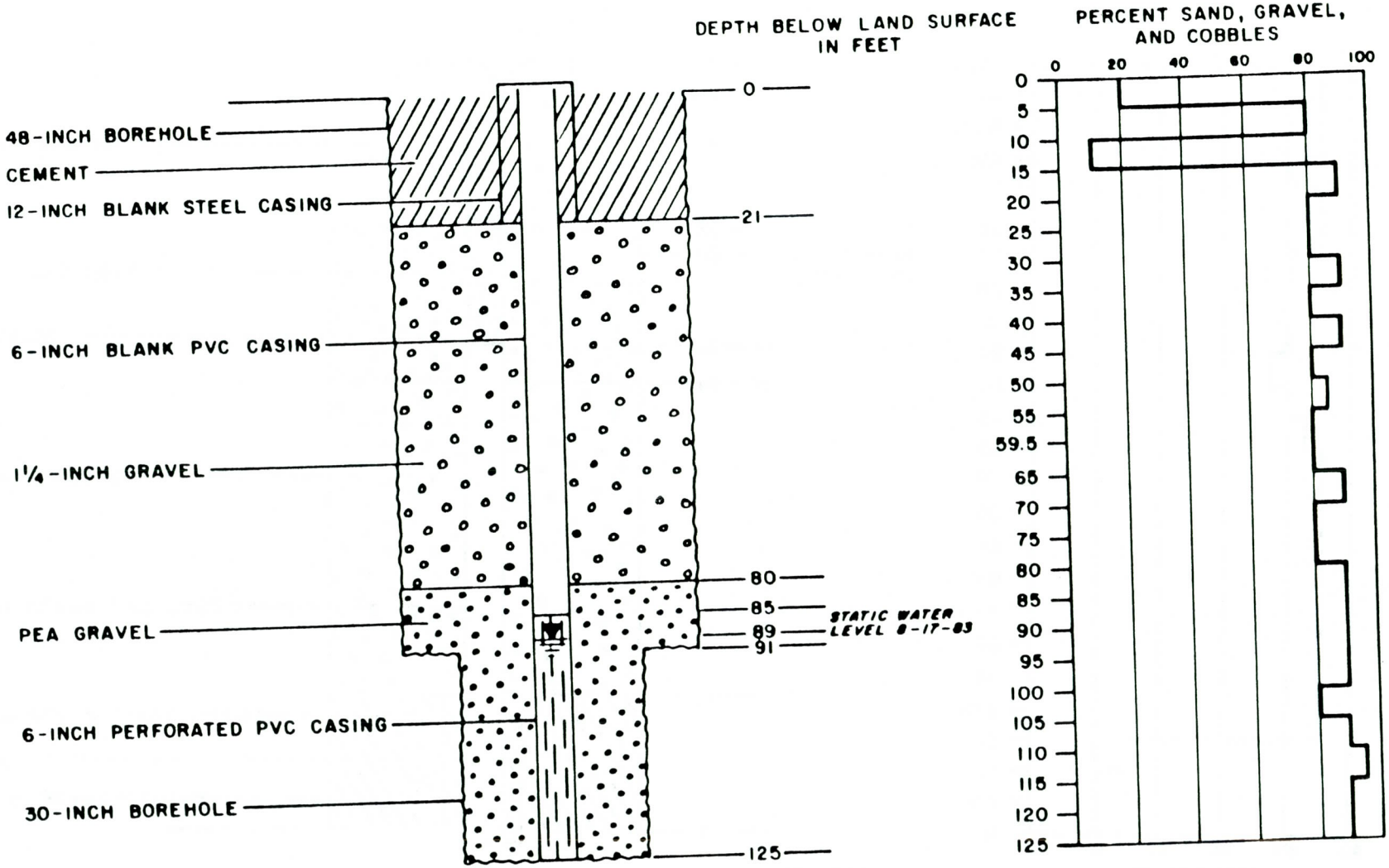


FIGURE C-1. SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND, GRAVEL, AND COBBLES IN SOIL SAMPLES FOR PERCHED ZONE MONITOR WELL ST-1



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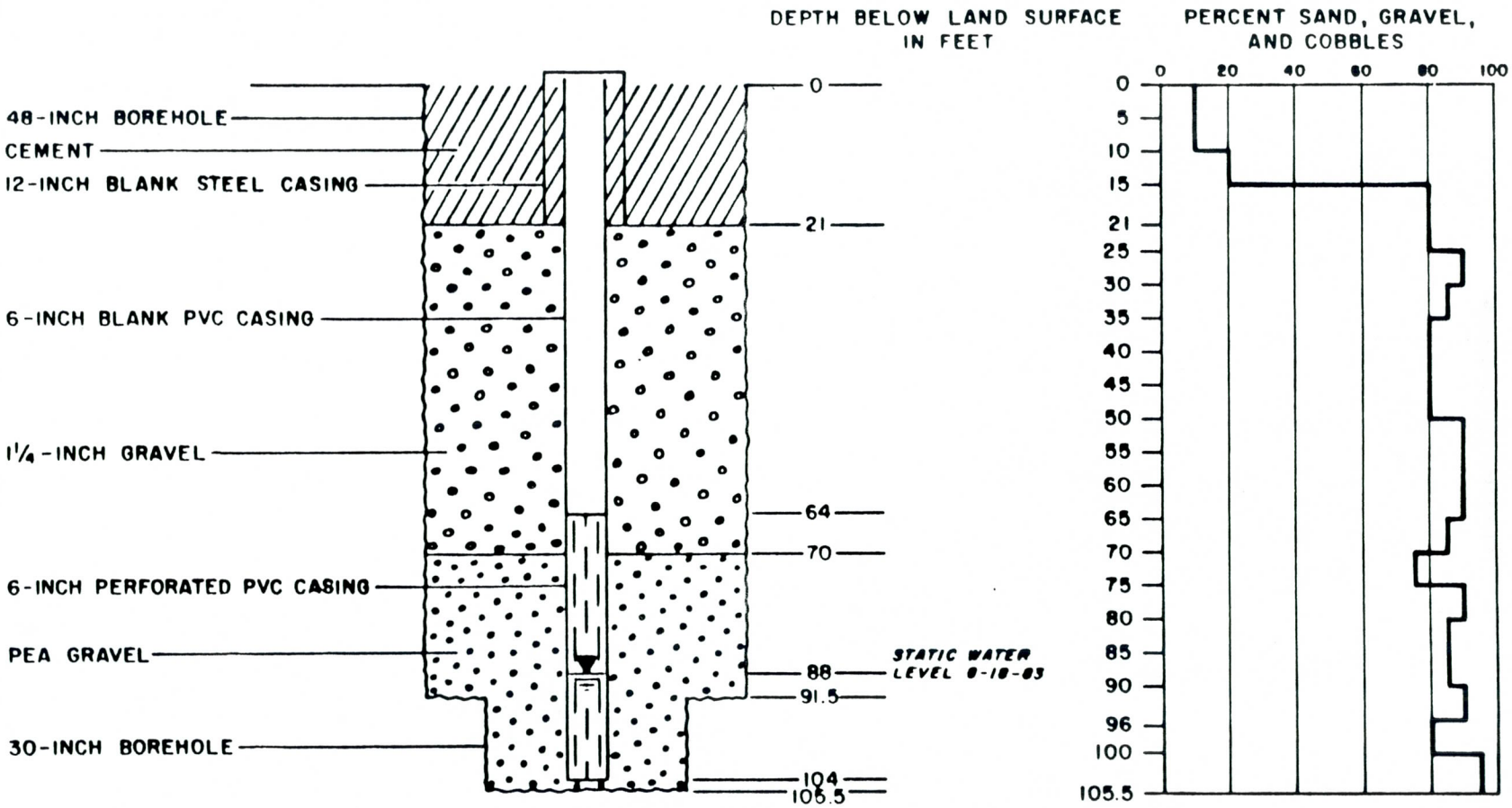

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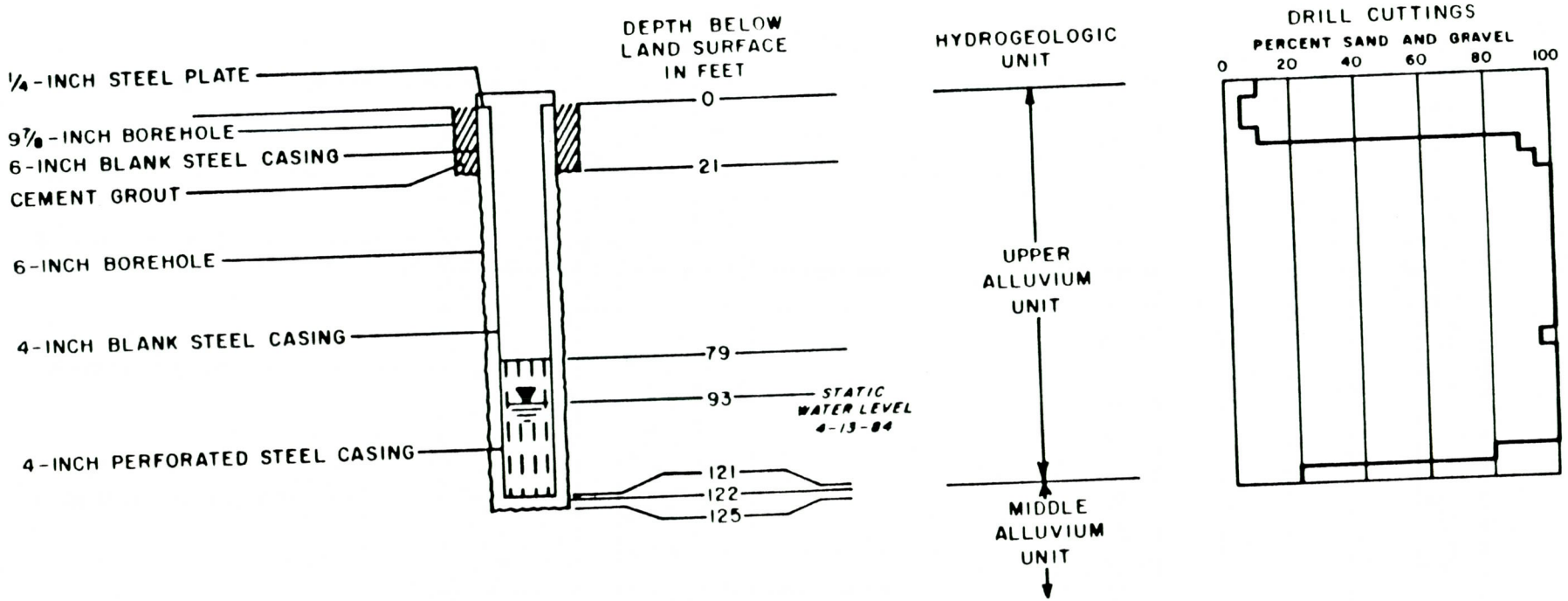

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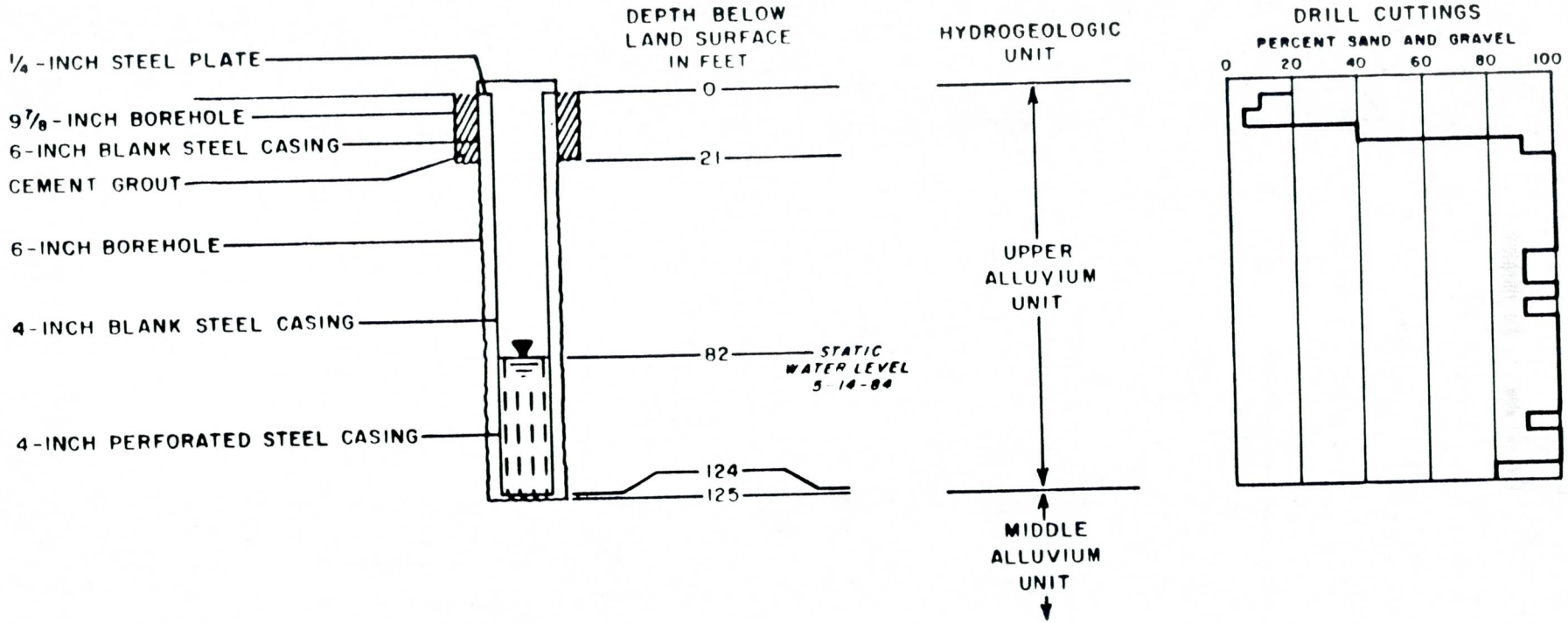

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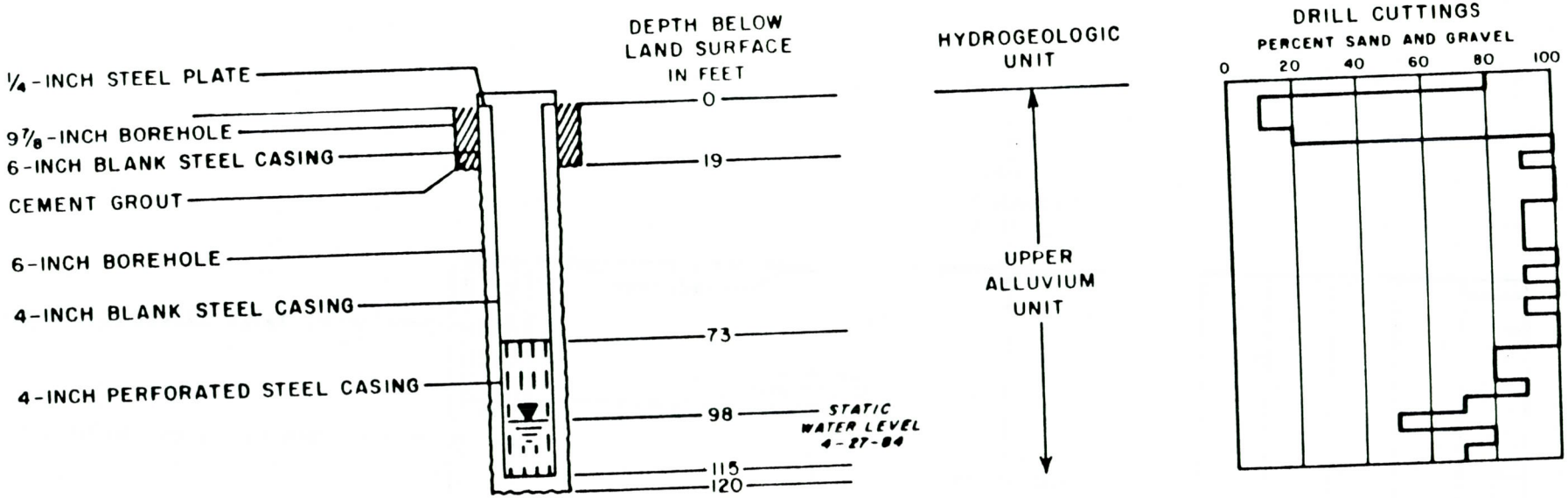

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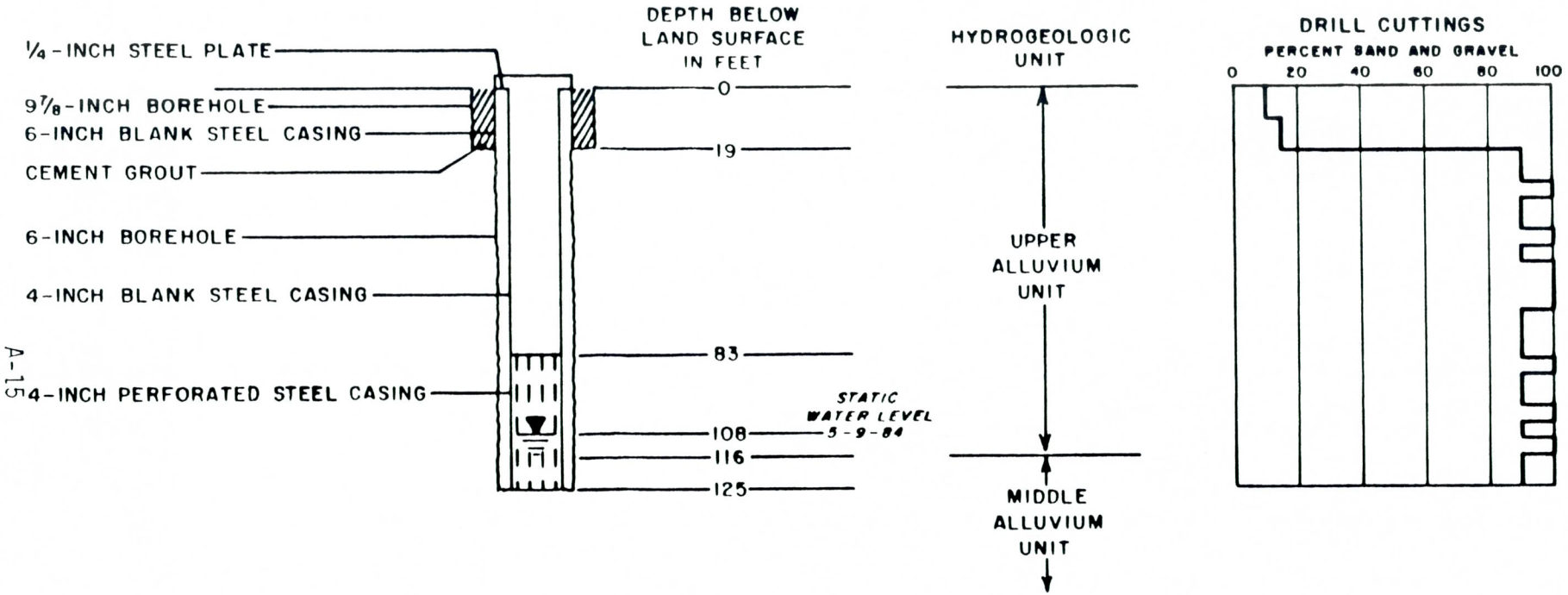

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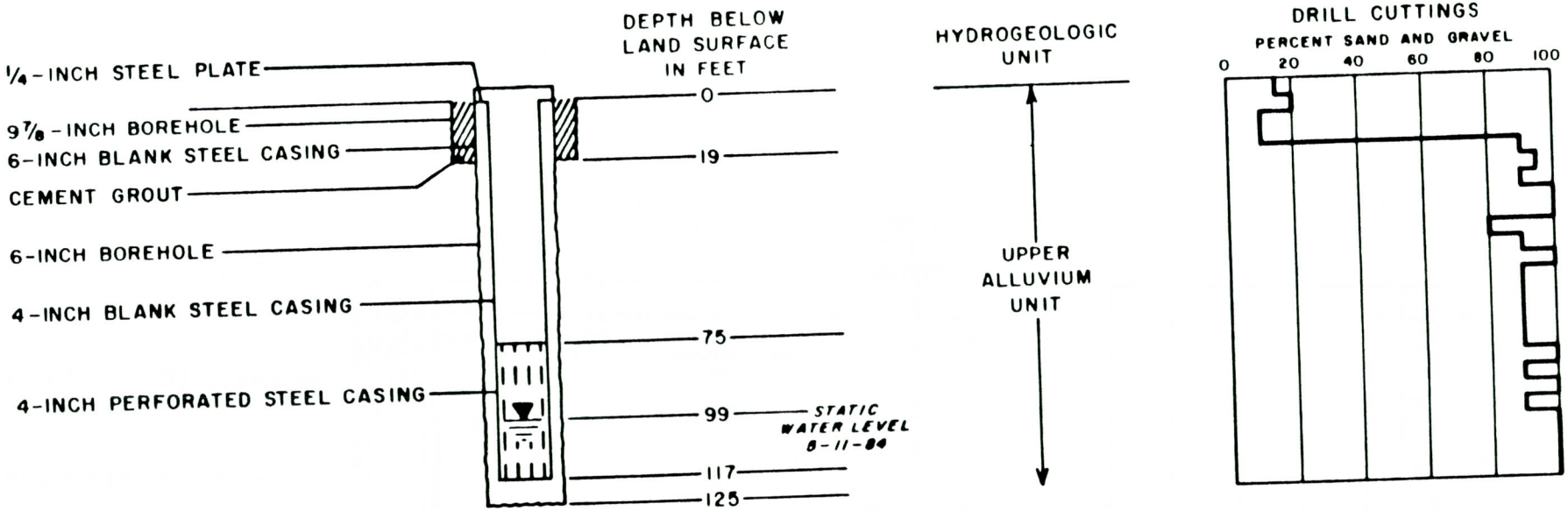

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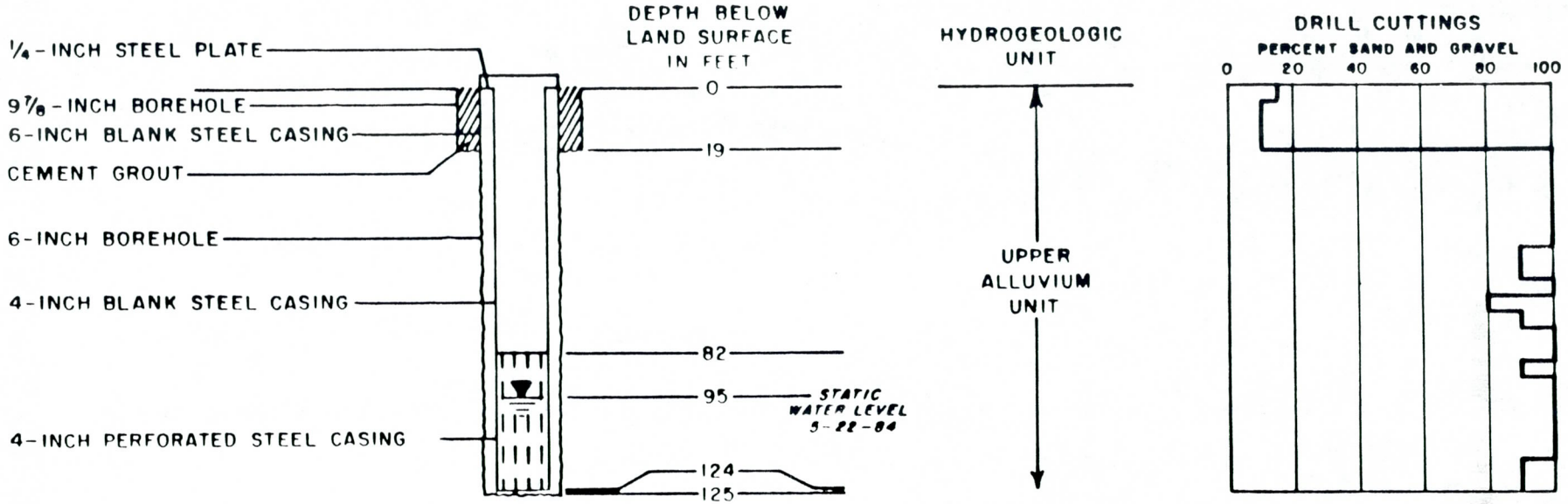

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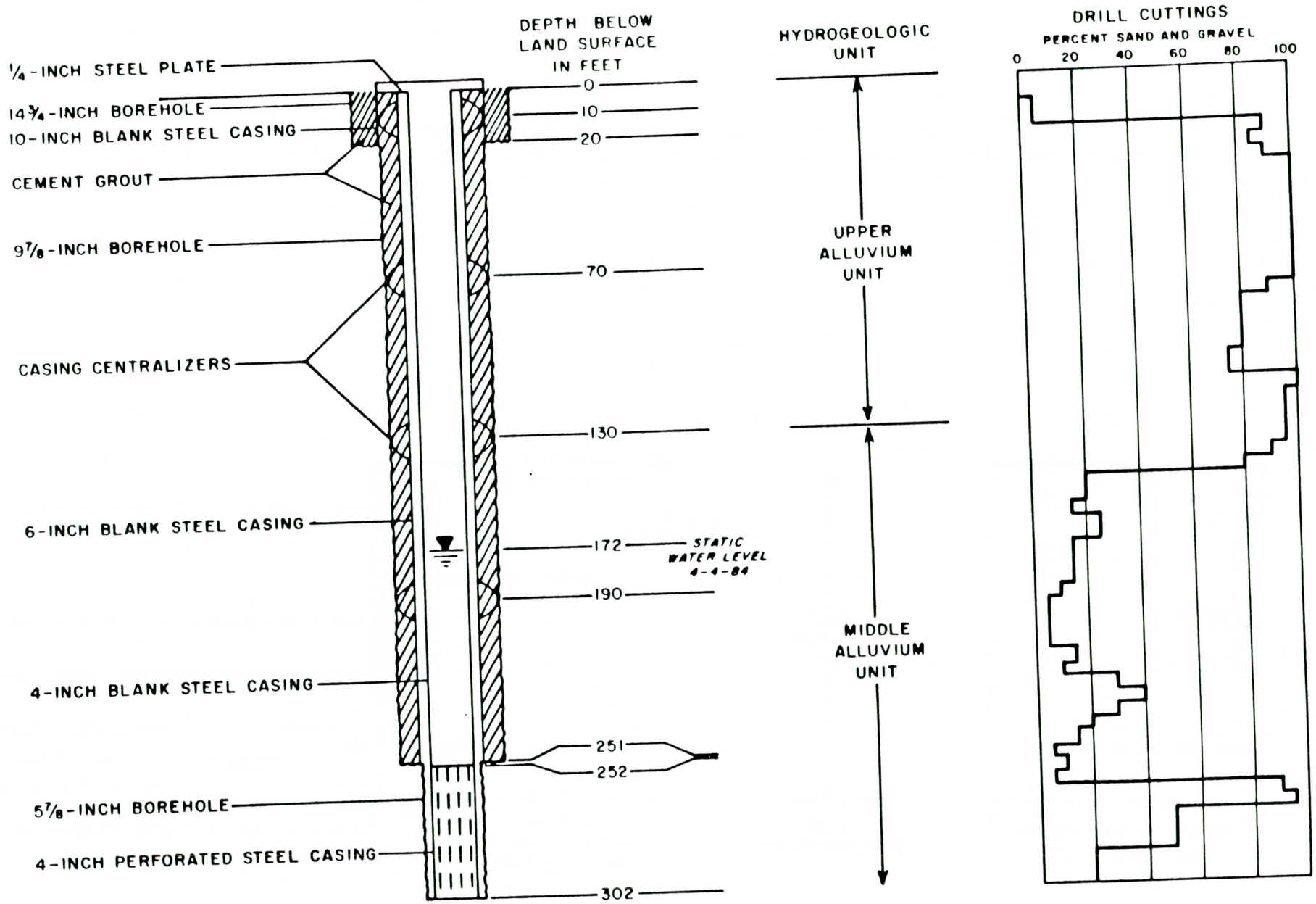

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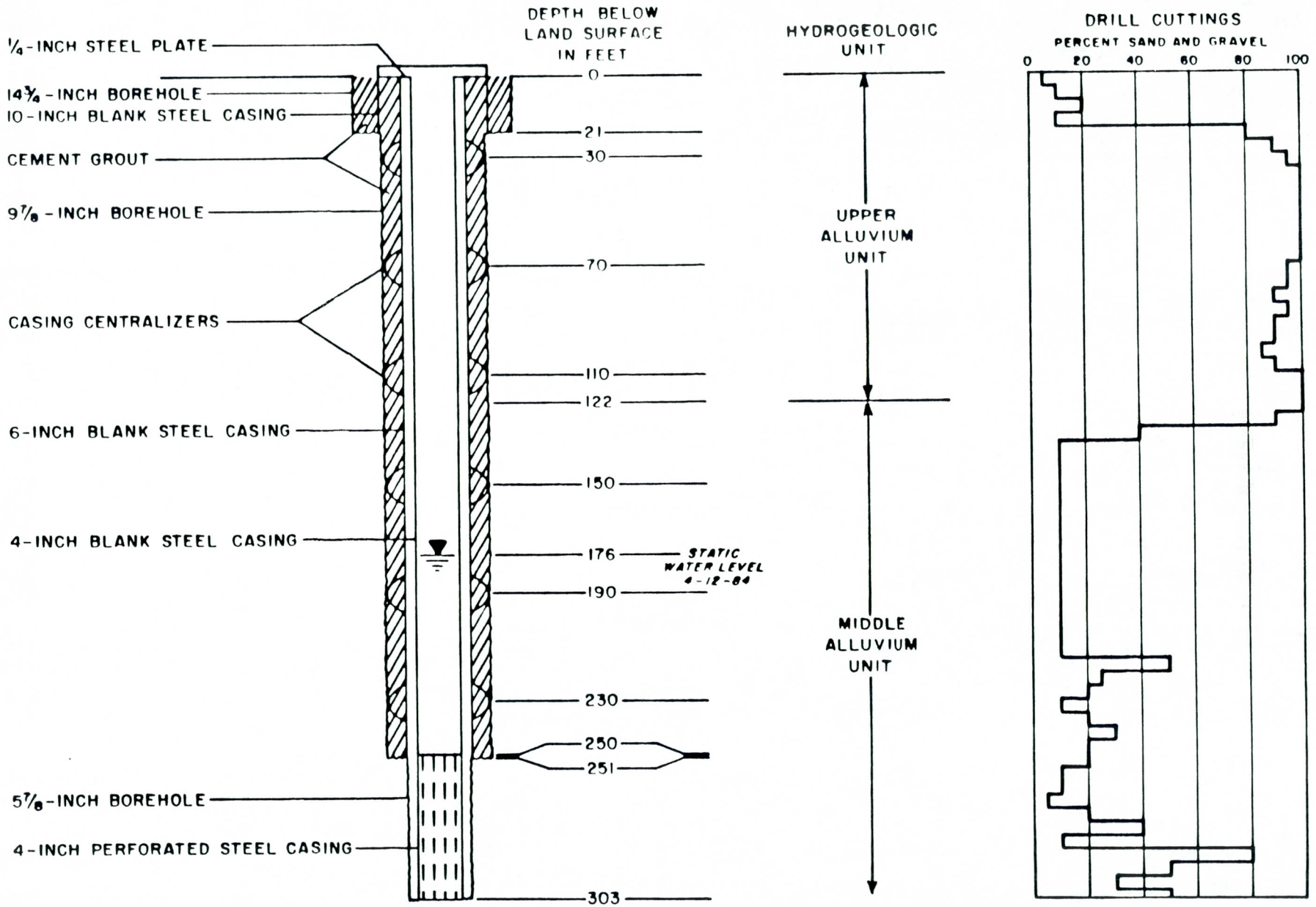

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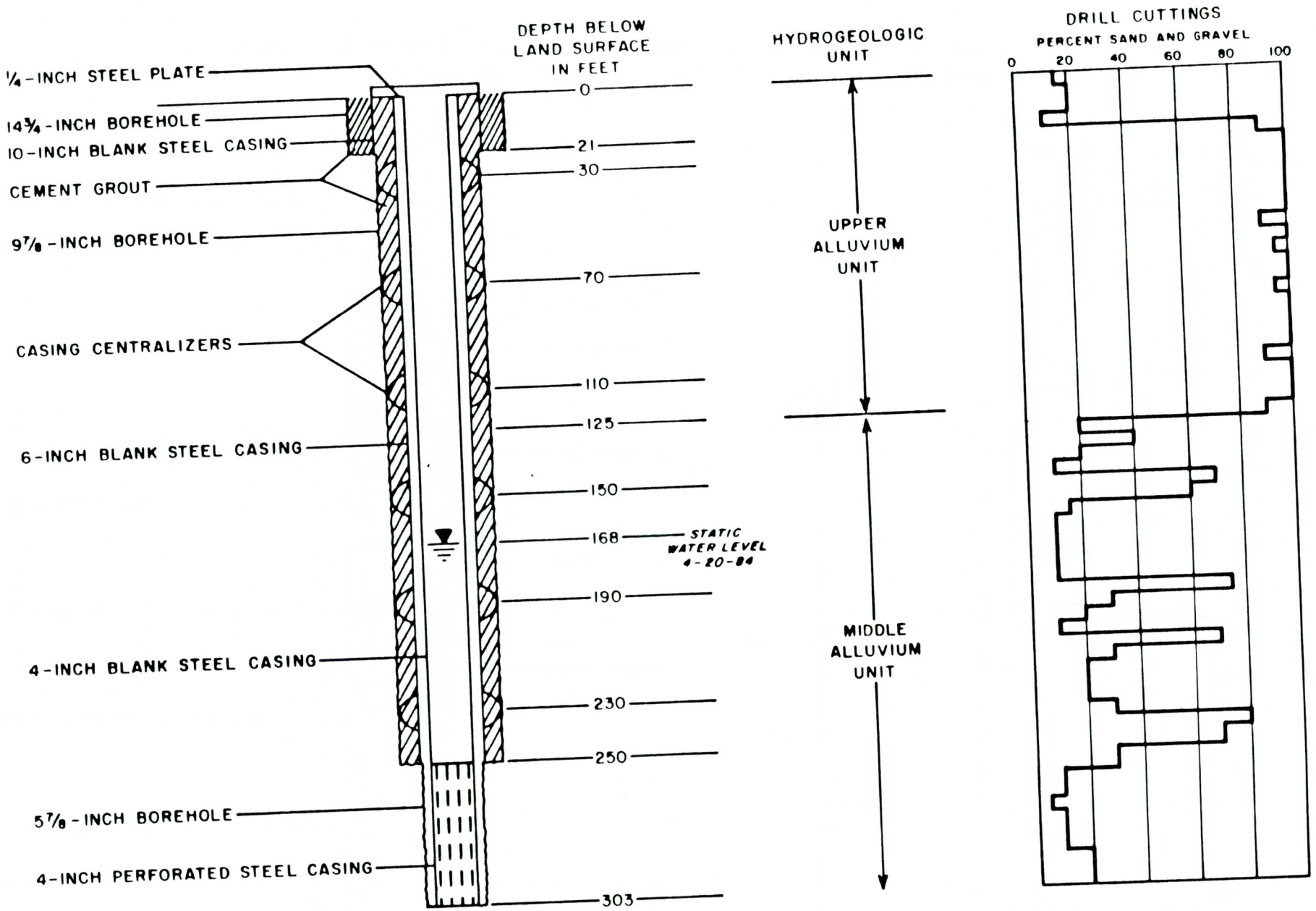

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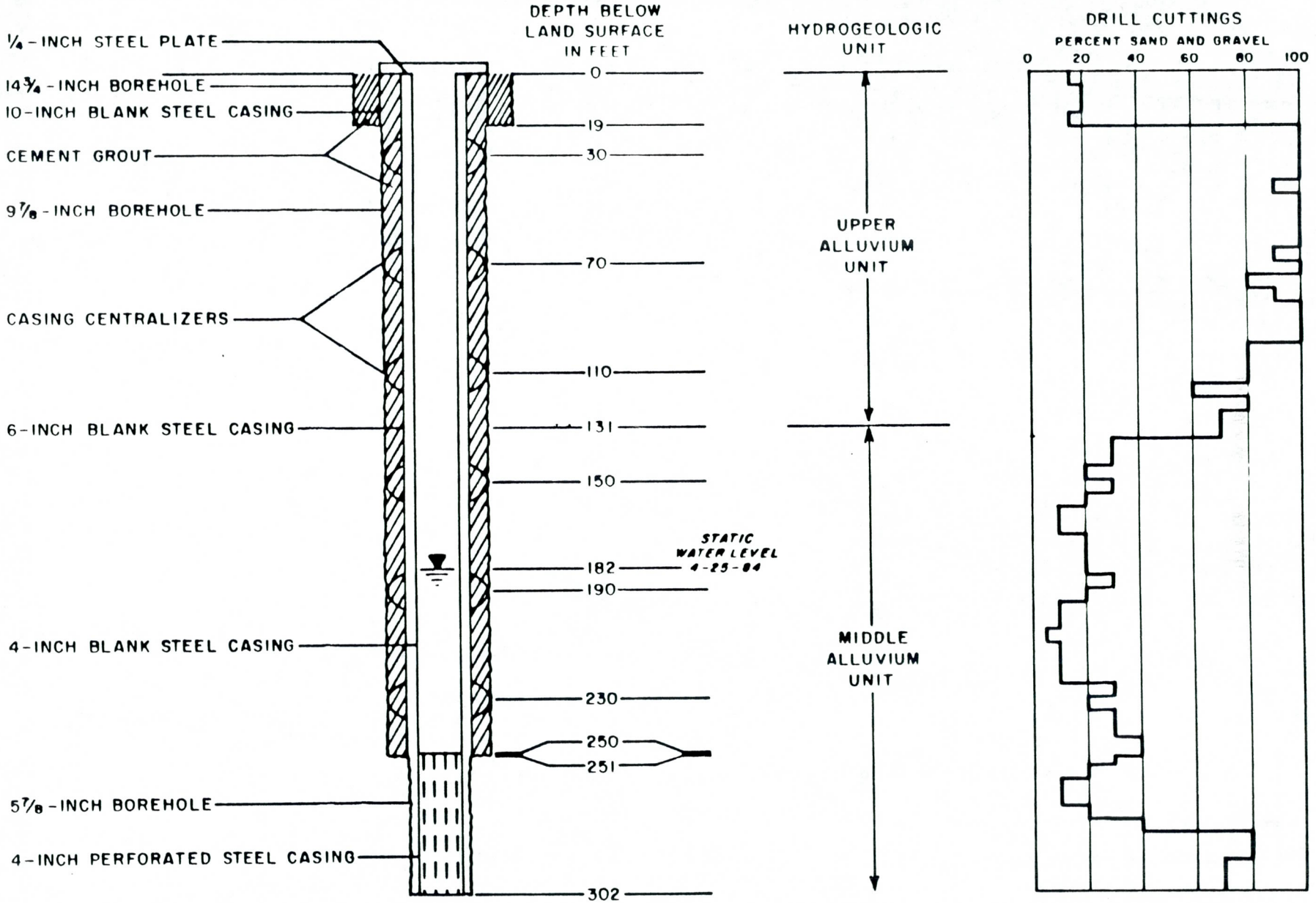

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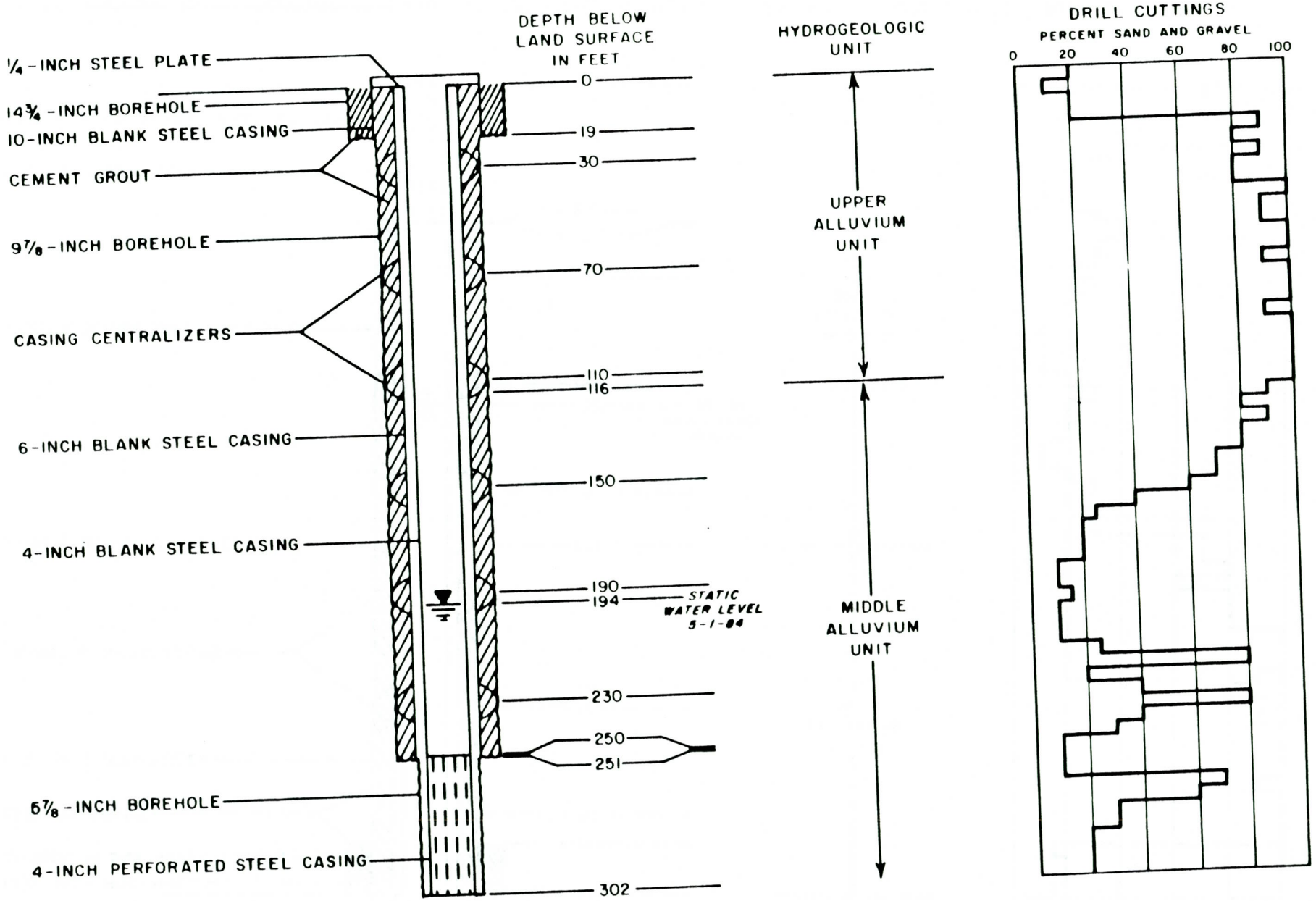

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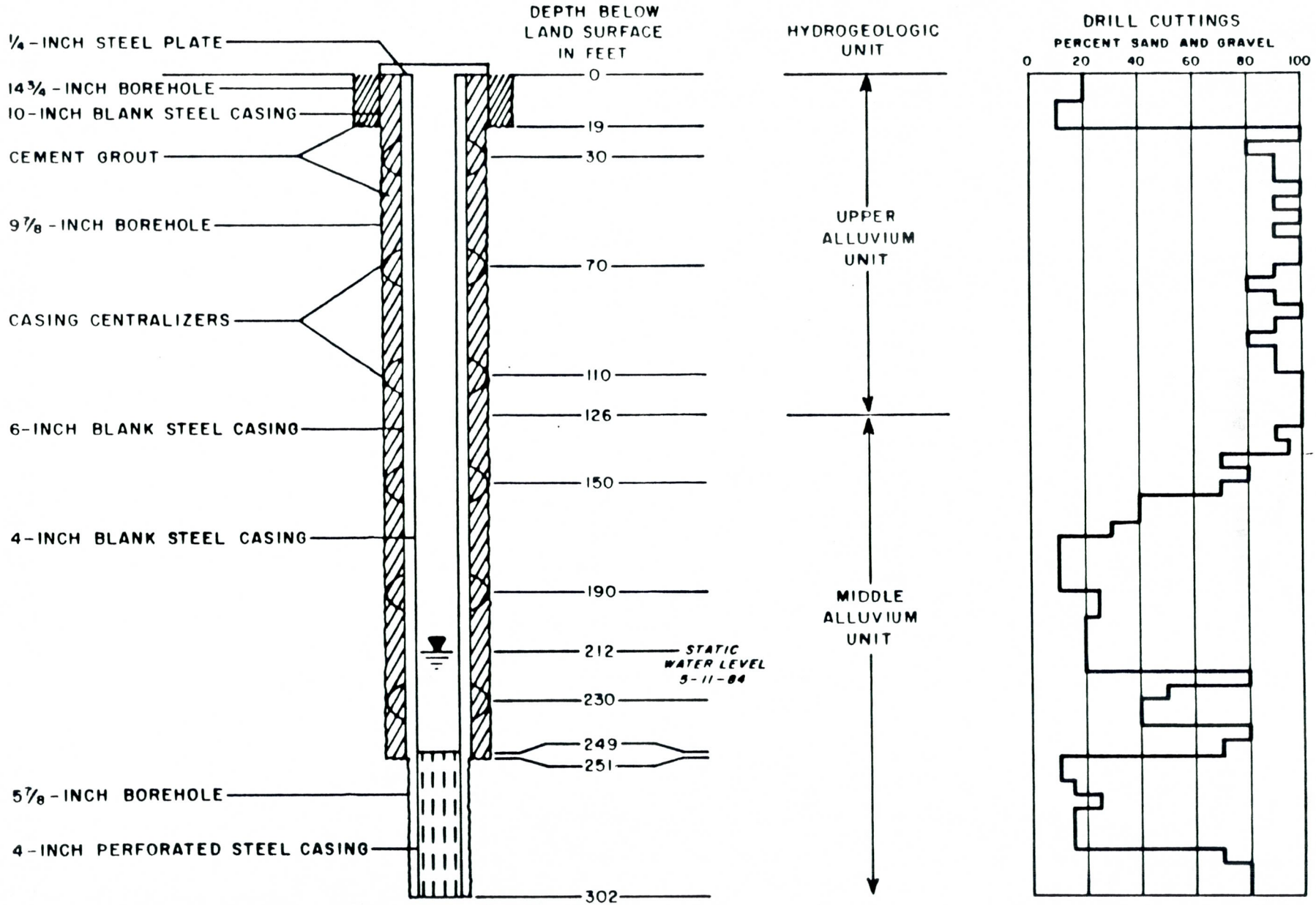
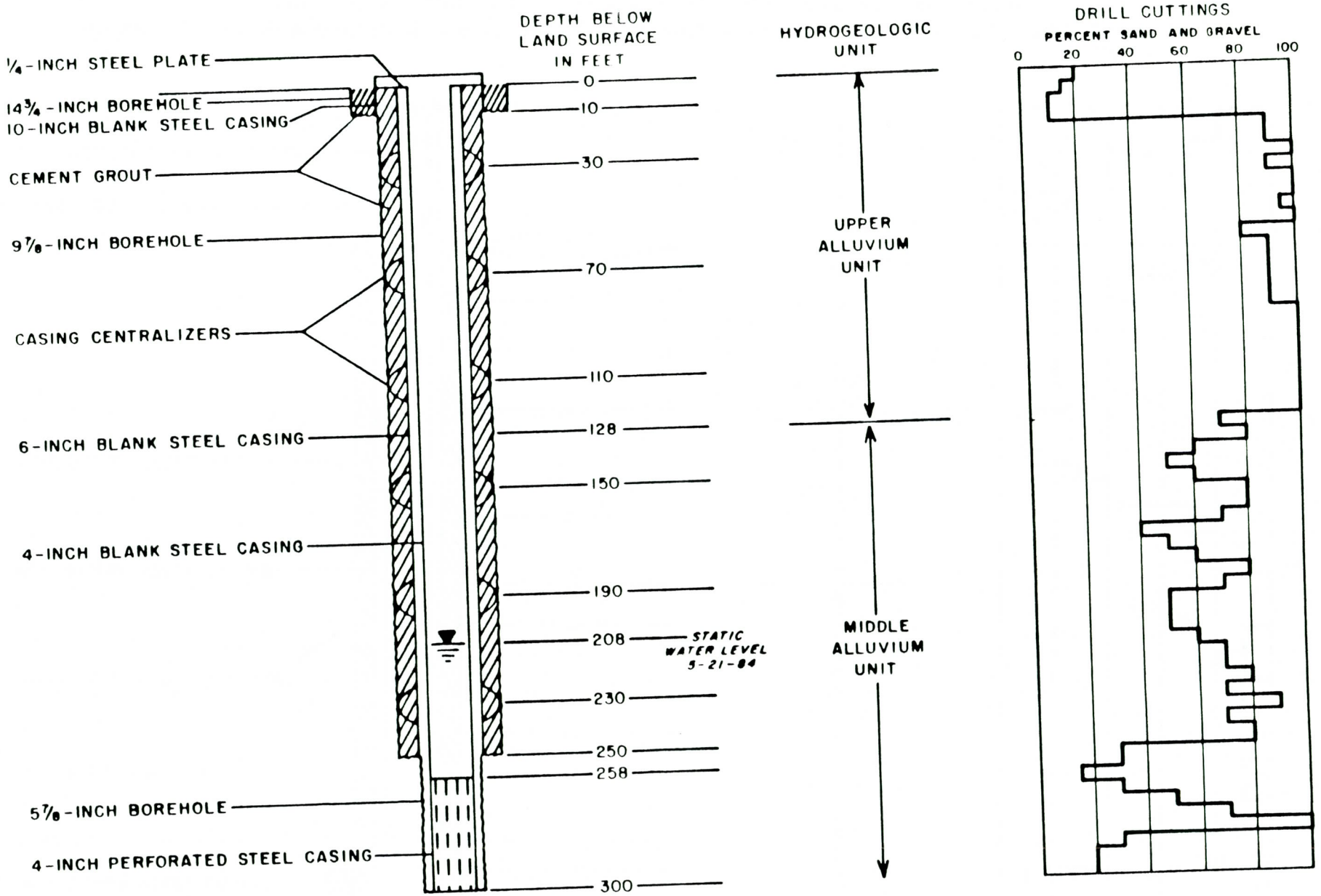


FIGURE C-15. SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND AND GRAVEL IN DRILL CUTTINGS FOR MONITOR WELL (A-1-4)1baa, [M-6 MA]



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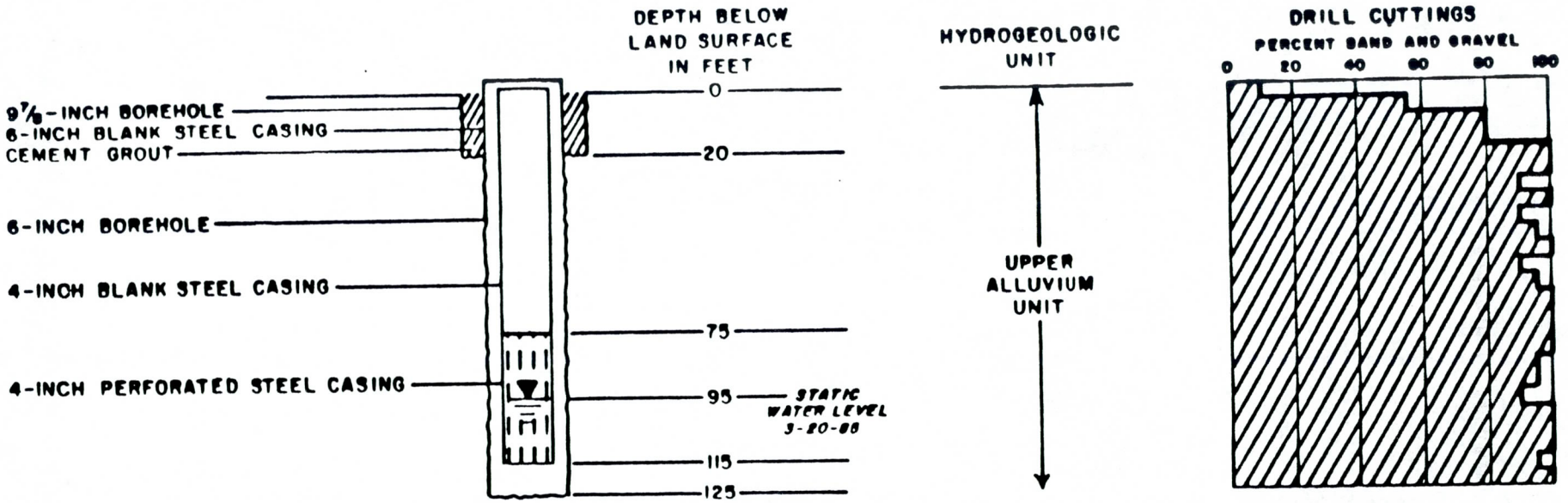

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FIGURE . SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND AND GRAVEL IN DRILL CUTTINGS FOR MONITOR WELL (A-1-4)1acd [M-8UA]

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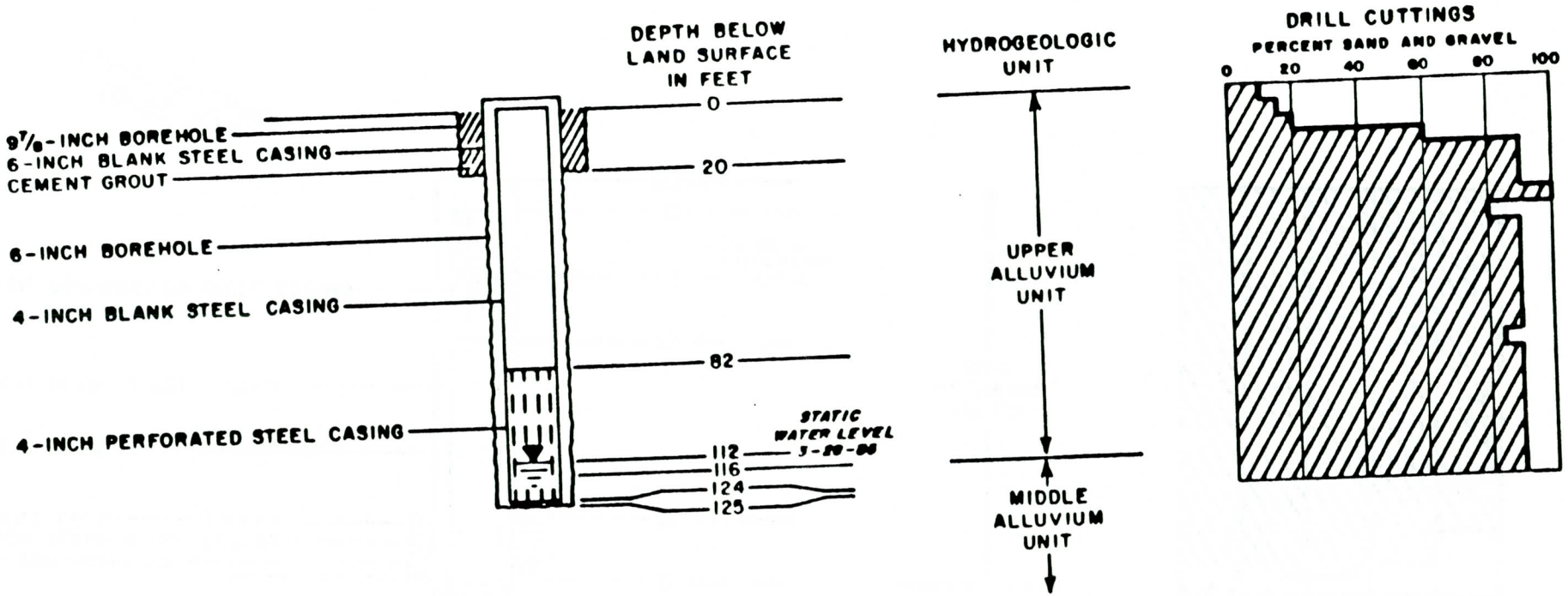

FIGURE . SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND AND GRAVEL IN DRILL CUTTINGS FOR MONITOR WELL (A-2-4)36dbc$_2$ [M-9UA]

ERROL L. MONTGOMERY & ASSOCIATES, INC.
TUCSON, ARIZONA

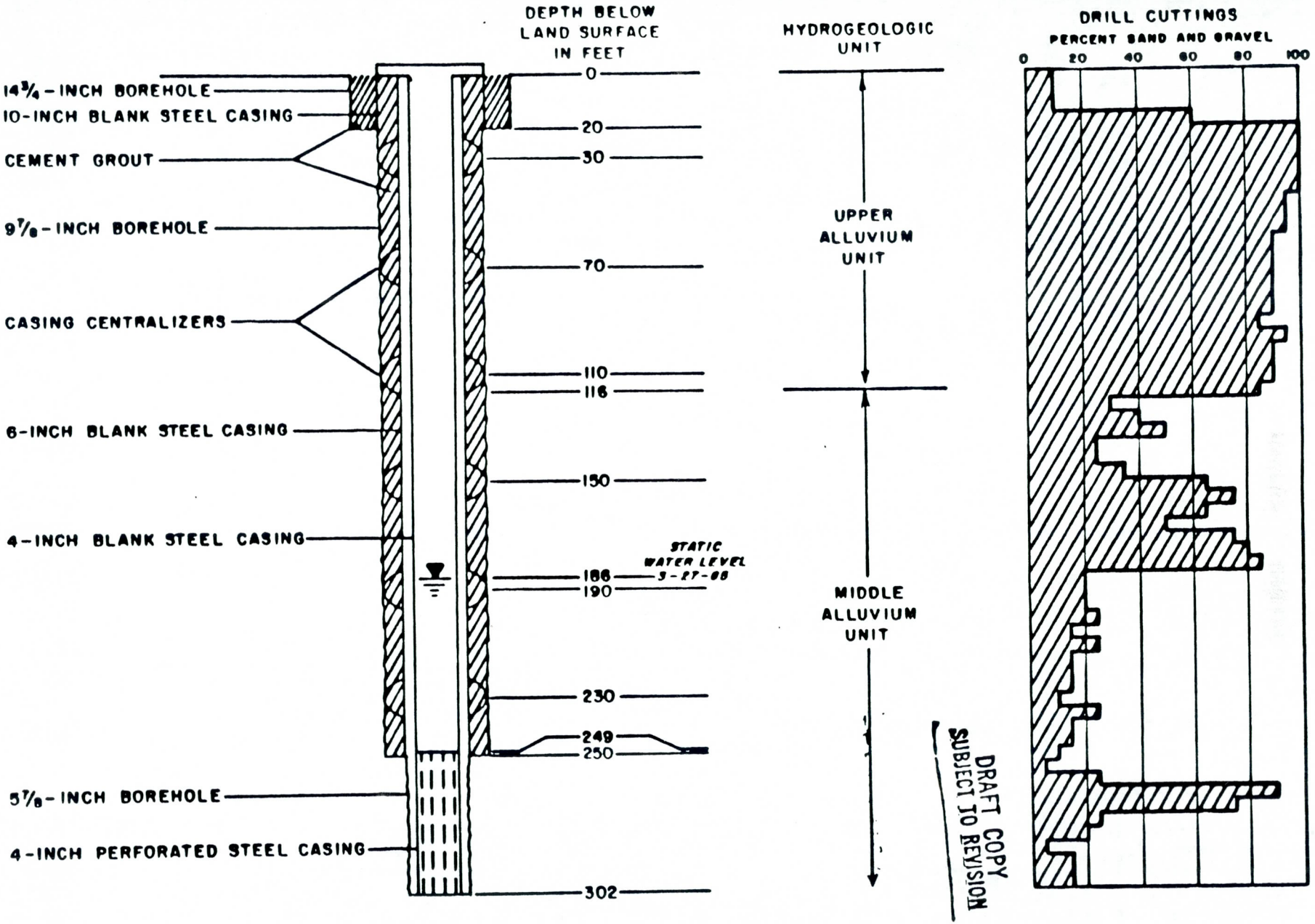

FIGURE . SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND AND GRAVEL IN DRILL CUTTINGS FOR MONITOR WELL (A-2-4)36dba, [M-9MA]

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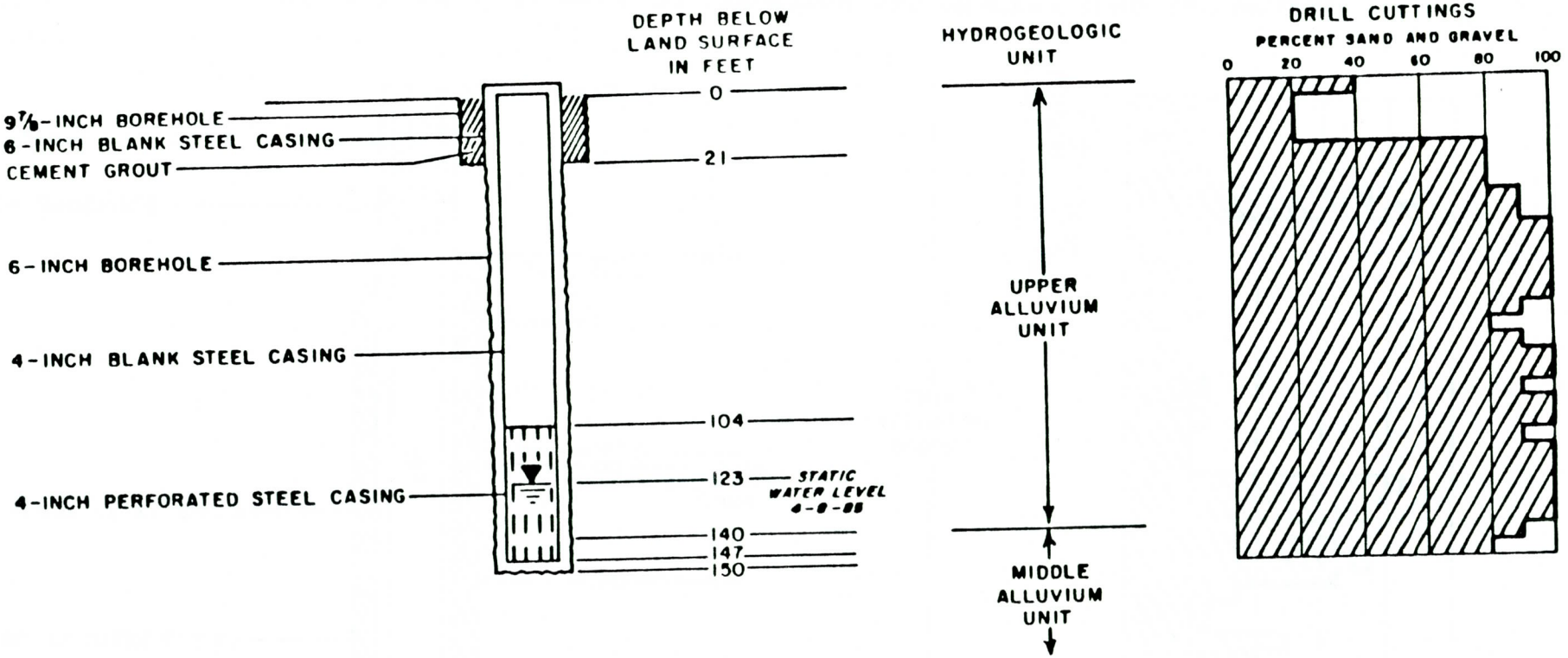

FIGURE . SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND AND GRAVEL IN DRILL CUTTINGS FOR MONITOR WELL (A-2-4)35ddc$_2$ [M-10UA]

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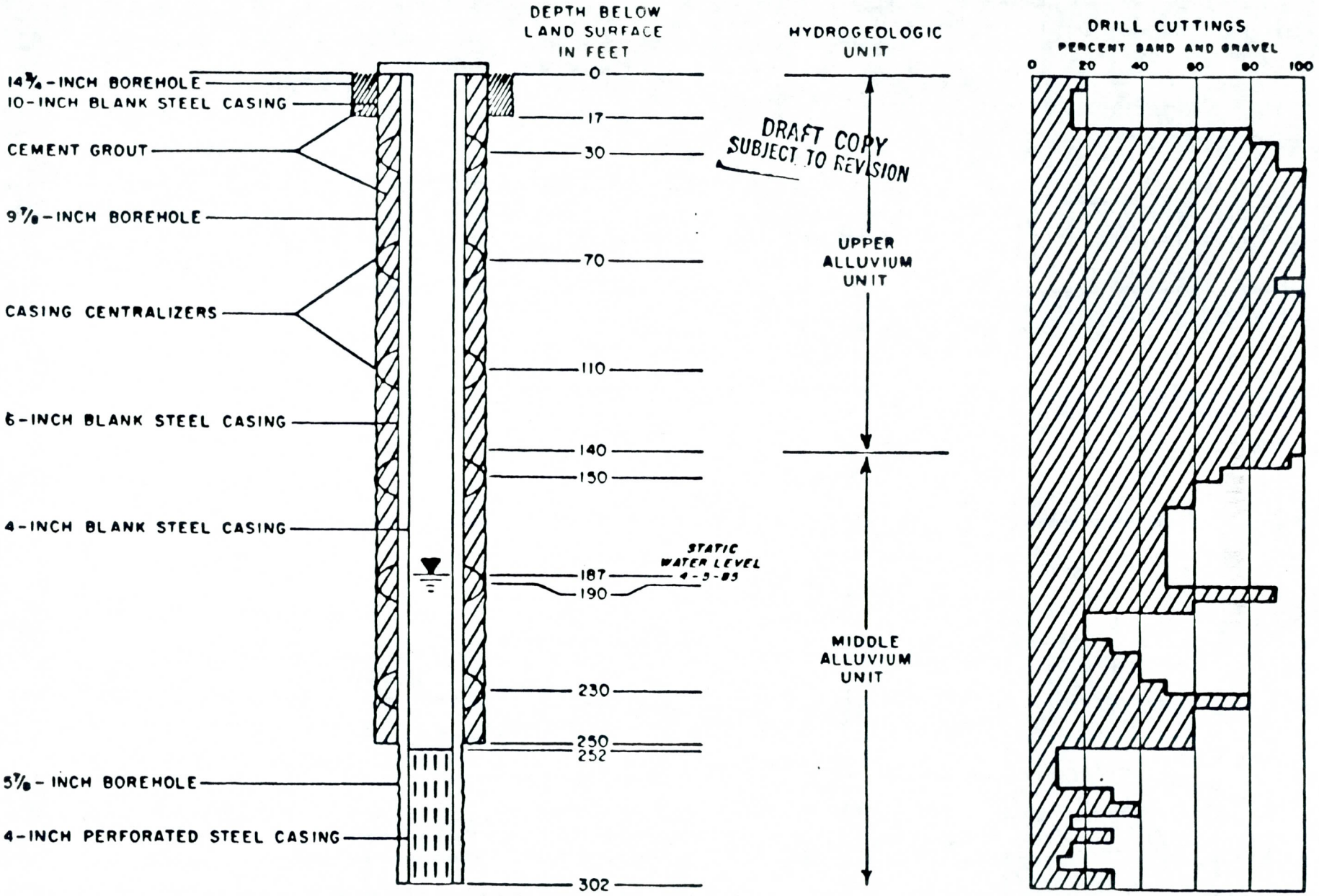

FIGURE . SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND AND GRAVEL IN DRILL CUTTINGS FOR MONITOR WELL (A-2-4)35ddc1 [M-10MA]

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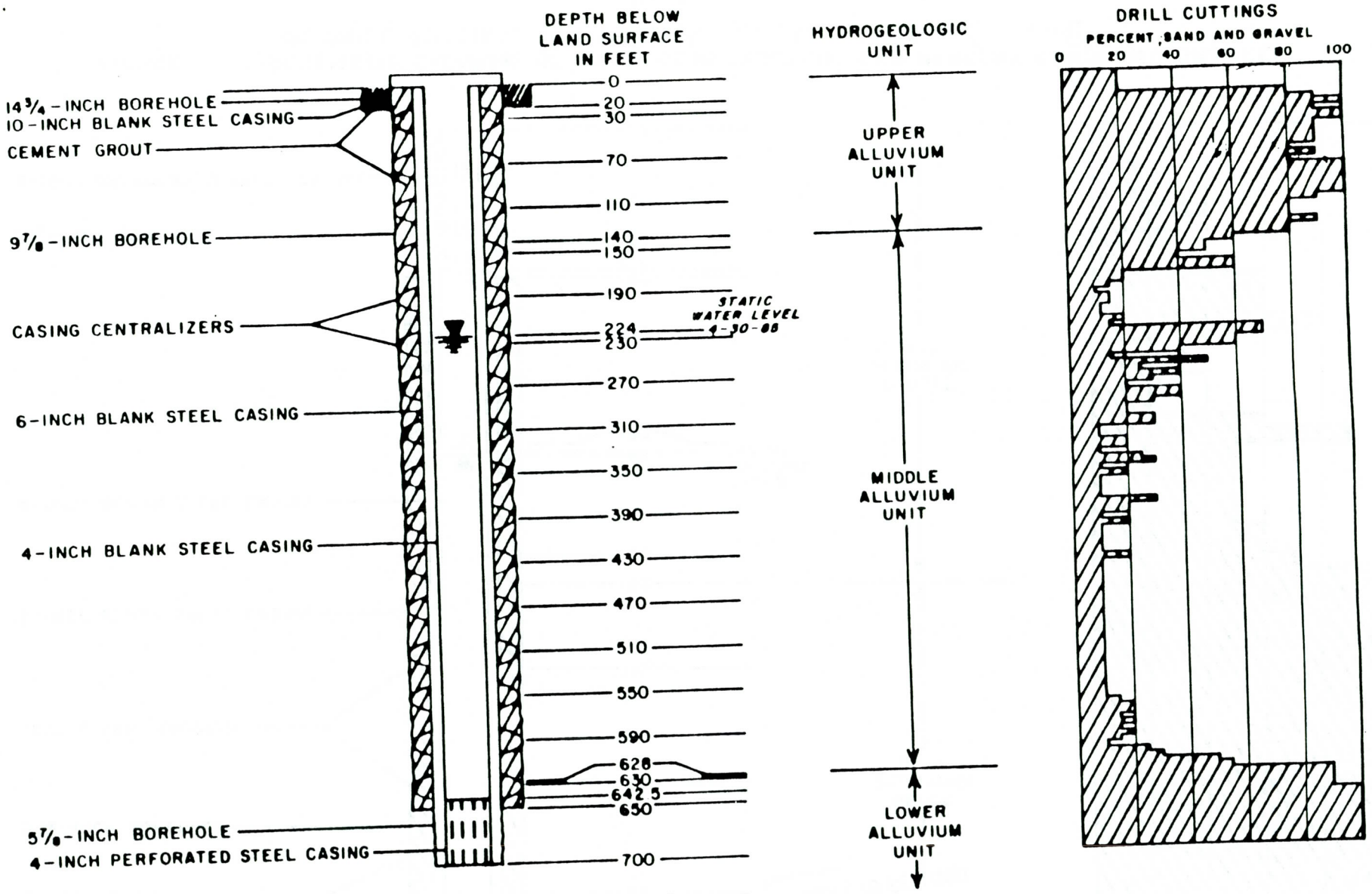

FIGURE . SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND AND GRAVEL IN DRILL CUTTINGS FOR MONITOR WELL (A-2-4)35ddc$_3$ [M-10LA]

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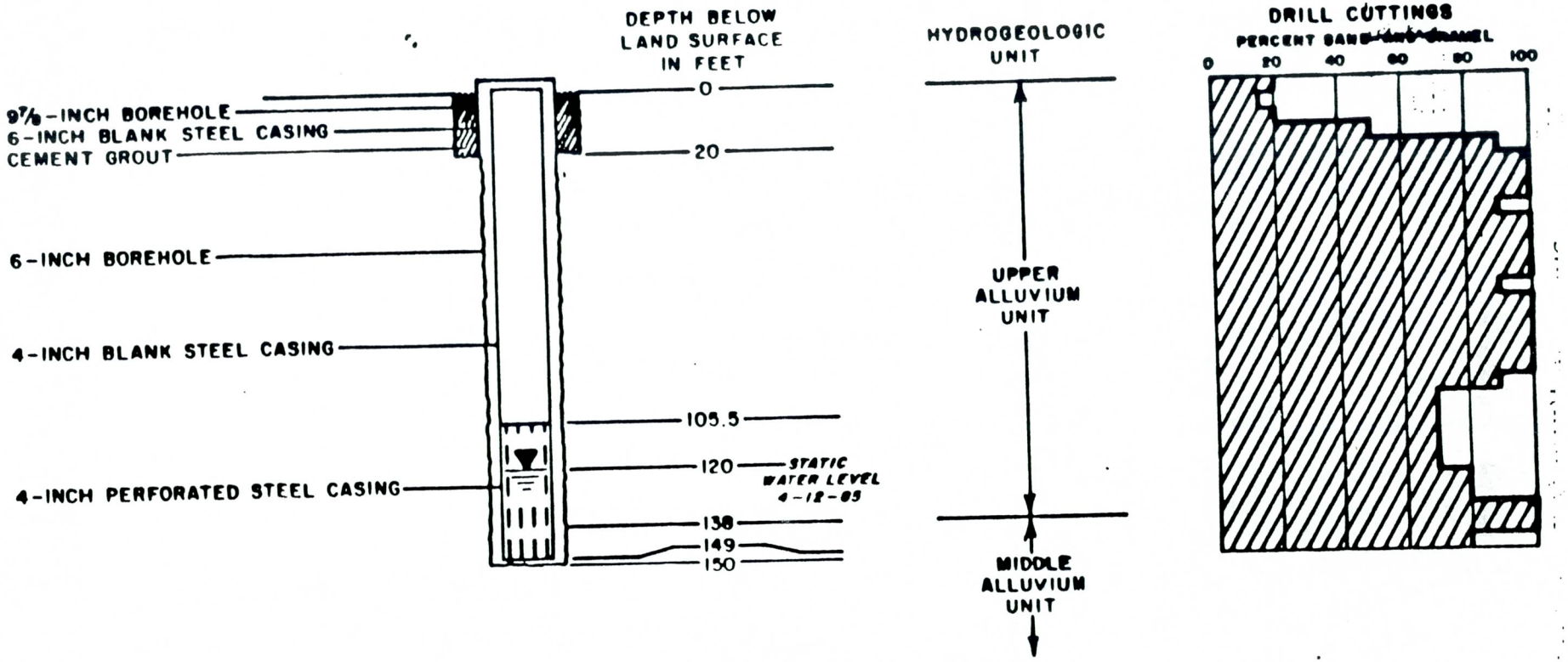

FIGURE . SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND AND GRAVEL IN DRILL CUTTINGS FOR MONITOR WELL (A-2-4)35dbaa [M-11UA]

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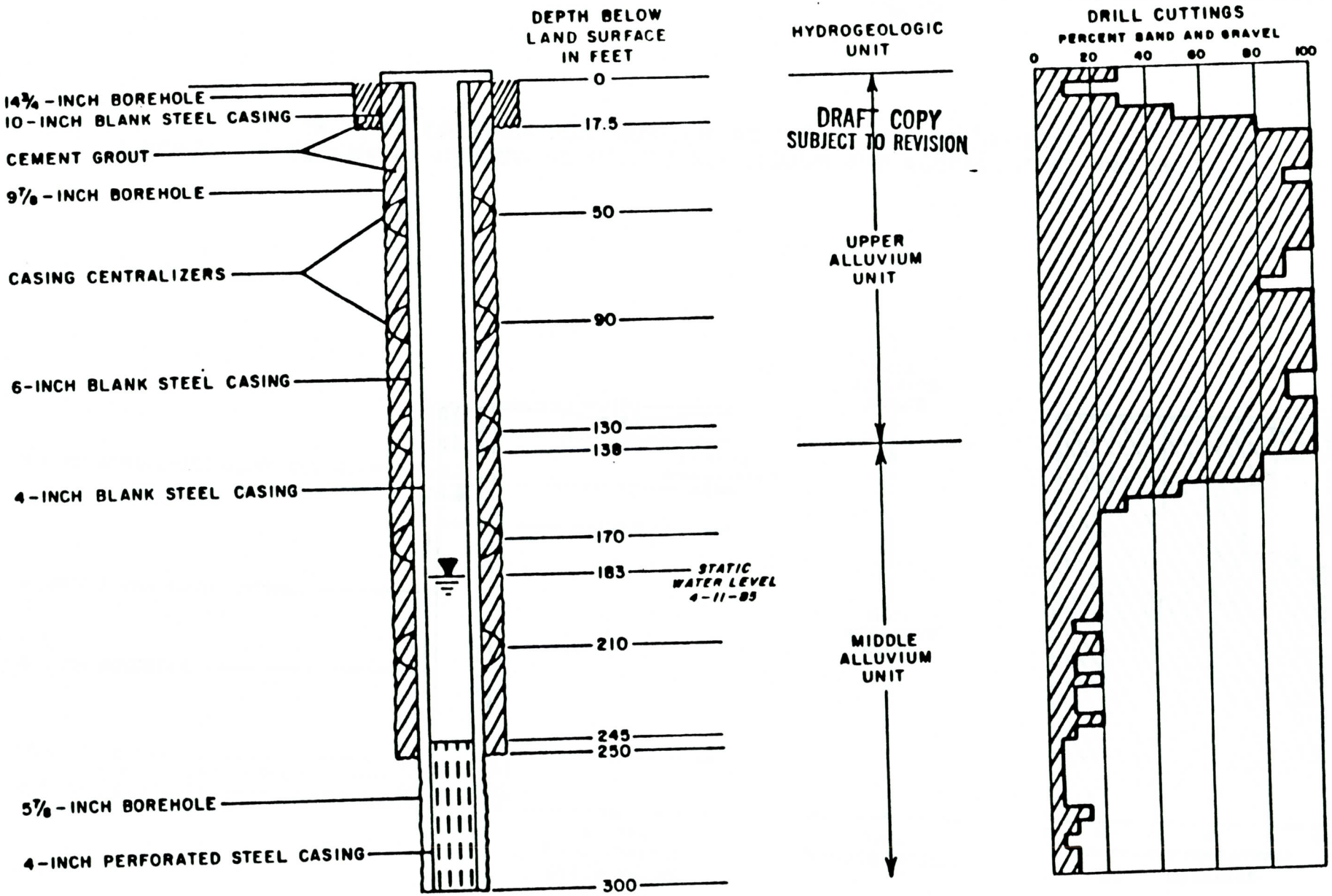

FIGURE . SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND AND GRAVEL IN DRILL CUTTINGS FOR MONITOR WELL (A-2-4)35dba1 [M-11MA]

SUBJECT TO REVISION

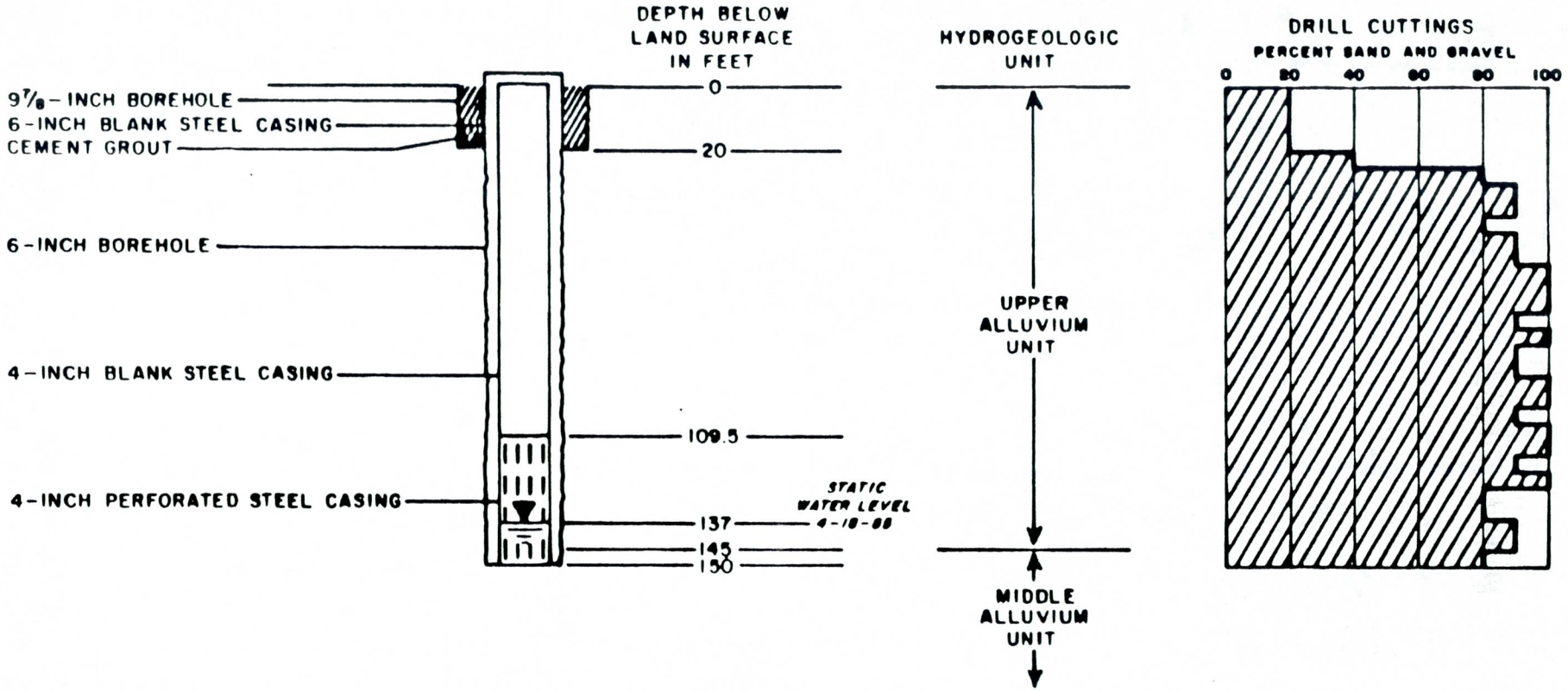

FIGURE . SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND AND GRAVEL IN DRILL CUTTINGS FOR MONITOR WELL (A-2-4)26ddd$_2$ [M-12UA]

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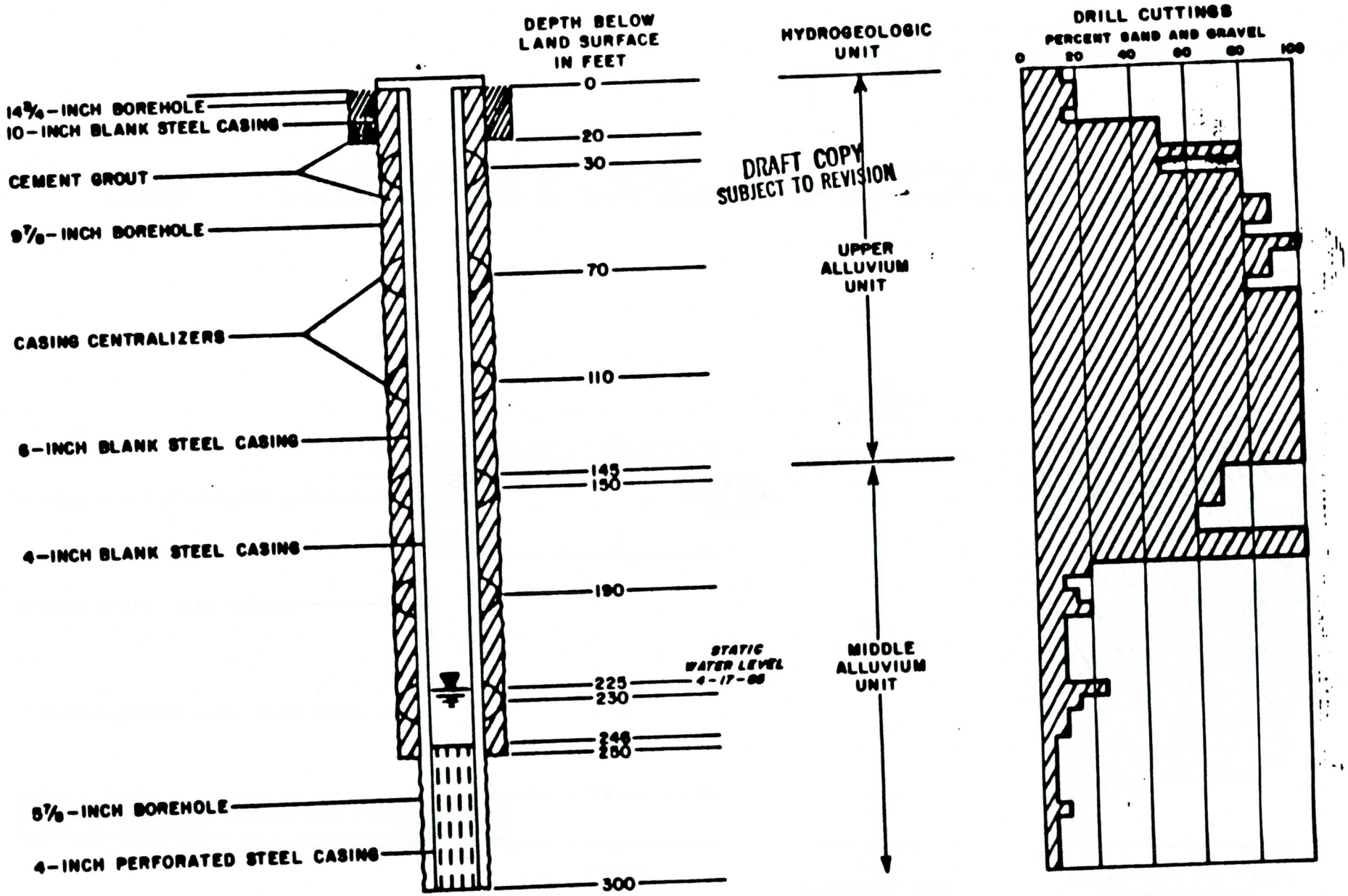

FIGURE . SCHEMATIC DIAGRAM OF WELL CONSTRUCTION AND PERCENT SAND AND GRAVEL IN DRILL CUTTINGS FOR MONITOR WELL (A-2-4)26ddd$_1$ [M-12MA]

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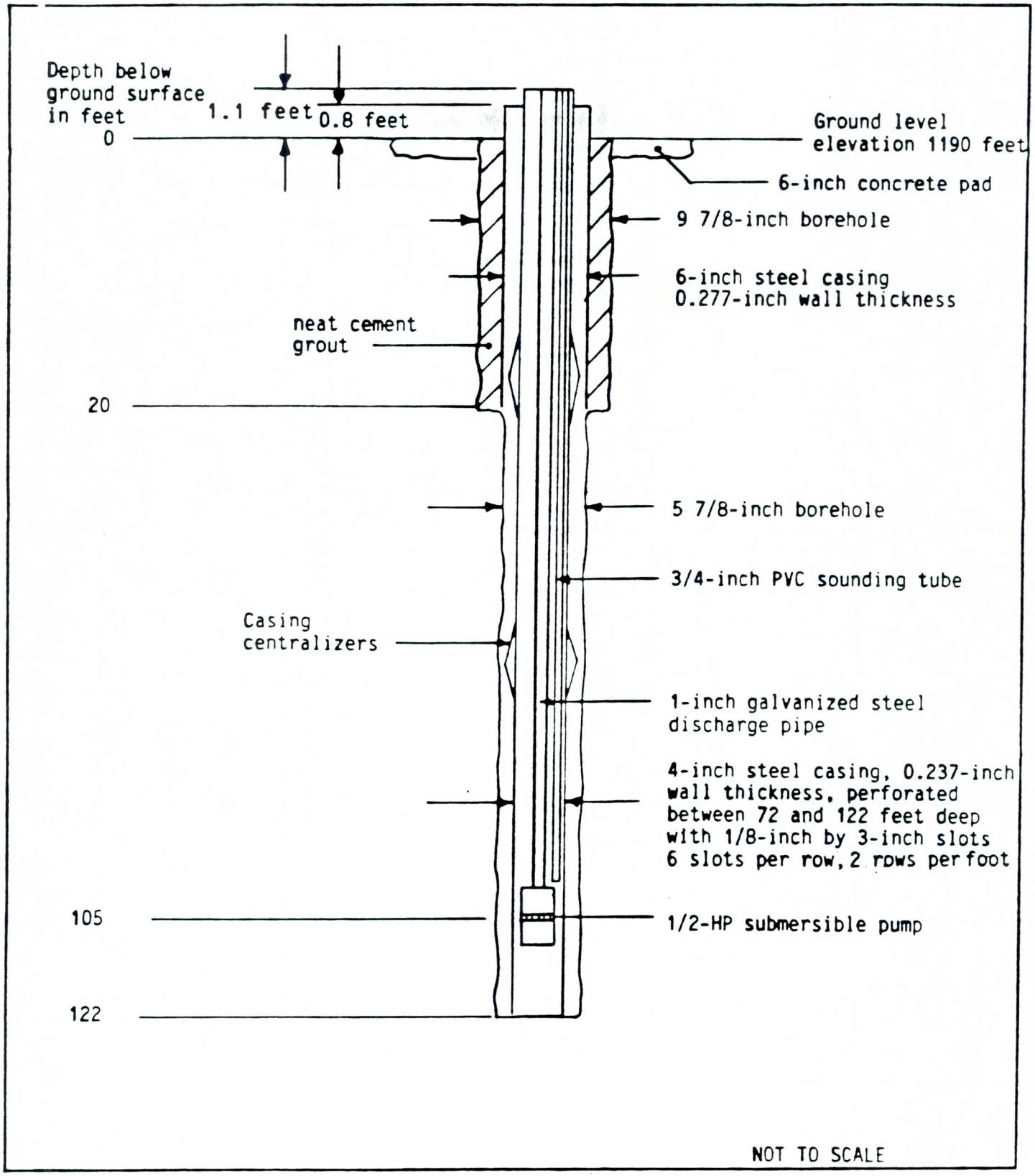


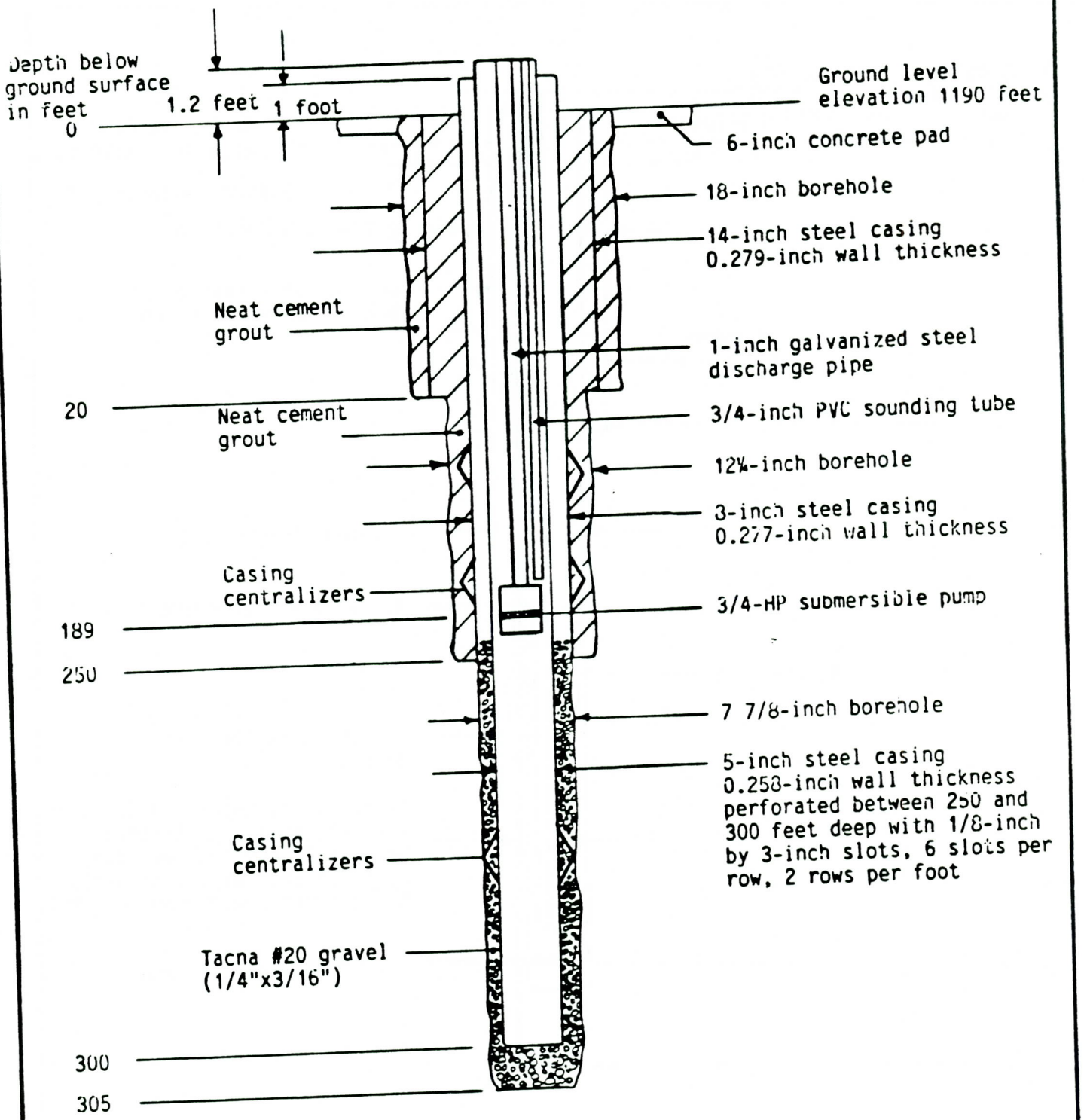
Completion Diagram
Monitoring Well UA-1

(Former) Beckman Instruments, Inc. Site
Scottsdale, Arizona

PROJECT NO.
34-02101-04

DRAWING NO.

THE MARK GROUP
ENGINEERS & GEOLOGISTS



Completion Diagram
Monitoring Well MA-1

(Former) Beckman Instruments, Inc. Site
Scottsdale, Arizona

PROJECT NO.
84-02101-04

DRAWING NO.

THE MARK GROUP
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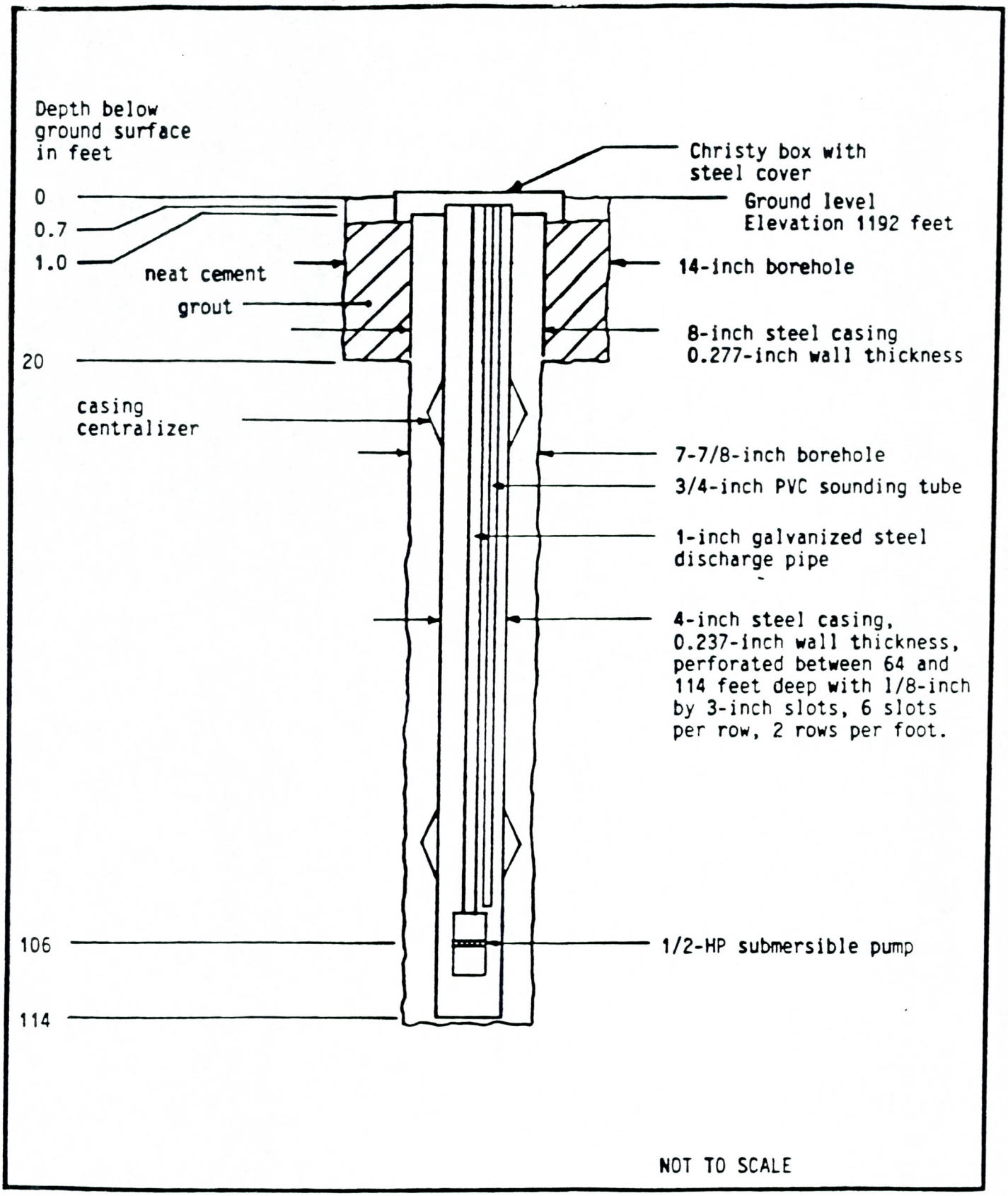

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Completion Diagram
Monitoring Well J

(Former) Beckman Instruments, Inc. Site
Scottsdale, Arizona

PROJECT NO
84-02101-04

APPENDIX B

Lithologic Descriptions of Drill Cuttings

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Monitor Well (A-1-4)1abb4 [E-1UA]

LITHOLOGIC DESCRIPTIONS OF
DRILL CUTTINGS SAMPLES
Ecology & Environment, Inc.
Monitor Well EPA-1UA

Depth (ft.)	Description
0-5	Brown clayey, sandy silt with minor gravels of caliche. Silt and clay 85%, sand 10%, gravels of caliche 5%. Reaction to acid: strong.
5-10	Light tan sandy clay. Clay 85%, sand 15%. Clay is sticky. Reaction to acid: strong.
10-15	Light tan sandy clay with minor amounts of gravel; clay 90%, gravel 10%. Clay is sticky. Gravel fraction: fine-grained siliceous fragments plus minor amounts of caliche. Reaction to acid: strong.
15-20	Tan sandy, clayey gravel (cobbles and boulders). Gravel 80%, clay 15%, sand 5%. Gravel fraction: angular purple and red sandstone, pink granite and dark volcanic rocks. Reaction to acid: weak.
20-25	Brown clayey, sand and gravel (cobbles and boulders). Gravel 85%, coarse sand 10%, clay 5%. Gravel fraction: red, brown, and purple fine-grained sandstone, pink granite and dark volcanics. Sand fraction is predominantly quartz. Reaction to acid: weak.
25-30	Tan to brown, clayey, coarse sand and gravel (cobbles and boulders). Gravel 85%, coarse sand 10%, clay 5%. Gravel fraction: red, purple, brown, and orange sandstone 80%, granite and dark volcanics 20%. Sand fraction: predominantly quartz. Reaction to acid: weak.
30-35	Tan, brown, clayey, sand and gravel (cobbles and boulders). Gravel 85%, coarse sand 10%, clay 5%. Gravel fraction: red, purple, and orange sandstone 80%, granite and dark volcanics 20%. Sand fraction is medium- to coarse-grained and predominantly quartz. Reaction to acid: weak.
35-40	Tan, brown, clayey, sand and gravel (cobbles and boulders). Gravel 85%, coarse sand 10%, clay 5%. Gravel fraction: red, purple, and orange sandstone 80%, granite and dark volcanics 20%. Sand fraction is medium- to coarse-grained and predominantly quartz. Reaction to acid: weak.

Depth (ft.)	Description
40-45	Tan to brown, silty clayey sandy gravel (cobbles and boulders). Gravel 70%, sand 15%, silty clay 15%. Gravel fraction: red and brown sandstone 75%, red granite 20%, subangular dark volcanics 5%. Reaction to acid: weak.
45-50	Tan to brown, clayey, sandy gravel (cobbles and boulders). Gravel 70%, sand 25%, silty clay 5%. Gravel fraction: red and brown sandstone 60%, pink granite and dark volcanics 40%, Reaction to acid: none.
50-55	Tan to brown, sandy gravel (cobbles and boulders). Gravel 90%, sand 10%. Gravel fraction: red, brown, orange, and purple siliceous sandstone 80%, dark volcanics and granite 20%. Sand is predominantly coarse-grained quartz. Reaction to acid: none.
55-60	Brown, sandy gravel (cobbles and boulders). Gravel 80%, sand 20%. Gravel fraction: red, brown, purple, white, and tan siliceous sandstone 70%, pink granite fragments 20%, dark volcanics 10%. Reaction to acid: none.
60-65	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 75%, sand 20%, clay 5%. Gravel fraction: red, brown, and orange fine-grained sandstone, 60%, red granite 20%, subangular black volcanics 20%. Reaction to acid: none.
65-70	Brown, tan, clayey sand and gravel (cobbles and boulders). Gravel 75%, sand 20%, clay 5%. Gravel fraction: red, brown, and orange sandstone 60%, red granite 20%, black volcanics 20%. Sand is coarse-grained and clay is silty. Reaction to acid: none.
70-75	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 70%, sand 20%, clay 10%. Gravel fraction: red, brown, and purple sandstone 60%, pink granite 20%, black volcanics 20%. Sand is coarse-grained and clay is silty. Reaction to acid: weak.

Depth (ft.)	Description
75-80	Brown, silty clayey, sandy gravel (cobbles and boulders). Sand and gravel 65%, silty clay 35%. Gravel fraction: red, brown, orange, and purple sandstone 60%, pink granite 20%, black volcanics 20%. Sand content is coarse-grained and clay is silty. Reaction to acid: weak.
80-85	Brown, silty clayey, sandy gravel (cobbes and boulders). Sand and gravel 60%, silty clay 35%. Gravel fraction: red, brown, and purple sandstone 60%, pink granite 30%, black volcanics 10%. Sand content is coarse-grained and clay is silty. Reaction to acid: weak.
85-90	Brown, sandy gravel (cobbles and boulders). Gravel 90%, sand 10%. Gravel fraction: red, brown, tan, and orange sandstone 60%, pink granite 20%, black volcanics 20%. The sand content is coarse-grained. Reaction to acid: none.
90-95	Brown, silty, clayey sand and gravel (cobbles and boulders). Gravel 70%, coarse sand 25%, silty clay 5%. Gravel fraction: red, brown, and tan sandstone 60%, pink granite 20%, black volcanics 20%. Reaction to acid: none.
95-100	Brown, silty, clayey sand and gravel (cobbles and boulders). Gravel 75%, coarse-grained sand 20%, silty clay 5%. Gravel fraction: red, brown, and tan sandstone 60%, pink granite 30%, black volcanics 10%. Coarse-grained sand content predominantly quartz. Reaction to acid: none.
100-105	Brown, silty, clayey sand and gravel (cobbles and boulders). Gravel 70%, sand 20%, silty clay 10%. Gravel fraction: red, brown, and tan sandstone 70%, pink granite and rhyolite 20%, black volcanics 10%. Reaction to acid: none.

Lithologic Descriptions of
Drill Cuttings Samples
Monitor Well EPA-1UA
Page Four

Depth (ft.)	Description
105-110	Brown, silty, clayey sand and gravel (cobbles and boulders). Gravel 70%, sand 25%, silty clay 5%. Gravel fraction: red, brown, and orange sandstone 60%, pink granite and rhyolite 20%, black volcanics 10%. Reaction to acid: none.
110-115	Brown, silty, clayey sand and gravel (cobbles and boulders). Gravel 80%, sand 15%, clay 5%. Gravel fraction: red, purple, gold, and tan sandstone 70%, pink granite 15%, black volcanics 15%. Sand is medium- to coarse-grained. Reaction to acid: none.
115-120	Brown, silty, clayey sand and gravel (cobbles and boulders). Gravel 80%, sand 15%, silty clay 5%. Gravel fraction: red, gold, brown, and tan sandstone 60%, pink granite 20%, pink and black volcanics 20%. Reaction to acid: weak.
120-125	Brown, sand and gravel (cobbles and boulders). Gravel 60%, sand 40%. Gravel fraction: red, grey, gold, and brown sandstone 70%, pink granite 15%, black volcanics 15%. Sand coarse-grained. Reaction to acid: none.
125-130	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 70%, sand 25%, clay 5%. Gravel fraction: red, brown, and orange sandstone 70%, pink granite 20%, black volcanics 10%. Reaction to acid: none.
130-135	Brown, sandy, clayey gravel (cobbles and boulders). Gravel 50%, clay 30%, sand 20%. Gravel fraction: red and brown sandstone 60%, pink granite 20%, black volcanics 20%. Reaction to acid: none.
135-140	Brown, gravelly, sandy silt and clay. Clay 60%, sand 25%, gravel 15%. Gravel fraction: 100% red and brown sandstone. Reaction to acid: weak.

Lithologic Descriptions of
Drill Cuttings Samples
Monitor Well EPA-1UA
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Depth (ft.)	Description
140-145	Brown, gravelly, sandy silt and clay. Silt and clay 70%, sand 20%, gravel 10%. Gravel fraction: angular red, brown, and purple sandstone 80%, black volcanics 20%. Reaction to acid: weak.
145-150	Brown, gravelly, sandy silt and clay. Silt and clay 80%, sand 15%, gravel 5%. Gravel fraction: subangular fragments of red and brown sandstone 100%, clay is silty and dominates this sample. Reaction to acid: moderate.

TOTAL DEPTH: 150 feet

Monitor Well (A-1-4)1abb2 [E-1MA]

LITHOLOGIC DESCRIPTIONS OF
DRILL CUTTINGS SAMPLES
Ecology & Environment, Inc.
Monitor Well EPA-1MA

Depth (ft.)	Description
0-5	Dark brown, clayey silt with minor amounts of gravel. Clayey silt 95%, subangular beige fragments of gravel-size caliche 5%. Reaction to acid: moderate.
5-10	Light brown to tan gravelly, sandy, silty clay. Silt and clay 80%, fine- to medium-grained sand 10%, gravel 10%. Gravel fraction: beige calcite cemented sandstone and caliche fragments 100%. Reaction to acid: vigorous.
10-15	Tan, sandy, silty clayey gravel (cobbles and boulders). Gravel 60%, silty clay 25%, coarse sand 15%. Gravel fraction: red, purple, and brown siliceous siltstone and sandstone 60%, dark fine-grained volcanics and white quartzite 40%. Reaction to acid: moderate (clay).
15-20	Tan, clayey, sandy gravel (cobbles and boulders). Gravel 60%, coarse sand 30%, clay 10%. Gravel fraction: red, purple, and brown sandstone and siltstone 60%, white quartzite 20%, fine-grained volcanic fragments 20%. Reaction to acid: none.
20-25	Tan, clayey, sandy gravel (cobbles and boulders). Gravel 80%, coarse sand 10%, clay 10%. Gravel fraction: red and purple siltstone and sandstone 60%, dark fine-grained volcanics 25%, quartzite 10%, granite 5%. Reaction to acid: none.
25-30	Brown, tan, clayey, sandy gravel (cobbles and boulders). Gravel 80%, coarse sand 10%, clay 10%. Gravel fraction: red and purple siltstone and sandstone 60%, dark fine-grained volcanics 25%, white quartzite 10%, granite 5%. Reaction to acid: none.
30-35	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 80%, medium- and coarse-grained sand 15%, clay 5%. Gravel fraction: red and purple sandstone 80%, dark fine-grained volcanics and granite 20%. Reaction to acid: none.

Depth (ft.)	Description
35-40	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 60%, coarse sand 35%, clay 5%. Gravel fraction: fine-grained siliceous sandstone 80%, dark fine-grained volcanics 10%, quartzite 10%. Reaction to acid: none.
40-45	Brown, sandy gravel (cobbles and boulders). Gravel 80%, coarse sand 20%. Gravel fraction: red, purple, white, and orange fine- to coarse-grained sandstone 60%, dark volcanics 20%, quartzite and granite 20%. Reaction to acid: none.
45-50	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 85%, coarse sand 10%, silt and clay 5%. Gravel fraction: red and purple fine- to coarse-grained sandstone 60%, dark volcanics 20%, quartzite and granite 20%. Reaction to acid: none.
50-55	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 85%, coarse sand 10%, silt and clay 5%. Gravel fraction: red, purple, and white fine-grained sandstone 70%, dark volcanics 15%, quartzite and granite 15%. Reaction to acid: none.
55-60	Brown, clayey, silty, sandy gravel (cobbles and boulders). Gravel 60%, medium- and coarse-grained sand 25%, silt and clay 15%. Gravel fraction: red, brown, and white fine-grained sandstone 80%, dark fine-grained volcanics 10%, quartzite and granite 10%. Reaction to acid: none.
60-65	Tan, clayey, sandy gravel (cobbles and boulders). Gravel 60%, medium- and coarse-grained sand 20%, silty clay 20%. Gravel fraction: red, brown, white, and purple fine-grained sandstone 80%, dark fine-grained volcanics 10%, quartzite and granite 10%. Reaction to acid: none.
65-70	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 70%, coarse sand 20%, clay and silt 10%. Gravel fraction: red, brown, purple, and white fine- and medium-grained sandstone 70%, dark fine-grained volcanics 10%, quartzite and granite 10%, caliche 10%. Reaction to acid: none except for caliche fragments which fizz vigorously.

Depth (ft.)	Description
70-75	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 60%, coarse quartz-rich sand 20%, fine- to medium-grained sand 10%, clay 10%. Gravel fraction: red, purple, and yellow sandstone 80%, dark fine-grained volcanics 10%, quartzite and granite 10%. Reaction to acid: none.
75-80	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 55%, coarse sand 30%, medium- and fine-grained sand 10%, clay 5%. Gravel fraction: red, purple, and white fine-grained sandstone 80%, dark fine-grained volcanics 10%, quartzite and granite 10%. Reaction to acid: none.
80-85	Tan, clayey, sandy gravel (cobbles and boulders). Gravel 70%, quartz-rich coarse sand 15%, fine- and medium- grained sand 10%, clay 5%. Gravel fraction: purple, red, and white sandstone 80%, red siliceous siltstone 5%, black and green volcanics 10%, quartzite and granite 5%. Reaction to acid: none.
85-90	Brown, coarse sand and gravel (cobbles and boulders). Gravel 65%, quartz-rich coarse sand 35%. Gravel fraction: red, orange, and purple sandstone 70%, dark volcanics 20%, quartzite 10%. Reaction to acid: none.
90-95	Brown, sand and gravel (cobbles and boulders). Gravel 80%, quartz-rich coarse sand 20%. Gravel fraction: red, orange, white, and purple sandstone 75%, siliceous sandstone 10%, dark volcanics 10%, quartzite and granite 5%. Reaction to acid: none.
95-100	Brown, sand and gravel (cobbles and boulders). Gravel 80%, coarse sand 20%. Gravel fraction: red, purple, white, and grey sandstone 80%, dark volcanics, quartzite and granite 20%. Reaction to acid: none.
100-105	Brown, sandy gravel (cobbles and boulders). Gravel 75%, coarse sand 25%. Gravel fraction: red, purple, and white fine-grained sandstone 80%, dark fine-grained volcanics, quartzite and pink granite 20%. Reaction to acid: none.

Depth (ft.)	Description
105-110	Brown, sandy gravel (cobbles and boulders). Gravel 70%, coarse sand 30%. Gravel fraction: red, purple, white, and grey fine-grained sandstone and siltstone 85%, dark fine-grained volcanics, quartzite and pink granite 15%. Reaction to acid: none.
110-115	Brown, gravelly sand (cobbles and boulders). Coarse-grained sand 60%, gravel 40%. Gravel fraction: red, brown, and white fine-grained sandstone 90%, dark volcanics 10%. Reaction to acid: none.
115-120	Brown, sand and gravel (cobbles and boulders). Quartz-rich coarse-grained sand 50%, gravel 50%. Gravel fraction: red, white, and brown fine-grained siltstone and sandstone 85%, dark volcanics, granite and quartzite 15%. Reaction to acid: none.
120-125	Brown, gravelly sand (cobbles and boulders). Coarse sand 70%, gravel 30%. Gravel fraction: red, white, brown, and purple fine-grained sandstone 100%. Reaction to acid: none.
125-130	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 60%, coarse sand 35%, silty clay 5%. Gravel fraction: red, brown, and white fine- and medium-grained sandstone 90%, dark volcanics 10%. Reaction to acid: none.
130-135	Brown, tan, sandy, gravelly, silty clay. Silty clay 50%, poorly sorted gravel 35%, coarse sand 15%. Gravel fraction: red, brown, white, and purple fine-grained sandstone and siltstone 100%. Reaction to acid: weak.
135-140	Tan, brown, sandy, gravelly, silty clay. Silty clay 50%, gravel 25%, coarse sand 25%. Gravel fraction: red, brown, white, and purple fine- grained sandstone 85%, dark fine-grained volcanics 15%. Reaction to acid: weak.

Depth (ft.)	Description
140-145	Tan, sandy, gravelly clay. Clay 65%, gravel 20%, coarse sand 15%. Gravel fraction: subangular fragments of red, brown, and white fine-grained sandstone 85%, black fine-grained volcanics 10%, pink granite 5%. Reaction to acid: weak.
145-150	Tan, sandy, gravelly, silty clay. Silty clay 60%, gravel 30%, coarse sand 10%. Gravel fraction: red, brown, and purple subangular fine-grained sandstone 85%, pink granite and dark volcanics 15%. Reaction to acid: weak.
150-155	Tan, sandy, gravelly, silty clay. Silty clay 60%, gravel 20%, coarse sand 20%. Gravel fraction: red, brown, and gold fine-grained sandstone 90%, black fine-grained volcanics and granite 10%. Reaction to acid: weak.
155-160	Tan, gravelly, sandy, silty clay. Silty clay 70%, coarse sand 20%, gravel 10%. Gravel fraction: red, brown, and white fine-grained sandstone 100%. Reaction to acid: weak.
160-165	Tan, gravelly, sandy, silty clay. Silty clay 50%, coarse sand 30%, gravel 20%. Gravel fraction: red, brown, grey, and white fine-grained sandstone 85%, dark volcanics and granite 15%. Reaction to acid: weak.
165-170	Tan, gravelly, sandy, silty clay. Silty clay 60%, coarse sand 30%, angular gravel 10%. Gravel fraction: red, brown, and white fine-grained sandstone 100%. Reaction to acid: weak.
170-175	Tan, gravelly, clayey sand. Coarse sand 60%, silty clay 30%, gravel 10%. Gravel fraction: red, brown, and white fine-grained sandstone 90%, dark fine-grained volcanics 10%. Reaction to acid: weak.

Lithologic Descriptions of
Drill Cuttings Samples
Monitor Well EPA-1MA
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Depth (ft.)	Description
175-180	Tan, gravelly, sandy, silty clay. Silty clay 50%, coarse sand 45%, gravel 5%. Gravel fraction: red, brown, and white fine-grained sandstone 100%. Reaction to acid: weak.
180-185	Tan, gravelly, sandy, silty clay. Silty clay 60%, coarse sand 35%, gravel 5%. Gravel fraction: fine-grained sandstone 100%. Reaction to acid: moderate.
185-190	Tan, sandy, silty clay. Silty clay 65%, coarse-grained sand 35%. Reaction to acid: weak.
190-195	Tan, white and brown, sandy, silty clay. Silty clay 60%, coarse-grained sand 40%. Reaction to acid: weak.
195-200	Tan and cream, sandy, silty clay. Silty clay 60%, coarse-grained sand 40%. Reaction to acid: moderate.
200-205	Tan and grey, sandy, silty clay. Silty clay 65%, sand 35%. Reaction to acid: weak.
205-210	Tan and dark brown, sandy, silty clay. Silty clay 65%, sand 35%. Reaction to acid: weak.
210-215	Tan, white and grey, sandy, silty clay. Silty clay 75%, sand 25%. Reaction to acid: moderate.
215-220	Tan and white, sandy, silty clay. Silty clay 75%, coarse sand 25%. White clay is more silty than tan clay. Reaction to clay: moderate.
220-225	Tan, white and grey, gravelly, sandy, silty clay. Silty clay 75%, coarse sand 20%, gravel 5%. Gravel fraction: fine-grained sandstone 100%. Reaction to acid: weak.
225-230	Tan, white and grey, gravelly, sandy, silty clay. Silty clay 75%, coarse sand 20%, gravel 5%. Gravel fraction: fine-grained sandstone 90%, dark fine-grained volcanics 10%. Reaction to acid: weak.

Depth (ft.)	Description
230-235	Tan, white and grey, gravelly, sandy, silty clay. Silty clay 75%, coarse sand 20%, gravel 5%. Gravel fraction: fine-grained sandstone 90%, dark fine-grained volcanics 10%. Reaction to acid: weak.
235-240	Tan, white and grey, gravelly, sandy, silty clay. Silty clay 75%, coarse sand 20%, gravel 5%. Gravel fraction: fine-grained sandstone 80%, dark fine-grained volcanics and granite 20%. Reaction to acid: weak.
240-245	Tan, brown and grey, gravelly, sandy, silty clay. Silty clay 80%, coarse sand 15%, gravel 5%. Gravel fraction: fine-grained sandstone 90%, dark fine-grained volcanics 10%. Reaction to acid: weak.
245-250	Tan, brown and grey, gravelly, sandy, silty clay. Silty clay 80%, coarse sand 15%, gravel 5%. Gravel fraction: red, brown, and purple fine-grained sandstone 100%. Reaction to acid: weak.
250-255	Tan and brown, gravelly, sandy, silty clay. Silty clay 95%, sand and gravel 5%. Reaction to acid: weak.
255-260	Tan to beige, gravelly, sandy, silty clay. Silty clay 90%, coarse sand 5%, gravel 5%. Reaction to acid: weak.
260-265	Brown, gravelly sand. Coarse sand 90%, fine gravel 10%. Coarse sand is subangular and primarily quartz and reddish brown siliceous fine-grained sandstone. Reaction to acid: weak.
265-270	Tan, gravelly, sandy, silty clay. Silty clay 75%, coarse sand 15%, gravel 10%. Gravel fraction: red and brown fine-grained siliceous sandstone 100%. Reaction to acid: weak.
270-275	Brown, gravelly, sandy, silty clay. Silty clay 85%, coarse sand 10%, gravel 5%. Gravel fraction: red and brown fine-grained siliceous sandstone 90%, dark fine-grained volcanics 10%. Reaction to acid: weak.

Depth (ft.)	Description
275-280	Brown, gravelly, sandy, silty clay. Clay and silt 80%, coarse sand 10%, gravel 10%. Gravel fraction: red and brown fine-grained siliceous sandstone 80%, dark fine-grained volcanics 10%, cream-colored subangular caliche 10%. Reaction to acid: moderate.
280-285	Light beige, clayey, gravelly sand. Fine sand 80%, gravel 10%, clay 10%. Gravel fraction: red, brown, purple, and gold fine-grained sandstone 90%, dark fine-grained volcanics 10%. Reaction to acid: weak.
285-290	Brown, tan and white, sandy, silty clay. Silt and clay 60%, medium- to coarse-grained sand 40%. Reaction to acid: weak.
290-295	Brown, tan, gravelly, sandy, silty clay. Silt and clay 40%, coarse sand 20%, gravel 20%. Gravel fraction: red, brown, and purple fine-grained sandstone 85%, dark fine-grained volcanics 15%. Reaction to acid: weak.
295-300	Brown, gravelly sand. Coarse sand 75%, medium sand 20%, gravel 5%. Sand fraction: coarse quartz 65%, reddish fine-grained siliceous grains 25%, dark volcanics 10%. Reaction to acid: weak.

TOTAL DEPTH: 300 feet

Piezometer (A-1-4)1abb1 [E-1MP]

LITHOLOGIC DESCRIPTIONS OF
DRILL CUTTINGS SAMPLES
Ecology & Environment, Inc.
Monitor Well EPA-1MP

Depth (ft.)	Description
0-5	Tan, gravelly, sandy, silty clay. Silty clay 80%, medium- and coarse-grained sand 10%, gravel 10%. Gravel fraction: subangular cream-colored caliche 100%. Reaction to acid: vigorous.
5-10	Light tan, sandy, gravelly clay. Clay 80%, gravel 10%, sand 10%. Gravel fraction: subangular cream-colored caliche 100%. Reaction to acid: vigorous.
10-15	Tan, clayey, sandy gravel (cobbles and boulders). Gravel 55%, clay 30%, coarse sand 15%. Gravel fraction: red, purple, and white fine-grained sandstone 80%, dark volcanics 20%. Reaction to acid: weak.
15-20	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 55%, medium- and coarse-grained sand 30%, clay 15%. Gravel fraction: red, purple, and white fine-grained sandstone 80%, dark volcanics 20%. Reaction to acid: weak.
20-25	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 70%, coarse sand 25%, clay 5%. Gravel fraction: red, purple, and brown fine-grained sandstone 80%, subangular white quartzite 20%. Reaction to acid: weak (clay only).
25-30	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 65%, coarse- and medium-grained sand 25%, clay 10%. Gravel fraction: red, purple, and brown sandstone 80%, white quartzite 20%. Reaction to acid: none.
30-35	Brown, sandy, gravel (cobbles and boulders). Gravel 95%, coarse sand 5%. Gravel fraction: red, white, and purple sandstone 85%, dark volcanics 10%, quartzite 5%. Reaction to acid: none.
35-40	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 80%, sand 15%, clay 5%. Gravel fraction: red, white, and purple sandstone 85%, dark volcanics 10%, quartz 5%. Reaction to acid: none.

Depth (ft.)	Description
40-45	Brown, sandy gravel (cobbles and boulders). Gravel 90%, coarse sand 10%. Gravel fraction: red, purple, and white sandstone 85%, dark volcanics 13%, granite 2%. Reaction to acid: none.
45-50	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 90%, coarse sand 5%, clay 5%. Gravel fraction: red, purple, and white sandstone 85%, dark volcanics and pink granite 15%. Reaction to acid: none.
50-55	Brown, clayey, gravelly sand. Medium- to coarse-grained sand 60%, gravel 25%, clay 15%. Gravel fraction: purple, red, and white sandstone 90%, dark volcanics and granite 10%. Reaction to acid: none.
55-60	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 70%, medium- and coarse-grained sand 20%, clay 10%. Gravel fraction: red, brown, and purple sandstone 80%, dark volcanics and granite 10%. Reaction to acid: none.
60-65	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 50%, medium- and coarse-grained sand 40%, clay 10%. Gravel fraction: red, brown, and white sandstone 80%, dark volcanics and granite 20%. Reaction to acid: none.
65-70	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 55%, coarse- and medium-grained sand 35%, clay 10%. Gravel fraction: red, brown, purple, and white sandstone 80%, dark volcanics 15%, pink granite 5%. Reaction to acid: none.
70-75	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 60%, medium- and coarse-grained sand 30%, clay 10%. Gravel fraction: red, brown, and purple sandstone 85%, dark volcanics and granite 15%. Reaction to acid: none.

Depth (ft.)	Description
75-80	Brown, clayey, sandy gravel (cobbles and boulders). Gravel 65%, sand 25%, clay 10%. Gravel fraction: purple, red, and white fine-grained sandstone 65%, dark volcanics 20%, pink granite 15%. Reaction to acid: none.
80-85	Brown, sandy gravel (cobbles and boulders). Gravel 75%, coarse sand 25%. Gravel fraction: white, purple, red, and brown sandstone 80%, pink granite 10%, dark volcanics 10%. Reaction to acid: none.
85-90	Brown, sandy gravel (cobbles and boulders). Gravel 60%, coarse sand 40%. Gravel fraction: red, brown, purple, and white fine-grained sandstone 80%, pink granite 10%, dark volcanics 10%. Reaction to acid: none.
90-95	Brown, gravelly sand. Coarse sand 40%, gravel 40%, medium sand 20%. Gravel fraction: red, brown, purple, and white sandstone 80%, pink granite 10%, dark volcanics 10%. Reaction to acid: none.
95-100	Brown, gravelly sand. Medium- and coarse-grained sand 65%, gravel 35%. Gravel fraction: red, brown, purple, and white sandstone 75%, dark volcanics 15%, pink granite 10%. Reaction to acid: none.
100-105	Brown, sandy gravel (cobbles and boulders). Gravel 70%, sand 30%. Sand fraction: coarse sand 65%, medium sand 35%. Gravel fraction: red, brown, and white sandstone 80%, dark volcanics 10%, pink granite 10%. Reaction to acid: none.
105-110	Brown, sandy gravel (cobbles and boulders). Gravel 80%, sand 20%. Gravel fraction: red, brown, and white fine-grained sandstone 80%, dark volcanics 10%, pink granite 10%. Reaction to acid: none.
110-115	Brown, gravelly sand. Medium- and coarse-grained sand 65%, gravel 35%. Gravel fraction: red, brown, and white fine-grained sandstone 80%, dark volcanics 10%, pink granite 10%. Reaction to acid: none.

Depth (ft.)	Description
115-120	Brown, sandy gravel (cobbles and boulders). Gravel 55%, medium- and coarse-grained sand 45%. Sand fraction: coarse sand 70%, medium sand 30%. Gravel fraction: red and brown angular fragments of fine-grained sandstone 80%, dark volcanics 10%, pink granite 10%. Reaction to acid: none.
120-125	Brown, sandy gravel (cobbles and boulders). Gravel 60%, sand 40%. Sand fraction: coarse sand 70%, medium sand 30%. Gravel fraction: red, brown, and white fine-grained sandstone 80%, dark volcanics 20%. Reaction to acid: none.
125-130	Brown, clayey, sandy gravel Gravel 50%, sand 45%, clay 5%. Gravel fraction: red, brown, and purple fine-grained sandstone 80%, dark volcanics 20%. Reaction to acid: none.
130-135	Brown, clayey, gravelly sand. Medium- and coarse-grained sand 65%, gravel 30%, clay 5%. Gravel fraction: red, white, and brown fine-grained sandstone 80%, dark volcanics 20%. Reaction to acid: vigorous (clay).
135-140	Brown, gravelly, clayey sand. Medium- and coarse-grained sand 65%, clay 35%, gravel is minor <5%. Sand fraction: medium sand 65%, coarse sand 35%. Reaction to acid: vigorous (clay).
140-145	Medium to coarse sand and fine gravel. Fine gravel 50%, coarse sand 45%, medium sand 5%. Reaction to HCL: none.
145-150	Tan clayey, silty medium to coarse sand with minor fine gravel. Medium and coarse sand 75%, silt and clay 15%, gravel 10%. Reaction to HCL: clay and silt fizzes moderately.
150-155	Tan clayey silt and silty clay with fine gravel. Clay and silt 65%, fine gravel 35%. Clay is soft. Reaction to HCL: strong.

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Depth (ft.)	Description
155-160	Tan clayey silt and silty clay with fine gravel. Clay and silt 75%, fine gravel 25%. Silt and clay occur as soft clumps. Reaction to HCL: strong.
160-165	Brown silty clay with minor fine gravel. Silt and clay 90%, fine gravel 10%. Traces of hard, calcite-cemented fine to medium sand. Reaction to HCL: strong.
165-170	Tan silty clay and beige clayey silt with minor medium to coarse sand. Clay and silt 95%, sand 5%. Clay and silt fraction: tan silty clay 70%, beige clayey silt 30%. Clay and silt are soft. Reaction to HCL: strong.
170-175	Tan silty clay and beige silt with minor hard silty, fine sandstone. Tan silty clay 80%, beige silt 10%, hard fine sandstone 10%. Reaction to HCL: silty clay and silt, strong; fine sandstone, no reaction.
175-180	Tan sandy, silty clay with minor gravel. Silt and clay 90%, medium sand 5%, fine gravel 5%. Clay clumps are becoming harder. Silt and clay fraction: clay 75%, silt 25%. Reaction to HCL: clay reacts strongly.
180-185	Tan clayey silt and silty clay with minor medium to coarse sand. Silt and clay 95%. Reaction to HCL: clay reacts strongly.
185-190	Tan silty clay with minor caliche. Silty clay 95%, caliche 5%. Clay is soft and sticky. Reaction to HCL: strong.
190-195	Tan silty clay and beige clayey silt. Silt and clay 100%. Occasional clumps of reddish brown hard clay. Silt and clay is sticky. Reaction to HCL: strong.
195-201	Tan clayey silt and silty clay with minor fragments of caliche. Clay and silt 80%, caliche 15%, siltstone 5%. Reaction to HCL: strong.

Total Depth: 201 feet

Monitor Well (A-1-4)1abb3 [E-1LA]

LITHOLOGIC DESCRIPTIONS OF
DRILL CUTTINGS SAMPLES
Ecology & Environment, Inc.
Monitor Well EPA-1LA

Depth (ft.)	Description
0-5	Dark brown gravelly, sandy, silty clay; clay 50%, silt 30%, sand 15%, gravel 5%. Gravel quartzose. Weakly cemented. Reaction to HCL: strong.
5-10	Light brown to tan silty, sandy clay; sticky, clay 85%, sand 10%, silt 5%. Weakly cemented. Reaction to HCL: strong.
10-15	Light brown to tan gravelly, sandy clay; sticky; clay 60%, sand 30%, gravel 10%. Gravel fraction: white quartz 60%, purple, red, green, tan fine-grained siliceous sedimentary fragments 35%, caliche 5%. Gravel fragments represent broken rounded cobbles and boulders. Uncemented. Reaction to HCL: weak.
15-20	Light brown clayey, sandy gravel; gravel 60%, coarse sand 30%, clay 10%. Gravel fraction: red, purple, green fine-grained siliceous sedimentary fragments 70%, quartzite 15%, granite 10%, dark volcanics 5%. Uncemented. Reaction to HCL: weak.
20-25	Clayey, sandy gravel (cobbles and boulders); gravel 85%, coarse sand 10%, clay 5%. Gravel fraction: red and purple fine-grained, siliceous sedimentary fragments 50%, quartzite 40%, green volcanics 10%. Uncemented. Reaction to HCL: clay fizzes moderately.
25-30	Clayey, sandy gravel (cobbles and boulders); gravel 70%, coarse sand 25%, clay 5%. Gravel fraction: red, white, yellow siliceous siltstone and sandstone 90%, quartzite 5%, dark green volcanics 5%. Uncemented. Reaction to HCL: none.
30-35	Sandy gravel (cobbles and boulders); gravel 75%, coarse sand 25%. Gravel fraction: red, white, purple siliceous siltstone, sandstone and chert 90%, dark green volcanics 5%, quartzite 5%. Uncemented. Reaction to HCL: none.

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Depth (ft.)	Description
35-40	Clayey sandy gravel (cobbles and boulders); gravel 70%, coarse sand 20%, clay 10%. Gravel fraction: red, reddish pink, and white siliceous siltstone, sandstone and chert 80%, dark green volcanics 20%. Uncemented. Reaction to HCL: none.
40-45	Clayey sandy gravel (cobbles and boulders); gravel 65%, coarse sand 30%, clay 5%. Gravel fraction: red and pink siliceous siltstone and sandstone 80%, quartzite 10%, red granite 5%, green volcanics 5%. Uncemented. Reaction to HCL: none.
45-50	Clayey, sandy gravel (cobbles and boulders); gravel 75%, coarse sand 20%, clay 5%. Gravel fraction: red, purple and pink siliceous sandstone 50%, red siliceous siltstone and chert 30%, white quartzite 10%, dark volcanics 10%. Uncemented. Reaction to HCL: none.
50-55	Clayey sandy gravel (cobbles and boulders); gravel 75%, coarse sand 15%, clay 10%. Gravel fraction: red, purple, and pink siliceous siltstone and sandstone 80%, quartzite 10%, red granite 5%, dark volcanics 5%. Uncemented. Reaction to HCL: none.
55-60	Clayey, gravelly (cobbles and boulders) sand; clay 25%, gravel 25%, coarse sand 50%. Gravel fraction: red, purple, and pink siliceous siltstone and sandstone 80%, quartzite 10%, red granite 5%, dark volcanics 5%. Uncemented. Reaction to HCL: none.
60-65	Sandy gravel (cobbles and boulders); gravel 65%, coarse sand 35%. Gravel fraction: red, purple, and pink siliceous siltstone and sandstone 65%, quartzite 30%, dark volcanics 5%. Uncemented. Reaction to HCL: none.
65-70	Sandy gravel (cobbles and boulders); gravel 70%, coarse sand 30%. Gravel fraction: red, purple, and pink siliceous siltstone and sandstone 65%, quartzite 30%, dark volcanics 5%. Uncemented. Reaction to HCL: none.

Depth (ft.)	Description
70-75	Silty, clayey, sandy gravel (cobbles and boulders); gravel 60%, coarse sand 30%, silt and clay 10%. Gravel fraction: red, purple, and pink siliceous siltstone and sandstone 65%, quartzite 30%, dark volcanics 5%. Uncemented. Reaction to HCL: none.
75-80	Silty and clayey, gravelly (cobbles and boulders) sand; medium to coarse sand 40%, gravel 30%, silt and clay 30%. Sand fraction: subangular quartz, feldspar, red chert. Uncemented. Reaction to HCL: none.
80-85	Silty and clayey, sandy gravel (cobbles and boulders); gravel 50%, medium- to coarse-grained sand 35%, silt and clay 15%. Gravel fraction: red, pink, purple siliceous siltstone and sandstone 60%, white quartzite 20%, dark fine-grained sedimentary fragments 10%, dark volcanics 10%. Uncemented. Reaction to HCL: none.
85-90	Sandy gravel (cobbles and boulders); gravel 75%, coarse sand 25%. Gravel fraction: red, purple, pink fine-grained siliceous fragments 75%, red granite 15%, dark volcanics 10%. Uncemented. Reaction to HCL: none.
90-95	Sandy gravel (cobbles and boulders); gravel 60%, coarse sand 40%. Gravel fraction: red, pink, purple fine-grained siliceous fragments 60%, white quartzite 20%, red granite 10%, dark volcanics 10%. Uncemented. Reaction to HCL: none.
95-100	Sandy gravel (cobbles and boulders); gravel 55%, coarse sand 45%. Gravel fraction: red, pink, purple, fine-grained siliceous fragments 65%, quartzite 15%, dark volcanics 10%, red granite 10%. Uncemented. Reaction to HCL: none.
100-105	Sandy gravel (cobbles and boulders); gravel 65%, coarse sand 35%. Gravel fraction: red, purple, pink fine-grained siliceous fragments 65%, quartzite 15%, dark volcanics 15%, red granite 5%. Uncemented. Reaction to HCL: none.

Depth (ft.)	Description
105-110	Sandy gravel; gravel 65%, coarse sand 35%. Gravel fraction: red, purple, pink, white fine-grained siliceous fragments 65%, quartzite 15%, dark volcanics 15%, red granite 5%. Uncemented. Reaction to HCL: none.
110-115	Sandy gravel; gravel 50%, coarse sand 50%. Gravel fraction: red, white, yellow, pink siliceous siltstone and sandstone 65%, reddish purple chert 25%, granite 5%, dark volcanics 5%. Uncemented. Reaction to HCL: none.
115-120	Gravelly sand; coarse sand 65%, gravel 35%. Gravel fraction: red, white, yellow, pink, purple fine-grained siliceous fragments 85%, dark volcanics 10%, granite 5%. Uncemented. Reaction to HCL: none.
120-125	Coarse sand and gravel; gravel 50%, coarse sand 50%. Gravel fraction: red, pink, purple, white, yellow fine-grained siliceous fragments 85%, dark volcanics 10%, granite 5%. Uncemented. Reaction to HCL: none.
125-130	Light brown to tan sandy, silty clay; clay 50%, sand 25%, silt 25%. Sand fraction: subangular arkosic. Uncemented. Reaction to HCL: none.
130-135	Light brown gravelly, silty, clayey sand; coarse sand 65%, silt and clay 30%, gravel 5%. Uncemented. Reaction to HCL: none.
135-140	Light brown gravelly, silty, clayey sand; coarse sand 75%, silt and clay 20%, gravel 5%. Uncemented. Reaction to HCL: none.
140-145	Light brown gravelly, clayey sand; coarse sand 80%, clay 15%, gravel 5%. Uncemented. Reaction to HCL: none.
145-150	Light reddish brown silty, clayey sand; coarse sand 75%, silt and clay 25%. Sand fraction: subangular grains of quartz, feldspar, and red fine-grained siliceous particles. Uncemented. Reaction to HCL: none.

Lithologic Descriptions of
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Depth (ft.)	Description
150-155	Light brown silty clay and coarse sand; silt and clay 60%, coarse sand 40%. Uncemented. Reaction to HCL: none.
155-160	Light brown gravelly, silty clay and coarse sand; coarse sand 60%, silt and clay 35%, gravel 5%. Uncemented. Reaction to HCL: none.
160-165	Light brown gravelly, sandy silty clay; silt and clay 60%, coarse sand 30%, gravel 10%. Uncemented. Reaction to HCL: none.
165-170	Light brown silty clay and coarse sand; silt and clay 80%, coarse sand 20%. Uncemented. Reaction to HCL: none.
170-175	Light brown silty clay and medium to coarse sand; silt and clay 85%, medium and coarse sand 15%. Uncemented. Reaction to HCL: moderate.
175-180	Light brown silty clay and medium to coarse sand; silt and clay 90%, medium and coarse sand 10%. Uncemented. Reaction to HCL: moderate.
180-185	Light brown to tan silty clay and medium to coarse sand silt and clay 85%, medium and coarse sand 15%. Uncemented. Reaction to HCL: moderate.
185-190	Light brown silty clay and coarse sand; silt and clay 95%, coarse sand 5%. Weakly cemented. Reaction to HCL: moderate.
190-195	Light brown silty clay and coarse sand; silt and clay 90%, coarse sand 10%. Uncemented. Reaction to HCL: moderate.
195-200	Light brown sandy silty clay; silt and clay 95%, coarse, subangular sand 5%. Moderately to weakly cemented. Reaction to HCL: moderate.

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Depth (ft.)	Description
200-205	Light brown and white silty clay; silt and clay 100%. Weakly cemented. Reaction to HCL: moderate.
205-210	Light brown silty clay; clay 60%, silt 40%. Uncemented. Reaction to HCL: moderate.
210-215	Light brown silty clay and coarse sand; silt and clay 60%, coarse sand 35%. Sand fraction: dominated by quartz and reddish fine-grained siliceous particles. Clay is sticky. Uncemented. Reaction to HCL: moderate.
215-220	Light brown silty clay and coarse sand; silty clay 75%, coarse sand 25%. Clay is sticky. Uncemented. Reaction to HCL: moderate.
220-225	Light brown sandy silty clay and minor coarse sand; sandy, silty clay 90%, coarse sand 10%. Fine-grained fraction: clay 80%, silt 15%, fine-grained sand 5%. Uncemented. Reaction to HCL: moderate.
225-230	Light brown sandy, silty clay with minor coarse sand; sandy, siltly clay 95%, coarse sand 5%. Fine fraction: clay 70%, silt 20%, fine sand 10%. Weakly cemented. Reaction to HCL: moderate.
230-235	Light brown clayey silt with minor coarse sand and gravel; clayey silt 85%, coarse sand 10%, gravel 5%. Fine fraction: silt 65%, clay 35%. Weakly cemented. Reaction to HCL: moderate.
235-240	Light brown silty clay and coarse sand; silt and clay 85%, coarse sand 15%. Fine fraction: clay 90%, silt 10%. Uncemented. Reaction to HCL: moderate.
240-245	Light brown silty clay and medium sand; silty clay 85%, medium sand 15%. Fine fraction: clay 90%, silt 10%. Uncemented. Reaction to HCL: moderate.
245-250	Light brown silty clay and medium sand; silt and clay 95%, medium sand 5%. Uncemented. Reaction to HCL: moderate.

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Depth (ft.)	Description
250-255	Light brown sandy, silty clay; clay 70%, silt 20%, fine and medium sand 10%. Clay is moderately sticky. Uncemented. Reaction to HCL: moderate.
255-260	Light brown silty clay and white clayey silt with minor fine to medium sand; brown silty clay 90%, white clayey silt 5%, sand 5%. Clay is moderately sticky. Uncemented. Reaction to HCL: moderate.
260-265	Light brown silty clay with minor fine to coarse sand; silt and clay 80%, fine to coarse sand 20%. Fine fraction: silt 50%, clay 50%. Silty clay is moderately hard. Moderately cemented. Reaction to HCL: silty clay clumps fizz moderately.
265-270	Light brown silty fine sandy clay with medium to coarse sand; silty clay 90%, medium to coarse sand 10%. Clay is sticky. Uncemented. Reaction to HCL: moderate.
270-275	Light brown silty clay and white fine-grained sandstone and medium to coarse sand; silty clay 90%, sandstone 5%, medium to coarse sand 5%. Silty clay uncemented; sandstone cemented with calcium carbonate. Reaction to HCL: moderate.
275-280	Light brown silty clay with white fine-grained sandstone and medium to coarse sand; silt and clay 90%, sandstone 5%, medium to coarse sand 5%. Silty clay uncemented; sandstone cemented with calcium carborate. Reaction to HCL: moderate.
280-285	Light brown silty clay with white fine-grained sandstone and medium to coarse sand; silt and clay 90%, sandstone 5%, medium to coarse sand 5%. Silty clay uncemented; sandstone cemented with calcium carbonate. Reaction to HCL: moderate.
285-290	Light brown clayey silt and coarse gravelly sand; clayey silt 50%, coarse sand 40%, gravel 10%. Uncemented. Reaction to HCL: moderate.

Depth (ft.)	Description
290-295	Medium to coarse gravelly sand and light brown clayey silt; medium to coarse sand 65%, clay and silt 30%, gravel 5%. Sand fraction: dominated by subangular grains of quartz, feldspar, and red fine-grained siliceous sedimentary fragments. Uncemented. Reaction to HCL: clayey silt fizzes moderately.
295-300	Light brown clayey, gravelly coarse sand; coarse sand 80%, fine gravel 10%, clay 10%. Sand fraction: quartz and feldspar 50%, red fine-grained siliceous sedimentary fragments 35%, dark volcanics fragments 10%, white fine-grained sandstone 5%. Uncemented. Reaction to HCL: moderate.
300-305	Light brown gravelly sand and silty clay; coarse sand 60%, silty clay 30%, fine gravel 10%. Uncemented. Reaction to HCL: clay reacts moderately.
305-310	Light brown sandy clay and gravelly coarse sand; fine sandy, silty clay 80%, coarse sand 15%, gravel 5%. Clay is sticky. Uncemented. Reaction to HCL: clay reacts moderately.
310-315	Light brown sandy and gravelly silty clay; silty clay 80%, coarse sand 10%, gravel 10%. Clay is sticky. Uncemented. Reaction to HCL: clay reacts moderately.
315-320	Light brown sandy and gravelly silty clay; silty clay 90%, coarse sand and fine gravel 10%. Fine fraction: clay 55%, silt 40%, clay 5%. Uncemented. Reaction to HCL: clay fizzes moderately.
320-325	Light brown gravelly, clayey sand; medium to coarse sand 80%, clay 15%, gravel 5%. Uncemented. Reaction to HCL: moderate.
325-330	Light brown and white gravelly, sandy, clayey silt; clay and silt 80%, medium to coarse sand 10%, gravel 10%. Uncemented. Reaction to HCL: moderate.

Depth (ft.)	Description
330-335	Light brown and white gravelly, sandy clayey silt with occasional fine sandstone; brown sandy claey silt 60%, white silt 25%, coarse sand and gravel 10%, fine sandstone 5%. Fine fraction: silt 50%, clay 30%, fine sand 20%. Moderately cemented. Reaction to HCL: moderate.
335-340	Light brown gravelly sandy silty clay; silt and clay 90%, coarse sand and gravel 10%. Moderately cemented. Reaction to HCL: moderate.
340-345	Light to dark brown silty clay and white fine sandy silt with minor coarse sand and gravel and hard fine sandstone; brown silty clay 80%, white sandy silt 10%, coarse sand and gravel 10%. Moderately cemented. Reaction to HCL: clay reacts moderately.
345-350	Light brown clayey siltstone with minor white fine sandy silt, hard fine sandstone and coarse sand and gravel; brown clayey siltstone 85%, white siltstone 5%, coarse sand and gravel 5%, fine sandstone 5%. Moderately cemented. Reaction to HCL: moderate.
350-355	Light brown clayey sandy silt with fine sandstone, siltstone and coarse sand and gravel; clayey sandy silt 50%, coarse sand and gravel 40%, siltstone and fine sandstone 10%. Moderately cemented. Reaction to HCL: moderate.
355-360	Light brown clayey silt with pinkish red fine sandstone and siltstone, and coarse sand and gravel; clayey silt 50%, coarse sand and gravel 40%, fine sandstone and siltstone 10%. Moderately cemented. Reaction to HCL: moderate.
360-365	Light brown sandy silty clay and medium to coarse sand; sandy silty clay 85%, medium to coarse sand 15%. Fine fraction: clay 60%, silt 30%, fine sand 10%. Weakly cemented. Reaction to HCL: moderate.
365-370	Light brown sandy silty clay with fine-grained sandstone and medium to coarse sand; sandy clay 85%, fine sandstone 10%, medium to coarse sand 5%. Moderately cemented. Reaction to HCL: moderate.

Depth (ft.)	Description
370-375	Light brown silty clay with medium to coarse sand; clay and silt 90%, medium to coarse sand 10%. Moderately cemented. Reaction to HCL: moderate.
375-380	Tan to dark brown sandy clayey silt with minor red fine-grained sandstone and medium to coarse sand; sandy clayey silt 90%, red fine-grained sandstone 5%, medium to coarse sand 5%. Moderately cemented. Reaction to HCL: moderate.
380-385	Tan to dark brown sandy silty clay with minor red fine-grained sandstone and medium to coarse sand; sandy silty clay 90%, red fine-grained sandstone 5%, medium to coarse sand 5%. Moderately cemented. Reaction to HCL: moderate.
385-390	Tan to dark brown sandy silty clay with minor medium to coarse sand; sandy silty clay 90%, medium to coarse sand 10%. Weakly cemented. Reaction to HCL: moderate.
390-395	Light brown clayey coarse sand and fine gravel; coarse sand 55%, fine gravel 35%, clay 10%. Coarse sand and fine gravel fraction: quartz 65%, red fine-grained siliceous fragments 25%, dark volcanics 10%. Uncemented. Reaction to HCL: clay fizzes moderately.
395-400	Light brown sandy silty clay, white silt, and coarse sand and fine gravel; sandy silty clay and white silt 50%, coarse sand and fine gravel 50%. Fine-grained fraction moderately cemented; coarse fraction uncemented. Reaction to HCL: moderate.
400-405	Light brown sandy, clayey silt with minor coarse sand and fine gravel, and white silt; sandy, clayey silt 85%, coarse sand and fine gravel 10%, white silt 5%. Weakly cemented. Reaction to HCL: moderate.
405-410	Light brown silty clay with beige to white fine sandstone and siltstone and minor coarse sand and fine gravel; silty clay 90%, fine sandstone and siltstone 5%, coarse sand and fine gravel 5%. Moderately cemented. Reaction to HCL: moderate.

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Depth (ft.)	Description
410-415	Light brown silty clay with minor medium to coarse sand and gravel; silty clay 95%, sand and gravel 5%. Uncemented. Reaction to HCL: moderate.
415-420	Light brown silty clay with minor medium to coarse sand and gravel; silty clay 95%, sand and gravel 5%. Uncemented. Reaction to HCL: moderate.
420-425	Light brown silty clay and medium to coarse sand; silty clay 85%, medium to coarse sand 15%. Weakly cemented. Reaction to HCL: moderate.
425-430	Light brown sand, clayey silt with minor coarse sand and fine gravel, and reddish fine-grained sandstone; sandy, clayey silt 85%, coarse sand and fine gravel 10%, reddish fine-grained sandstone 5%. Weakly cemented. Reaction to HCL: moderate.
430-435	Light brown sandy, clayey silt with minor coarse sand and fine gravel, and reddish fine-grained sandstone; sandy, clayey silt 85%, coarse sand and fine gravel 10%, reddish fine-grained sandstone 5%. Weakly cemented. Reaction to HCL: moderate.
435-440	Light brown sandy, clayey silt with minor coarse sand and fine gravel; reddish fine-grained sandstone; sandy, clayey silt 85%, coarse sand and fine gravel 10%, reddish fine-grained sandstone 5%. Moderately cemented. Reaction to HCL: moderate.
440-445	Light brown silty clay with minor coarse sand and fine gravel; silty clay 95%, coarse sand and fine gravel 5%. Fine fraction: clay 80%, silt 20%. Clay is plastic. Uncemented. Reaction to HCL: moderate.
445-450	Light brown clayey silt and coarse sand and fine gravel; clayey silt 75%, coarse sand and fine gravel 25%. Coarse sand is subangular, fine gravel is subangular to subrounded. Uncemented. Reaction to HCL: moderate.

Depth (ft.)	Description
450-455	Light brown sandy silty clay and white fine-grained sandstone and siltstone with minor medium to coarse sand and fine gravel; silt and clay 85%, coarse sand and fine gravel 10%, sandstone and siltstone 5%. Weakly cemented. Reaction to HCL: moderate.
455-460	Light brown silty clay with minor medium to coarse sand; silt and clay 90%, medium to coarse sand 10%. Weakly cemented. Reaction to HCL: moderate.
460-465	Light brown silty clay and tan to white fine-grained sandstone and siltstone with minor medium to coarse sand and fine gravel; fine fraction 85%, coarse fraction 15%. Clay is plastic. Weakly cemented. Reaction to HCL: moderate.
465-470	Light brown silty clay with minor coarse sand and fine gravel; fine fraction 95%, coarse sand and fine gravel 5%. Moderately cemented. Reaction to HCL: moderate.
470-475	Light brown silty clay and coarse sand and fine gravel; silty clay 60%, coarse sand and fine gravel 40%. Coarse sand is dominated by quartz and reddish fine-grained sedimentary particles. Moderately cemented. Reaction to HCL: moderate.
475-480	Light brown silty clay with minor light tan to white siltstone and sandstone, and coarse sand and fine gravel; silty clay 85%, coarse sand and fine gravel 10%, siltstone and sandstone 5%. Clay is sticky. Weakly cemented. Reaction to HCL: moderate.
480-485	Light brown silty clay with minor light tan to white siltstone and sandstone, and coarse sand and fine gravel; silty clay 85%, coarse sand and fine gravel 10%, siltstone and sandstone 5%. Moderately cemented. Reaction to HCL: moderate.
485-490	Light brown coarse sandy, silty clay; clay 85%, silt 10%, medium to coarse sand 5%. Clay is sticky. Weakly cemented. Reaction to HCL: moderate.

Depth (ft.)	Description
490-495	Light brown clayey silty fine sand with minor coarse sand; fine sand 75%, silt and clay 20%, coarse sand 5%. fine fraction: fine sand 50%, silt 30%, clay 20%. Weakly cemented. Reaction to HCL: moderate.
495-500	Tan fine sandy silty clay with minor medium to coarse sand and fine gravel; sandy silty clay 90%, coarse sand and fine gravel 10%. Uncemented. Reaction to HCL: moderate.
500-505	Tan silty clay and reddish brown siltstone and sandstone with minor medium to coarse sand; silty clay 90%, siltstone and sandstone 5%, medium to coarse sand 5%. Fine fraction: clay 85%, silt 15%. Clay is sticky. Weakly cemented. Reaction to HCL: moderate.
505-510	Tan clayey silt with minor coarse sand; clayey silt 95%, medium to coarse sand 5%. Weakly cemented. Reaction to HCL: moderate.
510-515	Tan to light brown clayey silt and fine-grained siltstone and sandstone with minor medium to coarse sand; clayey silt 85%, siltstone and sandstone 5%, medium to coarse sand 5%. Weakly cemented. Reaction to HCL: moderate.
515-520	Tan clayey fine sand and silty clay with minor medium to coarse sand and occasional siltstone and sandstone; clayey fine sand 60%, silty clay 30%, medium to coarse sand 5%, siltstone and sandstone 5%. Moderately cemented. Reaction to HCL: moderate.
520-525	Tan silty clay and fine sandy silt with occasional light tan fine-grained sandstone; silty clay 60%, sand silt 35%, sandstone 5%. Weakly cemented. Reaction to HCL: moderate.
525-530	Tan to reddish brown silty clay with occasional fine-grained sandstone and siltstone and minor medium to coarse sand; silty clay 90%, siltstone and sandstone 5%, medium to coarse sand 5%. Clay is stickly. Weakly cemented. Reaction to HCL: moderate.

Depth (ft.)	Description
530-535	Light tan to beige silty clay, clayey silt, and clayey silty fine sand with occasional beige and red-brown hard sandstone and siltstone, and minor coarse sand and fine gravel; fine fraction 95%, coarse sand and fine gravel 5%. Hard sandstone and siltstone cemented with calcium carbonate. Weakly cemented. Reaction to HCL: moderate.
535-540	Tan silty clay with minor coarse sand and fine gravel; silty clay 95%, coarse sand and fine gravel 5%. Weakly cemented. Reaction to HCL: moderate.
540-545	Tan silty clay with minor coarse sand and fine gravel; silty clay 95%, coarse sand and gravel 5%. Weakly cemented. Reaction to HCL: moderate.
545-550	Coarse sand and fine gravel with tan clayey silt; coarse sand and fine gravel 80%, silty clay 20%. Uncemented. Reaction to HCL: moderate.
550-555	Coarse sand and fine gravel with minor tan clayey silt; coarse sand and fine gravel 90%, clayey silt 10%. Uncemented. Reaction to HCL: clayey silt fizzes moderately.
555-560	Coarse sand and fine gravel with minor tan clayey silt; coarse sand and fine gravel 90%, clayey silt 10%. Uncemented. Reaction to HCL: clayey silt fizzes moderately.
560-565	Coarse sand and fine gravel with minor tan clayey silt; coarse sand and fine gravel 90%, clayey silt 10%. Coarse fraction: quartz 45%, red fine-grained siliceous sedimentary fragments 45%, black volcanics 10%. Uncemented. Reaction to HCL: clayey silt fizzes moderately.
565-570	Coarse sandy gravel and tan clayey silt with occasional reddish brown sandstone and siltstone; coarse fraction 60%, fine fraction 40%. Weakly cemented except for hard sandstone and siltstone which are cemented with calcium carbonate. Reaction to HCL: moderate.

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Depth (ft.)	Description
570-575	Tan clayey silt with fine sandstone and medium to coarse sand; clayey silt and sandstone 80%, medium to coarse sand 20%. Weakly cemented. Reaction to HCL: moderate.
575-580	Brown clayey silt and minor medium to coarse sand; clayey silt 90%, medium to coarse sand 10%. Moderately cemented. Reaction to HCL: moderate.
580-585	Brown fine-grained sandy, clayey silt and minor medium-grained sand; sandy, clayey silt 95%, medium-grained sand 5%. Moderately cemented. Reaction to HCL: moderate.
585-590	Brown fine-grained sandy, clayey silt with occasional hard calcite-cemented sandstone (caliche) and minor medium-grained sand; sandy, clayey silt and sandstone 95%, medium-grained sand 5%. Moderately cemented. Reaction to HCL: moderate.
590-595	Brown to dark tan silty clay with occasional hard, reddish brown claystone and siltstone and minor medium-grained sand; silty clay 95%, medium-grained sand 5%. Silty clay is sticky. Uncemented. Reaction to HCL: moderate.
595-600	Brown to reddish brown smooth sticky clay with minor medium-grained sand; clay 98%, medium-grained sand 2%. Weakly cemented. Reaction to HCL: moderate.
600-605	Brown to reddish brown smooth sticky clay with occasional hard, calcite-cemented, red claystone and siltstone, and minor medium-grained sand; clay 98%, medium-grained sand 2%. Weakly cemented. Reaction to HCL: moderate.
605-610	Brown to reddish tan smooth sticky clay and calcite-cemented reddish brown siltstone and claystone with minor medium-grained sand; clay 80%, red claystone 15%, medium-grained sand 5%. Moderately cemented. Reaction to HCL: strong.

Depth (ft.)	Description
610-615	Brown to reddish tan smooth sticky clay and calcite-cemented reddish brown siltstone and claystone with minor medium-grained sand; clay 80%, red claystone 15%, medium-grained sand 5%. Moderately cemented. Reaction to HCL: strong.
615-620	Reddish brown clay and claystone with minor medium-grained sand; clay 85%, claystone 10%, medium-grained sand 5%. Moderately cemented. Reaction to HCL: strong.
620-625	Reddish brown silty clay, clay and claystone; silty clay 90%, clay 5%, claystone 5%. Moderately cemented. Reaction to HCL: strong.
625-630	Brown silty clay, reddish brown claystone, and grey-brown fine sandstone; silty clay 70%, claystone 10%, sandstone 10%. Moderately cemented. Reaction to HCL: strong.
630-635	Brown silty clay, fine-grained sandstone, and reddish brown claystone; silty clay 60%, sandstone 30%, claystone 10%. Moderately cemented. Reaction to HCL: strong.
635-640	Tan silty clay and reddish brown claystone; silty clay 95%, claystone 5%. Moderately cemented. Reaction to HCL: strong.
640-645	Tan silty clay, reddish brown claystone, tan fine-grained sandstone, and medium to coarse sand; silty clay 85%, claystone 5%, sandstone 5%, medium to coarse sand 5%. Moderately cemented. Reaction to HCL: moderate.
645-650	Tan clayey silt, white clay, red claystone, red fine to medium sandstone, and minor coarse sand and fine gravel; clayey silt 65%, clay 15%, claystone 10%, sandstone 5%, coarse sand and fine gravel 5%. Moderately cemented. Reaction to HCL: moderate.

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Depth (ft.)	Description
650-655	Tan clayey silt, white clay, red claystone, red fine to medium sandstone, and minor coarse sand and gravel; clayey silt 65%, clay 15%, claystone 10%, sandstone 5%, coarse sand and fine gravel 5%. Moderately cemented. Reaction to HCL: moderate.
655-660	Tan silty clay, red claystone, white clay, and beige fine sandstone; silty clay 80%, claystone 10%, clay 5%, sandstone 5%. Moderately cemented. Reaction to HCL: strong.
660-665	Tan silty clay, red claystone, white clay, and beige fine sandstone; silty clay 80%, claystone 10%, clay 5%, sandstone 5%. Moderately cemented. Reaction to HCL: strong.
665-670	Tan silty clay, red claystone, white clay, and beige fine sandstone; silty clay 80%, claystone 10%, clay 5%, sandstone 5%. Moderately cemented. Reaction to HCL: strong.
670-675	Coarse sand and fine gravel with minor reddish brown claystone, and tan silty clay; coarse sand and fine gravel 85%, silty clay 10%, claystone 5%. Coarse fraction dominated by quartz and red, fine-grained siliceous sedimentary fragments. Moderately cemented. Reaction to HCL: moderate.
675-680	Tan clayey silt and coarse sand and fine gravel; clayey silt 50%, coarse sand and fine gravel 50%. Coarse fraction: red fine-grained siliceous sedimentary particles 65%, quartz 30%, dark volcanics 5%. Moderately cemented. Reaction to HCL: moderate.
680-685	Tan silty clay and medium to coarse sand with minor fine gravel; silty clay 50%, sand and gravel 50%. Moderately cemented. Reaction to HCL: moderate.
685-690	Medium to coarse sand and tan silty clay; sand 70%, silty clay 30%. Moderately cemented. Reaction to HCL: moderate.

Depth (ft.)	Description
690-695	Brown clayey siltstone, tan fine-grained sandstone, and reddish brown claystone with minor coarse sand and gravel; fine fraction 80%, coarse sand and fine gravel 20%. Coarse fraction: composed of quartz, red granite, and pink to red fine-grained siliceous siltstone. Reaction to HCL: moderate.
695-700	Reddish brown coarse-grained sand and gravel; gravel 70%, sand 30%. Gravel fraction: reddish pink granite 60%, quartz 20%, feldspar 10%, dark volcanics 10%. Reaction to HCL: none.
700-705	Reddish brown coarse-grained sand and gravel; gravel 70%, sand 30%. Gravel fraction: reddish pink granite 60%, fine-grained siliceous siltstone 20%, feldspar 10%, dark volcanics 10%. Sand is predominantly quartz grains. Reaction to HCL: none.
705-710	Reddish brown coarse-grained sand and gravel; gravel 70%, sand 30%. Gravel fraction: reddish pink granite 60%, fine-grained siliceous siltstone 20%, feldspar 10%, dark volcanics 10%. Reaction to HCL: none.
710-715	Reddish brown coarse-grained sand and gravel; gravel 70%, sand 30%. Gravel fraction: reddish pink granite 60%, fine-grained siliceous siltstone 20%, quartz feldspar 20%, dark volcanics 10%. Reaction to HCL: none.
715-720	Reddish brown coarse-grained sand and gravel; gravel 60%, sand 40%. Gravel fraction: reddish pink granite 60%, fine-grained siliceous siltstone 20%, feldspar and quartz 10%, dark volcanics 10%. Sand is predominantly quartz. Reaction to HCL: none.
720-725	Reddish brown coarse-grained sand and gravel; medium gravel 70%, sand 30%. Gravel fraction: reddish pink granite 50%, feldspar and quartz 20%, fine-grained siliceous siltstone 20%, dark volcanics 10%. Sand is predominantly quartz and feldspar. Reaction to HCL: none.

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Depth (ft.)	Description
725-730	Reddish brown coarse-grained sand and gravel; medium gravel 80%, sand 20%. Gravel fraction: reddish pink granite 60%, feldspar and quartz 30%, fine-grained siliceous siltstone 5%, dark volcanics 5%. Sand is predominantly quartz and feldspar. Reaction to HCL: none.
730-735	Reddish brown coarse sand and gravel; fine- and medium-grained gravel 80%, sand 20%. Gravel fraction: reddish pink granite 80%, fine-grained sandstone 10%, dark volcanics 10%. Reaction to HCL: none.
735-740	Reddish brown coarse sand and gravel; fine- and medium-grained gravel 80%, sand 20%. Gravel fraction: reddish pink granite 70%, quartz 10%, dark volcanics 20%. Reaction to HCL: none.
740-745	Reddish brown coarse sand and gravel; fine- and medium-grained gravel 75%, sand 25%. Gravel fraction: reddish pink granite 80%, quartz and feldspar 10%, dark volcanics 10%. Sand grains are predominantly quartz. Reaction to HCL: none.
745-749	Reddish brown coarse sand and gravel; fine- and medium-grained gravel 85%, sand 15%. Gravel fraction: reddish pink granite 85%, quartz and feldspar 10%, dark volcanics 5%. Sand grains predominantly quartz and feldspar. Reaction to HCL: none.

TOTAL DEPTH: 749 feet

Monitor Well (A-2-4)1bcc2 [E-2UA]

LITHOLOGIC DESCRIPTIONS OF
DRILL CUTTINGS SAMPLES
Ecology & Environment, Inc.
Monitor Well EPA-2UA

Depth (ft.)	Description
0-5	Brown gravelly, sandy silt and clay; silt and clay 85%, sand 10%, gravel 5%; weakly cemented (caliche). Gravel fraction: tan caliche 100%. Reaction to HCL: strong.
5-10	Tan gravelly, sandy clay; clay 85%, fine- to medium-grained sand 5%, gravel 5%; weakly cemented (caliche). Gravel fraction: tan caliche 100%. Sticky. Reaction to HCL: strong.
10-15	Tan gravelly, sandy silt and clay; silt and clay 85%, sand 10%, gravel 5%; weakly cemented (caliche). Gravel fraction: tan caliche 100%. Reaction to HCL: strong.
15-20	Tan gravelly, sandy silt and clay; silt and clay 80%, fine- to medium-grained sand 10%, gravel 5%; weakly cemented (caliche). Gravel fraction: tan caliche (calcite-cemented sandstone and siltstone) 100%. Reaction to HCL: strong.
20-25	Brown silty and clayey sandy gravel; gravel (cobbles and boulders) 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: red siliceous siltstone and sandstone 50%, grey and white quartzite 40%, dark fine-grained volcanics 10%. Reaction to HCL: none.
25-30	Brown silty and clayey gravelly (cobbles and boulders) sand; coarse-grained sand 50%, gravel 30%, silt and clay 20%; uncemented. Gravel fraction: red and purple siliceous sandstone 50%, grey and white quartzite 30%, dark volcanics 15%, red granite 5%. Reaction to HCL: none.
30-35	Brown silty and clayey gravelly (cobbles and boulders) sand; coarse-grained sand 60%, gravel 30%, silt and clay 10%; weakly cemented. Gravel fraction: red and purple sandstone 50%, grey and white quartzite 30%, dark volcanics 15%, red granite 5%. Reaction to HCL: weak.
35-40	Brown silty and clayey gravelly (cobbles and boulders) sand; coarse-grained sand 60%, gravel 35%, silt and clay 5%; uncemented. Gravel fraction: red, yellow and purple sandstone 50%, grey and white quartzite 30%, dark volcanics 15%, red granite 5%. Reaction to HCL: none.

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Depth (ft.)	Description
40-45	Brown silty and clayey gravelly (cobbles and boulders) sand; coarse-grained sand 55%, gravel 30%, silt and clay 15%; uncemented. Gravel fraction: red, yellow, and purple sandstone 50%, grey and white quartzite 30%, dark volcanics 15%, red granite 5%. Reaction to HCL: none.
45-50	Brown silty and clayey gravelly (cobbles and boulders) sand; coarse-grained sand 60%, gravel 30%, silt and clay 10%; uncemented. Gravel fraction: red, white, and purple sandstone 60%, red, grey, and white quartzite 25%, green and black volcanics 10%, red granite 5%. Reaction to HCL: none.
50-55	Brown silty and clayey sandy gravel (cobbles and boulders); gravel 60%, coarse-grained sand 35%, silt and clay 5%; uncemented. Gravel fraction: red, white, purple, and orange sandstone 60%, red, grey, and white quartzite 25%, green and black volcanics 10%, red granite 5%. Reaction to HCL: none.
55-60	Brown silty and clayey gravelly (cobbles and boulders) sand; coarse-grained sand 65%, gravel 25%, silt and clay 10%; uncemented. Gravel fraction: red, white, purple, and orange sandstone 60%, red, grey, and white quartzite 25%, green and black volcanics 10%, red granite 5%. Reaction to HCL: none.
60-65	Brown gravelly, silty and clayey sand; medium- to coarse-grained sand 80%, gravel 10%, silt and clay 10%; uncemented. Gravel fraction: red, white, and purple sandstone 60%, red, grey, and white quartzite 25%, green and black volcanics 10%, red granite 5%. Reaction to HCL: none.
65-70	Brown silty and clayey sandy gravel (cobbles and boulders); gravel 75%, coarse-grained sand 20%, silt and clay 5%; uncemented. Gravel fraction: red, purple, and white sandstone 70%, red, grey, and white quartzite 15%, green and black volcanics 10%, red granite 5%. Reaction to HCL: none.

Depth (ft.)	Description
70-75	Brown silty and clayey gravelly (cobbles and boulders) sand; coarse-grained sand 70%, gravel 25%, silt and clay 5%; uncemented. Gravel fraction: red, purple, white, and orange sandstone 80%, red, white, and grey quartzite 10%, red granite 5%, dark volcanics 5%. Reaction to HCL: none.
75-80	Brown silty and clayey sandy gravel (cobbles and boulders); gravel 85%, coarse-grained sand 10%, silt and clay 5%; uncemented. Gravel fraction: red, purple, and white sandstone 80%, red, white, and grey quartzite 10%, red granite 5%, dark volcanics 5%. Reaction to HCL: none.
80-85	Brown silty and clayey gravelly (cobbles and boulders) sand; coarse-grained sand 60%, gravel 35%, silt and clay 5%; uncemented. Gravel fraction: red, purple, and white sandstone 80%, red, white, and grey quartzite 10%, dark volcanics 10%. Reaction to HCL: none.
85-90	Brown silty and clayey sandy gravel (cobbles and boulders); gravel 60%, coarse-grained sand 35%, silt and clay 5%; uncemented. Gravel fraction: red, purple, and white sandstone 80%, red, white, and grey quartzite 10%, dark volcanics 10%. Reaction to HCL: none.
90-95	Brown silty and clayey gravelly (cobbles and boulders) sand; coarse-grained sand 65%, gravel 30%, silt and clay 5%; uncemented. Gravel fraction: red, purple, white, and orange sandstone 80%, red, white, and grey quartzite 10%, dark volcanics 10%. Reaction to HCL: none.
95-100	Brown silty and clayey sandy gravel (cobbles and boulders); gravel 65%, coarse-grained sand 25%, silt and clay 10%; uncemented. Gravel fraction: red, yellow, grey, and purple sandstone 80%, red, white, and grey quartzite 10%, dark volcanics 10%. Reaction to HCL: none.

Depth (ft.)	Description
100-105	Brown silty and clayey sandy gravel (cobbles and boulders); gravel 85%, coarse-grained sand 10%, silt and clay 5%; uncemented. Gravel fraction: red, yellow, grey, and purple sandstone 80%, red, white, and grey quartzite 10%, dark volcanics 10%. Reaction to HCL: none.
105-110	Brown silty and clayey sandy gravel (cobbles and boulders); gravel 90%, coarse-grained sand 5%, silt and clay 5%; uncemented. Gravel fraction: red, yellow, grey, and purple sandstone 80%, red, white, and grey quartzite 10%, dark volcanics 10%. Reaction to HCL: none.
110-115	Brown silty and clayey sandy gravel (cobbles and boulders); gravel 75%, coarse-grained sand 20%, silt and clay 5%; uncemented. Gravel fraction: red, purple, grey, and yellow sandstone 80%, red, white, and grey quartzite 10%, dark volcanics 10%. Reaction to HCL: none.
115-120	Tan sandy clay and brown sandy gravel (cobbles and boulders); sandy clay 65%, sandy gravel 35%, sandy clay at 118 feet; sandy clay weakly cemented, sandy gravel uncemented. Sandy clay fraction: sticky clay 90%, fine-grained sand 10%; sandy gravel fraction: gravel 85%, coarse-grained sand 15%. Reaction to HCL: sandy clay: weak; sandy gravel: none.
120-125	Brown silty and clayey sandy gravel (cobbles and boulders); gravel 70%, coarse-grained sand 20%, silt and clay 10%; uncemented. Gravel fraction: red, purple, and grey sandstone 80%, red, white, and grey quartzite 10%, dark volcanics 10%. Reaction to HCL: none.
125-130	Brown silty and clayey sandy gravel (cobbles and boulders); gravel 65%, coarse-grained sand 30%, silt and clay 5%; uncemented. Gravel fraction: red, purple, and grey sandstone 80%, red, white, and grey quartzite 10%, dark volcanics 10%. Reaction to HCL: none.

Depth (ft.)	Description
130-135	Brown silty and clayey sandy gravel (cobbles and boulders); gravel 70%, coarse-grained sand 25%, silt and clay 5%; uncemented. Gravel fraction: red, purple, grey, and orange sandstone 90%, red, white, and grey quartzite 5%, green and black volcanics 5%. Reaction to HCL: none.
135-140	Brown sandy gravel (cobbles and boulders); gravel 80%, coarse-grained sand 20%, uncemented. Gravel fraction: red, purple, and grey sandstone 90%, red, white, and grey quartzite 5%, green and black volcanics 5%. Reaction to HCL: none.
140-145	Brown clayey sandy gravel (cobbles and boulders); gravel 70%, coarse-grained sand 20%, sticky clay 10%; uncemented. Gravel fraction: red, purple, and grey sandstone 80%, red, white, and grey quartzite 10%, dark volcanics 5%. Reaction to HCL: none.
145-150	Brown clayey sandy gravel (cobbles and boulders); gravel 50%, coarse-grained sand 35%, sticky clay 15%; weakly cemented. Gravel fraction: red, purple, and grey sandstone 85%, green and black volcanics 10%, red, white, and grey quartzite 5%. Reaction to HCL: weak.
150-155	Brown gravelly clayey sand; fine- to medium-grained sand 50%, sticky clay 40%, gravel 10%; weakly cemented. Gravel fraction: red, purple, and grey sandstone 85%, green and black volcanics 10%, red, white, and grey quartzite 5%. Reaction to HCL: weak.
155-160	Brown gravelly clayey sand; fine- to medium-grained sand 50%, sticky clay 40%, gravel 10%; weakly cemented. Gravel fraction: red, purple, and grey sandstone 80%, green and black volcanics 10%, red, white, and grey quartzite 5%, red granite 5%. Reaction to HCL: weak.

TOTAL DEPTH: 160 feet

Monitor Well (A-2-4)35abb2 [E-3UA]

LITHOLOGIC DESCRIPTIONS OF
DRILL CUTTINGS SAMPLES
Ecology & Environment, Inc.
Monitor Well EPA-3UA

Depth (ft.)	Description
0-5	Brown gravelly, sandy, clayey silt. Silt and clay 90%, sand 5%, gravel 5%. Gravel fraction: subrounded caliche 90%, subangular red and brown sandstone 10%. Reaction to acid: moderate.
5-10	Tan brown, gravelly, sandy, clayey silt. Silt and clay 90%, sand 5%, gravel 5%. Gravel fraction: subangular caliche 70%, subangular red and brown sandstone 30%. Sand is medium-grained. Reaction to acid: moderate.
10-15	Light tan gravelly, sandy, sticky-clayey silt. Silt and clay 90%, sand 5%, gravel 5%. Gravel fraction: 100% caliche fragments. Reaction to acid: vigorous.
15-20	Tan to white gravelly, sandy smooth and sticky clay. Clay 95%, caliche 3%, sand 2%. Gravel fraction: 100% caliche. Reaction to acid: vigorous.
20-25	Light brown sticky, sandy clay. Clay 95%, sand 5%. Sand is medium-grained. Reaction to acid: moderate.
25-30	Light brown to light tan sticky, sandy clay. Clay 95%, sand 5%. Sand is medium-grained. Reaction to acid: moderate.
30-35	Light brown gravelly, sandy clay. Sandy clay 80%, gravel 20%. Gravel fraction: subangular cream-brown caliche 40%, subangular fragments of pink, red, and brown sandstone 60%. Reaction to acid: moderate.
35-40	Brown clayey, sand and gravel (cobbles and boulders). Sandy gravel 60%, clay 40%. Sand is coarse-grained. Gravel fraction: subangular fragments of pink, red, brown, and orange sandstone 80%, black volcanics 10%, pink granite 10%. Reaction to acid: none.

Lithologic Descriptions of
Drill Cuttings Samples
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Depth (ft.)	Description
40-45	Brown clayey, gravelly sand. Coarse-grained sand 65%, gravel 30%, clay 5%. Gravel fraction: red, pink, and purple sandstone 80%, black volcanics 10%, pink granite 10%. Reaction to acid: none.
45-50	Brown clayey, sand and gravel (cobbles and boulders). Poorly sorted gravel 55%, coarse-grained sand 35%, tan clay 10%. Gravel fraction: red, brown, and purple sandstone 70%, black volcanics 15%, pink granite 5%. Reaction to acid: none.
50-55	Brown clayey, sandy gravel (cobbles and boulders). Gravel 85%, medium- and coarse-grained sand 10%, silty clay 5%. Gravel fraction: red, brown, tan, and purple subangular sandstone 80%, black volcanics 10%, pink granite 10%. Reaction to acid: none.
55-60	Dark brown clayey, sand and gravel (cobbles and boulders). Gravel 55%, medium-grained sand 35%, silty clay 10%. Gravel fraction: red, brown, and purple sandstone 70%, rhyolite 20%, pink granite 10%. Reaction to acid: none.
60-65	Brown clayey, sandy gravel (cobbles and boulders). Gravel 60%, medium-grained sand 35%, clay 5%. Gravel fraction: red and purple sandstone 60%, black volcanics 20%, pink granite 20%. Reaction to acid: none.
65-70	Brown clayey, sandy gravel (cobbles and boulders). Gravel 60% medium- and coarse-grained sand 35%, silty clay 5%. Gravel fraction: red, purple, and brown sandstone 70%, black volcanics and rhyolite 15%, pink granite 15%. Reaction to acid: none.
70-75	Brown clayey, sandy gravel (cobbles and boulders). Gravel 70%, sand 25%, clay 5%. Sand is medium- and coarse-grained and quartz-rich. Gravel fraction: red, brown, white, and purple fine-grained siliceous siltstone and sandstone 80%, dark volcanics 20%. Reaction to acid: none.

Depth (ft.)	Description
75-80	Brown clayey, gravelly sand. Medium- to coarse-grained sand 60%, gravel 35%, clay 5%. Gravel fraction: sub-rounded, red, brown, white, and purple fine-grained sandstone 80%, dark volcanics and pink granite 20%. Reaction to acid: none.
80-85	Brown clayey, sandy gravel (cobbles and boulders). Gravel 65%, medium- to coarse-grained sand 30%, clay 5%. Gravel fraction: red, brown, and purple fine-grained sandstone 80%, dark volcanics and pink granite 20%. Reaction to acid: none.
85-90	Brown clayey, sandy gravel (cobbles and boulders). Gravel 55%, medium- to coarse-grained sand 35%, clay 10%. Gravel fraction: red, brown, and purple fine-grained siliceous sandstone 80%, pink granite 20%. Reaction to acid: none.
90-95	Brown clayey, sandy gravel (cobbles and boulders). Gravel 70%, medium- to coarse-grained sand 25%, clay 5%. Gravel fraction: red, brown, gold, and purple fine-grained sandstone. Reaction to acid: none.
95-100	Dark brown clayey, sandy gravel (cobbles and boulders). Gravel 60%, medium- to coarse-grinaed sand 35%, clay 5%. Gravel fraction: red, brown, purple, and orange fine-grained sandstone. Reaction to acid: none.
100-105	Brown clayey, sandy gravel (cobbles and boulders). Gravel 60%, medium- to coarse-grained sand 35%, clay 5%. Gravel fraction: red, brown, purple, and gold fine-grained sandstone 85%, pink volcanics and granite 15%. Reaction to acid: none.
105-110	Brown clayey, sandy gravel (cobbles and boulders). Gravel 80%, medium- and coarse-grained sand 15%, sticky clay 5%. Gravel fraction: red, brown, and purple fine-grained sandstone 80%, rhyolite 10%, pink granite 10%. Reaction to acid: none.

Depth (ft.)	Description
110-115	Dark brown clayey, sandy gravel (cobbles and boulders). Gravel 80%, medium-grained sand 15%, clay 5%. Gravel fraction: red, brown, and purple fine-grained sandstone 70%, pink and black volcanics 15%, pink granite 15%, gravel ranges from "pea size" to 2 inch. Reaction to acid: none.
115-120	Brown clayey, gravel and sand. Medium- and coarse-grained sand 60%, gravel 35%, clay 5%. Gravel fraction: red, brown, gold, and purple fine-grained sandstone 80%, pink and black volcanics 10%, granite 10%. Reaction to acid: none.
120-125	Brown clayey, sandy gravel (cobbles and boulders). Gravel 70%, medium- and coarse-grained sand 25%, clay 5%. Gravel fraction: red, brown, orange, and purple fine-grained sandstone 70%, pink granite 20%, dark volcanics 10%. Reaction to acid: none.
125-130	Brown clayey, sandy gravel (cobbles and boulders). Gravel 80%, medium- and coarse-grained sand 15%, clay 5%. Gravel fraction: red, brown, and purple sandstone 70%, rhyolite 20%, pink granite 10%. Reaction to acid: none.
130-135	Dark brown clayey, sandy gravel (cobbles and boulders). Gravel 55%, medium- and coarse-grained sand 40%, clay 5%. Gravel fraction: red, brown, and purple fine-grained sandstone 70%, pink granite 5%, pink and black volcanics 15%. Reaction to acid: none.
135-140	Dark brown clayey, sandy gravel (cobbles and boulders). Gravel 55%, medium- and coarse-grained sand 40%, clay 5%. Gravel fraction: red, brown, and purple fine-grained sandstone 80%, rhyolite 10%, granite 10%. Reaction to acid: none.
140-145	Brown clayey, gravelly sand. Medium- and coarse-grained sand 70%, gravel 25%, clay 5%. Gravel fraction: red, brown, tan, and purple subangular fragments of sandstone 80%, pink granite 10%, volcanics 10%. Reaction to acid: none.

Lithologic Descriptions of
Drill Cuttings Samples
Monitor Well EPA-3UA
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Depth (ft.)	Description
145-150	Brown clayey, gravelly sand. Medium- and coarse-grained sand 50%, subangular gravel 40%, clay 5%. Gravel fraction: unbroken gravel fragments are rounded; red, brown, tan, and purple fine-grained sandstone 80%, pink granite 10%, volcanics 10%. Reaction to acid: none.

TOTAL DEPTH: 150 feet

Monitor Well (A-2-4)25ddb2 [E-4UA]

LITHOLOGIC DESCRIPTIONS OF
DRILL CUTTINGS SAMPLES
Ecology & Environment, Inc.
Monitor Well EPA-4UA

Depth (ft.)	Description
0-5	Brown and tan gravelly, sandy, silty clay. Sticky and moist silty clay 80%, fine-grained sand 10%, gravel 10%. Gravel fraction: 100% caliche. Reaction to acid: vigorous.
5-10	Brown gravelly, sandy clay. Clay 75%, medium- and coarse-grained sand 15%, gravel 10%. Sand grains are predominantly quartz. Gravel fraction: caliche 70%, red and brown sandstone 30%. Reaction to acid: vigorous.
10-15	Brown gravelly, sandy clay. Clay 75%, fine sand 10%, gravel 10%. Gravel fraction: red and brown fine-grained sandstone 50%, caliche 50%. Reaction to acid: vigorous.
15-20	Light tan sandy, silty clay with minor amounts of gravel. Sticky clay 85%, fine sand 5%, silt 5%, gravel 5%. Gravel fraction: subangular caliche 80%, red and brown fine-grained sandstone 20%. Reaction to acid: vigorous.
20-25	Light tan to greyish green sandy gravelly silty clay. Silty clay 70%, gravel 20%, medium- and coarse-grained sand 10%. Gravel fraction: caliche 80%, red and brown fine-grained sandstone 20%. Reaction to acid: vigorous, tan clay reacts, grey silt does not.
25-30	Brown and grey gravelly, sandy, silty clay. Silty clay 65%, medium- and coarse-grained sand 20%, gravel 15%. Gravel fraction: caliche 60%, red and brown fine-grained sandstone 40%. Reaction to acid: vigorous.
30-35	Tan to brown clayey, sandy gravel. Gravel 50%, medium- and coarse-grained sand 35%, clay 15%. Gravel fraction: red, brown, orange, and purple fine-grained sandstone 80%, dark volcanics 10%, caliche 10%. Reaction to acid: moderate.

Depth (ft.)	Description
35-40	Brown clayey, gravelly sand. Medium- and coarse-grained sand 45%, gravel 40%, clay 15%. Gravel fraction: red, brown, gold, and purple sandstone 70%, dark volcanics 15%, pink granite 15%. Reaction to acid: none.
40-45	Brown clayey, gravelly sand. Medium- and coarse-grained sand 60%, gravel 35%, clay 5%. Gravel fraction: red, brown, and purple fine-grained sandstone 80%, pink and black volcanics 10%, pink granite 10%. Reaction to acid: none.
45-50	Brown silty, clayey, sandy gravel. Gravel 45%, coarse-grained sand 40%, clay 10%, silt 5%. Gravel fraction: red, brown, orange, and purple fine-grained sandstone 80%, dark volcanics 20%. Reaction to acid: none.
50-55	Brown clayey, gravelly sand. Medium-grained sand 70%, gravel 20%, clay 10%. Gravel fraction: red, brown, purple, and white fine-grained sandstone 80%, dark volcanics 20%. Reaction to acid: none.
55-60	Brown clayey, gravelly sand. Medium-grained sand 70%, gravel 20%, clay 10%. Gravel fraction: red, brown, purple, and white fine-grained sandstone 70%, rhyolite 15%, black volcanics 5%. Reaction to acid: none.
60-65	Brown clayey, gravelly sand. Fine- to medium-grained sand 80%, gravel 10%, clay 10%. Gravel fraction: red, brown, and purple fine-grained sandstone 100%. Reaction to acid: none.
65-70	Brown clayey, gravelly sand. Medium- to coarse-grained sand 60%, gravel 30%, clay 10%. Gravel fraction: red, brown, white, and purple fine-grained sandstone 80%, dark volcanics 20%. Reaction to acid: none.

Lithologic Descriptions of
Drill Cuttings Samples
Monitor Well EPA-4UA
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Depth (ft.)	Description
70-75	Brown clayey, sandy gravel (cobbles and boulders). Gravel 85%, medium- and coarse-grained sand 10%, clay 5%. Gravel fraction: red, brown, and purple subangular fragments of fine-grained sandstone 85%, dark volcanics and rhyolite 15%. Reaction to acid: none.
75-80	Brown clayey, sandy gravel (cobbles and boulders). Gravel 80%, medium sand 15%, clay 5%. Gravel fraction: poorly-sorted, rounded to angular, red and brown sandstone 85%, dark volcanics 15%. Reaction to acid: none.
80-85	Brown clayey, sandy gravel (cobbles and boulders). Gravel 75%, medium-grained sand 20%, clay 5%. Gravel fraction: subangular red, brown, and purple fine-grained sandstone 80%, dark volcanics and granite 20%. Reaction to acid: none.
85-90	Brown clayey, gravelly sand. Fine- to coarse-grained sand 70%, predominantly quartz, gravel 25%, clay 5%. Gravel fraction: subangular fragments of red, brown, and purple fine-grained sandstone 85%, dark volcanics 15%. Reaction to acid: none.
90-95	Brown clayey, sandy gravel (cobbles and boulders). Gravel 65%, medium- to coarse-grained sand 30%, clay 5%. Gravel fraction: subangular fragments of red, brown, purple, and white sandstone 80%, rhyolite and dark volcanics 10%, granite 10%. Reaction to acid: none.
95-100	Brown clayey, sandy gravel (cobbles and boulders). Gravel 70%, medium- to coarse-grained sand 20%, clay 10%. Gravel fraction: red, brown, and purple fine-grained sandstone 80%. Reaction to acid: none.
100-105	Brown clayey, sandy gravel (cobbles and boulders). Gravel 70%, medium- to coarse-grained sand 20%, clay 10%. Sand is angular to subangular. Gravel fraction: fine-grained red, brown, gold, and white sandstone. Reaction to acid: none.

Depth (ft.)	Description
105-110	Brown clayey, sandy gravel (cobbles and boulders). Gravel 75%, medium- and coarse-grained sand 15%, sticky clay 10%. Gravel fraction: subangular fragments of red and brown sandstone. Reaction to acid: none.
110-115	Brown clayey, sandy gravel (cobbles and boulders). Gravel 65%, medium- and coarse-grained sand 20%, sticky clay 15%. Gravel fraction: red, brown, and purple fine-grained sandstone 70%, dark volcanics 15%, granite 15%. Reaction to acid: none.
115-120	Brown clayey, gravelly sand. Medium- and coarse-grained sand 60%, gravel 30%, clay 10%. Gravel fraction: red, brown, purple, and gold sandstone 80%, dark volcanics and granite 20%. Reaction to acid: none.
120-125	Brown clayey, sandy gravel. Gravel 55%, medium- and coarse-grained sand 25%, clay 20%. Gravel fraction: red, brown, purple, and white sandstone 80%, dark volcanics and granite 20%. Reaction to acid: none.
125-130	Brown medium to coarse sand and gravel with minor clumps of clay. Gravel 55%, medium to coarse sand 40%, clay clumps 5%. Sand is subangular to round; gravel is rounded and typically 20-30mm. Unconsolidated. Reaction to HCL: sand and gravel, none; clay, strong. Gravel composition: reddish purple, white, and grey, fine-grained sandstone 60%, red chert 30%, black and green fine-grained volcanics 10%.
130-150	Tan fine sandy silty clay with coarse sand and gravel. Sandy clay 85%, coarse sand 10%, gravel 5%. Clay is sticky, wet and soft. Unconsolidated. Reaction to HCL: clay reacts strongly. Similar gravel lithologies as above. No cuttings returned to surface from 130 to 146 feet.
150-155	Tan fine sandy silty clay with minor medium to coarse sand. Clay 90%, medium to coarse sand 10%. Clay is sticky, wet, and soft. Unconsolidated. Reaction to HCL: clay reacts strongly.

Lithologic Descriptions of
Drill Cuttings Samples
Monitor Well EPA-4UA
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Depth (ft.)	Description
155-160	Tan fine sandy silty clay. Clay 100%, clay is wet, sticky, and soft. Unconsolidated. Reaction to HCL: strong.

Total Depth: 160 feet

Monitor Well (A-1-4)2acd [E-5UA]

LITHOLOGIC DESCRIPTIONS OF
DRILL CUTTINGS SAMPLES
Ecology & Environment, Inc.
Monitor Well EPA-5UA

Depth (ft.)	Description
0-5	Dark tan gravelly, silty clay. Smooth and sticky clay 60%, silt 25%, gravel 15%. Gravel fraction: caliche 80%, quartz 20%. Reaction to acid: vigorous.
5-10	Tan gravelly, sandy, silty clay. Clay 55%, silt 20%, gravel 10%, sand 15%. Gravel fraction: subangular caliche 85%, quartz 15%. Reaction to acid: vigorous.
10-15	Grey brown gravelly, sandy clay. Clay 65%, sand 25%, gravel 10%. Gravel fraction: tan caliche 60%, red and purple sandstone 40%. Reaction to acid: clay reacts vigorously.
15-20	Brown clayey, sandy gravel (cobbles and boulders). Gravel 60%, coarse sand 20%, clay 20%. Gravel fraction: red, grey, purple, and white sandstone 90%, dark volcanics 10%. Reaction to acid: moderate.
20-25	Brown gravelly sand with minor amount soft clay. Sand 60%, gravel 35%, clay 5%. Gravel fraction: red, grey, purple, and white fine-grained sandstone 90%, dark volcanics 10%. Reaction to acid: none.
25-30	Brown clayey sand and gravel (cobbles and boulders). Gravel 60%, medium sand 30%, clay 10%. Gravel fraction: red, grey, and purple subangular fragments of fine-grained sandstone 90%, dark volcanics 10%. Reaction to acid: none.
30-35	Brown clayey, gravelly sand. Medium- and coarse-grained sand 60%, gravel 35%, clay 5%. Gravel fraction: red, brown, and gold subangular fragments of fine-grained sandstone 90%, black volcanics and granite 10%. Reaction to acid: none.
35-40	Brown sandy gravel (cobbles and boulders). Gravel 70%, coarse sand 30%. Gravel fraction: red, brown, and orange fine-grained sandstone and siliceous rocks 65%, black fine-grained volcanics 35%. Reaction to acid: none.

Lithologic Descriptions of
Drill Cuttings Samples
Monitor Well EPA-5UA
Page Two

Depth (ft.)	Description
40-45	Brown clayey, gravelly sand. Medium- and coarse-grained sand 60%, gravel 30%, clay 10%. Gravel fraction: red, brown, and orange fine-grained sandstone 70%, black fine-grained volcanics 15%, granite 15%. Reaction to acid: none.
45-50	Brown clayey, sandy gravel (cobbles and boulders). Gravel 60%, medium- and coarse-grained sand 35%, clay 5%. Gravel fraction: red, brown, and tan fine-grained sandstone 75%, dark fine-grained volcanics and granite 25%. Reaction to acid: none.
50-55	Brown clayey, sandy gravel. Gravel 50%, medium- and coarse-grained sand 45%, clay 5%. Gravel fraction: red, brown, and orange fine-grained sandstone 80%, dark fine-grained volcanics and granite 20%. Reaction to acid: none.
55-60	Brown sandy gravel (cobbles and boulders). Gravel 50%, coarse sand 30%, medium sand 20%. Gravel fraction: red, brown, orange, and white fine-grained sandstone 80%, dark volcanics and granitic 20%. Reaction to acid: none.
60-65	Brown sandy gravel (cobbles and boulders). Gravel 65%, coarse sand 30%, medium-grained sand 5%. Gravel fraction: red, brown, white, and gold fine-grained sandstone 80%, dark fine-grained volcanics and granite 20%. Reaction to acid: none.
65-70	Brown clayey gravelly sand. Medium sand 55%, coarse sand 15%, gravel 15%, clay 15%. Gravel fraction: red, brown, white, and purple fine-grained sandstone 80%, dark fine-grained volcanics and granite 20%. Reaction to acid: none.
70-75	Brown gravelly clayey sand. Medium-grained sand 50%, coarse-grained sand 10%, clay 25%, gravel 15%. Gravel fraction: red, brown, and purple sandstone 100%. Reaction to acid: none.

Lithologic Descriptions of
Drill Cuttings Samples
Monitor Well EPA-5UA
Page Three

Depth (ft.)	Description
75-80	Brown clayey, sandy gravel. Gravel 50%, coarse sand 25%, medium sand 15%, clay 10%. Gravel fraction: red, brown, purple, and white sandstone 70%, rhyolite and dark fine-grained volcanics 15%, pink granite 15%. Reaction to acid: none.
80-85	Brown clayey gravel and sand. Medium- and fine-grained sand 50%, gravel 35%, clay 15%. Gravel fraction: red, brown, purple, and white sandstone 80%, dark fine-grained volcanics 10%, pink granite 10%. Reaction to acid: none.
85-90	Brown clayey, sandy gravel (cobbles and boulders). Gravel 60%, medium- and coarse-grained sand 30%, clay 10%. Gravel fraction: red, brown, orange, and purple fine-grained sandstone 80%, rhyolite and dark fine-grained volcanics 10%, pink granite 10%. Reaction to acid: none.
90-95	Brown clayey, sandy gravel (cobbles and boulders). Gravel 55%, medium- and coarse-grained sand 30%, clay 15%. Gravel fraction: red, brown, orange, and purple fine-grained sandstone 80%, dark fine-grained volcanics 10%, pink granite 10%. Reaction to acid: none.
95-100	Brown clayey, gravelly sand. Medium-grained sand 25%, coarse-grained sand 25%, gravel 35%, clay 15%. Gravel fraction: red, brown, purple, and white fine-grained sandstone 100%. Reaction to acid: none.
100-105	Brown clayey sand and gravel. Gravel 75%, coarse-grained sand 15%, medium-grained sand 5%, clay 5%. Gravel fraction: red, brown, purple, and white sub-angular fragments of fine-grained sandstone 80%, dark fine-grained volcanics 15%, pink granite 5%. Reaction to acid: none.

Depth (ft.)	Description
105-110	Brown clayey, sandy gravel. Gravel 60%, coarse sand 25%, medium-grained sand 10%, clay 5%. Gravel fraction: red, brown, purple, white, and gold fine-grained siliceous sandstone 85%, dark fine-grained volcanics 10%, pink granite 5%. Reaction to acid: none.
110-115	Brown clayey, sandy gravel (cobbles and boulders). Gravel 50%, coarse sand 30%, medium sand 10%, clay 10%. Gravel fraction: red, brown, purple, and white sub-angular fragments of fine-grained siliceous sandstone 85%, dark and pink fine-grained volcanics 15%. Reaction to acid: none.
115-120	Brown clayey, gravelly sand. Medium- and coarse-grained sand 60%, gravel 25%, clay 15%. Gravel fraction: red, brown, purple, and white fine-grained sandstone 90%, dark fine-grained volcanics 10%. Reaction to acid: none.
120-125	Brown clayey, gravelly sand. Medium- and coarse-grained sand 55%, gravel 30%, clay 15%. Gravel fraction: red, brown, purple, and white sandstone 90%, dark volcanics 10%. Reaction to acid: none.
125-132	Brown gravelly, clayey sand. Fine- and medium-grained sand 60%, coarse sand 10%, clay 25%, gravel 5%. Gravel fraction: fine-grained sandstone 100%. Reaction to acid: none.

TOTAL DEPTH: 132 feet

Soil Test Borehole (A-1-4)1bad1 [ST-1]

LITHOLOGIC DESCRIPTION
SOIL TEST BOREHOLE ST-1

DEPTH (feet)	DESCRIPTION
0 - 5.5	Brown; moist, gravelly, sandy silt; silt 80%, sand 15%, gravel 5%.
5.5 - 10	Light brown; slightly moist, gravelly, sandy silt with caliche; silt 75%, sand 15%, gravel 5%, caliche 5%.
10 - 15	Brown; moist, gravelly, sandy silt with caliche; silt 60%, sand 20%, gravel 10%, caliche 10%. Increase in caliche at 12 feet.
15 - 19.5	Brown; moist, gravelly, silty sand; sand 80%, gravel 10%, silt 10%. No caliche observed below 18 feet.
19.5 - 25	Brown; silty, sandy gravel; gravel 40%, sand 30%, cobbles 20%, silt 10%. Started adding water at 23 feet to stabilize borehole wall.
25 - 30	Brown; silty, sandy gravel; gravel 50%, cobbles 20%, sand 20%, silt 10%.
30 - 35.5	Brown; silty, sandy gravel; gravel 50%, cobbles 20%, sand 20%, silt 10%.
35.5 - 40	Brown; silty, sandy gravel; gravel 50%, cobbles 20%, sand 20%, silt 10%. Boulders at 36, 38, 39.5, and 40 feet.
40 - 45	Brown; silty, sandy gravel; gravel 40%, cobbles 30%, sand 20%, silt 10%. Boulders at 41.8, 43, and 45 feet.
45 - 50	Brown; silty, sandy gravel; gravel 40%, cobbles 30%, sand 20%, silt 10%.
50 - 56	Brown; silty, sandy gravel; gravel 40%, cobbles 30%, sand 20%, silt 10%. Boulders at 52.5 feet.
56 - 60	Brown; silty, sandy gravel; gravel 40%, cobbles 30%, sand 20%, silt 10%. Boulders at 57 feet.
60 - 65	Brown; silty, clayey, sandy gravel; gravel 35%, cobbles 25%, sand 25%, silt and clay 15%.
65 - 70	Brown; silty, clayey, sandy gravel; gravel 30%, cobbles 20%, sand 30%, silt and clay 20%.

SOIL TEST BOREHOLE ST-1

DEPTH (feet)	DESCRIPTION
70 - 75	Brown; silty, clayey, sandy gravel; gravel 30%, cobbles 15%, sand 30%, silt and clay 25%.
75 - 80	Brown; silty, clayey, sandy gravel; gravel 30%, cobbles 25%, sand 25%, silt and clay 20%.
80 - 85	Brown; silty, clayey, sandy gravel; gravel 30%, cobbles 20%, sand 30%, silt and clay 20%.
85 - 91	Brown; silty, clayey, sandy gravel; gravel 30%, cobbles 20%, sand 30%, silt and clay 20%.
91 - 92	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 15%, sand 30%, silt and clay 15%. Perched water table encountered at 92 feet.
92 - 94	Brown; silty, sandy gravel; gravel 40%, cobbles 15%, sand 35% silt 10%.
94 - 101	Brown; silty, clayey, sandy gravel; gravel 45%, cobbles 5%, sand 40%, silt and clay 10%.
101 - 105	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 30%, silt and clay 20%.
105 - 110.5	Brown; silty, clayey, gravelly sand; sand 50%, gravel 35%, cobbles 5%, silt and clay 10%.
110.5 - 115.5	Brown; silty, clayey, gravelly sand; sand 50%, gravel 35%, cobbles 5%, silt and clay 10%.
115.5 - 120	Brown; silty, clayey, gravelly sand; sand 50%, gravel 35%, cobbles 5%, silt and clay 10%.
120	- TOTAL DEPTH

Soil Test Borehole (A-1-4)1bdal [ST-2]

LITHOLOGIC DESCRIPTION
SOIL TEST BOREHOLE ST-2

DEPTH (feet)	DESCRIPTION
0 - 5	Light brown; slightly moist, sandy gravelly silt with caliche; silt 60%, caliche 20%, gravel 10%, sand 10%.
5 - 10	Reddish-brown; moist, gravelly, silty sand, caliche nil; sand 70%, silt 20%, gravel 10%.
10 - 15	Brown; slightly moist, sandy, silty clay, caliche nil; silt and clay 90%, sand 10%..
15 - 20	Brown; silty, sandy gravel; gravel 40%, cobbles 20%, sand 30%, silt 10%. Some caliche observed at 17 feet. None observed below this depth. Started adding water at 18 feet to stabilize borehole wall.
20 - 25	Brown; silty, sandy gravel; gravel 30%, cobbles 20%, sand 30%, silt 20%.
25 - 30	Brown; silty, clayey, sandy gravel; gravel 30%, cobbles 20%, sand 30%, silt and clay 20%. Boulders at 27 feet.
30 - 35	Brown; silty, sandy gravel; gravel 30%, cobbles 20%, sand 40%, silt 10%.
35 - 40	Brown; silty, clayey, sandy gravel; gravel 30%, cobbles 20%, sand 30%, silt and clay 20%. Boulders at 39.5 feet.
40 - 45	Brown; silty, clayey, sandy gravel; gravel 30%, cobbles 30%, sand 30%, silt and clay 10%. Boulders at 41, 42, and 45 feet.
45 - 50	Brown; silty, clayey, sandy gravel; gravel 35%, cobbles 10%, sand 35%, silt and clay 20%.
50 - 55	Brown; silty, clayey, sandy gravel; gravel 35%, cobbles 20%, sand 30%, silt and clay 15%.
55 - 59.5	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 30%, silt and clay 20%.
59.5 - 65	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10% sand 30%, silt and clay 20%.
65 - 70	Brown; silty, clayey, gravelly sand; sand 50%, gravel 30% cobbles 10%, silt and clay 10%.

LITHOLOGIC DESCRIPTION
SOIL TEST BOREHOLE ST-2

DEPTH (feet)	DESCRIPTION
70 - 75	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 30%, silt and clay 20%.
75 - 80	Brown; silty, clayey, gravelly sand; sand 40%, gravel 30%, cobbles 10%, silt and clay 20%.
80 - 85	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 40%, silt and clay 10%.
85 - 90	Brown; silty, clayey, gravelly sand; sand 50%, gravel 30%, cobbles 10%, silt and clay 10%.
90 - 95	Brown; silty, sandy gravel; gravel 50%, cobbles 10%, sand 30%, silt 10%. Perched water table encountered at 91 feet.
95 - 100	Brown; silty, sandy gravel; gravel 50%, cobbles 10%, sand 30%, silt and clay 10%.
100 - 105	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 30%, silt and clay 20%.
105 - 110	Brown; silty, clayey, gravelly sand; sand 45%, gravel 40%, cobbles 5%, silt and clay 10%.
110 - 115	Brown; silty, sandy gravel; gravel 40%, cobbles 10%, sand 45%, silt 5%.
115 - 120	Brown; silty, clayey, gravelly sand; sand 45%, gravel 40%, cobbles 5%, silt and clay 10%.
120 - 125	Brown; silty, clayey, gravelly sand; sand 50%, gravel 35%, cobbles 5%, silt and clay 10%.
125	- TOTAL DEPTH

Soil Test Borehole (A-1-4)1bda2 [ST-3]

LITHOLOGIC DESCRIPTION
SOIL TEST BOREHOLE ST-3

DEPTH (feet)	DESCRIPTION
0 - 5	Light-brown; slightly moist, sandy silt with caliche; silt 70%, caliche 20%, sand 10%.
5 - 10	Light-brown; slightly moist, gravelly, sandy silt with caliche; silt 60%, caliche 30%, gravel 5%, sand 5%.
10 - 15	Brown; moist, sandy, gravelly silt and clay with caliche; silt and clay 75%, sand 10%, gravel 10%, caliche 5%.
15 - 21	Brown; silty, sandy gravel; gravel 40%, cobbles 10%, sand 30%, silt 20%. No caliche observed below 15 feet. Started adding water at 17 feet to stabilize borehole wall.
21 - 25	Brown; silty, clayey, sandy gravel; gravel 35%, cobbles 10%, sand 35%, silt and clay 20%.
25 - 30	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 40%, silt and clay 10%. Boulders at 27 and 28 feet.
30 - 35	Brown; silty, clayey, sandy gravel; gravel 35%, cobbles 10%, sand 40%, silt and clay 15%.
35 - 40	Brown; silty, clayey, gravelly sand; sand 40%, gravel 30%, cobbles 10%, silt and clay 20%.
40 - 45	Brown; silty, clayey, gravelly sand; sand 40%, gravel 30%, cobbles 10%, silt and clay 20%.
45 - 50	Brown; silty, clayey, gravelly sand; sand 40%, gravel 30%, cobbles 10%, silt and clay 20%.
50 - 55	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 40%, silt and clay 10%. Boulders at 55 feet.
55 - 60	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 40%, silt and clay 10%.
60 - 65	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 20%, sand 30%, silt and clay 10%.
65 - 70	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 35%, silt and clay 15%. Boulders at 70 feet.

DEPTH (feet)	DESCRIPTION
70 - 75	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 5%, sand 30%, silt and clay 25%.
75 - 80	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 40%, silt and clay 10%.
80 - 85	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 35%, silt and clay 15%.
85 - 90	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 5%, sand 40%, silt and clay 15%.
90 - 96	Brown; silty, clayey, sandy gravel; gravel 40%, cobbles 10%, sand 40%, silt and clay 10%. Perched water table encountered at 91.5 feet.
96 - 100	Brown; silty, clayey, sandy gravel; gravel 35%, cobbles 10%, sand 35%, silt and clay 20%.
100 - 105.5	Brown; silty, gravelly sand; sand 50%, gravel 40%, cobbles 5%, silt 5%.

105.5 - TOTAL DEPTH

Monitor Well (A-1-4)1bcc2 [M-2UA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bcc$_2$[M-2UA]

A-1a

DEPTH (feet)	DESCRIPTION
0 - 5	Brown; gravelly, sandy silt and clay; silt and clay 90%, sand 5%, gravel 5%.
5 - 10	Brown; gravelly, sandy silt and clay; silt and clay 95%, sand and gravel 5%. Clay sticky.
10 - 15	Brown; gravelly, sandy silt and clay; silt and clay 95%, sand and gravel 5%.
15 - 20	Brown; sandy silt and clay; silt and clay 90%, sand 10%. Clay sticky.
20 - 25	Brown, black, red; sandy, clayey gravel (cobbles and boulders); gravel 80%, clay 10%, sand 10%.
25 - 30	Brown, red, black; clayey, sandy gravel (cobbles and boulders); gravel 85%, sand 10%, clay 5%.
30 - 35	Brown, red, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
35 - 40	Brown, red, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
40 - 45	Brown, red, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
45 - 50	Brown, black, red; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
50 - 55	Brown, red, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
55 - 60	Brown, black, red; sandy gravel (cobbles and boulders); gravel 95%, sand 5%.
60 - 65	Brown, black, red; sandy gravel (cobbles and boulders); gravel 95%, sand 5%.
65 - 70	Brown, red, black; sandy gravel (cobbles and boulders); gravel 95%, sand 5%.
70 - 75	Brown, black, red; sandy gravel (cobbles and boulders); gravel 95%, sand 5%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bcc$_2$[M-2UA]

DEPTH (feet)	DESCRIPTION
75 - 80	Brown, black, red; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
80 - 85	Brown, black, red; clayey, sandy gravel (cobbles and boulders); gravel 85%, sand 10%, clay 5%.
85 - 90	Brown, black, red; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
90 - 95	Brown, black, red; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
95 - 100	Brown, black, red; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
100 - 105	Brown, black, red; sandy gravel (cobbles and boulders); gravel 95%, sand 5%.
105 - 110	Brown, black, red; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
110 - 115	Brown, black, red; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
115 - 120	Brown, black, red; sandy, clayey gravel (cobbles and boulders); gravel 75%, clay 20%, sandy 5%.
120 - 125	Brown, black, red; gravelly, sandy clay; clay 80%, sand 10%, gravel 10%.
125 - TOTAL DEPTH	

Monitor Well (A-1-4)1bdd2 [M-3UA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdd$_2$[M-3UA]

DEPTH (feet)	DESCRIPTION
0 - 5	Brown; sandy, gravelly silt and clay; silt and clay 80%, gravel 10%, sand 10%. Some caliche.
5 - 10	Brown; sandy silt and clay; silt and clay 90%, sand 10%. Some caliche.
10 - 15	Brown; sandy silt and clay; silt and clay 95%, sand 5%.
15 - 20	Brown; red, black; sandy, gravelly silt and clay; silt and clay 60%, gravel 30%, sand 10%.
20 - 25	Brown, red, black; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
25 - 30	Red, black, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
30 - 35	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
35 - 40	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
40 - 45	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
45 - 50	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
50 - 55	Red, brown, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
55 - 60	Red, black, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
60 - 65	Red, black, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
65 - 70	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
70 - 75	Red, black, brown; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdd$_2$[M-3UA]

DEPTH (feet)	DESCRIPTION
75 - 80	Red, black, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
80 - 85	Red, white, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
85 - 90	Red, white, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
90 - 95	Red, white, black; sandy gravel (cobbles and boulders); gravel 85%, sand 15%.
95 - 100	Red, black, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
100 - 105	Red, black, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
105 - 110	Red, white, black; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
110 - 115	Red, white, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
115 - 120	Black, white, red; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
120 - 125	Red, black, white; sandy, clayey gravel; gravel 70%, clay 20%, sand 10%.

125 - TOTAL DEPTH

Monitor Well (A-1-4)1bdb2 [M-4UA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdb$_2$[M-4UA]

DEPTH (feet)	DESCRIPTION
0 - 5	Brown, red, white; clayey, sandy gravel; gravel 50%, sand 30%, clay 20%.
5 - 10	Brown; sandy silt and clay; silt and clay 90%, sand 10%. Clay sticky.
10 - 15	Brown; gravelly, sandy silt and clay; silt and clay 90%, sand 5%, gravel 5%. Some caliche.
15 - 20	Brown, white, black; gravelly, sandy clay; clay 80%, gravel 10%, sand 10%.
20 - 25	Black, red, white; sandy gravel (cobbles and boulders); gravel 70%, sand 30%.
25 - 30	Red, black, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
30 - 35	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
35 - 40	Red, brown, black; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
40 - 50	Red, white, black; clayey, sandy gravel (cobbles and boulders); gravel 60%, sand 30%, clay 10%.
50 - 55	Black, red, brown; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
55 - 60	Red, black, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
60 - 65	Red, black, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
65 - 70	Red, white, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
70 - 75	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
75 - 85	Red, black, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdb$_2$[M-4UA]

DEPTH (feet)	DESCRIPTION
85 - 90	Red, black, white; sandy, clayey gravel (cobbles and boulders); gravel 70%, clay 20%, sand 10%.
90 - 95	Red, white, black; sandy, clayey gravel (cobbles and boulders); gravel 70%, clay 20%, sand 10%.
95 - 100	Red, brown, white; sandy, clayey gravel (cobbles and boulders); gravel 80%, clay 10%, sand 10%.
100 - 105	Red, brown, white; sandy, clayey gravel (cobbles and boulders); gravel 50%, clay 30%, sand 20%.
105 - 110	Red, brown, white; sandy, gravelly clay (cobbles and boulders); clay 50%, gravel 30%, sand 20%.
110 - 115	Red, brown, white; sandy, clayey gravel (cobbles and boulders); gravel 70%, clay 20%, sand 10%.
115 - 120	Red, brown, white; sandy, clayey gravel (cobbles and boulders); gravel 60%, clay 30%, sand 10%.

120 - TOTAL DEPTH

Monitor Well (A-1-4)1bba2 [M-5UA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bba$_2$[M-5UA]

DEPTH (feet)	DESCRIPTION
0 - 5	Brown; sandy, gravelly silt and clay; silt and clay 90%, gravel 5%, sand 5%. Some caliche.
5 - 10	Brown; sandy, gravelly silt and clay; silt and clay 90%, gravel 5%, sand 5%. Some caliche.
10 - 15	Brown, white; sandy, gravelly silt and clay; silt and clay 85%, gravel 10%, sand 5%. Some caliche.
15 - 20	Brown, white, red; sandy, gravelly silt and clay; silt and clay 85%, gravel 10%, sand 5%.
20 - 25	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
25 - 30	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
30 - 35	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
35 - 40	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
40 - 45	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
45 - 50	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
50 - 55	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
55 - 60	Brown, white, red; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
60 - 65	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
65 - 70	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
70 - 75	Red, white, black; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bba$_2$[M-5UA]

DEPTH (feet)	DESCRIPTION
75 - 80	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
80 - 85	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
85 - 90	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
90 - 95	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
95 - 100	Brown, white, red; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
100 - 105	Brown, white, red; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
105 - 110	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
110 - 115	Red, white, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
115 - 120	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
120 - 125	Brown, white, red; clayey, gravelly sand (cobbles and boulders); sand 50%, gravel 40%, clay 10%.

125 - TOTAL DEPTH

Monitor Well (A-1-4)1baa2 [M-6UA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1baa$_2$[M-6UA]

A-5a

DEPTH (feet)	DESCRIPTION
0 - 5	Brown; sandy, gravelly silt and clay; silt and clay 85%, gravel 10%, sand 5%. Some caliche.
5 - 10	Brown; sandy, gravelly silt and clay; silt and clay 80%, gravel 10%, sand 10%. Some caliche.
10 - 15	Brown; sandy, gravelly silt and clay; silt and clay 90%, gravel 5%, sand 5%. Some caliche.
15 - 20	Brown, white; sandy, gravelly silt and clay; silt and clay 90%, gravel 5%, sand 5%.
20 - 25	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
25 - 30	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 85%, sand 10%, clay 5%.
30 - 35	Brown, red, white; sandy, clayey gravel (cobbles and boulders); gravel 85%, clay 10%, sand 5%.
35 - 40	Red, white, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
40 - 45	Red, black, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
45 - 50	Brown, red, white; sandy, clayey gravel (cobbles and boulders); gravel 70%, clay 20%, sand 10%.
50 - 55	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
55 - 60	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
60 - 65	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
65 - 70	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
70 - 75	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1baa$_2$[M-6UA]

DEPTH (feet)	DESCRIPTION
75 - 80	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
80 - 85	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
85 - 90	Red, white, brown; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
90 - 95	White, brown, red; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
95 - 100	Red, white, brown; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
100 - 105	Brown, white, red; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
105 - 110	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
110 - 115	White, red, brown; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
115 - 120	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
120 - 125	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
125 - TOTAL DEPTH	

Monitor Well (A-1-4)1baa3 [M-7UA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1baa$_3$[M-7UA]

DEPTH (feet)	DESCRIPTION
0 - 5	Brown; sandy, gravelly silt and clay; silt and clay 85%, gravel 10%, sand 5%. Some caliche.
5 - 10	Brown; sandy, gravelly silt and clay; silt and clay 90%, gravel 5%, sand 5%. Some caliche.
10 - 15	Brown, white; sandy, gravelly silt and clay; silt and clay 90%, gravel 5%, sand 5%. Some caliche.
15 - 20	Brown, white, red; sandy, gravelly silt and clay; silt and clay 90%, gravel 5%, sand 5%.
20 - 25	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
25 - 30	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
30 - 35	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
35 - 40	Red, white, brown; sandy gravel (cobbles and boulders); gravel 50%, sand 50%.
40 - 45	Red, white, brown; sandy gravel (cobbles and boulders); gravel 70%, sand 30%.
45 - 50	Red, black, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
50 - 55	Red, black, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
55 - 60	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
60 - 65	Brown, red, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
65 - 70	White, red, brown; sandy, clayey gravel (cobbles and boulders); gravel 70%, clay 20%, sand 10%.
70 - 75	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1baa$_3$[M-7UA]

DEPTH (feet)	DESCRIPTION
75 - 80	Brown, red, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
80 - 85	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
85 - 90	Brown, white, red; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
90 - 95	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
95 - 100	Red, white, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
100 - 105	Red, white, brown; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
105 - 110	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
110 - 115	Red, white, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
115 - 120	White, red, brown; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
120 - 125	White, red, brown; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
125 - TOTAL DEPTH	

Monitor Well (A-1-4)1acd [M-8UA]

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TABLE ___
LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-1-4)1acd[M-8UA]

DEPTH (Feet)	DESCRIPTION
0 - 5	Sandy, gravelly silt and clay; brown, gray, black; silt and clay 90%, gravel 5%, sand 5%; uncemented. Gravel fraction: rounded andesite. Reaction to acid: none.
5 - 10	Sandy, silty and clayey gravel; brown, white, gray; gravel 45%, silt and clay 45%, sand 10%; uncemented. Gravel fraction: rounded white and clear quartz 90%, caliche 5%, rounded andesite 5%. Reaction to acid: none.
10 - 15	Sandy, silty and clayey gravel (cobbles and boulders); cream, brown, white; gravel 70%, silt and clay 20%, sand 10%; weakly cemented. Gravel fraction: rounded to subrounded white and clear quartz 95%, rounded andesite 5%. Reaction to acid: weak. Gravel fraction derived from pebbles, cobbles, and boulders.
15 - 20	Sandy, silty and clayey gravel (cobbles and boulders); brown, gray, black; gravel 75%, silt and clay 20%, sand 5%; weakly cemented. Gravel fraction: rounded to subrounded white and clear quartz 85%, subrounded black basalt 5%, subrounded gray andesite 5%, brown subangular quartzite 5%. Reaction to acid: none.
20 - 25	Sandy gravel (cobbles and boulders); red, gray, black; gravel 80%, sand 20%; weakly cemented. Gravel fraction: red granite 70%, basalt 10%, andesite 10%, quartzite 10%. Reaction to acid: none.
25 - 30	Sandy gravel (cobbles and boulders); red, gray, black; gravel 90%, sand 10%; weakly cemented. Gravel fraction: subrounded gray quartzite 80%, red granite 10%, subrounded black quartzite 10%. Reaction to acid: none.
30 - 35	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, black; gravel 80%, sand 10%, silt and clay 10%; weakly cemented. Gravel fraction: subrounded gray quartzite 80%, red granite 10%, subangular gray-black andesite 10%. Reaction to acid: none.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-1-4)1acd[M-8UA]

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DEPTH (Feet)	DESCRIPTION
35 - 40	Sandy gravel (cobbles and boulders); red, gray, white; gravel 90%, sand 10%; weakly cemented. Gravel fraction: subrounded red granite 80%, gray andesite 15%, subangular white quartzite 5%. Reaction to acid: none.
40 - 45	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 80%, sand 10%, silt and clay 10%; weakly cemented. Gravel fraction: subrounded gray andesite 85%, red granite 10%, subangular white quartzite 5%. Reaction to acid: none.
45 - 50	Silty and clayey, sandy gravel (cobbles and boulders); red, gray; gravel 85%, sand 10%, silt and clay 5%; weakly cemented. Gravel fraction: subangular gray quartzite 90%, red granite 10%. Reaction to acid: none.
50 - 55	Sandy gravel (cobbles and boulders); gray, red, white; gravel 90%, sand 10%; weakly cemented. Gravel fraction: subangular gray andesite 85%, red granite 10%, subangular white quartzite 5%. Reaction to acid: none.
55 - 60	Silty and clayey, sandy gravel (cobbles and boulders); red, gray; gravel 80%, sand 10%, silt and clay 10%; weakly cemented. Gravel fraction: subrounded gray andesite 85%, reddish gray quartzite 10%, red granite 5%. Reaction to acid: none.
60 - 65	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 85%, sand 10%, silt and clay 5%; weakly cemented. Gravel fraction: rounded gray andesite 90%, white quartzite 5%, red granite 5%. Reaction to acid: none.
65 - 70	Sandy gravel (cobbles and boulders); red, gray, white; gravel 90%, sand 10%; weakly cemented. Gravel fraction: subrounded gray andesite 85%, red granite 10%, white quartzite 5%. Reaction to acid: none.
70 - 75	Sandy gravel (cobbles and boulders); gray, brown, white; gravel 90%, sand 10%; weakly cemented. Gravel fraction: subangular gray andesite 90%, brown and white quartzite 10%. Reaction to acid: none.
75 - 80	Sandy gravel (cobbles and boulders); gray, red, black; gravel 90%, sand 10%; weakly cemented. Gravel fraction: subangular gray andesite 85%, red granite 10%, subrounded black basalt 5%. Reaction to acid: none.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-1-4)1acd[M-8UA]

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DEPTH (Feet)	DESCRIPTION
80 - 85	Sandy gravel (cobbles and boulders); red, gray, white; gravel 85%, sand 15%; weakly cemented. Gravel fraction: red granite 80%, subangular gray andesite 10%, subangular to subrounded red quartzite and white quartzite 10%. Reaction to acid: none.
85 - 90	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, brown; gravel 85%, sand 10%, silt and clay 5%; weakly cemented. Gravel fraction: subangular gray andesite 90%, gray quartzite 5%, red granite 5%. Reaction to acid: none.
90 - 95	Silty and clayey, sandy gravel (cobbles and boulders); gray, red, white; gravel 90%, sand 5%, silt and clay 5%; weakly cemented. Gravel fraction: subangular gray andesite 90%, red granite 5%, white quartzite 5%. Reaction to acid: none.
95 -100	Silty and clayey, sandy gravel (cobbles and boulders); gray, red, white; gravel 80%, sand 10%, silt and clay 10%; weakly cemented. Gravel fraction: subangular to subrounded gray quartzite 90%, red granite 5%, white and gray quartzite 5%. Reaction to acid: none.
100-105	Sandy gravel (cobbles and boulders); gray, white, red; gravel 95%, sand 5%; weakly cemented. Gravel fraction: gray quartzite 80%, subangular gray andesite 15%, red granite 5%. Reaction to acid: none.
105-110	Sandy gravel (cobbles and boulders); gray, red, white; gravel 95%, sand 5%; weakly cemented. Gravel fraction: gray quartzite 90%, subangular gray andesite 5%, red granite 5%. Reaction to acid: none.
110-115	Gravelly sand (cobbles and boulders); red, white, gray; sand 95%, gravel 5%; weakly cemented. Gravel fraction: subangular gray quartzite 90%, subrounded gray andesite 5%; black basalt 5%. Reaction to acid: none. First indication of water.
115-120	Silty and clayey, sandy gravel (cobbles and boulders); gray, red, white; gravel 80%, sand 15%, silt and clay 5%; weakly cemented. Gravel fraction: gray quartzite 45%, gray andesite 45%, red granite 5%, white quartzite 5%. Reaction to acid: none.
120-125	Gravelly sand (cobbles and boulders); red, gray, white; sand 95%, gravel 5%; weakly cemented. Gravel fraction: subrounded gray quartzite 95%, gray andesite and white quartz 5%. Reaction to acid: none.
	TOTAL DEPTH 125 FEET

Monitor Well (A-2-4)36dba2 [M-9UA]

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TABLE
LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba2[M-9UA]

DEPTH (Feet)	DESCRIPTION
0 - 5	Gravelly, sandy silt and clay; brown, white; silt and clay 90%, sand 5%, gravel 5%; weakly cemented (caliche). Gravel fraction: brown caliche 90%, subrounded white quartz 10%. Reaction to acid: strong.
5 - 10	Gravelly, sandy silt and clay; brown, white; silt and clay 85%, sand 10%, gravel 5%; weakly cemented (caliche). Gravel fraction: brown caliche 95%, subrounded white quartz 5%. Reaction to acid: strong.
10 - 15	Gravelly, sandy silt and clay; brown, gray; silt and clay 80%, sand 15%, gravel 5%; weakly cemented (caliche). Gravel fraction: subangular brown quartzite 95%, angular gray andesite 5%. Reaction to acid: moderate.
15 - 20	Sandy, silty and clayey gravel (cobbles and boulders); brown, gray, red; gravel 50%, silt and clay 40%, sand 10%; weakly cemented. Gravel fraction: subangular and subrounded brown quartzite 80%, subrounded gray andesite 15%, subrounded white quartz 5%. Reaction to acid: weak.
20 - 25	Silty and clayey, sandy gravel (cobbles and boulders); brown, red, gray; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red-brown quartzite 60%, subangular gray andesite 30%, subangular red rhyolite/granite 10%. Reaction to acid: none.
25 - 30	Silty and clayey, sandy gravel (cobbles and boulders); gray, red, brown; gravel 80%, sand 10%, silt and clay 10%; uncemented. Gravel fraction: subangular gray andesite 50%, subangular brown quartzite 25%, subangular red granite 25%. Reaction to acid: none.
30 - 35	Silty and clayey, sandy gravel (cobbles and boulders); gray, red, brown; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular gray andesite 60%, subangular brown quartzite 20%, subangular red granite/rhyolite 20%. Reaction to acid: none.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba2[M-9UA]

DEPTH (Feet)	DESCRIPTION
35 - 40	Sandy gravel (cobbles and boulders); red, gray, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular gray andesite 40%, red granite/rhyolite 40%, brown quartzite 20%. Reaction to acid: none.
40 - 45	Sandy, silty and clayey gravel (cobbles and boulders); gray, red, brown; gravel 60%, silt and clay 20%, sand 20%; uncemented. Gravel fraction: gray andesite 40%, brown quartzite 30%, red granite/rhyolite 30%. Reaction to acid: none.
45 - 50	Silty and clayey, sandy gravel (cobbles and boulders); gray, red, brown; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular and subrounded gray andesite 70%, subrounded brown quartzite 20%, subangular red rhyolite 10%. Reaction to acid: none.
50 - 55	Silty and clayey, sandy gravel (cobbles and boulders); brown, gray, red; gravel 50%, sand 40%, silt and clay 10%; uncemented. Gravel fraction: subangular brown quartzite 60%, subrounded gray andesite 35%, subangular red rhyolite 5%. Reaction to acid: none.
55 - 60	Silty and clayey, sandy gravel (cobbles and boulders); brown, gray, red; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular brown and gray quartzite 50%, subrounded gray andesite 40%, subangular red rhyolite 10%. Reaction to acid: none.
60 - 65	Silty and clayey, sandy gravel (cobbles and boulders); brown, gray, red; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular and subrounded brown and gray quartzite 70%, subrounded gray andesite 25%, subrounded red rhyolite 5%. Reaction to acid: none.
65 - 70	Silty and clayey, sandy gravel (cobbles and boulders); brown, gray, red; gravel 65%, sand 25%, silt and clay 10%; uncemented. Gravel fraction: subrounded brown and gray quartzite 85%, subangular gray andesite 10%, angular red rhyolite 5%. Reaction to acid: none.
70 - 75	Silty and clayey, sandy gravel (cobbles and boulders); brown, gray, red; gravel 70%, sand 20%, silt and clay 10%;

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba2[M-9UA]

DEPTH (Feet)	DESCRIPTION
	uncemented. Gravel fraction: subangular and subrounded brown, gray, and white quartzite 80%, subangular gray andesite 10%, subrounded red granite 10%. Reaction to acid: none.
75 - 80	Silty and clayey, sandy gravel (cobbles and boulders); brown, gray, red; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular brown, gray, and white quartzite 70%, subangular gray andesite 20%, subrounded red rhyolite 10%. Reaction to acid: none.
80 - 85	Silty and clayey, sandy gravel (cobbles and boulders); brown, gray, red; gravel 70%, sand 15%, silt and clay 15%; uncemented. Gravel fraction: subangular brown and white quartzite 60%, subangular gray andesite 30%, subrounded red rhyolite 10%. Reaction to acid: none.
85 - 90	Silty and clayey, sandy gravel (cobbles and boulders); brown, red, gray; gravel 75%, sand 15%, silt and clay 10%; uncemented. Gravel fraction: subangular brown and gray quartzite 70%, subangular gray andesite 15%, subrounded red granite/rhyolite 15%. Reaction to acid: none.
90 - 95	Silty and clayey, sandy gravel (cobbles and boulders); brown, gray, red; gravel 50%, sand 40%, silt and clay 10%; uncemented. Gravel fraction: subrounded brown and gray quartzite 60%, subrounded gray andesite 20%, subrounded red rhyolite 20%. Reaction to acid: none.
95 -100	Silty and clayey, sandy gravel (cobbles and boulders); brown, red, gray; gravel 50%, sand 40%, silt and clay 10%; uncemented. Gravel fraction: subangular brown and gray quartzite 70%, subrounded red granite/rhyolite 20%, subangular gray andesite 10%. Reaction to acid: none.
100-105	Silty and clayey, sandy gravel (cobbles and boulders); brown, gray, red; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular brown and gray quartzite 75%, subangular gray andesite 20%, subrounded red rhyolite/granite 5%. Reaction to acid: none.
105-110	Silty and clayey, sandy gravel (cobbles and boulders); gray, brown, red; gravel 70%, sand 20%, silt and clay 10%;

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba2[M-9UA]

DEPTH (Feet)	DESCRIPTION
	uncemented. Gravel fraction: subangular gray and brown quartzite 60%, subangular gray andesite 30%, subangular red rhyolite 10%. Reaction to acid: none.
110-115	Silty and clayey, sandy gravel (cobbles and boulders); brown, gray, red; gravel 75%, sand 15%, silt and clay 10%; uncemented. Gravel fraction: subangular brown and gray quartzite 80%, subangular red rhyolite/granite 15%, subangular gray andesite 5%. Reaction to acid: none.
115-120	Silty and clayey, sandy gravel; brown, gray, red; gravel 75%, sand 15%, silt and clay 10%; uncemented. Gravel fraction: subrounded brown and gray quartzite 80%, subrounded gray andesite 10%, subangular red rhyolite 10%. Reaction to acid: none.
120-125	Silty and clayey, sandy gravel; brown, gray, red; gravel 50%, sand 40%, silt and clay 10%; uncemented. Gravel fraction: subangular and subrounded brown and gray quartzite 70%, subrounded gray andesite 20%, subrounded red rhyolite/granite 10%. Reaction to acid: none.
	TOTAL DEPTH 125 FEET.

Monitor Well (A-2-4)35ddc2 [M-10UA]

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TABLE
LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc2[M-10UA]

DEPTH (Feet)	DESCRIPTION
0 - 5	Sandy, gravelly silt and clay; brown; silt and clay 60%, gravel 30%, sand 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche. Reaction to acid: strong.
5 - 10	Sandy, gravelly silt and clay; brown, white; silt and clay 80%, gravel 10%, sand 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 80%, subrounded white quartz 20%. Reaction to acid: strong.
10 - 15	Gravelly, sandy silt and clay; brown, white; silt and clay 80%, sand 15%, gravel 5%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 50%, subangular white quartz 50%. Reaction to acid: strong.
15 - 20	Gravelly, sandy silt and clay; brown, white; silt and clay 80%, sand 15%, gravel 5%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 50%, subangular white quartz 50%. Reaction to acid: strong.
20 - 25	Silty and clayey, gravelly sand; brown, white, red; sand 50%, gravel 30%, silt and clay 20%; uncemented. Gravel fraction: subangular brown and white quartz 50%, subangular black andesite 50%. Reaction to acid: none.
25 - 30	Silty and clayey, sandy gravel; red, white, black; gravel 50%, sand 30%, silt and clay 20%; uncemented. Gravel fraction: subangular red and brown quartzite 40%, subangular brown and white quartz 30%, subangular black andesite 30%. Reaction to acid: none.
30 - 35	Silty and clayey, sandy gravel; red, brown, black; gravel 40%, sand 40%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 40%, subangular red granite/rhyolite 30%, subangular black andesite 30%. Reaction to acid: none.
35 - 40	Silty and clayey, sandy gravel; red, brown, black; gravel 80%, sand 10%, silt and clay 10%; uncemented. Gravel fraction:

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc2[M-10UA]

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DEPTH (Feet)	DESCRIPTION
	subangular red and brown quartzite 50%, subangular red granite 30%, subangular black andesite 20%. Reaction to acid: none.
40 - 45	Silty and clayey, sandy gravel; red, black, brown; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subangular black andesite 20%, subangular red granite 20%. Reaction to acid: none.
45 - 50	Sandy gravel; red, brown, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red and brown quartzite 40%, subangular red granite 40%, subangular black andesite 20%. Reaction to acid: none.
50 - 55	Sandy gravel; red, brown, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red granite/rhyolite 20%. Reaction to acid: none.
55 - 60	Sandy gravel; red, brown, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red granite/rhyolite 20%. Reaction to acid: none.
60 - 65	Sandy gravel; red, black, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 20%, subangular red granite 20%. Reaction to acid: none.
65 - 70	Sandy gravel; red, black, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 20%, subangular red granite 20%. Reaction to acid: none.
70 - 75	Silty and clayey, sandy gravel; red, black, brown; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 30%, subangular red granite/rhyolite 10%. Reaction to acid: none.
75 - 80	Silty and clayey, sandy gravel; red, brown, black; gravel 50%, sand 30%, silt and clay 20%; uncemented. Gravel fraction:

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc2[M-10UA]

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DEPTH (Feet)	DESCRIPTION
	subangular red, brown, and white quartzite 50%, subangular black andesite 30%, red granite 20%. Reaction to acid: none.
80 - 85	Silty and clayey, sandy gravel; red, brown, black; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red granite/rhyolite 30%, subangular black andesite 20%. Reaction to acid: none.
85 - 90	Sandy gravel; red, white, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red granite/rhyolite 20%, subangular black andesite 20%. Reaction to acid: none.
90 - 95	Sandy gravel; red, white, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red granite/rhyolite 20%, subangular black andesite 20%. Reaction to acid: none.
95 -100	Silty and clayey, sandy gravel; red, brown, black; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red granite 30%, subangular black andesite 20%. Reaction to acid: none.
100-105	Sandy gravel; red, white, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular brown, red, and white quartzite 60%, subangular red granite/rhyolite 20%, subangular black andesite 20%. Reaction to acid: none.
105-110	Sandy gravel; red, white, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular brown, red, and white quartzite 60%, subangular red granite/rhyolite 20%, subangular black andesite 20%. Reaction to acid: none.
110-115	Silty and clayey, sandy gravel; red, brown, black; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red granite/rhyolite 30%, subangular black andesite 20%. Reaction to acid: none.
115-120	Sandy gravel; red, white, brown; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc2[M-1OUA]

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DEPTH (Feet)	DESCRIPTION
	quartzite 60%, subangular red granite 30%, subangular black andesite 10%. Reaction to acid: none.
120-125	Sandy gravel; red, white, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red granite/rhyolite 20%, subangular black andesite 10%. Reaction to acid: none.
125-130	Sandy gravel; red, white, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red granite/rhyolite 20%, subangular black andesite 10%. Reaction to acid: none.
130-135	Sandy gravel; red, brown, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red granite 20%, subangular black andesite 10%. Reaction to acid: none.
135-140	Sandy gravel; red, brown, white; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red granite 20%, subangular black andesite 10%. Reaction to acid: none.
140-145	Silty and clayey, sandy gravel; red, brown, white; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red granite/rhyolite 20%, subangular black andesite 20%. Reaction to acid: none.
145-150	Silty and clayey, sandy gravel; red, brown, white; gravel 50%, sand 30%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red granite/rhyolite 20%, subangular black andesite 20%. Reaction to acid: none.

TOTAL DEPTH 150 FEET.

Monitor Well (A-2-4)35dba2 [M-11UA]

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TABLE
LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35dba2[M-11UA]

DEPTH (Feet)	DESCRIPTION
0 - 5	Gravelly, sandy silt and clay; brown, white; silt and clay 80%, sand 10%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 100%. Reaction to acid: moderate.
5 - 10	Gravelly, sandy silt and clay; brown, white; silt and clay 85%, sand 10%, gravel 5%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 50%, subrounded white quartz 50%. Reaction to acid: moderate.
10 - 15	Gravelly, sandy silt and clay; brown, white, red; silt and clay 80%, sand 10%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 60%, subrounded white quartz 30%, subrounded red and brown granite 10%. Reaction to acid: moderate.
15 - 20	Gravelly, sandy silt and clay (cobbles and boulders); brown, white, red; silt and clay 50%, sand 30%, gravel 20%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 50%, subangular red and brown granite 25%, subrounded white quartz 25%. Reaction to acid: moderate.
20 - 25	Silty and clayey, sandy gravel; red, brown, black; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red and brown quartzite 50%, subangular red and brown granite 30%, subangular black andesite 20%. Reaction to acid: none.
25 - 30	Sandy gravel; red, brown, black; gravel 60%, sand 40%; uncemented. Gravel fraction: subangular red, brown, gray, and white quartzite 60%, subangular red and brown granite 30%, subangular black andesite 10%. Reaction to acid: none.
30 - 35	Sandy gravel; red, brown, white; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 30%, subangular red and brown granite 10%. Reaction to acid: none.
35 - 40	Sandy gravel; red, brown, white; gravel 80%, sand 20%; unce-

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35dba2[M-11UA]

DEPTH (Feet)	DESCRIPTION
	mented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 40%, subangular black andesite 10%. Reaction to acid: none.
40 - 45	Silty and clayey, sandy gravel; red, brown, white; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 25%, subangular black andesite 25%. Reaction to acid: none.
45 - 50	Sandy gravel; red, brown, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 30%, subangular black andesite 10%. Reaction to acid: none.
50 - 55	Sandy gravel; red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 30%, subangular black andesite 10%. Reaction to acid: none.
55 - 60	Sandy gravel; red, brown, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red and brown granite 20%. Reaction to acid: none.
60 - 65	Sandy gravel; red, brown, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red and brown granite 20%. Reaction to acid: none.
65 - 70	Silty and clayey, sandy gravel; red, brown, black; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subangular black andesite 30%, subangular black andesite 10%. Reaction to acid: none.
70 - 75	Sandy gravel; red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red, brown, and black granite 20%, subangular black andesite 20%. Reaction to acid: none.
75 - 80	Sandy gravel; red, brown, white; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular black andesite 20%, subangular red

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35dba2[M-11UA]

DEPTH (Feet)	DESCRIPTION
	and brown granite 10%. Reaction to acid: none.
80 - 85	Sandy gravel; red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
85 - 90	Sandy gravel; red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
90 - 95	Sandy gravel; red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
95 -100	Silty and clayey, sandy gravel; red, brown, black; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red and brown granite 20%, subangular black andesite 10%. Reaction to acid: none.
100-105	Silty and clayey, sandy gravel; red, brown, white; gravel 40%, sand 30%, silt and clay 30%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subangular red and brown granite 20%, subrounded white quartz 20%. Reaction to acid: none.
105-110	Silty and clayey, sandy gravel; red, brown, white; gravel 40%, sand 30%, silt and clay 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 40%, subangular red, brown, and black granite 40%, subangular black andesite 20%. Reaction to acid: none.
110-115	Silty and clayey, sandy gravel; red, brown, white; gravel 40%, sand 30%, silt and clay 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 40%, subangular red, brown, and black granite 40%, subangular black andesite 20%. Reaction to acid: none.
115-120	Silty and clayey, gravelly sand; red, brown, white; sand 40%, gravel 30%, silt and clay 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35dba2[M-11UA]

DEPTH (Feet)	DESCRIPTION
	red and brown granite 30%, subangular black andesite 20%. Reaction to acid: none.
120-125	Silty and clayey, gravelly sand; red, brown, white; sand 40%, gravel 30%, silt and clay 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 30%, subangular black andesite 20%. Reaction to acid: none.
125-130	Silty and clayey, sandy gravel; red, brown, black; gravel 50%, sand 30%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red and brown granite 20%. Reaction to acid: none.
130-135	Silty and clayey, sandy gravel; red, brown, black; gravel 50%, sand 30%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red and brown granite 20%. Reaction to acid: none.
135-140	Sandy gravel; brown, red, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red, brown, and black granite 30%, subangular black andesite 10%. Reaction to acid: none.
140-145	Sandy gravel; brown, red, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red, brown, and black granite 30%, subangular black andesite 10%. Reaction to acid: none.
145-150	Silty and clayey, sandy gravel; red, brown, white; gravel 60%, sand 20%, silt and clay 20%; uncemented. Gravel fraction: subangular and subrounded red, brown, and white quartzite 60%, subangular red, brown, and black granite 30%, subangular black andesite 10%. Reaction to acid: none.

TOTAL DEPTH 150 FEET.

Monitor Well (A-2-4)26dda2 [M-12UA]

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TABLE
LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)26dda2[M12-UA]

DEPTH (Feet)	DESCRIPTION
0 - 5	Gravelly, sandy silt and clay; brown, white; silt and clay 80%, sand 10%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 100%. Reaction to acid: strong.
5 - 10	Sandy, gravelly silt and clay; brown, white, red; silt and clay 80%, gravel 15%, sand 5%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 90%, subrounded white quartz 10%. Reaction to acid: strong.
10 - 15	Gravelly, sandy silt and clay; brown, white; silt and clay 80%; sand 15%, gravel 5%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 100%. Reaction to acid: strong.
15 - 20	Gravelly, sandy silt and clay; brown, white; silt and clay 80%; sand 15%, gravel 5%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 100%. Reaction to acid: strong.
20 - 25	Gravelly, sandy silt and clay; brown, red, white; silt and clay 60%, sand 20%, gravel 20%; moderately cemented (caliche). Gravel fraction: subangular red and brown quartzite 50%, subangular red granite 30%, subangular brown caliche 20%. Reaction to acid: weak.
25 - 30	Silty and clayey, sandy gravel; red, brown, black; gravel 60%, sand 20%, silt and clay 20%; uncemented. Gravel fraction: subangular red and brown quartzite 50%, subangular red, brown, and black granite 30%, subangular black andesite 20%. Reaction to acid: none.
30 - 35	Silty and clayey, sandy gravel; red, brown, black; gravel 80%, sand 10%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 30%, subangular black andesite 20%. Reaction to acid: none.
35 - 40	Silty and clayey, sandy gravel; red, brown, black; gravel 80%,

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)26dda2[M-12UA]

DEPTH (Feet)	DESCRIPTION
	sand 10%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 30%, subangular black andesite 20%. Reaction to acid: none.
40 - 45	Silty and clayey, sandy gravel; red, white, brown; gravel 60%, sand 20%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular to subrounded black andesite 20%. Reaction to acid: none.
45 - 50	Silty and clayey, sandy gravel; red, white, brown; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular to subrounded black andesite 20%. Reaction to acid: none.
50 - 55	Silty and clayey, sandy gravel; red, brown, white; gravel 80%, sand 10%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red, brown, and black granite 20%, subangular black andesite 10%. Reaction to acid: none.
55 - 60	Sandy gravel; red, white, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 25%, subangular to subrounded black andesite 25%. Reaction to acid: none.
60 - 65	Sandy gravel; red, white, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 25%, subangular to subrounded black andesite 25%. Reaction to acid: none.
65 - 70	Sandy gravel; red, white, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular to subrounded black andesite 30%, subangular red and brown granite 10%. Reaction to acid: none.
70 - 75	Silty and clayey, sandy gravel; red, white, black; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)26dda2[M-12UA]

DEPTH (Feet)	DESCRIPTION
	black andesite 25%, subangular red and brown granite 25%. Reaction to acid: none.
75 - 80	Sandy gravel; red, white, black; gravel 80%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 25%, subangular red and brown granite 25%. Reaction to acid: none.
80 - 85	Silty and clayey, gravelly sand; red, brown, white; sand 60%, gravel 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 30%, subangular red and brown granite 10%. Reaction to acid: none.
85 - 90	Silty and clayey, sandy gravel; red, black, white; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red and brown granite 20%. Reaction to acid: none.
90 - 95	Sandy gravel; red, white, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 80%, subangular red and brown granite 10%, subangular black andesite 10%. Reaction to acid: none.
95 -100	Sandy gravel; red, brown, white; gravel 90%, sand 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red, brown, and black granite 30%, subangular black andesite 10%. Reaction to acid: none.
100-105	Silty and clayey, sandy gravel; red, white, brown; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 30%, subangular to subrounded black andesite 10%. Reaction to acid: none.
105-110	Sandy gravel; red, brown, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 40%, subangular black andesite 10%. Reaction to acid: none.
110-115	Sandy gravel; red, brown, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)26dda2[M-12UA]

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DEPTH (Feet)	DESCRIPTION
	quartzite 50%, subangular red and brown granite 40%, subangular black andesite 10%. Reaction to acid: none.
115-120	Silty and clayey, sandy gravel; red, brown, black; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 40%, subangular red, brown, and white granite 40%, subangular black andesite 20%. Reaction to acid: none.
120-125	Sandy gravel; red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
125-130	Silty and clayey, sandy gravel; red, brown, white; gravel 60%, sand 20%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 30%, subangular black andesite 20%. Reaction to acid: none.
130-135	Silty and clayey, sandy gravel; red, brown, white; gravel 60%, sand 20%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 30%, subangular black andesite 20%. Reaction to acid: none.
135-140	Silty and clayey, sandy gravel; red, white, brown; gravel 80%, sand 10%, silt and clay 10%; uncemented. Gravel fraction: subangular white, red, and brown quartzite 70%, subangular red and brown granite 20%, subangular black andesite 10%. Reaction to acid: none.
140-145	Silty and clayey, sandy gravel; red, white, black; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
145-150	Silty and clayey, sandy gravel; red, brown, white; gravel 60%, sand 20%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none. Clay balls.

TOTAL DEPTH 150 FEET.

Monitor Well (A-1-4)1bad2 [M-1MA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bad$_2$[M-1MA]

A-7a

DEPTH (feet)	DESCRIPTION
0 - 10	Brown; silty clay.
10 - 15	Brown; sandy, gravelly silt and clay; silt and clay 95%, sand and gravel 5%.
15 - 20	Brown; sandy, gravelly silt and clay; silt and clay 95%, sand and gravel 5%. Some caliche.
20 - 25	Brown, red, black; silty, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, silt 10%.
25 - 30	Red, black, white; clayey, silty, sandy gravel (cobbles and boulders); gravel 50%, sand 35%, silt and clay 15%.
30 - 35	Brown, red, black; clayey, sandy gravel (cobbles and boulders); gravel 60%, sand 30%, clay 10%.
35 - 40	Brown, red, black; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
40 - 45	Red, brown, black; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
45 - 50	Brown, red, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
50 - 55	Brown, red, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
55 - 60	Brown, red, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
60 - 65	Brown, red, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
65 - 70	Brown, red, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
70 - 75	Brown, red, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
75 - 80	Brown, red, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bad$_2$[M-1MA]

DEPTH (feet)	DESCRIPTION
80 - 85	Brown, red, white; silty, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, silt 10%.
85 - 90	Brown, red, white; sandy, clayey, silty gravel (cobbles and boulders); gravel 70%, silt and clay 20%, sand 10%.
90 - 95	Brown, red, white; sandy, clayey, silty gravel (cobbles and boulders); gravel 70%, silt and clay 20%, sand 10%).
95 - 100	Brown, red, white; sandy, clayey, silty gravel (cobbles and boulders); gravel 70%, silt and clay 20%, sand 10%.
100 - 105	Brown, red, white; sandy, clayey, silty gravel (cobbles and boulders); gravel 70%, silt and clay 20%, sand 10%.
105 - 110	Brown, red, white; sandy, clayey, silty gravel (cobbles and boulders); gravel 65%, silt and clay 25%, sand 10%.
110 - 115	Brown, red, white; sandy, clayey, silty gravel (cobbles and boulders); gravel 65%, silt and clay 25%, sand 10%.
115 - 120	Brown, red, white; sandy gravel (cobbles and boulders); gravel 95%, sand 5%.
120 - 125	Red, brown, black; clayey, sandy gravel (cobbles and boulders); gravel 90%, sand 5%, clay 5%.
125 - 130	Red, brown, black; clayey, sandy gravel (cobbles and boulders); gravel 90%, sand 5%, clay 5%.
130 - 135	Red, brown, black; clayey, sandy gravel (cobbles and boulders); gravel 90%, sand 5%, clay 5%.
135 - 140	Brown, red, black; clayey, sandy gravel; gravel 90%, sand 5%, clay 5%.
140 - 145	Brown, red, white; sandy, clayey gravel; gravel 85%, clay 10%, sand 5%.
145 - 150	Brown, black, green; sandy, clayey gravel; gravel 75%, clay 20%, sand 5%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bad$_2$[M-1MA]

DEPTH (feet)	DESCRIPTION
150 - 160	Brown, red, white; gravelly, sandy clay; clay 80% sand 10%, gravel 10%.
160 - 165	Brown, white; gravelly, sandy clay; clay 85%, sand 10%, gravel 5%.
165 - 170	Brown, red, white; gravelly, sandy clay; clay 75%, sand 20%, gravel 5%.
170 - 175	Brown, white, red; gravelly, sandy clay; clay 75%, sand 20%, gravel 5%. Clay sticky.
175 - 180	Brown, red, white; gravelly, sandy clay; clay 85%, sand 10%, gravel 5%. Clay sticky.
180 - 185	Brown, red, white; gravelly, sandy clay; clay 85%, sand 10%, gravel 5%. Clay sticky.
185 - 190	Brown, red, white; gravelly, sandy, silt and clay; silt and clay 85%, sand 10%, gravel 5%. Clay less sticky.
190 - 195	Brown, white, red; sandy clay; clay 90%, sand 10%. Clay sticky.
195 - 200	Brown, white; sandy clay; clay 95%, sand 5%. Clay sticky.
200 - 205	Brown, white; sandy clay; clay 95%, sand 5%. Clay sticky.
205 - 210	Brown, white; sandy clay; clay 95%, sand 5%. Clay sticky.
210 - 215	Brown, white, red; sandy clay; clay 95%, sand 5%. Clay sticky.
215 - 220	White, brown, red; gravelly, sandy clay; clay 85%, sand 10%, gravel 5%. Clay sticky.
220 - 225	White, brown, red; gravelly, sandy clay; clay 90%, sand 5%, gravel 5%. Clay sticky.
225 - 230	Brown, white, red; gravelly, sandy clay; clay 70%, sand 20%, gravel 10%. Clay sticky.
230 - 235	White, red, brown; sandy, gravelly clay; clay 60%, gravel 20%, sand 20%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bad$_2$[M-1MA]

DEPTH (feet)	DESCRIPTION
235 - 240	White, red, brown; gravelly, sandy clay; clay 70%, sand 20%, gravel 10%.
240 - 245	Brown, white, red; gravelly, sandy clay; clay 80%, sand 15%, gravel 5%.
245 - 252	Brown, white, red; gravelly, sandy clay; clay 85%, sand 10%, gravel 5%.
252 - 255	Brown; sandy clay; clay 95%, sand 5%. Clay sticky.
255 - 260	Brown; sandy clay; clay 90%, sand 10%. Clay sticky.
260 - 265	Brown; sandy clay; clay 95%, sand 5%. Clay sticky.
265 - 270	Brown, white, red; clayey, sandy gravel; gravel 50%, sand 40%, clay 10%.
270 - 275	Brown, white, red; clayey, gravelly sand; sand 50%, gravel 45%, clay 5%.
275 - 280	Brown, white, red; gravelly, sandy clay; clay 50%, sand 30%, gravel 20%.
280 - 290	Brown, white, red; gravelly, sandy clay; clay 50%, sand 25%, gravel 25%.
290 - 295	Brown, white, red; gravelly, sandy clay; clay 80%, sand 10%, gravel 10%.
295 - 302	Brown, white, red; gravelly, sandy clay; clay 80%, sand 10%, gravel 10%.

302 - TOTAL DEPTH

Monitor Well (A-1-4)1bcc1 [M-2MA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bcc$_1$[M-2MA]

DEPTH (feet)	DESCRIPTION
0 - 5	Brown; gravelly, sandy silt and clay; silt and clay 95%, sand and gravel 5%.
5 - 10	Brown; gravelly, sandy silt and clay; silt and clay 90%, sand 5%, gravel 5%.
10 - 15	Brown; gravelly, sandy silt and clay; silt and clay 80%, sand 10%, gravel 10%.
15 - 20	Brown; gravelly, sandy silt and clay; silt and clay 90%, sand 5%, gravel 5%.
20 - 25	Red, brown, black; clayey, sandy gravel (cobbles and boulders); gravel 60%, sand 20%, clay 20%.
25 - 30	Red, brown, black; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
30 - 35	Red, brown, black; clayey, sandy gravel (cobbles and boulders); gravel 90%, sand 5%, clay 5%.
35 - 40	Red, brown, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
40 - 45	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
45 - 50	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
50 - 55	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
55 - 60	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
60 - 65	Red, white, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
65 - 70	Red, black, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
70 - 75	Brown, white, red; clayey, sandy gravel (cobbles and boulders); gravel 85%, sand 10%, clay 5%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bcc$_1$[M-2MA]

DEPTH (feet)	DESCRIPTION
75 - 80	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 15%, clay 5%.
80 - 85	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
85 - 90	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 85%, sand 10%, clay 5%.
90 - 95	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
95 - 100	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
100 - 105	Red, brown, white; sandy, clayey gravel (cobbles and boulders); gravel 75%, clay 15%, sand 10%.
105 - 110	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
110 - 115	Red, brown, white; gravelly sand (cobbles and boulders); sand 95%, gravel 5%.
115 - 120	Red, brown, white; sandy gravel; gravel 80%, sand 20%.
120 - 125	Red, white, brown; sandy gravel (some cobbles and boulders); gravel 90%, sand 10%.
125 - 130	Red, brown, white; clayey, sandy gravel; gravel 80%, sand 10%, clay 10%.
130 - 135	Brown, white, red; gravelly, sandy clay; clay 60%, sand 20%, gravel 20%.
135 - 140	Brown, white; sandy clay; clay 90%, sand 10%.
140 - 145	Brown, white, red; sandy clay; clay 90%, sand 10%.
145 - 150	Brown, white, red; sandy clay; clay 90%, sand 10%.
150 - 155	Brown, white, red; sandy clay; clay 90%, sand 10%.
155 - 160	Brown, white, red; sandy clay; clay 90%, sand 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bcc$_1$[M-2MA]

DEPTH (feet)	DESCRIPTION
160 - 165	Brown, white; sandy clay; clay 90%, sand 10%.
165 - 170	Brown, white, red; sandy clay; clay 90%, sand 10%.
170 - 175	Brown, white, red; sandy clay; clay 90%, sand 10%.
175 - 180	Brown, red, white; sandy clay; clay 90%, sand 10%.
180 - 185	Brown, white, red; sandy clay; clay 90%, sand 10%.
185 - 190	Brown, white; sandy clay; clay 90%, sand 10%.
190 - 195	Brown, white; sandy clay; clay 90%, sand 10%.
195 - 200	Brown, white; sandy clay; clay 90%, sand 10%.
200 - 205	Brown, white; sandy clay; clay 90%, sand 10%.
205 - 210	Brown, white; sandy clay; clay 90%, sand 10%.
210 - 215	Brown, white; sandy clay; clay 90%, sand 10%.
215 - 220	Brown, white, red; gravelly, sandy clay; clay 50%, sand 40%, gravel 10%.
220 - 225	Brown, white, red; gravelly, sandy clay; clay 75%, sand 20%, gravel 5%.
225 - 230	Brown, white, red; sandy clay; clay 80%, sand 20%.
230 - 235	Brown, white; sandy clay; clay 90%, sand 10%.
235 - 240	Brown, white; sandy clay; clay 80%, sand 20%.
240 - 245	Brown, white, red; sandy clay; clay 70%, sand 30%.
245 - 252	Brown, white, red; sandy clay; clay 80%, sand 20%.
252 - 255	Brown, red, white; sandy clay; clay 80%, sand 20%. Clay sticky.
255 - 260	Brown, white; sandy clay; clay 90%, sand 10%. Clay sticky.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bcc$_1$[M-2MA]

DEPTH (feet)	DESCRIPTION
260 - 265	Brown, white; sandy clay; clay 90%, sand 10%. Clay sticky.
265 - 270	Brown, white; sandy clay; clay 95%, sand 5%. Clay sticky.
270 - 275	Brown, white, red; sandy clay; clay 80%, sand 20%.
275 - 280	White, red, brown; sandy clay; clay 60%, sand 40%.
280 - 285	Brown, white; sandy clay; clay 90%, sand 10%.
285 - 290	White, brown, red; clayey, gravelly sand; sand 60%, gravel 20%, clay 20%.
290 - 295	White, brown, red; gravelly, sandy clay; clay 50%, sand 40%, gravel 10%.
295 - 300	White, brown, red; sandy clay; clay 70%, sand 30%.
300 - 303	White, brown, red; gravelly, sandy clay; clay 50%, sand 40%, gravel 10%.

303 - TOTAL DEPTH

Monitor Well (A-1-4)1bdd1 [M-3MA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdd$_1$[M-3MA]

DEPTH (feet)	DESCRIPTION
0 - 5	Brown; gravelly, sandy silt and clay; silt and clay 85%, sand 10%, gravel 5%.
5 - 10	Brown; gravelly, sandy silt and clay; silt and clay 80%, sand 10%, gravel 10%.
10 - 15	Brown; gravelly, sandy silt and clay; silt and clay 80%, sand 10%, gravel 10%.
15 - 20	Brown; gravelly, sandy silt and clay; silt and clay 90%, sand 5%, gravel 5%.
20 - 25	Brown, white, red; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
25 - 30	Black, white, brown; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
30 - 35	Red, black, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
35 - 40	Red, white, black; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
40 - 45	White, brown, red; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
45 - 50	Black, red, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
50 - 55	Red, black, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
55 - 60	Red, black, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
60 - 65	Red, black, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
65 - 70	Red, white, black; clayey, sandy gravel (cobbles and boulders); gravel 85%, sand 10%, clay 5%.
70 - 75	Brown, white, red; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdd$_1$[M-3MA]

DEPTH (feet)	DESCRIPTION
75 - 80	Red, white, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
80 - 85	Red, white, brown; clayey, sandy gravel (cobbles and boulders); gravel 85%, sand 10%, clay 5%.
85 - 90	Red, white, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
90 - 95	Red, black, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
95 - 100	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
100 - 105	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
105 - 110	Red, black, white; silty, clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, silt and clay 10%.
110 - 115	Red, white, black; sandy gravel (cobbles and boulders); gravel 50%, sand 50%.
115 - 120	Red, white, black; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
120 - 125	Red, white, black; sandy gravel (cobbles and boulders); gravel 70%, sand 30%.
125 - 130	Red, white, brown; clayey, sandy gravel; gravel 70%, sand 20%, clay 10%.
130 - 135	Brown, red, white; gravelly, sandy clay; clay 80%, sand 15%, gravel 5%.
135 - 140	Brown, red, white; gravelly, sandy clay; clay 60%, sand 20%, gravel 20%.
140 - 145	Brown, white, red; sandy gravelly clay; clay 80%, gravel 15%, sand 5%.
145 - 150	Brown, red, white; sandy gravelly clay; clay 90%, gravel 5%, sand 5%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdd$_1$[M-3MA]

DEPTH (feet)	DESCRIPTION
150 - 155	Red, brown, black; sandy clayey gravel; gravel 60%, clay 30%, sand 20%.
155 - 160	Red, black, white; sandy, clayey gravel; gravel 40%, clay 40%, sand 20%.
160 - 165	Brown, white, red; gravelly, sandy clay; clay 85%, sand 10%, gravel 5%.
165 - 170	Brown, white, red; sandy clay; clay 90%, sand 10%.
170 - 175	Brown, white, red; sandy clay; clay 90%, sand 10%.
175 - 180	Brown, white, red; sandy clay; clay 90%, sand 10%.
180 - 185	Brown, white, red; sandy clay; clay 90%, sand 10%.
185 - 190	Brown, white, red; sandy clay; clay 90%, sand 10%.
190 - 195	Brown, white, red; gravelly, clayey sand; sand 70%, clay 25%, gravel 5%.
195 - 200	White, brown, red; gravelly, sandy clay; clay 70%, sand 25%, gravel 5%. Clay sticky.
200 - 205	Brown, white, red; gravelly, sandy clay; clay 80%, sand 15%, gravel 5%. Clay sticky.
205 - 210	Brown, white, red; sandy clay; clay 90%, sand 10%.
210 - 215	Brown, red, white; gravelly, clayey sand; sand 60%, clay 30%, gravel 10%.
215 - 220	Brown, red, white; sandy clay; clay 70%, sand 30%.
220 - 225	Brown, white, red; sandy clay; clay 80%, sand 20%.
225 - 230	Brown, white, red; sandy clay; clay 80%, sand 20%.
230 - 235	Brown, white, red; sandy clay; clay 80%, sand 20%.
235 - 240	Brown, white, red; sandy clay; clay 70%, sand 30%.
240 - 245	Brown, white, red; clayey sand; sand 80%, clay 20%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdd$_1$[M-3MA]

DEPTH (feet)	DESCRIPTION
245 - 252	Brown, white, red; clayey sand; sand 70%, clay 30%.
252 - 260	Brown, white; sandy clay; clay 70%, sand 30%.
260 - 265	Brown, white; sandy clay; clay 90%, sand 10%. Clay sticky.
265 - 270	Brown, white; sandy clay; clay 90%, sand 10%. Clay sticky.
270 - 275	Brown; sandy clay; clay 95%, sand 5%. Clay sticky.
275 - 280	Brown, white; sandy clay; clay 90%, sand 10%. Clay sticky.
280 - 285	Brown, red, white; sandy clay; clay 90%, sand 10%. Clay sticky.
285 - 290	Brown, red, white; sandy clay; clay 90%, sand 10%.
290 - 295	Brown, white, red; sandy clay; clay 80%, sand 20%. Clay sticky.
295 - 303	Brown, white, red; sandy clay; clay 80%, sand 20%. Clay sticky.
303 - TOTAL DEPTH	

Monitor Well (A-1-4)1bdb1 [M-4MA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdb$_1$[M-4MA]

DEPTH (feet)	DESCRIPTION
0 - 5	Brown; gravelly, sandy silt and clay; silt and clay 85%, sand 10%, gravel 5%. Clay sticky.
5 - 10	Brown; gravelly, sandy silt and clay; silt and clay 80%, sand 10%, gravel 10%. Clay sticky.
10 - 15	Brown; sandy, gravelly silt and clay; silt and clay 80%, gravel 15%, sand 5%. Clay sticky.
15 - 20	Brown; sandy, gravelly silt and clay; silt and clay 85%, gravel 10%, sand 5%. Clay sticky.
20 - 25	Black, brown, red; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
25 - 30	Black, red, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
30 - 35	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
35 - 40	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
40 - 45	Red, brown, black; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
45 - 50	Red, white, black; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
50 - 55	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
55 - 60	Black, red, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
60 - 65	Red, black, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
65 - 70	Red, white, black; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
70 - 75	Red, black, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdb,[M-4MA]

DEPTH (feet)	DESCRIPTION
75 - 80	Black, red, brown; sandy, clayey gravel (cobbles and boulders); gravel 70%, clay 20%, sand 10%.
80 - 85	Red, black, brown; sandy, clayey gravel (cobbles and boulders); gravel 80%, clay 10%, sand 10%.
85 - 90	Red, black, brown; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
90 - 95	Red, white, brown; sandy gravel (cobbles and boulders); gravel 60%, sand 40%.
95 - 100	Red, white, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
100 - 105	White, red, brown; clayey, gravelly sand (cobbles and boulders); sand 60%, gravel 20%, clay 20%.
105 - 110	White, red, brown; gravelly, clayey sand; sand 70%, clay 20%, gravel 10%.
110 - 115	White, red, brown; gravelly, clayey sand; sand 70%, clay 20%, gravel 10%.
115 - 120	White, red, brown; gravelly, clayey sand; sand 50%, clay 40%, gravel 10%.
120 - 125	Red, white, brown; clayey, gravelly sand; sand 50%, gravel 30%, clay 20%.
125 - 130	White, red, brown; clayey sand; sand 70%, clay 30%.
130 - 135	White, red, brown; gravelly, clayey sand; sand 60%, clay 30%, gravel 10%.
135 - 140	Red, white, black; sandy silt and clay; silt and clay 70%, sand 30%.
140 - 145	Brown, white, red; sandy clay; clay 70%, sand 30%.
145 - 150	Brown, white, red; sandy clay; clay 80%, sand 20%.
150 - 155	Brown, white, red; sandy clay; clay 70%, sand 30%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdb$_1$[M-4MA]

DEPTH (feet)	DESCRIPTION
155 - 160	Brown, white, red; sandy clay; clay 80%, sand 20%. Clay sticky.
160 - 165	Brown, white, red; sandy clay; clay 90%, sand 10%. Clay sticky.
165 - 170	Brown, white, red; sandy clay; clay 90%, sand 10%. Clay sticky.
170 - 175	Brown, white, red; sandy clay; clay 80%, sand 20%. Clay sticky.
175 - 180	Brown, red, white; sandy clay; clay 80%, sand 20%.
180 - 185	Brown, white, red; sandy clay; clay 80%, sand 20%.
185 - 190	Brown, red, white; sandy clay; clay 70%, sand 30%.
190 - 195	Brown, red, white; sandy clay; clay 80%, sand 20%.
195 - 200	Brown, white, red; sandy clay; clay 90%, sand 10%. Clay sticky.
200 - 205	Brown, white, red; sandy clay; clay 90%, sand 10%. Clay sticky.
205 - 210	Brown, white, red; sandy clay; clay 95%, sand 5%. Clay sticky.
210 - 215	Brown, white, red; sandy clay; clay 90%, sand 10%. Clay sticky.
215 - 220	Brown, white, red; sandy clay; clay 90%, sand 10%.
220 - 225	Brown, white, red; sandy clay; clay 90%, sand 10%.
225 - 230	Brown, red, white; sandy clay; clay 70%, sand 30%.
230 - 235	Brown, white, red; sandy clay; clay 80%, sand 20%.
235 - 240	Brown, white, red; sandy clay; clay 70%, sand 30%.
240 - 245	Brown, white, red; sandy clay; clay 70%, sand 30%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bdb,[M-4MA]

DEPTH (feet)	DESCRIPTION
245 - 252	Brown, white, red; sandy clay; clay 60%, sand 40%.
252 - 255	Brown, white; sandy clay; clay 70%, sand 30%.
255 - 260	Brown, white; sandy clay; clay 80%, sand 20%.
260 - 265	Brown, sandy clay; clay 90%, sand 10%. Clay sticky.
265 - 270	Brown, sandy clay; clay 90%, sand 10%.
270 - 275	Brown, white, red; sandy clay; clay 80%, sand 20%. Clay sticky.
275 - 280	Brown, white, red; gravelly, sandy clay; clay 60%, sand 30%, gravel 10%.
280 - 285	Brown, white, red; clayey, gravelly sand; sand 60%, gravel 20%, clay 20%.
285 - 290	Brown, white, red; clayey, gravelly sand; sand 60%, gravel 20%, clay 20%.
290 - 295	Brown, white, red; gravelly, clayey sand; sand 60%, clay 30%, gravel 10%.
295 - 302	Brown, white, red; gravelly, clayey sand; sand 60%, clay 30%, gravel 10%.
302 - TOTAL DEPTH	

Monitor Well (A-1-4)1bbal [M-5MA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bba$_1$[M-5MA]

DEPTH (feet)	DESCRIPTION
0 - 5	Brown; sandy, gravelly silt and clay; silt and clay 80%, gravel 10%, sand 10%. Some caliche.
5 - 10	Brown; sandy, gravelly silt and clay; silt and clay 90%, sand and gravel 10%. Clay sticky. Some caliche.
10 - 15	Brown, white, black; sandy, gravelly silt and clay; silt and clay 80%, gravel 10%, sand 10%. Some caliche.
15 - 20	Brown, white; sandy, gravelly silt and clay; silt and clay 80%, gravel 10%, sand 10%. Clay sticky. Some caliche.
20 - 25	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
25 - 30	Black, white, red; sandy, clayey gravel (cobbles and boulders); gravel 70%, clay 20%, sand 10%.
30 - 35	Black, red, brown; sandy, clayey gravel (cobbles and boulders); gravel 80%, clay 10%, sand 10%.
35 - 40	Black, red, brown; sandy, clayey gravel (cobbles and boulders); gravel 70%, clay 20%, sand 10%.
40 - 45	Black, red, brown; sandy, clayey gravel (cobbles and boulders); gravel 70%, clay 20%, sand 10%.
45 - 50	Black, red, brown; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
50 - 55	Red, black, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
55 - 60	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
60 - 65	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
65 - 70	Brown, red, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
70 - 75	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bba$_1$[M-5MA]

DEPTH (feet)	DESCRIPTION
75 - 80	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
80 - 85	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
85 - 90	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
90 - 95	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
95 - 100	Red, brown, white; sandy gravel (cobbles and boulders); gravel 90%, sand 10%.
100 - 105	Brown, red, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
105 - 110	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
110 - 115	Brown, red, white; sandy gravel (cobbles and boulders); gravel 70%, sand 30%.
115 - 120	Red, black, white; sandy gravel (cobbles and boulders); gravel 70%, sand 30%.
120 - 125	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
125 - 130	Red, brown, white; gravelly, clayey sand; sand 60%, clay 20%, gravel 20%.
130 - 135	Red, brown, white; clayey, sandy gravel; gravel 70%, sand 20%, clay 10%.
135 - 140	Brown, white, red; clayey, gravelly sand; sand 60%, gravel 20%, clay 20%.
140 - 145	Brown, white, red; gravelly, clayey sand; sand 70%, clay 20%, gravel 10%.
145 - 150	Brown, white, red; gravelly, clayey sand; sand 50%, clay 30%, gravel 20%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bba,[M-5MA]

DEPTH (feet)	DESCRIPTION
150 - 155	Brown, white, red; gravelly, clayey sand; sand 50%, clay 30%, gravel 20%.
155 - 160	Brown, white, red; gravelly, clayey sand; sand 50%, clay 40%, gravel 10%.
160 - 165	Brown, white, red; gravelly, sandy clay; clay 60%, sand 30%, gravel 10%.
165 - 170	Brown, white, red; gravelly, sandy clay; clay 75%, sand 20%, gravel 5%.
170 - 175	Brown, white, red; gravelly, sandy clay; clay 80%, sand 15%, gravel 5%. Clay sticky.
175 - 180	Brown, white; gravelly, sandy clay; clay 80%, sand 15%, gravel 5%. Clay sticky.
180 - 185	Brown, white, red; gravelly, sandy clay; clay 80%, sand 15%, gravel 5%.
185 - 190	Brown, white; sandy clay; clay 90%, sand 10%. Clay sticky.
190 - 195	Brown, white; sandy clay; clay 90%, sand 10%.
195 - 200	Brown, white, red; gravelly, sandy clay; clay 85%, sand 10%, gravel 5%.
200 - 205	Brown, white; sandy clay; clay 90%, sand 10%.
205 - 210	Brown, white; sandy clay; clay 90%, sand 10%.
210 - 215	Brown, white; sandy clay; clay 90%, sand 10%.
215 - 220	Brown, white, red; gravelly, sandy clay; clay 75%, sand 20%, gravel 5%.
220 - 225	Brown, white, red; gravelly, clayey sand; sand 70%, clay 20%, gravel 10%.
225 - 230	Brown, white, red; sandy clay; clay 80%, sand 20%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bba$_1$[M-5MA]

DEPTH (feet)	DESCRIPTION
230 - 235	Brown, white, red; gravelly, sandy clay; clay 60%, sand 35%, gravel 5%.
235 - 240	Brown, white, red; gravelly, clayey sand; sand 70%, clay 20%, gravel 10%.
240 - 245	Brown, white, red; gravelly, sandy clay; clay 60%, sand 35%, gravel 5%.
245 - 250	Brown, white, red; sandy clay; clay 70%, sand 30%.
250 - 260	Brown, white; sandy clay; clay 90%, sand 10%. Clay sticky.
260 - 265	Brown, white; sandy clay; clay 90%, sand 10%.
265 - 270	Brown, white, red; clayey sand; sand 70%, clay 30%.
270 - 275	Brown, white, red; clayey sand; sand 60%, clay 40%.
275 - 280	Brown, white; sandy clay; clay 70%, sand 30%.
280 - 285	Brown, white, black; sandy clay; clay 70%, sand 30%.
285 - 290	Brown, white; sandy clay; clay 80%, sand 20%. Clay sticky.
290 - 295	Brown, white; sandy clay; clay 80%, sand 20%. Clay sticky.
295 - 302	Brown, white, red; sandy clay; clay 60%, sand 40%.
302 - TOTAL DEPTH	

Monitor Well (A-1-4)1baa1 [M-6MA]

LITHOLOGIC DESCRIPTIONS FOR DRILL CUTTINGS SAMPLES MOTOROLA INC. ON-SITE MONITOR WELL (A-1-4)1baa$_1$[M-6MA]

DEPTH (feet)	DESCRIPTION
0 - 5	Brown; sandy, gravelly silt and clay; silt and clay 80%, gravel 10%, sand 10%. Some caliche.
5 - 10	Brown; sandy, gravelly silt and clay; silt and clay 80%, gravel 10%, sand 10%. Some caliche.
10 - 15	Brown; sandy, gravelly silt and clay; silt and clay 90%, gravel 5%, sand 5%. Clay sticky. Some caliche.
15 - 20	Brown; sandy, gravelly silt and clay; silt and clay 90%, gravel 5%, sand 5%. Clay sticky. Some caliche.
20 - 25	Brown, red, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
25 - 30	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 60%, sand 20%, clay 20%.
30 - 35	Red, black, brown; clayey, sandy gravel (cobbles and boulders); gravel 60%, sand 30%, clay 10%.
35 - 40	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
40 - 45	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
45 - 50	Red, brown, black; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
50 - 55	Black, brown, white; sandy gravel (cobbles and boulders); gravel 70%, sand 30%.
55 - 60	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 60%, sand 30%, clay 10%.
60 - 70	Brown, red, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
70 - 75	Red, black, brown; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
75 - 80	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 60%, sand 20%, clay 20%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1baa,[M-6MA]

DEPTH (feet)	DESCRIPTION
80 - 85	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
85 - 90	Brown, red, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
90 - 95	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
95 - 100	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 60%, sand 20%, clay 20%.
100 - 105	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
105 - 110	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
110 - 115	Brown, white, red; gravelly sand (cobbles and boulders); sand 80%, gravel 20%.
115 - 120	Brown, white, red; gravelly sand (cobbles and boulders); sand 70%, gravel 30%.
120 - 125	White, brown, red; gravelly sand (cobbles and boulders); sand 80%, gravel 20%.
125 - 130	Red, white, brown; gravelly sand; sand 80%, gravel 20%.
130 - 135	Brown, white, red; clayey, sandy gravel; gravel 50%, sand 40%, clay 10%.
135 - 140	White, brown, red; clayey, gravelly sand; sand 90%, gravel 5%, clay 5%.
140 - 145	Brown, white, red; sandy, clayey gravel; gravel 50%, clay 30%, sand 20%.
145 - 150	Brown, white, red; clayey, gravelly sand; sand 60%, gravel 20%, clay 20%.
150 - 155	Brown, white, red; gravelly, clayey sand; sand 50%, clay 30%, gravel 20%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1baa$_1$[M-6MA]

DEPTH (feet)	DESCRIPTION
155 - 165	Brown, white, red; gravelly, sandy clay; clay 60%, sand 30%, gravel 10%.
165 - 170	Brown, white, red; gravelly, sandy clay; clay 70%, sand 20%, gravel 10%.
170 - 175	Brown, white, red; sandy clay; clay 90%, sand 10%. Clay sticky.
175 - 180	Brown, white, red; sandy clay; clay 90%, sand 10%. Clay sticky.
180 - 185	Brown, white, red; sandy clay; clay 90%, sand 10%. Clay sticky.
185 - 190	Brown, white; sandy clay; clay 90%, sand 10%. Clay sticky.
190 - 195	Brown, white, red; gravelly, sandy clay; clay 75%, sand 20%, gravel 5%.
195 - 200	Brown, white, red; gravelly, sandy clay; clay 75%, sand 20%, gravel 5%. Clay sticky.
200 - 205	Brown, white, red; gravelly, sandy clay; clay 80%, sand 15%, gravel 5%.
205 - 210	Brown, white; gravelly, sandy clay; clay 80%, sand 15%, gravel 5%.
210 - 215	Brown, white, red; gravelly, sandy clay; clay 80%, sand 15%, gravel 5%.
215 - 220	Brown, white; gravelly, sandy clay; clay 80%, sand 10%, gravel 10%.
220 - 225	Brown, white, red; clayey, gravelly sand; sand 60%, gravel 20%, clay 20%.
225 - 230	Brown, white, red; gravelly, sandy clay; clay 50%, sand 40%, gravel 10%.
230 - 235	Brown, white, red; gravelly, sandy clay; clay 60%, sand 30%, gravel 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1baa,[M-6MA]

DEPTH (feet)	DESCRIPTION
235 - 240	Brown, white, red; gravelly, sandy clay; clay 60%, sand 30%, gravel 10%.
240 - 245	Brown, white, red; clayey, sandy gravel; gravel 40%, sand 40%, clay 20%.
245 - 251	Brown, white, red; gravelly, clayey sand; sand 50%, clay 30%, gravel 20%.
251 - 255	Brown, white; sandy clay; clay 90%, sand 10%.
255 - 260	Brown, white; sandy clay; clay 90%, sand 10%.
260 - 265	Brown, white, red; gravelly, sandy clay; clay 85%, sand 10%, gravel 5%.
265 - 270	Brown, white, red; gravelly, sandy clay; clay 75%, sand 20%, gravel 5%.
270 - 275	Brown, white; gravelly, sandy clay; clay 85%, sand 10%, gravel 5%.
275 - 280	Brown, white; gravelly, sandy clay; clay 85%, sand 10%, gravel 5%.
280 - 285	Brown, white, red; gravelly, sandy clay; clay 85%, sand 10%, gravel 5%.
285 - 290	Brown, white, red; gravelly, clayey sand; sand 50%, clay 30%, gravel 20%.
290 - 295	Brown, white, red; clayey, gravelly sand; sand 60%, gravel 20%, clay 20%.
295 - 302	White, brown; clayey, sandy gravel; gravel 50%, sand 30%, clay 20%.
302 - TOTAL DEPTH	

Monitor Well (A-1-4)1bad3 [M-7MA]

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bad$_3$[M-7MA]

DEPTH (feet)	DESCRIPTION
0 - 5	Brown, white; sandy, gravelly silt and clay; silt and clay 80%, gravel 10%, sand 10%. Some caliche.
5 - 10	Brown; sandy, gravelly silt and clay; silt and clay 85%, gravel 10%, sand 5%. Some caliche.
10 - 15	Brown; sandy, gravelly silt and clay; silt and clay 90%, gravel 5%, sand 5%. Some caliche.
15 - 20	Brown; sandy, gravelly silt and clay; silt and clay 90%, gravel 5%, sand 5%. Some caliche.
20 - 25	Red, brown, black; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
25 - 30	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
30 - 35	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
35 - 40	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
40 - 50	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
50 - 55	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 15%, clay 5%.
55 - 60	Red, brown, white; sandy gravel (cobbles and boulders); gravel 80%, sand 20%.
60 - 65	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 60%, sand 20%, clay 20%.
65 - 70	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
70 - 75	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
75 - 80	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bad$_3$[M-7MA]

DEPTH (feet)	DESCRIPTION
80 - 85	Red, brown, white; clayey, sandy gravel (cobbles and boulders); gravel 80%, sand 10%, clay 10%.
85 - 90	Brown, red, white; clayey, sandy gravel (cobbles and boulders); gravel 70%, sand 20%, clay 10%.
90 - 100	Red, brown, white; gravelly sand (cobbles and boulders); sand 90%, gravel 10%.
100 - 105	Red, white, brown; gravelly sand (cobbles and boulders); sand 70%, gravel 30%.
105 - 110	Brown, white, red; gravelly sand (cobbles and boulders); sand 80%, gravel 20%.
110 - 115	Red, white, brown; gravelly sand (cobbles and boulders); sand 70%, gravel 30%.
115 - 120	Red, brown, white; gravelly sand (cobbles and boulders); sand 60%, gravel 40%.
120 - 125	Red, brown, white; sandy gravel (cobbles and boulders); gravel 60%, sand 40%.
125 - 130	Red, white, brown; sandy gravel; gravel 70%, sand 30%.
130 - 135	Brown, red, white; clayey, gravelly sand; sand 40%, gravel 30%, clay 30%.
135 - 140	Brown, red, white; clayey, gravelly sand; sand 40%, gravel 40%, clay 20%.
140 - 145	Brown, red, white; sandy, gravelly clay; clay 40%, gravel 30%, sand 30%.
145 - 150	Brown, red, white; gravelly, sandy clay; clay 50%, sand 30%, gravel 20%.
150 - 155	Brown, red, white; gravelly, clayey sand; sand 50%, clay 30%, gravel 20%.
155 - 160	Brown, white, red; gravelly, clayey sand; sand 70%, clay 20%, gravel 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bad$_3$[M-7MA]

DEPTH (feet)	DESCRIPTION
160 - 165	Brown, white, red; gravelly, clayey sand; sand 70%, clay 20%, gravel 10%.
165 - 170	Brown, red, white; gravelly, clayey sand; sand 50%, clay 30%, gravel 20%.
170 - 175	Brown, white, red; sandy, gravelly clay; clay 60%, gravel 20%, sand 20%.
175 - 180	Brown, white, red; sandy, gravelly clay; clay 50%, gravel 25%, sand 25%.
180 - 185	Brown, white, red; gravelly, clayey sand; sand 50%, clay 40%, gravel 10%.
185 - 190	Brown, white, red; gravelly, clayey sand; sand 70%, clay 20%, gravel 10%.
190 - 195	Brown, white, red; gravelly, clayey sand; sand 60%, clay 30%, gravel 10%.
195 - 200	Brown, white, red; gravelly, sandy clay; clay 50%, sand 40%, gravel 10%.
200 - 205	Brown, white, red; gravelly, sandy clay; clay 50%, sand 40%, gravel 10%.
205 - 210	Brown, white, red; gravelly, sandy clay; clay 50%, sand 45%, gravel 5%.
210 - 215	Brown, white, red; gravelly, clayey sand; sand 40%, clay 40%, gravel 20%.
215 - 220	Brown, white, red; gravelly, clayey sand; sand 50%, clay 30%, gravel 20%.
220 - 225	Brown, white, red; gravelly, clayey sand; sand 60%, clay 30%, gravel 10%.
225 - 230	Brown, white, red; gravelly, clayey sand; sand 70%, clay 20%, gravel 10%.
230 - 235	Brown, white, red; gravelly, clayey sand; sand 60%, clay 30%, gravel 10%.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC. ON-SITE MONITOR WELL
(A-1-4)1bad$_3$[M-7MA]

DEPTH (feet)	DESCRIPTION
235 - 240	Brown, white, red; clayey, gravelly sand; sand 80%, gravel 10%, clay 10%.
240 - 245	Brown, white, red; gravelly, clayey sand; sand 60%, clay 30%, gravel 10%.
245 - 252	Brown, red, white; clayey, gravelly sand; sand 50%, gravel 30%, clay 20%.
252 - 260	Brown, white, red; sandy, gravelly clay; clay 70%, gravel 20%, sand 10%.
260 - 265	Brown, black, red; sandy, gravelly clay; clay 85%, gravel 10%, sand 5%.
265 - 270	Brown, red, black; sandy, gravelly clay; clay 70%, gravel 20%, sand 10%.
270 - 275	Brown, white, red; sandy, gravelly clay; clay 50%, gravel 30%, sand 20%.
275 - 280	Brown, white, red; clayey, sandy gravel; gravel 40%, sand 30%, clay 30%.
280 - 285	Brown, white, red; gravelly sand; sand 70%, gravel 30%.
285 - 290	Brown, white, red; sandy, gravelly clay; clay 70%, gravel 20%, sand 10%.
290 - 295	Brown, white, red; sandy, gravelly clay; clay 80%, gravel 10%, sand 10%.
295 - 300	Brown, white, red; sandy, gravelly clay; clay 80%, gravel 10%, sand 10%.
300 - TOTAL DEPTH	

Monitor Well (A-2-4)36dbal [M-9MA]

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TABLE
LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba1[M-9MA]

DEPTH (Feet)	DESCRIPTION
0 - 5	Gravelly, sandy silt and clay; brown, white, cream; silt and clay 90%, sand 5%, gravel 5%; weakly cemented. Gravel fraction: subangular cream-brown caliche 90%, brown quartzite 5%, white quartz 5%. Reaction to acid: moderate.
5 - 10	Gravelly, sandy silt and clay; brown, cream; silt and clay 90%,sand 5%, gravel 5%; weakly cemented. Gravel fraction: subangular cream-brown caliche 100%. Reaction to acid: moderate.
10 - 15	Gravelly, sandy silt and clay (cobbles and boulders at 14 feet); brown, cream; silt and clay 90%, sand 5%, gravel 5%; weakly cemented. Gravel fraction: subangular cream-brown caliche 100%. Reaction to acid: moderate.
15 - 20	Sandy, silty and clayey gravel (cobbles and boulders); brown, gray, red; gravel 40%, silt and clay 40%, sand 20%; weakly cemented. Gravel fraction: subangular gray quartzite 80%, cream-brown caliche 15%, red granite 5%. Reaction to acid: weak.
20 - 25	Sandy gravel (cobbles and boulders); gray, white, red; gravel 95%, sand 5%; weakly cemented. Gravel fraction: subangular gray quartzite 80%, subangular gray andesite 10%, red granite 10%. Reaction to acid: none.
25 - 30	Sandy gravel (cobbles and boulders); red, gray, brown; gravel 95%, sand 5%; weakly cemented. Gravel fraction: subangular red and gray quartzite 60%, subangular gray andesite 30%, red granite 10%. Reaction to acid: none.
30 - 35	Sandy gravel (cobbles and boulders); red, gray, white; gravel 90%, sand 10%; weakly cemented. Gravel fraction: red granite 80%, subangular gray andesite 15%, subangular white quartzite 5%. Reaction to acid: none.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba1[M-9MA]

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DEPTH (Feet)	DESCRIPTION
35 - 40	Sandy gravel (cobbles and boulders); red, brown, white; gravel 80%, sand 20%; weakly cemented. Gravel fraction: subangular red granite/rhyolite 80%, subangular gray andesite 10%, subangular white quartzite 10%. Reaction to acid: none.
40 - 45	Sandy gravel (cobbles and boulders); red, gray, white; gravel 70%, sand 30%; weakly cemented. Gravel fraction: red granite 60%, subangular gray andesite 20%, subangular white quartzite 20%. Reaction to acid: none.
45 - 50	Silty, sandy gravel (cobbles and boulders); red, gray, white; gravel 80%, sand 15%, silt 5%; weakly cemented. Gravel fraction: red granite 50%, subangular gray andesite 20%, subangular gray quartzite 20%, subangular white quartzite 10%. Reaction to acid: none.
50 - 55	Silty, sandy gravel (cobbles and boulders); red, gray, white; gravel 50%, sand 45%, silt 5%; weakly cemented. Gravel fraction: subangular gray quartzite 80%, subangular red rhyolite 10%, subangular white quartzite 10%. Reaction to acid: none.
55 - 60	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 50%, sand 45%, silt and clay 5%; weakly cemented. Gravel fraction: subangular red rhyolite 60%, subangular gray andesite 20%, subangular white quartzite 20%. Reaction to acid: none.
60 - 65	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 80%, sand 10%, silt and clay 10%; weakly cemented. Gravel fraction: angular red rhyolite 35%, subangular gray andesite 35%, subangular white and gray quartzite 30%. Reaction to acid: none.
65 - 70	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 70%, sand 20%, silt and clay 10%; weakly cemented. Gravel fraction: angular red rhyolite/granite 40%, subangular gray andesite 30%, subangular white and gray quartzite 30%. Reaction to acid: none.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba1[M-9MA]

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DEPTH (Feet)	DESCRIPTION
70 - 75	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 70%, sand 20%, silt and clay 10%; weakly cemented. Gravel fraction: subangular red granite/rhyolite 80%, subangular gray andesite 10%, subangular white and gray quartzite 10%. Reaction to acid: none.
75 - 80	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 60%, sand 30%, silt and clay 10%; weakly cemented. Gravel fraction: subangular red granite/rhyolite 70%, subangular gray andesite 20%, subangular white and gray quartzite 10%. Reaction to acid: none.
80 - 85	Silty, sandy gravel (cobbles and boulders); red, gray, white; gravel 50%, sand 40%, silt 10%; weakly cemented. Gravel fraction: subangular red rhyolite 50%, subangular gray andesite 30%, subangular white and gray quartzite 20%. Reaction to acid: none.
85 - 90	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 60%, sand 30%, silt and clay 10%; weakly cemented. Gravel fraction: subangular rhyolite/granite 50%, subangular gray and white quartzite 40%, subangular gray andesite 10%. Reaction to acid: none.
90 - 95	Silty and clayey, sandy gravel (cobbles and boulders); gray, red, white; gravel 60%, sand 25%, silt and clay 15%; weakly cemented. Gravel fraction: subangular gray and white quartzite 60%, subangular red rhyolite 30%, subangular gray andesite 10%. Reaction to acid: none.
95 -100	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 70%, sand 25%, silt and clay 5%; weakly cemented. Gravel fraction: subangular red rhyolite 70%, subangular gray and white quartzite 20%, subangular gray andesite 10%. Reaction to acid: none.
100-105	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 60%, sand 30%, silt and clay 10%; weakly cemented. Gravel fraction: subangular red rhyolite/granite 80%, subangular gray, white, and red quartzite 15%, subangular gray andesite 5%. Reaction to acid: none.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba1[M-9MA]

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DEPTH (Feet)	DESCRIPTION
105-110	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 80%, sand 10%, silt and clay 10%, weakly cemented. Gravel fraction: subangular red, gray, and white quartzite 80%, subangular gray andesite 10%, subangular red rhyolite/granite 10%. Reaction to acid: none.
110-115	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, white; gravel 80%, sand 10%, silt and clay 10%; weakly cemented. Gravel fraction: red, gray, and white quartzite 70%, gray andesite 20%, red rhyolite 10%. Reaction to acid: none.
115-120	Silty and clayey, sandy gravel (cobbles and boulders); red, gray, brown; gravel 60%, sand 25%, silt and clay 15%, weakly cemented. Gravel fraction: red, gray, and white quartzite 70%, gray andesite 20%, red granite/rhyolite 10%. Reaction to acid: none.
120-125	Sandy, gravelly silt and clay; brown, gray, white; silt and clay 70%, gravel 20%, sand 10%; weakly cemented. Gravel fraction: brown, gray, and white quartzite 80%, gray andesite 15%, red granite/rhyolite 5%. Reaction to acid: weak.
125-130	Sandy, gravelly silt and clay; brown, gray, white; silt and clay 60%, gravel 25%, sand 15%; weakly cemented. Gravel fraction: brown, gray, and white quartzite 90%, gray andesite 5%, red rhyolite/granite 5%. Reaction to acid: weak.
130-135	Gravelly, sandy silt and clay; brown, gray, white; silt and clay 50%, sand 40%, gravel 10%; weakly cemented. Gravel fraction: brown, white, and gray quartzite 80%, gray andesite 10%, white and clear quartz 10%. Reaction to acid weak.
135-140	Gravelly, sandy silt and clay; brown, gray, white; silt and clay 75%, sand 20%, gravel 5%; weakly cemented. Gravel fraction: gray and white quartzite 100%. Reaction to acid: weak to moderate.
140-145	Gravelly, sandy silt and clay; brown, gray, white; silt and clay 75%, sand 20%, gravel 5%; weakly cemented. Gravel fraction: angular gray and white quartzite 75%, angular gray andesite 25%. Reaction to acid: moderate.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba1[M-9MA]

DEPTH (Feet)	DESCRIPTION
145-150	Sandy, gravelly silt and clay; brown, gray, white; silt and clay 65%, gravel 25%, sand 10%; weakly cemented. Gravel fraction: angular gray and white quartzite 70%, subrounded red rhyolite/granite 15%, subangular gray andesite 15%. Reaction to acid: weak to moderate.
150-155	Sandy, silty and clayey gravel; red, gray, brown; gravel 55%, silt and clay 35%, sand 10%; weakly cemented. Gravel fraction: angular red rhyolite/granite 55%, subangular gray and white quartzite 45% . Reaction to acid: weak.
155-160	Sandy, silty and clayey gravel; gray, red, white; gravel 65%, silt and clay 25%, sand 10%; weakly cemented. Gravel fraction: angular gray and white quartzite 80%, angular red rhyolite/granite 20% . Reaction to acid: none.
160-165	Sandy, silty and clayey gravel; red, gray, white; gravel 55%, silt and clay 35%, sand 10%; weakly cemented. Gravel fraction: subangular red rhyolite/granite 55%, subangular to angular gray and white quartzite 45%. Reaction to acid: none.
165-170	Sandy, gravelly silt and clay; brown, red, gray; silt and clay 50%, gravel 40%, sand 10%; weakly cemented. Gravel fraction: subangular brown and gray quartzite 70%, angular red rhyolite/ granite 20%, subangular gray andesite 10%. Reaction to acid: none.
170-175	Sandy, silty and clayey gravel; red, gray, brown; gravel 70%, silt and clay 25%, sand 5%; weakly cemented. Gravel fraction: subangular to angular red rhyolite 60%, subangular gray and brown quartzite 30%, subangular gray andesite 10%. Reaction to acid: none.
175-180	Silty and clayey gravel; red, gray, brown; gravel 80%, silt and clay 20%; weakly cemented. Gravel fraction: angular red rhyolite/granite 50%, subangular gray andesite 25%, subangular gray, brown, and white quartzite 25%. Reaction to acid: none.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba1[M-9MA]

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DEPTH (Feet)	DESCRIPTION
180-185	Sandy, silty and clayey gravel; red, gray, white; gravel 80%, silt and clay 15%, sand 5%; weakly cemented. Gravel fraction: angular red rhyolite/granite 45%, angular gray and white quartzite 45%, angular gray andesite 10%. Reaction to acid: none.
185-190	Gravelly, sandy silt and clay; brown, gray, white; silt and clay 80%, sand 15%, gravel 5%; weakly cemented. Gravel fraction: angular red granite 45%, angular gray and white quartzite 45%, angular gray andesite 10%. Reaction to acid: moderate.
190-195	Gravelly, sandy silt and clay; brown, gray, white; silt and clay 80%, sand 15%, gravel 5%; weakly cemented. Gravel fraction: subangular gray and white quartzite 100%. Reaction to acid: moderate.
195-200	Gravelly, sandy silt and clay; gray, brown, red; silt and clay 80%, sand 15%, gravel 5%; weakly cemented. Gravel fraction: subangular to angular red rhyolite 90%, subangular brown quartzite 5%, subrounded white and clear quartz 5%. Reaction to acid: moderate.
200-205	Gravelly, sandy silt and clay; gray, brown; silt and clay 75%, sand 20%, gravel 5%; weakly cemented. Gravel fraction: subangular red rhyolite 100%. Reaction to acid: moderate.
205-210	Gravelly, sandy silt and clay; brown, gray; silt and clay 85%, sand 10%, gravel 5%; weakly cemented. Gravel fraction: subangular red rhyolite 100%. Reaction to acid: moderate.
210-215	Gravelly, sandy silt and clay; brown, gray, white; silt and clay 75%, sand 20%, gravel 5%; weakly cemented. Gravel fraction: subangular and subrounded white and clear quartz 100%. Reaction to acid: moderate.
215-220	Gravelly, sandy silt and clay; brown, gray; silt and clay 85%, sand 10%, gravel 5%; weakly cemented. Gravel fraction: angular red rhyolite 50%, subrounded white and clear quartz 50%. Reaction to acid: moderate.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba1[M-9MA]

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DEPTH (Feet)	DESCRIPTION
220-225	Gravelly, sandy silt and clay; brown, gray, white; silt and clay 85%, sand 10%, gravel 5%; weakly cemented. Gravel fraction: subangular red rhyolite 100%. Reaction to acid: moderate.
225-230	Gravelly, sandy silt and clay; brown, gray, white; silt and clay 85%, sand 10%, gravel 5%; weakly cemented. Gravel fraction: subrounded gray quartzite 100%. Reaction to acid: moderate.
230-235	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; weakly cemented. Reaction to acid: moderate.
235-240	Gravelly, sandy silt and clay; brown, white, gray; silt and clay 75%, sand 20%, gravel 5%; weakly cemented. Gravel fraction: angular white quartz and red granite 100%. Reaction to acid: moderate.
240-245	Gravelly, sandy silt and clay; brown, white, gray; silt and clay 85%, sand 10%, gravel 5%; weakly cemented. Gravel fraction: subangular gray andesite 60%, subrounded red granite 40%. Reaction to acid: moderate.
245-250	Gravelly, sandy silt and clay; brown, white, gray; silt and clay 85%, sand 10%, gravel 5%; weakly cemented. Gravel fraction: subangular brown quartzite 100%. Reaction to acid: moderate.
250-255	Gravelly, sandy silt and clay; brown, gray; silt and clay 90%, sand 7%, gravel 3%; weakly cemented. Gravel fraction: subangular gray quartzite 100%. Reaction to acid: moderate.
255-260	Gravelly, sandy silt and clay; brown, gray; silt and clay 95%, sand 3%, gravel 2%; weakly cemented. Gravel fraction: subangular quartzite 100%. Reaction to acid: moderate.
260-265	Gravelly, sandy silt and clay; brown, gray, white; silt and clay 75%, sand 20%, gravel 5%; weakly cemented. Gravel fraction: subangular and subrounded gray quartzite 80%, subrounded gray andesite 15%, angular and subangular white and clear quartzite 5%. Reaction to acid: weak.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)36dba1[M-9MA]

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DEPTH (Feet)	DESCRIPTION
265-270	Gravelly, silty and clayey sand; brown, gray, white; sand 85%, silt and clay 10%, gravel 5%; uncemented. Gravel fraction: angular and subangular brown and white quartzite 90%, subrounded gray andesite 10%. Reaction to acid: none.
270-275	Gravelly, silty and clayey sand; brown, red, gray; sand 70%, silt and clay 25%, gravel 5%; uncemented. Gravel fraction: angular to subrounded brown, red, and white quartzite 90%, angular and subangular gray andesite 10%. Reaction to acid: none.
275-280	Gravelly, sandy silt and clay; brown, gray, red; silt and clay 75%, sand 20%, gravel 5%; weakly cemented. Gravel fraction: subangular white quartz 50%, subangular gray andesite 25%, subrounded red rhyolite 25%. Reaction to acid: weak.
280-285	Gravelly, sandy silt and clay; brown, gray, red; silt and clay 80%, sand 15%, gravel 5%; weakly cemented. Gravel fraction: angular, subangular, and sub- rounded gray andesite 65%, subrounded clear and white quartz 35%. Reaction to acid: weak.
285-290	Sandy silt and clay; brown, gray, white; silt and clay 95%, sand 5%; weakly cemented. Reaction to acid: moderate.
290-295	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; weakly cemented. Gravel fraction: subrounded gray andesite 100%. Reaction to acid: moderate.
295-302	Gravelly, sandy silt and clay; brown, white, gray; silt and clay 85%, sand 10%, gravel 5%; weakly cemented. Gravel fraction: angular gray andesite and red rhyolite 100%. Reaction to acid: moderate.

TOTAL DEPTH 302 FEET.

Monitor Well (A-2-4)35ddc1 [M-10MA]

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TABLE
LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc1[M-10MA]

DEPTH (Feet)	DESCRIPTION
0 - 5	Sandy, gravelly silt and clay; brown, red, white; silt and clay 80%, sand 10%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 80%, subangular red rhyolite/granite 10%, subangular brown quartzite 10%. Reaction to acid: strong.
5 - 10	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 50%, subrounded white quartz 50%. Reaction to acid: strong.
10 - 15	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 50%, subrounded white quartz 50%. Reaction to acid: moderate.
15 - 20	Sandy, gravelly silt and clay; brown, white, red; silt and clay 85%, gravel 10%, sand 5%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 70%, subrounded white quartz 30%. Reaction to acid: strong.
20 - 25	Silty and clayey, sandy gravel (cobbles and boulders); brown, red, black; gravel 50%, sand 30%, silt and clay 20%; uncemented. Gravel fraction: subangular brown quartzite 50%, subangular red granite/rhyolite 30%, subangular black andesite 20%. Reaction to acid: weak.
25 - 30	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, white; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red and brown quartzite 50%, subangular red granite/rhyolite 30%, subangular black andesite 20%. Reaction to acid: none.
30 - 35	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, white; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red quartzite 50%, subangular black andesite 30%, subangular red granite/rhyolite 20%. Reaction to acid: none.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc1[M-1OMA]

DEPTH (Feet)	DESCRIPTION
35 - 40	Sandy gravel (cobbles and boulders); red, black, brown; gravel 70% sand 30%; uncemented. Gravel fraction: subangular red and brown quartzite 50%, subangular black andesite 40%, subangular red granite/rhyolite 10%. Reaction to acid: none.
40 - 45	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subangular red granite/rhyolite 20%, subangular black andesite 20%. Reaction to acid: none.
45 - 50	Sandy gravel (cobbles and boulders); brown, red, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red and brown quartzite 50%, subangular red granite/rhyolite 25%, subangular black andesite 25%. Reaction to acid: none.
50 - 55	Sandy gravel (cobbles and boulders); red, brown, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red and brown quartzite 50%, black andesite 30%, red granite/ rhyolite 20%. Reaction to acid: none.
55 - 60	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subangular red granite/rhyolite 30%, black andesite 10%. Reaction to acid: none.
60 - 65	Sandy gravel (cobbles and boulders); red, brown, black; gravel 90%, sand 10%; uncemented. Gravel fraction: subangular red and brown quartzite 40%, subangular red granite/rhyolite 40%, black andesite 20%. Reaction to acid: none.
65 - 70	Sandy gravel (cobbles and boulders); brown, red, black; gravel 90%, sand 10%; uncemented. Gravel fraction: subangular brown and red quartzite 60%, subangular black andesite 30%, subangular red granite 10%. Reaction to acid: none.
70 - 75	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red and brown quartzite 50%, subangular red granite/rhyolite 25%, subangular black andesite 25%. Reaction to acid: none.
75 - 80	Silty and clayey, sandy gravel (cobbles and boulders); red, black, white; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red and brown

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DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc1[M-10MA]

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Depth (Feet)	DESCRIPTION
	quartzite 60%, subangular black andesite 30%, subrounded white quartz 10%. Reaction to acid: none.
80 - 85	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red and brown quartzite 50%, subangular red granite/rhyolite 25%, subangular black andesite 25%. Reaction to acid: none.
85 - 90	Gravelly sand (cobbles and boulders); brown, red, white; sand 60%, gravel 40%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subrounded white quartz 20%, subangular black andesite 20%. Reaction to acid: none.
90 - 95	Sandy gravel (cobbles and boulders); red, brown, black; gravel 90%, sand 10%; uncemented. Gravel fraction: subangular red and brown quartzite 50%, subangular red granite/rhyolite 25%, subangular black andesite 25%. Reaction to acid: none.
95 -100	Gravelly sand (cobbles and boulders); red, brown, white; sand 70%, gravel 30%; uncemented. Gravel fraction: subangular red and brown quartzite 50%, subangular white quartz 30%, subangular black andesite 20%. Reaction to acid: none.
100-105	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red and brown quartzite 40%, subangular red granite/rhyolite 30%, subangular black andesite 30%. Reaction to acid: none.
105-110	Sandy gravel (cobbles and boulders); red, brown, black; gravel 90%, sand 10%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subangular red granite/rhyolite 20%, subangular black andesite 20%. Reaction to acid: none.
110-115	Sandy gravel (cobbles and boulders); red, brown, white; gravel 90%, sand 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
115-120	Sandy gravel (cobbles and boulders); red, brown, black; gravel 90%, sand 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc1[M-10MA]

DEPTH (Feet)	DESCRIPTION
120-125	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown, granite 20%, subangular black andesite 20%. Reaction to acid: none.
125-130	Sandy gravel (cobbles and boulders); red, black, white; gravel 90%, sand 10%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
130-135	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%, trace clay; uncemented. Gravel fraction: subangular red and brown quartzite 50%, subangular black andesite 30%, red and green granite 20%. Reaction to acid: none.
135-140	Sandy gravel (cobbles and boulders); red, brown, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red granite/ rhyolite 20%, subangular black andesite 10%. Reaction to acid: none.
140-145	Silty and clayey, sandy gravel; red, brown, white; gravel 75%, sand 20%, silt and clay 5%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red granite/rhyolite 20%, subangular black andesite 20%. Reaction to acid: none.
145-150	Sandy, silty and clayey gravel; brown, red, white; gravel 50%, silt and clay 30%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red granite 20%, subangular black andesite 20%. Reaction to acid: none.
150-155	Gravelly, sandy silt and clay; brown, red, white; silt and clay 40%, sand 40%, gravel 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red granite 20%, subangular black andesite 20%. Reaction to acid: weak.
155-160	Sandy, gravelly silt and clay; brown, red, white; silt and clay 40%, gravel 40%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
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Depth (Feet)	DESCRIPTION
	red granite 20%, subangular black andesite 20%. Reaction to acid: weak.
160-165	Gravelly, sandy silt and clay; brown, red, white; silt and clay 50%, sand 30%, gravel 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular black andesite 20%, subangular red granite 10%. Reaction to acid: weak.
165-170	Gravelly, sandy silt and clay; brown, red, white; silt and clay 50%, sand 40%, gravel 10%; uncemented. Gravel fraction: subangular red and brown quartzite 80%, subangular black andesite 20%. Reaction to acid: weak.
170-175	Gravelly, sandy silt and clay; brown, red, white; silt and clay 50%, sand 45%, gravel 5%; uncemented. Gravel fraction: subangular red and brown quartzite 100%. Reaction to acid: weak.
175-180	Gravelly, sandy silt and clay; brown, red, white; silt and clay 50%, sand 30%, gravel 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 80%, subangular red granite 10%, subangular black andesite 10%. Reaction to acid: weak.
180-185	Gravelly, sandy silt and clay; brown, red, white; silt and clay 50%, sand 40%, gravel 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 80%, subangular red granite 20%. Reaction to acid: weak.
185-190	Gravelly, sandy silt and clay; brown, red, white; silt and clay 50%, sand 40%, gravel 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 80%, subangular red granite 10%, subangular black andesite 10%. Reaction to acid: weak.
190-195	Silty and clayey, gravelly sand; brown, red, white; sand 70%, gravel 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subrounded white quartz 20%, subangular black andesite 10%. Reaction to acid: weak.
195-200	Gravelly, sandy silt and clay; brown, white, red; silt and clay 40%, sand 40%, gravel 20%; uncemented. Gravel fraction:

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc1[M-10MA]

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Depth (Feet)	DESCRIPTION
	subangular red and brown quartzite 80%; subangular black andesite 10%, subrounded white quartz 10%. Reaction to acid: weak.
200-205	Sandy silt and clay; brown, red, white; silt and clay 80%, sand 20%; uncemented. Reaction to acid: weak.
205-210	Sandy silt and clay; brown, red, white; silt and clay 80%, sand 20%; uncemented. Reaction to acid: weak.
210-215	Gravelly, sandy silt and clay; brown, red, white; silt and clay 70%, sand 20%, gravel 10%; uncemented. Gravel fraction: subrounded brown and white quartzite 50%, red granite 50%. Reaction to acid: moderate.
215-220	Sandy, gravelly silt and clay; brown, red, white; silt and clay 60%, gravel 30%, sand 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: moderate.
220-225	Sandy, gravelly silt and clay; brown, red, white; silt and clay 60%, gravel 30%, sand 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: moderate.
225-230	Sandy, gravelly silt and clay; brown, red, black; silt and clay 50%, gravel 40%, sand 10%; uncemented. Gravel fraction: subangular red and brown quartzite 70%, subangular red and brown granite 15%, subangular black andesite 15%. Reaction to acid: moderate.
230-235	Gravelly, silty and clayey sand; white, red, brown; sand 70%, silt and clay 20%, gravel 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 80%, subrounded white quartzite 20%. Reaction to acid: moderate.
235-240	Silty and clayey sand; brown, white, red; sand 60%, silt and clay 40%; uncemented. Reaction to acid: weak.
240-245	Silty and clayey sand; brown, white, red; sand 60%, silt and clay 40%; uncemented. Reaction to acid: weak.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc1[M-10MA]

DEPTH (Feet)	DESCRIPTION
245-250	Silty and clayey sand; brown, red, white; sand 60%, silt and clay 40%; uncemented. Reaction to acid: moderate.
250-255	Gravelly, sandy silt and clay; brown, red, black; silt and clay 90%, sand 5%, gravel 5%; uncemented. Gravel fraction: subangular rhyolite 50%, subangular black andesite 50%. Reaction to acid: weak.
255-260	Sandy silt and clay; brown, red, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
260-265	Sandy silt and clay; brown, red, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
265-270	Gravelly, sandy silt and clay; brown, white, red; silt and clay 70%, sand 20%, gravel 10%; uncemented. Gravel fraction: subrounded white and brown quartz 100%. Reaction to acid: weak.
270-275	Gravelly, sandy silt and clay; brown, white, red; silt and clay 60%, sand 30%, gravel 10%; uncemented. Gravel fraction: subrounded white and brown quartz 90%, subrounded rhyolite 10%. Reaction to acid: weak.
275-280	Gravelly, sandy silt and clay; brown, white; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: moderate.
280-285	Gravelly, sandy silt and clay; brown, white, red; silt and clay 70%, sand 20%, gravel 10%; uncemented. Gravel fraction: subrounded white and brown quartz 80%, subrounded rhyolite 20%. Reaction to acid: weak.
285-290	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white and brown quartz 80%, subrounded brown granite 20%. Reaction to acid: weak.
290-295	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
295-302	Gravelly, sandy silt and clay; brown, white, red; silt and clay 70%, sand 20%, gravel 10%; uncemented. Gravel fraction:

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc1[M-10MA]

DEPTH (Feet)	DESCRIPTION
	subrounded white and brown quartz 80%, subrounded brown granite 20%. Reaction to acid: weak.

TOTAL DEPTH 302 FEET.

Monitor Well (A-2-4)35dbal [M-11MA]

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TABLE
LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35dba1[M-11MA]

DEPTH (Feet)	DESCRIPTION
0 - 5	Gravelly, sandy silt and clay; brown, white; silt and clay 70%, sand 20%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular caliche 60%, subrounded white quartz 40%. Reaction to acid: strong.
5 - 10	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; moderately cemented (caliche). Reaction to acid: moderate.
10 - 15	Gravelly, sandy silt and clay (cobbles and boulders); brown, white, red; silt and clay 70%, sand 20%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular caliche 50%, subrounded white quartz 50%. Reaction to acid: strong.
15 - 20	Gravelly, sandy silt and clay; red, brown, black; silt and clay 50%, sand 30%, gravel 20%; weakly cemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red granite/rhyolite 20%. Reaction to acid: weak.
20 - 25	Silty and clayey, sandy gravel; red, brown, black; gravel 50%, sand 30%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red and black granite 20%. Reaction to acid: none.
25 - 30	Sandy gravel; red, black, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red and brown granite 20%. Reaction to acid: none.
30 - 35	Sandy gravel; red, black, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red and brown granite 20%. Reaction to acid: none.
35 - 40	Sandy gravel; black, red, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35dba1[M11-MA]

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DEPTH (Feet)	DESCRIPTION
	white quartzite 60%, subangular black andesite 30%, subangular red granite 10%. Reaction to acid: none.
40 - 45	Silty and clayey, sandy gravel; brown, red, black; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and black quartzite 50%, subangular red, brown, and black granite 30%, subangular black andesite 20%. Reaction to acid: none.
45 - 50	Sandy gravel; red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red and brown granite 50%, subangular red, brown, and white quartzite 30%, subangular black andesite 20%. Reaction to acid: none.
50 - 55	Sandy gravel; red, brown, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red and brown quartzite 50%, subangular red granite 30%, subangular black granite 20%. Reaction to acid: none.
55 - 60	Sandy gravel; red, black, brown; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 30%, subangular black andesite 20%. Reaction to acid: none.
60 - 65	Sandy gravel; red, brown, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red granite/rhyolite 40%, subangular red and brown quartzite 40%, subangular black andesite 20%. Reaction to acid: none.
65 - 70	Sandy gravel; red, brown, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red granite/rhyolite 40%, subangular red and brown quartzite 40%, subangular black andesite 20%. Reaction to acid: none.
70 - 75	Silty and clayey, sandy gravel; brown, red, black; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red granite 20%, subangular black andesite 20%. Reaction to acid: none.
75 - 80	Silty and clayey, sandy gravel; brown, red, black; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular

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DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35dba1[M11-MA]

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DEPTH (Feet)	DESCRIPTION
	red granite 20%, subangular black andesite 20%. Reaction to acid: none.
80 - 85	Silty and clayey, sandy gravel; red, brown, black; gravel 60%, sand 20%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and black granite 20%, subangular black andesite 20%. Reaction to acid: none.
85 - 90	Gravelly sand; red, brown, black; sand 70%, gravel 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red granite 30%, subangular black andesite 20%. Reaction to acid: none.
85 - 90	Gravelly sand; red, brown, black; sand 60%, gravel 40%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red granite 30%, subangular black andesite 20%. Reaction to acid: none.
95 -100	Sandy gravel; red, brown, white; gravel 50%, sand 50%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
100-105	Sandy gravel; red, brown, white; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red granite 30%, subangular black andesite 20%. Reaction to acid: none.
105-110	Sandy gravel; red, brown, white; gravel 60%, sand 40%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red granite 30%, subangular black andesite 20%. Reaction to acid: none.
110-115	Sandy gravel; brown, red, white; gravel 90%, sand 10%; uncemented. Gravel fraction: subangular brown, red, and white quartzite 60%, subangular red and brown granite 30%, subangular black andesite 10%. Reaction to acid: none.
115-120	Silty and clayey, sandy gravel; red, brown, white; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red, brown, and black granite 20%, subangular black andesite

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DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35dba1[M11-MA]

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DEPTH (Feet)	DESCRIPTION
	20%. Reaction to acid: none.
120-125	Silty and clayey, sandy gravel; red, brown, white; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red, brown, and black granite 20%, subangular black andesite 20%. Reaction to acid: none.
125-130	Sandy gravel; red, white, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red and brown granite 20%, subangular black andesite 10%. Reaction to acid: none.
130-135	Sandy gravel; red, white, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, white, and brown quartzite 60%, subangular red, brown, and black granite 20%, subangular black andesite 20%. Reaction to acid: none.
135-140	Sandy gravel; red, white, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, white, and brown quartzite 60%, subangular red, brown, and black granite 20%, subangular black andesite 20%. Reaction to acid: none.
140-145	Sandy gravel; red, brown, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 30%, subangular black andesite 10%. Reaction to acid: none.
145-150	Silty and clayey, gravelly sand; brown, red, white; sand 40%, gravel 40%, silt and clay 20%; uncemented. Gravel fraction: subangular brown, red, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
150-155	Silty and clayey, gravelly sand; brown, white, black; sand 50%, gravel 30%, silt and clay 20%; uncemented. Gravel fraction: subangular brown, red, and white quartzite 60%, subangular brown and red granite 20%, subangular black andesite 20%. Reaction to acid: none.
155-160	Gravelly, sandy silt and clay; brown, white, black; silt and clay 50%, sand 40%, gravel 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35dba1[M11-MA]

DEPTH (Feet)	DESCRIPTION
	red and brown granite 25%, subangular black andesite 25%. Reaction to acid: weak.
160-165	Gravelly, sandy silt and clay; brown, white, red; silt and clay 70%, sand 20%, gravel 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular black andesite 30%. Reaction to acid: moderate.
165-170	Gravelly, sandy silt and clay; brown, white, red; silt and clay 80%, sand 10%, gravel 10%; uncemented. Gravel fraction: subangular red and brown quartzite 50%; subangular red and brown granite 25%; subangular black andesite 25%. Reaction to acid: moderate.
170-175	Gravelly, sandy silt and clay; brown, white, black; silt and clay 80%, sand 10%, gravel 10%; uncemented. Gravel fraction: subangular red and white quartzite 50%, subangular black andesite 50%. Reaction to acid: moderate.
175-180	Gravelly, sandy silt and clay; brown, white, black; silt and clay 80%, sand 10%, gravel 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 25%, subangular black andesite 25%. Reaction to acid: moderate.
180-185	Gravelly, sandy silt and clay; brown, white, black; silt and clay 80%, sand 10%, gravel 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 25%, subangular black andesite 25%. Reaction to acid: moderate.
185-190	Sandy silt and clay; brown, white, black; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
190-195	Sandy silt and clay; brown, white; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
195-200	Sandy silt and clay; brown, white; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
200-205	Sandy silt and clay; brown, white; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35dba1[M11-MA]

DEPTH (Feet)	DESCRIPTION
205-210	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
210-215	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
215-220	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
220-225	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
225-230	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: weak.
230-235	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
235-240	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
240-245	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: weak.
245-250	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
250-255	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
255-260	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
260-265	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
265-270	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
270-275	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
275-280	Gravelly, sandy silt and clay; brown, white, red; silt and clay

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35dba1[M11-MA]

DEPTH (Feet)	DESCRIPTION
	85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 50%, subrounded brown granite 50%. Reaction to acid: moderate.
280-285	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
285-290	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
290-295	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
295-300	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.

TOTAL DEPTH 300 FEET.

Monitor Well (A-2-4)26ddal [M-12MA]

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TABLE
LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)26ddda1[M-12MA]

DEPTH (Feet)	DESCRIPTION
0 - 5	Gravelly, sandy silt and clay; brown, white; silt and clay 85%, sand 10%, gravel 5%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 100%. Reaction to acid: strong.
5 - 10	Gravelly, sandy silt and clay; brown, white; silt and clay 80%, sand 10%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 100%. Reaction to acid: strong.
10 - 15	Gravelly, sandy silt and clay; brown, white; silt and clay 80%, sand 10%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 100%. Reaction to acid: strong.
15 - 20	Gravelly, sandy silt and clay; brown, white; silt and clay 85%, sand 10%, gravel 5%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 100%. Reaction to acid: strong.
20 - 25	Gravelly, sandy silt and clay; brown, white, black; silt and clay 50%, sand 40%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 50%, subrounded white quartz 50%. Reaction to acid: strong.
25 - 30	Gravelly, sandy silt and clay (cobbles and boulders); red, white, black; silt and clay 50%, sand 30%, gravel 20%; moderately cemented (caliche). Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red granite 25%, subangular black andesite 25%. Reaction to acid: weak.
30 - 35	Silty and clayey, sandy gravel; red, brown, black; gravel 50%, sand 30%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 20%, subangular red and brown granite 20%. Reaction to acid: none.
35 - 40	Sandy, gravelly silt and clay; red, brown, black; silt and clay 50%, gravel 25%, sand 25%; uncemented. Gravel fraction: sub-

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)26ddaa1[M-12MA]

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DEPTH (Feet)	DESCRIPTION
	angular red, brown, and white quartzite 50%, subangular red and brown granite 30%, subangular black andesite 20%. Reaction to acid: none.
40 - 45	Silty and clayey, sandy gravel; red, brown, black; gravel 50%, sand 30%, silt and clay 20%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subangular red granite 20%, subangular black andesite 20%. Reaction to acid: none.
45 - 50	Silty and clayey, sandy gravel; red, brown, black; gravel 50%, sand 30%, silt and clay 20%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subangular red granite 20%, subangular black andesite 20%. Reaction to acid: none.
50 - 55	Silty and clayey, sandy gravel; red, black, brown; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subangular black andesite 30%, subangular red granite 10%. Reaction to acid: none.
55 - 60	Silty and clayey, sandy gravel; red, black, brown; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red and brown quartzite 60%, subangular black andesite 30%, subangular red granite 10%. Reaction to acid: none.
60 - 65	Silty and clayey, sandy gravel; black, red, brown; gravel 60%, sand 20%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red and brown granite 20%. Reaction to acid: none.
65 - 70	Sandy gravel; red, brown, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 40%, subangular red and brown granite 40%, subangular black andesite 20%. Reaction to acid: none.
70 - 75	Silty and clayey, sandy gravel; red, brown, white; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 40%, subangular red and brown granite 40%, subangular black andesite 20%. Reaction to acid: none.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)26dda1[M-12MA]

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DEPTH (Feet)	DESCRIPTION
75 - 80	Silty and clayey, sandy gravel; red, black, brown; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 30%, subangular red and brown granite 10%. Reaction to acid: none.
80 - 85	Silty and clayey, sandy gravel; red, brown, black; gravel 50%, sand 30%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 30%, subangular black andesite 20%. Reaction to acid: none.
85 - 90	Sandy gravel; red, brown, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
90 - 95	Sandy gravel; red, brown, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
95 -100	Sandy gravel; red, brown, white; gravel 90%, sand 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red and brown granite 20%, subangular black andesite 10%. Reaction to acid: none.
100-105	Sandy gravel; red, brown, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular black andesite 20%, subangular red, brown, and black granite 10%. Reaction to acid: none.
105-110	Sandy gravel; red, brown, white; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
110-115	Gravelly sand; red, brown, white; sand 80%, gravel 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red and brown granite 20%, subangular black andesite 10%. Reaction to acid: none.
115-120	Sandy gravel; red, white, black; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)26ddda1[M-12MA]

DEPTH (Feet)	DESCRIPTION
	quartzite 70%, subangular black andesite 20%, subangular red and brown granite 10%. Reaction to acid: none.
120-125	Sandy gravel; red, white, brown; gravel 60%, sand 40%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 80%, subangular red granite 10%, subangular black andesite 10%. Reaction to acid: none.
125-130	Sandy gravel; red, brown, white; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red and brown granite 20%, subangular black andesite 10%. Reaction to acid: none.
130-135	Sandy gravel; red, brown, white; gravel 70%, sand 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red and brown granite 20%, subangular black andesite 10%. Reaction to acid: none.
135-140	Sandy gravel; red, brown, white; gravel 50%, sand 50%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
140-145	Gravelly sand; red, brown, white; sand 60%, gravel 40%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
145-150	Gravelly sand; red, brown, white; sand 70%, gravel 30%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular black andesite 20%, subangular red granite 10%. Reaction to acid: none.
150-155	Gravelly, silty and clayey sand; red, brown, white; sand 60%, silt and clay 30%, gravel 10%; uncemented. Gravel fraction: red, brown, and white quartzite 100%. Reaction to acid: none.
155-160	Gravelly, silty and clayey sand; red, white, brown; sand 60%, silt and clay 30%, gravel 10%; uncemented. Gravel fraction: red, brown, and white quartzite 100%. Reaction to acid: none.
160-165	Gravelly, silty and clayey sand; red, brown, white; sand 60%,

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)26ddda1[M-12MA]

DEPTH (Feet)	DESCRIPTION
	silt and clay 30%, gravel 10%; uncemented. Gravel fraction: red, brown, and white quartzite 50%, red, brown, and black granite 50%. Reaction to acid: none.
165-170	Sandy, silty and clayey gravel; red, brown, white; gravel 40%, silt and clay 40%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular black andesite 20%, subangular red and brown granite 10%. Reaction to acid: none.
170-175	Sandy, silty and clayey gravel; red, brown, white; gravel 40%, silt and clay 40%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular black andesite 20%, subangular red and brown granite 10%. Reaction to acid: none.
175-180	Sandy gravel; brown, red, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red, brown, and black granite 30%, subangular black andesite 20%. Reaction to acid: none.
180-185	Sandy gravel; brown, red, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red, brown, and black granite 30%, subangular black andesite 20%. Reaction to acid: none.
185-190	Gravelly, sandy silt and clay; brown, red, white; silt and clay 80%, sand 15%, gravel 5%; uncemented. Gravel fraction: red, brown, and white quartzite 100%. Reaction to acid: none.
190-195	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: none.
195-200	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: weak.
200-205	Gravelly, sandy silt and clay; brown, white, red; silt and clay 80%, sand 15%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 50%, subangular red and brown quartzite 50%. Reaction to acid: weak.
205-210	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.

LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)26ddaa1[M-12MA]

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DEPTH (Feet)	DESCRIPTION
210-215	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
215-220	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
220-225	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
225-230	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
230-235	Gravelly, sandy silt and clay; brown, white, red; silt and clay 75%, sand 20%, gravel 5%; uncemented. Gravel fraction: sub-rounded white quartz 100%. Reaction to acid: weak.
235-240	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: sub-rounded white quartz 100%. Reaction to acid: weak.
240-245	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
245-250	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
250-255	Sandy silt and clay; brown, white, red; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
255-260	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
260-265	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
265-270	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
270-275	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
275-280	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)26ddaa1[M-12MA]

DEPTH (Feet)	DESCRIPTION
280-285	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
285-290	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
290-295	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.
295-300	Sandy silt and clay; brown, white; silt and clay 95%, sand 5%; uncemented. Reaction to acid: moderate.

TOTAL DEPTH 300 FEET.

Monitor Well (A-2-4)35ddc3 [M-10LA]

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
0 - 5	Gravelly, sandy silt and clay; brown, red, white; silt and clay 80%, sand 10%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 80%, subrounded red granite 10%, subrounded white quartz 10%. Reaction to acid: strong.
5 - 10	Gravelly, sandy silt and clay; brown, white; silt and clay 80%, sand 10%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 100%. Reaction to acid: strong.
10 - 15	Gravelly, sandy silt and clay; brown, white, red; silt and clay 80%, sand 10%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 90%, subrounded white quartz 10%. Reaction to acid: strong.
15 - 20	Gravelly, sandy silt and clay; brown, white, red; silt and clay 80%, sand 10%, gravel 10%; moderately cemented (caliche). Gravel fraction: subangular brown caliche 70%, subrounded white quartz 30%. Reaction to acid: strong.
20 - 25	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, white; gravel 50%, sand 30%, silt and clay 20%; moderately cemented (caliche). Gravel fraction: subangular red and brown quartzite 50%, subangular red and brown granite 30%, subangular brown caliche 20%. Reaction to acid: weak.
25 - 30	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, black; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none.
30 - 35	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 30%, subangular black andesite 20%. Reaction to acid: none.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
35 - 40	Silty and clayey, sandy gravel (cobbles and boulders); red, black, white; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 30%, red and brown granite 10%. Reaction to acid: none.
40 - 45	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 30%, red and brown granite 10%. Reaction to acid: none.
45 - 50	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 30%, red and brown granite 10%. Reaction to acid: none.
50 - 55	Silty and clayey, sandy gravel (cobbles and boulders); red, black, white; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular black andesite 30%, subangular red, brown, and black granite 20%. Reaction to acid: none.
55 - 60	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, white; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red, brown, and black granite 20%, subangular black andesite 10%. Reaction to acid: none.
60 - 65	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, black; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 25%, subangular black andesite 25%. Reaction to acid: none.
65 - 70	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, black; gravel 60%, sand 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red and brown granite 25%, subangular black andesite 25%. Reaction to acid: none.
70 - 75	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, black; gravel 60%, sand 20%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular black andesite 20%, subangular red and brown granite 10%. Reaction to acid: none.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
75 - 80	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, black; gravel 70%, sand 20%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular black andesite 20%, subangular red and brown granite 10%. Reaction to acid: none.
80 - 85	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, black; gravel 60%, sand 20%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular black andesite 20%, subangular red and brown granite 10%. Reaction to acid: none.
85 - 90	Sandy gravel (cobbles and boulders); red, brown, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 50%, subangular red, brown, and black granite 40%,subangular black andesite 10%. Reaction to acid: none.
90 - 95	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 20%, subangular red and brown granite 20%. Reaction to acid: none.
95 -100	Sandy gravel (cobbles and boulders); red, brown, black; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular black andesite 20%, subangular red and brown granite 20%. Reaction to acid: none.
100-105	Sandy gravel (cobbles and boulders); red, brown, white; gravel 80%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red and brown granite 20%, subangular black andesite 10%. Reaction to acid: none.
105-110	Sandy gravel (cobbles and boulders); red, brown, white; gravel 60%, sand 40%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red and brown granite 20%, subangular black andesite 10%. Reaction to acid: none.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
110-115	Sandy gravel (cobbles and boulders); red, brown, white; gravel 60%, sand 40%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red and brown granite 20%, subangular black andesite 10%. Reaction to acid: none.
115-120	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, black; gravel 50%, sand 40%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular black andesite 20%, subangular red and brown granite 10%. Reaction to acid: none.
120-125	Silty and clayey, sandy gravel (cobbles and boulders); red, brown, white; gravel 60%, sand 20%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: none. Clay balls.
125-130	Sandy, silty and clayey gravel (cobbles and boulders); brown, red, white; gravel 40%, silt and clay 40%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red, brown, and black granite 30%, subangular black andesite 10%. Reaction to acid: weak. Clay balls.
130-135	Sandy, silty and clayey gravel (cobbles and boulders); brown, red, white; gravel 40%, silt and clay 40%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red, brown, and black granite 30%, subangular black andesite 10%. Reaction to acid: weak. Clay balls.
135-140	Silty and clayey, gravelly sand (cobbles and boulders); red, brown, white; sand 60%, gravel 30%, silt and clay 10%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red, brown, and black granite 20%, subangular black andesite 20%. Reaction to acid: none.
140-145	Silty and clayey, sandy gravel; red, brown, white; gravel 40%. sand 40%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red, brown, and black granite 20%, subangular black andesite 20%. Reaction to acid: none.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
145-150	Silty and clayey, gravelly sand; red, brown, white; sand 50%, gravel 30%, silt and clay 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subangular red and brown granite 20%, subangular black andesite 10%. Reaction to acid: none.
150-155	Sandy, silty and clayey gravel; red, brown, white; gravel 40%, silt and clay 40%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 80%, subangular black andesite 20%. Reaction to acid: none.
155-160	Gravelly, sandy silt and clay; brown, red, white; silt and clay 50%, sand 30%, gravel 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 70%, subrounded white quartz 30%. Reaction to acid: weak. Clay balls.
160-165	Gravelly, sandy silt and clay; brown, red, white; silt and clay 50%, sand 30%, gravel 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: weak. Clay balls.
165-170	Gravelly, sandy silt and clay; brown, white, red; silt and clay 60%, sand 30%, gravel 10%; uncemented. Gravel fraction: subrounded white quartz 60%, subangular black andesite 40%. Reaction to acid: weak. Clay balls.
170-175	Sandy, gravelly silt and clay; brown, white, red; silt and clay 40%, gravel 40%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: weak. Clay balls.
175-180	Sandy, gravelly silt and clay; brown, white, red; silt and clay 40%, gravel 40%, sand 20%; uncemented. Gravel fraction: subangular red, brown, and white quartzite 60%, subangular red and brown granite 20%, subangular black andesite 20%. Reaction to acid: weak. Clay balls.
180-185	Gravelly, sandy silt and clay; brown, white, black; silt and clay 80%, sand 10%, gravel 10%; uncemented. Gravel fraction: subrounded white quartz 70%, subangular red and brown quartzite 15%, subangular black andesite 15%. Reaction to acid: weak.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
185-190	Gravelly, sandy silt and clay; brown, white, red; silt and clay 80%, sand 10%, gravel 10%; uncemented. Gravel fraction: subrounded white quartz 70%, subangular red and brown quartzite 15%, subangular black andesite 15%. Reaction to acid: weak.
190-195	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 50%, subangular red, brown, and white quartzite 25%, subangular black andesite 25%. Reaction to acid: weak.
195-200	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: weak.
200-205	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: weak.
205-210	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 50%, subangular red and brown quartzite 25%, subangular black andesite 25%. Reaction to acid: weak.
210-215	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
215-220	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
220-225	Gravelly, sandy silt and clay; brown, white, red; silt and clay 80%, sand 10%, gravel 10%; uncemented. Gravel fraction: subrounded white quartz 80%, subangular red and brown quartzite 20%. Reaction to acid: moderate.
225-230	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: weak.
230-235	Gravelly, silty and clayey sand; brown, white, red; sand 60%, silt and clay 30%, gravel 10%; uncemented. Gravel fraction: subrounded white quartz 60%, subangular red and brown quartzite 20%, subangular black andesite 20%. Reaction to acid: weak.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
235-240	Gravelly, silty and clayey sand; brown, white, red; sand 60%, silt and clay 30%, gravel 10%; uncemented. Gravel fraction: subrounded white quartz 60%, subangular red and brown quartzite 20%, subangular black andesite 20%. Reaction to acid: weak.
240-245	Silty and clayey sand; brown, white, red; sand 60%, silt and clay 40%; uncemented. Reaction to acid: weak.
245-250	Silty and clayey sand: brown, white, red; sand 50%, silt and clay 50%; uncemented. Reaction to acid: weak.
250-255	Gravelly, sandy silt and clay; brown, white, red; silt and clay 60%, sand 30%, gravel 10%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: weak.
255-260	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: weak.
260-265	Sandy silt and clay; brown, white, red; silt and clay 50%, sand 50%; uncemented. Reaction to acid: weak.
265-270	Gravelly, sandy silt and clay; brown, white, red; silt and clay 75%, sand 20%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: weak.
270-275	Sandy silt and clay; brown, white, red; silt and clay 60%, sand 40%; uncemented. Reaction to acid: weak.
275-280	Gravelly, sandy silt and clay; brown, white, red; silt and clay 70%, sand 20%, gravel 10%; uncemented. Gravel fraction: subrounded white quartz 80%, subrounded red and brown quartzite 10%, subrounded black andesite 10%. Reaction to acid: weak.
280-285	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: weak.
285-290	Gravelly, sandy silt and clay; brown, red, white; silt and clay 60%, sand 30%, gravel 10%; uncemented. Gravel fraction: subrounded white quartz 80%, subrounded red and brown quartzite 10%, subrounded black andesite 10%. Reaction to acid: weak.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
290-295	Gravelly, sandy silt and clay; brown, red, white; silt and clay 60%, sand 30%, gravel 10%; uncemented. Gravel fraction: subrounded white quartz 80%, subrounded red and brown quartzite 10%, subrounded black andesite 10%. Reaction to acid: weak.
295-300	Gravelly, sandy silt and clay; brown, red, white; silt and clay 70%, sand 20%, gravel 10%; uncemented. Gravel fraction: subrounded white quartz 70%, subrounded black andesite 20%, subrounded red and brown quartzite 10%. Reaction to acid: weak.
300-305	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: weak.
305-310	Gravelly, sandy silt and clay; brown, white, red; silt and clay 80%, sand 15%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 80%, subrounded red and brown quartzite 10%, subrounded black andesite 10%. Reaction to acid: weak.
310-315	Gravelly, sandy silt and clay; brown, white, red; silt and clay 70%, sand 25%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: weak.
315-320	Gravelly, sandy silt and clay; brown, white, red; silt and clay 70%, sand 25%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 80%, subrounded red and brown quartzite 10%, subrounded black andesite 10%. Reaction to acid: weak.
320-325	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
325-330	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
330-335	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
335-340	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
340-345	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
345-350	Gravelly, sandy silt and clay; brown, white, red; silt and clay 75%, sand 20%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 80%, subrounded red and brown granite 20%. Reaction to acid: moderate.
350-355	Sandy silt and clay; brown, white, red; silt and clay 70%, sand 30%; uncemented. Reaction to acid: moderate.
355-360	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
360-365	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
365-370	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
370-375	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
375-380	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
380-385	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
385-390	Gravelly, sandy silt and clay; brown, white, red; silt and clay 70%, sand 25%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 90%, subrounded red and brown granite 10%. Reaction to acid: moderate.
390-395	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
395-400	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
400-405	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
405-410	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
410-415	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
415-420	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
420-425	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
425-430	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
430-435	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
435-440	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
440-445	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
445-450	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
450-455	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
455-460	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
460-465	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
465-470	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
470-475	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
475-480	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
480-485	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
485-490	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
490-495	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
495-500	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
500-505	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
505-510	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
510-515	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
515-520	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
520-525	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
525-530	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
530-535	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
535-540	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
540-545	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
545-550	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
550-555	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
555-560	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
560-565	Sandy silt and clay; brown, white, red; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
565-570	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 80%, subangular red granite 10%, subrounded black andesite 10%. Reaction to acid: moderate.
570-575	Gravelly, sandy silt and clay; brown, white, black; silt and clay 80%, sand 15%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 80%, subrounded brown granite 10%, subangular brown limestone 10%. Reaction to acid: moderate.
575-580	Gravelly, sandy silt and clay; brown, white, red; silt and clay 80%, sand 15%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: moderate.
580-585	Gravelly, sandy silt and clay; brown, white; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: moderate.
585-590	Gravelly, sandy silt and clay; brown, white, red; silt and clay 80%, sand 15%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 80%, subrounded brown granite 10%, subrounded black andesite 10%. Reaction to acid: moderate.
590-595	Gravelly, sandy silt and clay; brown, white, red; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: moderate.
595-600	Sandy silt and clay; brown, white, red; silt and clay 80%, sand 20%; uncemented. Reaction to acid: moderate.
600-605	Gravelly, sandy silt and clay; brown, white, black; silt and clay 85%, sand 10%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: moderate.
605-610	Sandy silt and clay; brown, white; silt and clay 90%, sand 10%; uncemented. Reaction to acid: moderate.
610-615	Gravelly, sandy silt and clay; brown, white, red; silt and clay 75%, sand 20%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 100%. Reaction to acid: moderate.
615-620	Gravelly, sandy silt and clay; brown, white, red; silt and clay 70%, sand 25%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 90%, subrounded white granite 10%. Reaction to acid: moderate.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
620-625	Gravelly, sandy silt and clay; brown, white, red; silt and clay 50%, sand 40%, gravel 10%; uncemented. Gravel fraction subrounded white quartz 80%, subrounded red and brown granite 10%, subrounded black andesite 10%. Reaction to acid: moderate.
625-630	Gravelly, silty and clayey sand; brown, white, red; sand 50%, silt and clay 45%, gravel 5%; uncemented. Gravel fraction: subrounded white quartz 80%; subrounded red and brown granite 20%. Reaction to acid: moderate.
630-635	Silty and clayey, gravelly sand; red, white, brown; sand 75%, gravel 15%, silt and clay 10%; uncemented. Gravel fraction: subrounded to subangular red and brown granite 80%, subrounded white quartz 20%. Reaction to acid: weak.
635-640	Silty and clayey, gravelly sand; red, white, brown; sand 80%, gravel 10%, silt and clay 10%; uncemented. Gravel fraction: subrounded to subangular red and brown granite 80%, subrounded white quartz 20%. Reaction to acid: weak.
640-645	Silty and clayey, gravelly sand; red, white, brown; sand 70%, gravel 20%, silt and clay 10%; uncemented. Gravel fraction: subangular to subrounded red, brown, and black granite 80%, subrounded white quartz 20%. Reaction to acid: weak.
645-650	Silty and clayey, gravelly sand; red, white, brown; sand 60%, gravel 30%, silt and clay 10%; uncemented. Gravel fraction: subangular to subrounded red, brown, and black granite 80%, subrounded white quartz 20%. Reaction to acid: weak.
650-655	Gravelly sand; red, white, brown; sand 70%, gravel 30%; uncemented. Gravel fraction: subangular to subrounded red, brown, and black granite 80%, subrounded white quartz 20%. Reaction to acid: none.
655-660	Gravelly sand; red, white, brown; sand 60%, gravel 40%; uncemented. Gravel fraction: subangular to subrounded red, brown, and black granite 80%, subrounded white quartz 20%. Reaction to acid: none.
660-665	Sandy gravel; red, white, brown; gravel 60%, sand 40%; uncemented. Gravel fraction: subrounded to subangular red, brown, and black granite 80%, subrounded white quartz 20%. Reaction to acid: none.

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LITHOLOGIC DESCRIPTIONS FOR
DRILL CUTTINGS SAMPLES
MOTOROLA INC.
MONITOR WELL (A-2-4)35ddc3[M-10LA]

DEPTH (Feet)	DESCRIPTION
665-670	Sandy gravel; red, white, brown; gravel 50%, sand 50%; unconsolidated. Gravel fraction: subrounded to subangular red, brown, and black granite 80%, subrounded white quartz 20%. Reaction to acid: none.
670-675	Gravelly sand; red, white, brown; sand 60%, gravel 40%; unconsolidated. Gravel fraction: subrounded to subangular red, brown, and black granite 80%, subrounded white quartz 20%. Reaction to acid: none.
675-680	Gravelly sand; red, white, brown; sand 60%, gravel 40%; unconsolidated. Gravel fraction: subrounded to subangular red, brown, and black granite 80%; subrounded white quartz 20%. Reaction to acid: none.
680-685	Gravelly sand; red, white, brown; sand 60%, gravel 40%; unconsolidated. Gravel fraction: subrounded to subangular red, brown, and black granite 80%; subrounded white quartz 20%. Reaction to acid: none.
685-690	Gravelly sand; red, white, brown; sand 60%, gravel 40%; unconsolidated. Gravel fraction: subrounded to subangular red, brown, and black granite 80%; subrounded white quartz 20%. Reaction to acid: none.
690-695	Gravelly sand; red, white, brown; sand 60%, gravel 40%; unconsolidated. Gravel fraction: subrounded to subangular red, brown, and black granite 80%; subrounded white quartz 20%. Reaction to acid: none.
695-700	Gravelly sand; red, white, brown; sand 60%, gravel 40%; unconsolidated. Gravel fraction: subrounded to subangular red, brown, and black granite 80%; subrounded white quartz 20%. Reaction to acid: none.

TOTAL DEPTH 700 FEET.

Monitor Well (A-1-4)2ddd2 [UA-1]

LOG OF BORING No. UA-1

DATE DRILLED: 4/23/85 to 5/1/85
EQUIPMENT: Bucyrus-Erie 12-R
DESCRIPTION:
ELEVATION:

DRILLING CONTRACTOR
DRILLER
BY
DATE
CHK'D BY

SAMPLE NO / SAMPLE TYPE	PENETRATION RATE IN BLOWS PER FOOT	SPT-N	HNU METER READING IN PPM	NUMBER OF RUNS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		TESTS
								ASPHALT CONCRETE, 1-inch pavement	
	2							BROWN SANDY SILT (ML) moist	
5.0									
	2							LIGHT BROWN SANDY SILT (ML) dry	
10.0			0		10				
	11								
15.0			0.2						
	3								
20.0			0.1		20			BROWN SILTY SAND (SM) moist	
			0.2					COARSE GRAVEL AND COBBLES (GP) few fines	
25.0			0						
	14		0.1						
30.0	11				30				
			0.6						
35.0	4		0.4						
	25								
40.0	50		0.4		40				
	6								
45.0			0					COARSE SAND AND GRAVEL (GP)	
	7								
50.0					50			GRAVEL AND COBBLES (GP)	
	7								
			0						
55.0									
	52								
60.0			0		60				
	15								
65.0			0						
	17								
70.0			0.1		70			SANDY GRAVEL (GP)	
75.0			0						
								GRAVEL AND COBBLES (GP)	
80.0			0.3						

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED

THE MARK GROUP
ENGINEERS & GEOLOGISTS

Log of Boring
Monitoring Well UA-1

(Former) Beckman Instruments, Inc. Site
Scottsdale, Arizona

PROJECT NO
84-02101-04

LOG OF BORING No. UA-1 (continued)

DATE DRILLED: 4/23/85 to 5/1/85
EQUIPMENT: Bucyrus-Erie 12-R
DESCRIPTION:
ELEVATION:

DRILLING CONTRACTOR
DRILLER
BY
DATE
CHK'D BY

SAMPLE NO / SAMPLE TYPE	PENETRATION RATE IN MINUTES PER FOOT	SPT: N	HNU METER READING IN PPM	NUMBER OF RUNS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		TESTS
85.0			0.7						
90.0			0		90				
			0.1					SANDY GRAVEL AND COBBLES	(GP)
95.0									
			0.1						
100.0			0		100			GRAVEL AND COBBLES	(GP)
105.0			0						
110.0			1.0		110				
115.0			0						
120.0			0					BROWN SANDY SILT	(MH)
122.0			0		120				
					130				
					140				
					150				

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

PROJECT NO
84-02101-04

Log of Boring (Continued)
Monitoring Well UA-1

(Former) Beckman Instruments, Inc. Site
Scottsdale, Arizona

THE MARK GROUP
ENGINEERS & GEOLOGISTS

Monitor Well (A-1-4)2dbd ["J" Well]

LOG OF BORING No. J

DATE DRILLED: 5/14/85 to 5/20/85
EQUIPMENT: Bucyrus-Erie 12-R
DESCRIPTION:
ELEVATION:

DRILLING CONTRACTOR
DRILLER
BY
DATE
CHK'D BY

SAMPLE NO / SAMPLE TYPE	PENETRATION RATE IN BLOWS/6" PER FOOT	BPT: N	HNU METER READING IN PPM	NUMBER OF RUNS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG	DESCRIPTION	TESTS
								BROWN SILT (ML)	
3.0									
5.0			0.1					BROWN SANDY SILT (ML)	
8.0									
10.0					10			GRAVEL AND COBBLES (GP) dry, with micaeous silty sand	
15.0								black oily coating on gravel and cobbles at 17 feet.	
20.0					20				
	4								
25.0			0						
	4								
30.0					30				
	4								
35.0									
			0						
40.0					40				
45.0									
50.0					50				
55.0									
60.0					60				
65.0			0						
	6								
70.0					70				
	6								
75.0			0.3						
80.0									

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

PROJECT NO 84-02101-04

THE MARK GROUP
ENGINEERS & GEOLOGISTS

Log of Boring
Monitoring Well J

(former) Beckman Instruments, Inc. Site
Scottsdale, Arizona

LOG OF BORING No. J

DATE DRILLED: 5/14/85 to 5/20/85 EQUIPMENT: Bucyrus-Erie 12-R

DESCRIPTION: ELEVATION:

DRILLING CONTRACTOR

DRILLER

CHK'D BY

DATE

BY

SAMPLE NO / SAMPLE TYPE	PENETRATION RATE IN MINUTES PER FOOT	BPT N	HEAD METER READING IN PSI	NUMBER OF BLOWS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		TESTS
85.0	3				90			BROWN SANDY SILT (MH)	
90.0	3								
95.0	1		0						
100.0	1				100				
105.0	2		0						
110.0	4		0		110				
					120				
					130				
					140				
					150				

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

PROJECT NO

84-02101-04

Log of Boring (Continued)
Monitoring Well J

(former) Beckman Instruments, Inc. Site
Scottsdale, Arizona

THE MARK GROUP
ENGINEERS & GEOLOGISTS

Monitor Well (A-1-4)2ddd1 [MA-1]

LOG OF BORING No.MA-1

DATE DRILLED: 4/4/85 to 4/19/85
EQUIPMENT: Bucyrus-Erie 12-R
DESCRIPTION:
ELEVATION:

SAMPLE NO. / SAMPLE TYPE	PENETRATION RATE OR BLOWS PER FOOT	SPT-N	FIELD METER READING IN PPM	NUMBER OF RUNS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG	DESCRIPTION	TESTS
								ASPHALT CONCRETE, 1-inch pavement	
			0					BROWN SANDY SILT (ML) moist, stiff	
5.0									
			0					LIGHT BROWN SILTY SAND (SM) dry	
10.0					10				
			0						
15.0			0					BROWN SAND (SP) moist, fine	
20.0			0		20				
			0						
25.0	11		0						
30.0			0		30				
	40		0						
35.0	48		0						
	40								
40.0					40				
45.0	16							GRAVEL AND COBBLES (GP)	
50.0	16				50				
			0.8						
	15		0.3						
55.0									
	15		0.7						
60.0			0.5		60				
	10								
65.0	6								
70.0			0.05		70				
	2								
75.0	4								
80.0									

DRILLING CONTRACTOR
DRILLER
CHKD BY
DATE
BY

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PROJECT NO

THE MARK GROUP
ENGINEERS & GEOLOGISTS

Log of Boring
Monitoring Well MA-1

84-02101-04

(Former) Beckman Instruments, Inc. Site
Scottsdale, Arizona

LOG OF BORING No. MA-1 (continued)

DATE DRILLED: 4/4/85 to 4/19/85
EQUIPMENT: Bucyrus-Erie 12-R
DESCRIPTION:
ELEVATION:

DRILLING CONTRACTOR
DRILLER
BY
DATE
CHK'D BY

SAMPLE NO. / SAMPLE TYPE	PENETRATION RATE IN BLOWS PER FOOT	BPT-N	BHN METER READING IN PPM	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		TESTS
	3								
85.0	2								
90.0					90				
	3								
95.0	5								
100.0					100				
	3								
105.0	1								
110.0					110				
	2								
115.0	3								
								BROWN SANDY SILT	(MH)
120.0					120				
	3								
125.0	3		0.1						
130.0					130				
	2								
135.0	3		0						
140.0					140				
	1								
145.0	1								
								GRAVEL AND COBBLES	(GP)
150.0			0		150			BROWN SANDY SILT	(MH)
	1							GRAVEL AND COBBLES	(GP)
								BROWN SANDY SILT	(MH)
155.0			1.0						
	4								
160.0									

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PROJECT NO.

Log of Boring (Continued)
Monitoring Well MA-1

84-02101-04

THE MARK GROUP
ENGINEERS & GEOLOGISTS

(Former) Beckman Instruments, Inc. Site
Scottsdale, Arizona

LOG OF BORING No.MA-1 (continued)

DATE DRILLED: 4/4/85 to 4/19/85 EQUIPMENT: Bucyrus-Erie 12-R

DESCRIPTION: ELEVATION:

SAMPLE NO. / SAMPLE TYPE	PENETRATION RATE IN MINUTES PER FOOT	BPT-N	RING METER READING IN PPM	NUMBER OF RUNS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		TESTS
	2							GRAVEL AND COBBLES	(GP)
165.0								BROWN SANDY SILT	(MH)
	3								
170.0					170				
	2								
			0					GRAVEL AND COBBLES	(GP)
175.0								BROWN SANDY SILT	(MH)
	3								
180.0					180			GRAVEL AND SAND	(GP)
	1							BROWN SANDY SILT	(MH)
185.0	1		0.2					GRAVEL AND COBBLES	(GP)
190.0					190			BROWN SANDY SILT	(MH)
	1								
195.0	5		0.2					GRAVEL AND COBBLES	(GP)
200.0					200			BROWN SANDY SILT	(MH)
	3								
205.0	1		0.1						
210.0					210				
	2								
			0.2						
215.0	5								
220.0			0.1		220				
	2								
225.0	2								
230.0			0		230				
	1								
235.0	5		0					GRAVEL AND COBBLES	(GP)
								BROWN SANDY SILT	(MH)
240.0									

DRILLING CONTRACTOR

DRILLER

CHK'D BY

DATE

BY

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

Log of Boring (Continued)
Monitoring Well MA-1

PROJECT NO
84-02101-04

THE MARK GROUP
ENGINEERS & GEOLOGISTS

(Former) Beckman Instruments, Inc. Site
Scottsdale, Arizona

LOG OF BORING No. MA-1 (continued)

DATE DRILLED: 4/4/85 to 4/19/85 EQUIPMENT: Bucyrus-Erie 12-R

DESCRIPTION: ELEVATION:

DRILLING CONTRACTOR

DRILLER

BY DATE CHK'D BY

SAMPLE NO. / SAMPLE TYPE	PENETRATION RATE IN BLOWS PER FOOT	SPT-N	HNU METER READING IN PPM	NUMBER OF PERIOD	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		TESTS
			0						
245.0	1								
250.0					250				
	4								
255.0	3		1.6						
260.0					260				
	4		1.8						
			1.0						
265.0			0.3					GRAVEL AND COBBLES	(GP)
								BROWN SANDY SILT	(MH)
270.0			0.8		270				
	3							GRAVEL AND COBBLES	(GP)
275.0	1							BROWN SANDY SILT	(MH)
280.0					280				
	1							GRAVEL AND COBBLES	(GP)
285.0	1		0.9					BROWN SANDY SILT	(MH)
290.0			0.9		290			GRAVEL AND COBBLES	(GP)
	5							BROWN SANDY SILT	(MH)
295.0	2								
300.0			0.8		300				
					310				

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

PROJECT NO. 84-02101-04

Log of Boring (Continued)
Monitoring Well MA-1

(Former) Beckman Instruments, Inc. Site
Scottsdale, Arizona

THE MARK GROUP
ENGINEERS & GEOLOGISTS

APPENDIX C

Geophysical Logs

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(A-1-4)1bdb1[M-4MA]	C-31
(A-1-4)1bba1[M-5MA]	C-41
(A-2-4)36dba1[M-9MA]	C-51
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CENTURY GEOPHYSICAL CORPORATION

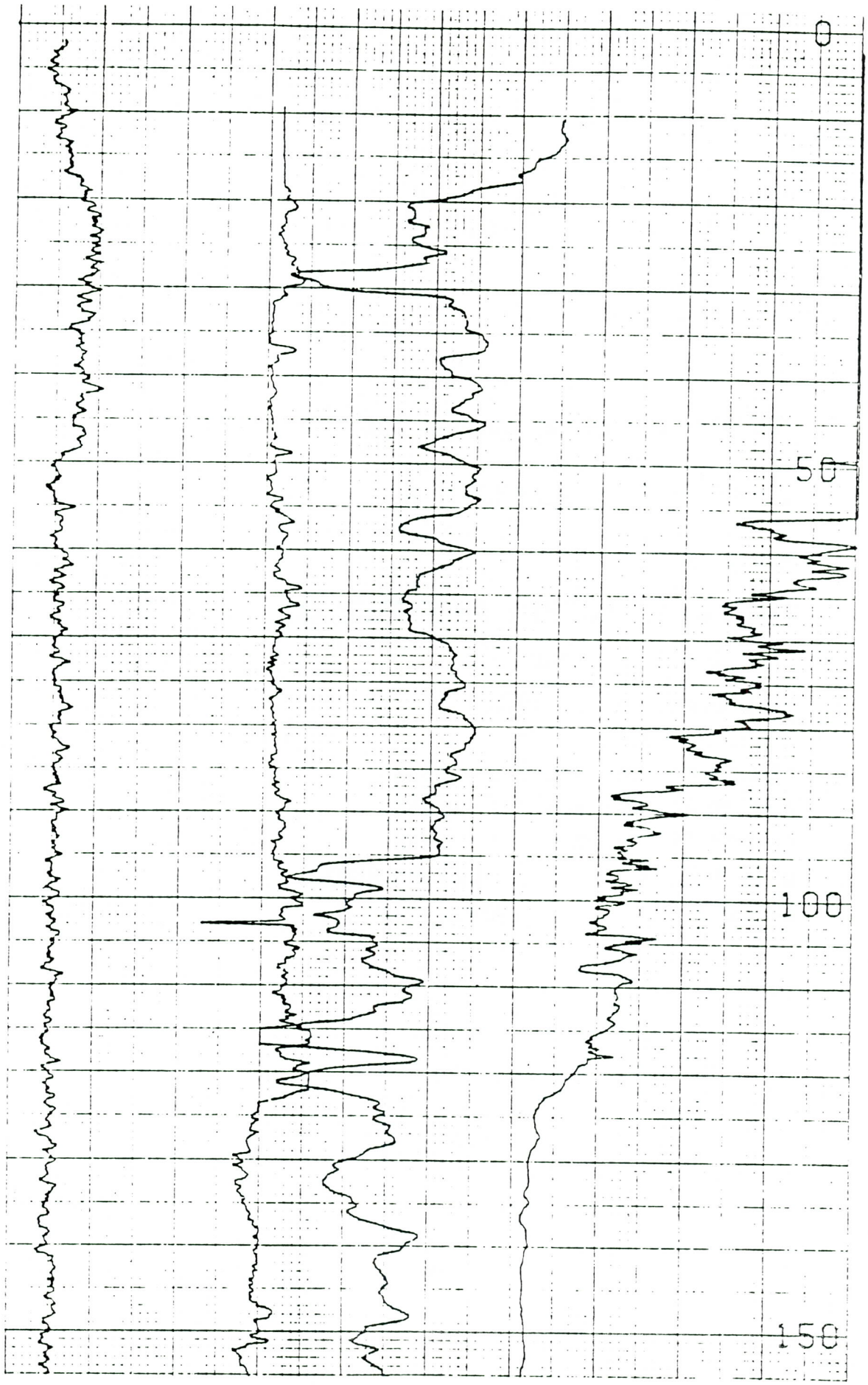
COMPU-LOG V8L2 PLOT 03-30-84

M - 1 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BAD 2

HOLE DIAMETER : 10.0
PROBE # 9030A1 - 427
SENSOR #4 CAL STD CPS = 6588
SENSOR #4 CAL RUN CPS = 7268
SENSOR #4 CAL BIAS = -2
DATA V8L2*A TRUCK # 7602
G. SLOAN APPL. #31 M



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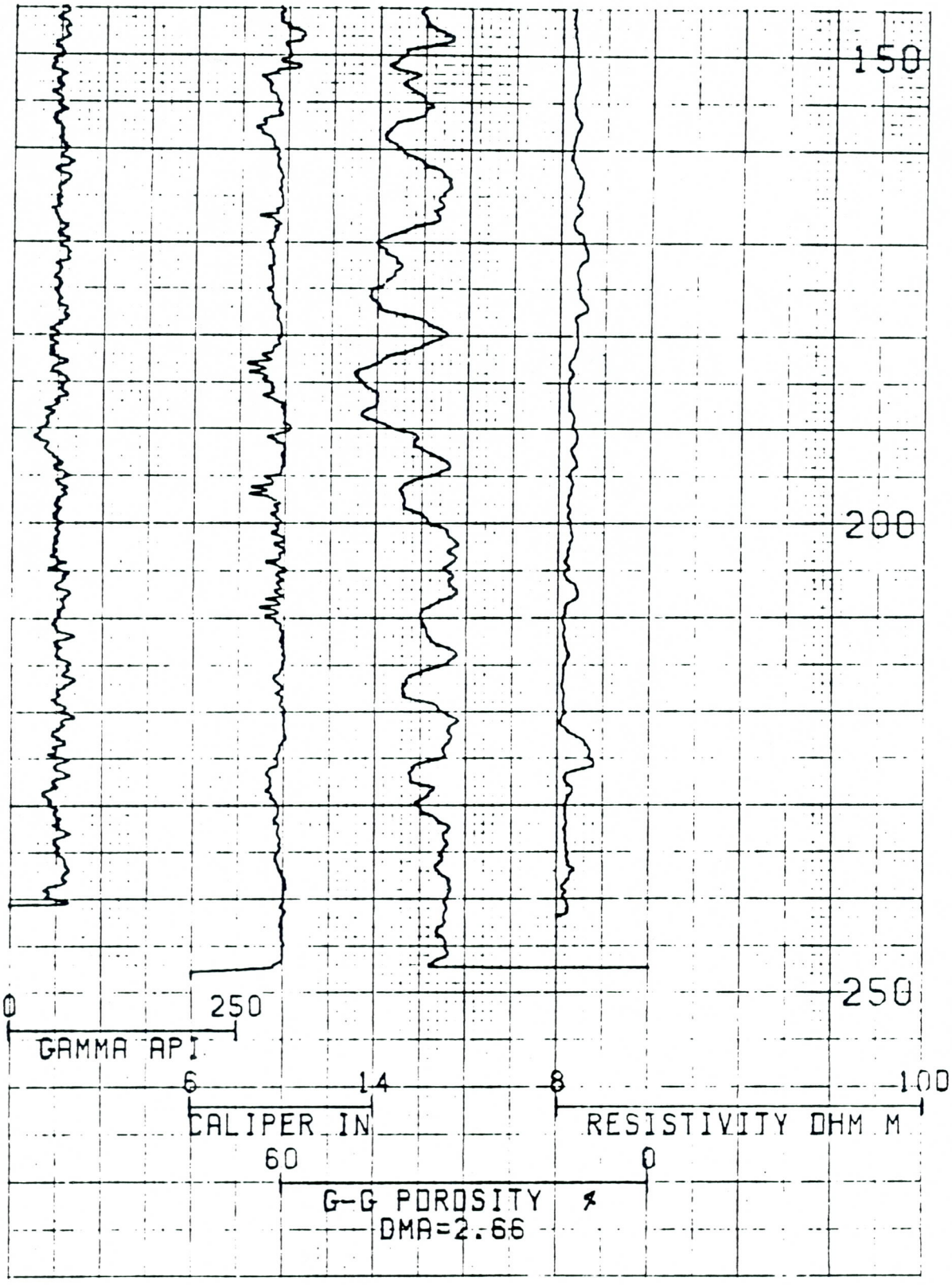

150
200
250
0
250
GAMMA API
6
14
8
100
CALIPER IN
RESISTIVITY OHM M
60
0
G-G POROSITY %
DMA=2.66

CENTURY GEOPHYSICAL CORPORATION

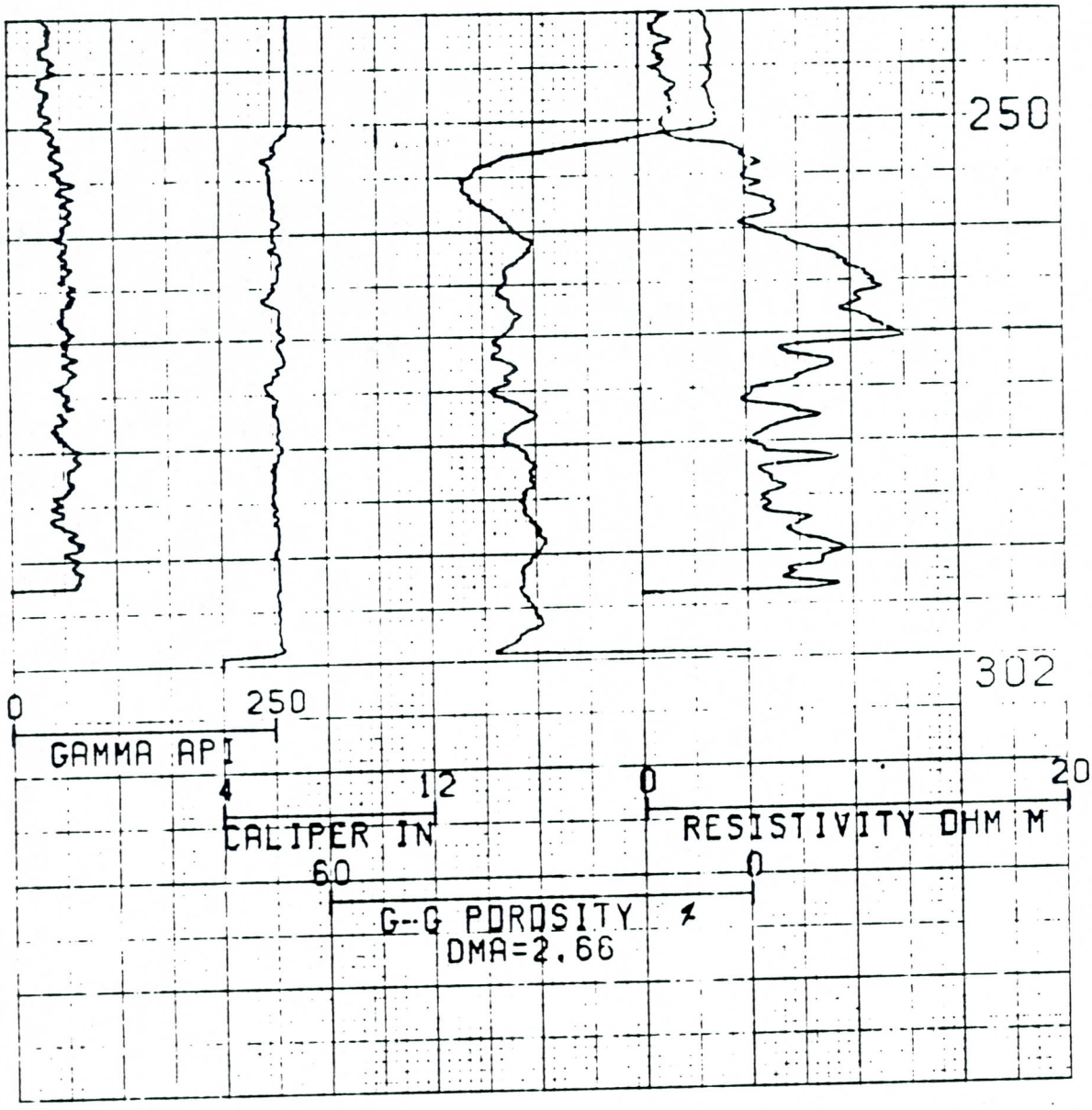
COMPU-LOG V8L2 PLOT 04-03-84

M - 1 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BAD 2

HOLE DIAMETER : 06.0
PROBE # 9030A1 - 427
SENSOR #4 CAL STD CPS = 6588
SENSOR #4 CAL RUN CPS = 7268
SENSOR #4 CAL BIAS = -2
DATA V8L2*A TRUCK # 7602
G. SLOAN APPL. #2031 M


250
302
0
250
GAMMA API
4
12
CALIPER IN
0
20
RESISTIVITY OHM M
60
0
G-G POROSITY
DMA=2.66

CENTURY GEOPHYSICAL CORPORATION

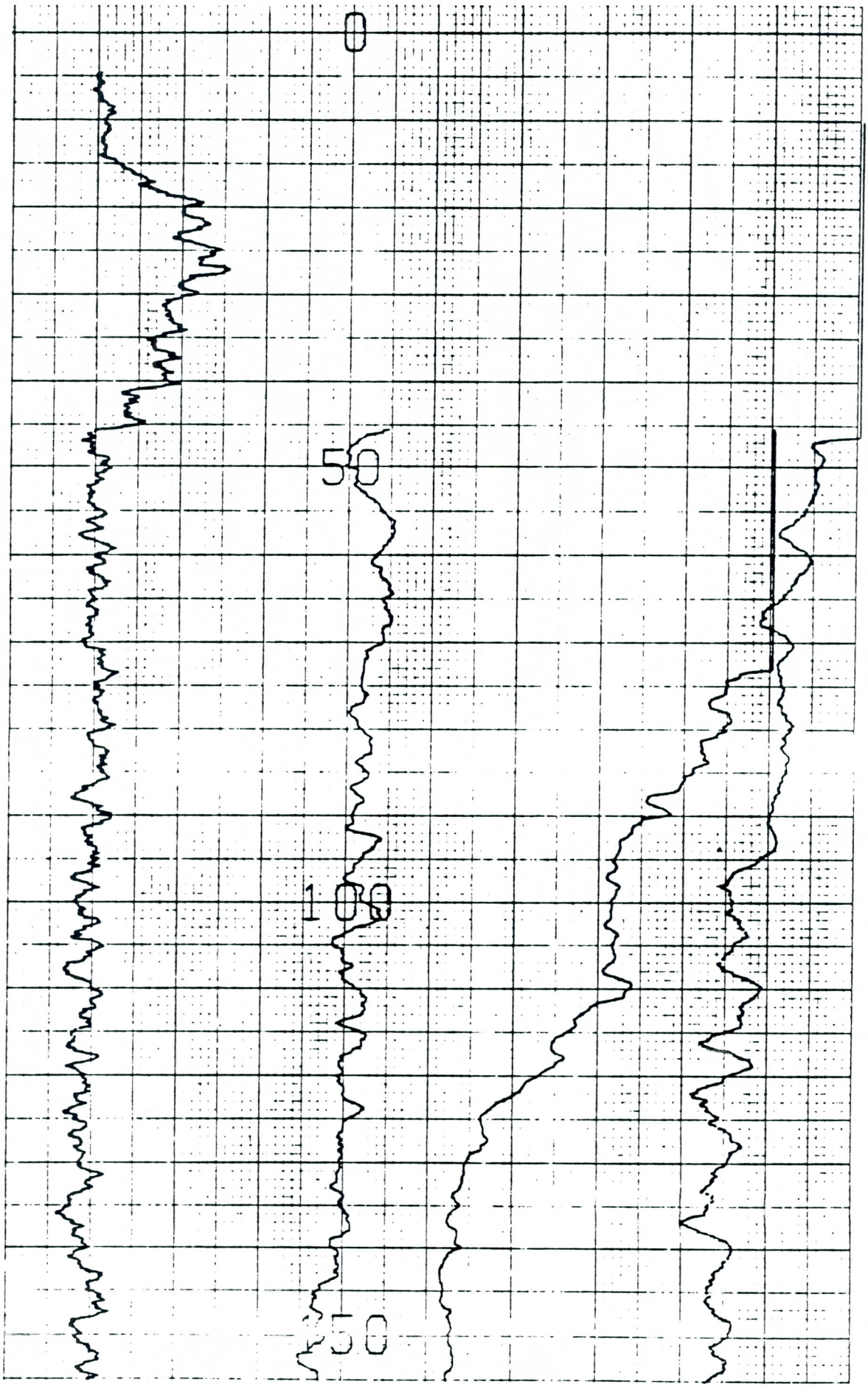
COMPU-LOG V8L2 PLOT 03-30-84

M -1 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BAD 2

HOLE DIAMETER : 10.0
PROBE # 9055A - 249
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 142
SENSOR #4 CAL BIAS = 0
DATA V8L2*A TRUCK # 7602
G. SLOAN APPL. #121 M



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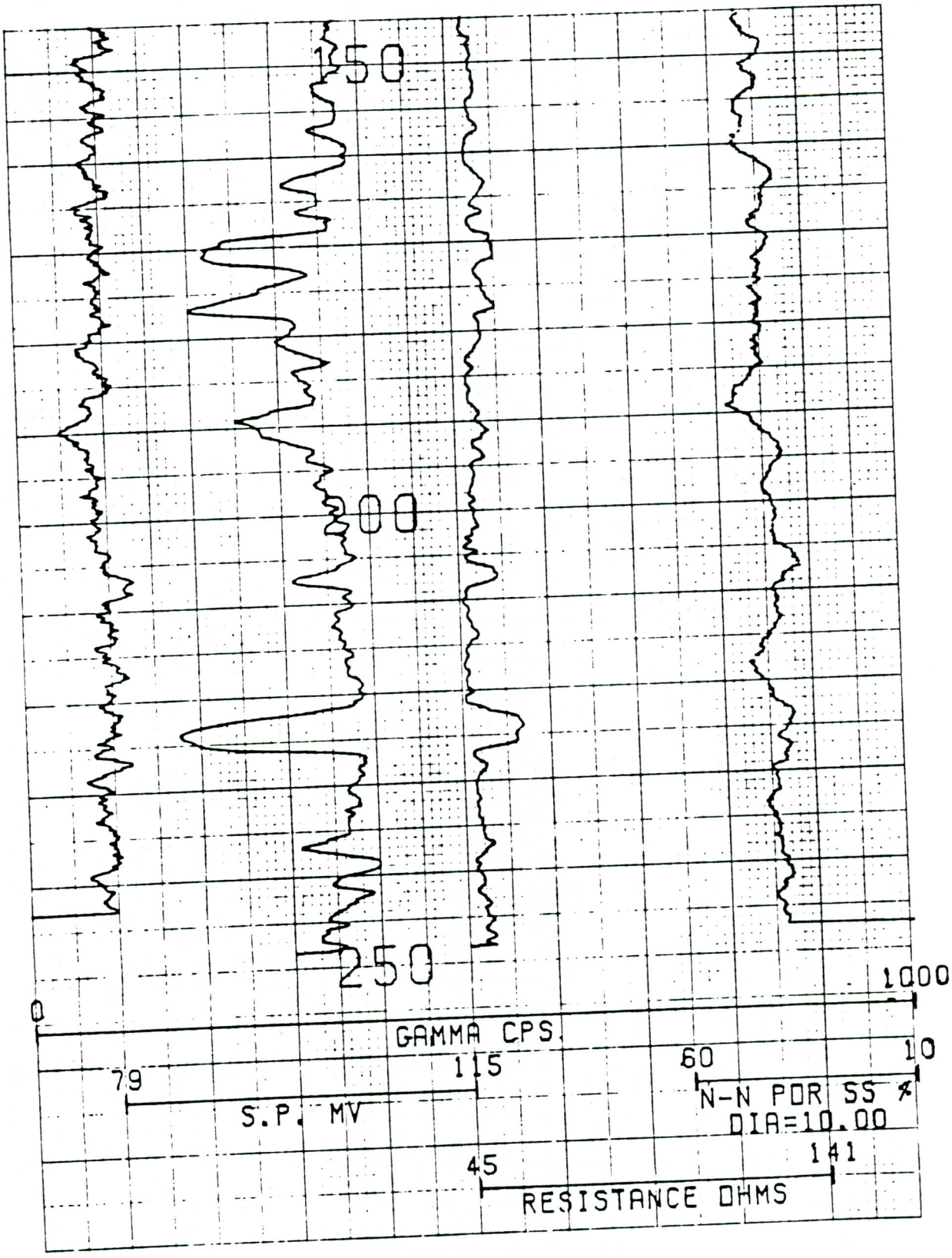
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200
250
0
1000
GAMMA CPS
79
115
S.P. MV
60
10
N-N POR SS %
DIA=10.00
45
141
RESISTANCE OHMS

CENTURY GEOPHYSICAL CORPORATION

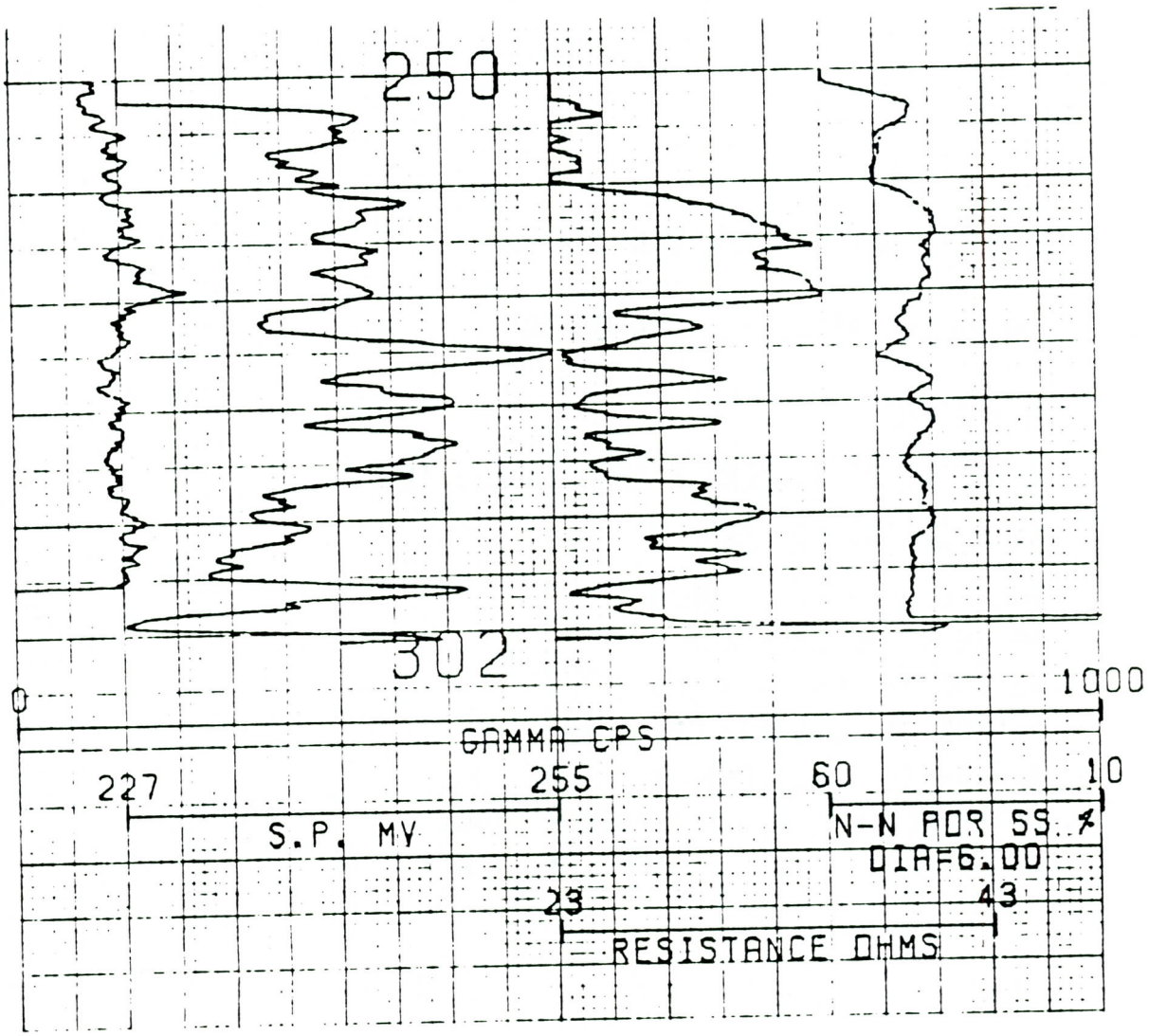
COMPU-LOG V8L2 PLOT 04-03-84

M - 1 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BAD 2

HOLE DIAMETER : 06.0
PROBE # 9055A - 249
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 142
SENSOR #4 CAL BIAS = 0
DATA V8L2*A TRUCK # 7602
G. SLOAN APPL. # A


250
302
0
1000
GAMMA CPS
227
255
60
10
S.P. MV
N-N RDR SS %
DIA=6.00
23
43
RESISTANCE OHMS

CENTURY GEOPHYSICAL CORPORATION

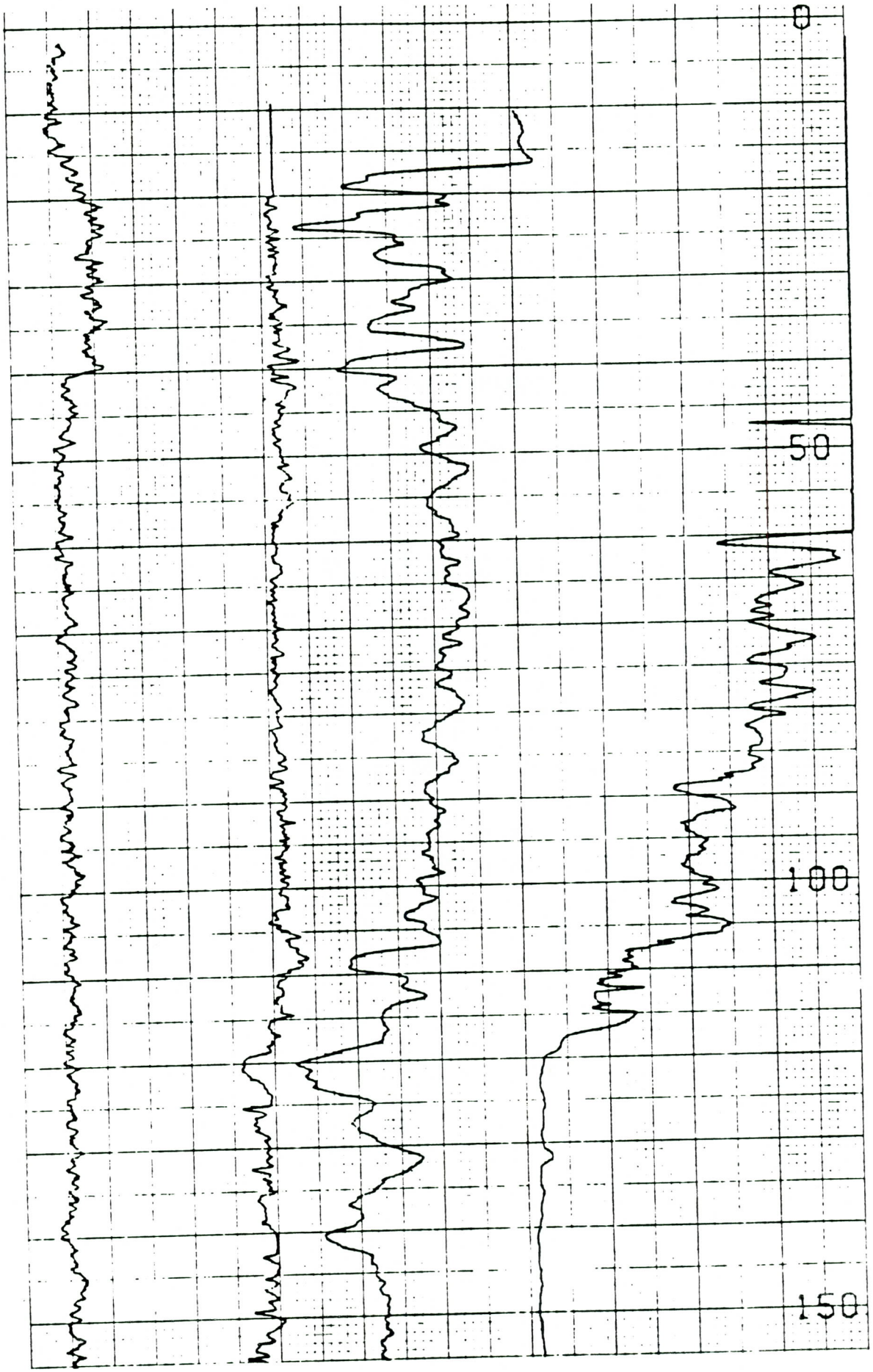
COMPU-LOG V8L2 PLOT 04-05-84

M - 2 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BCC 1

HOLE DIAMETER : 10.0
PROBE # 9030A1 - 427
SENSOR #4 CAL STD CPS = 6588
SENSOR #4 CAL RUN CPS = 7268
SENSOR #4 CAL BIAS = -2
DATA V8L2*A TRUCK # 7602
G. SLOAN APPL. #31 M



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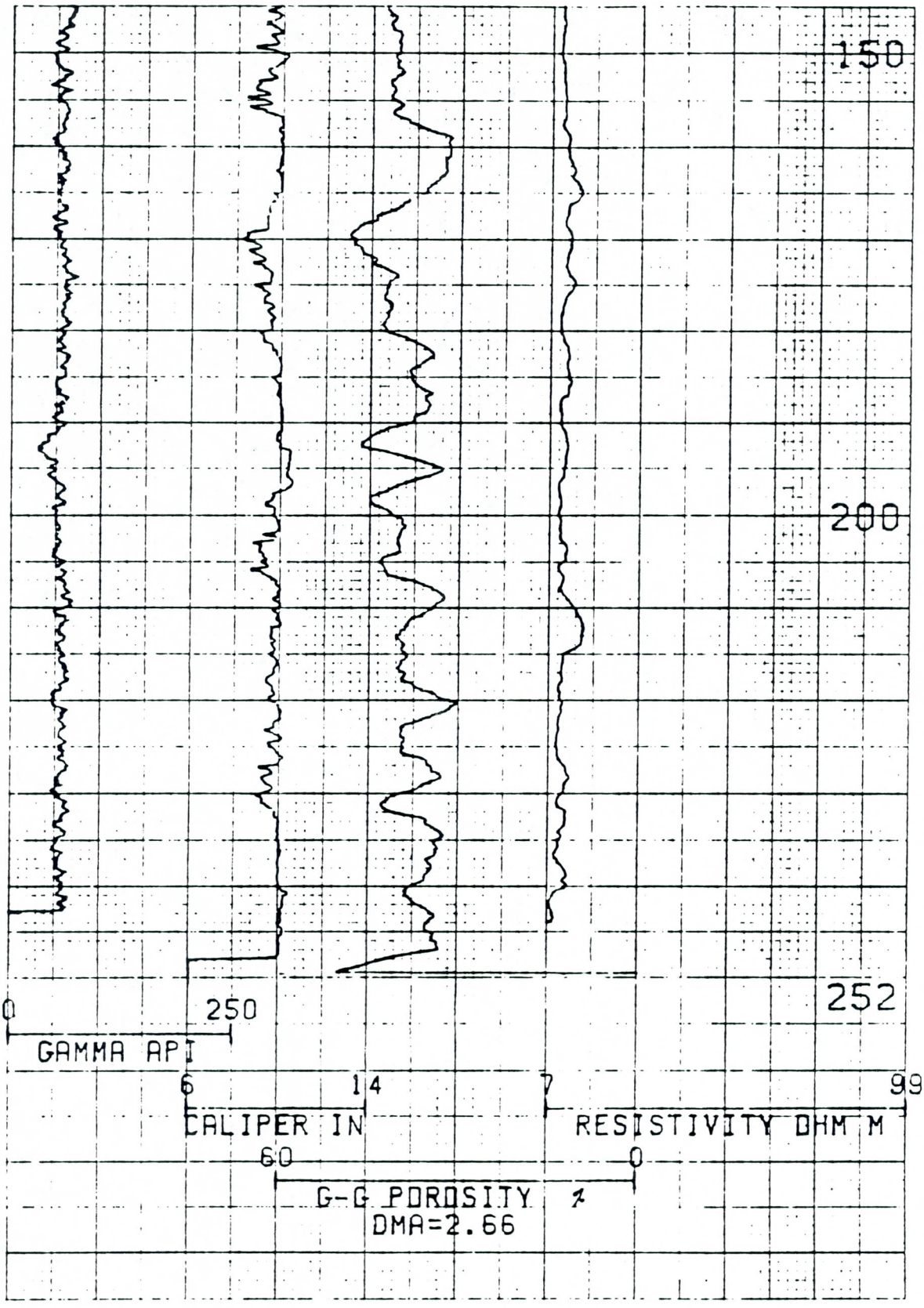

150
200
252
0
250
GAMMA API
6
14
CALIPER IN
7
99
RESISTIVITY OHM M
60
0
G-G POROSITY %
DMA=2.66

CENTURY GEOPHYSICAL CORPORATION

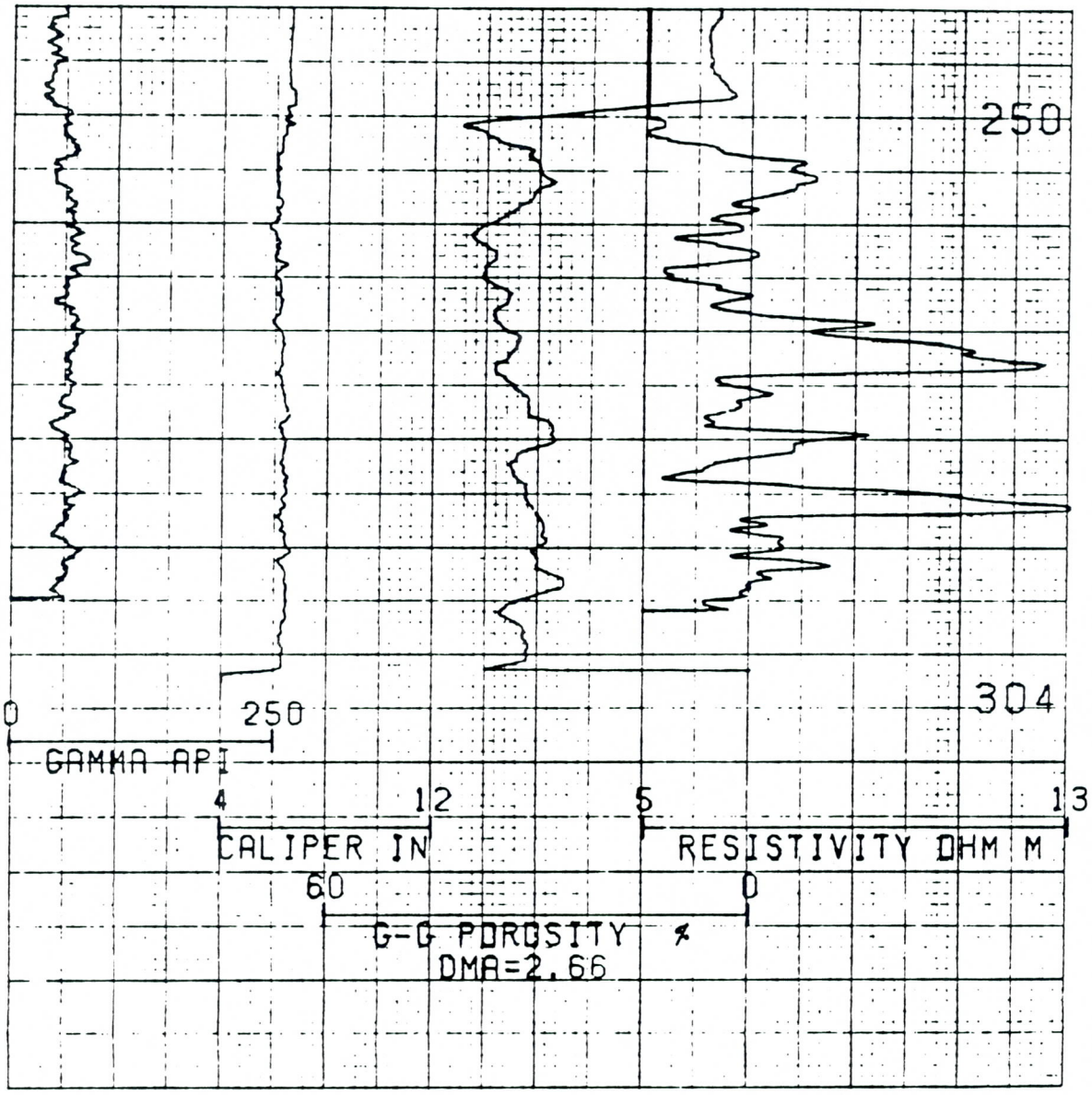
COMPU-LOG V8L2 PLOT 04-09-84

M - 2 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BCC 1

HOLE DIAMETER : 06.0
PROBE # 9030A1 - 427
SENSOR #4 CAL STD CPS = 6588
SENSOR #4 CAL RUN CPS = 7268
SENSOR #4 CAL BIAS = -2
DATA V8L2*A TRUCK # 7602
G. SLOAN APPL. #31 M


250
304
0
250
GAMMA API
4
12
CALIPER IN
5
13
RESISTIVITY OHM M
60
0
G-G POROSITY %
DMA=2.66

CENTURY GEOPHYSICAL CORPORATION

COMPU-LOG V8L2 PLOT 04-05-84

M - 2 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BCC 1

HOLE DIAMETER : 10.0
PROBE # 9055A - 249
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 142
SENSOR #4 CAL BIAS = 0
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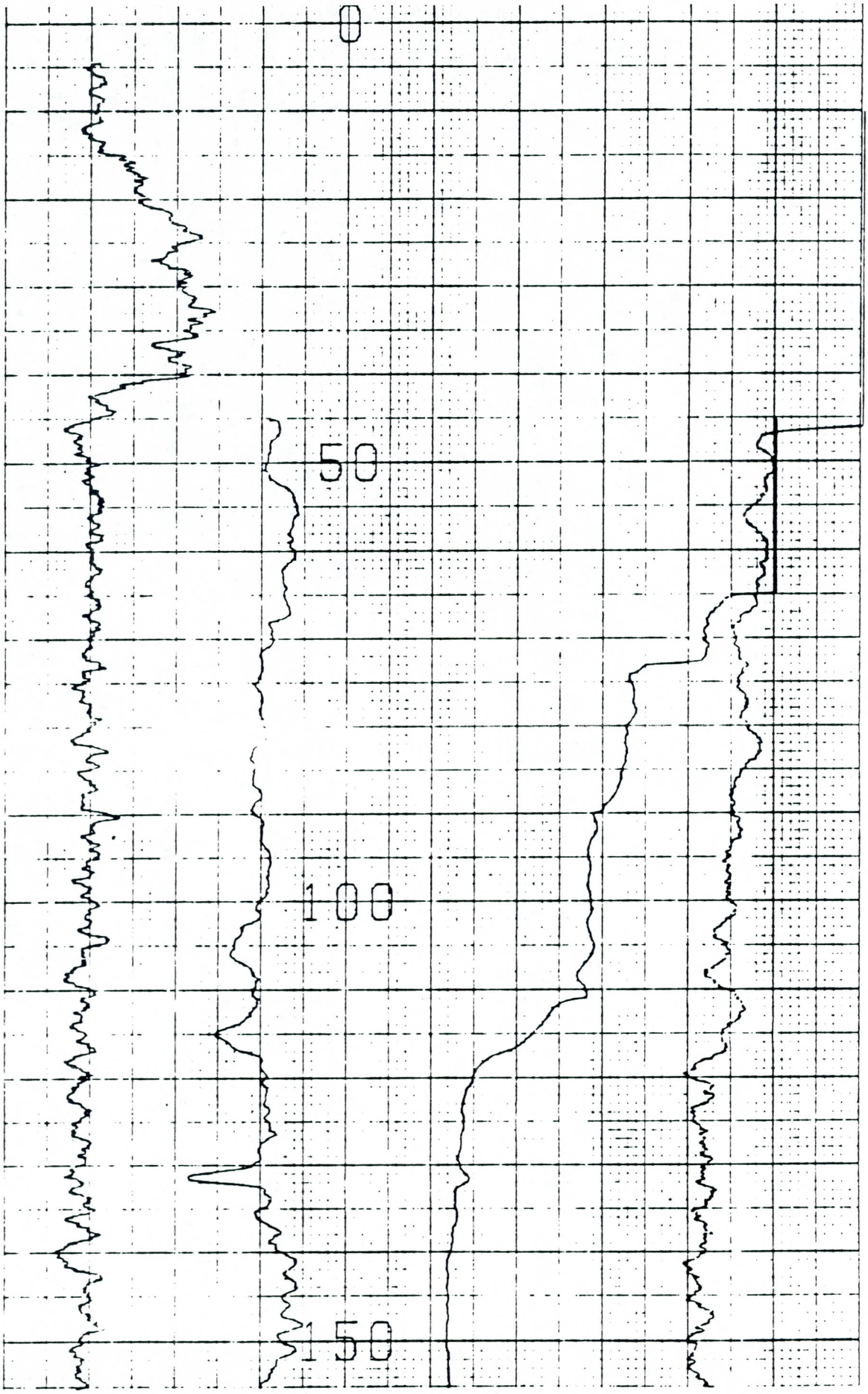
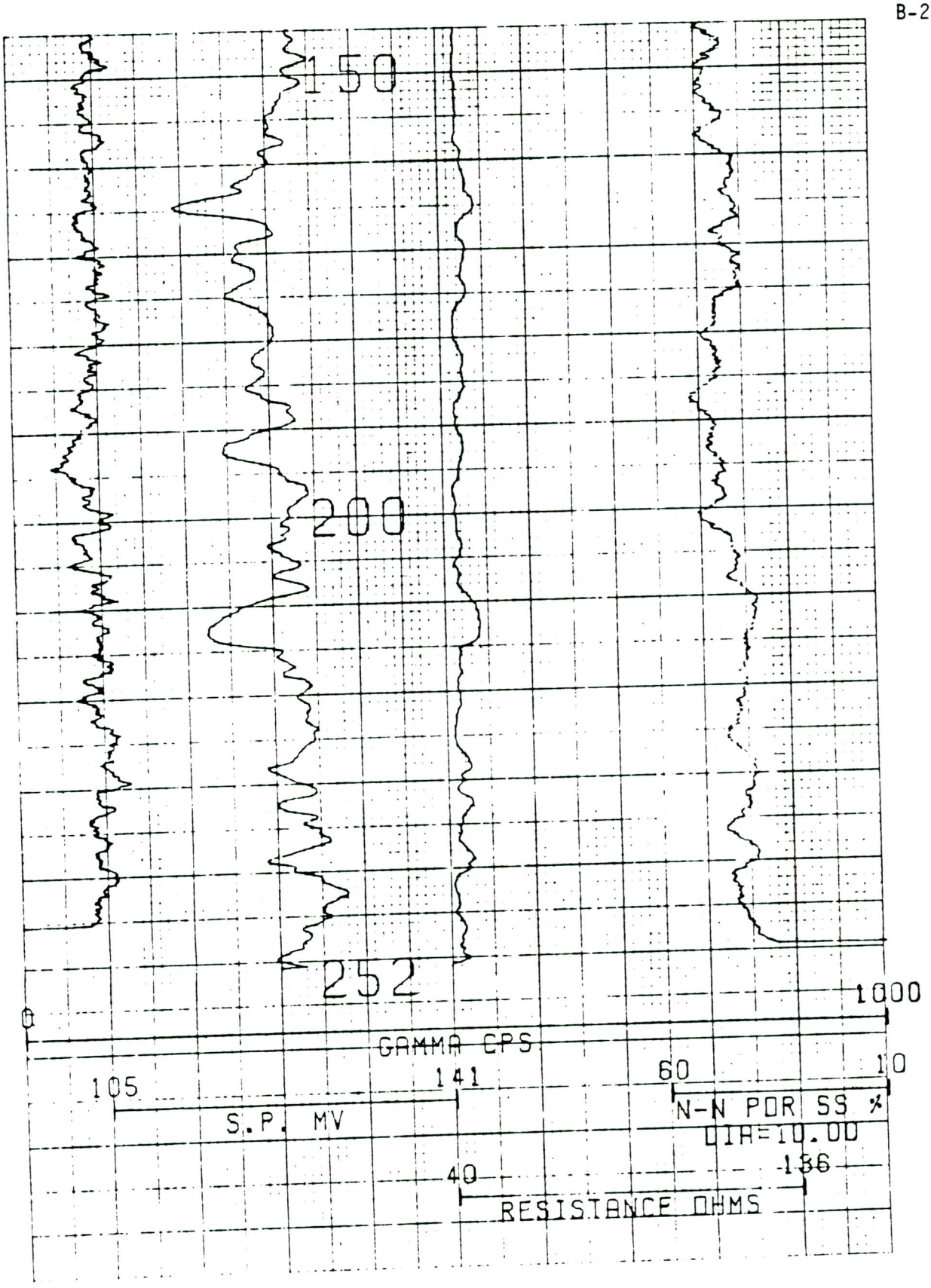
G. SLOAN APPL. #3121 M

B-2g




150
200
252
0
1000
GAMMA CPS
105
141
60
10
S.P. MV
N-N POR SS %
DIA=10.00
40
136
RESISTANCE OHMS

CENTURY GEOPHYSICAL CORPORATION

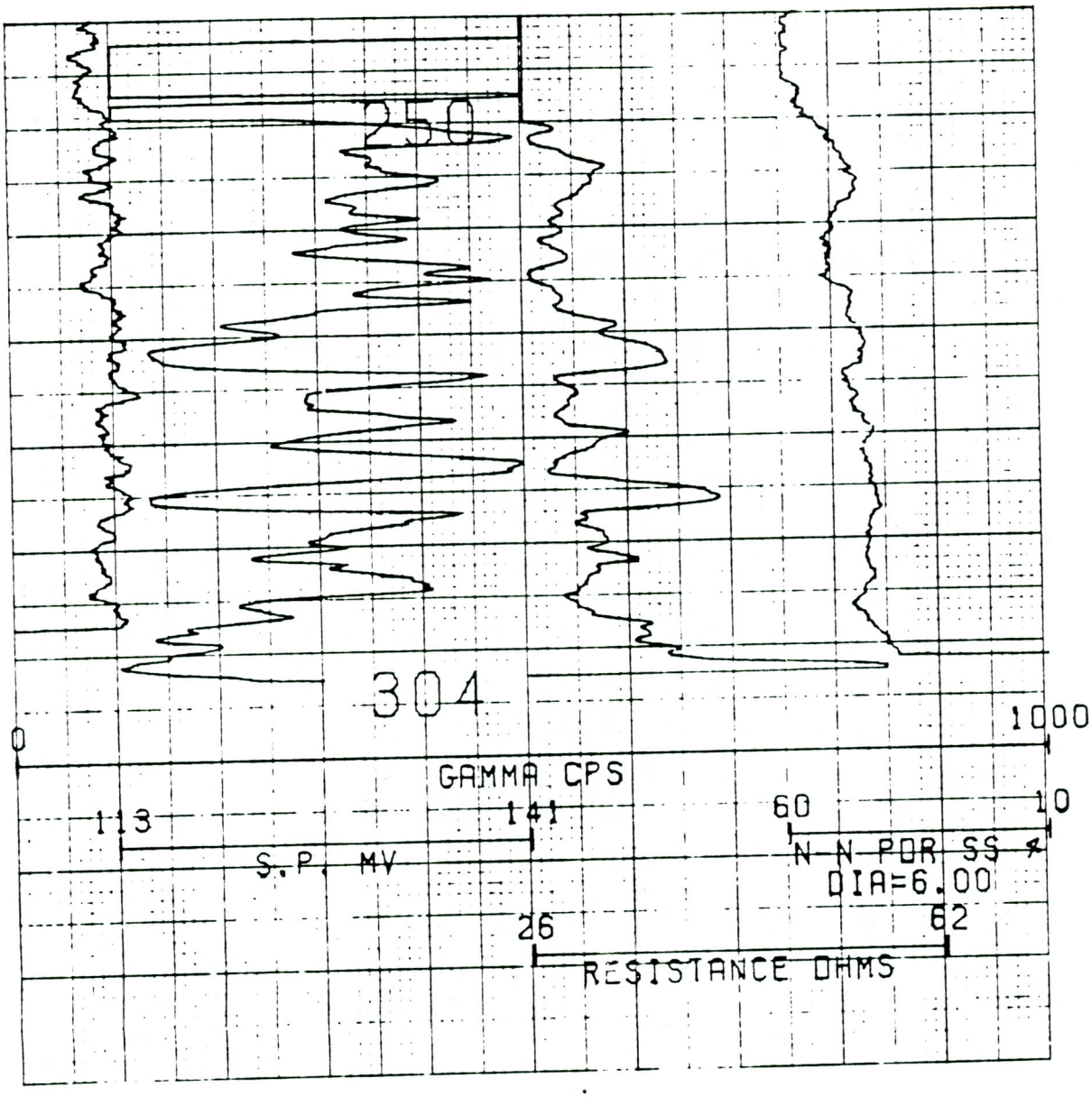
COMPU-LOG V8L2 PLOT 04-09-84

M - 2 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BCC 1

HOLE DIAMETER : 06.0
PROBE # 9055A - 249
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 142
SENSOR #4 CAL BIAS = 0
DATA V8L2*A TRUCK # 7602
G. SLOAN APPL. #121 M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304
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1000
GAMMA CPS
113
141
S.P. MV
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10
N-N POR SS
DIA=6.00
26
62
RESISTANCE OHMS

CENTURY GEOPHYSICAL CORPORATION

COMPU-LOG V8L2 PLOT 04-17-84

M - 3 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BDD 1

HOLE DIAMETER : 10.0
PROBE # 9030A1 - 427
SENSOR #4 CAL STD CPS = 6588
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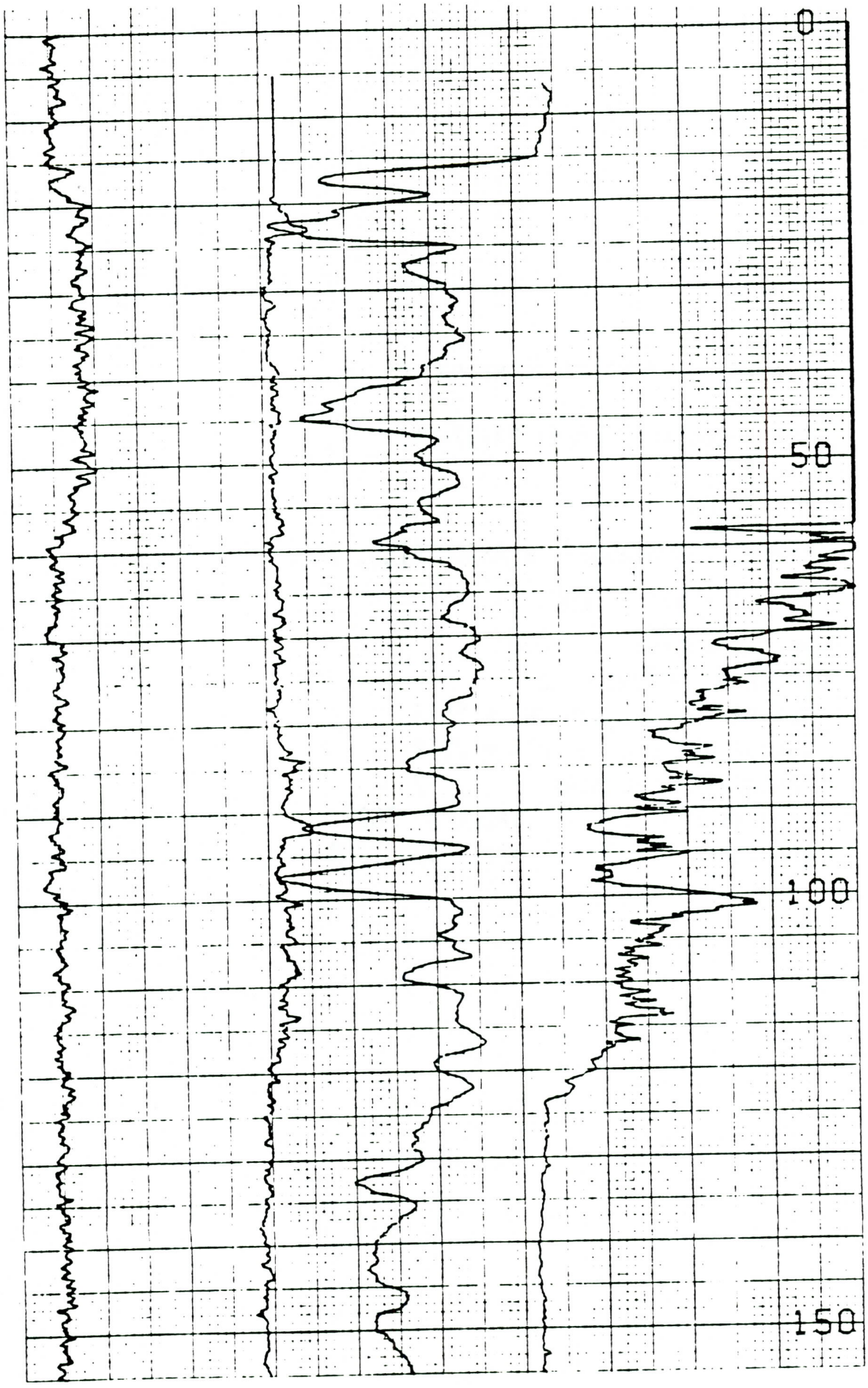
R. MILLER APPL. #2031 M



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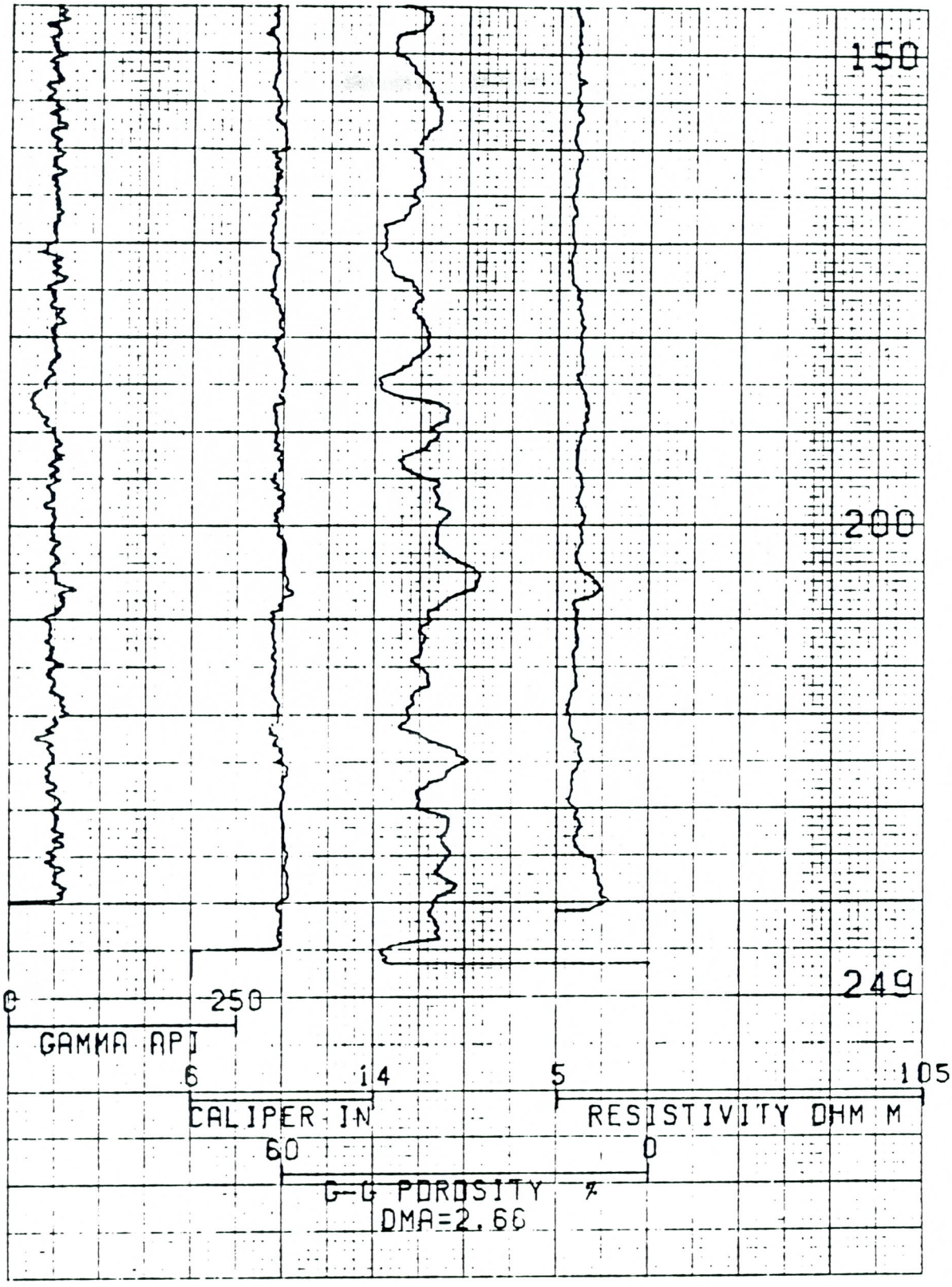

150
200
249
0
250
GAMMA API
6
14
CALIPER IN
5
105
RESISTIVITY OHM M
60
0
G-G POROSITY %
DMA=2.66

CENTURY GEOPHYSICAL CORPORATION

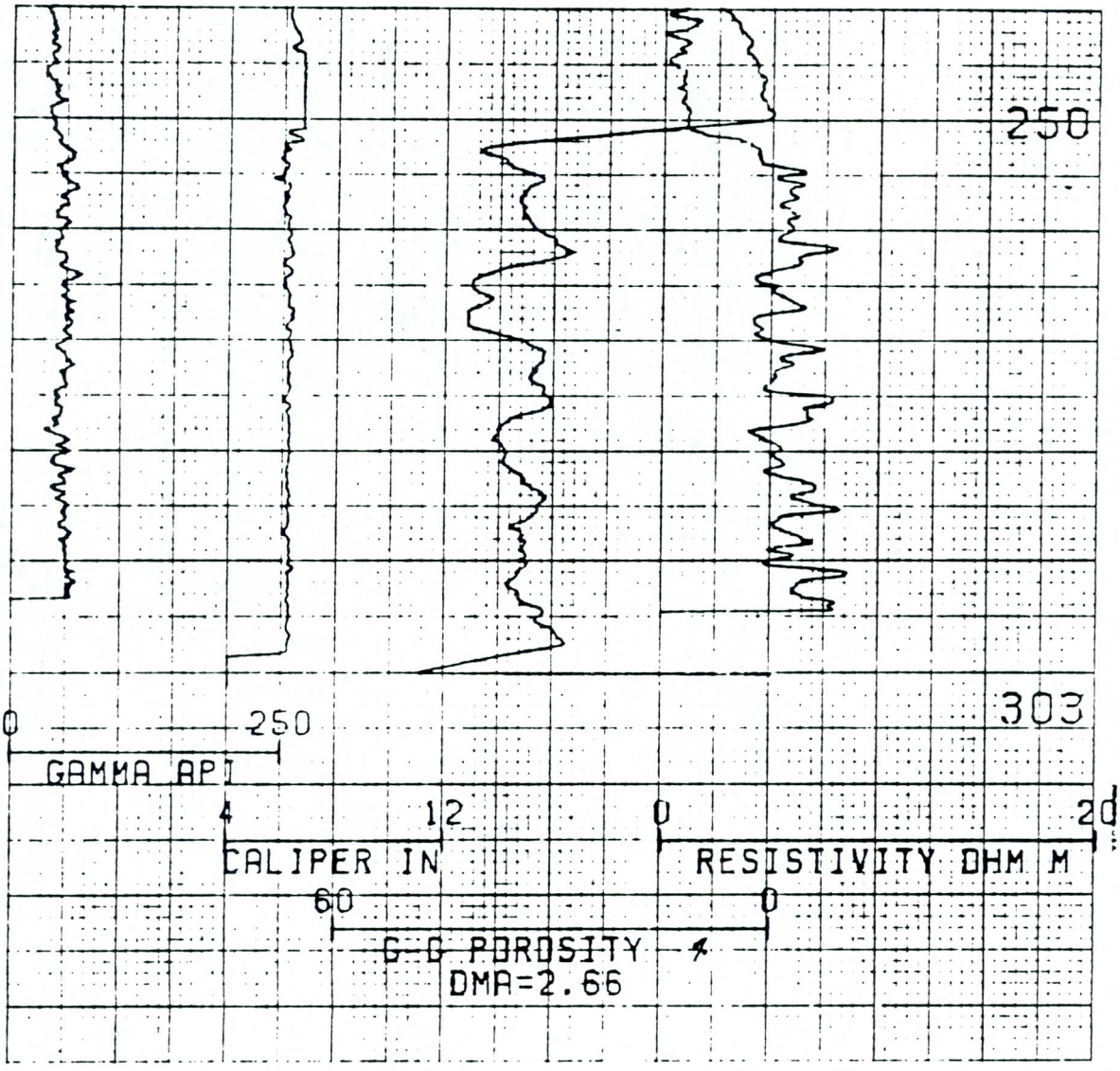
COMPU-LOG V8L2 PLOT 04-18-84

M - 3 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BDD 1

HOLE DIAMETER : 06.0
PROBE # 9030A1 - 427
SENSOR #4 CAL STD CPS = 6588
SENSOR #4 CAL RUN CPS = 7268
SENSOR #4 CAL BIAS = -2
DATA V8L2*A TRUCK # 7602
R. MILLER APPL. #2031 M


250
303
0
250
GAMMA API
4
12
CALIPER IN
0
20
RESISTIVITY OHM M
60
0
G-G POROSITY
DMA=2.66

CENTURY GEOPHYSICAL CORPORATION

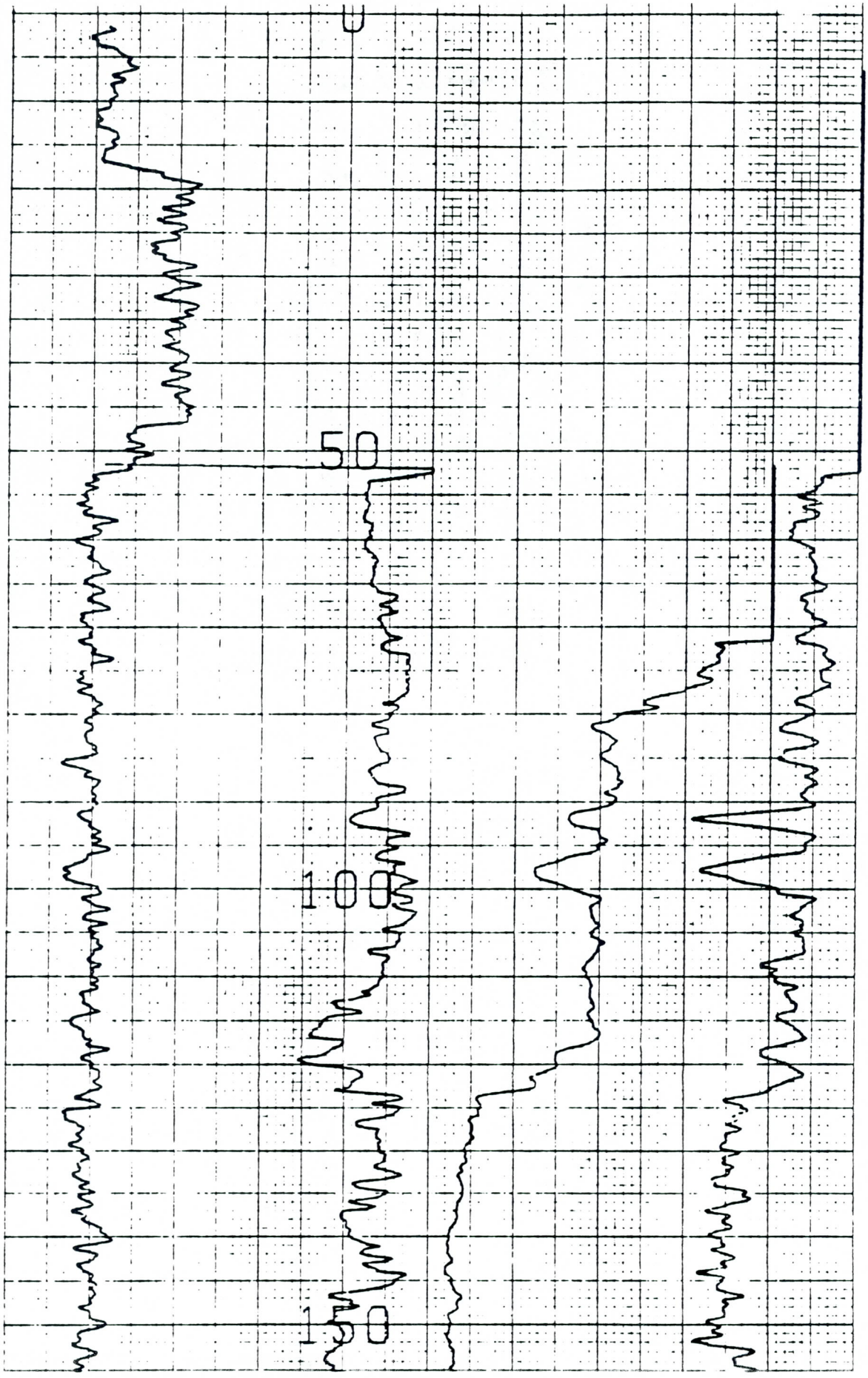
COMPU-LOG V8L2 PLOT 04-17-84

M - 3 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BDD 1

HOLE DIAMETER : 10.0
PROBE # 9055A - 249
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 142
SENSOR #4 CAL BIAS = 0
DATA V8L2*A TRUCK # 7602
R. MILLER APPL. #126 M



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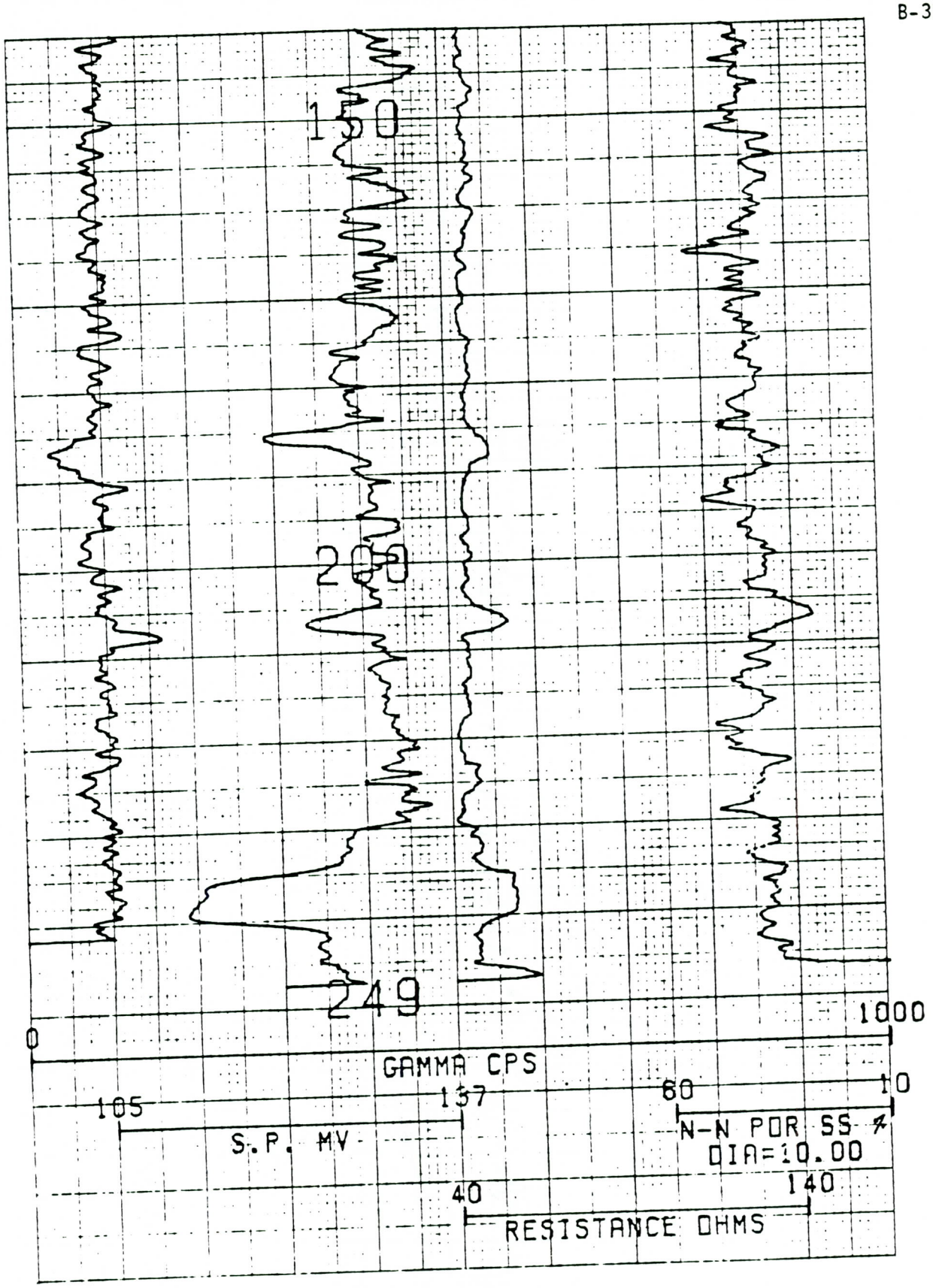

1150
2000
2490
0
1000
GAMMA CPS
105
137
S.P. MV
60
10
N-N POR SS %
DIA=10.00
40
140
RESISTANCE OHMS

CENTURY GEOPHYSICAL CORPORATION

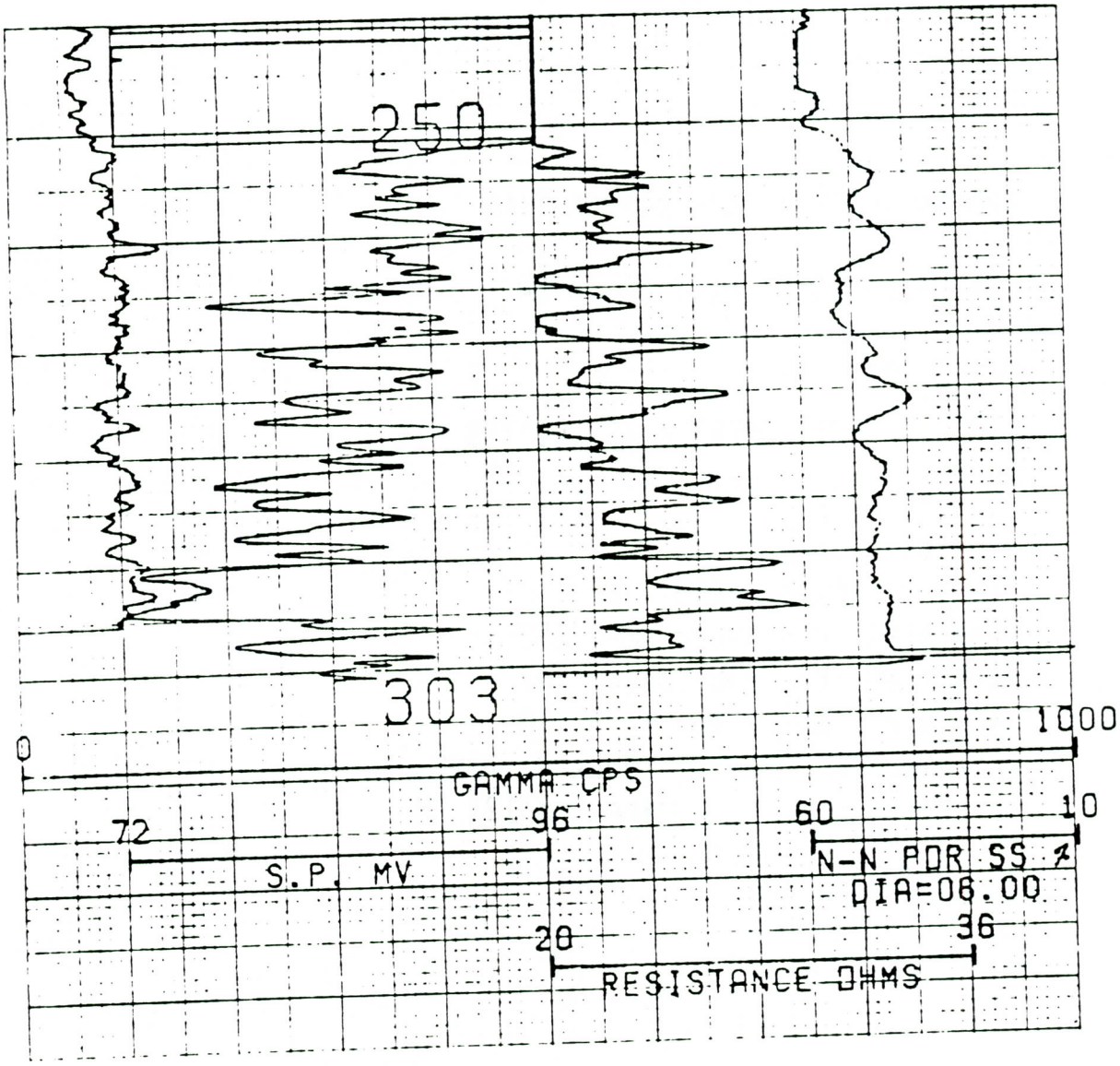
COMPU-LOG V8L2 PLOT 04-18-84

M - 3 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BDD 1

HOLE DIAMETER : 06.0
PROBE # 9055A - 249
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 142
SENSOR #4 CAL BIAS = 0
DATA V8L2*A TRUCK # 7602
R. MILLER APPL. #3121 M


250
303
0
1000
GAMMA CPS
72
96
S.P. MV
60
10
N-N POR SS %
DIA=06.00
20
36
RESISTANCE OHMS

CENTURY GEOPHYSICAL CORPORATION

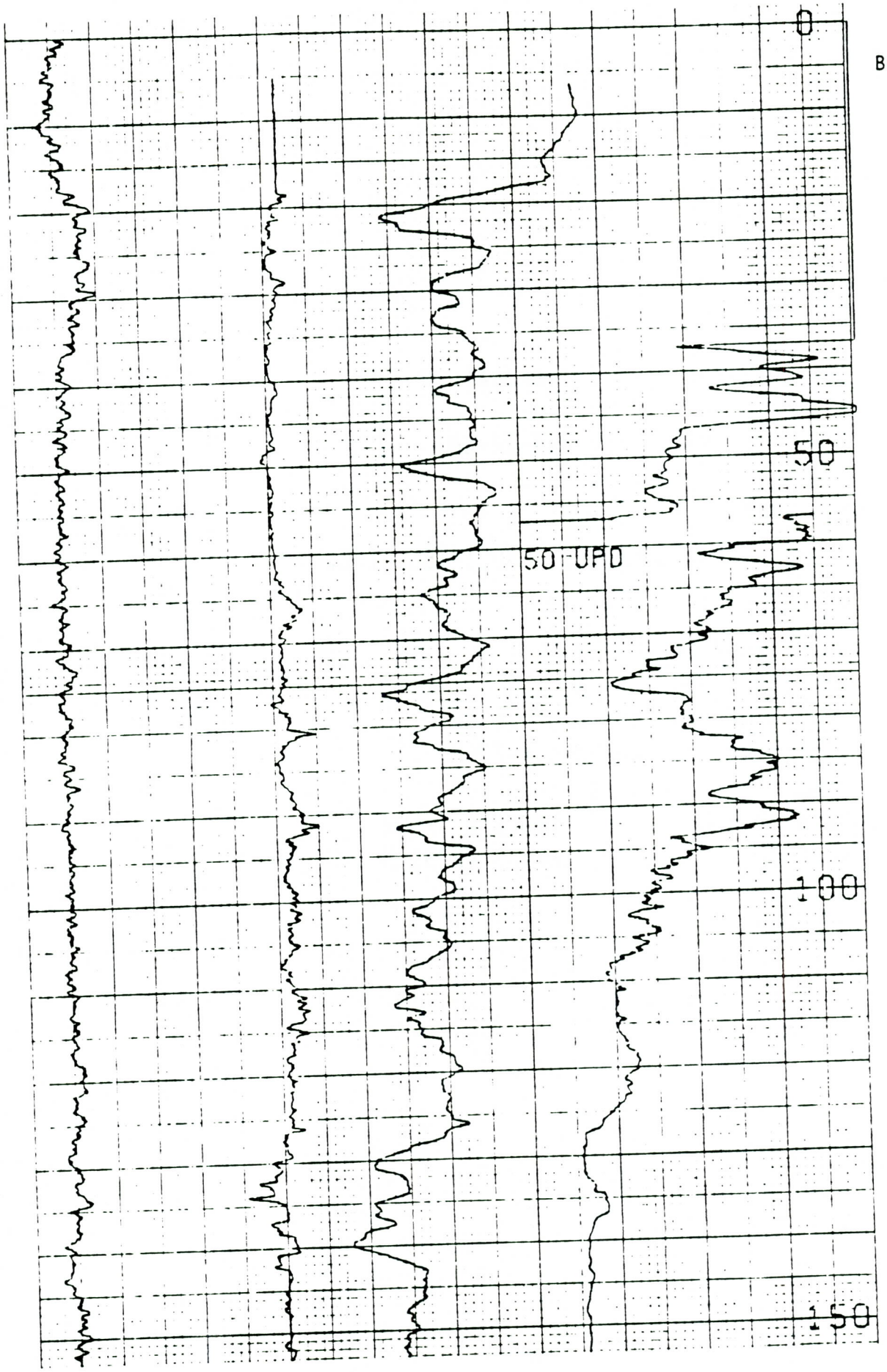
COMPU-LOG V8L2 PLOT 04-24-84

M - 4 MA

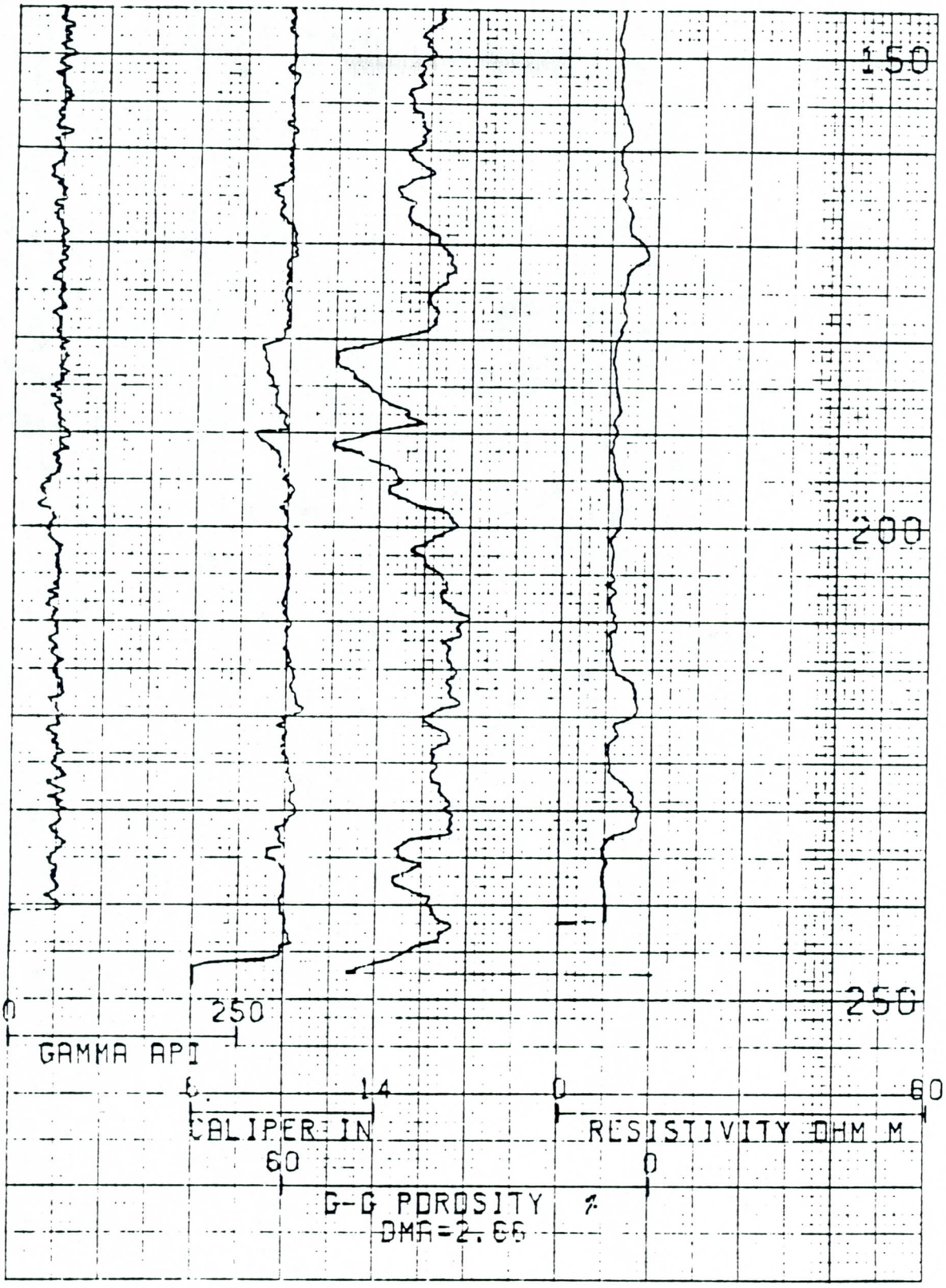
ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BDB 1

HOLE DIAMETER : 10.0
PROBE # 9030A1 - 427
SENSOR #4 CAL STD CPS = 6588
SENSOR #4 CAL RUN CPS = 7268
SENSOR #4 CAL BIAS = -2
DATA V8L2*A TRUCK # 7602
R. MILLER APPL. #2031 M



B-4b


150
200
250
0
250
GAMMA API
6
14
CALIPER IN
60
0
60
RESISTIVITY OHM M
0
G-G POROSITY %
DMA=2.65

CENTURY GEOPHYSICAL CORPORATION

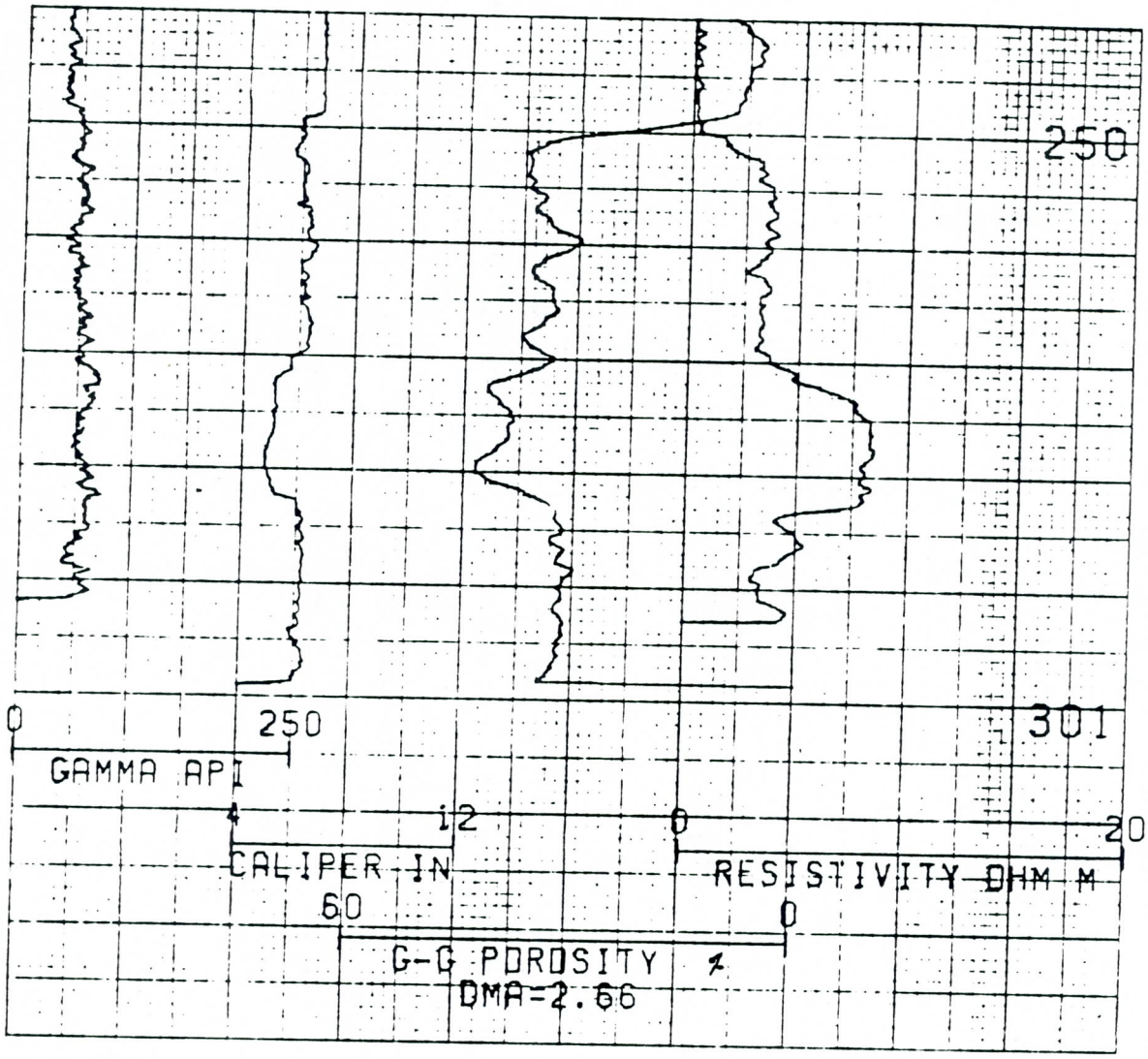
COMPU-LOG V8L2 PLOT 04-25-84

M - 4 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BDB 1

HOLE DIAMETER : 06.0
PROBE # 9030A1 - 427
SENSOR #4 CAL STD CPS = 6588
SENSOR #4 CAL RUN CPS = 7268
SENSOR #4 CAL BIAS = -2
DATA V8L2*A TRUCK # 7602
R. MILLER APPL. #2031 M


250
0
250
GAMMA API
301
4
12
CALIPER IN
0
20
RESISTIVITY OHM M
60
0
G-G POROSITY %
DMA=2.66

CENTURY GEOPHYSICAL CORPORATION

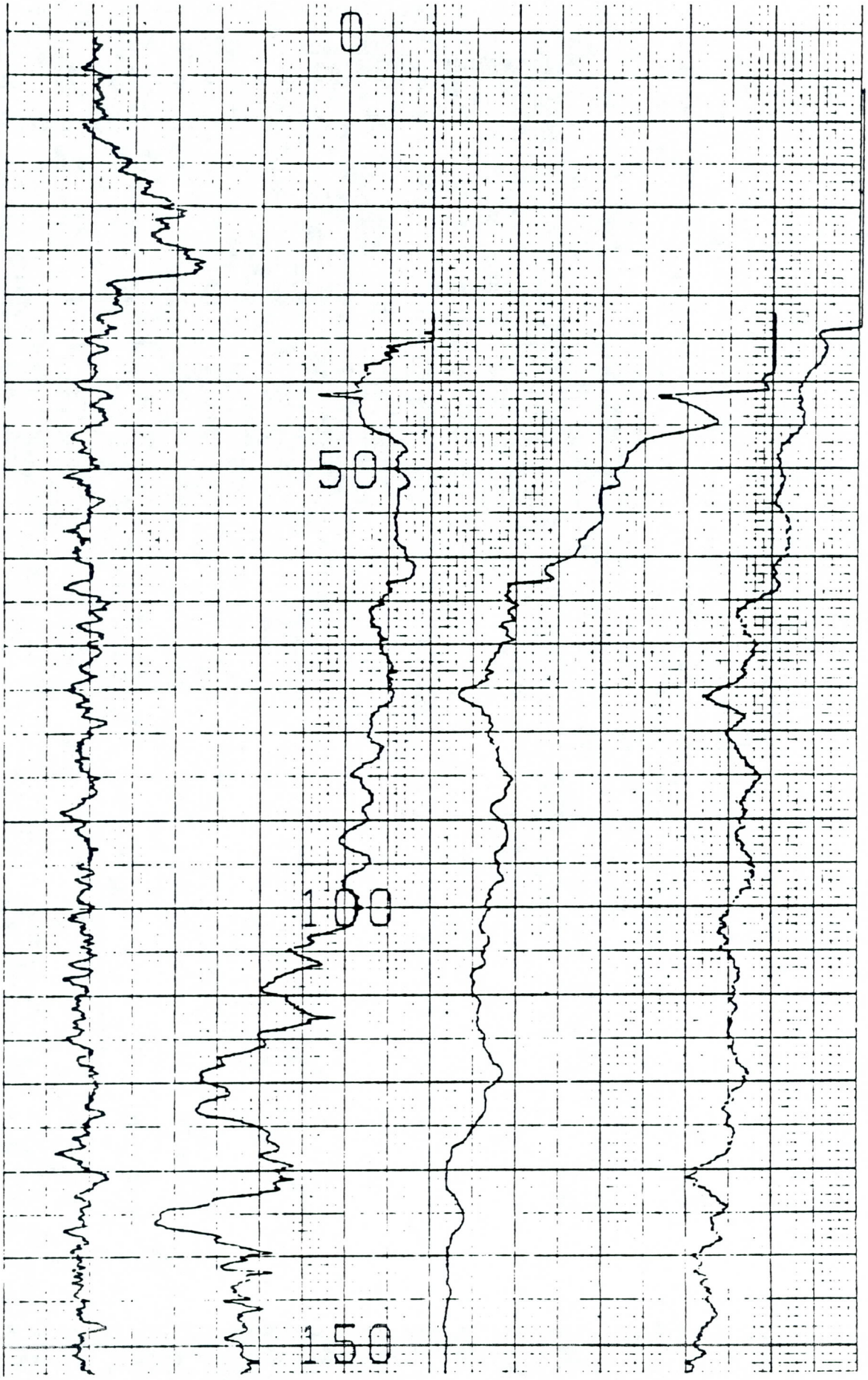
COMPU-LOG V8L2 PLOT 04-24-84

M - 4 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BDB 1

HOLE DIAMETER : 10.0
PROBE # 9055A - 249
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL STD CPS = 142
SENSOR #4 CAL BIAS = 0
DATA V8L2*A TRUCK # 7602
R. MILLER APPL. #3121 M



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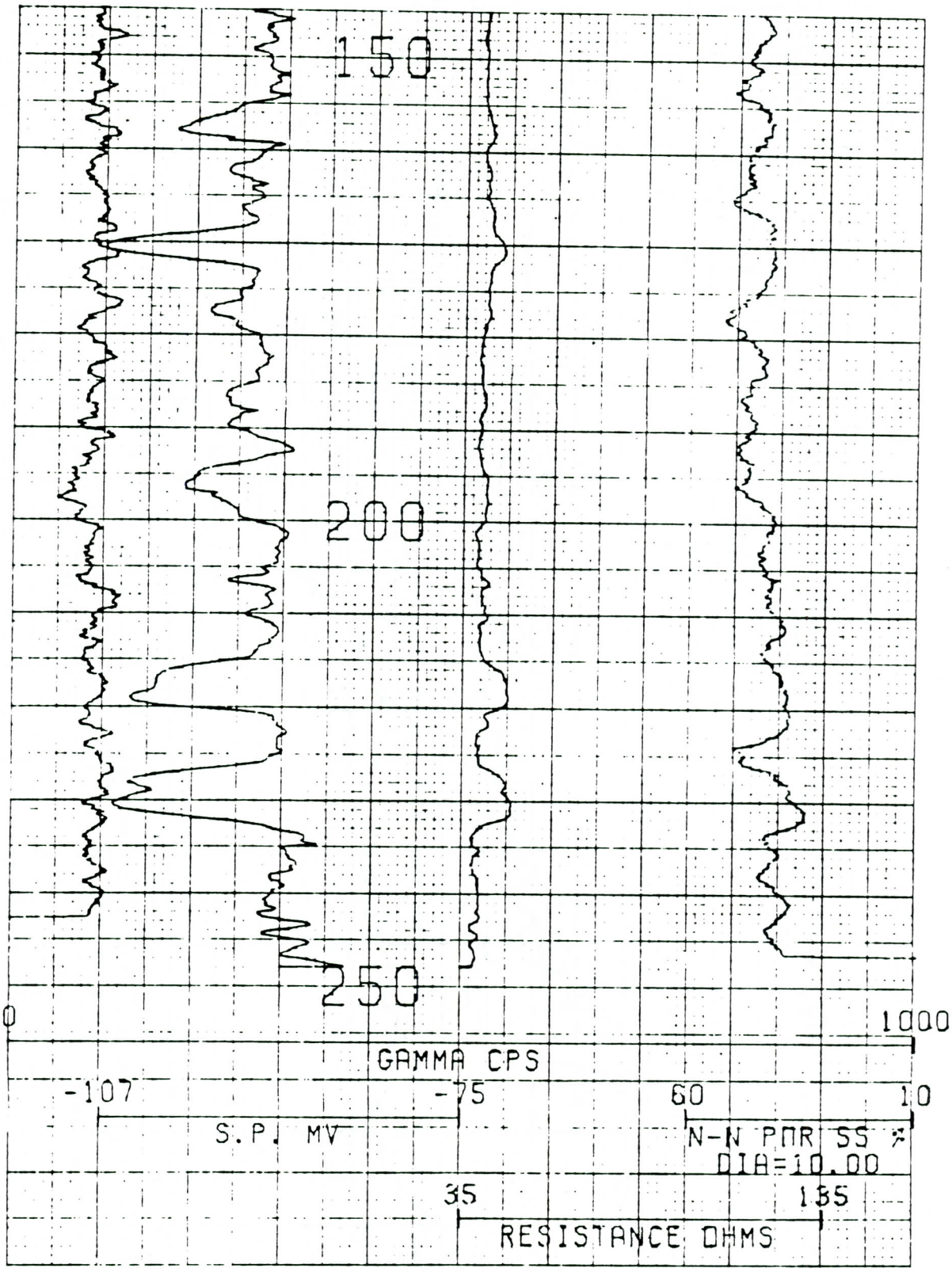

150
200
250
0
1000
GAMMA CPS
-107
-75
60
10
S.P. MV
N-N PNR SS *
DIA=10.00
35
135
RESISTANCE OHMS

CENTURY GEOPHYSICAL CORPORATION

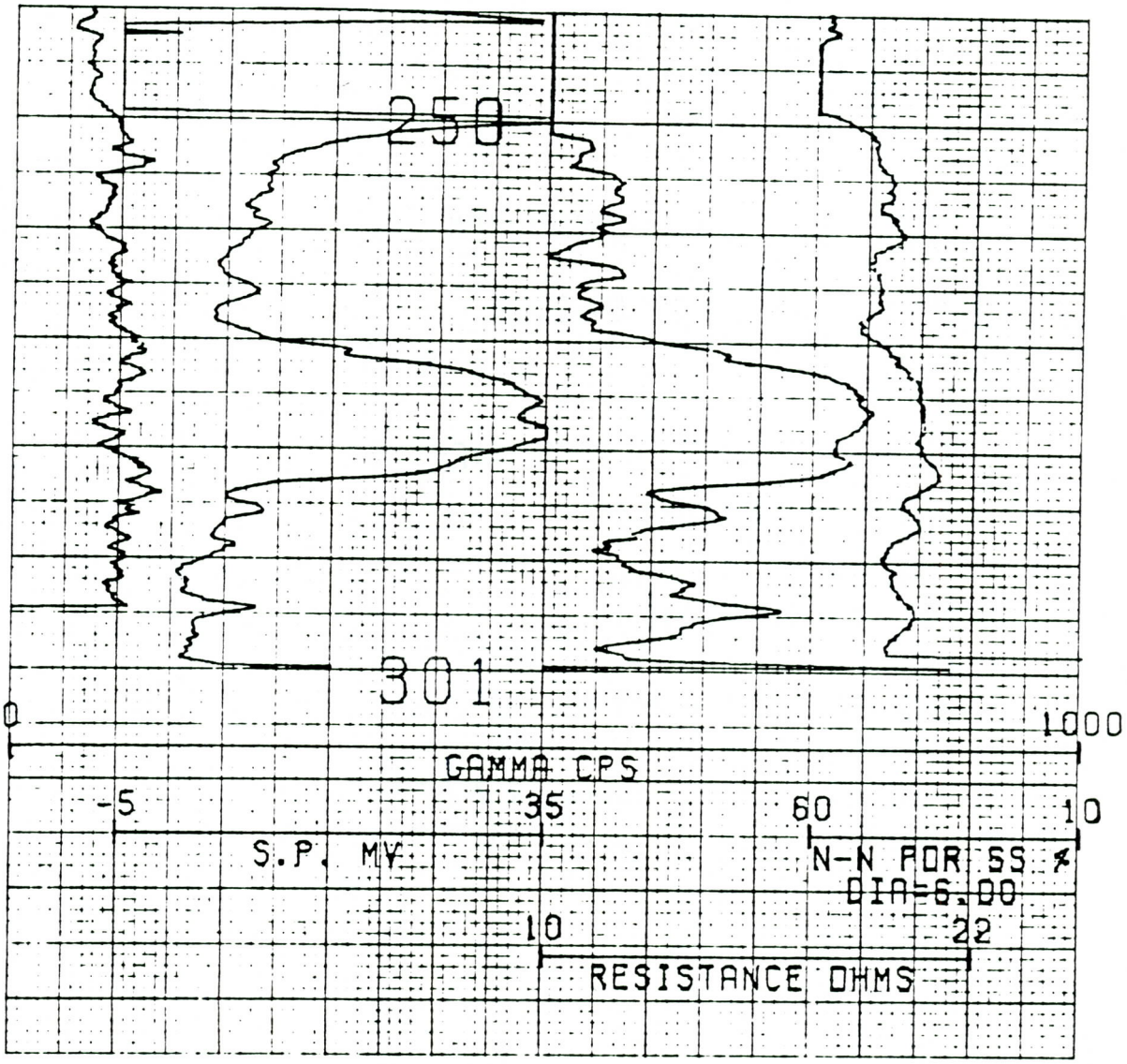
COMPU-LOG V8L2 PLOT 04-25-84

M - 4 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) 1 BDB 1

HOLE DIAMETER : 06.0
PROBE # 9055A - 249
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 142
SENSOR #4 CAL BIAS = 0
DATA V8L2*A TRUCK # 7602
R. MILLER APPL. #3121 M


250
301
0
1000
GAMMA CPS
-5
35
60
10
S.P. MV
N-N FOR 55 %
DIA=6.00
10
22
RESISTANCE OHMS

CENTURY GEOPHYSICAL CORPORATION

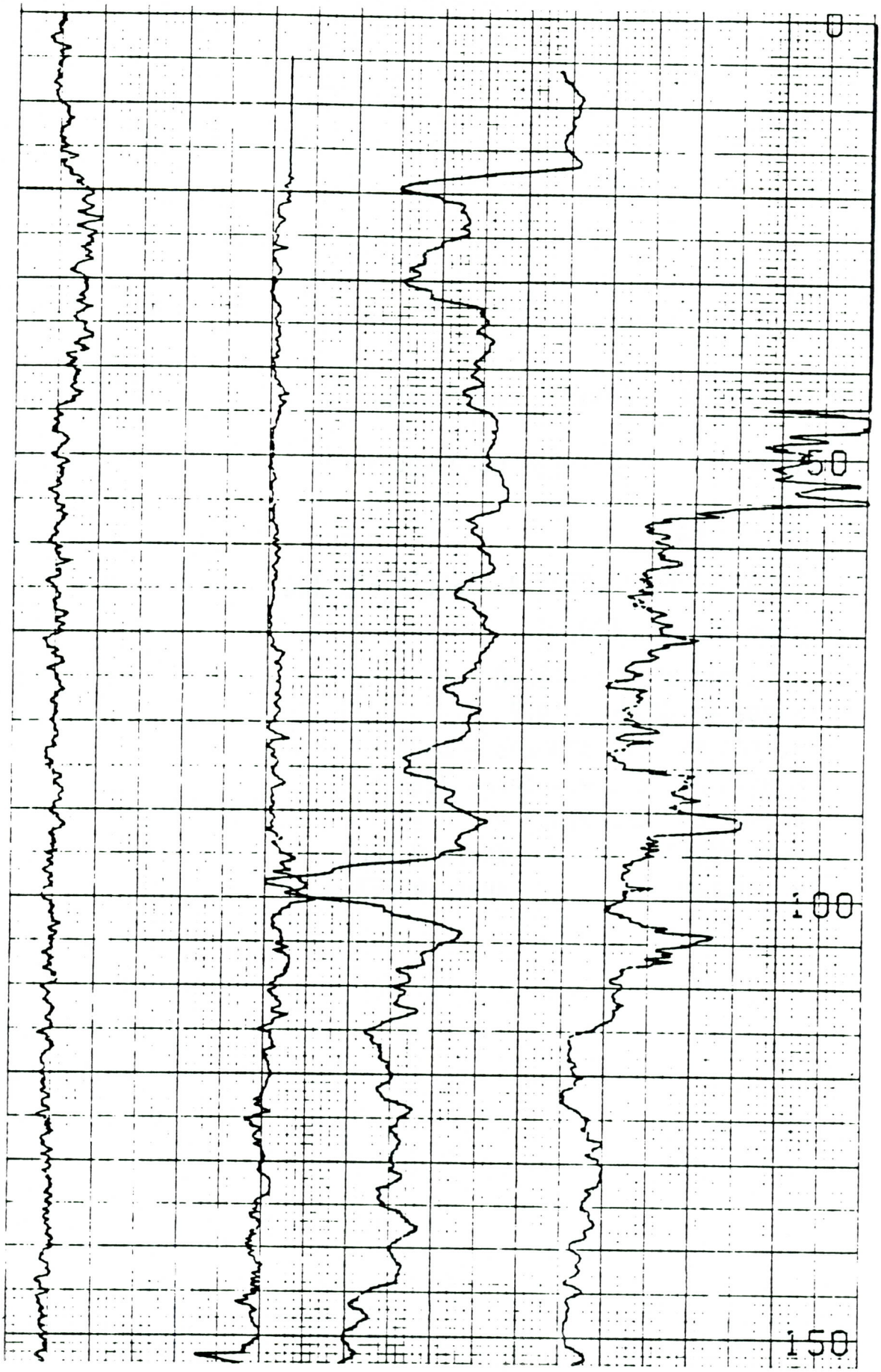
COMPU-LOG V8L2 PLOT 04-29-84

M - 5 MA

ERROL L. MONTGOMERY & ASSOCIATES, INC.

(A - 1 - 4) BBA 1

HOLE DIAMETER : 10.0
PROBE # 9030A1 - 427
SENSOR #4 CAL STD CPS = 6588
SENSOR #4 CAL RUN CPS = 7268
SENSOR #4 CAL BIAS = -2
DATA V8L2*A TRUCK # 7602
R. MILLER APPL. #2031 M



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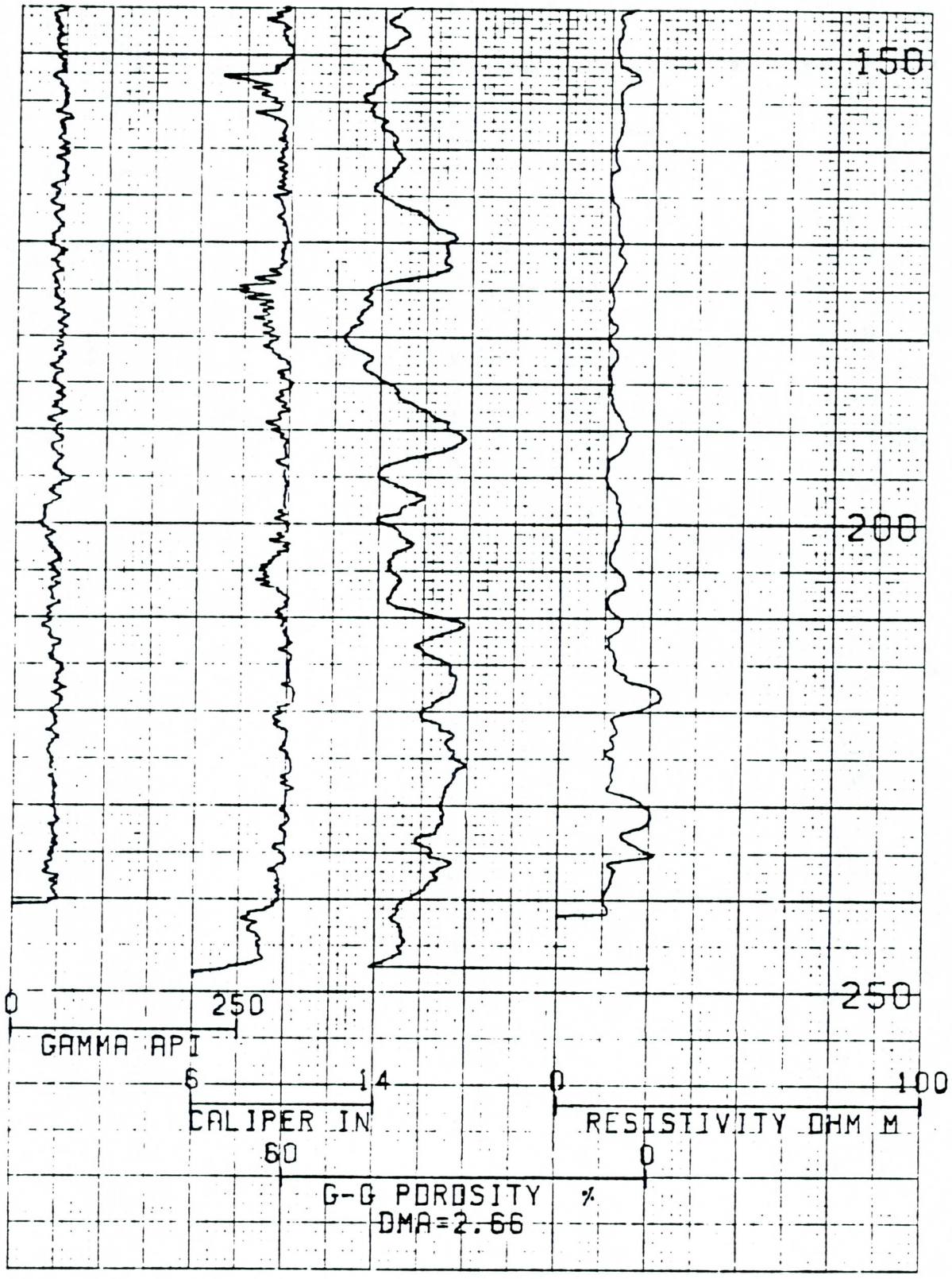

150
200
250
0
250
GAMMA API
6
14
CALIPER IN
0
100
RESISTIVITY OHM M
60
0
G-G POROSITY %
DMA=2.66

CENTURY GEOPHYSICAL CORPORATION

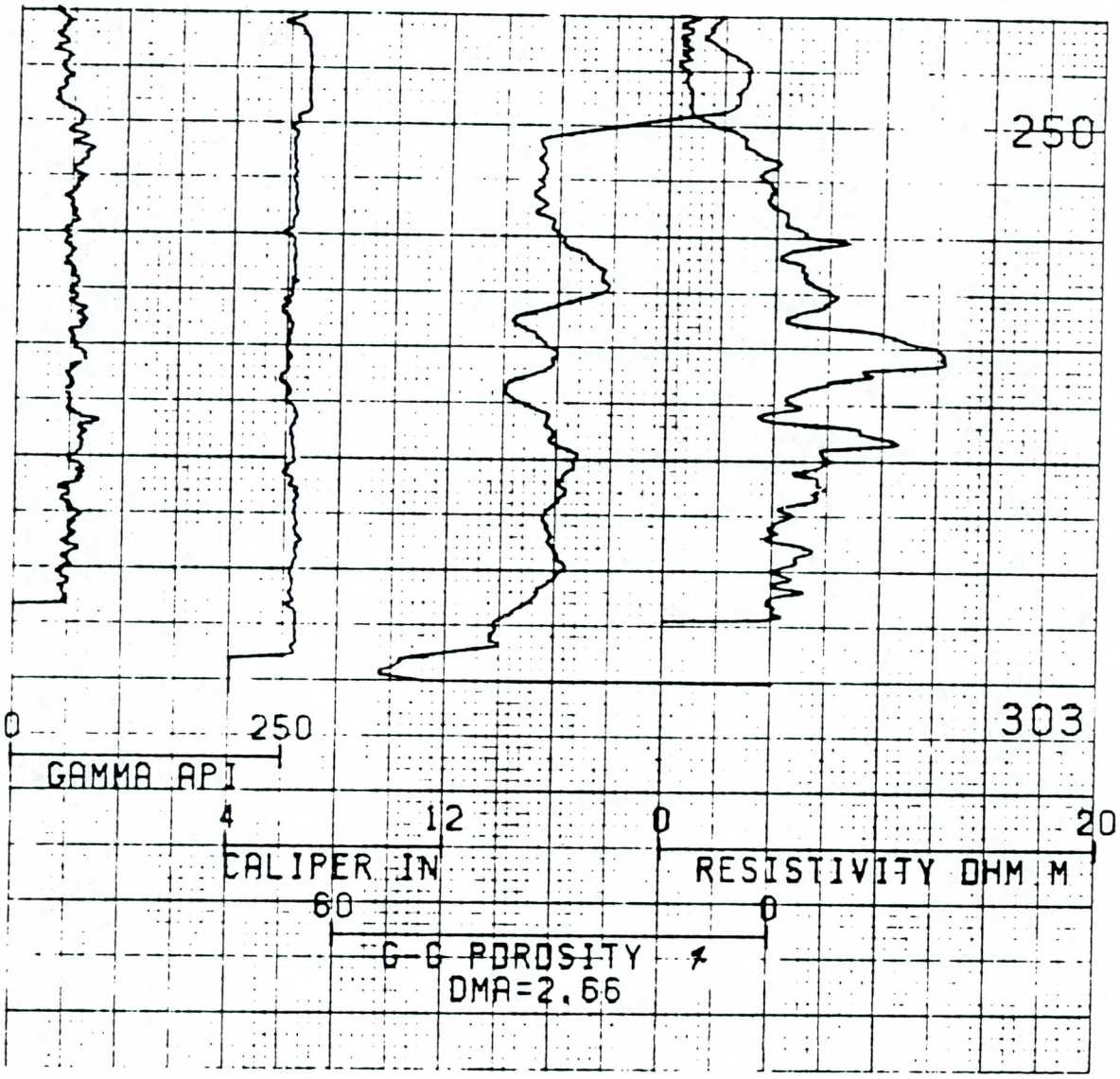
COMPU-LOG V8L2 PLOT 04-30-84

M - 5 MA

ERROL L. MONTGOMERY & ASSOCIATES

(A - 1 - 4) 1 BBA 1

HOLE DIAMETER : 06.0
PROBE # 9030A1 - 427
SENSOR #4 CAL STD CPS = 6588
SENSOR #4 CAL RUN CPS = 7268
SENSOR #4 CAL BIAS = -2
DATA V8L2*A TRUCK # 7602
R. MILLER APPL. #31 M


250
303
0
250
GAMMA API
4
12
CALIPER IN
0
20
RESISTIVITY OHM M
60
0
G-G POROSITY %
DMA=2.66

CENTURY GEOPHYSICAL CORPORATION

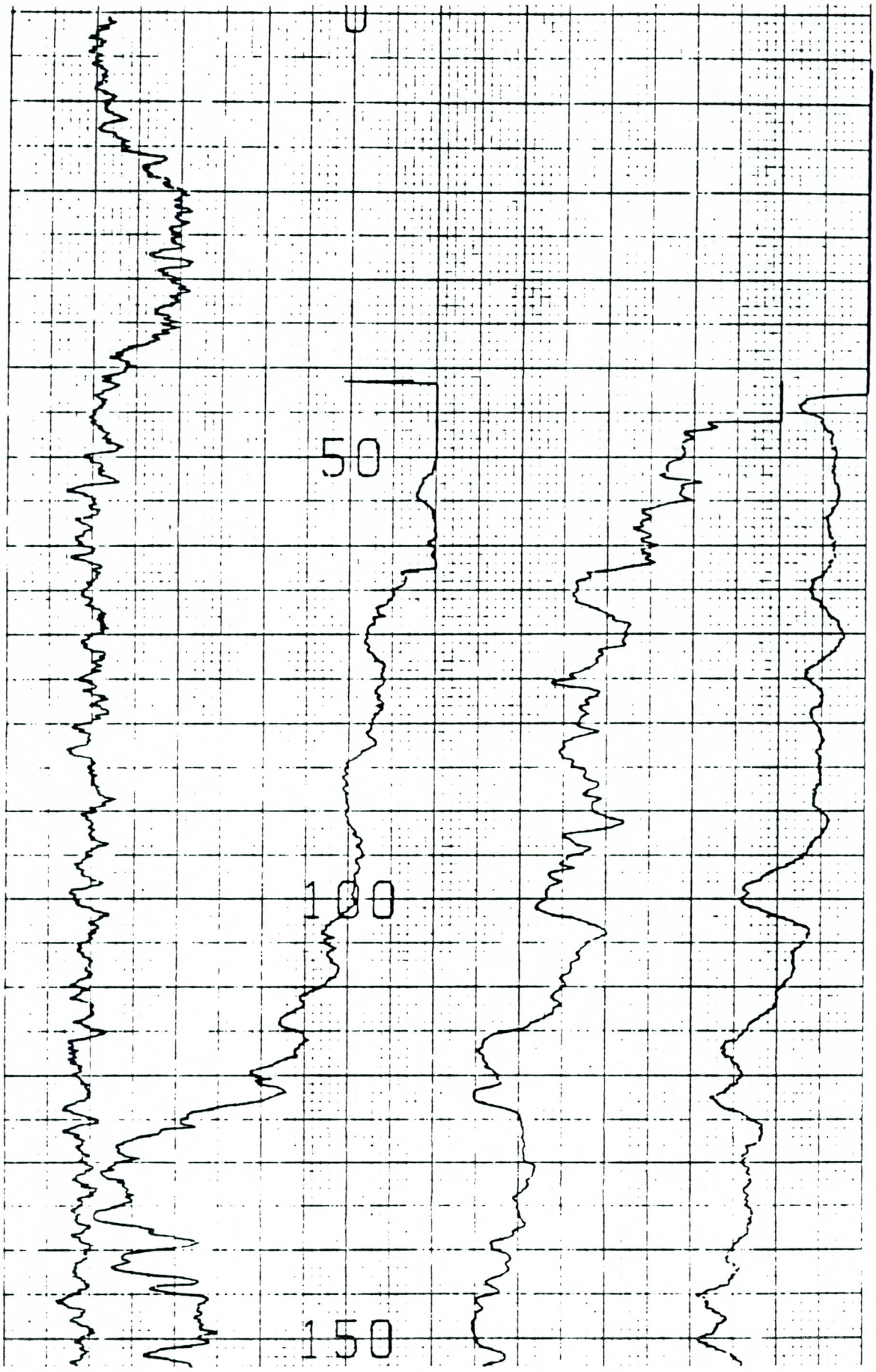
COMPU-LOG V8L2 PLOT 04-29-84

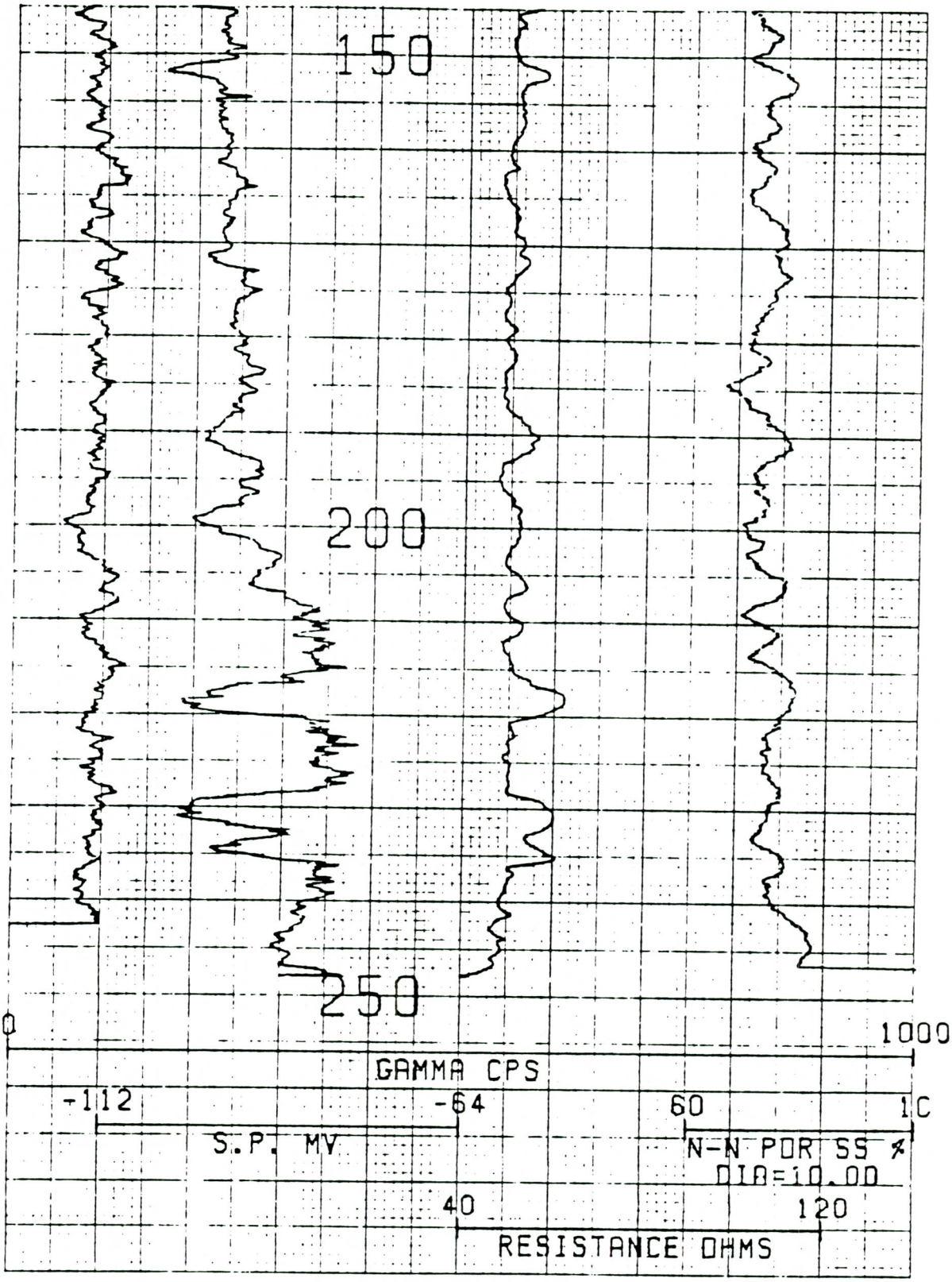
M - 5 MA

ERROL L. MONTGOMERY & ASSOCIATES

(A - 1 - 4) 1 BBA 1

HOLE DIAMETER : 10.0
PROBE # 9055A - 249
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 142
SENSOR #4 CAL BIAS = 0
DATA V8L2*A TRUCK # 7602
R. MILLER APPL. # A


0
50
100
150


150
200
250
0
1000
GAMMA CPS
-112
-64
60
1C
S.P. MV
N-N POR SS %
DIA=10.00
40
120
RESISTANCE OHMS

CENTURY GEOPHYSICAL CORPORATION

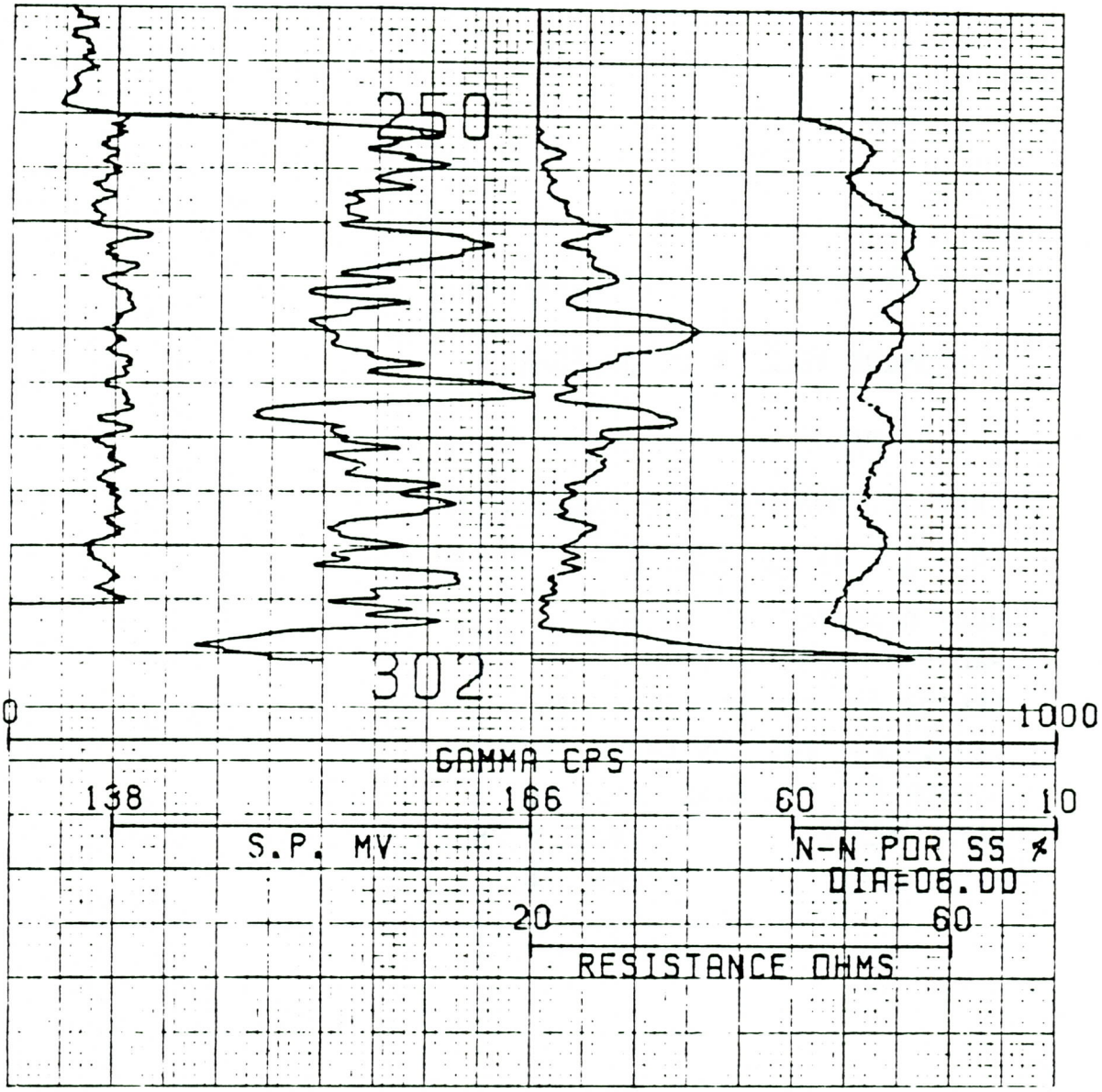
COMPU-LOG V8L2 PLOT 04-30-84

M - 5 MA

ERROL L. MONTGOMERY & ASSOCIATES

(A - 1 - 4) 1 BBA 1

HOLE DIAMETER : 06.0
PROBE # 9055A - 249
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 142
SENSOR #4 CAL BIAS = 0
DATA V8L2*A TRUCK # 7602
R. MILLER APPL. # A


250
302
0
1000
GAMMA CPS
138
166
60
10
S.P. MV
N-N POR SS %
DIA=08.00
20
60
RESISTANCE OHMS

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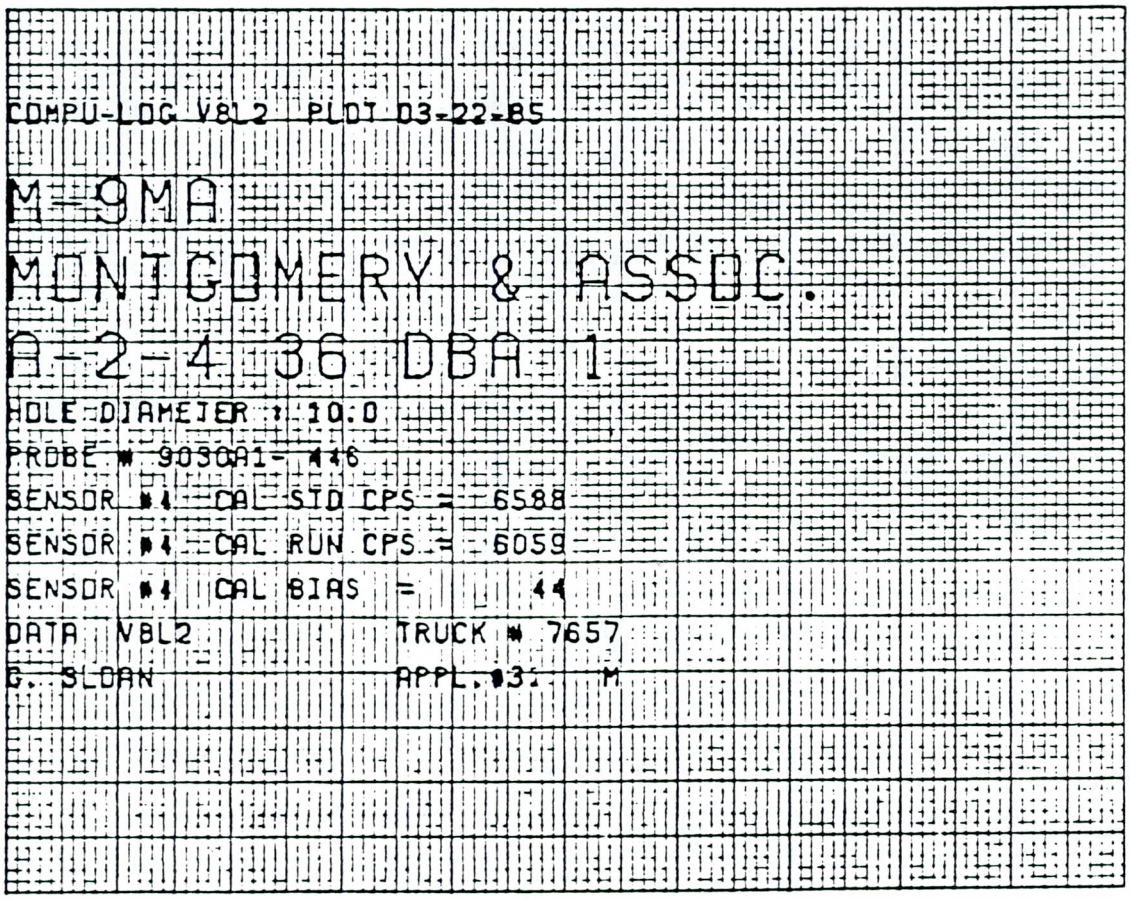

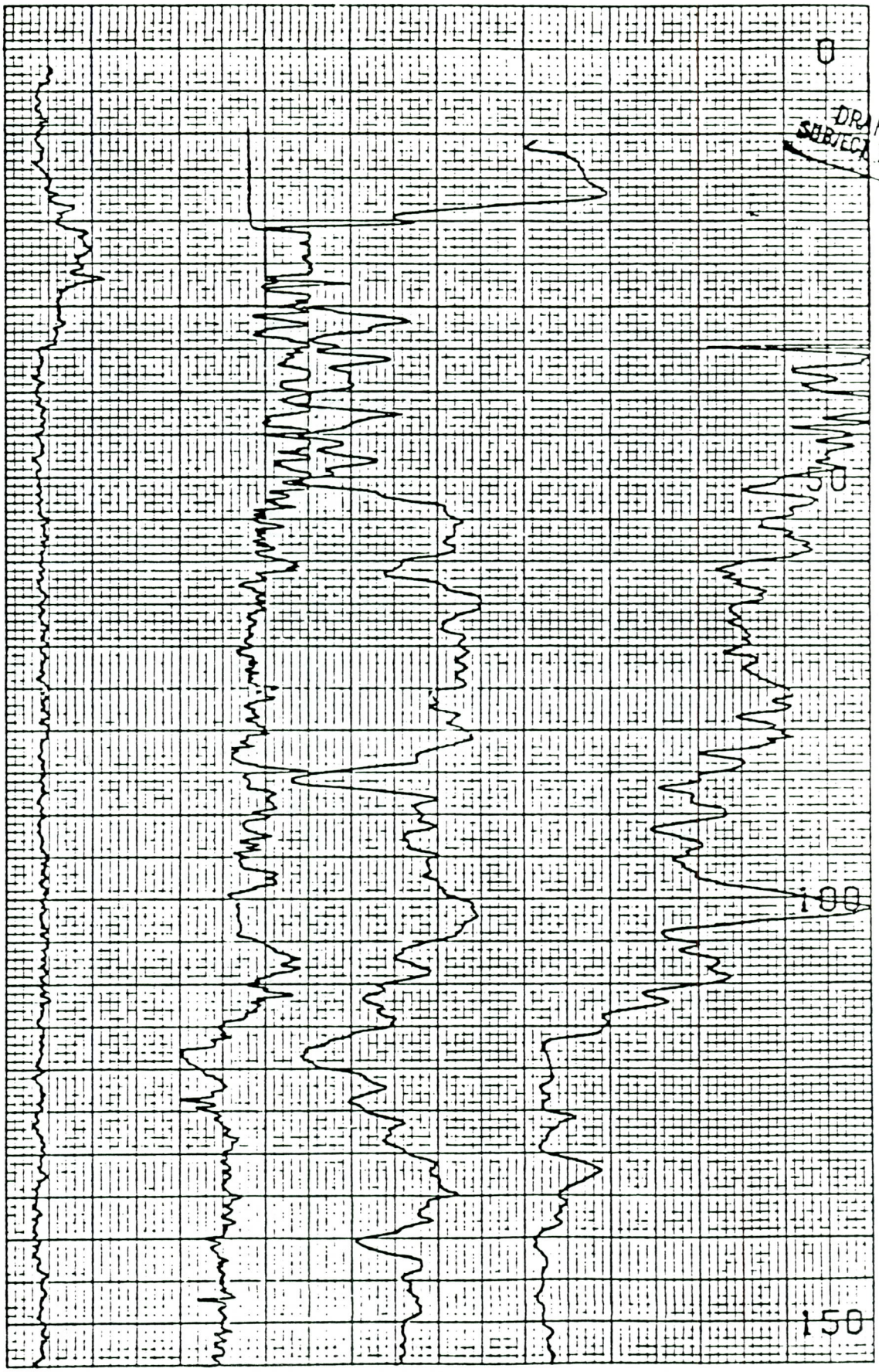

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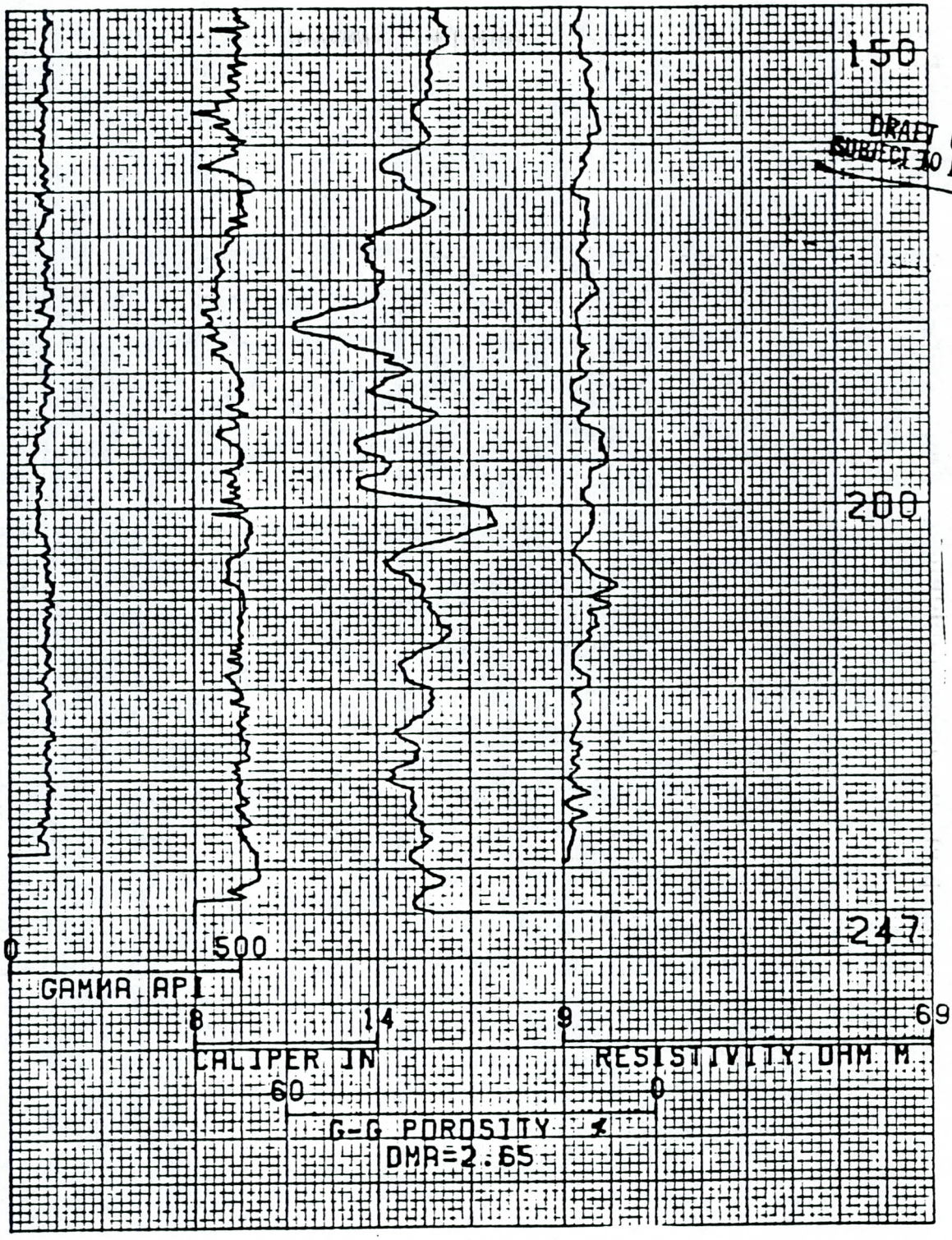
150
DRAFT COPY
SUBJECT TO REVISION
200
247
0
500
GAMMA API
8
14
9
69
CALIPER IN
RESISTIVITY OHM M
60
0
G-G POROSITY %
DMA=2.65

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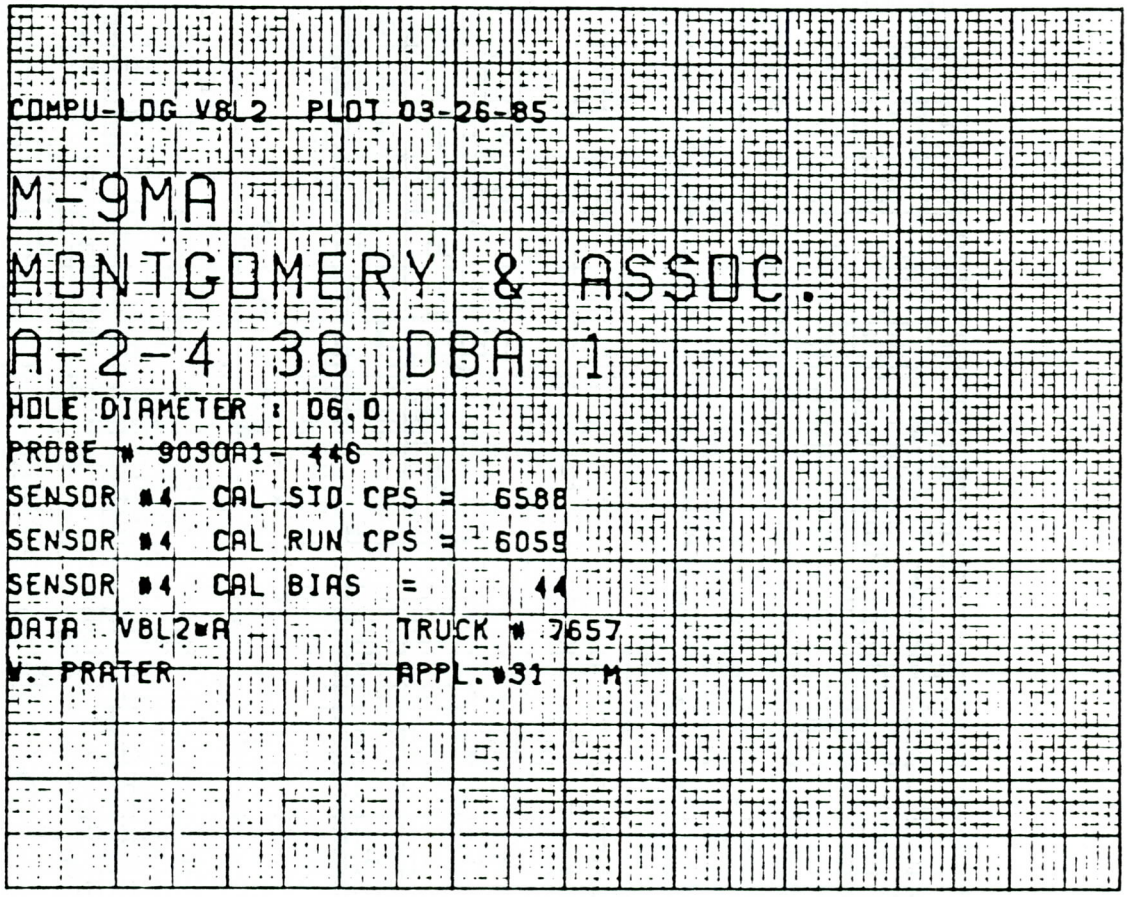
SUBJECT TO REVISION



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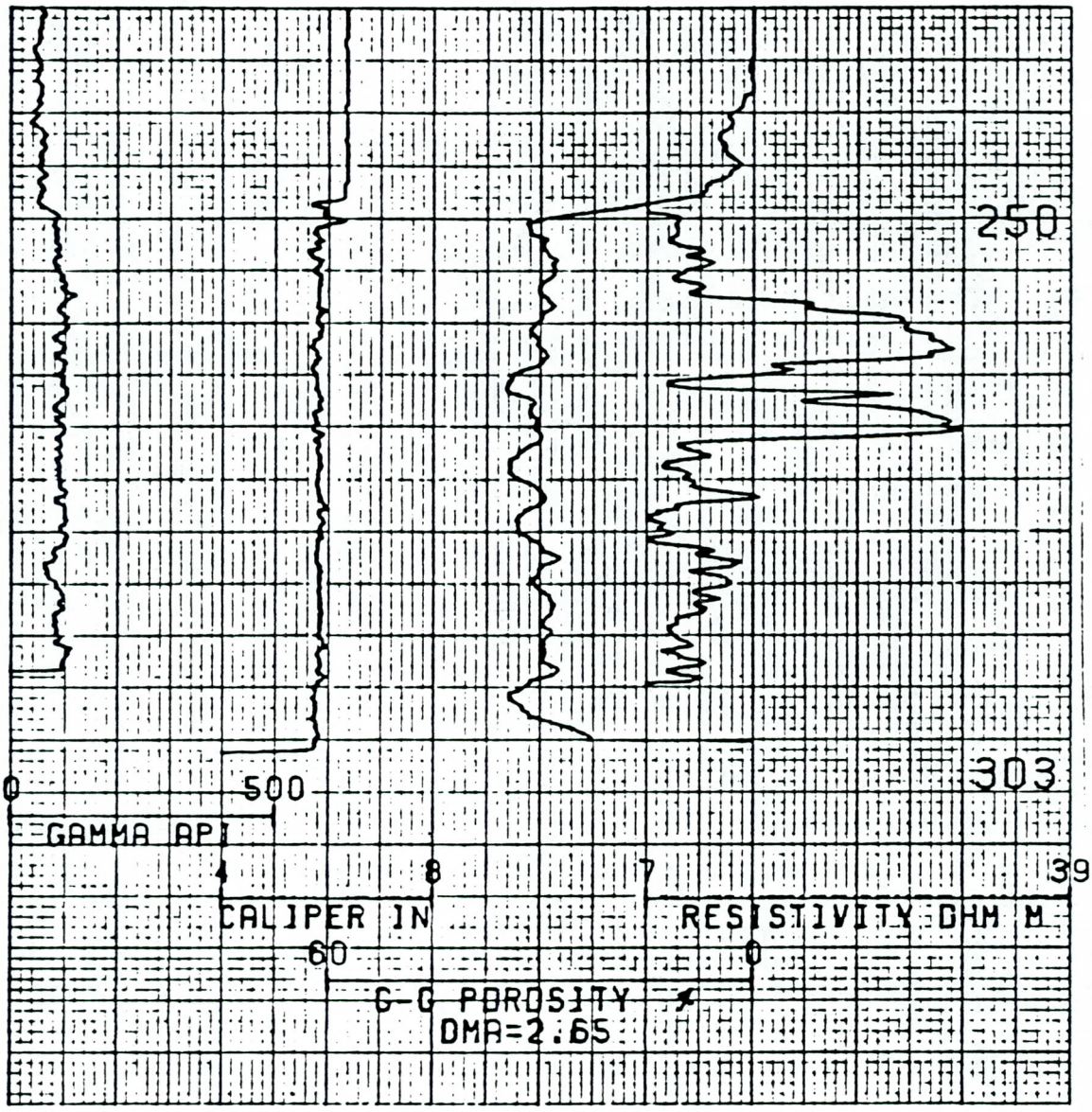

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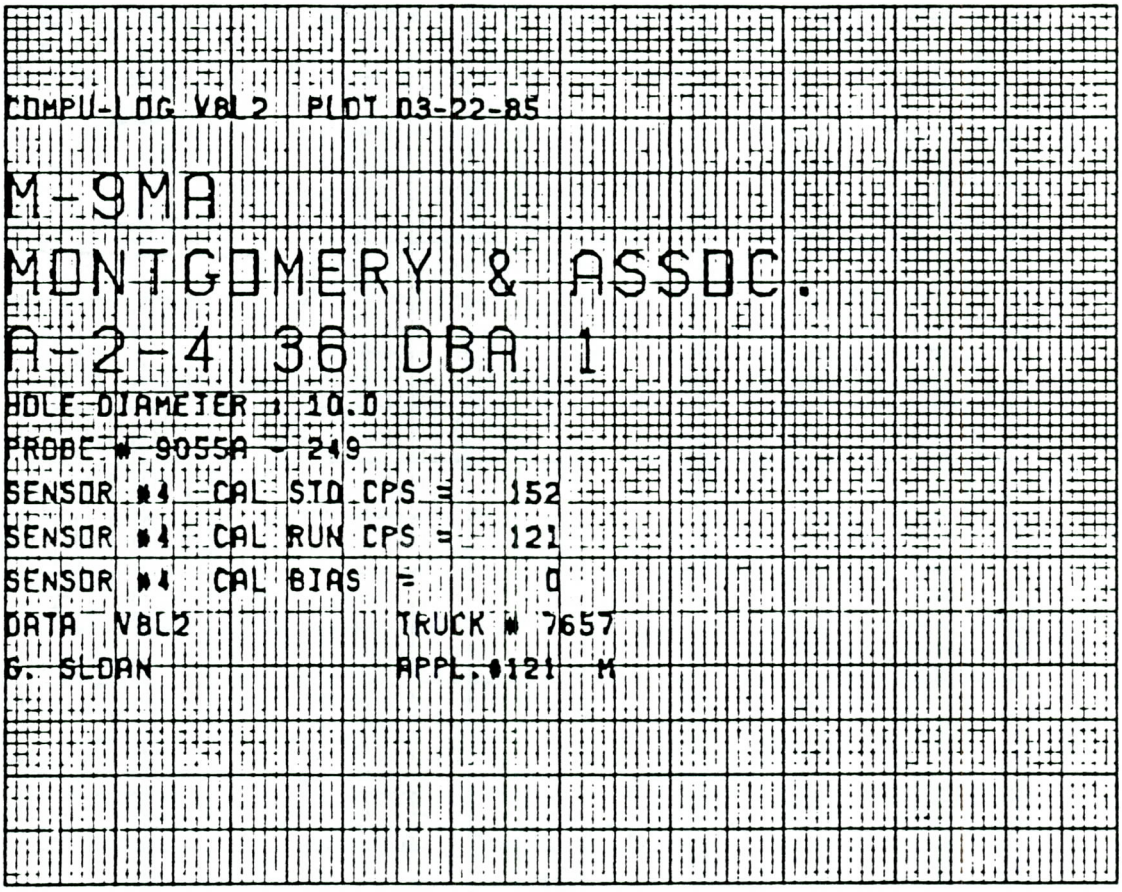

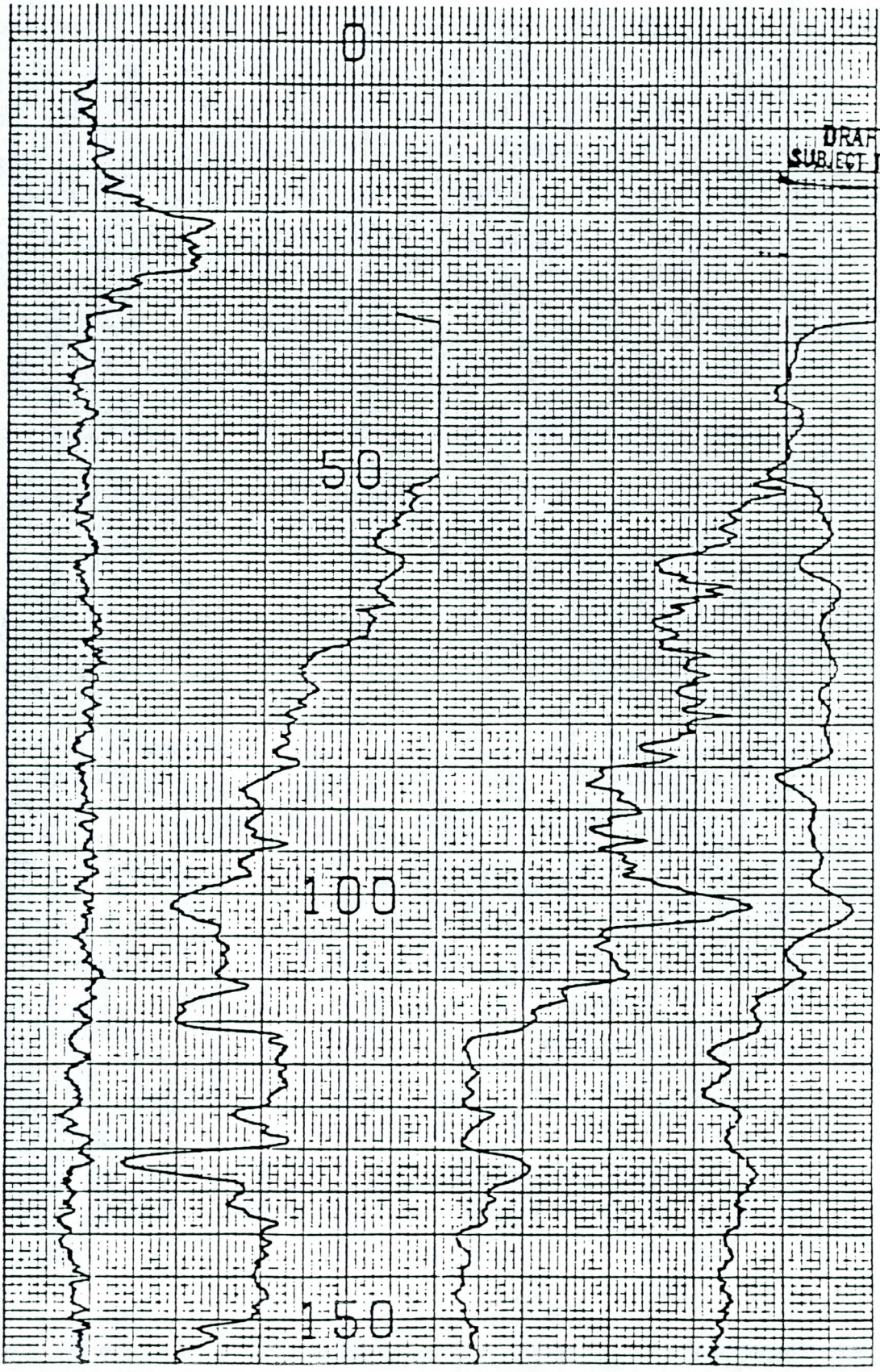

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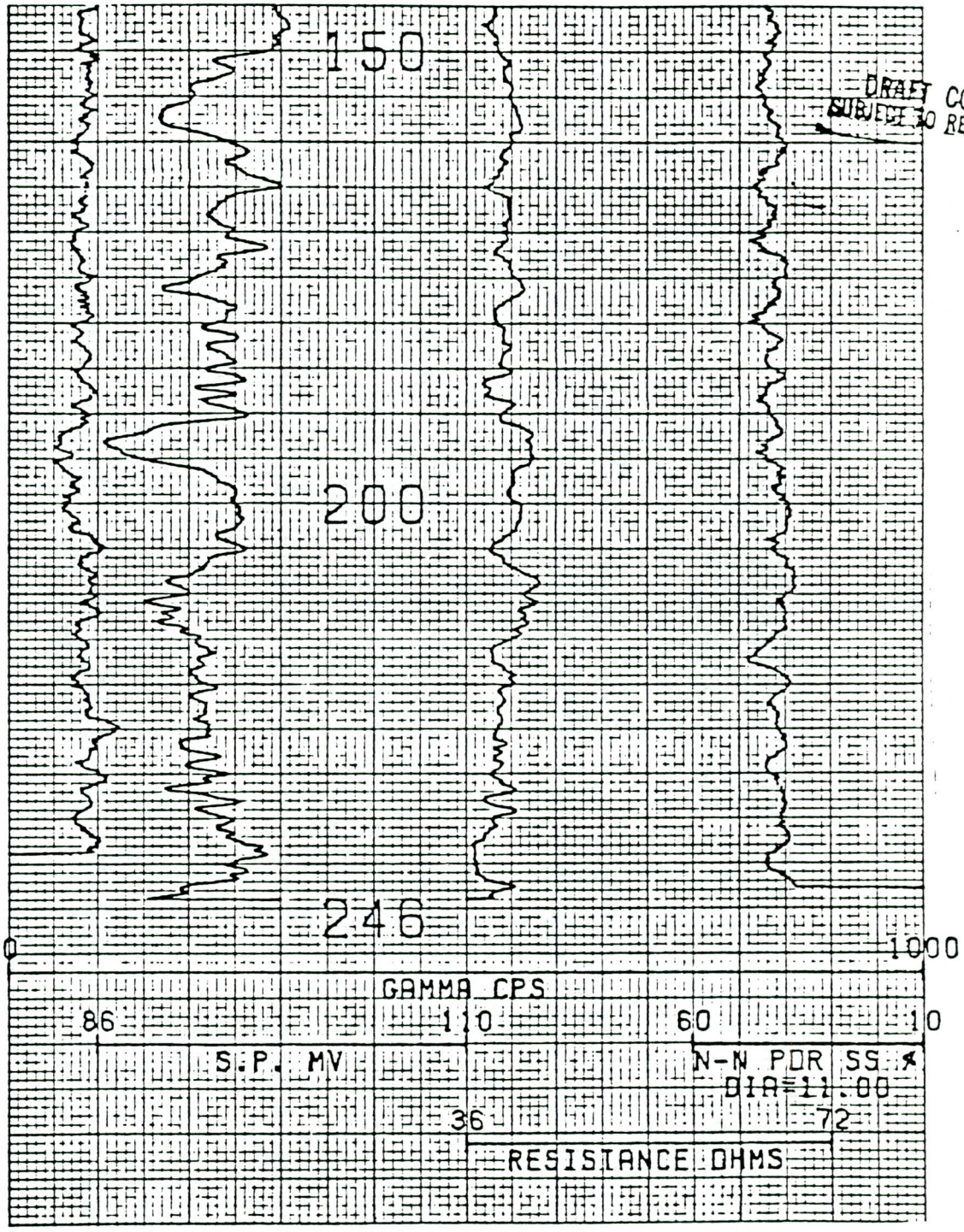
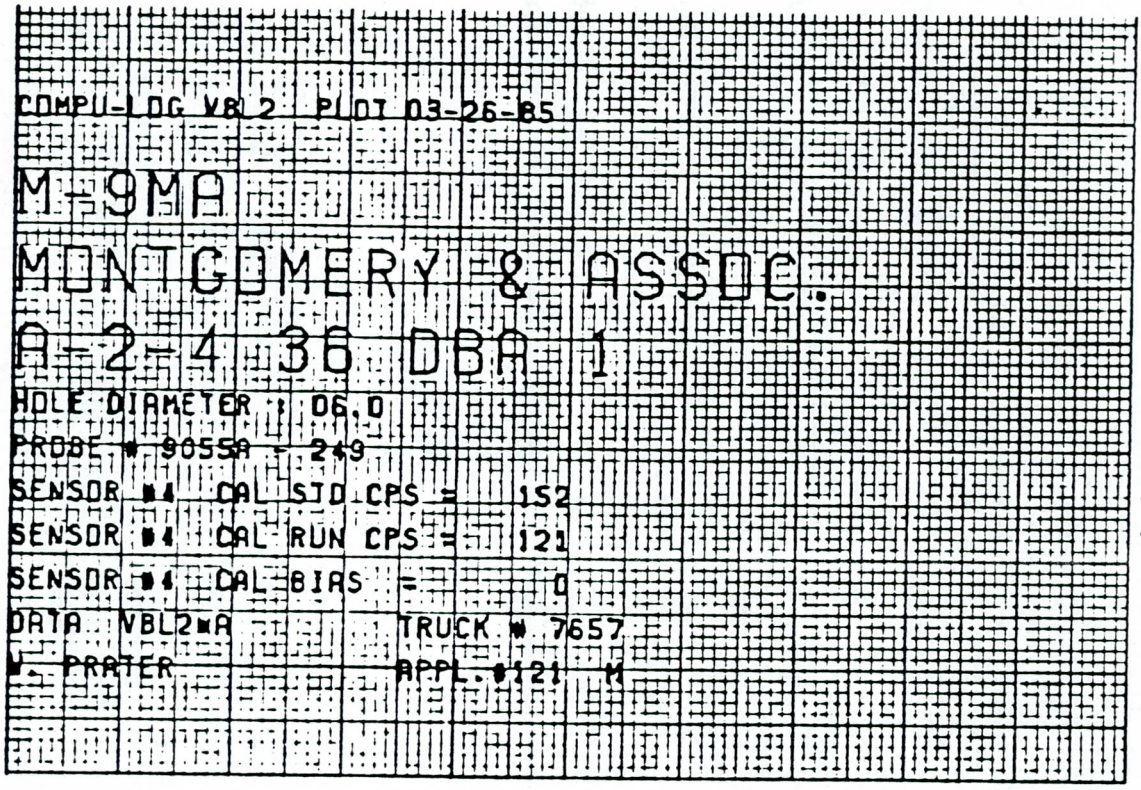

150
200
246
DRAFT COPY
SUBJECT TO REVISION
0
1000
GAMMA CPS
86
110
60
10
S.P. MV
N-N PDR SS
DIA=11.00
36
72
RESISTANCE OHMS

DRAFT COPY
SUBJECT TO REVISION



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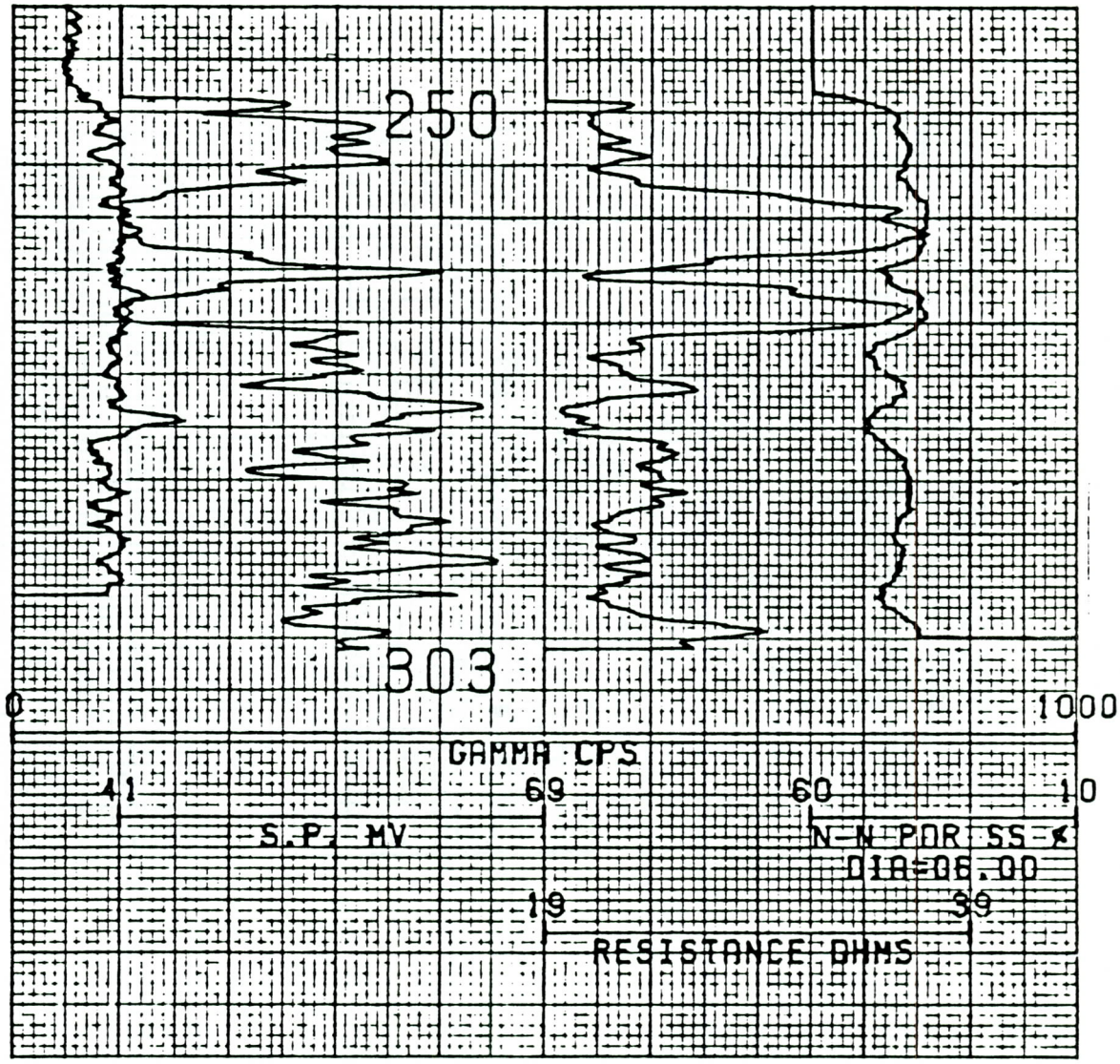

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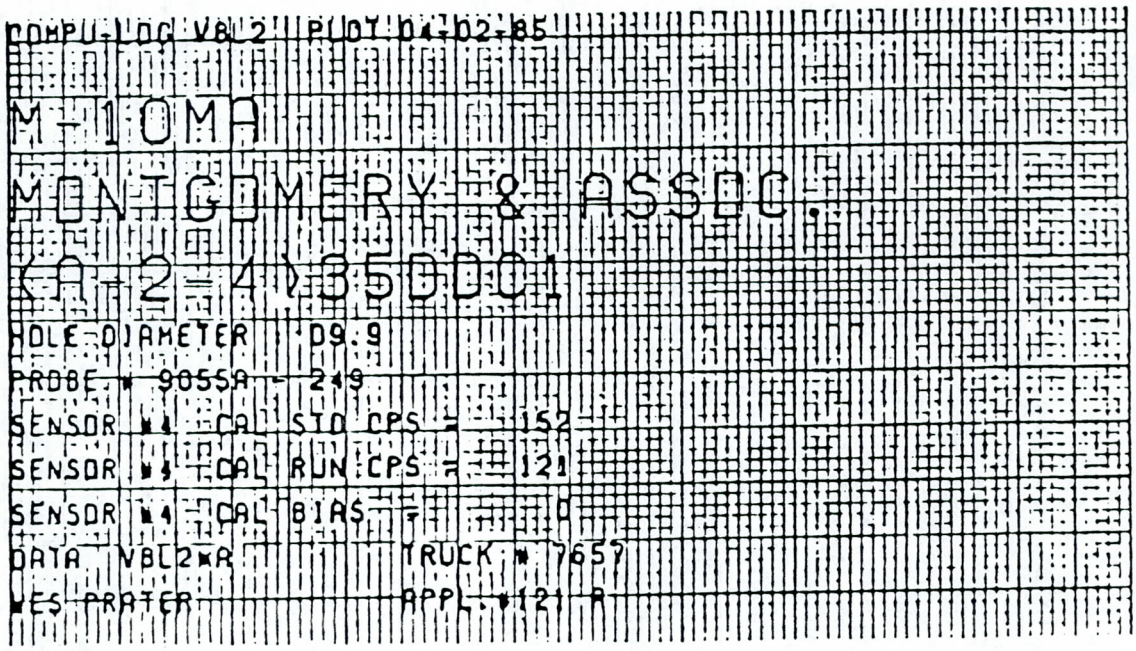
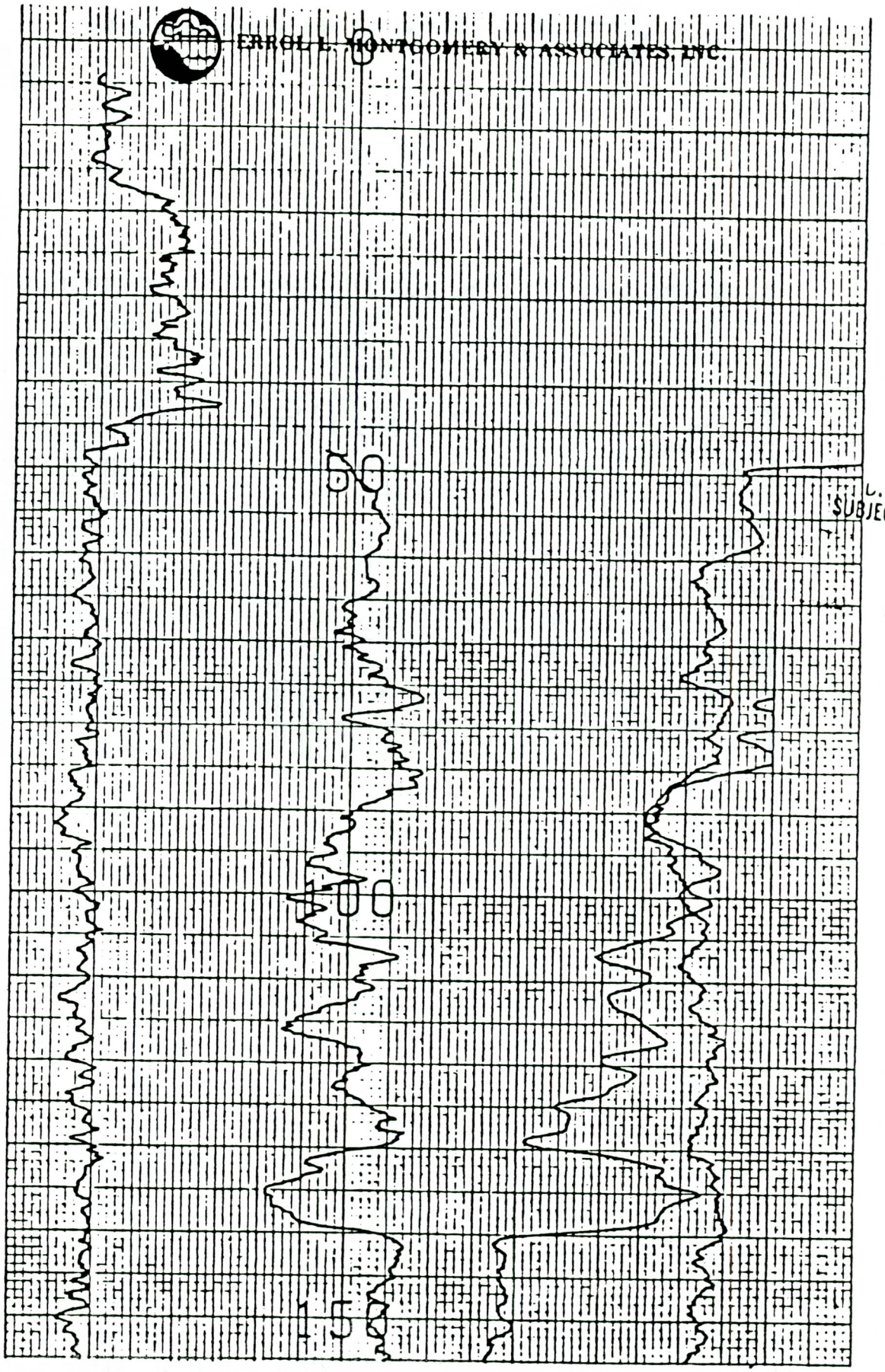


FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)35ddc1[M-10MA]



SUBJECT TO REVISI

FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR

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SUBJECT TO REVISION

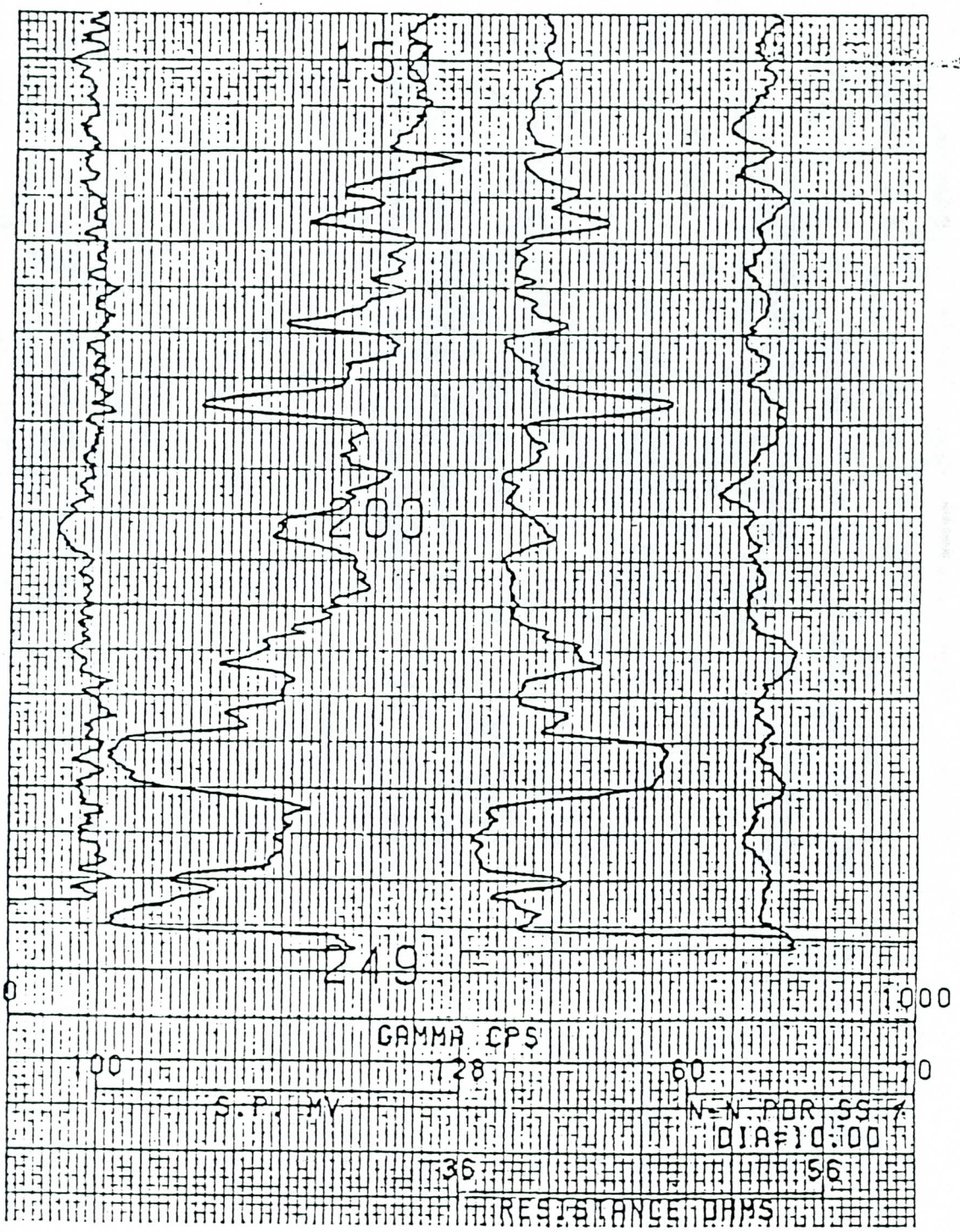

FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)35ddc1[M-10MA]

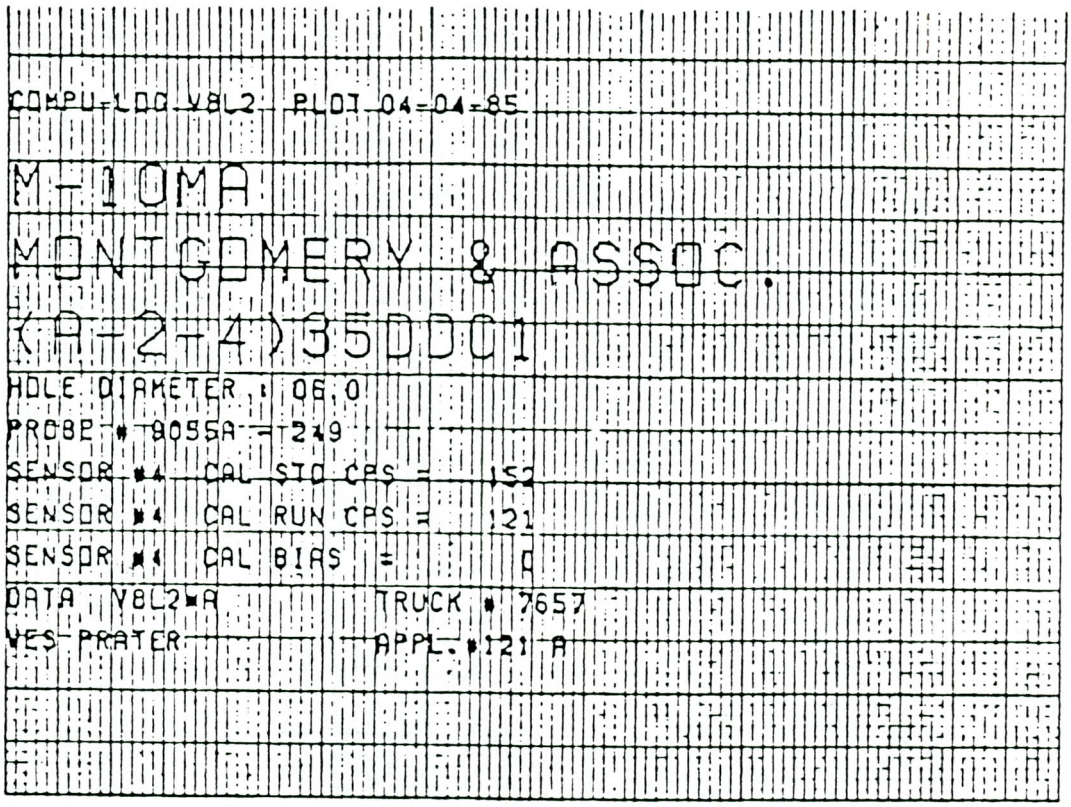

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FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)35ddc1[M-10MA]

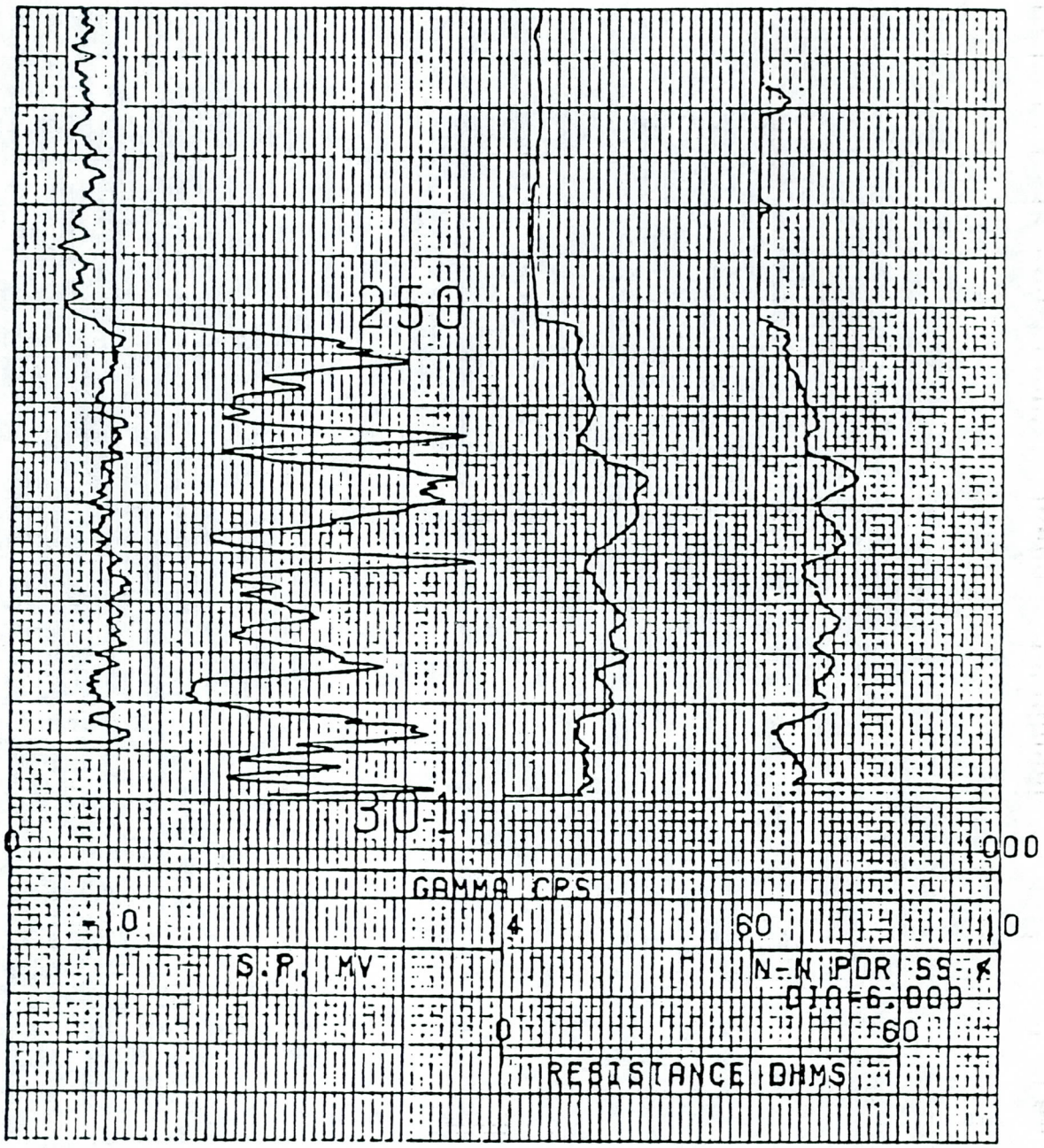

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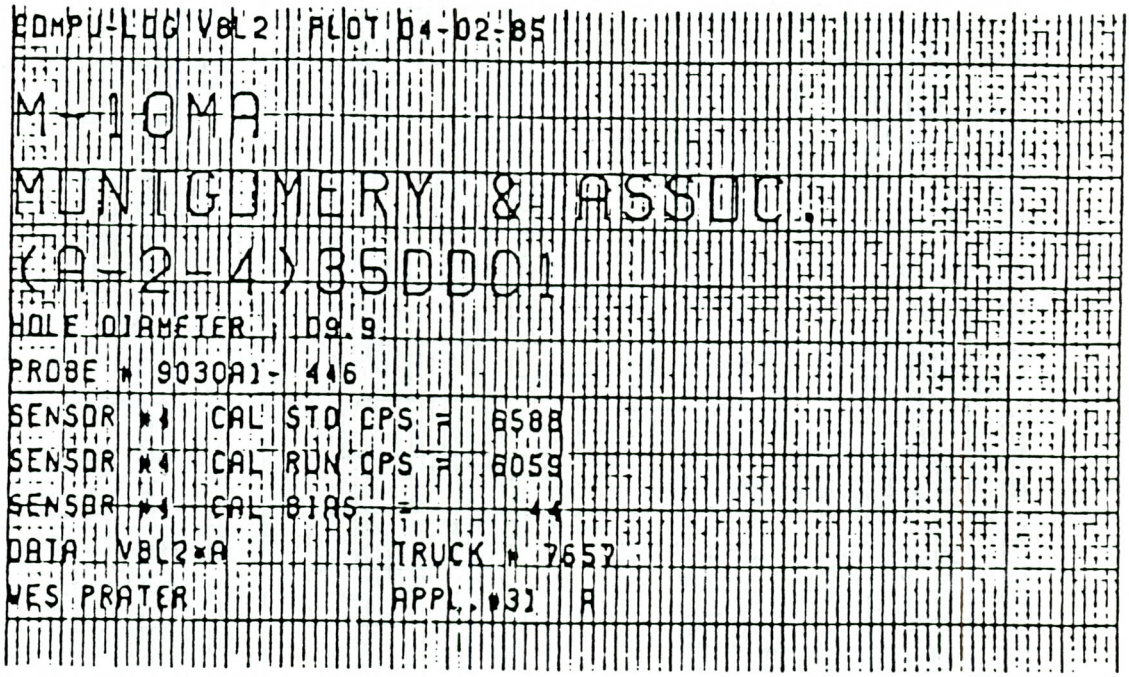
FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)35ddc1[M-10MA]



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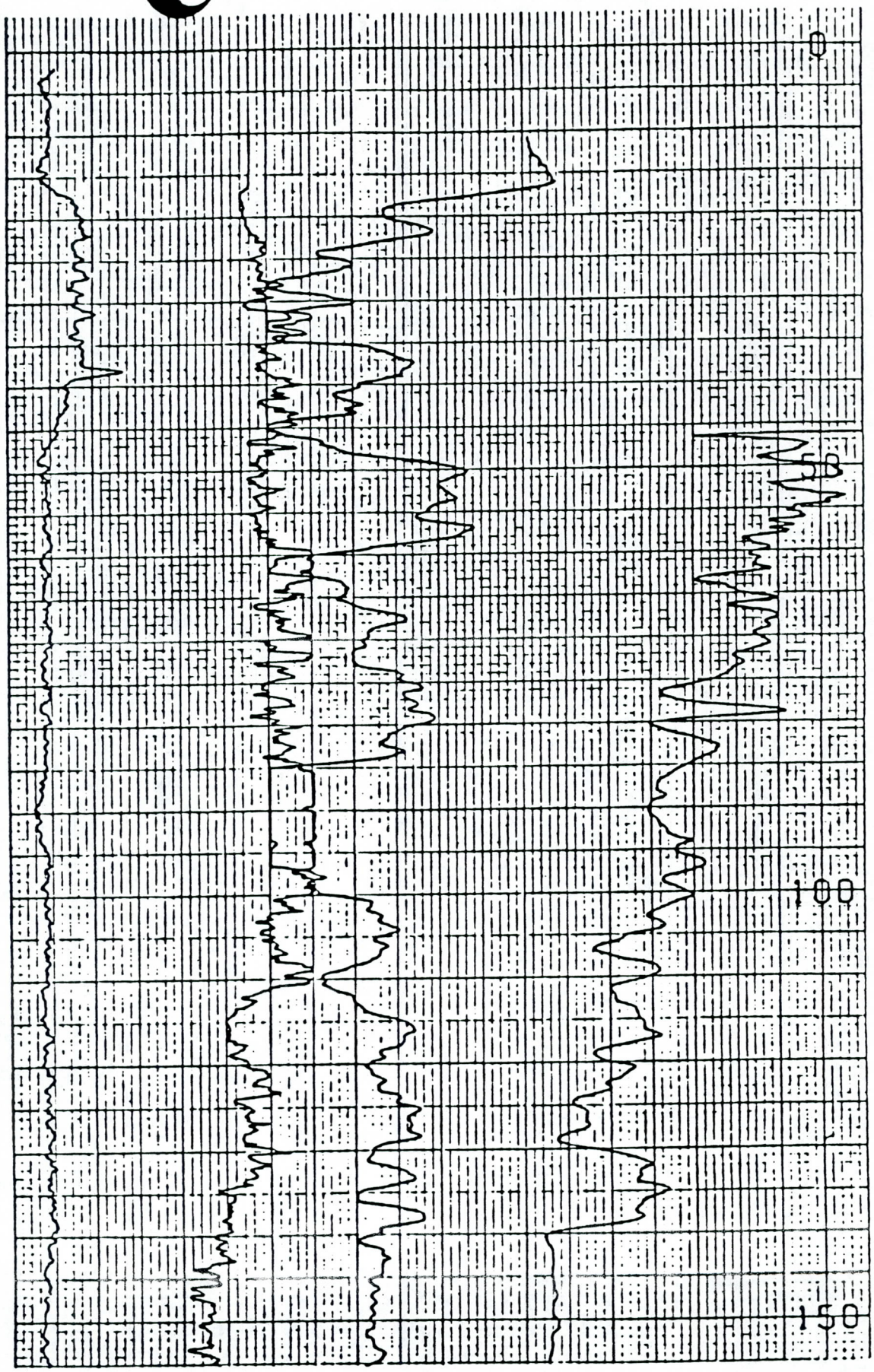
SUBJECT TO REVISION

FIGURE ___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35ddc1[M-10MA]



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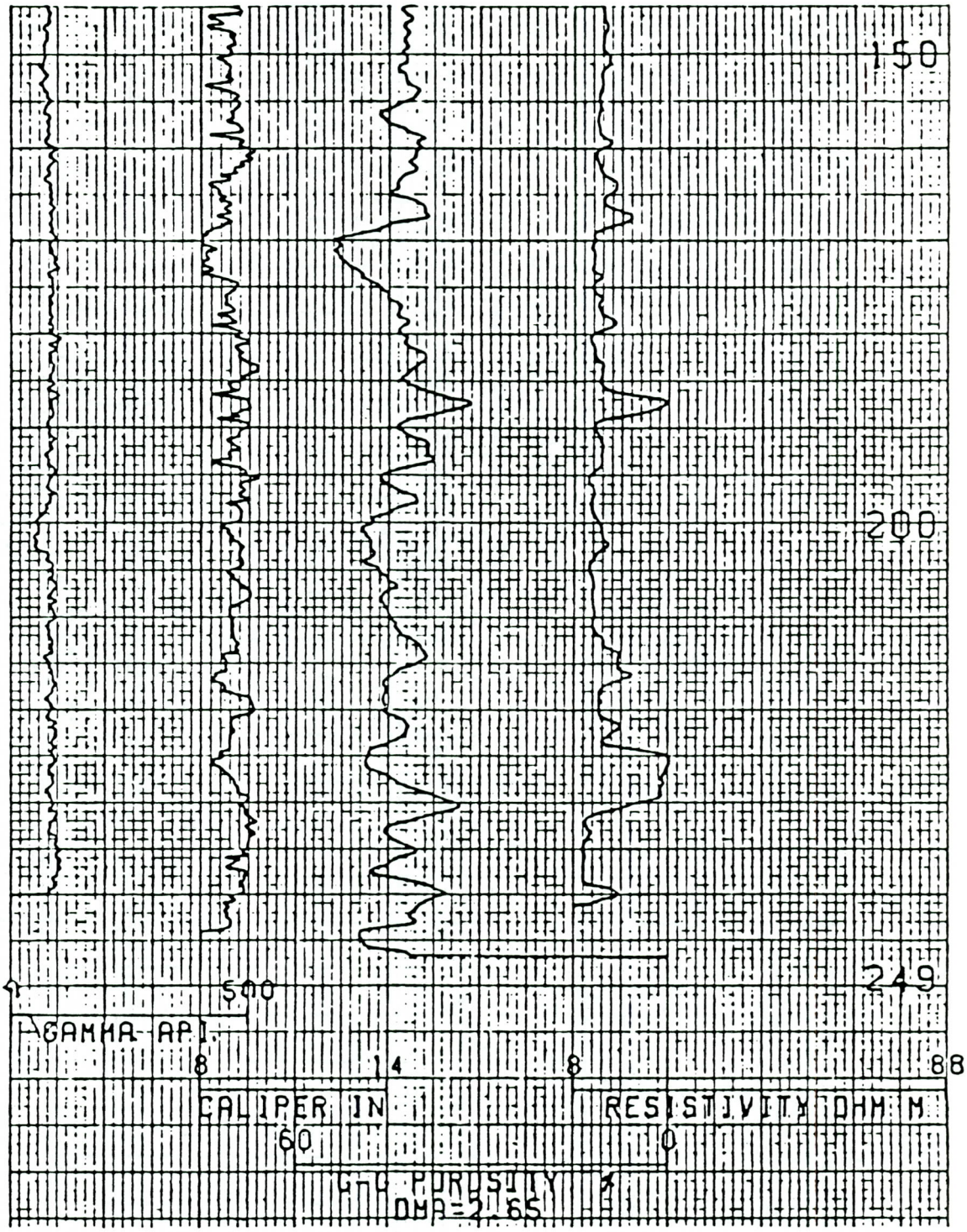

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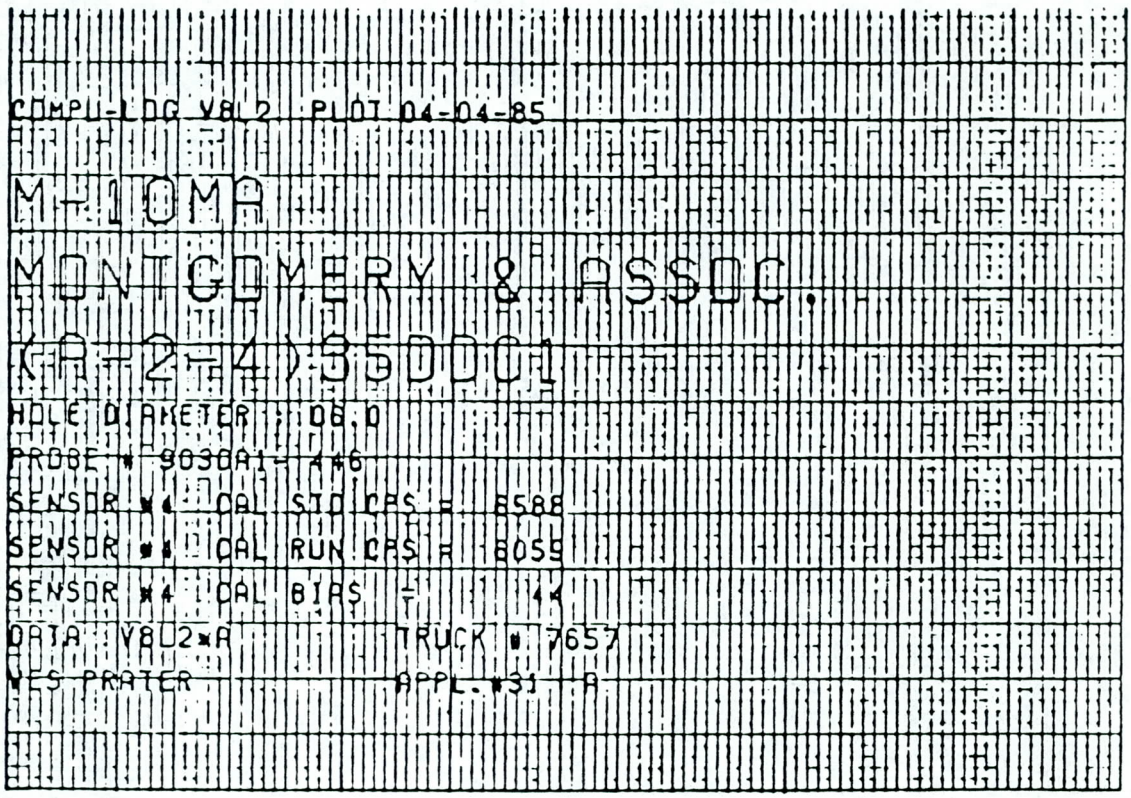
FIGURE ___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35ddc1[M-10MA]



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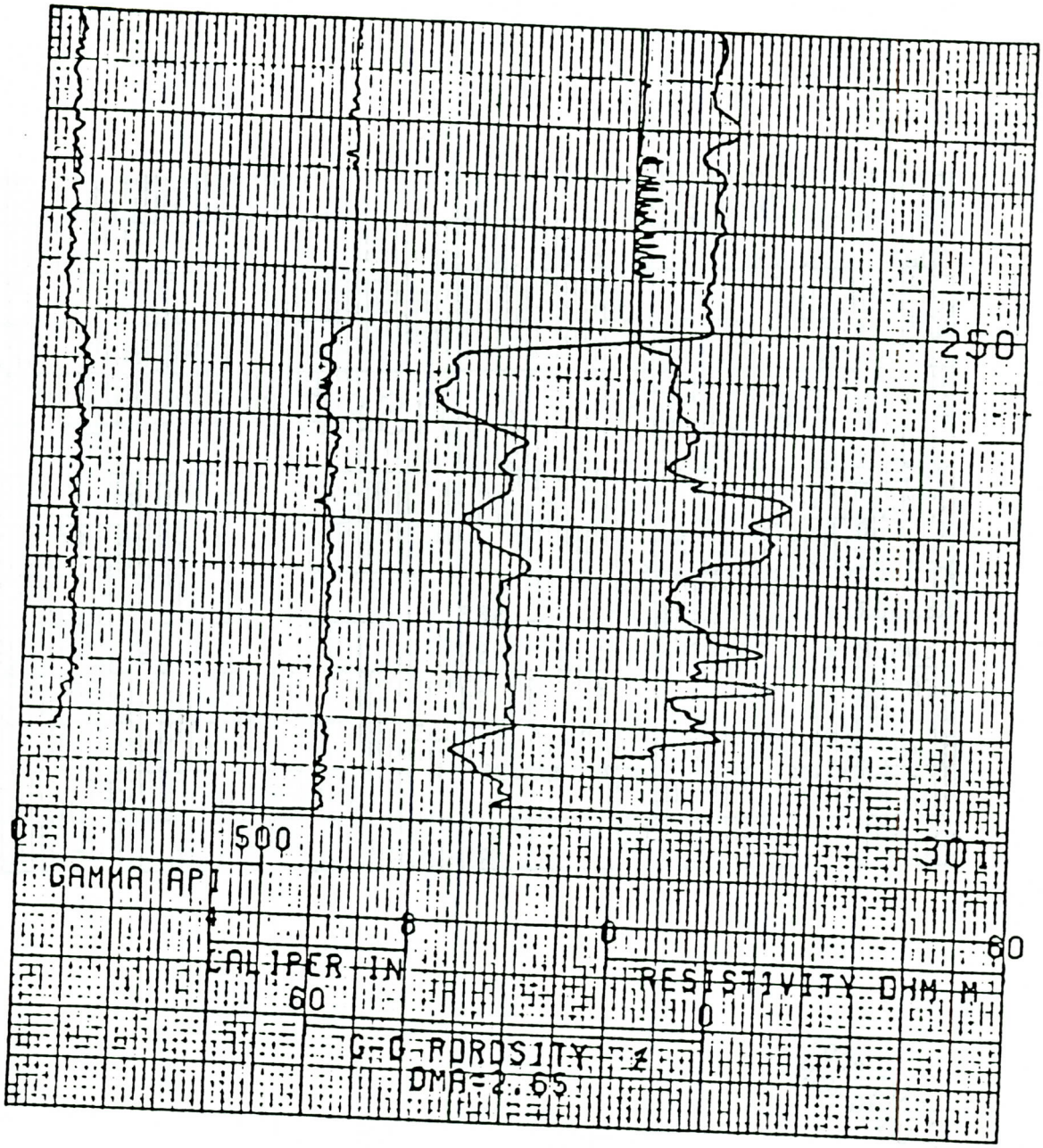
SUBJECT TO REVISION

FIGURE ___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35ddc1[M-10MA]



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SUBJECT TO REVISION

FIGURE ___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35ddc1[M-10MA]

DRAFT COPY
SUBJECT TO REVISION

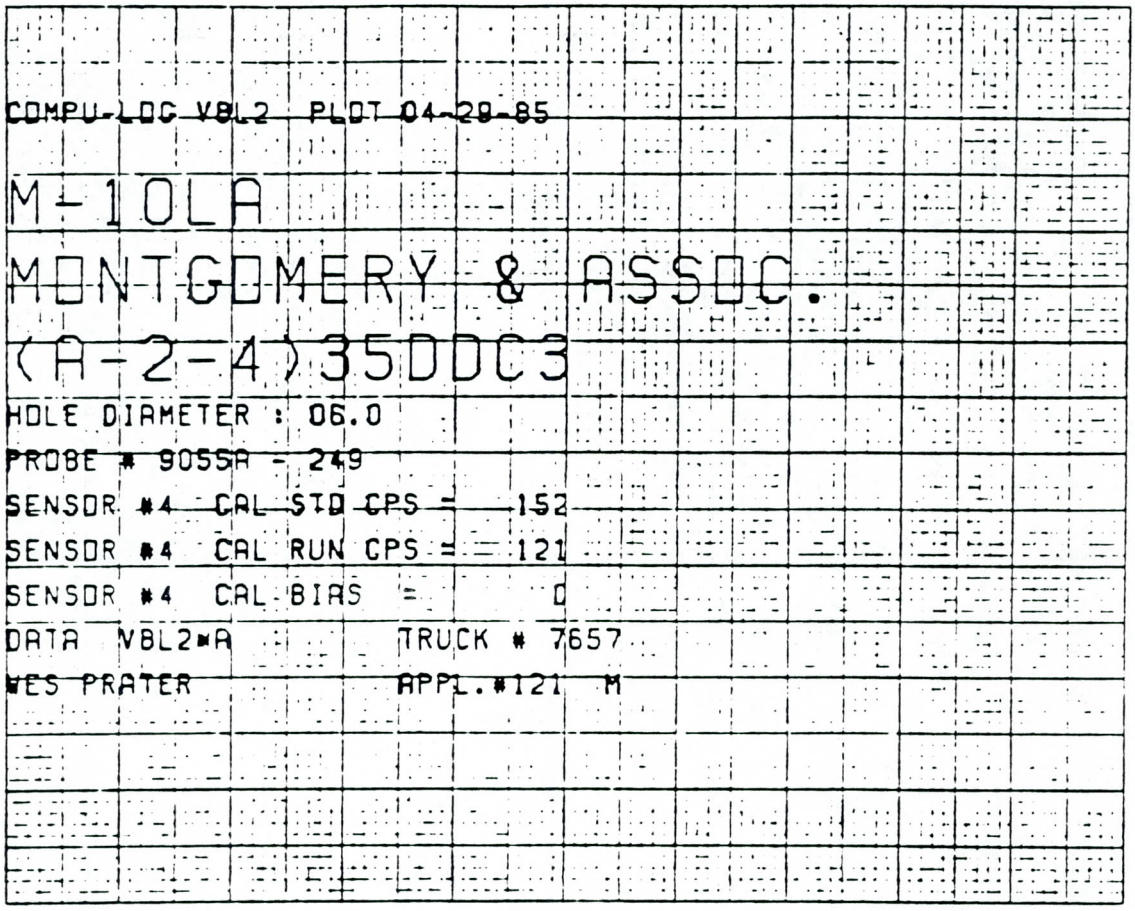

FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)35ddc3[M-10LA]

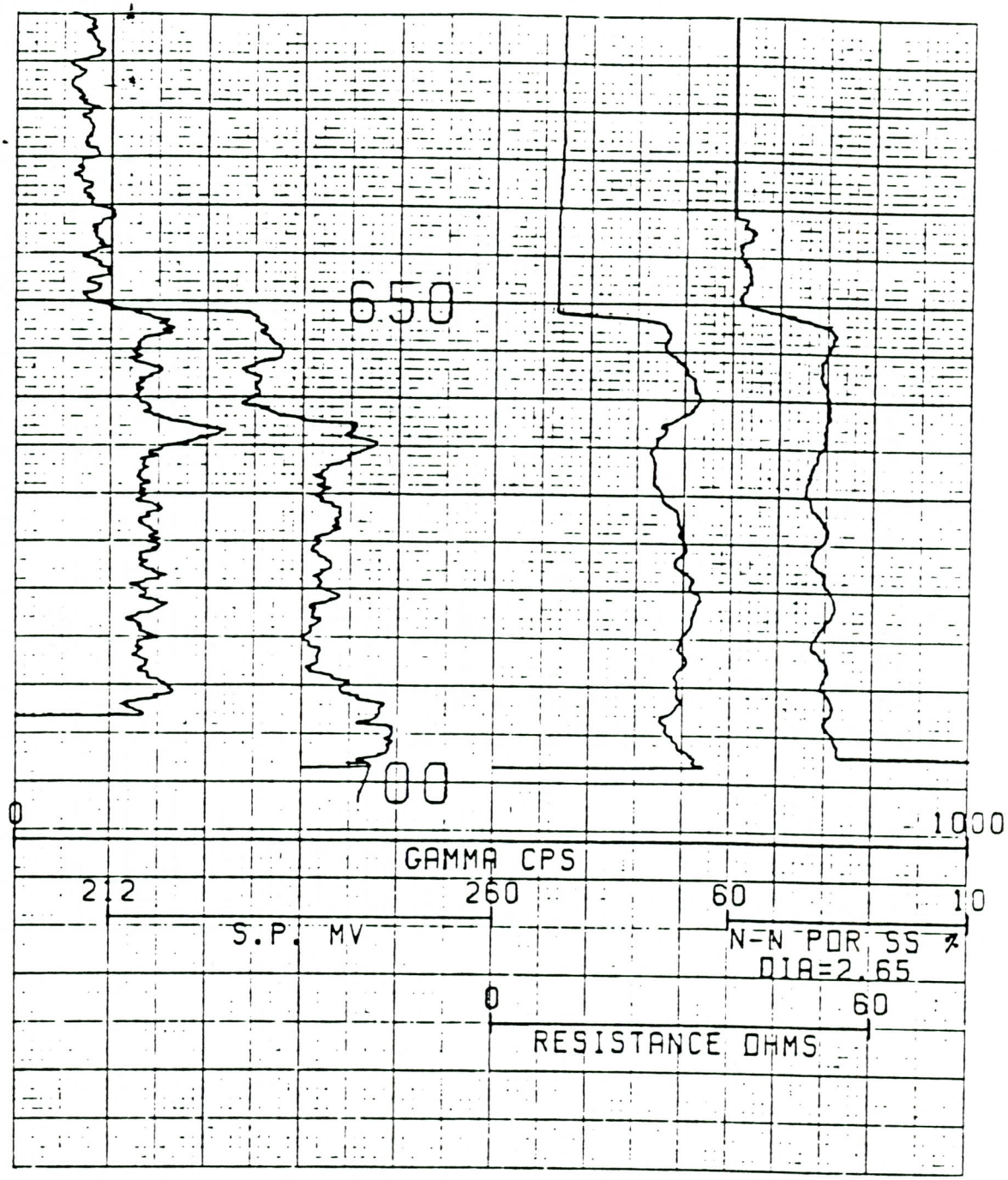

FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)35ddc3[M-10LA]

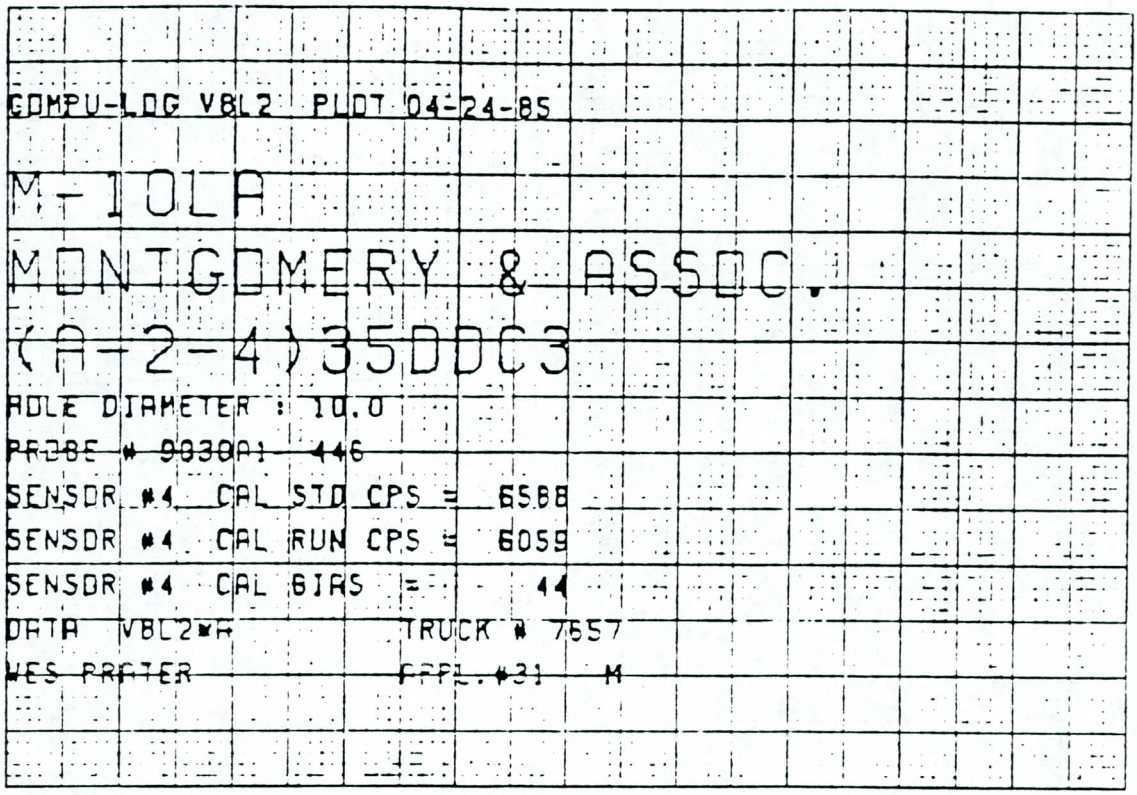

FIGURE___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35ddc3[M-10LA]

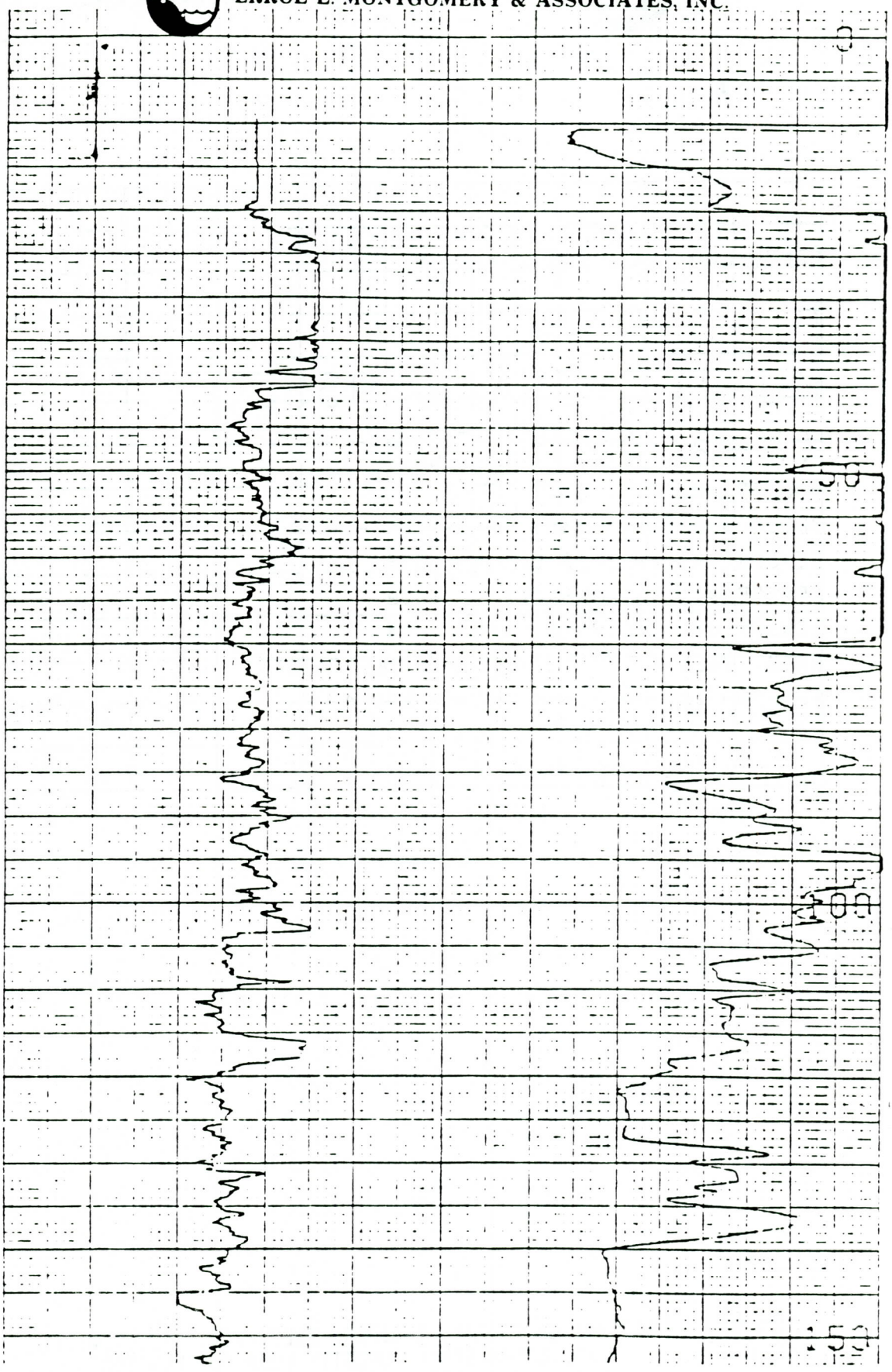

FIGURE___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-A)35dda3[M-10LA]

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SUBJECT TO REVISION

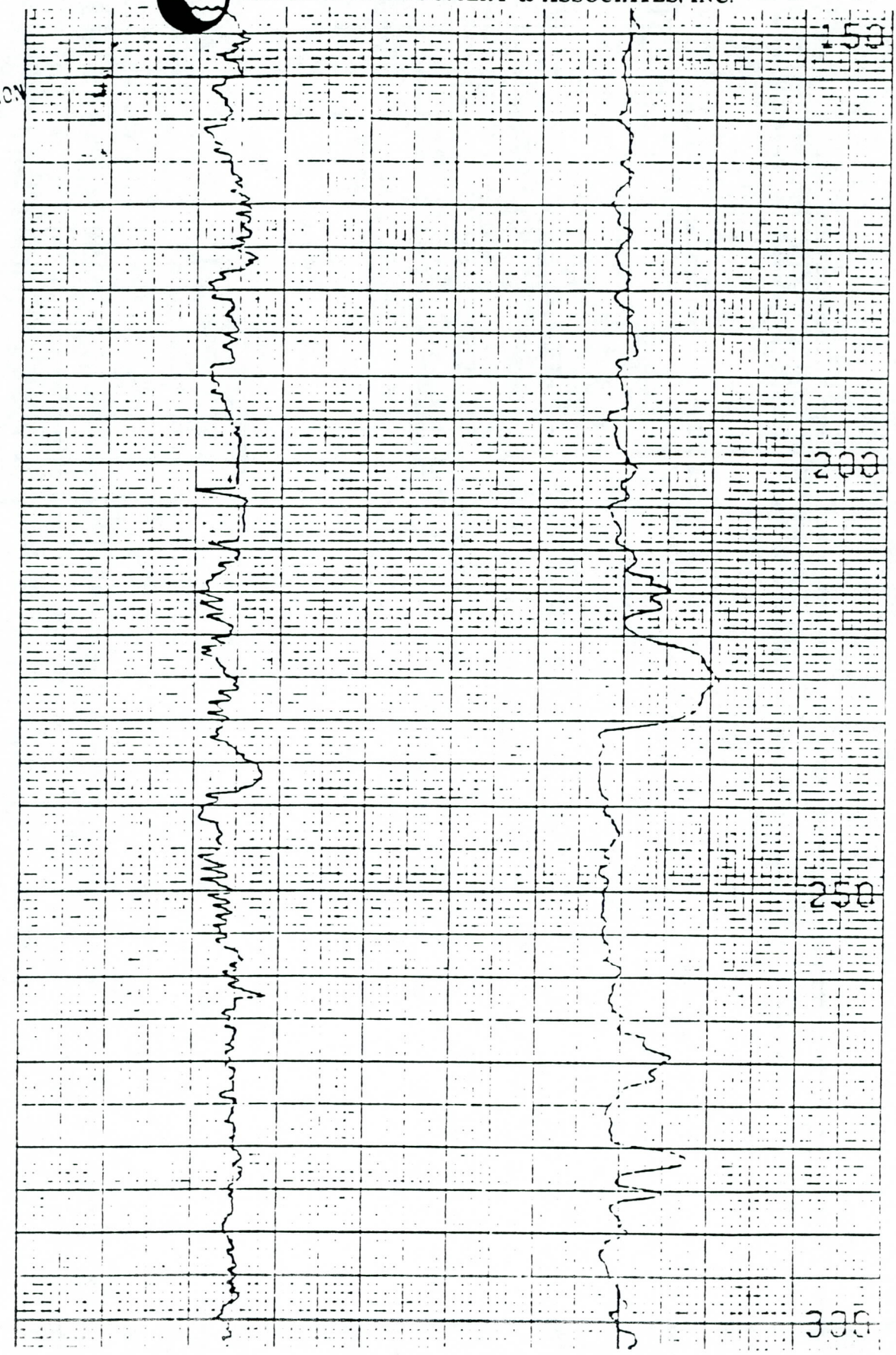

FIGURE___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR

ERROL L. MONTGOMERY & ASSOCIATES, INC.

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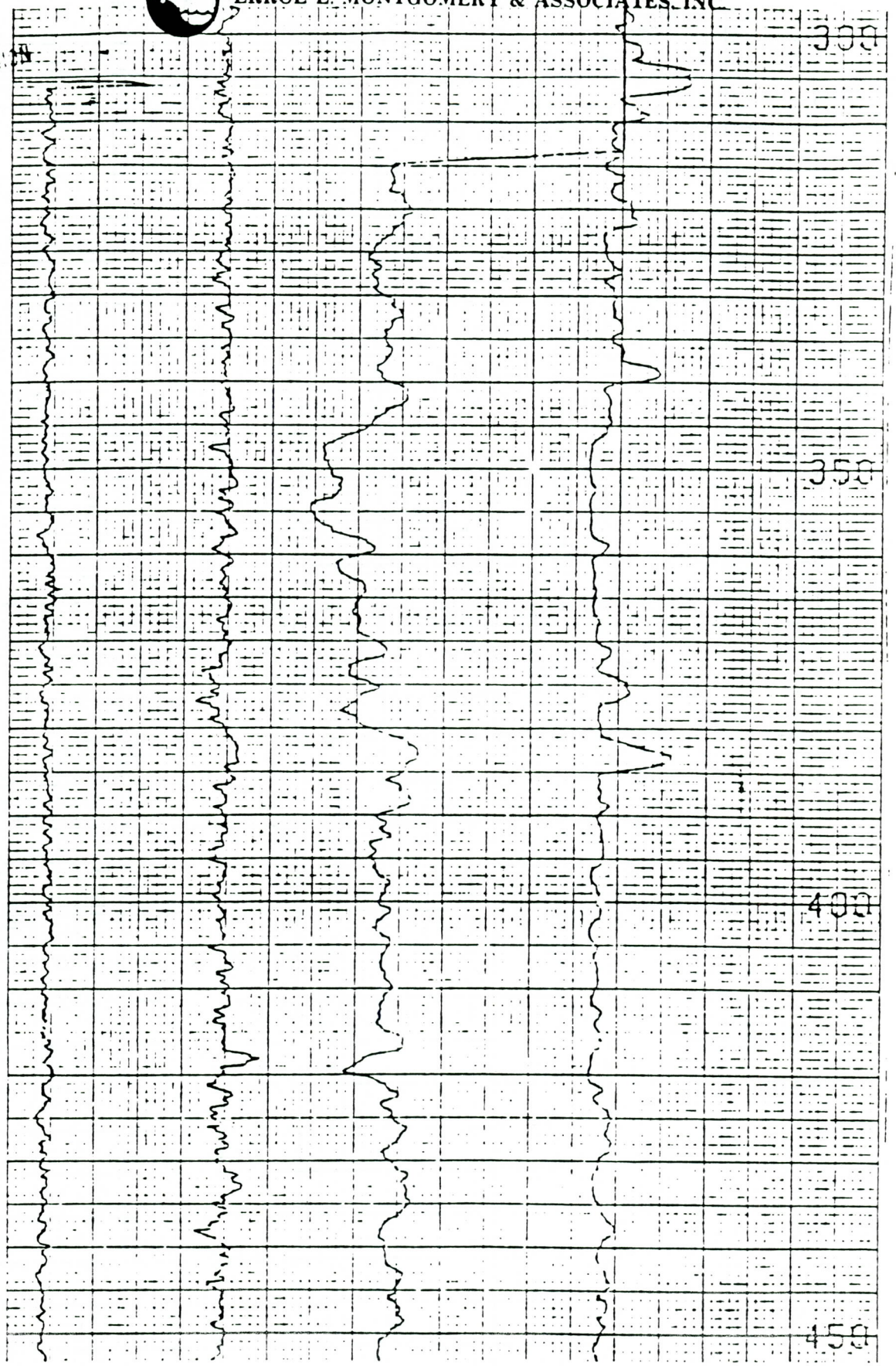

FIGURE___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR

ERROL L. MONTGOMERY & ASSOCIATES, INC.

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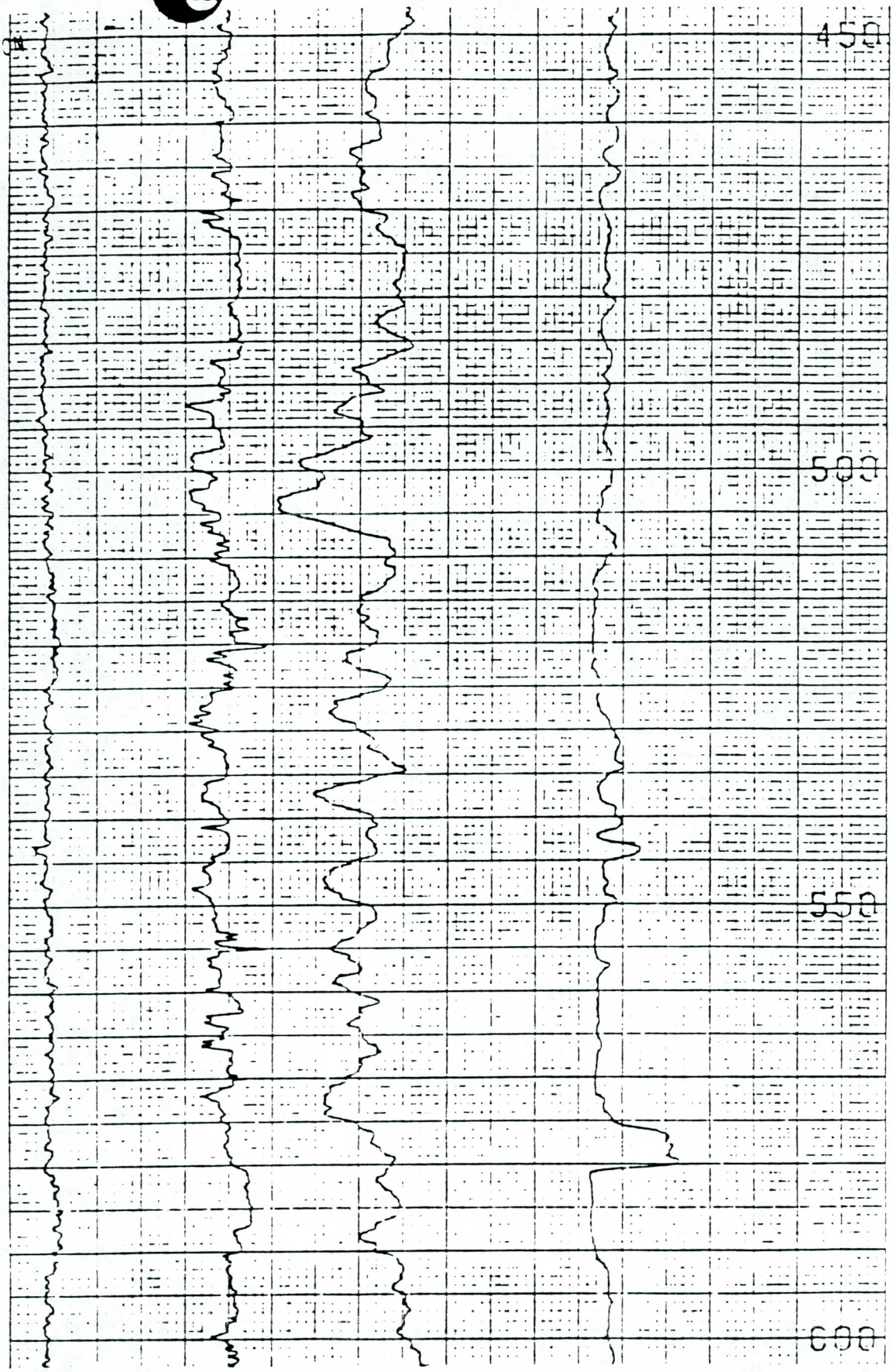

FIGURE___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR

C-77

DRAFT COPY
SUBJECT TO REVISION

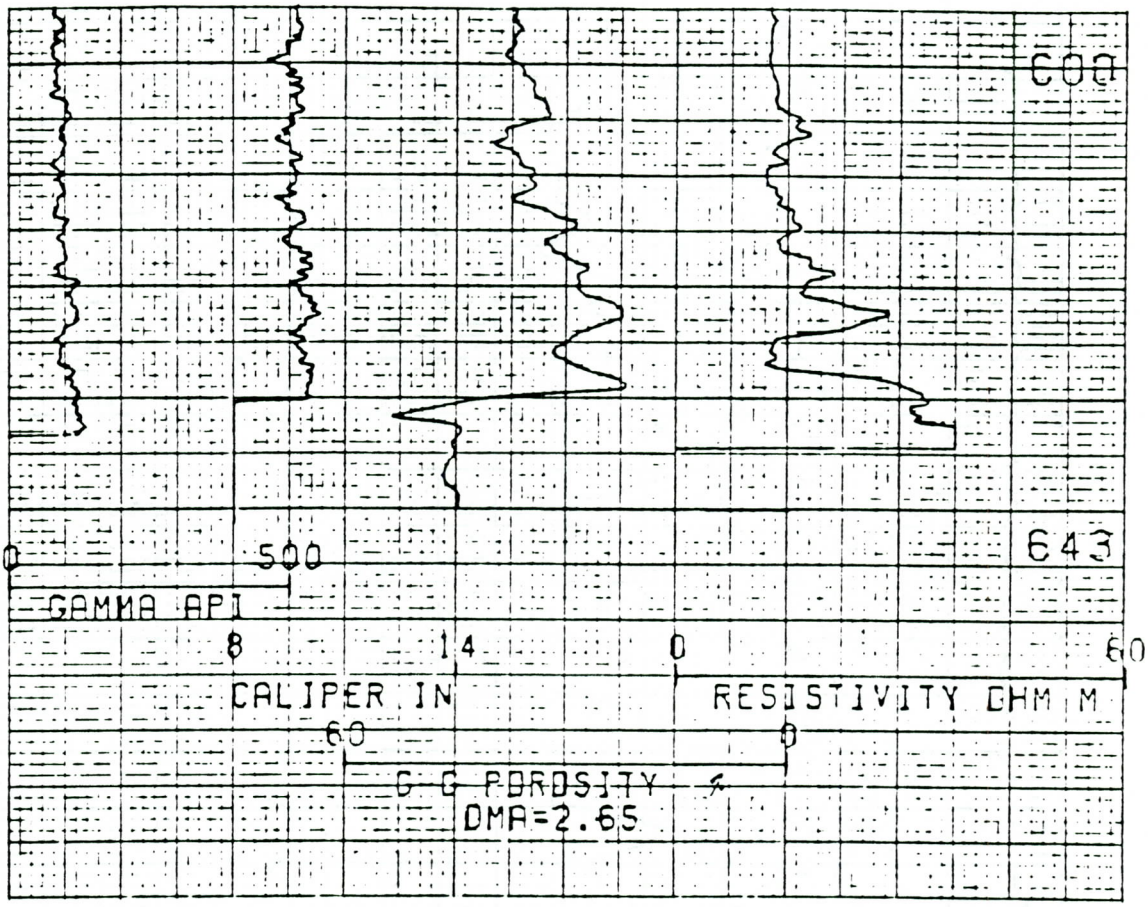

FIGURE___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35ddc3[M-10LA]

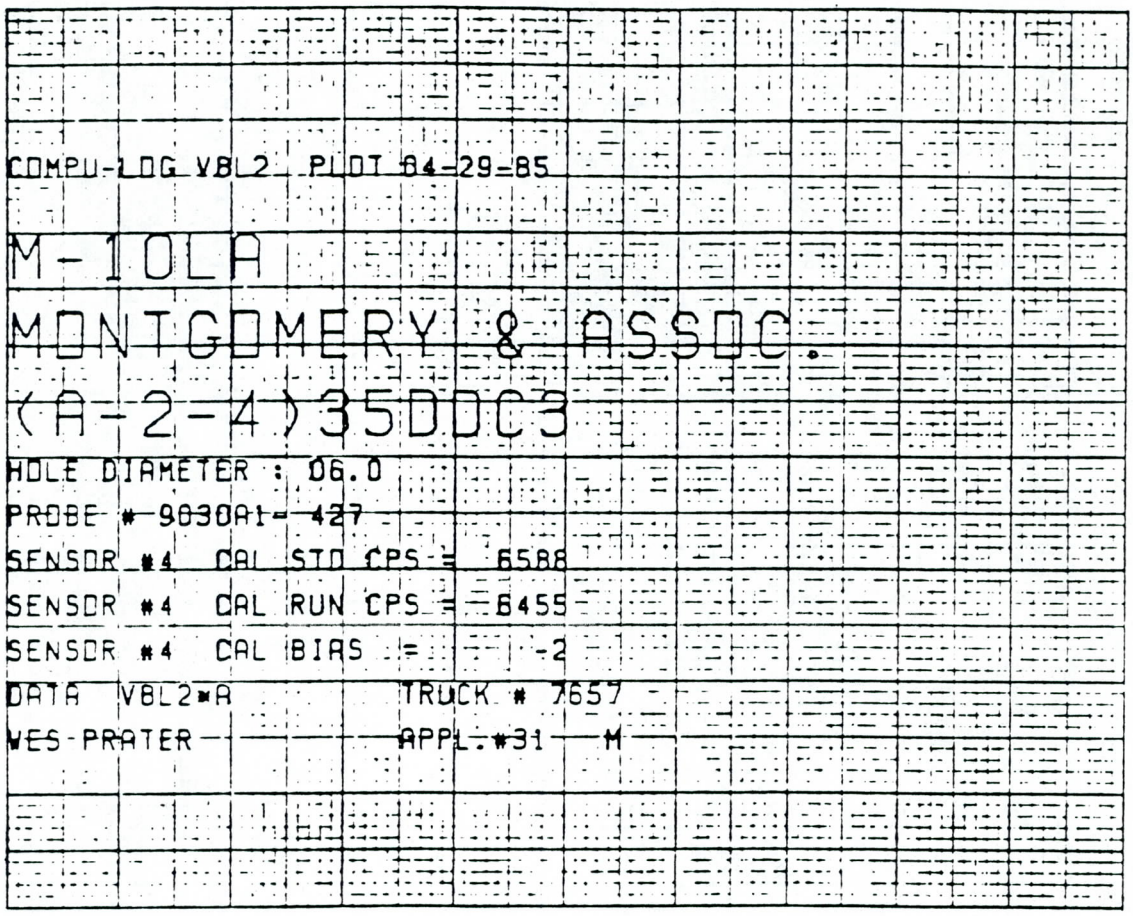

FIGURE___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35ddc3[M-10LA]

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SUBJECT TO REVISION

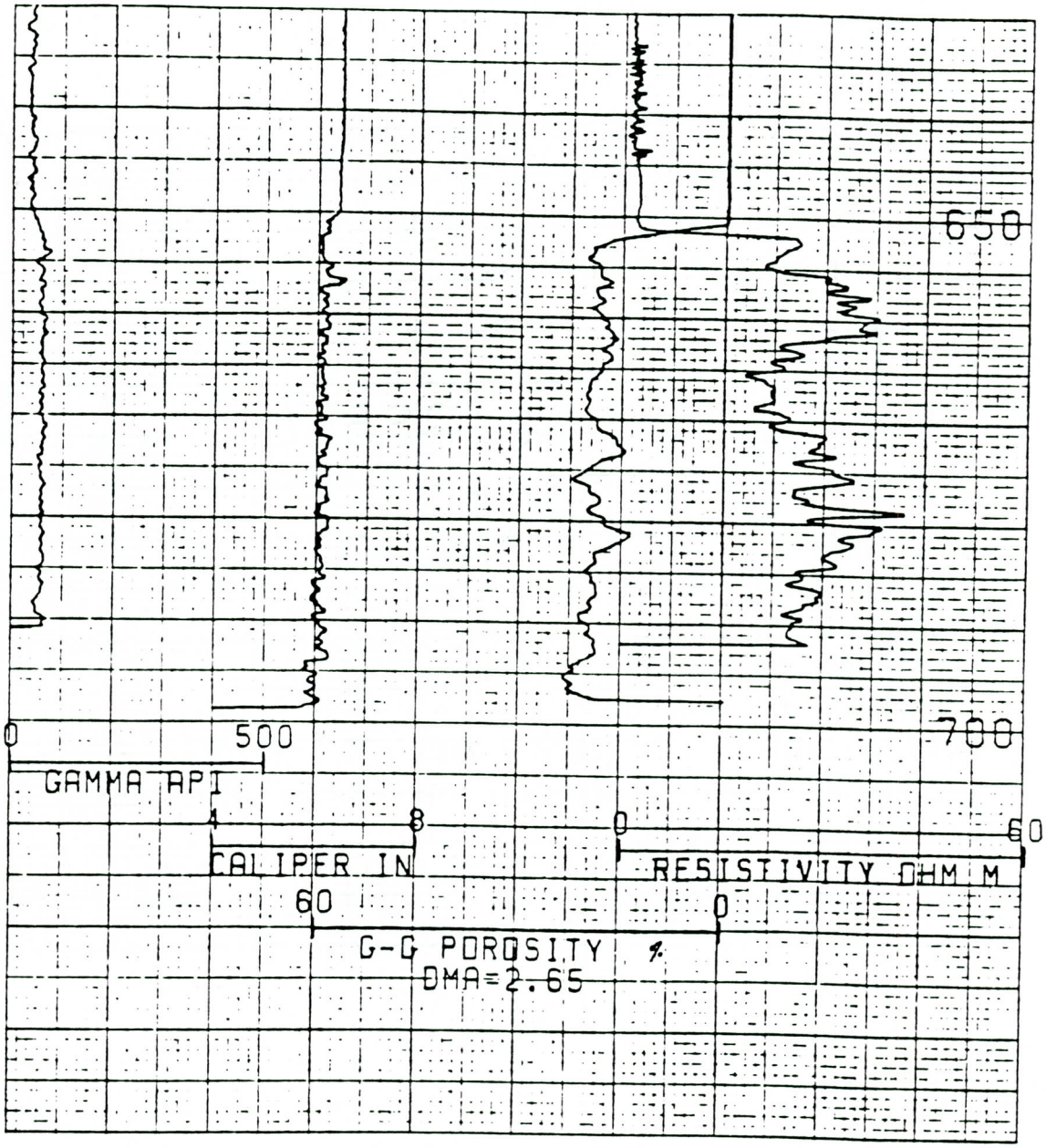

FIGURE___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35ddc3[M-10LA]

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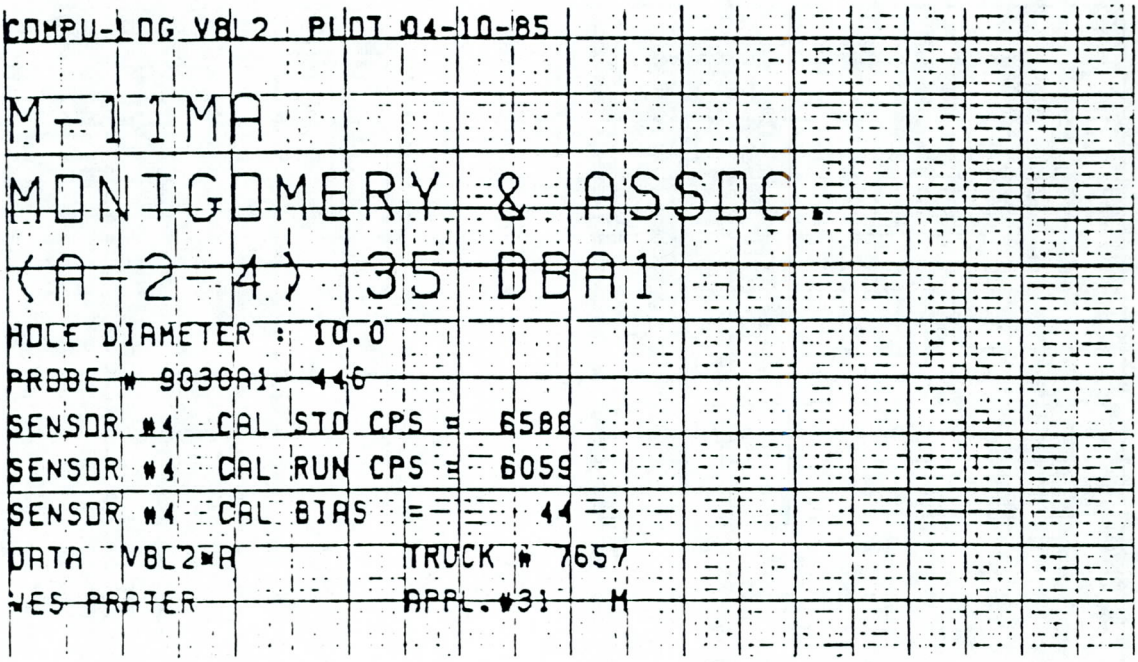

FIGURE ____. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35dba1[M-11MA]

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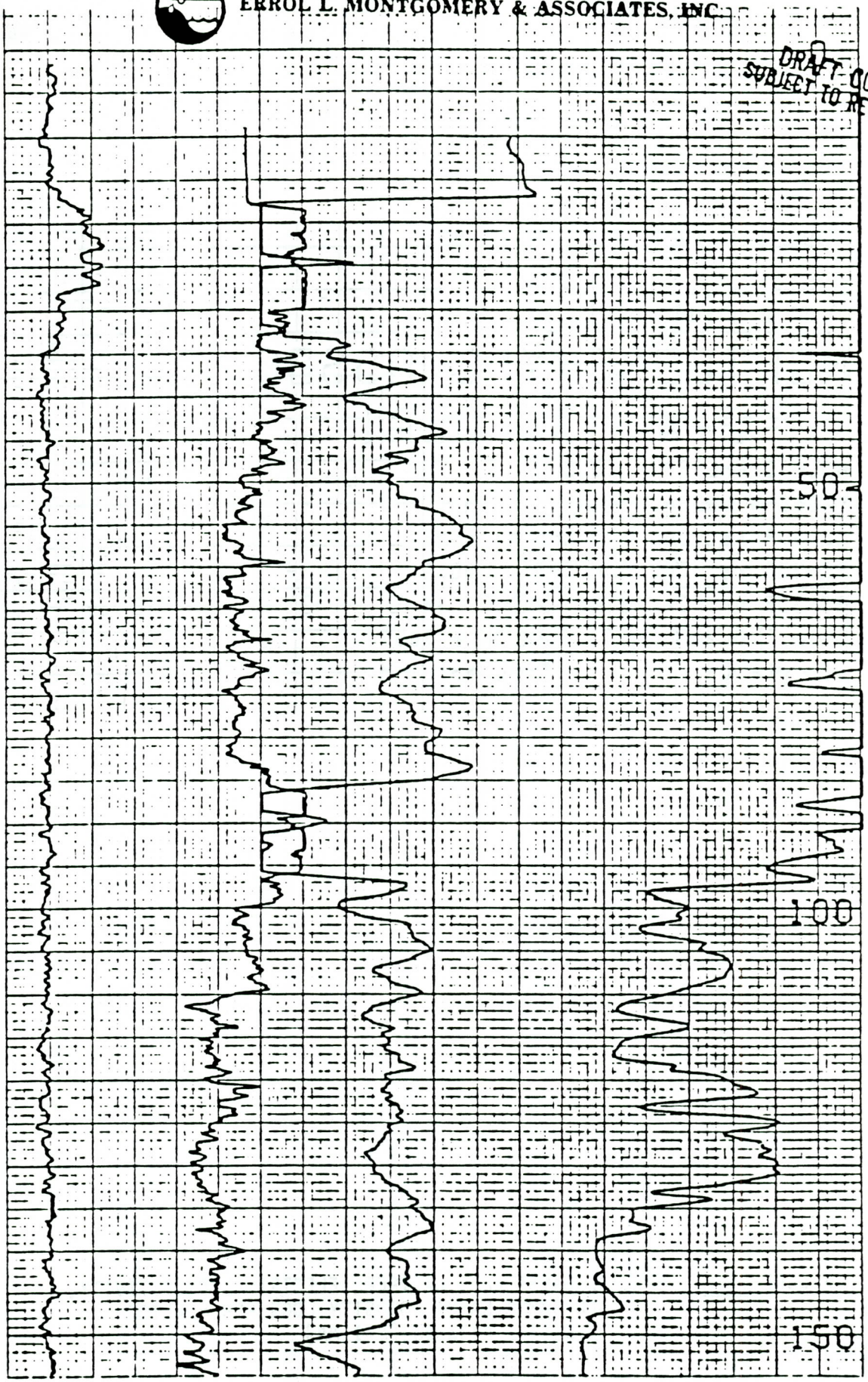

FIGURE ____. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY,

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SUBJECT TO REVISION

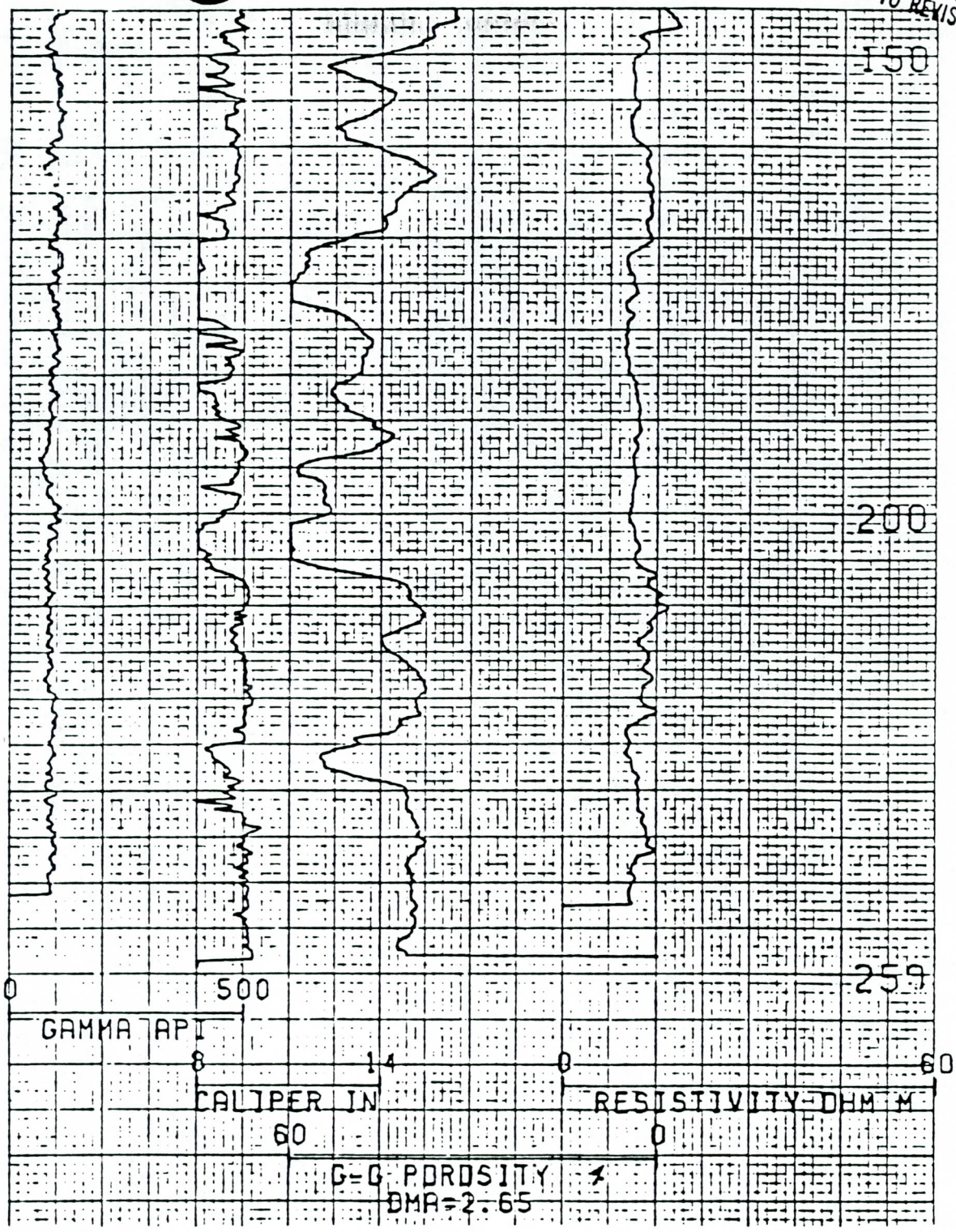

FIGURE ____. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35dba1[M-11MA]

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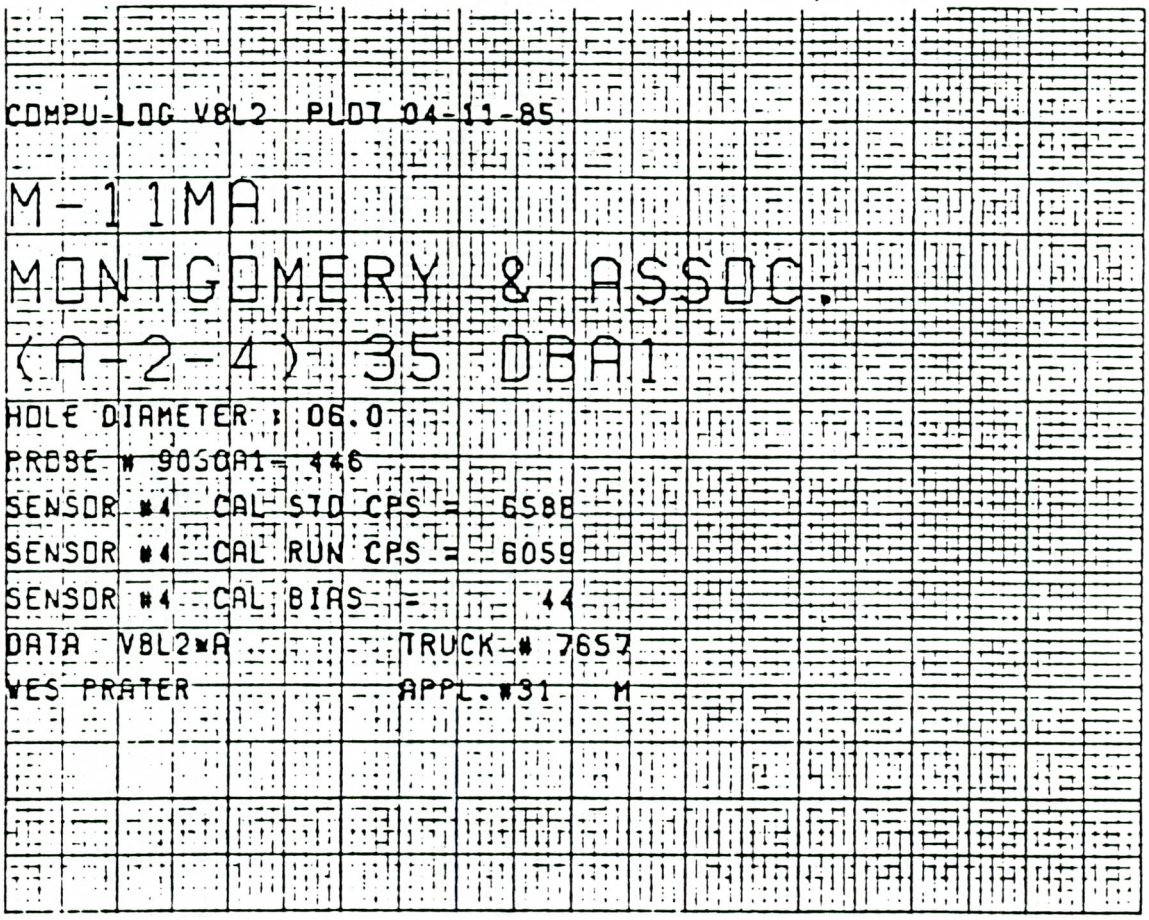

FIGURE ____. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35dba1[M-11MA]

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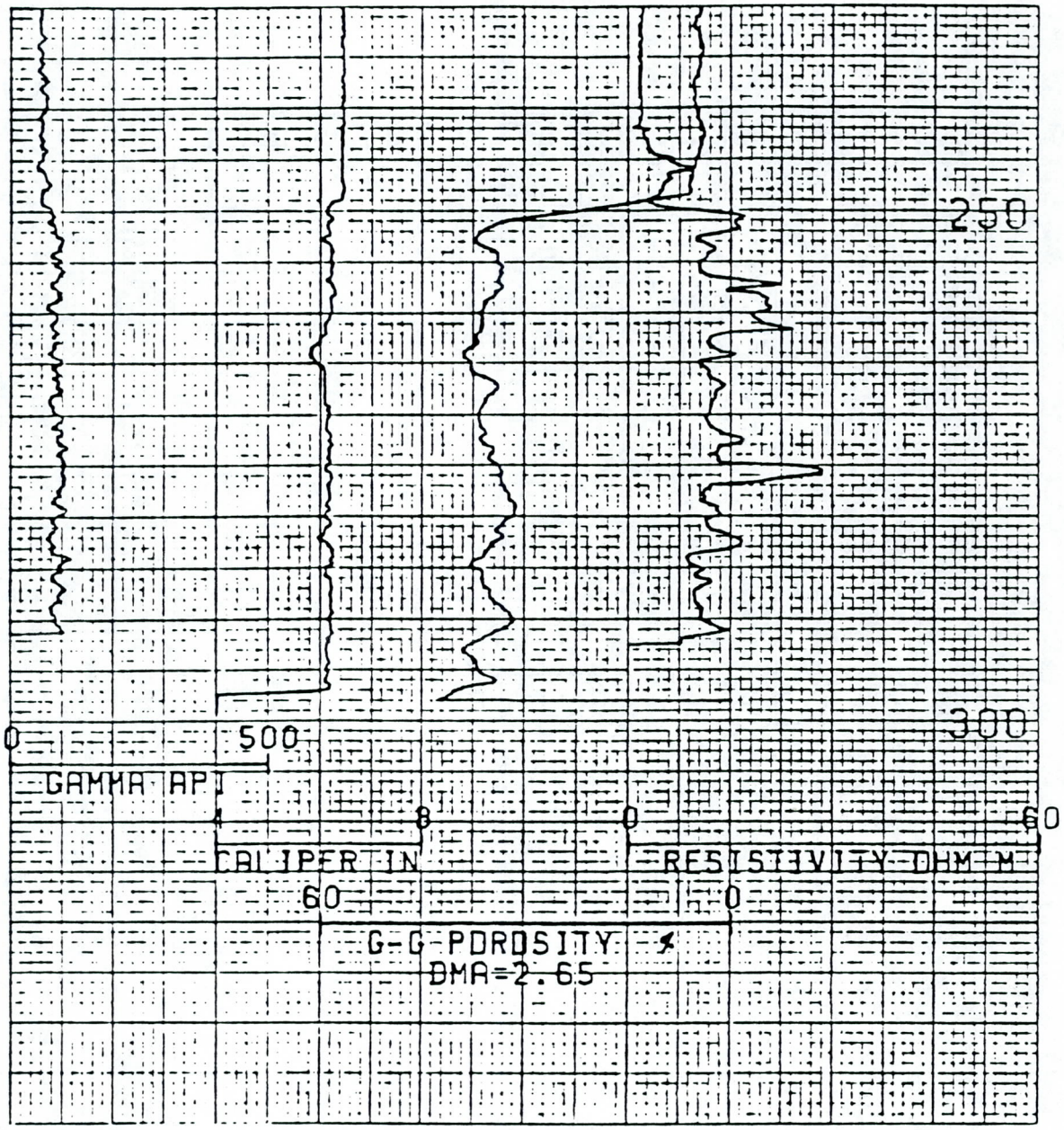

FIGURE ____. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)35dbal[M-11MA]

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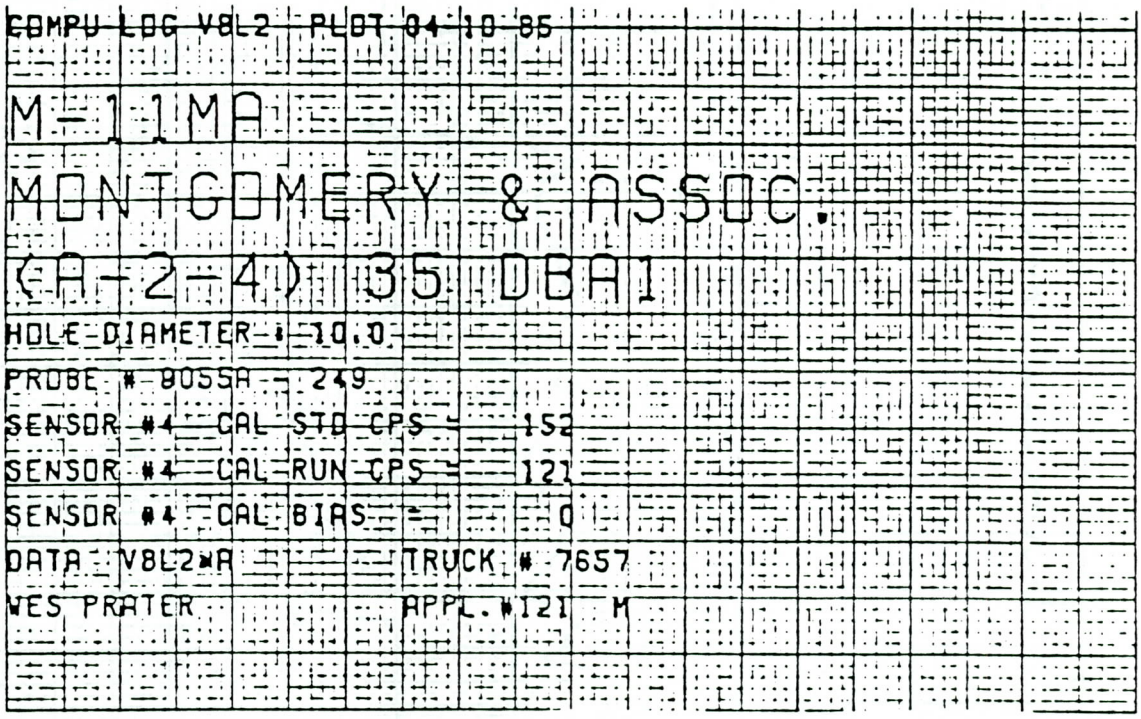

FIGURE ____. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)35dba1[M-11MA]

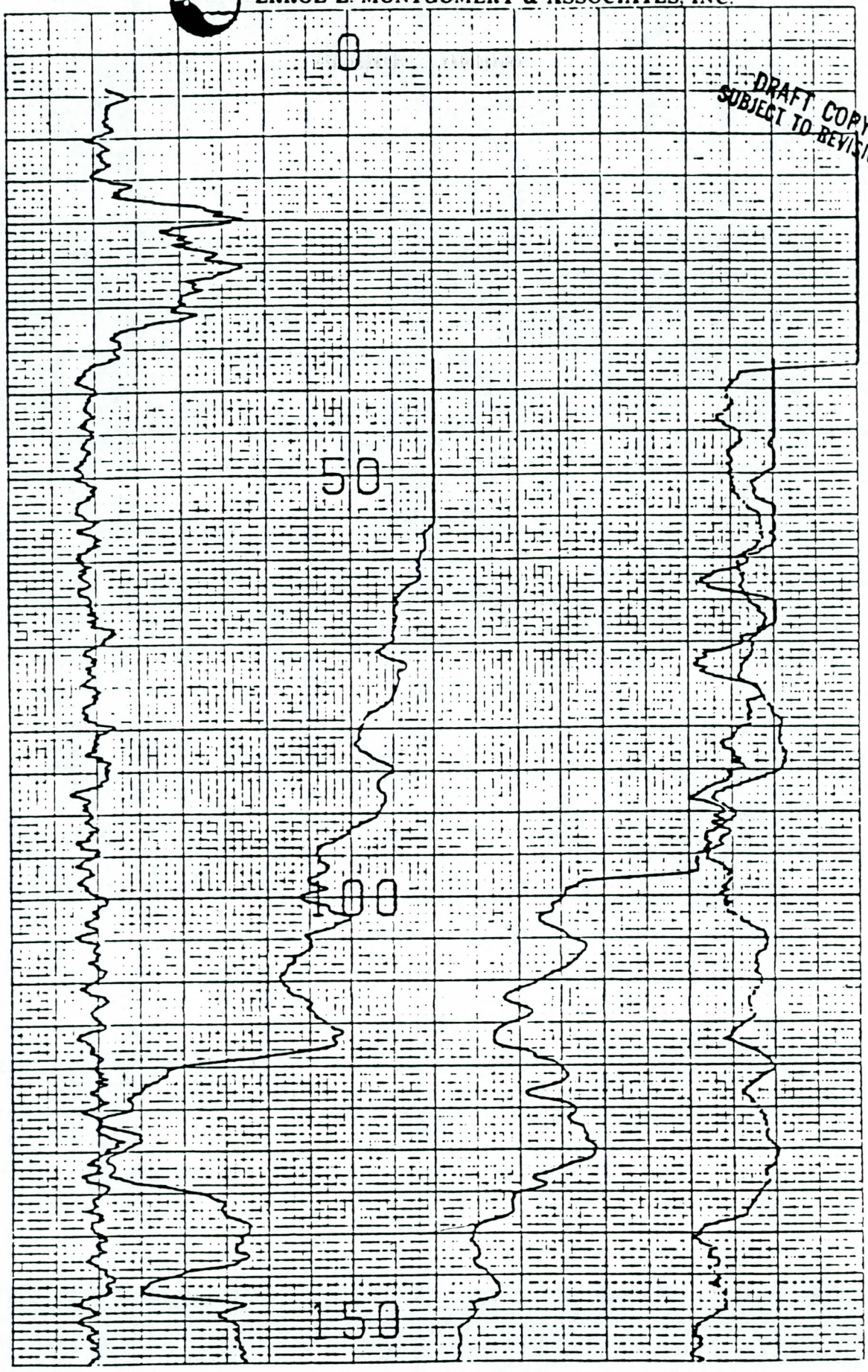

FIGURE NATURAL GAMMA RAY SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON C-87

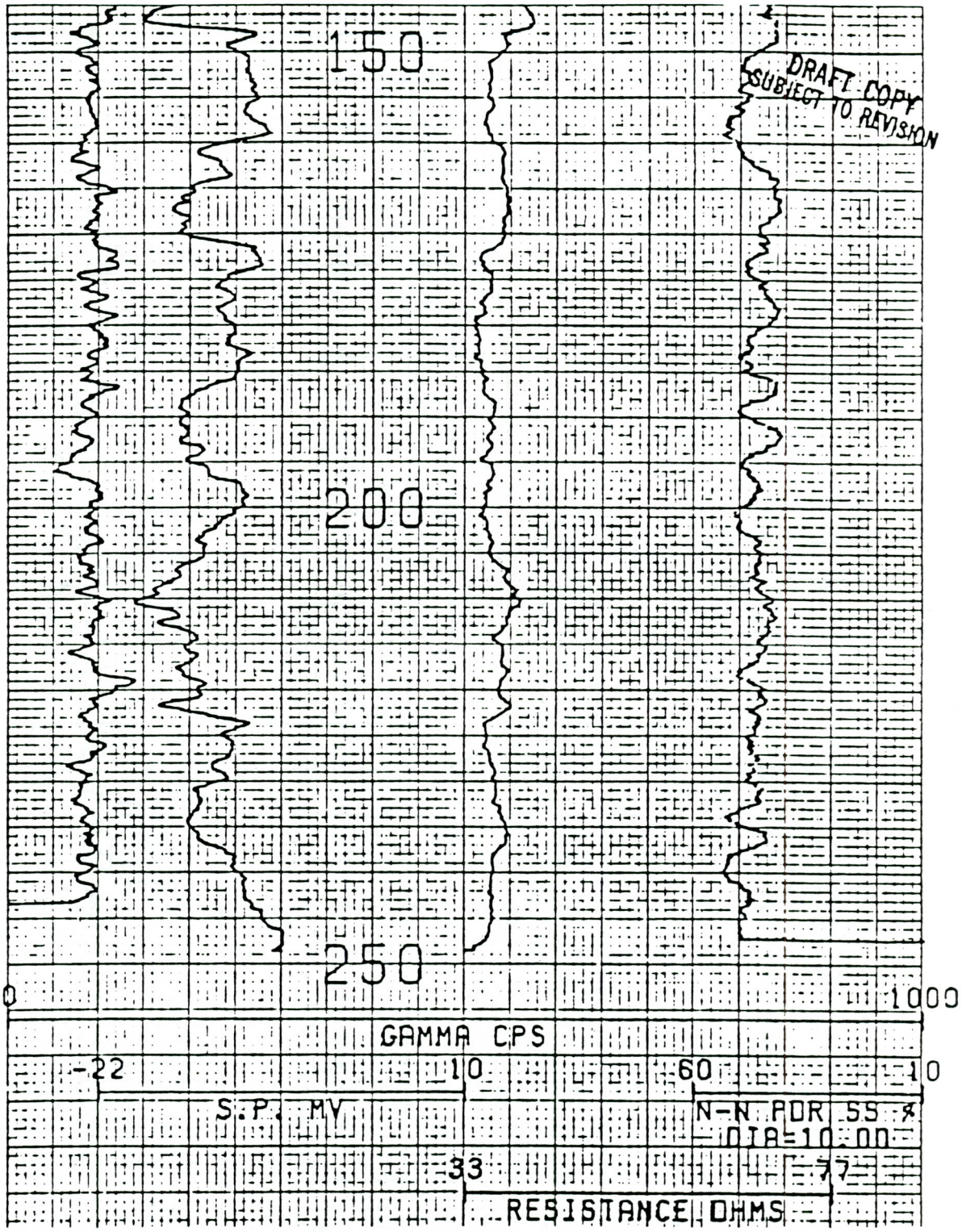

FIGURE ____. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)35dbal[M-11MA]

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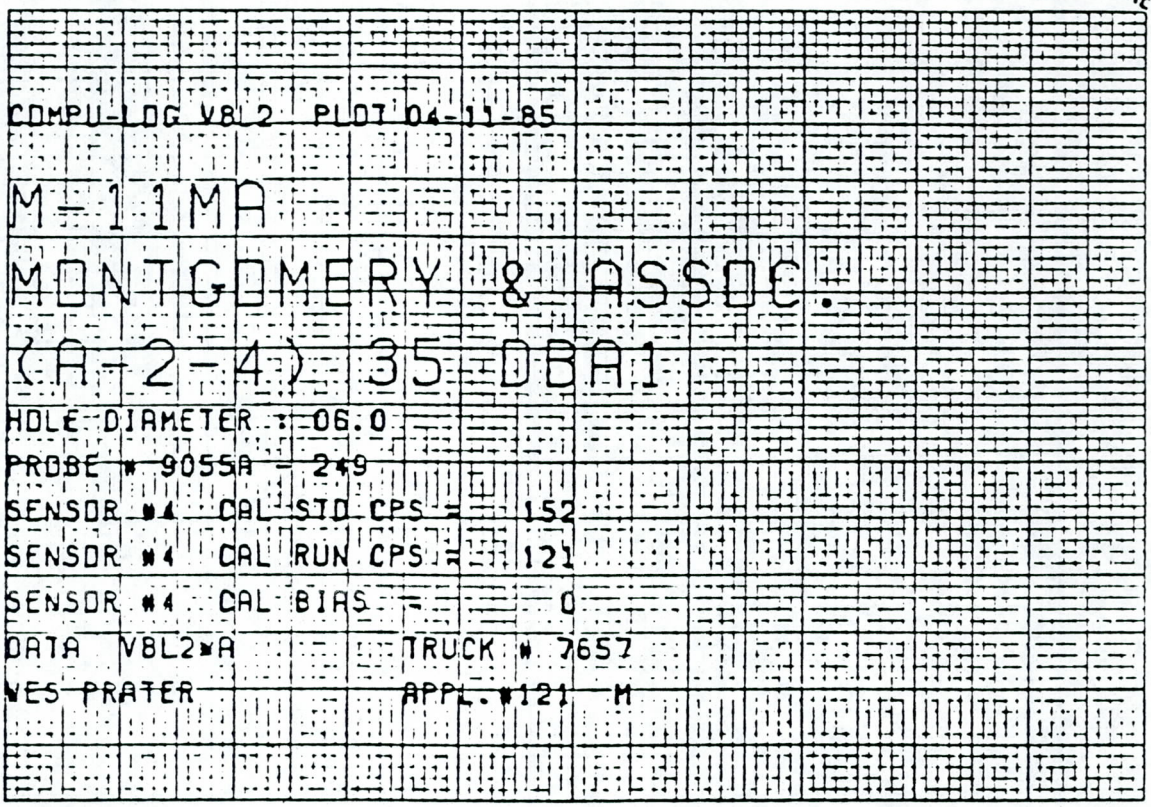

FIGURE ____. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)35dba1[M-11MA]

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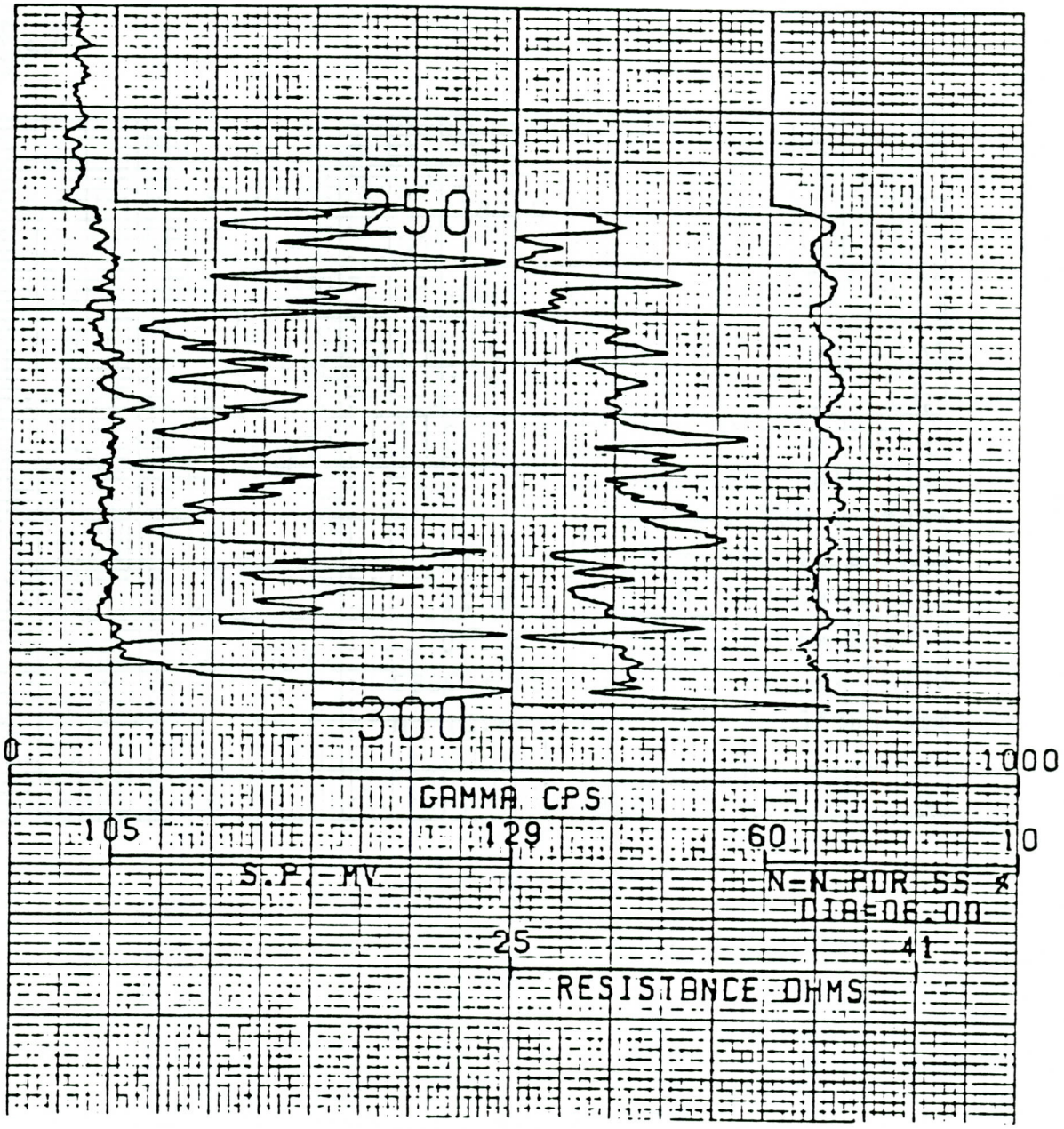

FIGURE ____. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)35dbal[M-11MA]

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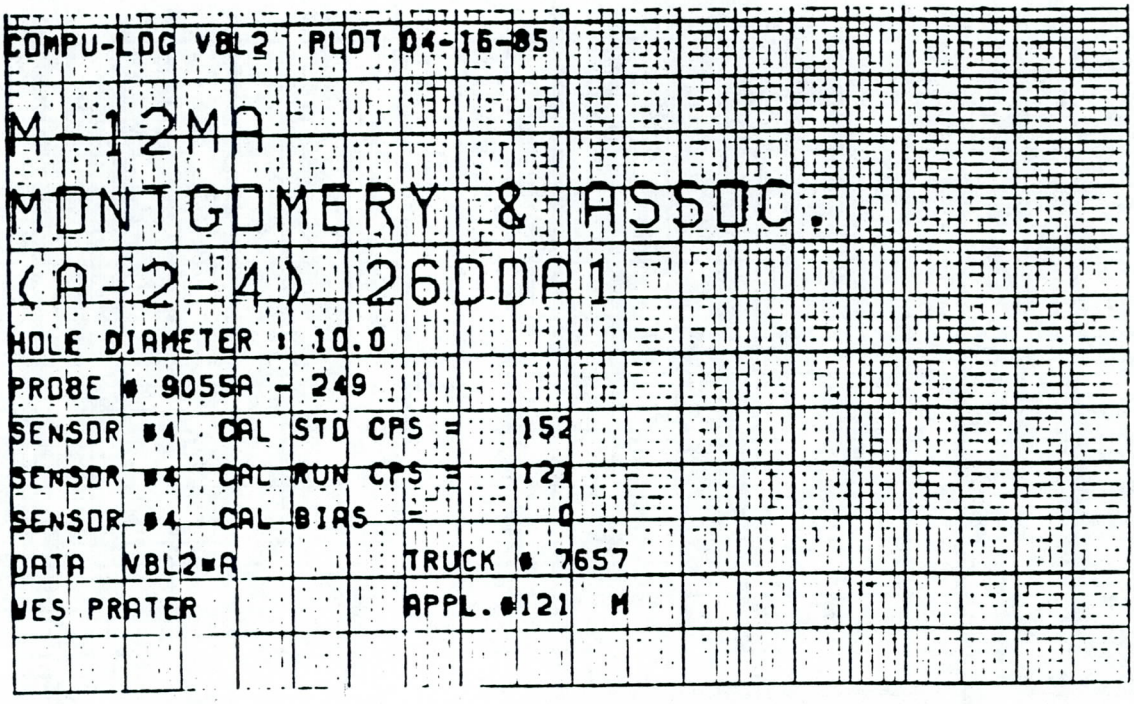

FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)26ddal[M-12MA]

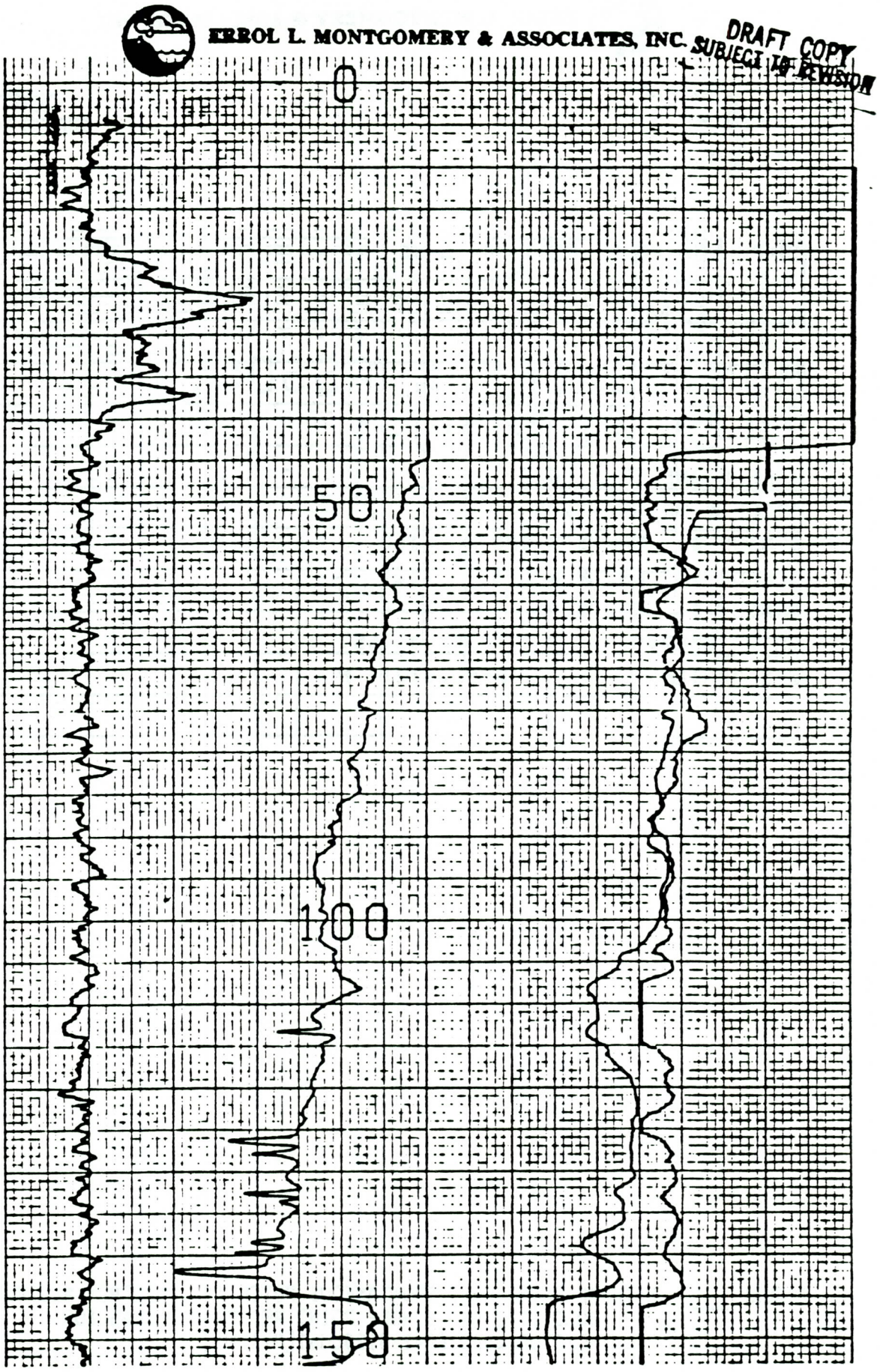

FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY. AND SINGLE POINT RESISTANCE LOGS FOR

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SUBJECT TO REVISION

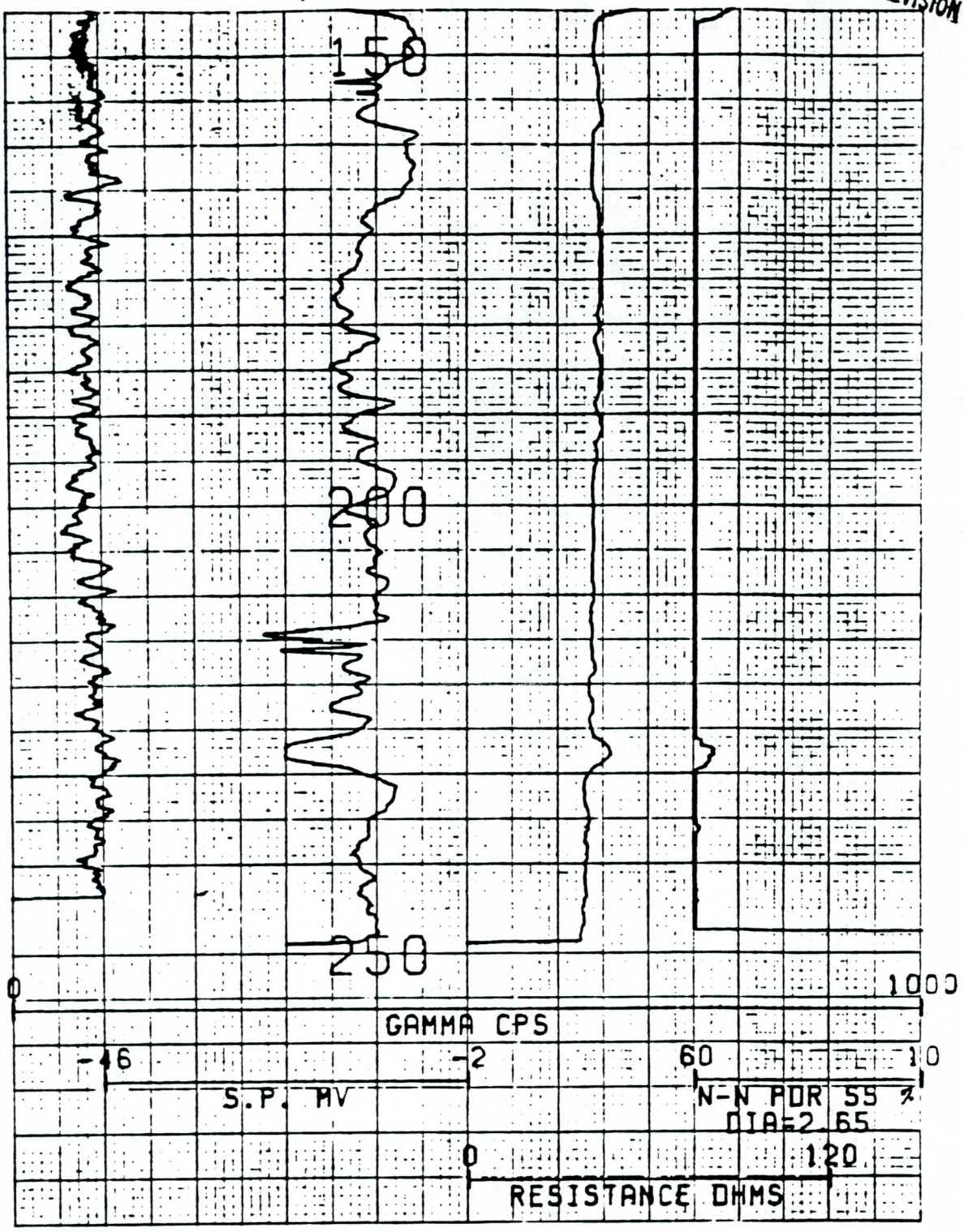

FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)26ddal[M-12MA]

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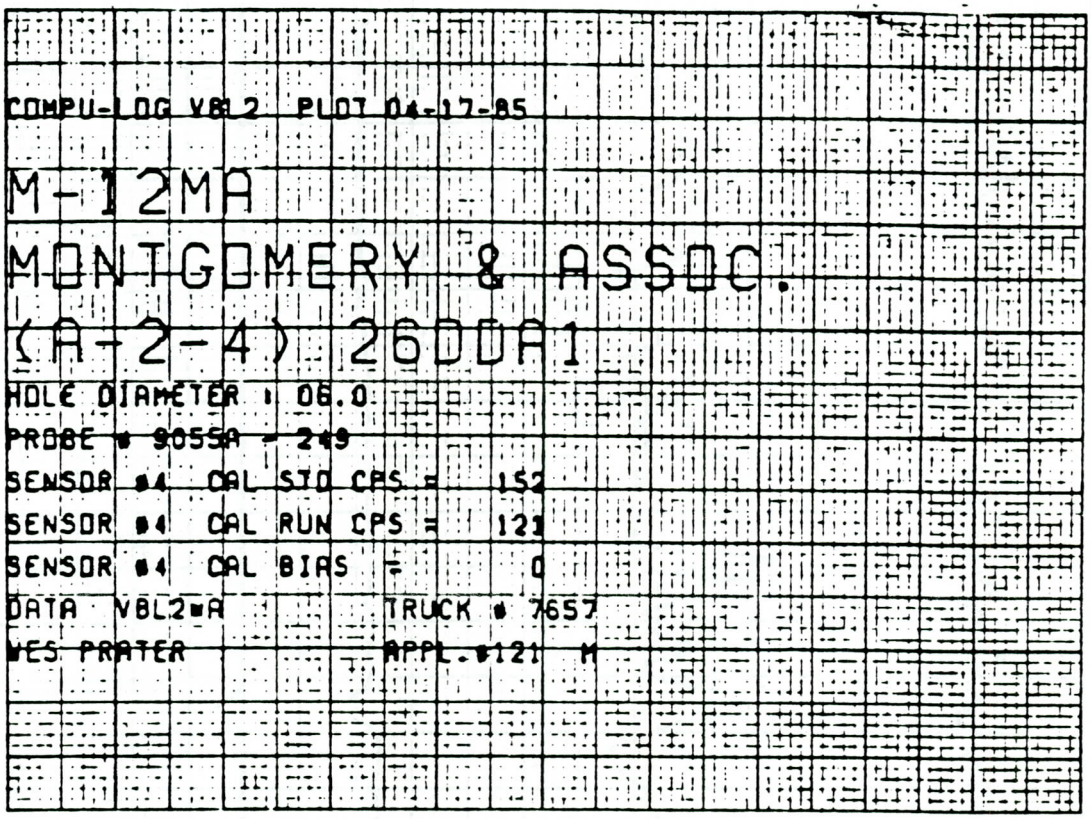

FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)26ddal[M-12MA]

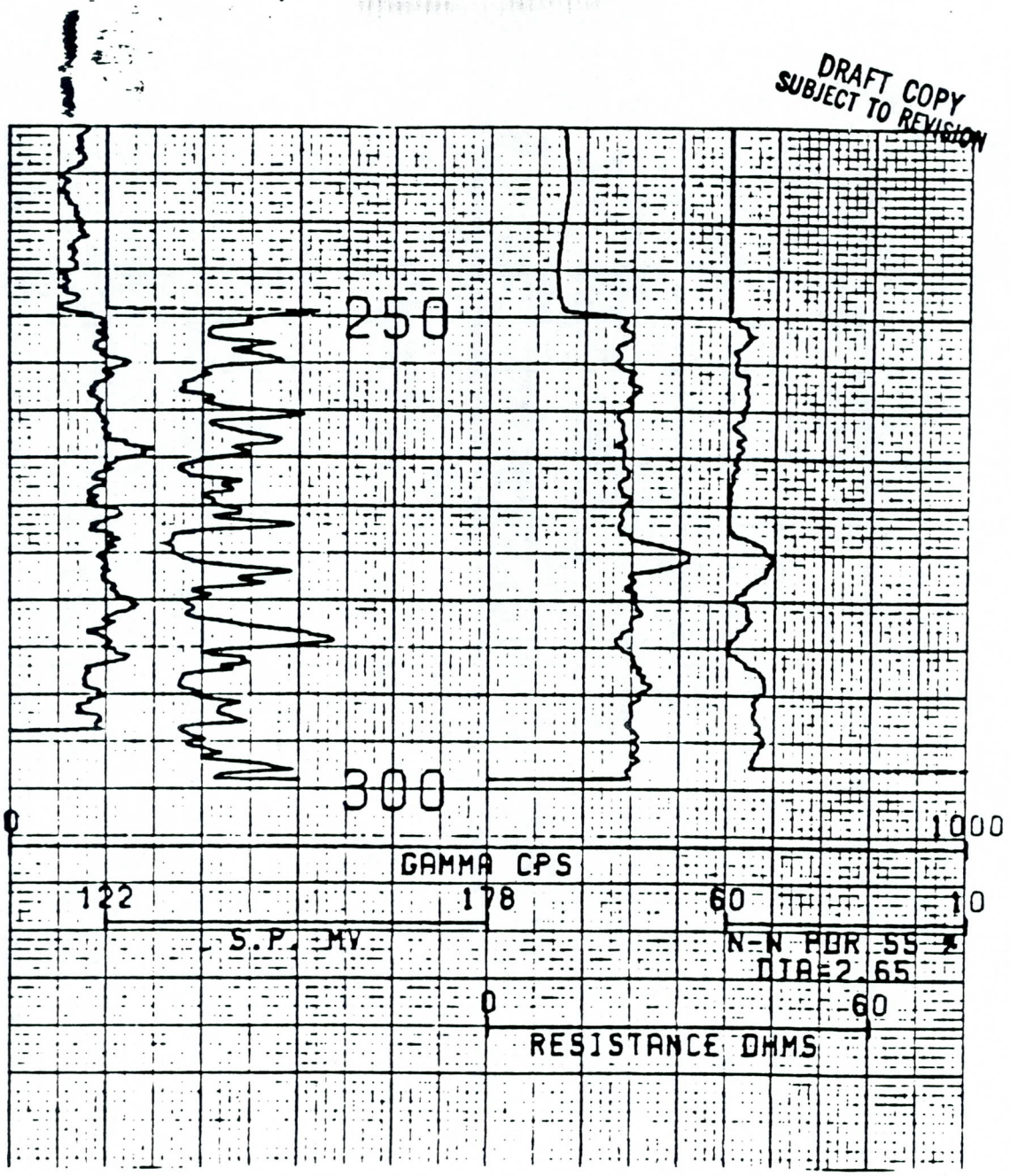

FIGURE ___. NATURAL GAMMA RAY, SPONTANEOUS POTENTIAL, NEUTRON-NEUTRON POROSITY, AND SINGLE POINT RESISTANCE LOGS FOR MONITOR WELL (A-2-4)26ddal[M-12MA]

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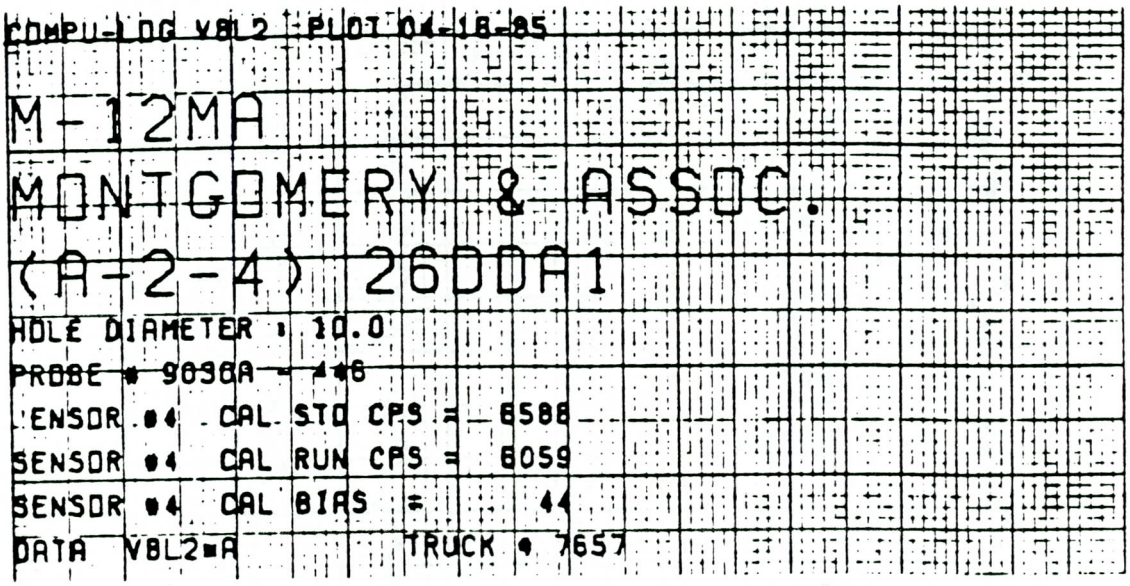
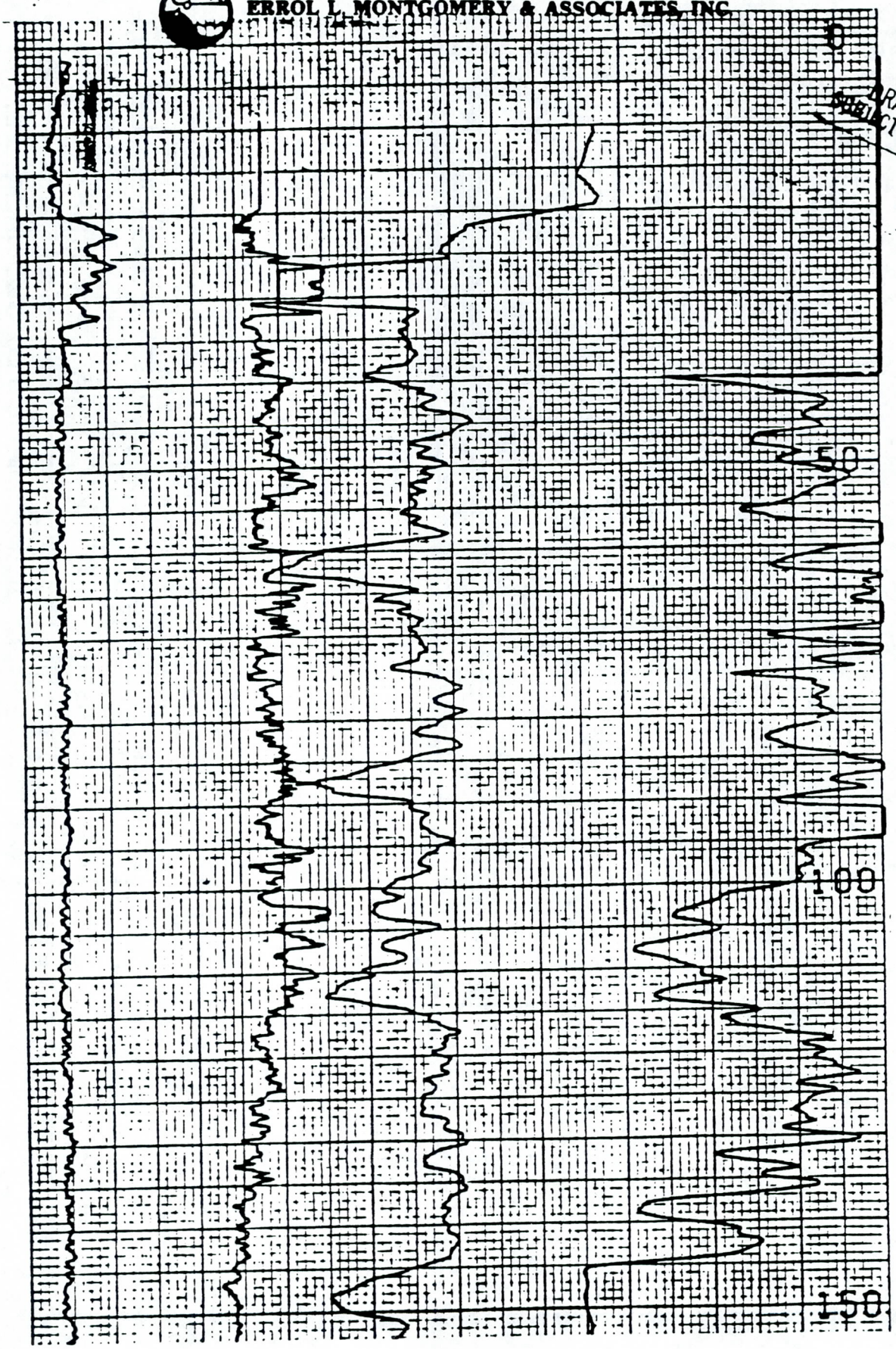


FIGURE ___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)26ddal[M-12MA]



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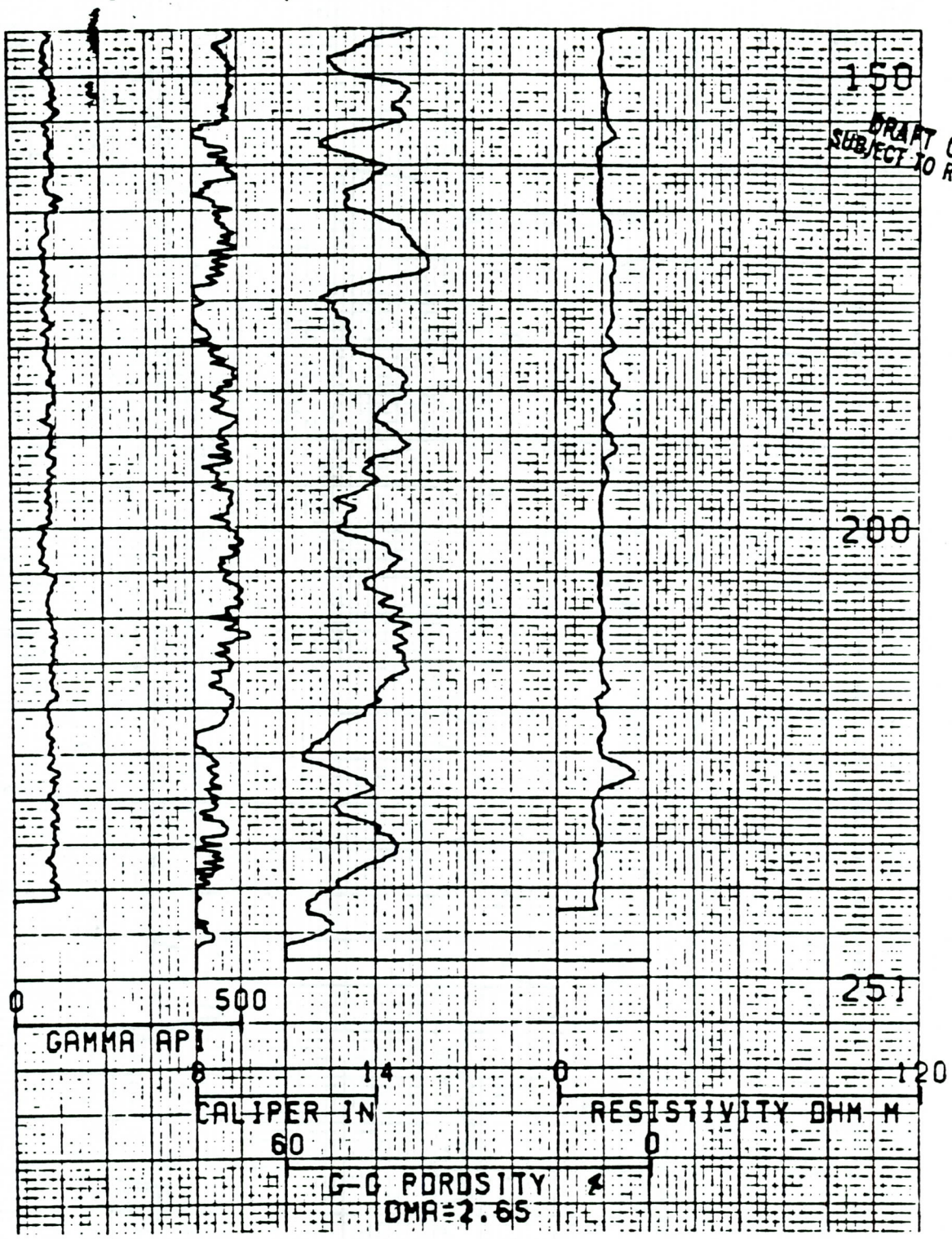
SUBJECT TO REVISION

FIGURE ___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA GAMMA POROSITY LOGS FOR MONITOR



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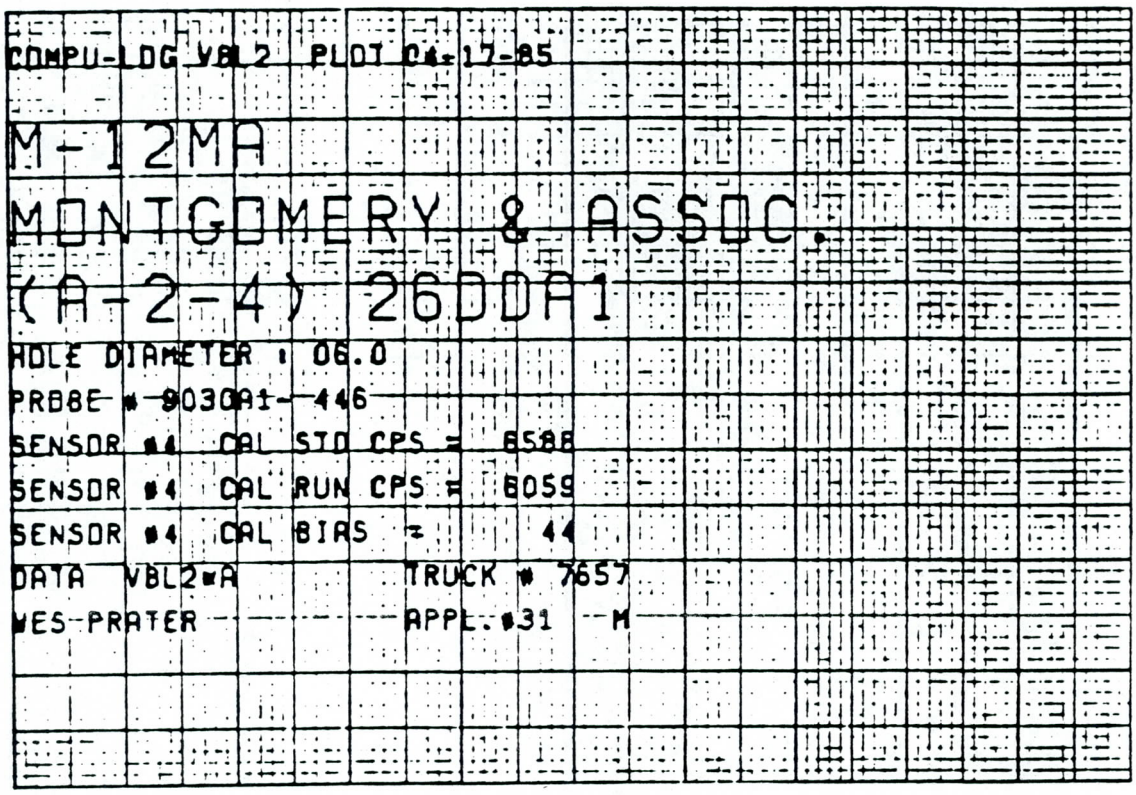

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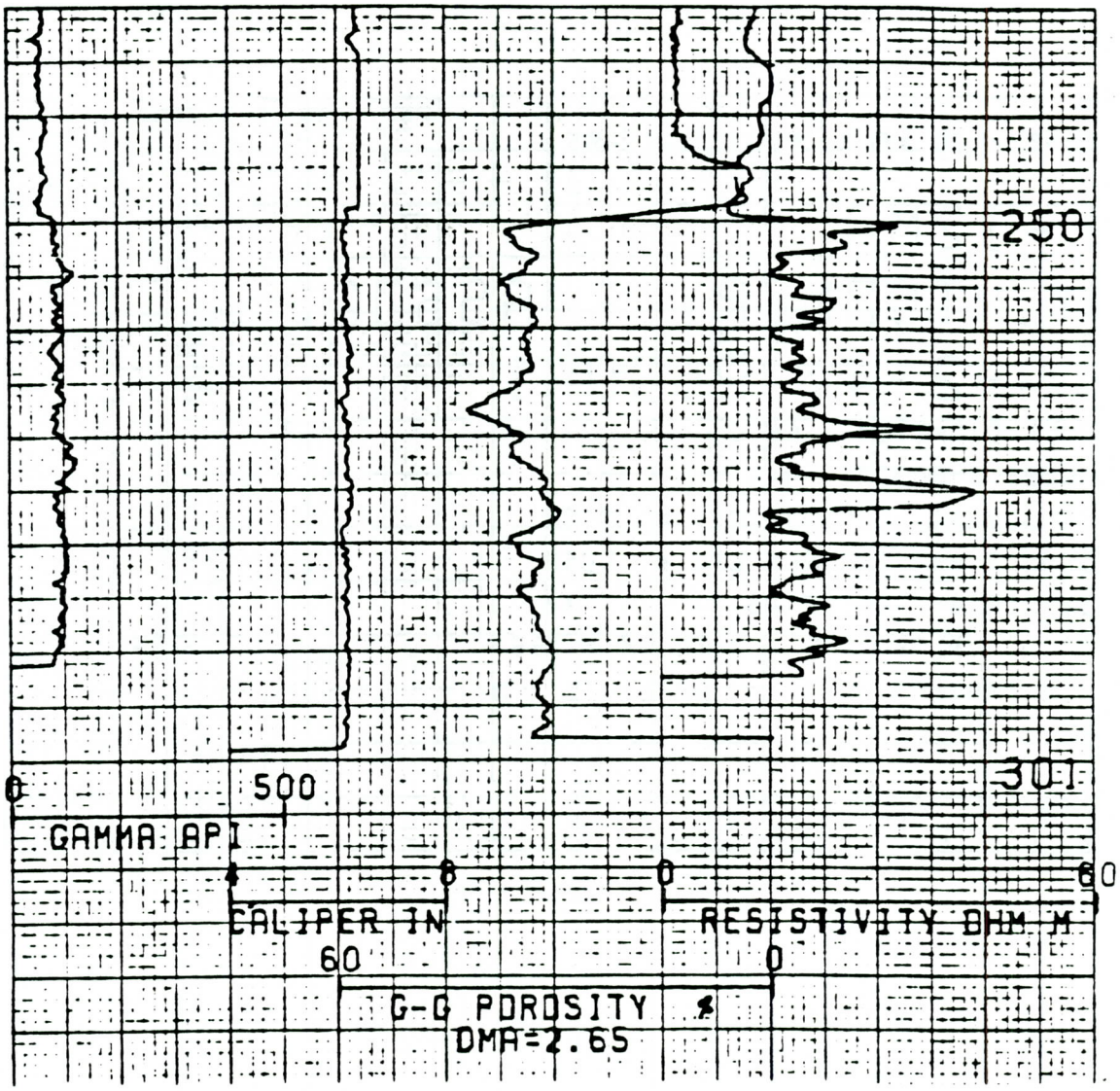


FIGURE ___. NATURAL GAMMA RAY, CALIPER, ELECTRICAL RESISTIVITY, AND GAMMA-GAMMA POROSITY LOGS FOR MONITOR WELL (A-2-4)26ddal[M-12MA]

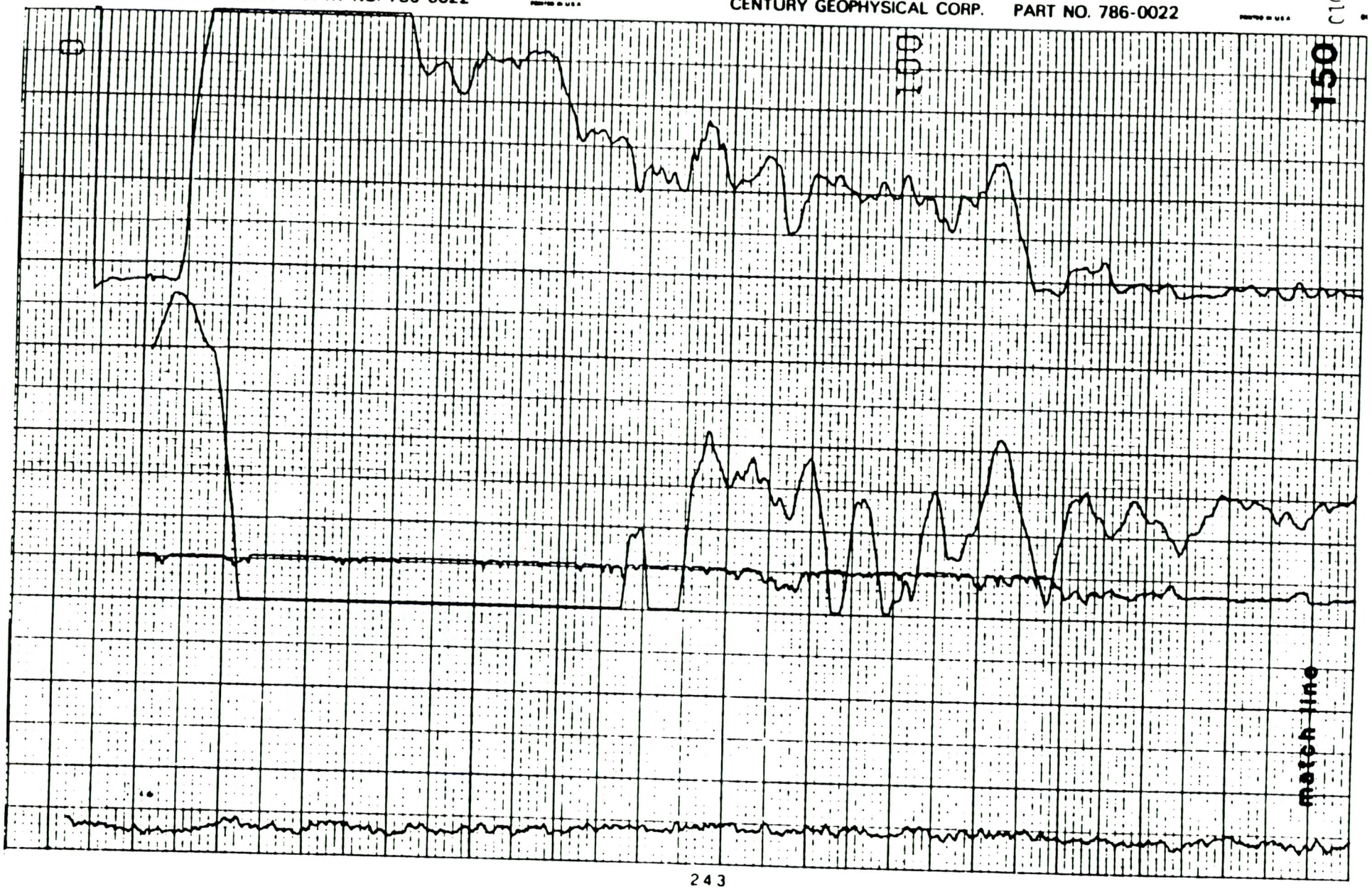
COMPU-LOG NO. 203-0042 PLOT 04-12-85

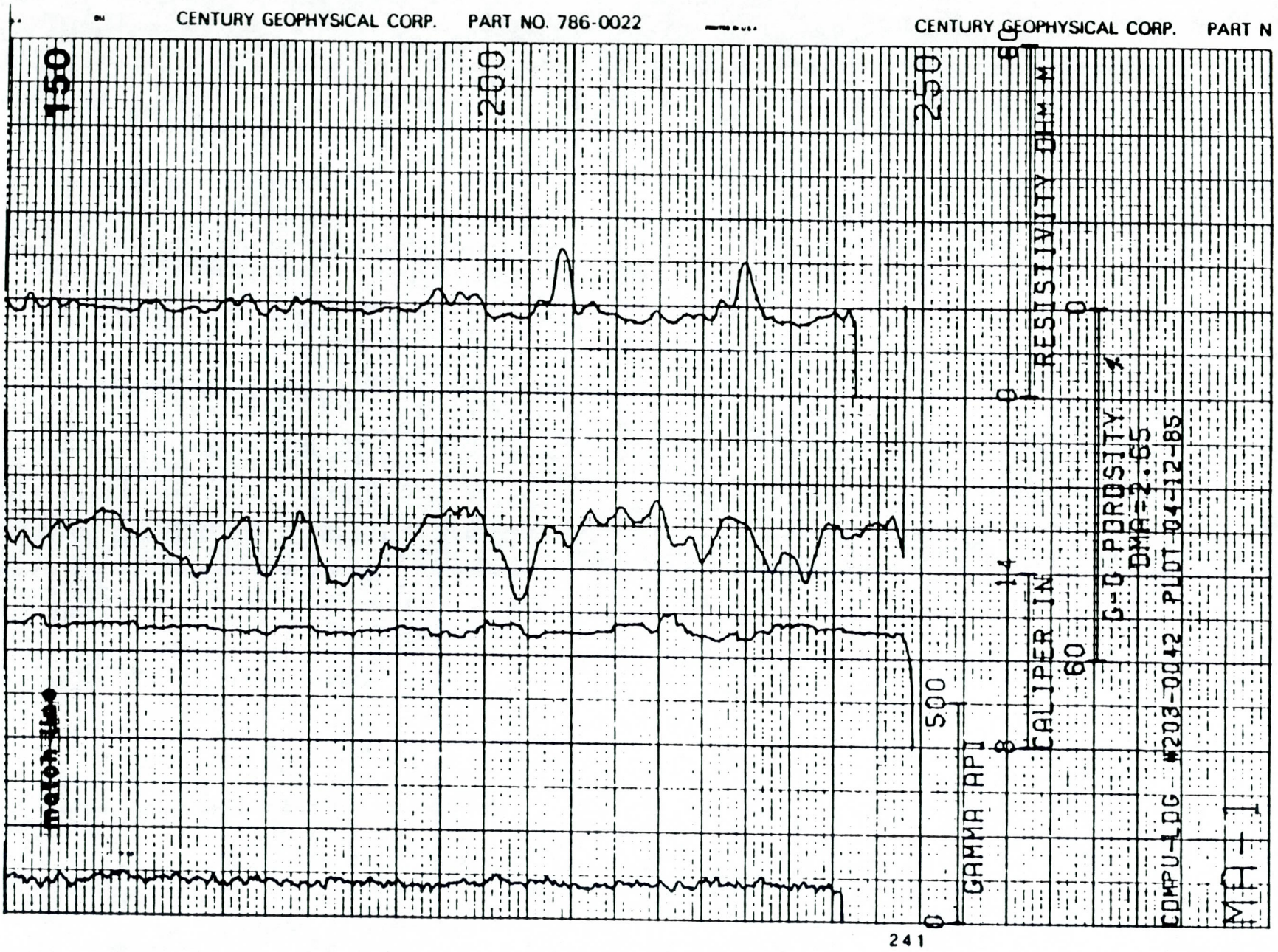
MA-1

PROBE NO. 9040 B - 262
SENSOR NO. 3 CAL STD CPS=1000
SENSOR NO. 3 CAL RUN CPS=7862
SENSOR NO. 3 CAL BIAS = -1
SENSOR NO. 4 CAL STD CPS=2649
SENSOR NO. 4 CAL RUN CPS= 553
SENSOR NO. 4 CAL BIAS = -1
SENSOR NO. 5 CAL STD CPS=1000
SENSOR NO. 5 CAL RUN CPS-10948
SENSOR NO. 5 CAL BIAS = -1
SENSOR NO. 6 CAL STD CPS=2566
SENSOR NO. 6 CAL RUN CPS=4536
SENSOR NO. 6 CAL BIAS = -1
DATA V8L3 TRUCK NO. 7657
G. SLOAN APPL. NO. 7101DA

CENTURY GEOPHYSICAL CORP.

CENTURY GEOPHYSICAL CORP. PART NO. 786-0022




CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP. PART N
150
200
250
RESISTIVITY OHM M
0
8
0
G-G POROSITY
DMA=2.65
CALIPER IN
6
14
8
GAMMA API
0
500
COMPU-LOG #203-0042 PLOT 04-12-85
MAIN
241

COMPU-LOG V8L2 PLOT 04-15-85

MA-1

HOLE DIAMETER: 07.8
PROBE No. 9030A1-446
SENSOR NO. 4 CAL STD CPS=5588
SENSOR NO. 4 CAL RUN CPS=6059
SENSOR NO. 4 CAL BIAS = 44
DATA V8L2* TRUCK NO. 7657
WES PRATER APPL. NO. 31 M

CENTURY GEOPHYSICAL CORP.

CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL C
167
250
300
0
500
GAMMA API
5
9
CALIPER IN
0
60
RESISTIVITY OHM M
0
G-G POROSITY
DMA=2.65
COMPU-LOG VER 2 PLOT 04-15-85
MA - 1

COMPU-LOG NO. 203-0042 PLOT 04-12-85

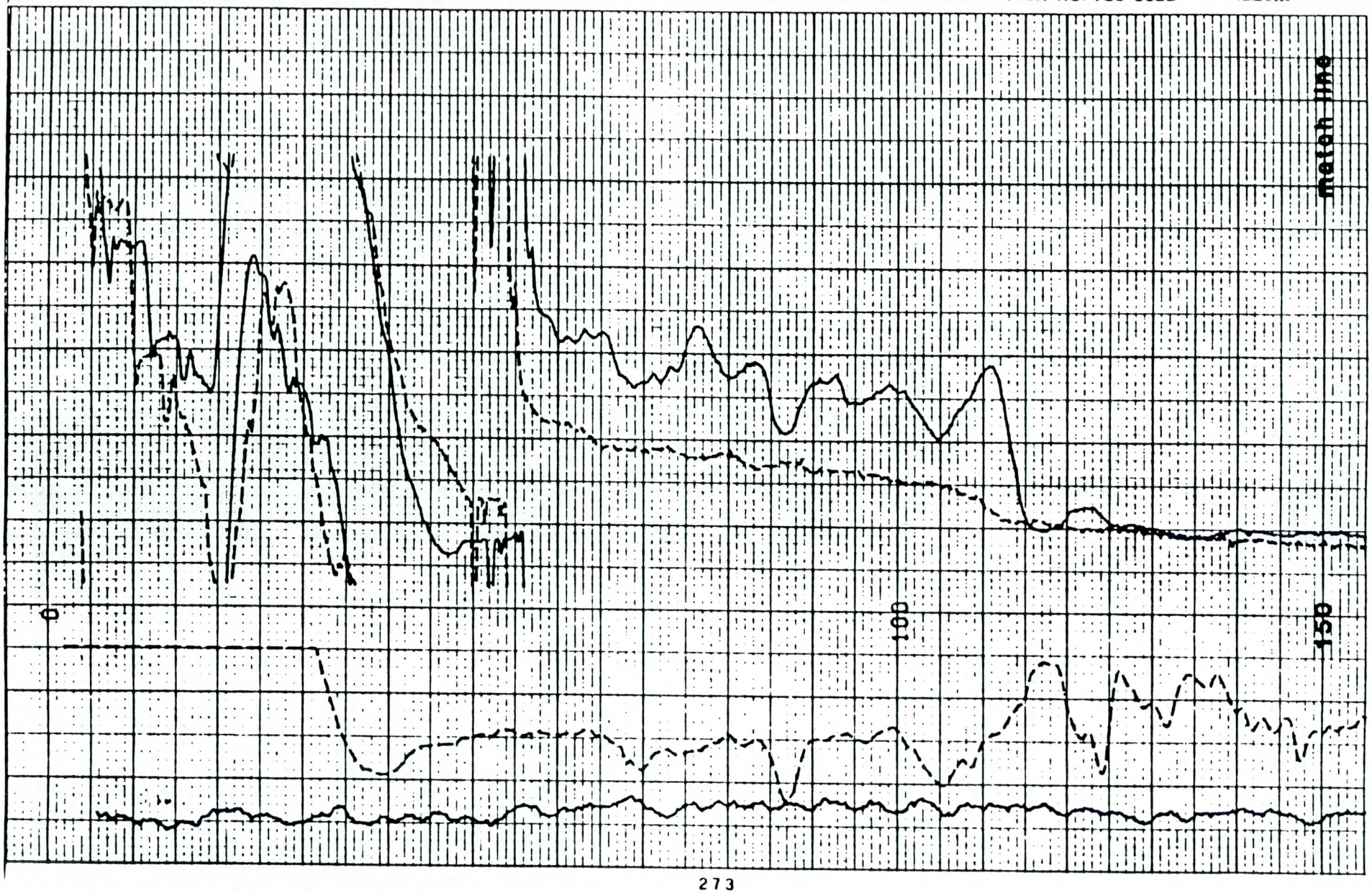
MA-1

HOLE DIAMETER: 12.3
PROBE NO. 9030A1 - 446
SENSOR NO. 4 CAL STD CPS=6588
SENSOR NO. 4 CAL RUN CPS=6059
SENSOR NO. 4 CAL BIAS = 44
DATA V8L2*A TRUCK NO. 7657
G. SLOAN APPL. NO. 31 M

CENTURY GEOPHYSICAL CORP.

CENTURY GEOPHYSICAL CORP. PART NO. 786-0022 —·—·—

CENTURY GEOPHYSICAL CORP. PART NO. 786-0022 —·—·—



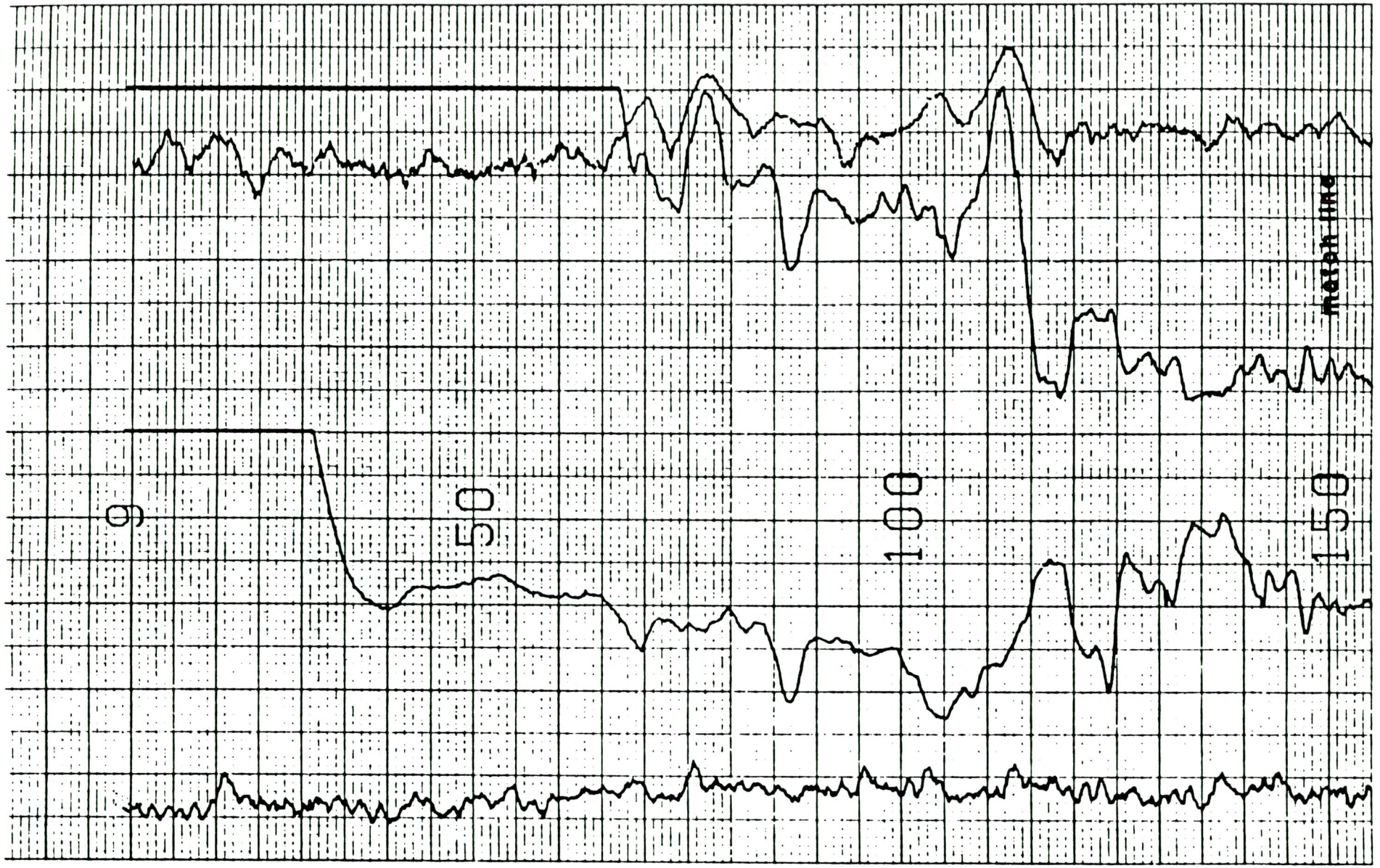
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP. PA
150
match line
200
250
271
0
300
0
GAMMA API
16NORM RES OHM M
80
108
140
0
200
S.P. MV
64NORM RES OHM M
COMPU-LOG #203-0042 PLOT 04-12-85
MW-1

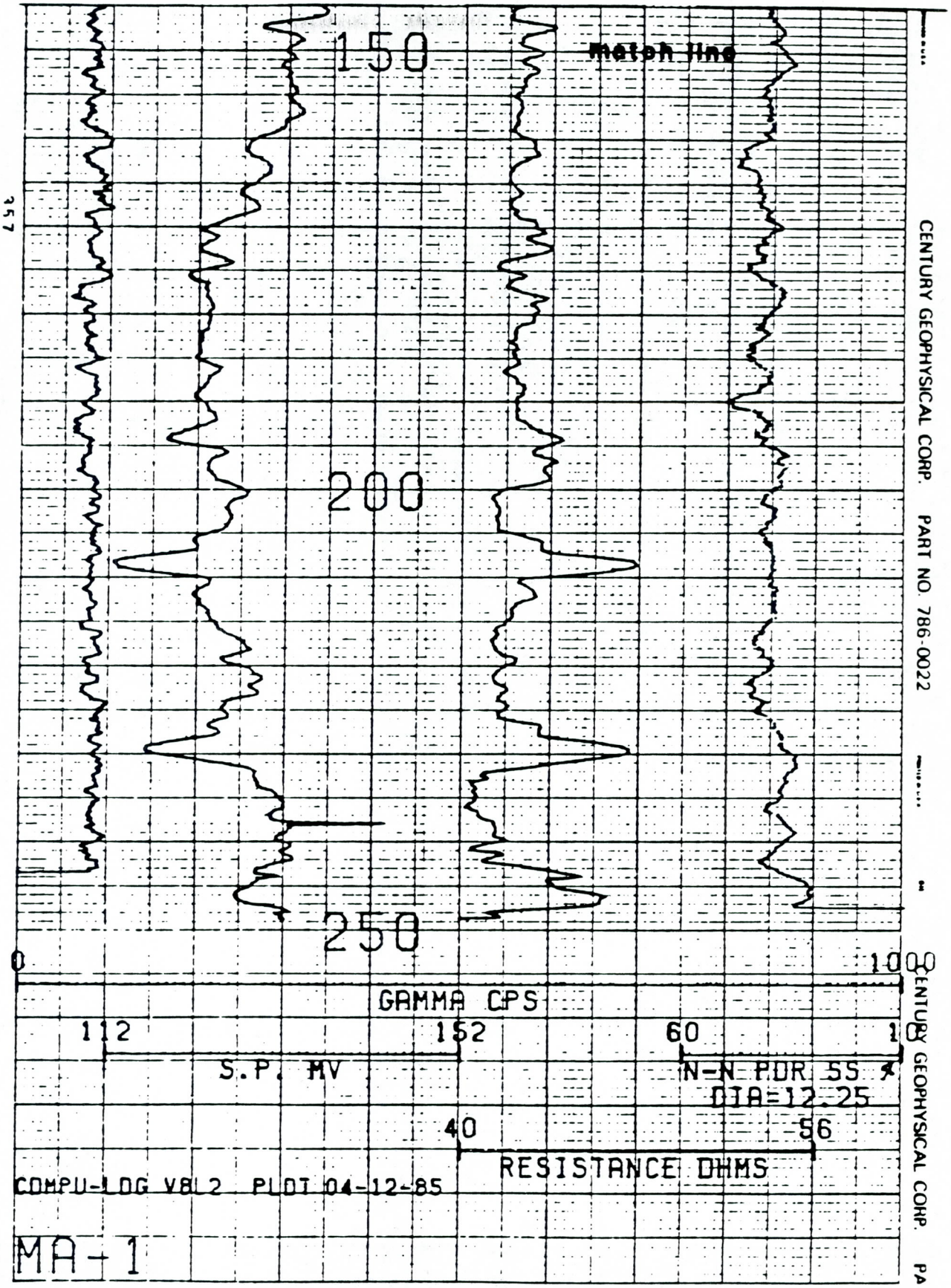
COMPU-LOG V8L2 PLOT 04-12-85

MA-1

HOLE DIAMETER: 12.3
PROBE NO. 9055A - 249
SENSOR NO. 4 CAL STD CPS=152
SENSOR NO. 4 CAL RUN CPS=121
SENSOR NO. 4 CAL BIAS = 0
DATA V8L2*A TRUCK NO. 7657
G. SLOAN APPL. NO. 121 M

CENTURY GEOPHYSICAL CORP.


match line
CCL
CCL
CCL

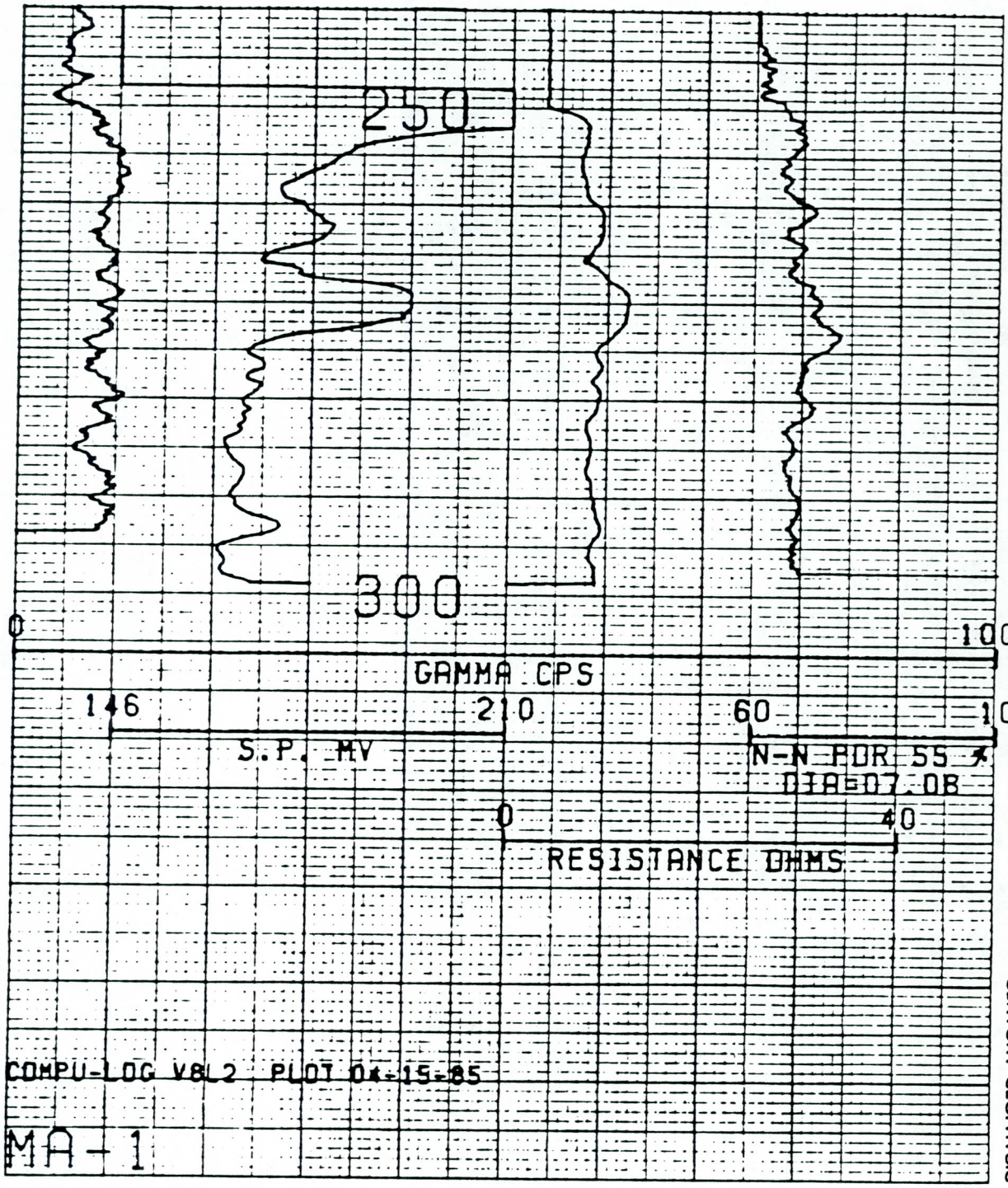

Match line
150
200
250
257
0
100
GAMMA CPS
112
152
60
10
S.P. MV
N-N POR SS
DIA=12.25
40
56
RESISTANCE OHMS
COMPU-LOG V8L2 PLOT 04-12-85
MA-1
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP.

COMPU-LOG V8L2 PLOT 04-15-85

MA-1

HOLE DIAMETER: 07.8
PROBE NO. 9055A - 249
SENSOR NO. 4 CAL STD CPS=152
SENSOR NO. 4 CAL RUN CPS=121
SENSOR NO. 4 CAL BIAS = 0
DATA V8L2*A TRUCK NO. 7657
WES PRATER APPLI. NO. 121 M

CENTURY GEOPHYSICAL CORP.


250
300
0
GAMMA CPS
146
210
S.P. MV
60
10
N-N RDR 55
DIA=07.08
0
40
RESISTANCE OHMS
COMPU-LOG V8L2 PLOT 04-15-85
MA-1
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSIC

183

(A-1-4)1abb3 [E-1LA]

Gamma, S.P., Resistance, N-N Porosity

CENTURY GEOPHYSICAL CORPORATION

Tulsa, Oklahoma

Borehole	EPA - 1LA
Date	5-12-85
Unit/Operator	7728 / Van Deventer
Field Office	Moab, Utah

Company	ECOLOGY & ENVIRONMENT, INC.		
Borehole	EPA - 1LA		
Area	GRANITE REEF / M. DOWELL	Elevation	
County	MARICOPA	State	ARIZONA
Section		Township	Range

HOLE DATA

TOTAL DEPTH – DRILLER	695 FT	BIT SIZE	9⅞ IN
TOTAL DEPTH – LOGGER	694 FT	CASING – TYPE & SIZE	STEEL / 10⅝" ID
TOTAL FOOTAGE LOGGED	694 FT	CASING DEPTH	20 FT
LOGGING SPEED	60 FT/MIN	BOREHOLE FLUID	MUD
REFERENCE LEVEL	G.L.	FLUID RESISTIVITY	N/A
PROBE NO	9055B-69	SOFTWARE LEVEL	S82#A
		SCALE SELECTION	# OPERATOR # CLIENT

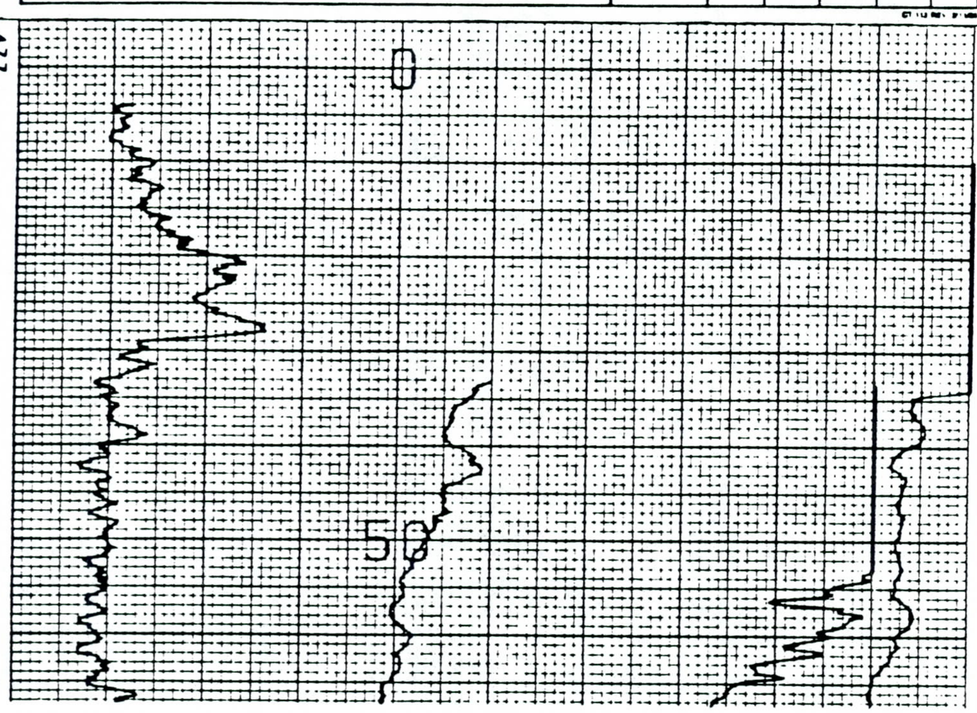
REMARKS

EQUIPMENT DATA

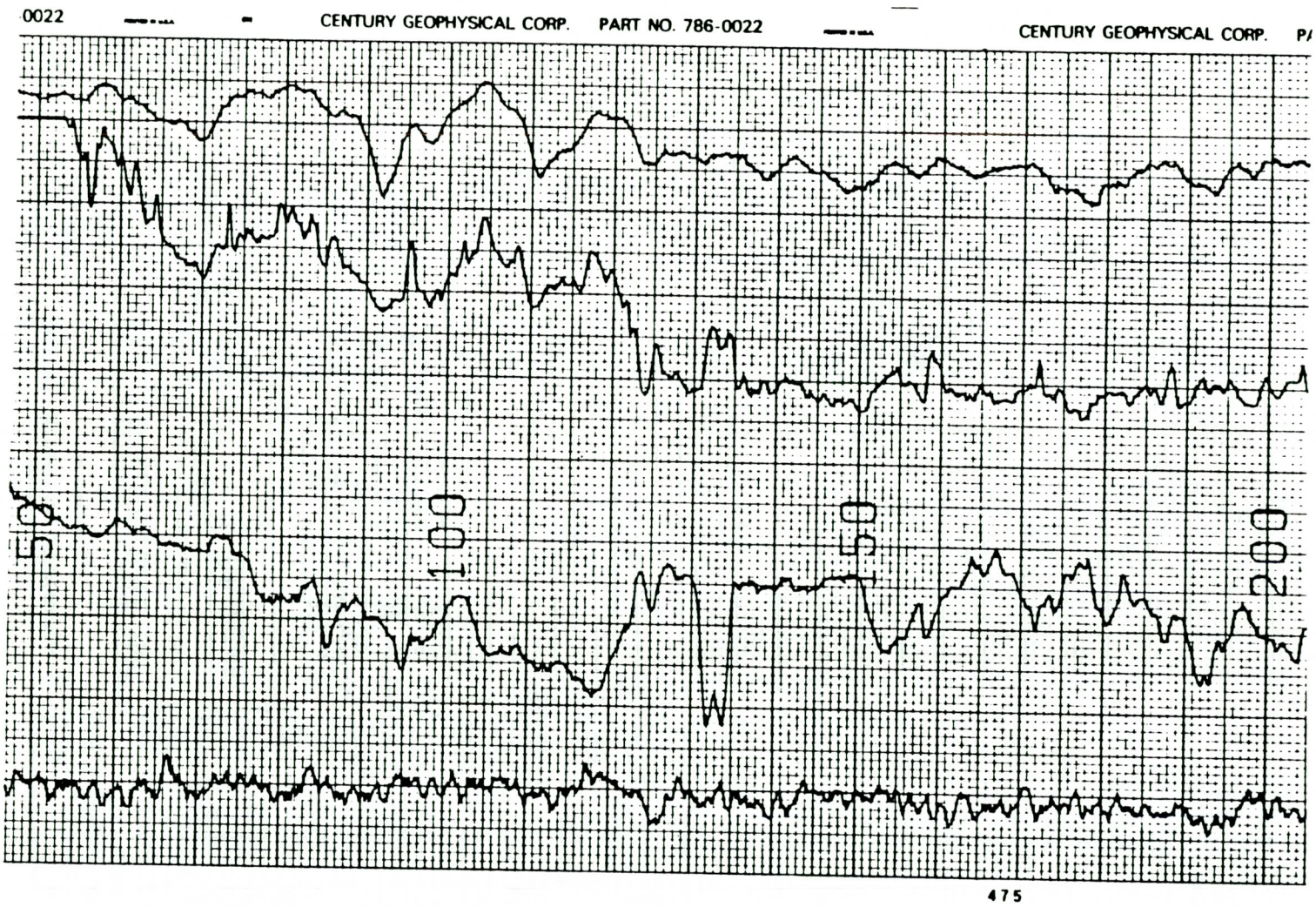
NATURAL GAMMA

DENSITY

NEUTRON



CENTURY GEOPHYSICAL CORP. PART NO. 786-0022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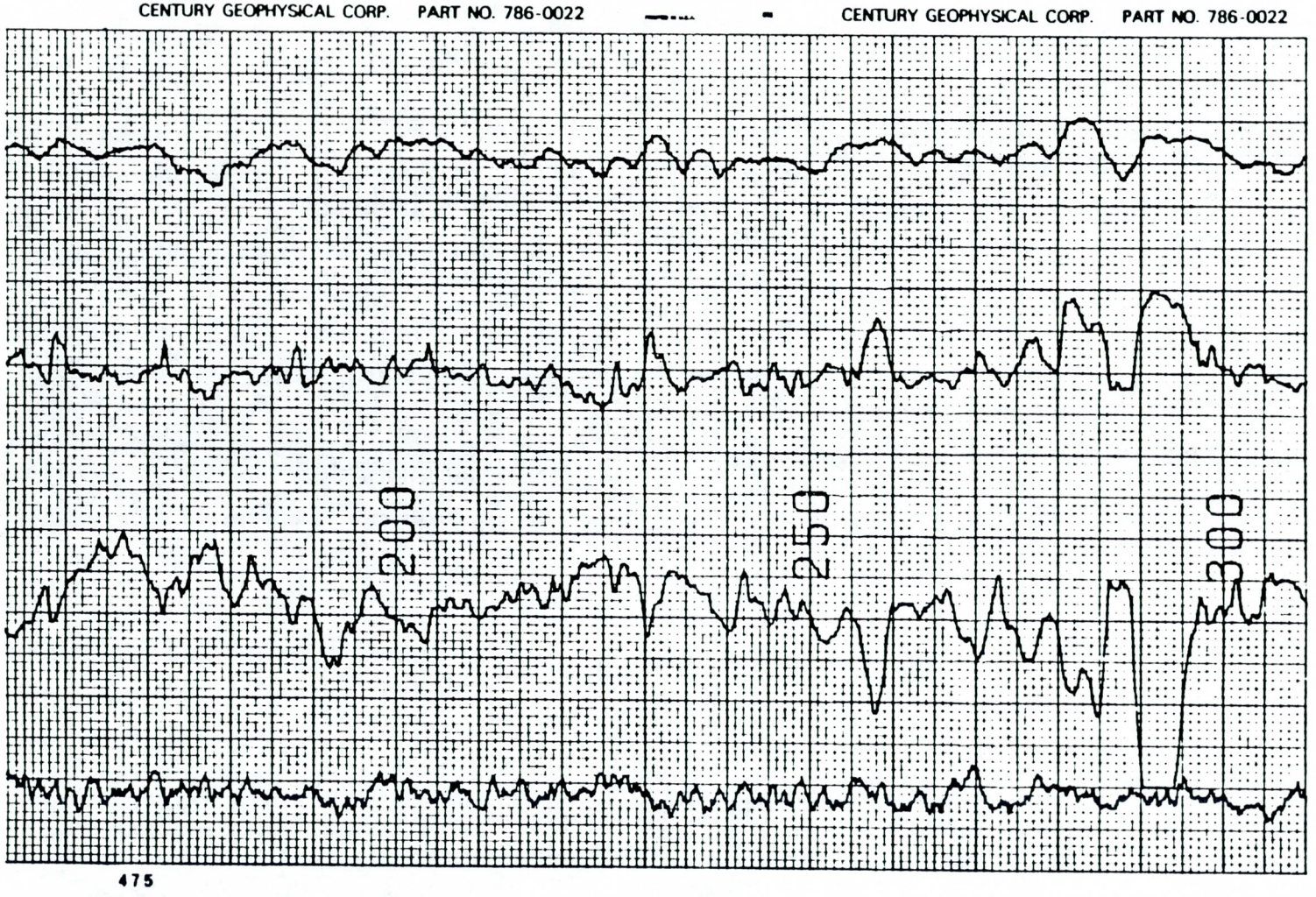
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP.
475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CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
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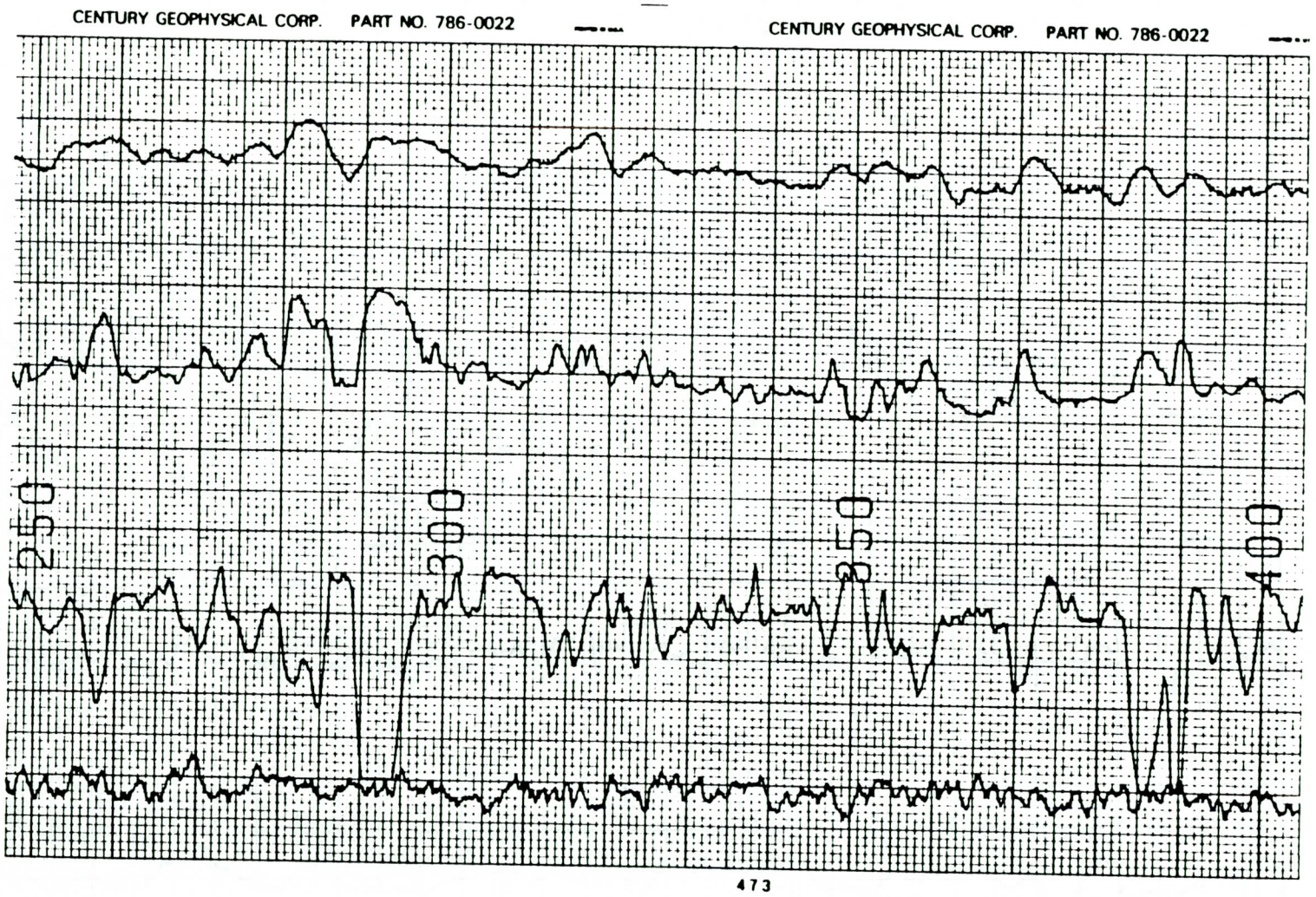
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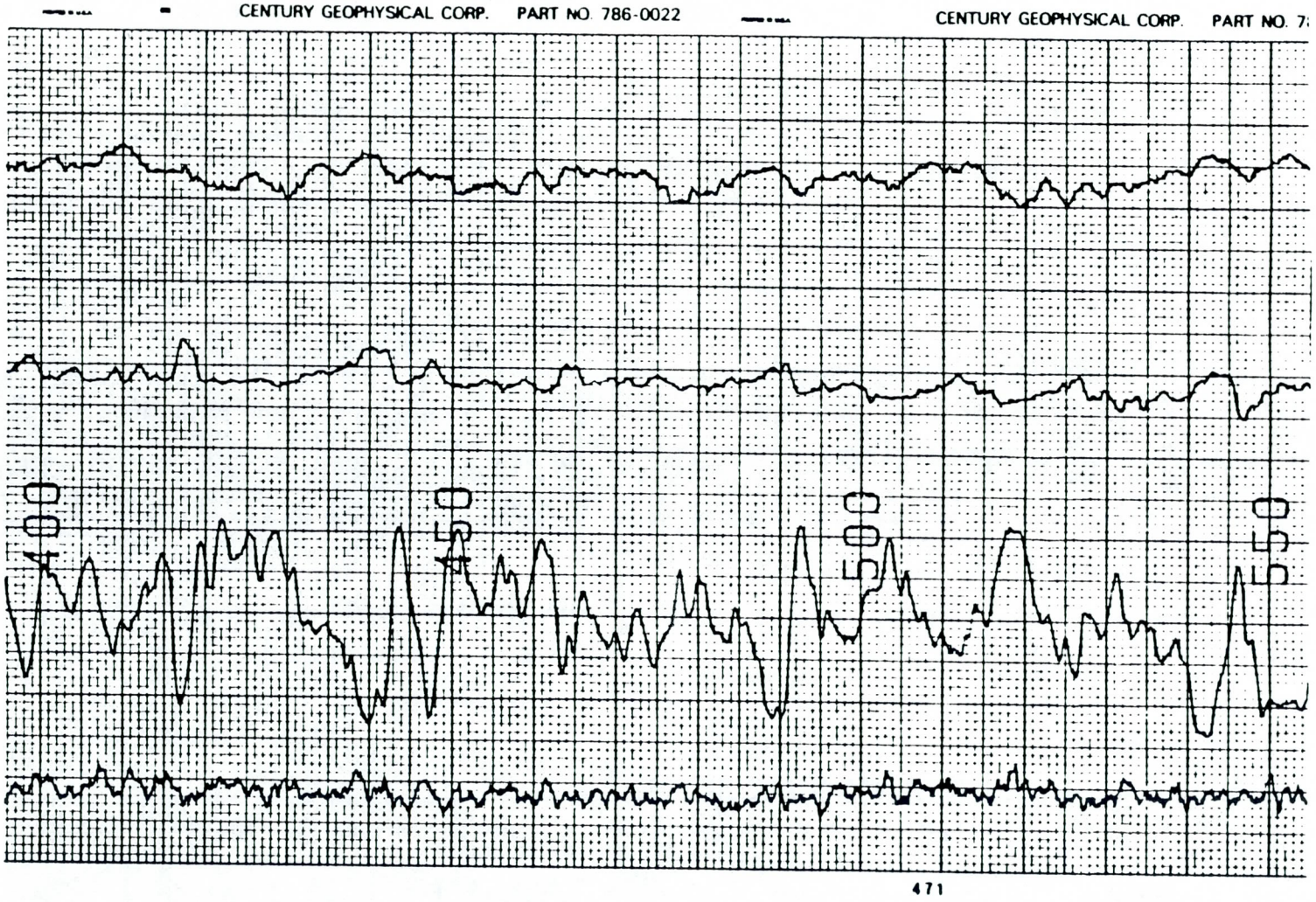
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CENTURY GEOPHYSICAL CORP. PART NO. 7
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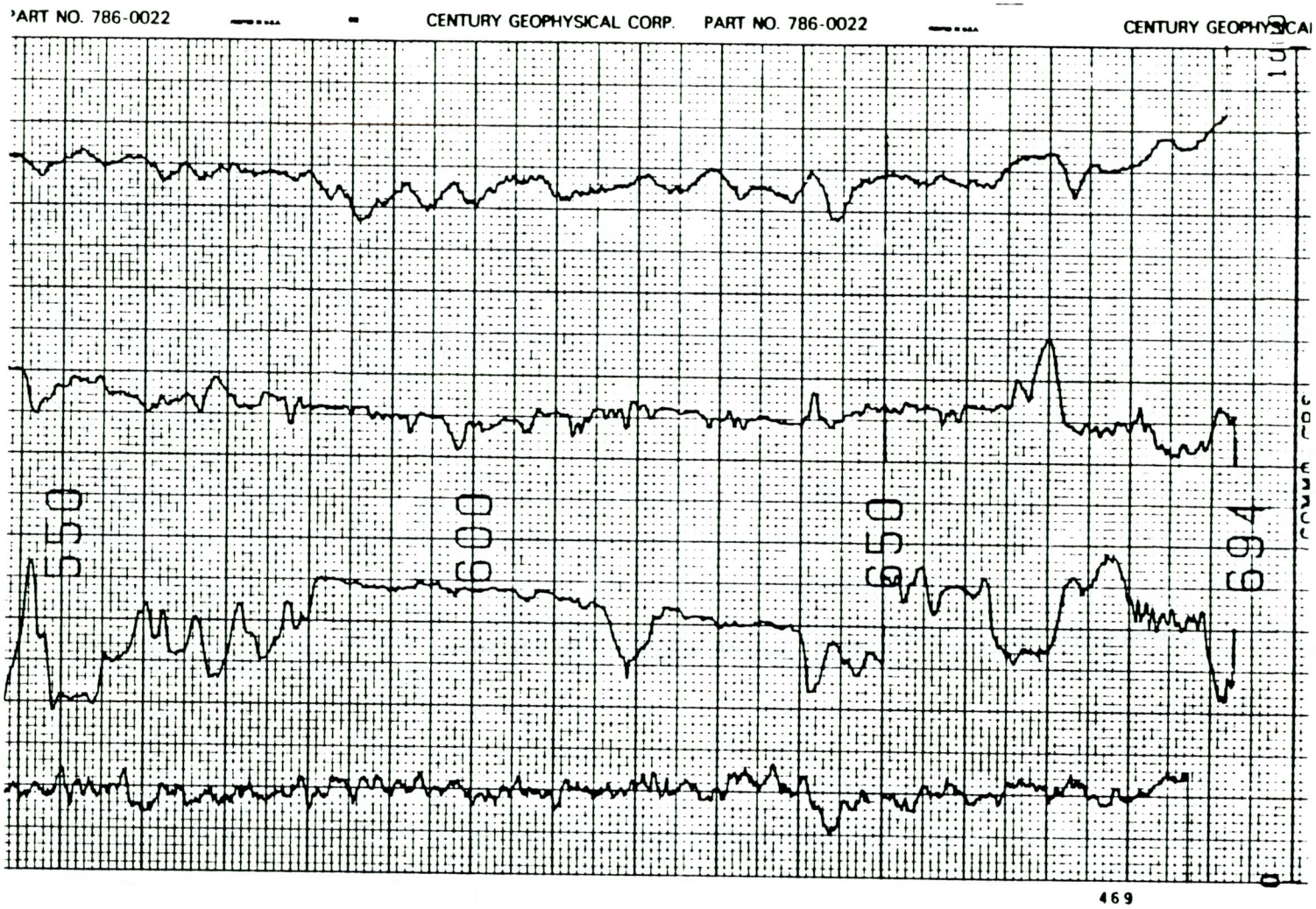
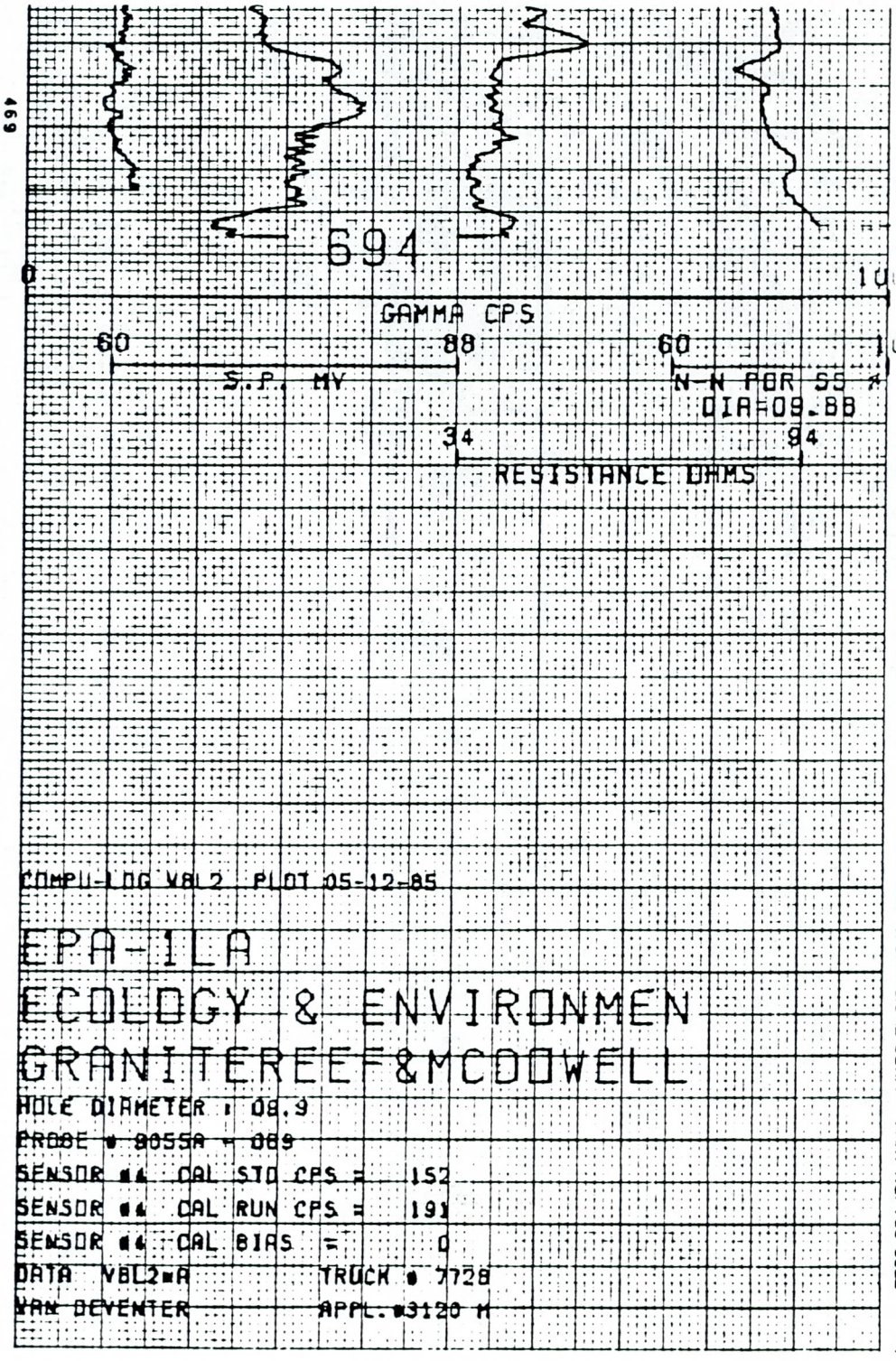

PART NO. 786-0022
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL
650
600
550
694
469



CENTURY GEOPHYSICAL CORP. PART NO. 786-0022

CENTURY GEOPHYSICAL CORP. PART NO. 786-0022

CENTURY GEOPHYSICAL CORPORATION
Tulsa, Oklahoma

BOREHOLE	EPA-1LA
DATE	5-15-85
UNIT OPERATOR	7728/Van Deventer
FIELD OFFICE	Moab, Utah

COMPANY	ECOLOGY & ENVIRONMENT, INC.		
BOREHOLE	EPA-1LA		
AREA	Granite Reef & McDowell	ELEVATION	
COUNTY	MARICOPA	STATE	ARIZONA
SECTION		TOWNSHIP	RANGE

HOLE DATA

TOTAL DEPTH – DRILLER	749 FT	BIT SIZE	5⅞ IN
TOTAL DEPTH – LOGGER	749 FT	CASING – TYPE & SIZE	STEEL/6.0" I.D.
TOTAL FOOTAGE LOGGED	749 FT	CASING DEPTH	697 FT
LOGGING SPEED	60 FT/MIN	BOREHOLE FLUID	MUD
REFERENCE LEVEL	GL	FLUID RESISTIVITY	N/A @ °F
PROBE NO	9055B-69	SOFTWARE LEVEL	SB2*A
		SCALE SELECTION	OPERATOR / CLIENT

REMARKS

SCALES

FROM 0' TO 694':
- NG: 100 CPS/IN
- SP: 7mV/IN (-68 IN BIAS)
- Res: 15 OHM/IN (-34 OHM BIAS)
- N-N: 20%/IN Sandstone Matrix
- Hole Diameter = 10 IN

FROM 694' TO 749':
- NG: 100 CPS/IN
- SP: 5mV/IN (+29 mV BIAS)
- Res: 10 OHM/IN (0 BIAS)
- N-N: 20%/IN Sandstone Matrix
- Hole Diameter = 5.9 IN

EQUIPMENT DATA

	[illegible]	[illegible]	[illegible]	[illegible] (3)	[illegible]	
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
NATURAL GAMMA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	—	[illegible]	[illegible]	
	[illegible]	[illegible]	—	[illegible]	[illegible]	
	[illegible]		—	63 CO		
	[illegible]		—	4-15-85		
	[illegible]		—	5530		
	[illegible]		—	1.04		
	[illegible]		—	OK		
	[illegible]		—			
	[illegible]		—	N/A		
DENSITY	[illegible]	—	[illegible]	—	[illegible]	
	[illegible]	—	[illegible]	—	[illegible]	
	[illegible]	—	[illegible]	—	[illegible]	
	[illegible]	—		—		
	[illegible]	—		—		
	[illegible]	—		—		
NEUTRON	[illegible]	—	—	[illegible]	—	
	[illegible]	—	—	[illegible]	—	
	[illegible]	—	—	[illegible]	—	
	[illegible]	—	—	272	—	
	[illegible]	—	—	1 C	—	
	[illegible]	—	—	16.2 IN	—	
	[illegible]	[illegible]	—	[illegible]	[illegible]	
	[illegible]	—	[illegible]	—	—	
	[illegible]	[illegible]	—	[illegible]	[illegible]	
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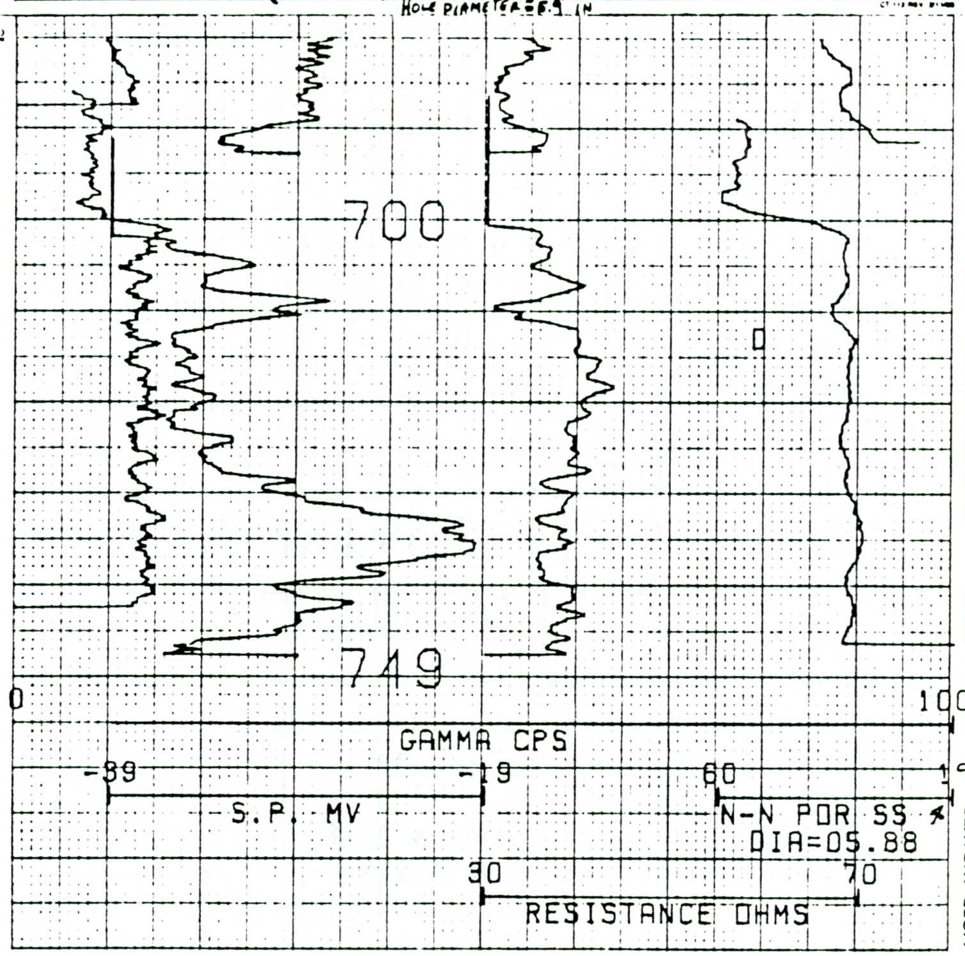


(A-1-4)1abb3 [E-1LA]

Gamma, Caliper, G-G Porosity, Resistivity

CENTURY GEOPHYSICAL CORPORATION

Tulsa, Oklahoma

BORE HOLE: EPA-1LA | DATE: 5-12-85

UNIT OPERATED BY: 7728/Van Deventer | FIELD OFFICE: Mesa, Utah

COMPANY: ECOLOGY & ENVIRONMENT, INC.

BOREHOLE: EPA-1LA

AREA: GRANITE REEF & McDOWELL | ELEVATION:

COUNTY: MARICOPA | STATE: ARIZONA

SECTION | TOWNSHIP | RANGE

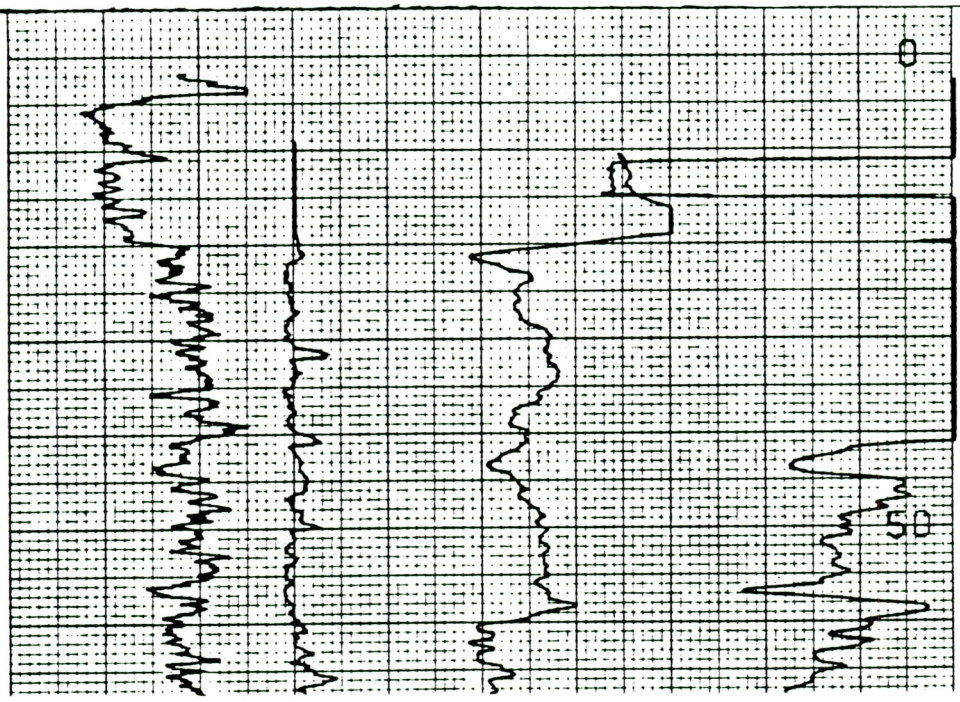
HOLE DATA

TOTAL DEPTH – DRILLER	695 FT	BIT SIZE	9⅞ IN
TOTAL DEPTH – LOGGER	691 FT	CASING – TYPE & SIZE	STEEL/10¾" I.D.
TOTAL FOOTAGE LOGGED	691 FT	CASING DEPTH	20 FT
LOGGING SPEED	30 FT/MIN	BORE HOLE FLUID	MUD
REFERENCE LEVEL	GL	FLUID RESISTIVITY	N/A @ °F
PROBE NO	9030A1-406	SOFTWARE LEVEL	SB2+A
		SCALE SELECTION	OPERATOR / CLIENT

REMARKS

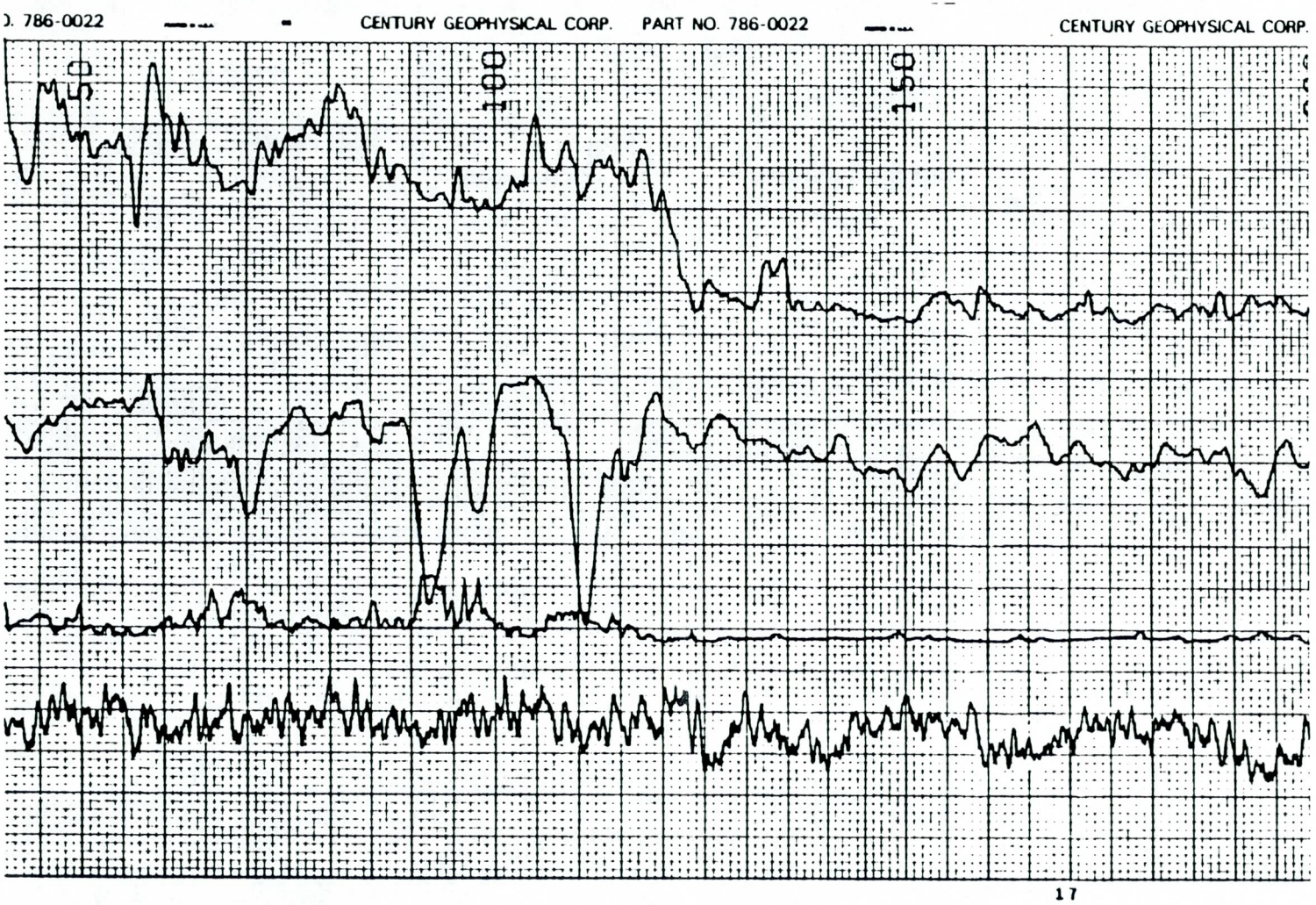
EQUIPMENT DATA

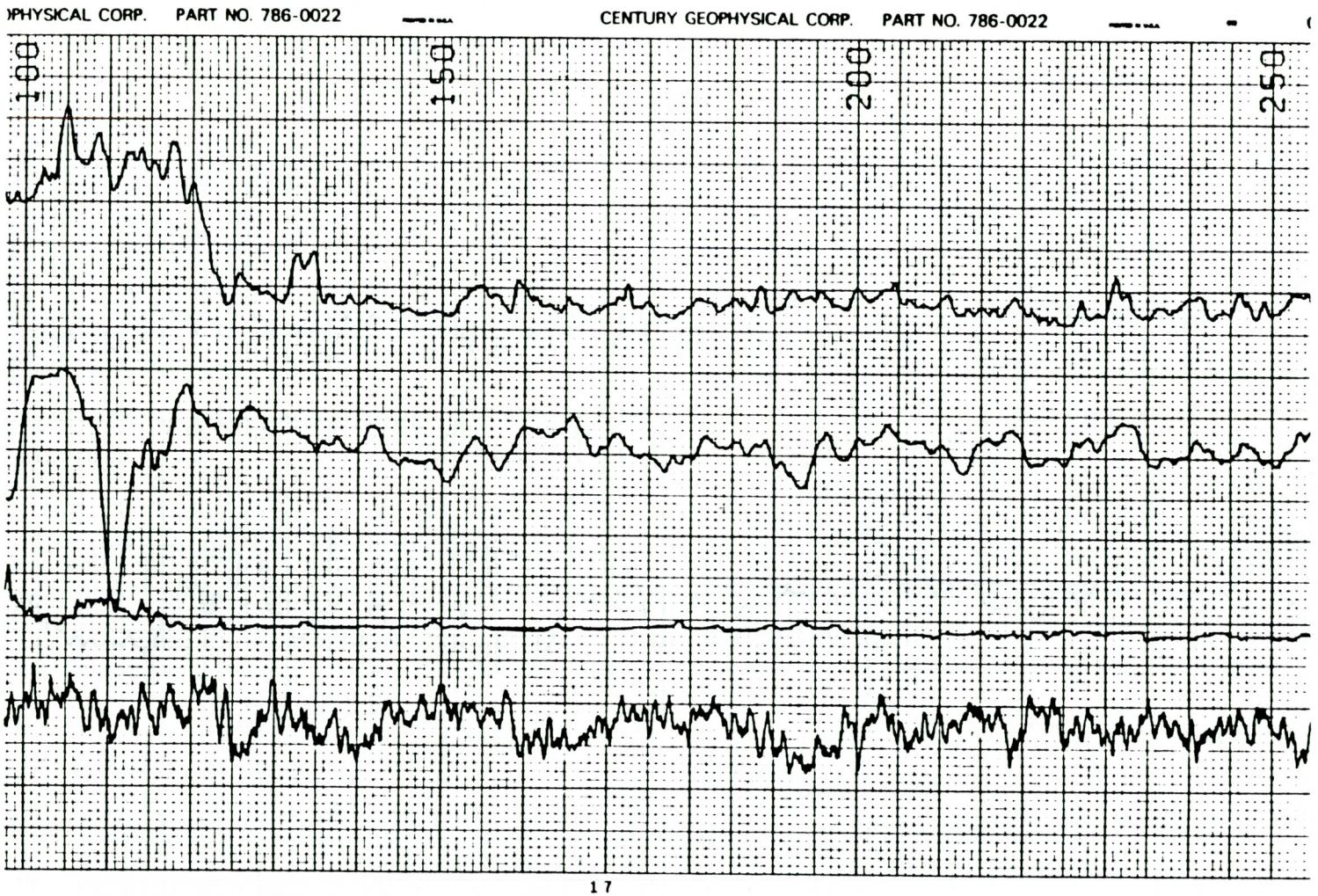
NATURAL GAMMA | DENSITY | NEUTRON



19

CENTURY GEOPHYSICAL CORP. PART NO. 786-0022


). 786-0022
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP.
50
100
150
17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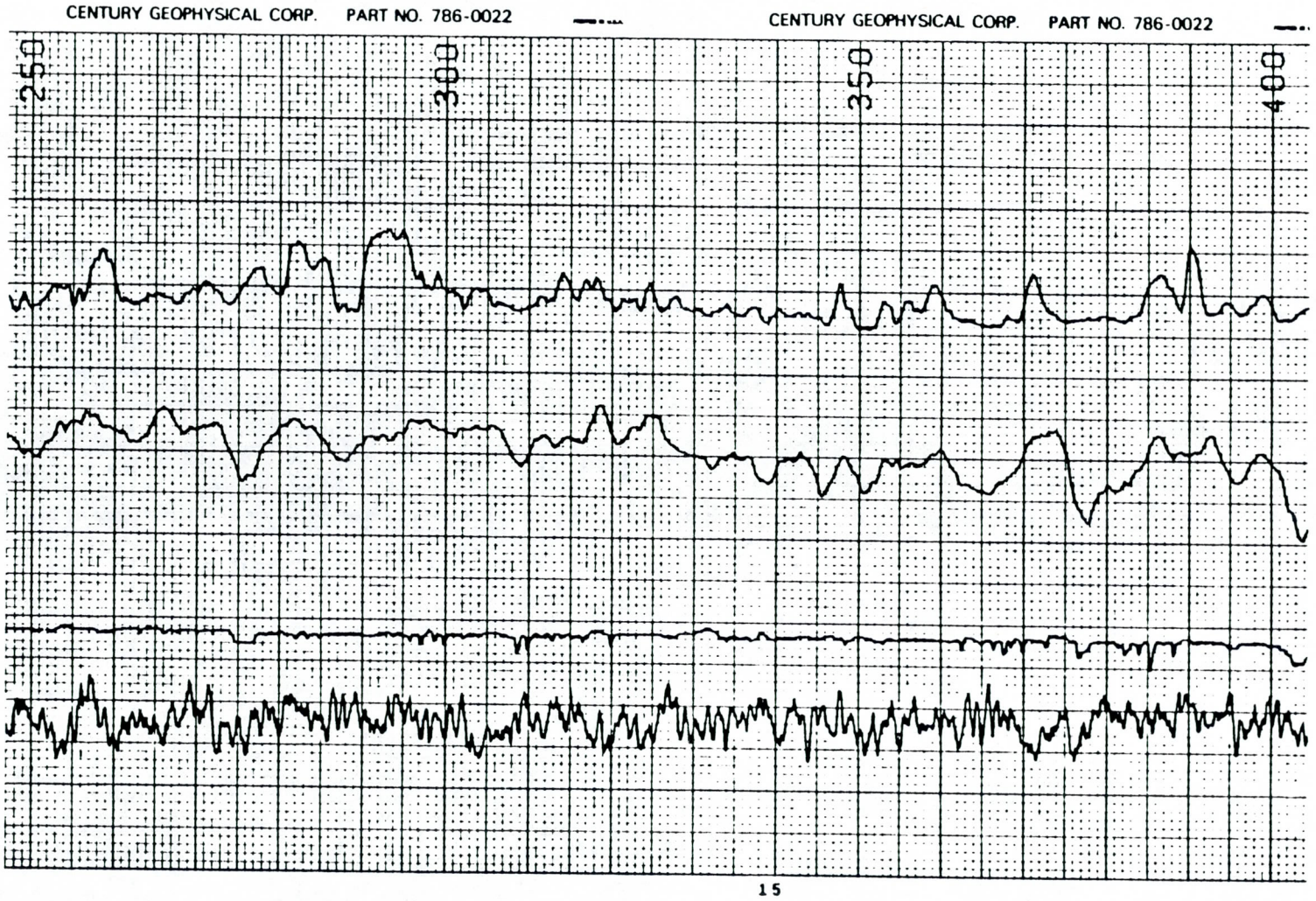
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
100
150
200
250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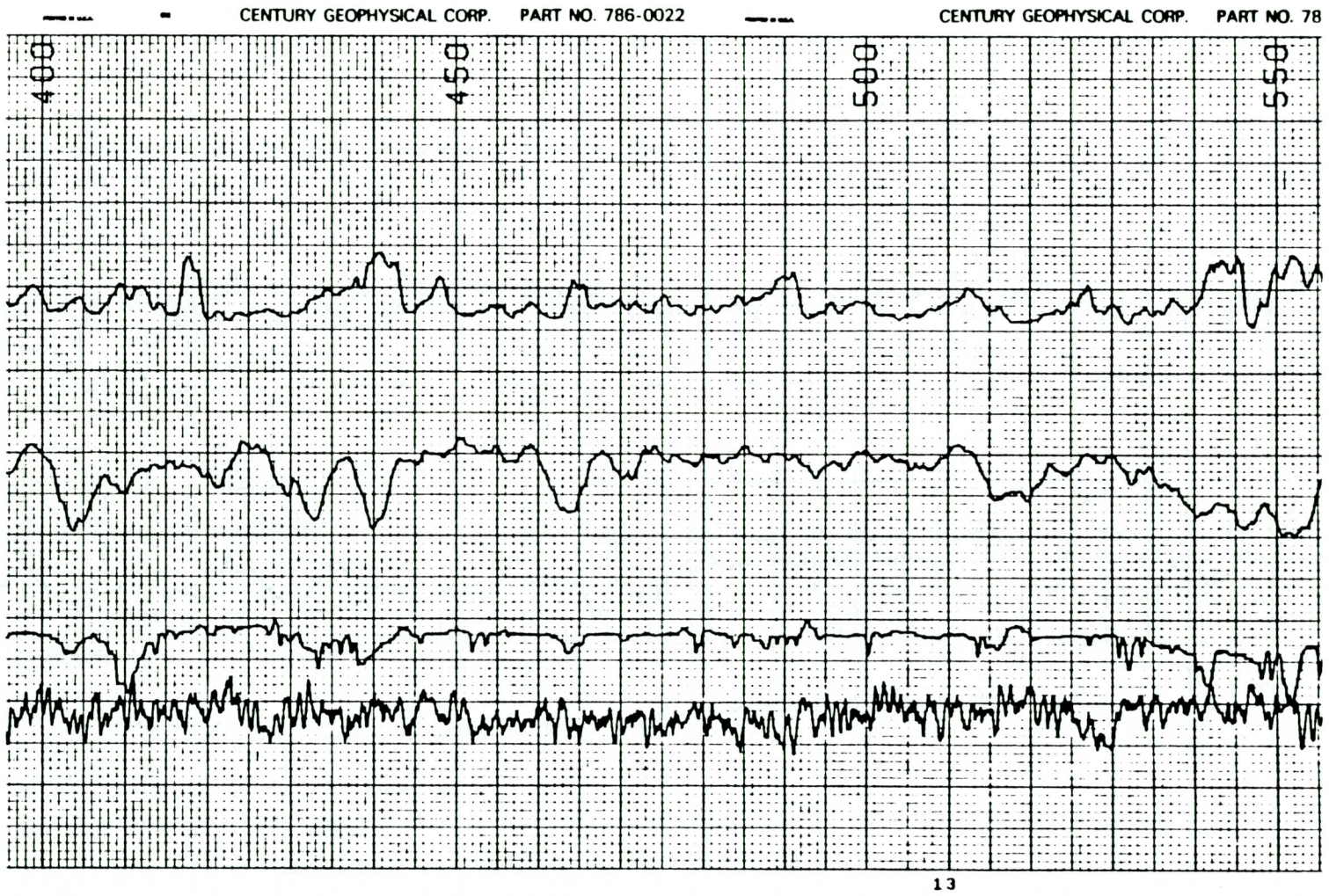
250
300
350
400
15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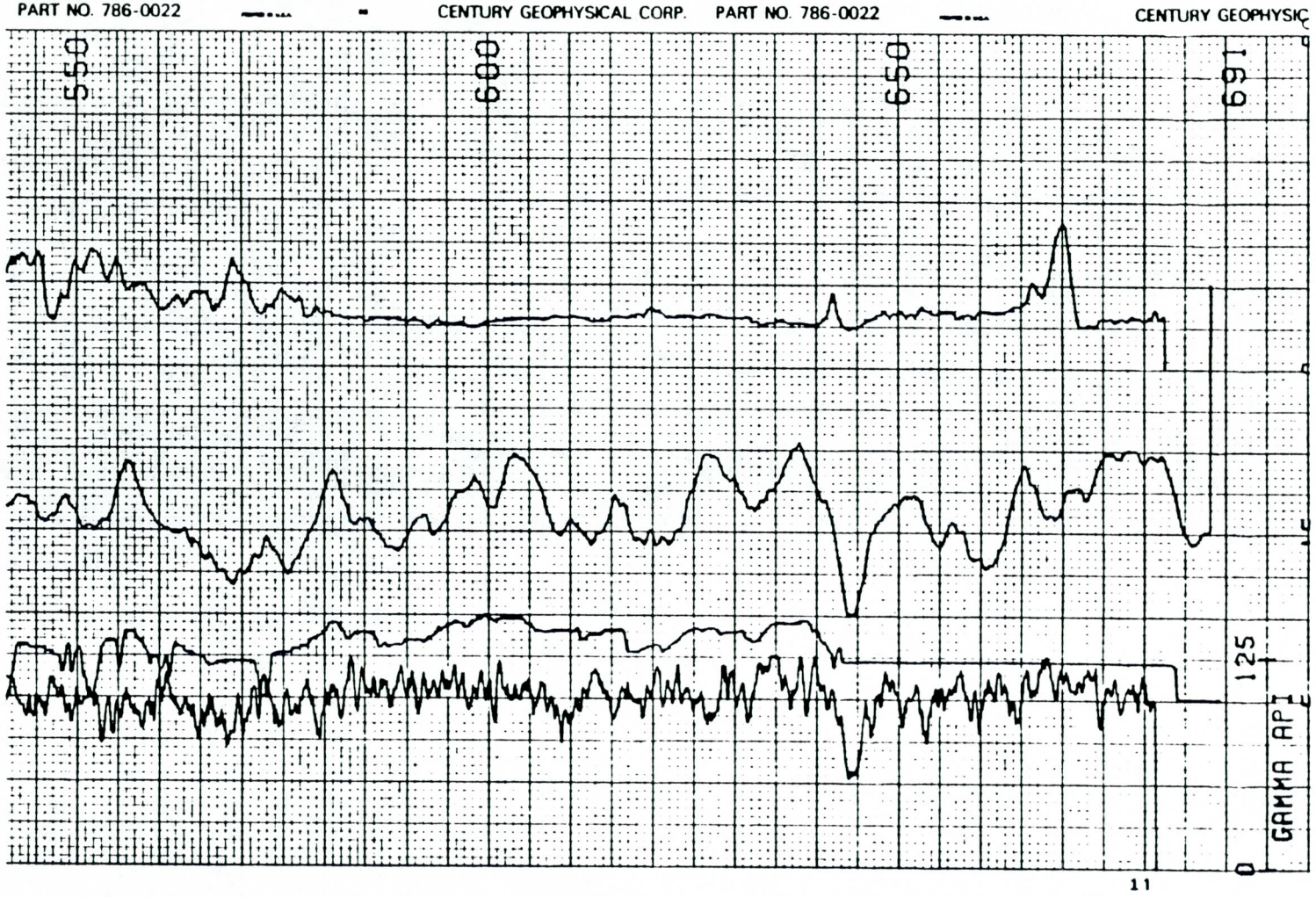
CENTURY GEOPHYSICAL CORP. PART NO. 78
400
450
500
550
13


PART NO. 786-0022
CENTURY GEOPHYSICAL CORP.
PART NO. 786-0022
CENTURY GEOPHYSIC
550
600
650
691
125
0
GAMMA API
11

11
0
125
GAMMA API
5
15
CALIPER IN
60
G-G POROSITY %
DMA=2.65
0
691
0
RESISTIVITY OHM M
0
COMPU-LOG V8L2 PLOT 05-12-85
EPA-ILA
ECOLOGY & ENVIRONMENT
GRANITEREEF&MCDOWELL
HOLE DIAMETER : 09.9
PROBE # 8030A1-106
SENSOR #4 CAL STD CPS = 6588
SENSOR #4 CAL RUN CPS = 6501
SENSOR #4 CAL BIAS = 28
DATA V8L2=R TRUCK # 7728
VAN BEVENTER APPL.#31 M
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022

CENTURY GEOPHYSICAL CORPORATION
Tulsa, Oklahoma

BORE HOLE	EPA-1LA
DATE	5-15-85
LOCATION	7728/VAN DEVENTER
FIELD OFFICE	MOAB, UTAH

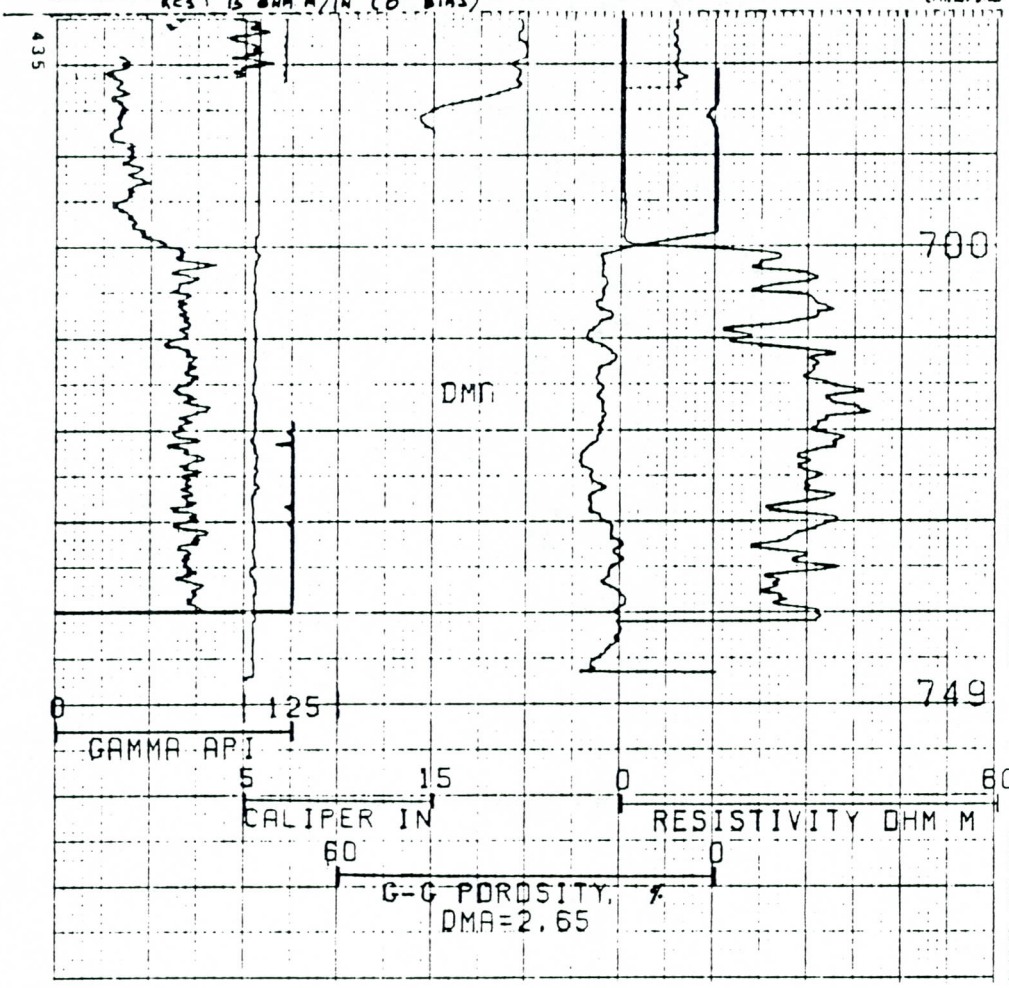
COMPANY: ECOLOGY & ENVIRONMENT, INC
BORE HOLE: EPA-1LA
AREA: GRANITE REEF & McDOWELL
ELEVATION:
COUNTY: MARICOPA
STATE: ARIZONA
SECTION / TOWNSHIP / RANGE:

EQUIPMENT DATA

HOLE DATA

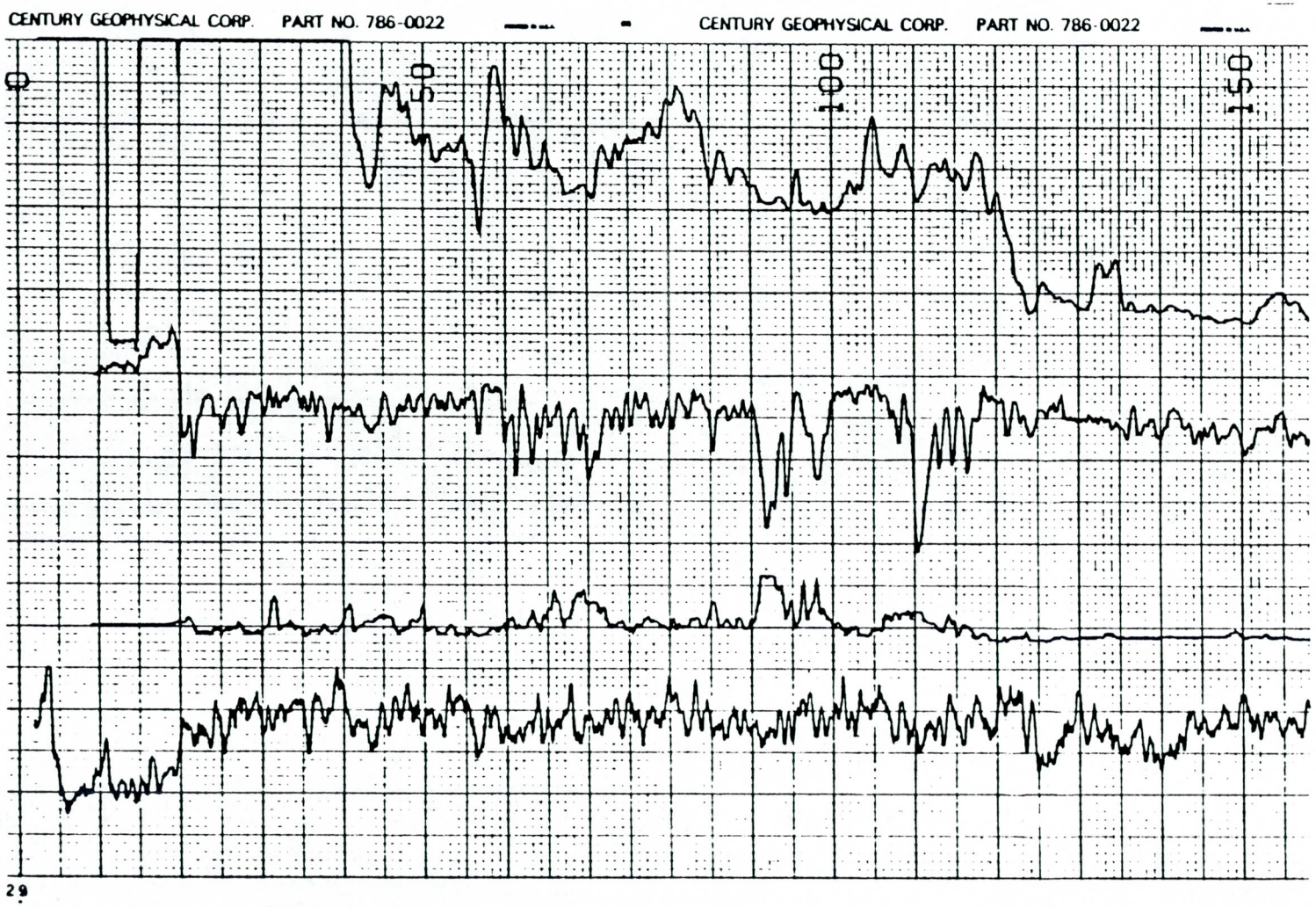
TOTAL DEPTH – DRILLER	749 FT	BIT SIZE	5 7/8 IN
TOTAL DEPTH – LOGGER	749 FT	CASING – TYPE & SIZE	STEEL/6.0" ID
TOTAL FOOTAGE LOGGED	749 FT	CASING DEPTH	697 FT
LOGGING SPEED	30 FT/MIN	BORE HOLE FLUID	MUD
REFERENCE LEVEL	GL	FLUID RESISTIVITY	N/A
PROBE NO	9030A1-406	SOFTWARE LEVEL	5.8.2+A
		SCALE SELECTION	

REMARKS: ENTIRE LOG IS THAT OF AN UNCASED HOLE.
SCALES: FROM 749' TO 691'
NG: 100 API/IN
CAL: 5"/IN (-5" BIAS)
POR: 15%/IN (2.65 MATRIX DENSITY
RES: 15 OHM M/IN (0 BIAS)
FROM 691' TO 0'
NG: 50 API/IN
CAL: 5"/IN (-5" BIAS)
POR: 15%/IN (2.65 MATRIX DENSITY
RES: 15 OHM M/IN (0 BIAS)



(A-1-4)1abb3 [E-1LA]

Gamma, Caliper, Apparent G/CC, Resistivity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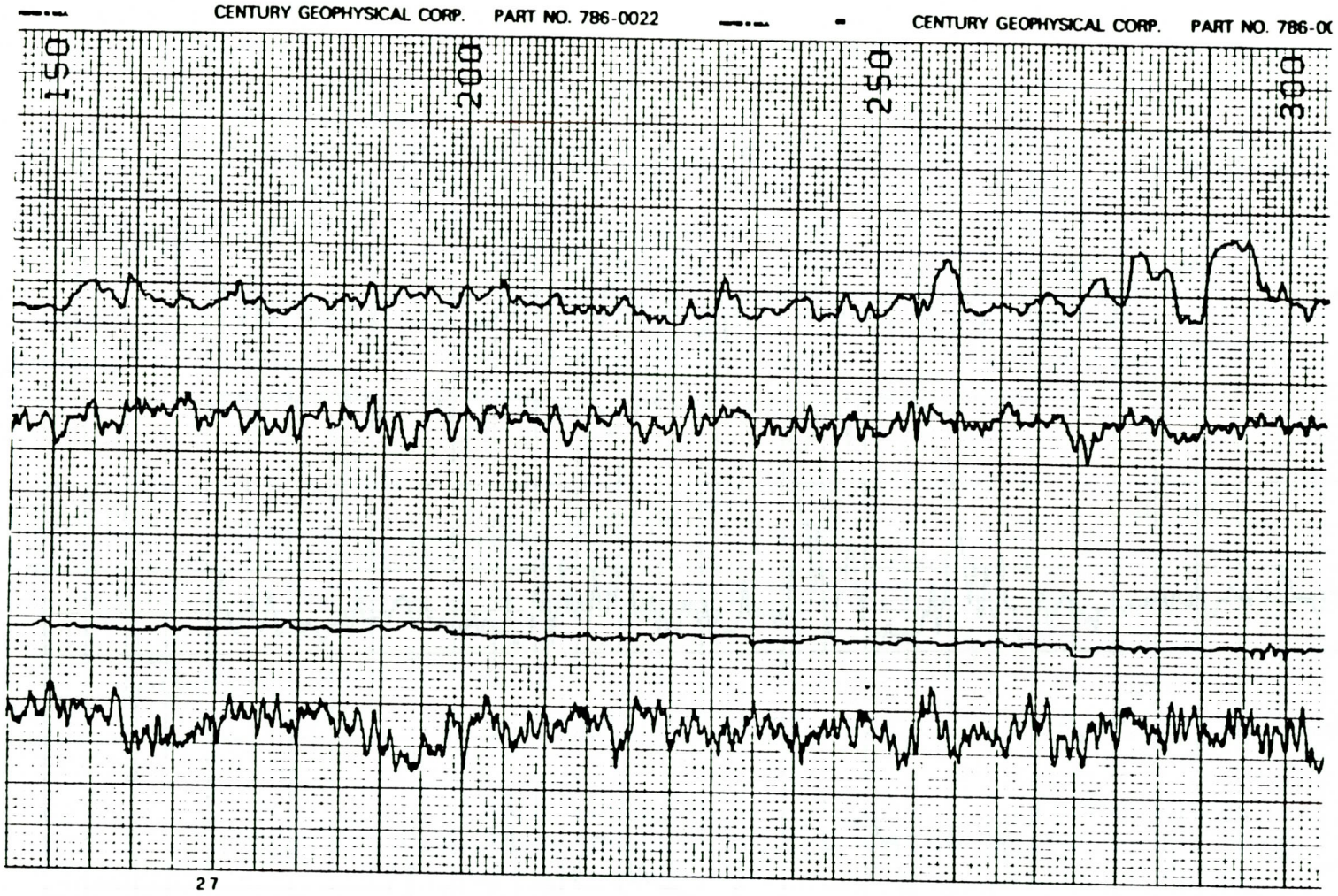
29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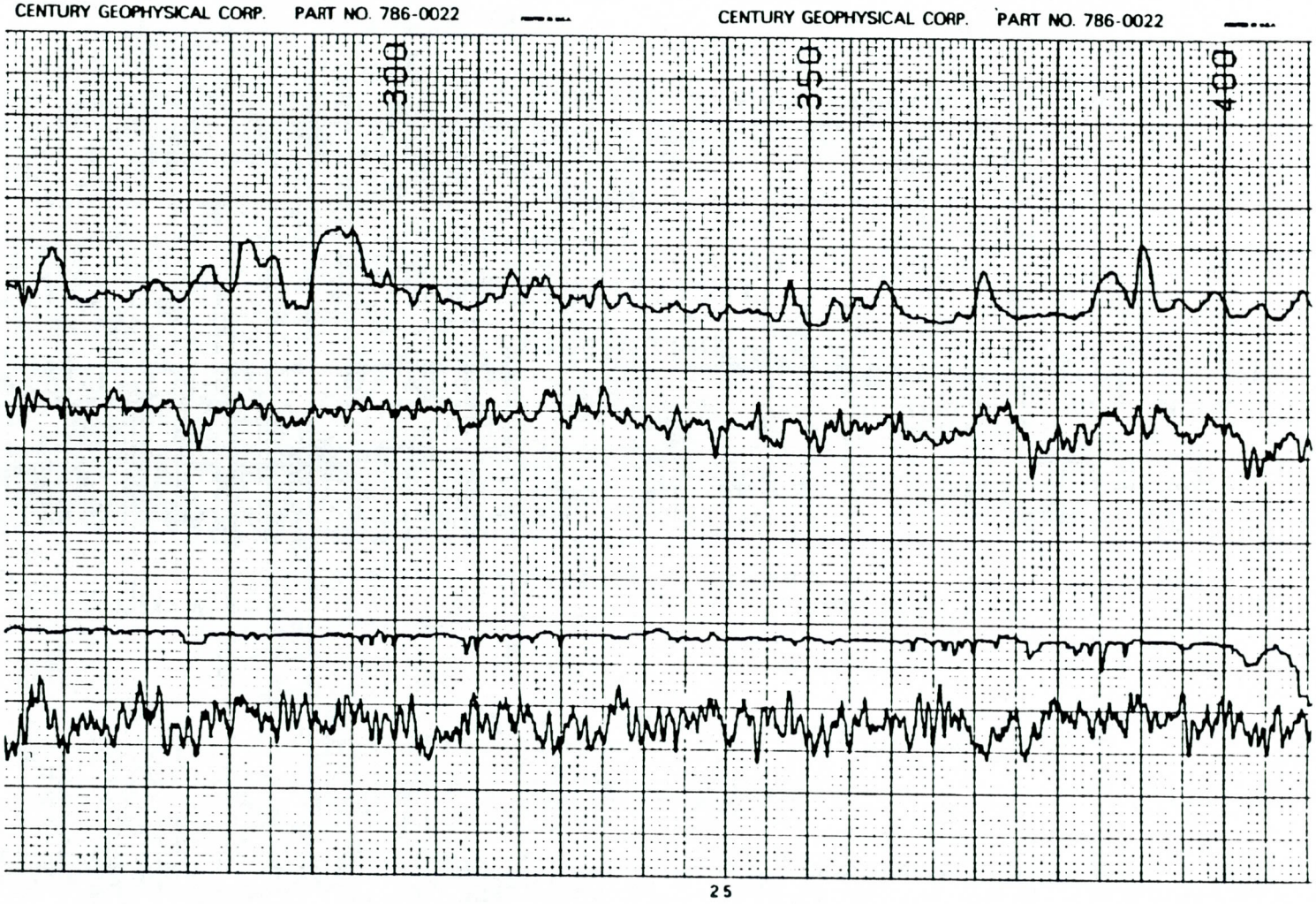
CENTURY GEOPHYSICAL CORP. PART NO. 786-0(
150
200
250
300
27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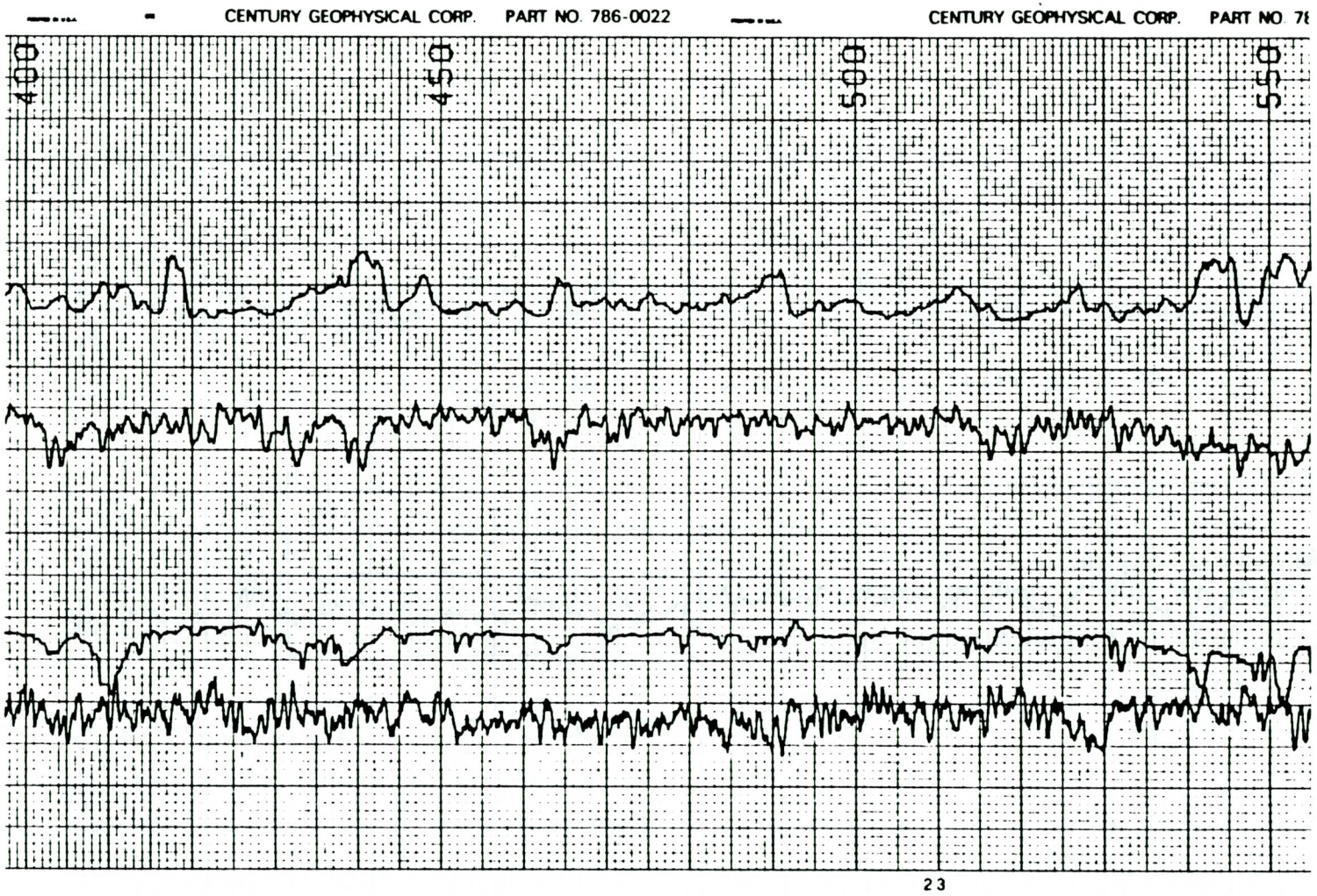
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
3500
3550
4000
25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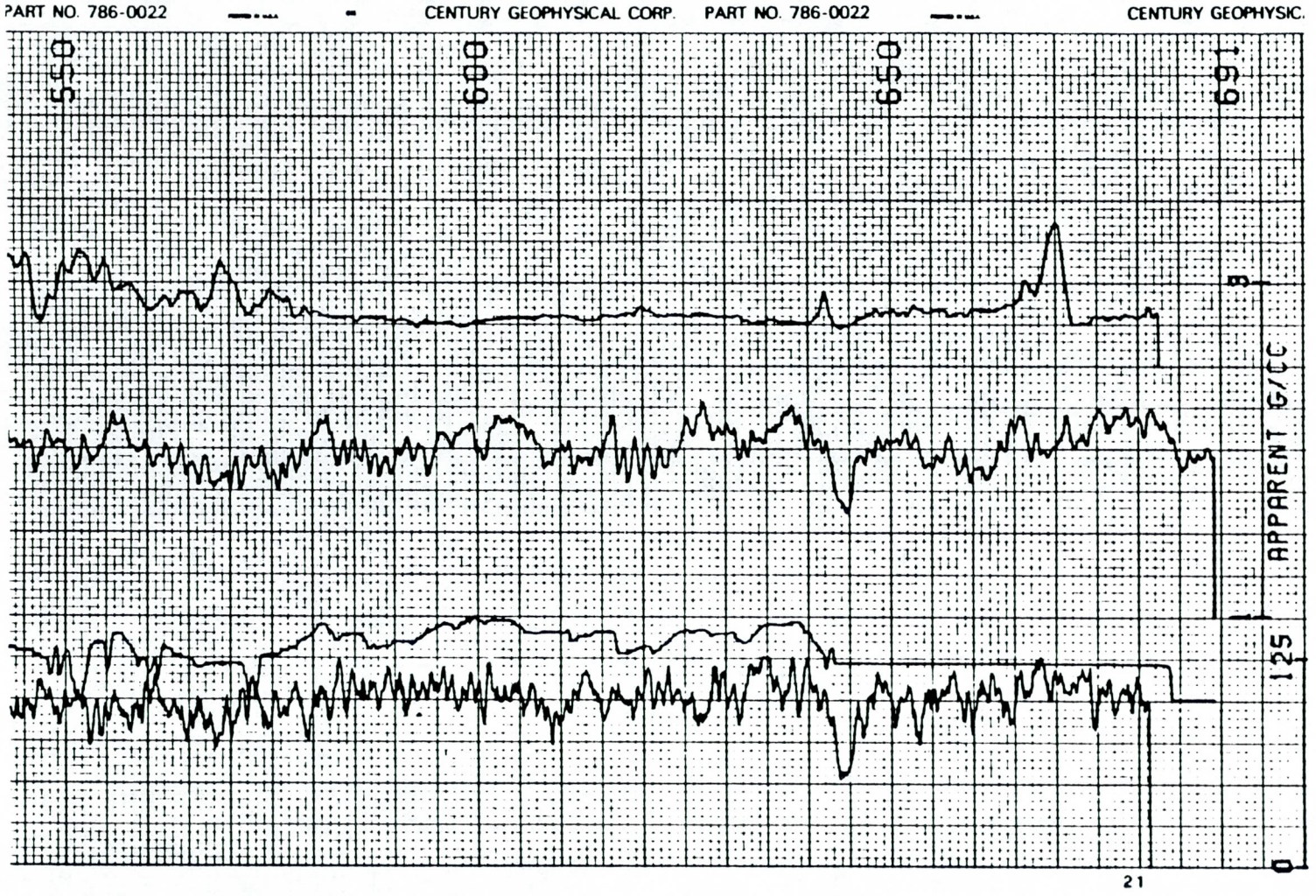
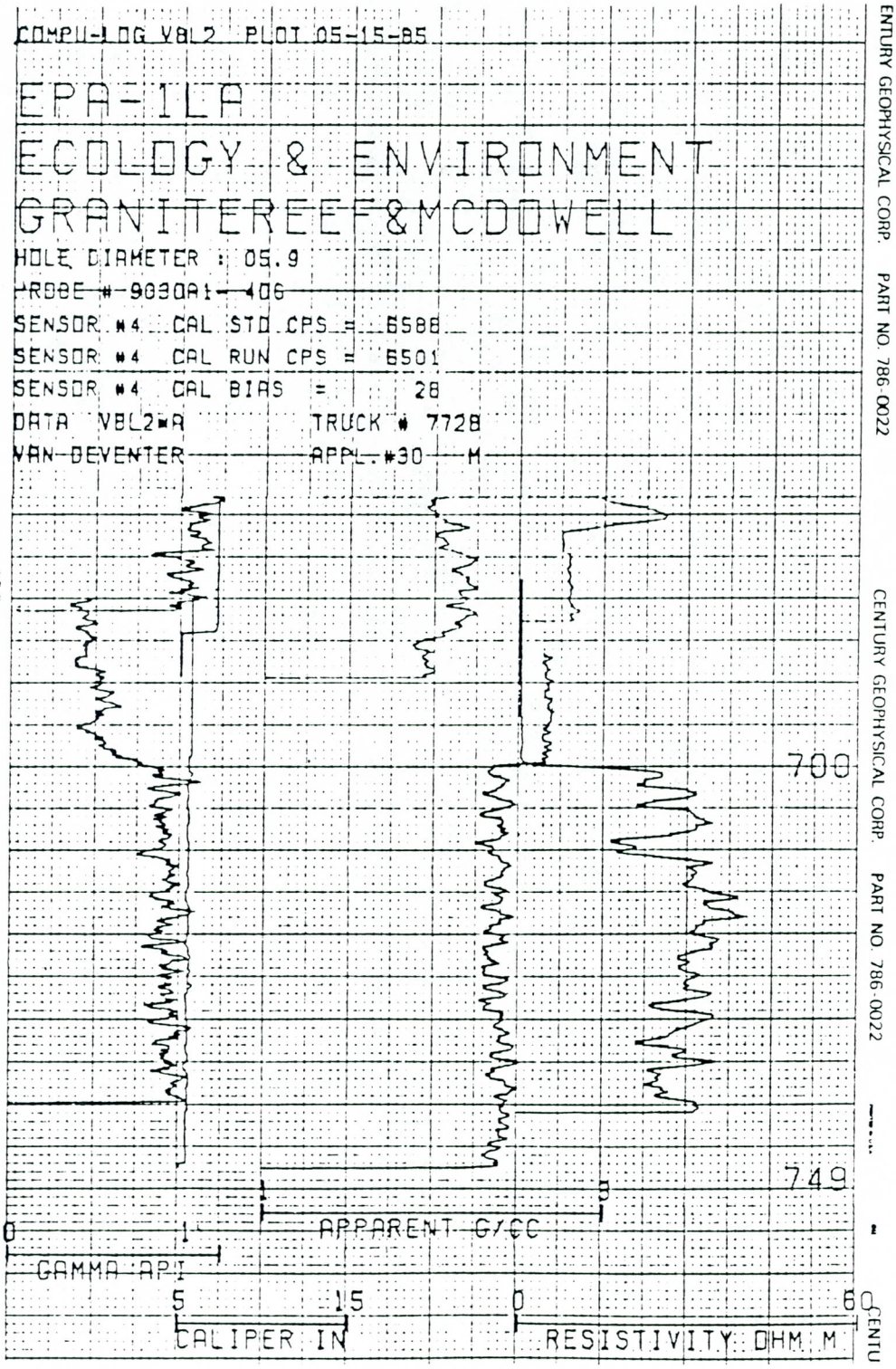
CENTURY GEOPHYSICAL CORP. PART NO. 7
400
450
500
550
23


PART NO. 786-0022
CENTURY GEOPHYSICAL CORP.
PART NO. 786-0022
CENTURY GEOPHYSIC.
550
600
650
691
APPARENT G/CC
125
0
21

21
0
125
APPARENT G/CC
GAMMA API
5
15
CALIPER IN
0
RESISTIVITY OHM M
COMPU-LOG VBL2 PLOT 05-12-85
EPA-ILA
ECOLOGY & ENVIRONMENT
GRANITEREEF&MCDOWELL
HOLE DIAMETER : 08.9
PROBE # 9030A1- 406
SENSOR #4 CAL STD CPS = 8588
SENSOR #4 CAL RUN CPS = 8501
SENSOR #4 CAL BIAS = 28
DATA VBL2=R TRUCK # 7728
VAN BEVENTER APPL.#2030 M
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022



ENTURY GEOPHYSICAL CORP. PART NO. 786-0022

CENTURY GEOPHYSICAL CORP. PART NO. 786-0022

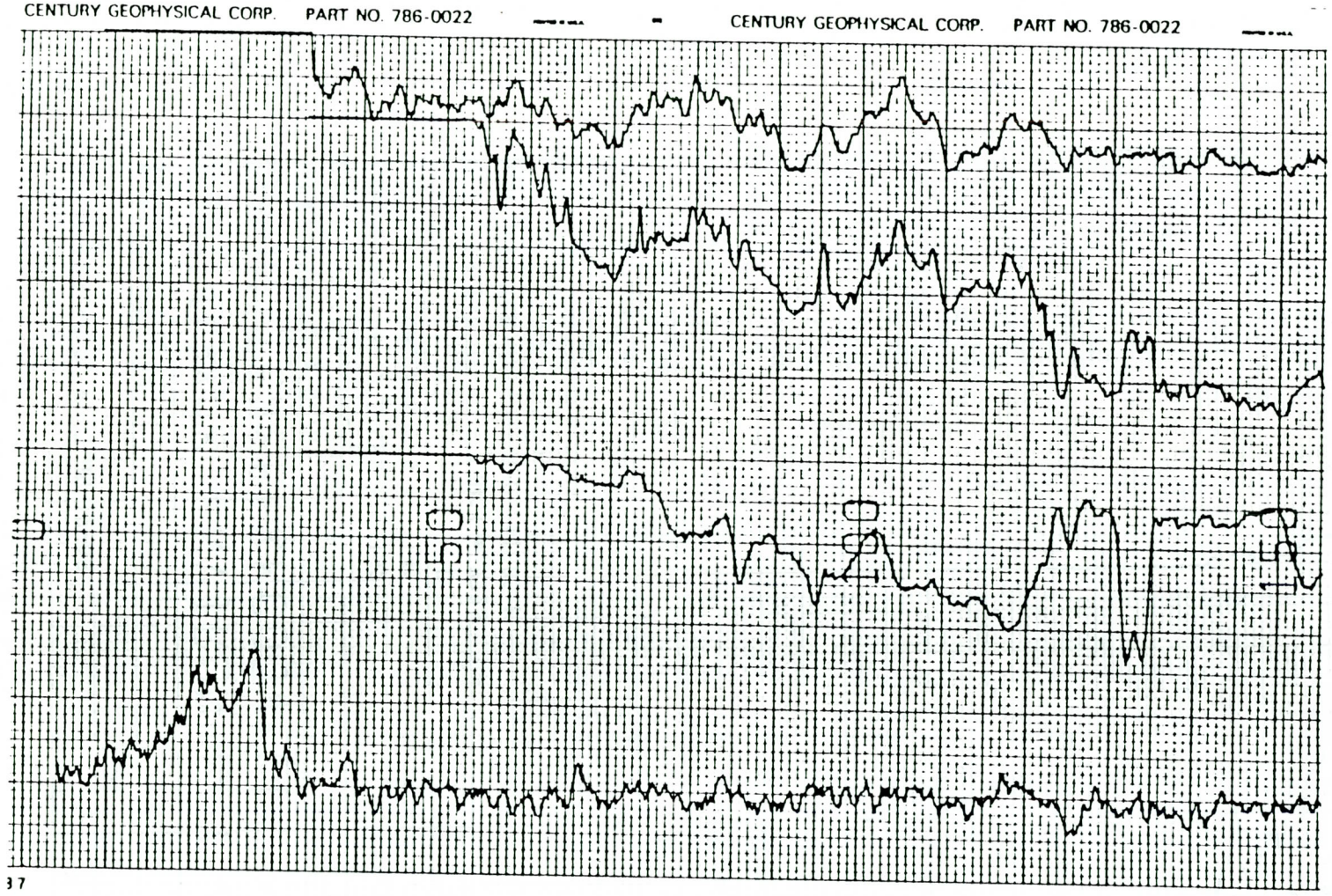
455

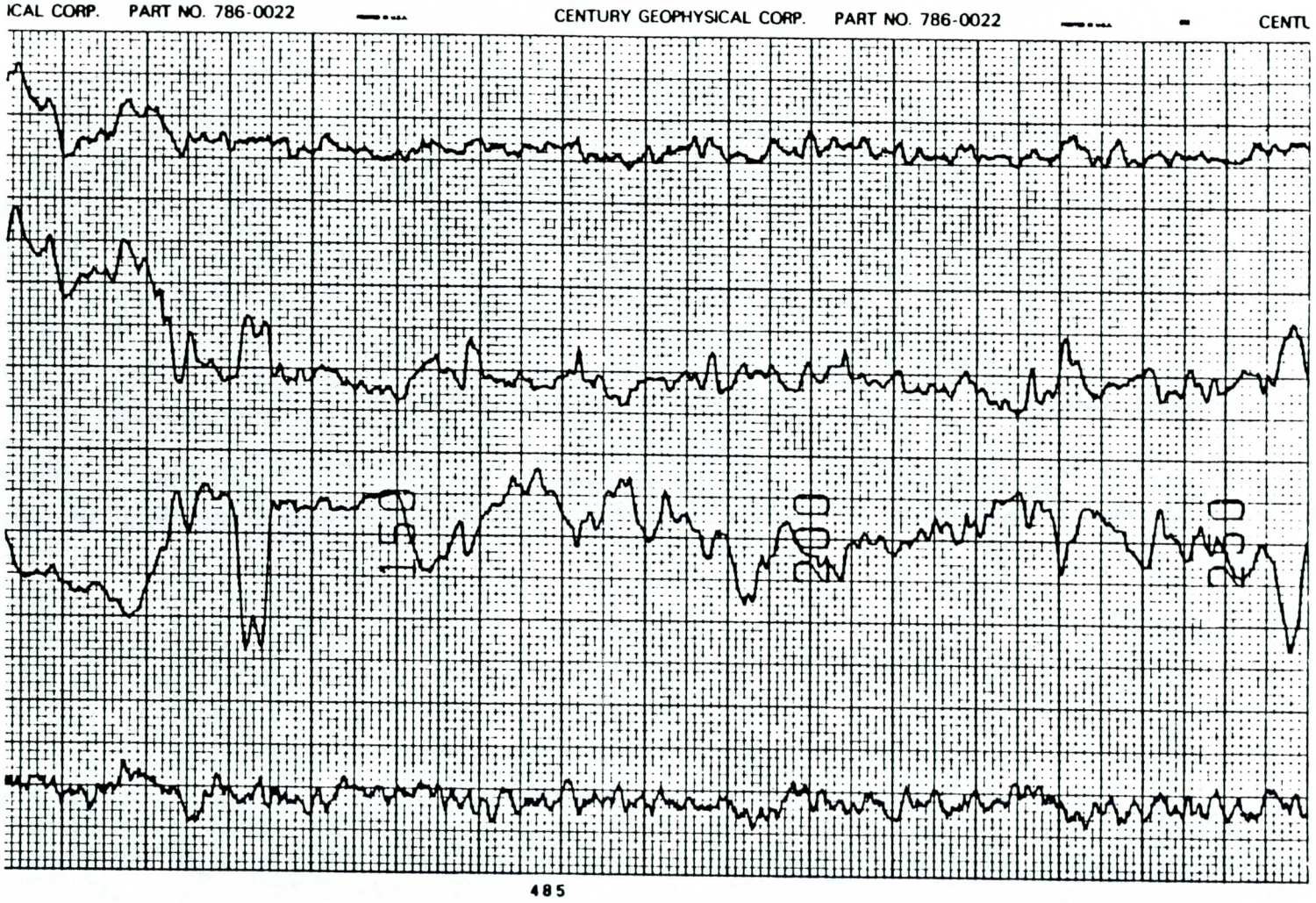
(A-1-4)1abb3 [E-1LA]

Gamma, S.P., Resistance, N-N

COMPU-LOG V8.2 PLOT 05-12-85
EPA-1LA
ECOLOGY & ENVIRONMENT
GRANITEREEF&MCDOWELL
HOLE DIAMETER : 08.9
PROBE # 9055A - 069
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 191
SENSOR #4 CAL BIAS = 0
DATA V8L2#A TRUCK # 7728
VAN BEYENTER APPL.#1005 M
0
50
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022

487


CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
37


ICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTL
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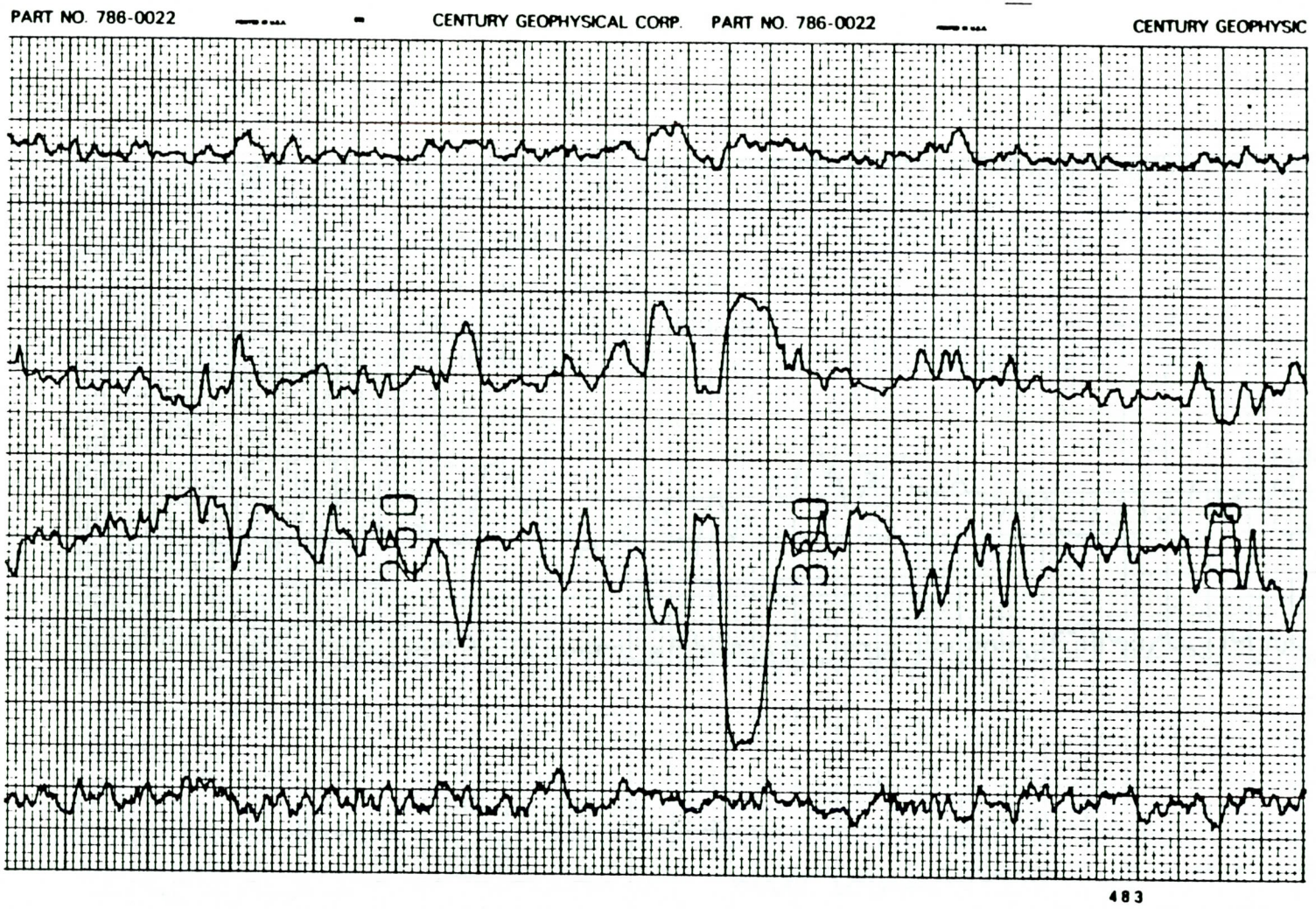
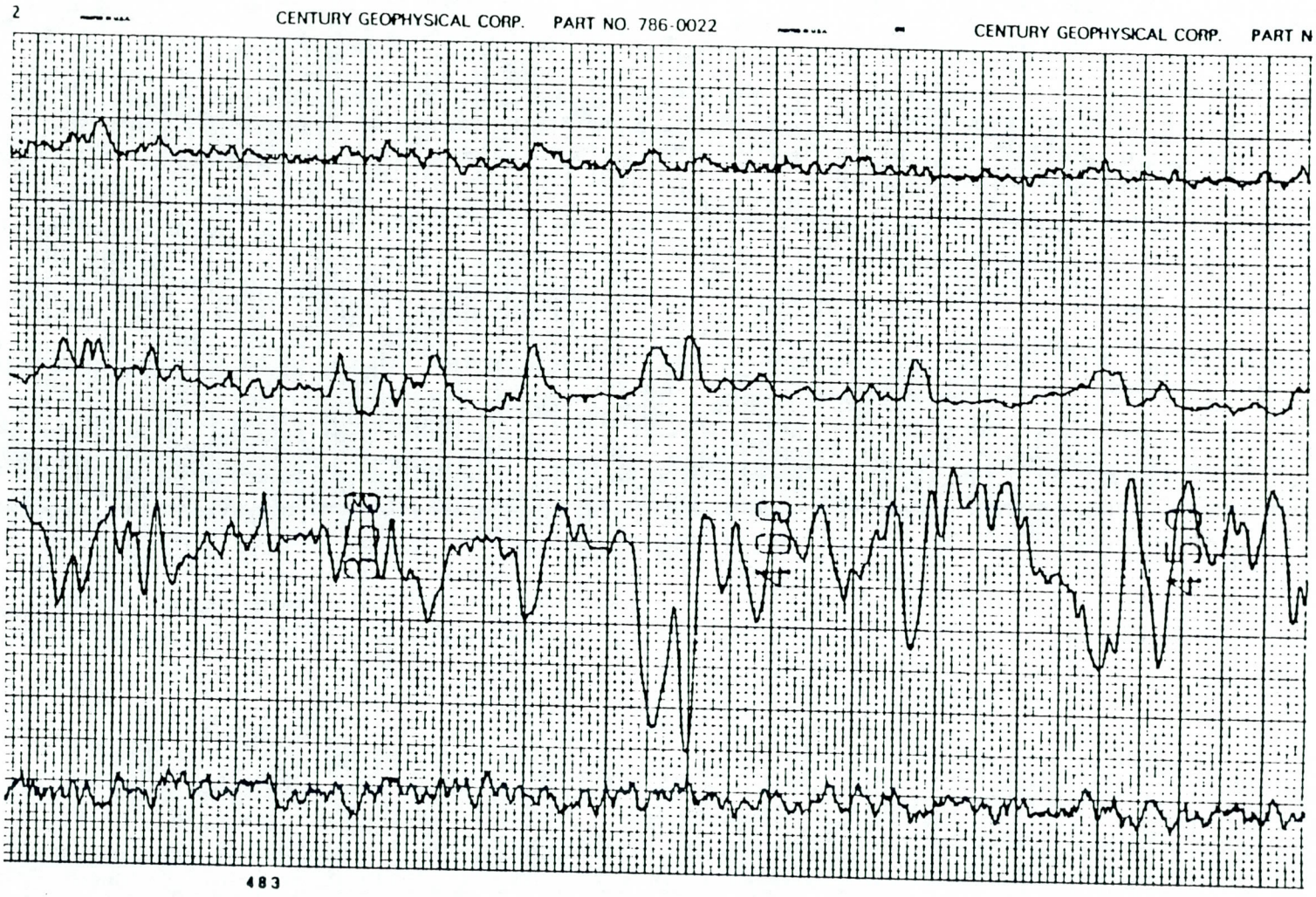

PART NO. 786-0022
CENTURY GEOPHYSICAL CORP.
PART NO. 786-0022
CENTURY GEOPHYSIC
483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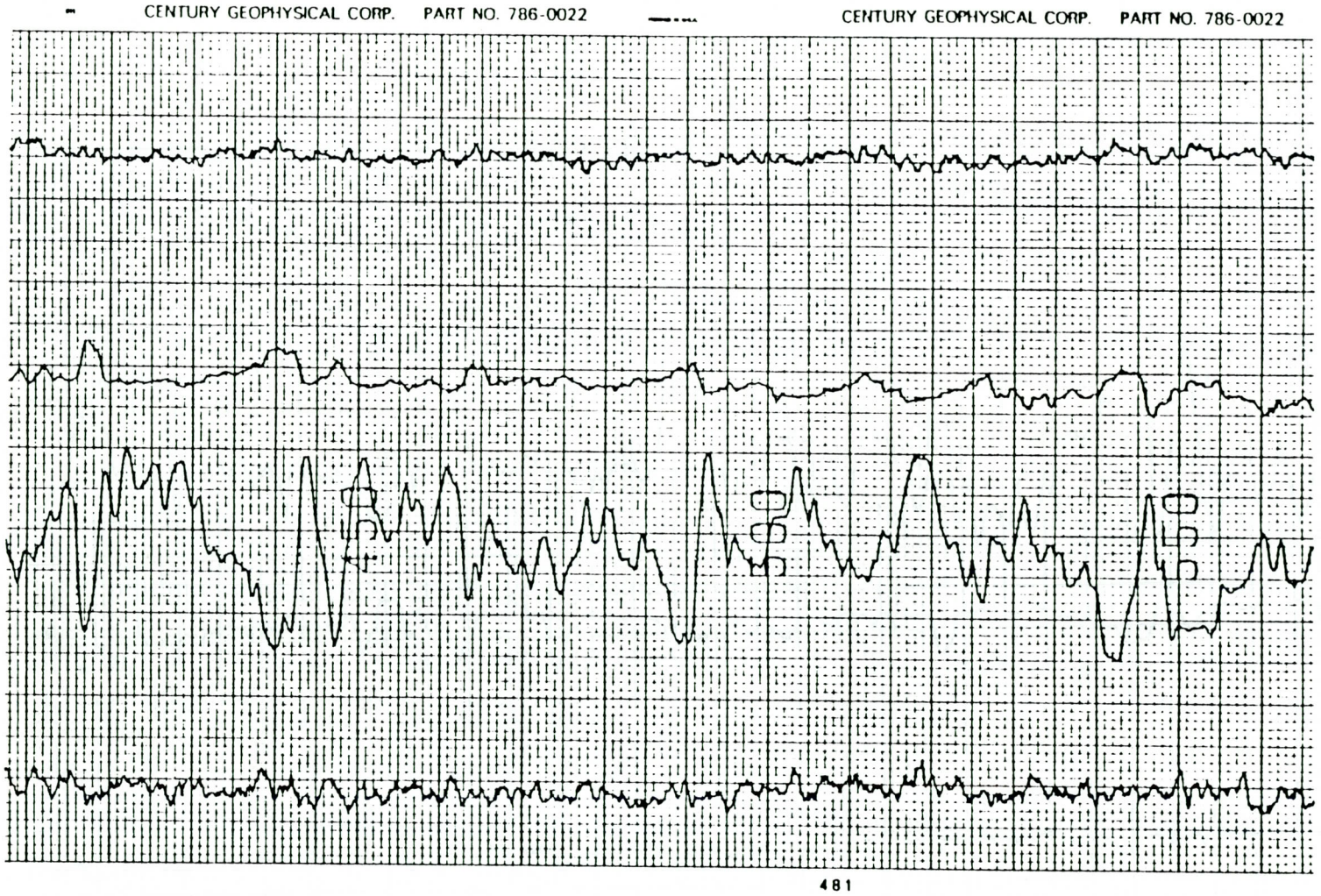
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP. PART N
483


CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
CENTURY GEOPHYSICAL CORP. PART NO. 786-0022
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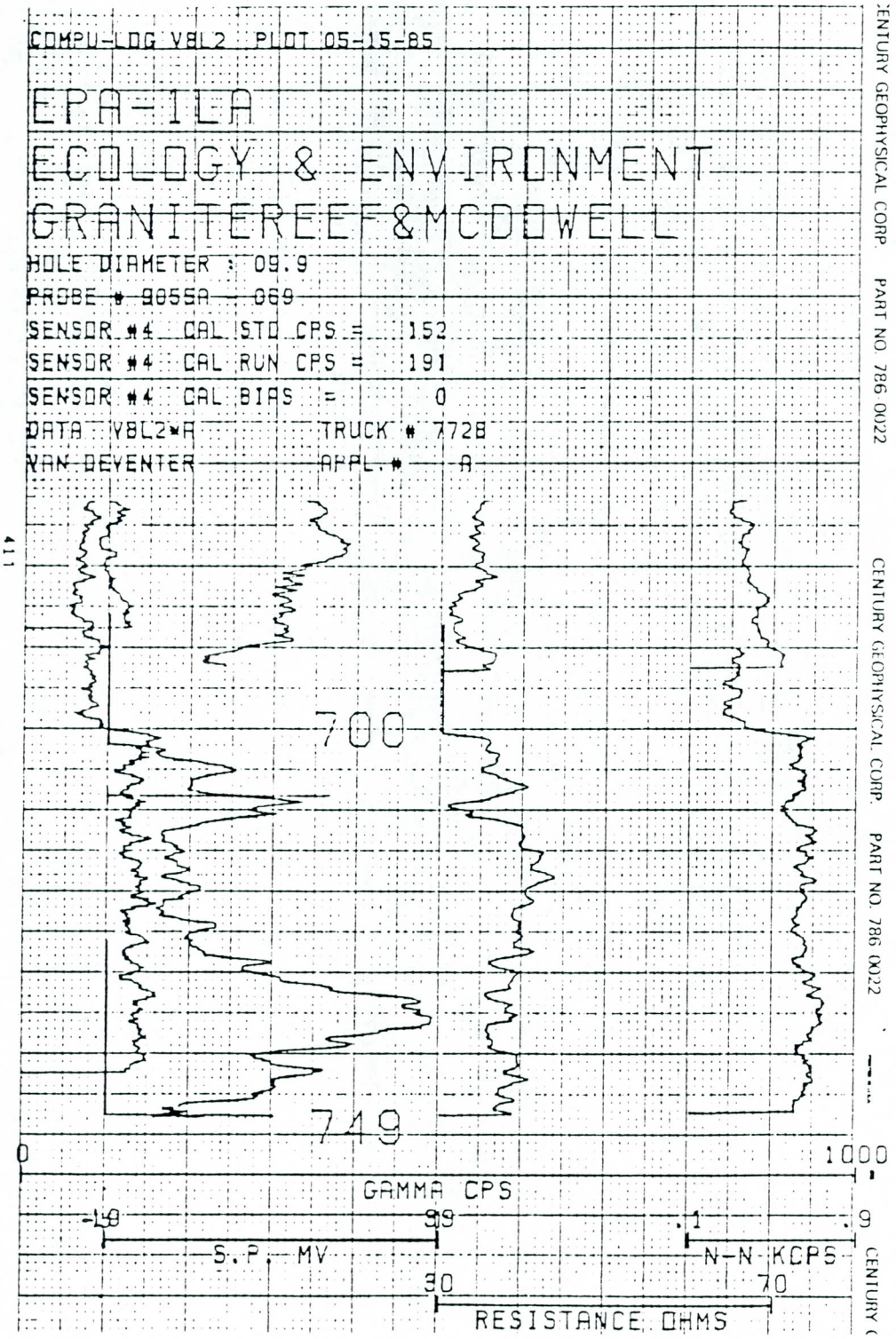

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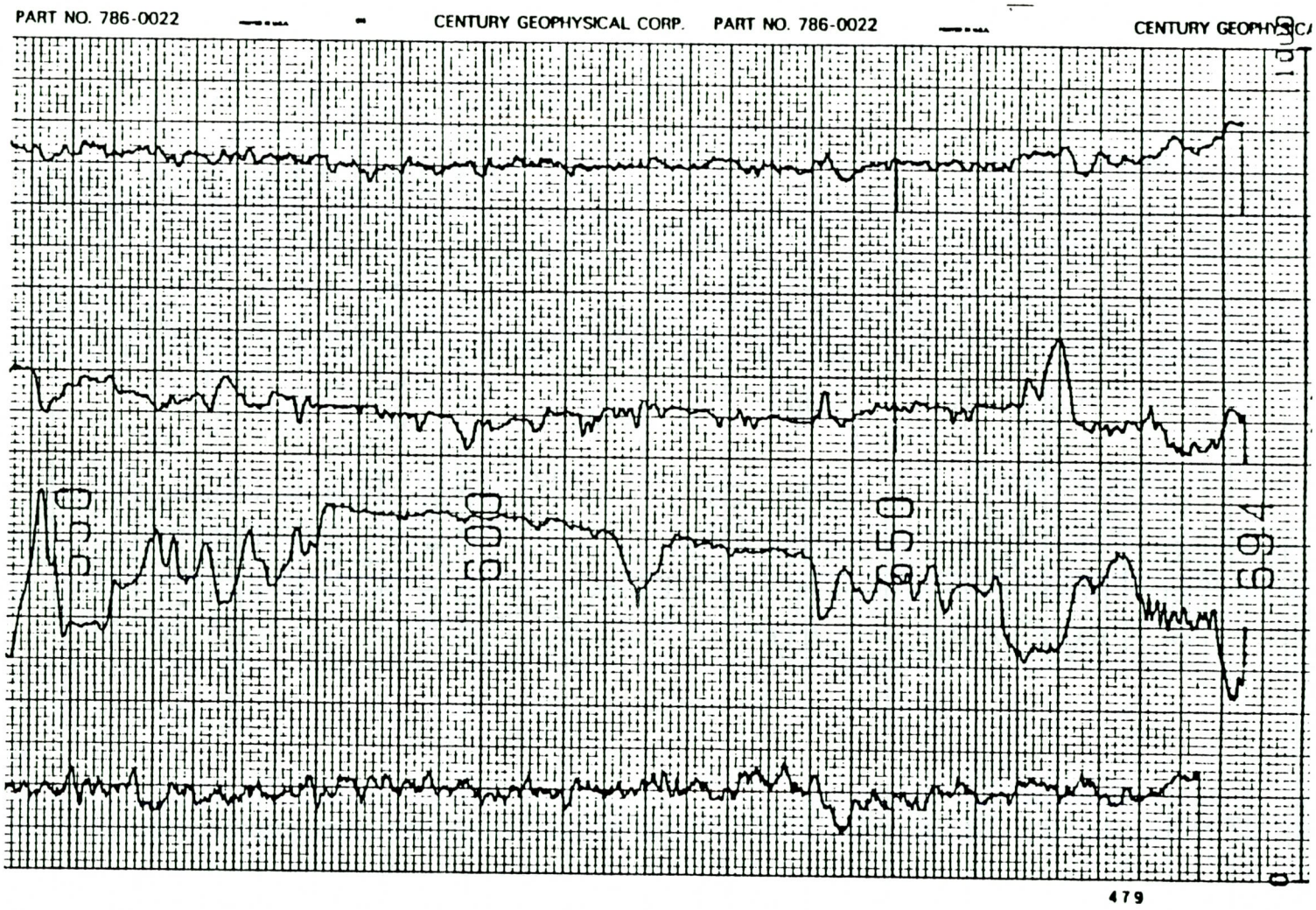
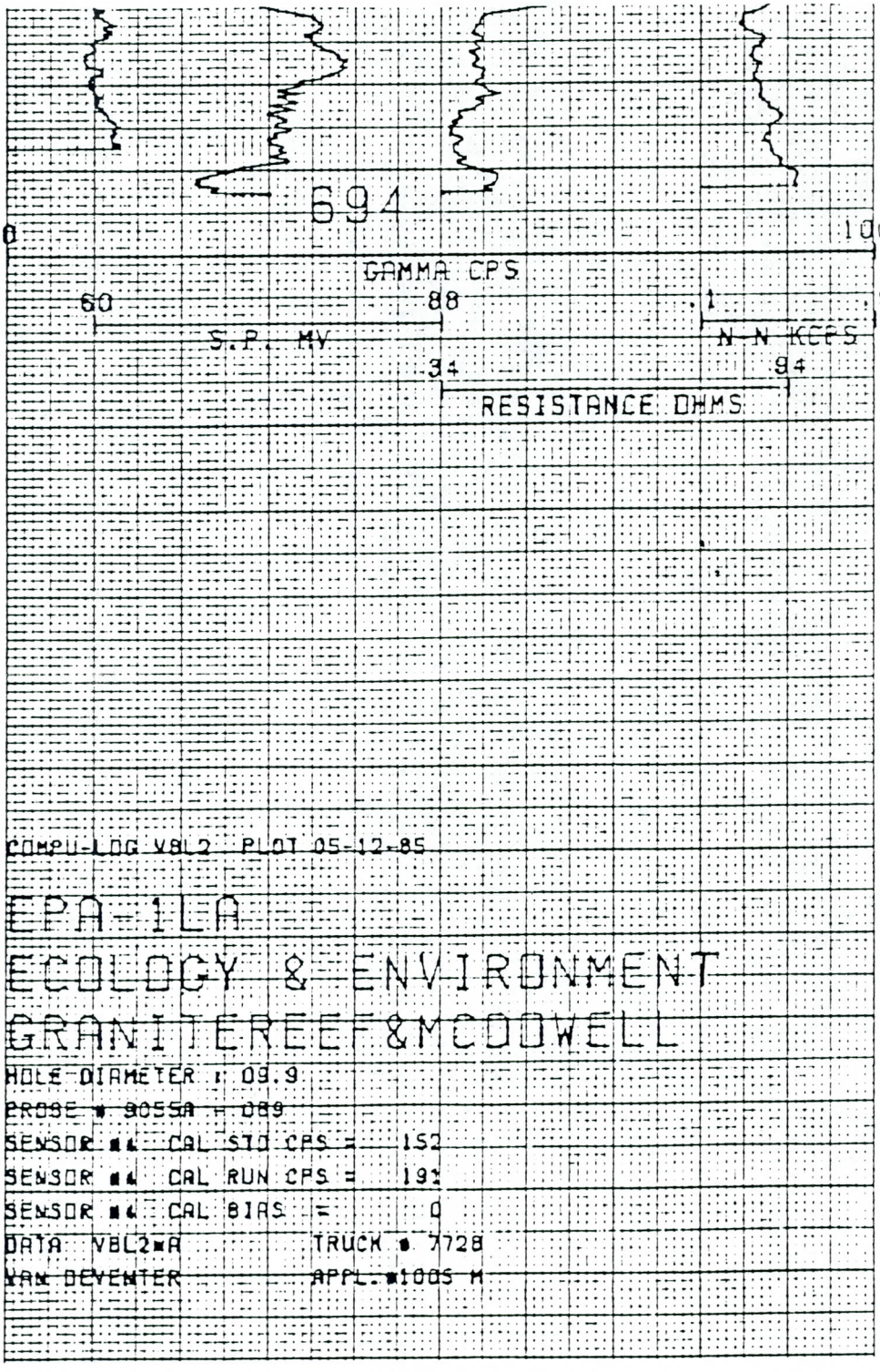
CENTURY GEOPHYSICAL CORP. PART NO. 786 0022

411


PART NO. 786-0022
CENTURY GEOPHYSICAL CORP.
PART NO. 786-0022
CENTURY GEOPHYSICA
479



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CENTURY GEOPHYSICAL CORP. PART NO. 786-0022

CENTURY GEOPHYSICAL CORP. PART NO. 786-0022