FLORIDA GEOPHYSICAL LOGGING, INC.

X-Y CALIPER GAMMA RAY LOG

FILE NO. ____________

COMPANY MONTGOMERY WATSON
WELL IW #2
FIELD STUART
COUNTY MARTI STATE FLORIDA
LOCATION
SEC. ____

RECEIVED
JUL 17 1997
DEPT. OF ENV. PROTECTION

OTHER SERVICES:
BHC/VDL
DIL/LL3/SP
BHTV

PERMANENT DATUM PAD ELEV. ____
LOG MEASURED FROM PAD FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM PAD

ELEV.: K.B. ____
D.F. ____
G.L. ____

DATE	12-JULY-1997	
RUN NO.	NINE	
TYPE LOG	X-Y CALIPER/GR	
DEPTH-DRILLER	2962'	
DEPTH-LOGGER	2962'	
LOGGED INTERVAL	2962' TO CASING	TO
OPERATING RIG TIME	1.5 HOURS	
TYPE FLUID IN HOLE	WATER	
SALINITY, PPM CL	NA	
DENSITY-VISCOSITY	NA	
LEVEL	FULL	
MAX. REC. TEMP. DEG F.	NA	
EQUIPMENT-LOCATION	102 FTM	
RECORDED BY	LEE/MILLER	
WITNESSED BY	T.URAM/R.DENNIS	S.BODMANN

BOREHOLE RECORD				CASING RECORD			
RUN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
SEVEN	42 1/2"	2100'	CASING	54"	.5 W.T.	170'	SURFACE
EIGHT				44"	.5 W.T.	835'	SURFACE
NINE	12 1/4"	2923'	CASING	34"	.5 W.T.	2100'	SURFACE

ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFULL NEGLEGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, DAMAGES, OR EXPENSES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS, AGENTS OR EMPLOYEES. THESE INTERPRETATIONS ARE ALSO SUBJECT TO OUR GENERAL TERMS AND CONDITIONS SET OUT IN OUR CURRENT PRICE SCHEDULE.

REMARKS

XY CALIPER/GAMMA RAY TOOL STRING CONFIGURATION

-- GAMMA RAY -- 3 FT. LONG
MEASURE POINT 7.5 FT. FROM BOT

-- TOTAL TOOL STRING LENGTH = 9 FT. --

-- XY CALIPER -- 6 FT. LONG

--SHORT ARM MEASURE POINT 3 FT. FROM BOT

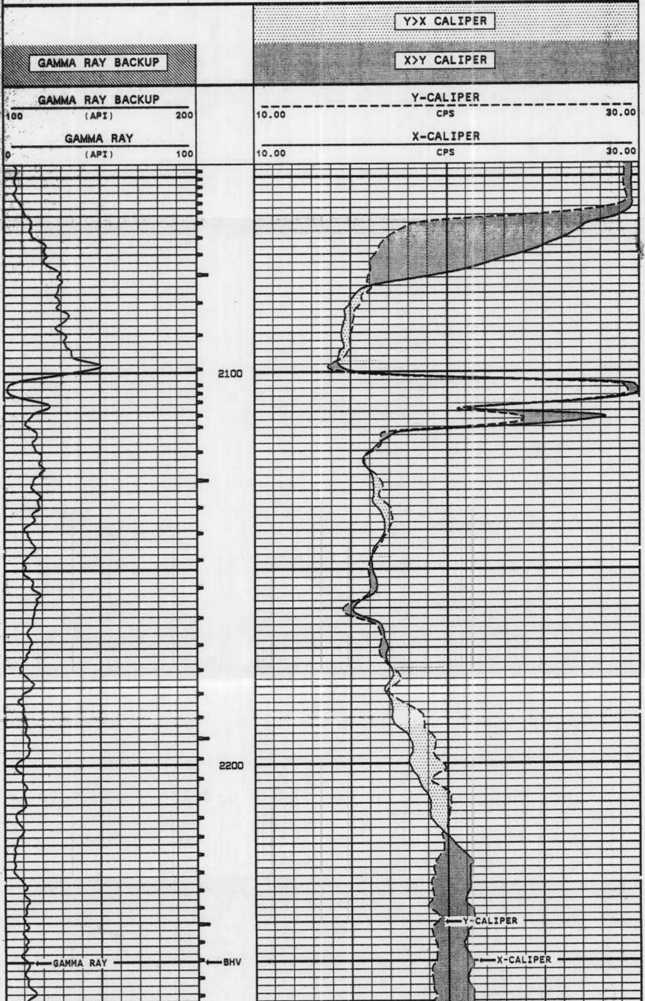
-- BOT

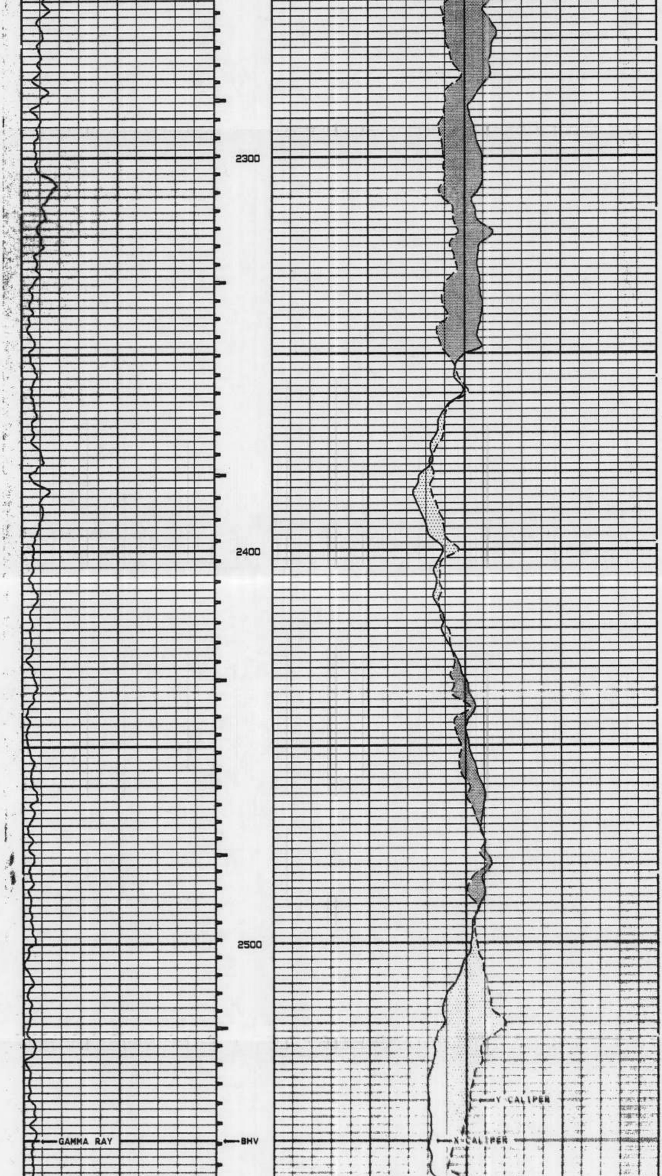
VERSION: 2.42

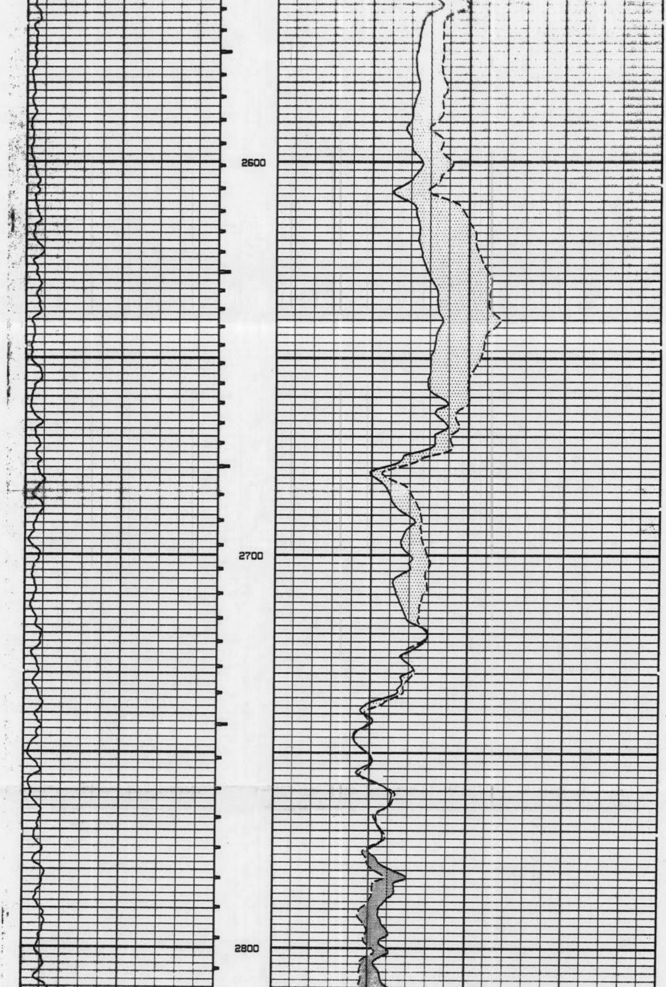
MAIN PASS

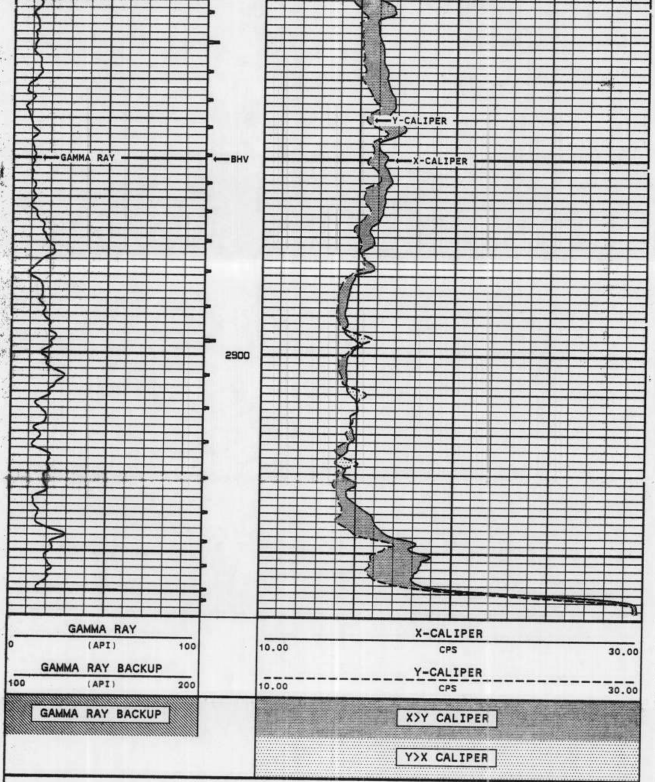
SIW29XYMP

FINISH DEPTH: **2046.8** FEET DIRECTION: **UP** DATE: **07/12/97** TIME: **20:53:18** MODE: **ORIGINAL**









START DEPTH: **2966.4** FEET DIRECTION: UP DATE: **07/12/97** TIME: **20:30:14** MODE: **ORIGINAL**

SIW29XYMP

MAIN PASS

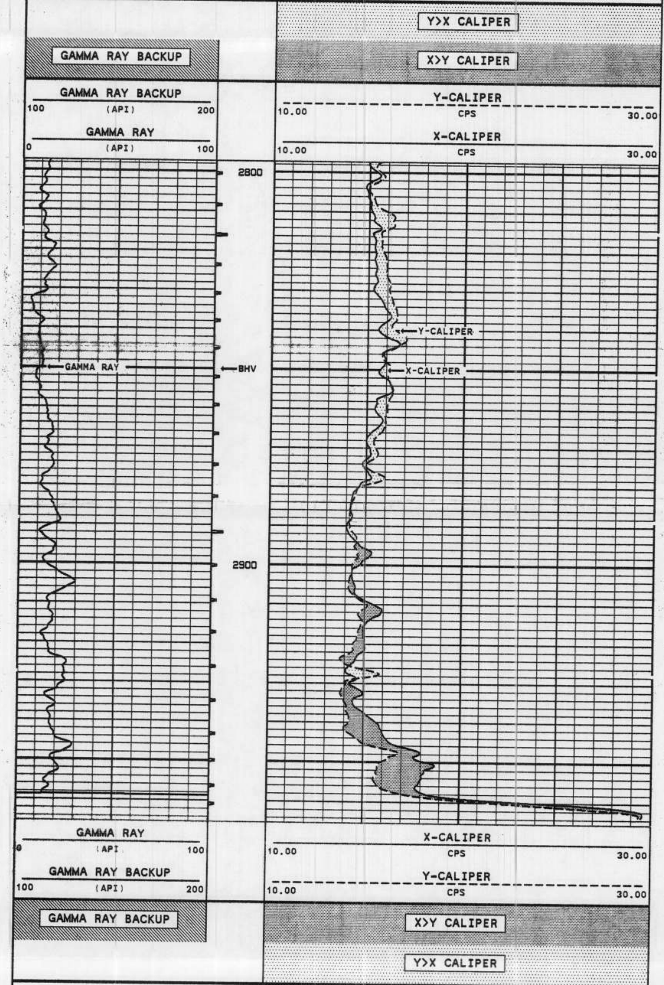
VERSION: 2.42

VERSION: 2.42

REPEAT SECTION

SIW29XYRP

FINISH DEPTH: 2797.4 FEET DIRECTION: UP DATE: 07/12/97 TIME: 20:27:22 MODE: ORIGINAL



START DEPTH: **2965.3** FEET DIRECTION: **UP** DATE: **07/12/97** TIME: **20:22:35** MODE: **ORIGINAL**

SIW29XYRP

REPEAT SECTION

VERSION: 2.42

MASTER CALIBRATION SUMMARY

FILE: DATE: 07/12/97 TIME: 19:55 VERSION: 2.42

X-CALIPER #01

DATE: 07/08/97 TIME: 17:45

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
6"	391.2	CPS	6.0	5.9	6.2	0.11	CPS
10"	466.1	CPS	10.0	9.9	10.2	0.08	CPS
20"	725.9	CPS	20.0	20.0	20.1	0.05	CPS
29.5"	1044.4	CPS	29.5	29.4	29.8	0.06	CPS

Y-CALIPER #01

DATE: 07/08/97 TIME: 17:45

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
6"	362.5	CPS	6.0	5.9	6.1	0.14	CPS
10"	432.6	CPS	10.0	9.9	10.1	0.11	CPS
20"	667.6	CPS	20.0	19.9	20.1	0.08	CPS
29.5"	959.0	CPS	29.5	29.4	29.9	0.07	CPS

GR API CAL #12

DATE: 04/28/97 TIME: 18:20

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
SHOP: BACKGROUND	14.1	CPS	0.0	6.8	41.6	5.70	API
SHOP: CALIBRATOR	102.7	CPS	120.0	108.1	174.6	12.39	API

COMPANY MONTGOMERY WATSON

WELL IW #2

FIELD STUART **STATE** FLORIDA

FLORIDA GEOPHYSICAL LOGGING, INC.

DUAL INDUCTION LL3/SP LOG

FILE NO. ____

COMPANY MONTGOMERY WATSON
WELL IW #2
FIELD STUART
COUNTY MARTIN STATE FLORIDA
LOCATION
SEC. ____ TWP. ____

RECEIVED
JUL 17 1997
DEPT. OF ENV. PROTECTION

OTHER SERVICES:
BHC/VDL
X-Y CALIPER
BHTV
GAMMA RAY

PERMANENT DATUM PAD ELEV. ____
LOG MEASURED FROM PAD FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM PAD

ELEV.: K.B. ____
D.F. ____
G.L. ____

DATE	12-JULY-1997	
RUN NO.	NINE	
TYPE LOG	DIL/LL3/SP	
DEPTH-DRILLER	2962'	
DEPTH-LOGGER	2962'	
LOGGED INTERVAL	2962' TO CASING	TO
OPERATING RIG TIME	1.5 HOURS	
TYPE FLUID IN HOLE	WATER	
SALINITY, PPM CL	NA	
DENSITY-VISCOSITY	NA	
LEVEL	FULL	
MAX. REC. TEMP, DEG F.	NA	
EQUIPMENT-LOCATION	102 FTM	
RECORDED BY	LEE/MILLER	
WITNESSED BY	T.URAM/R.DENNIS	S.BODMANN

BOREHOLE RECORD				CASING RECORD			
RUN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
SEVEN	42 1/2"	2100'	CASING	54"	.5 W.T.	170'	SURFACE
EIGHT				44"	.5 W.T.	835'	SURFACE
NINE	12 1/4"	2962'	CASING	34"	.5 W.T.	2100'	SURFACE

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REMARKS

DUAL INDUCTION/LATERLOG3/GAMMA RAY TOOL STRING CONFIGURATION

-- GAMMA RAY -- 3 FT. LONG
MEASURE POINT 25.5 FT. FROM BOT

-- DUAL INDUCTION/LATERLOG3
24 FT LONG

-- TOTAL TOOL STRING LENGTH = 27 FT. --

-- SP MEASURE POINT --16.3 FT. FROM BOT
-- ILD MEASURE POINT --16.3 FT. FROM BOT

-- ILM MEASURE POINT --12.5 FT. FROM BOT

-- LL3 MEASURE POINT --3.2 FT. FROM BOT

-- BOT

VERSION: 2.42

MAIN PASS

SIW29DILMP

FINISH DEPTH: 2087.8 FEET DIRECTION: UP DATE: 07/13/97 TIME: 05:19:04 MODE: TRACE PLAYBACK

GAMMA RAY BACKUP

GAMMA RAY BACKUP
100 (API) 200

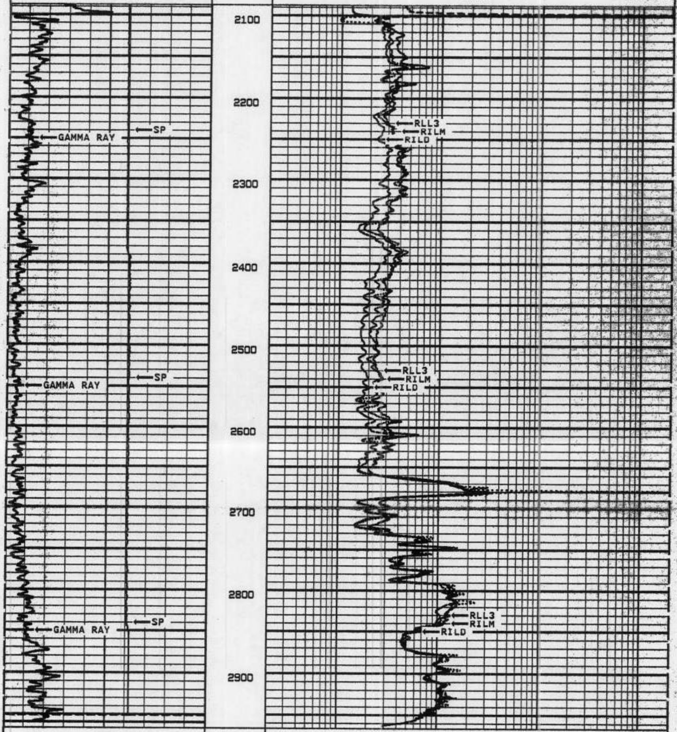
GAMMA RAY
0 (API) 100

SP
-100 MV 0

LL3
0.20 OHMM 2000.00

ILM
0.20 OHMM 2000.00

ILD
0.20 OHMM 2000.00



SP
-100 MV 0

ILD
0.20 OHMM 2000.00

GAMMA RAY			ILM		
0	(API)	100	0.20	OHMM	2000.00
GAMMA RAY BACKUP			LL3		
100	(API)	200	0.20	OHMM	2000.00

GAMMA RAY BACKUP

START DEPTH: 2985.9 FEET DIRECTION: UP DATE: 07/13/97 TIME: 04:55:54 MODE: TRACE PLAYBACK

SIW29DILMP

MAIN PASS

VERSION: 2.42

VERSION: 2.42

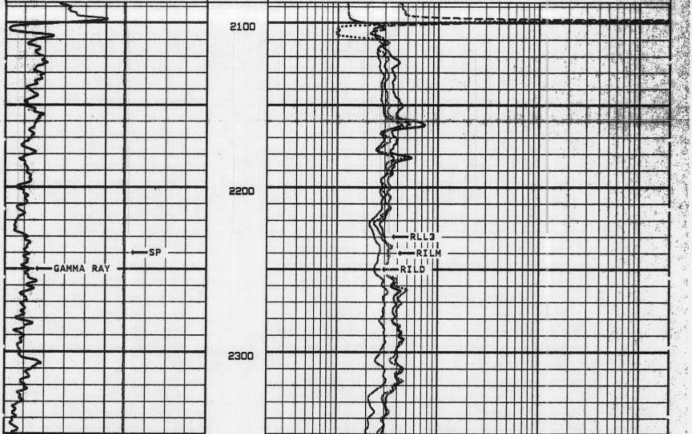
MAIN PASS

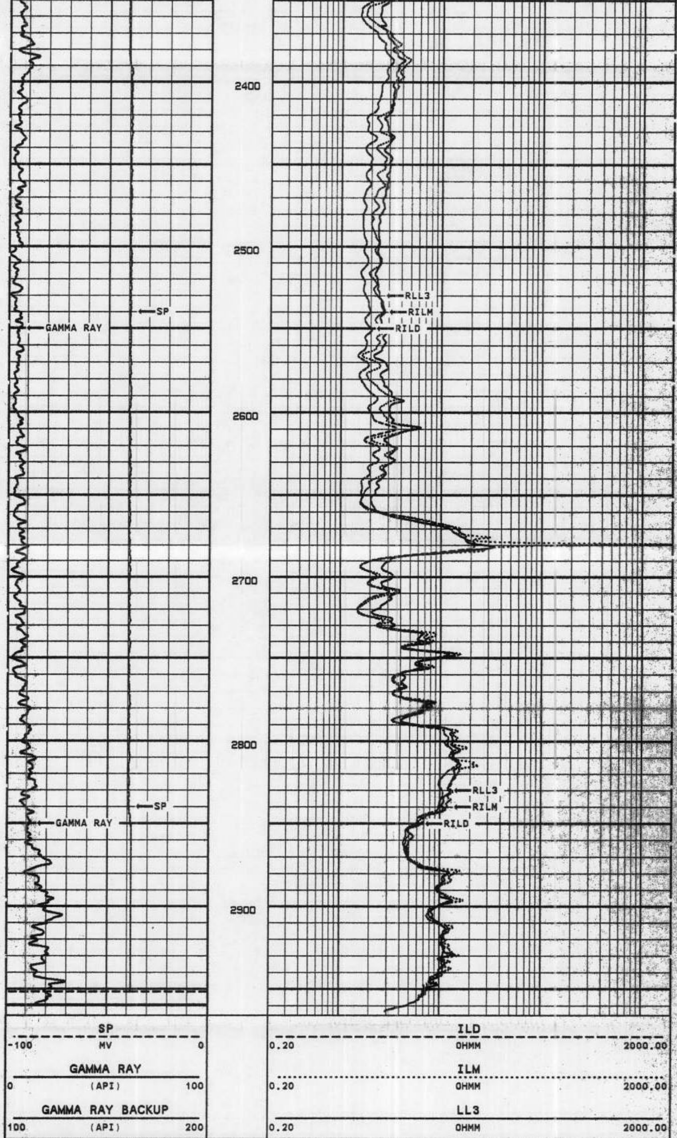
SIW29DILMP

FINISH DEPTH: 2087.8 FEET DIRECTION: UP DATE: 07/13/97 TIME: 05:19:04 MODE: TRACE PLAYBACK

GAMMA RAY BACKUP

GAMMA RAY BACKUP			LL3		
100	(API)	200	0.20	OHMM	2000.00
GAMMA RAY			ILM		
0	(API)	100	0.20	OHMM	2000.00
SP			ILD		
-100	MV	0	0.20	OHMM	2000.00





GAMMA RAY BACKUP

START DEPTH: 2965.9 FEET DIRECTION: UP DATE: 07/13/97 TIME: 04:55:54 MODE: **TRACE PLAYBACK**

SIW29DILMP

MAIN PASS

VERSION: 2.42

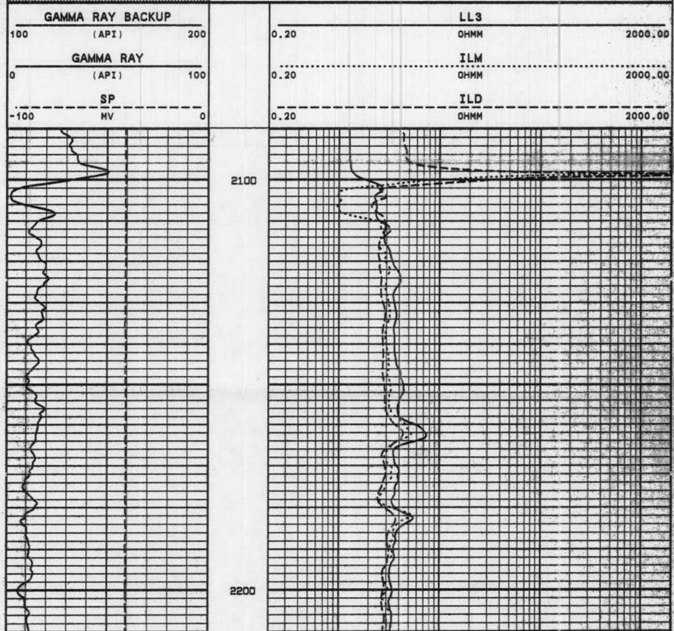
VERSION: 2.42

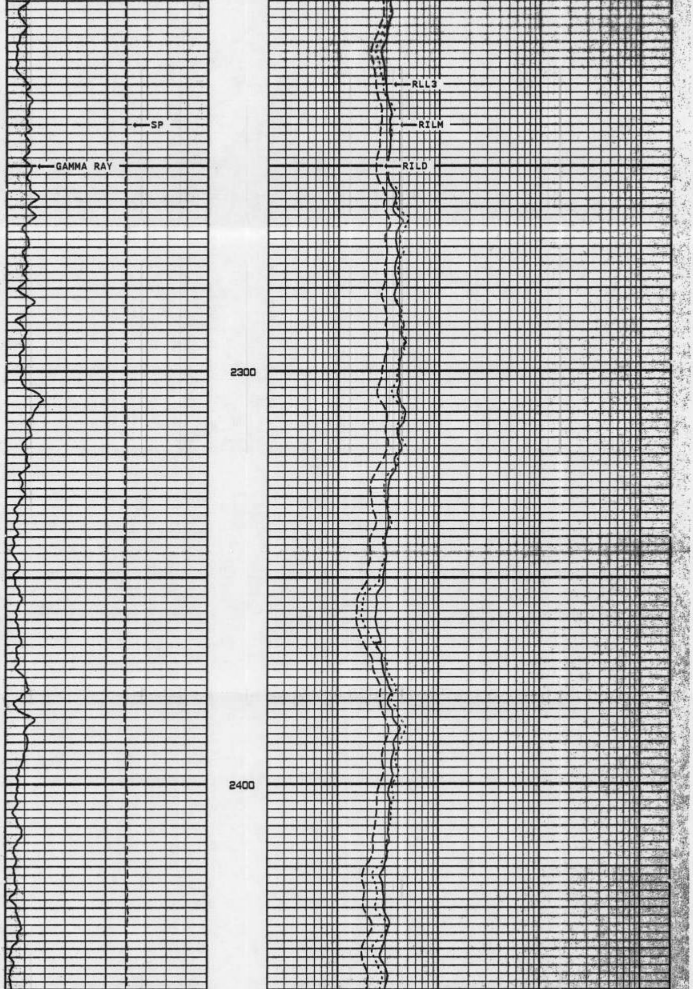
MAIN PASS

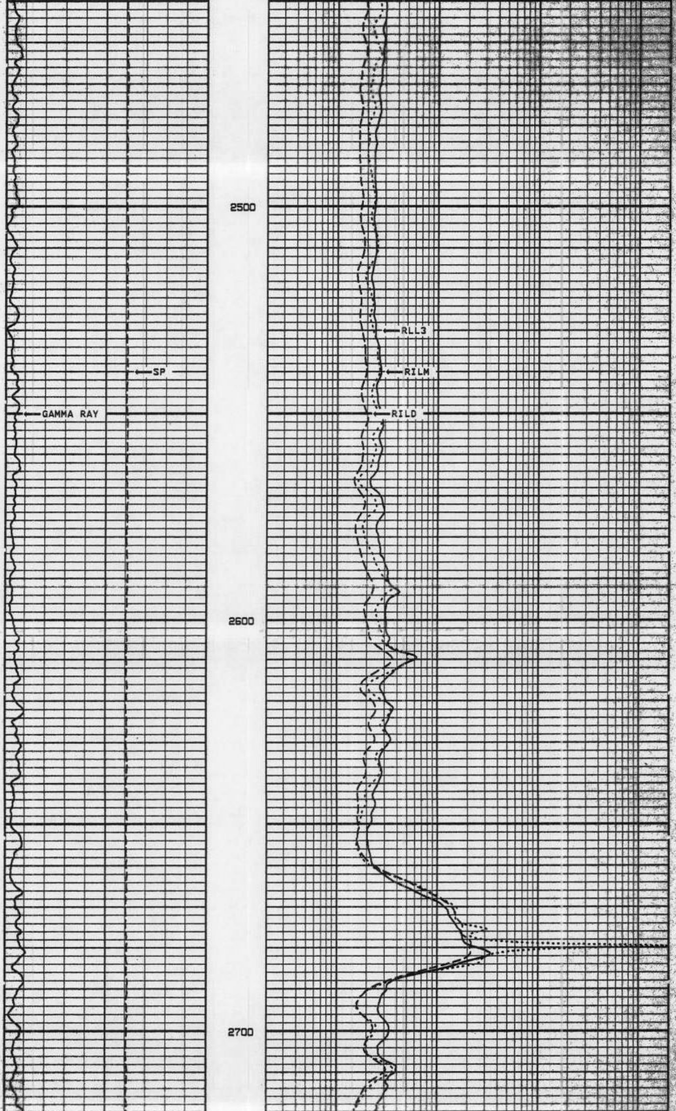
SIW29DILMP

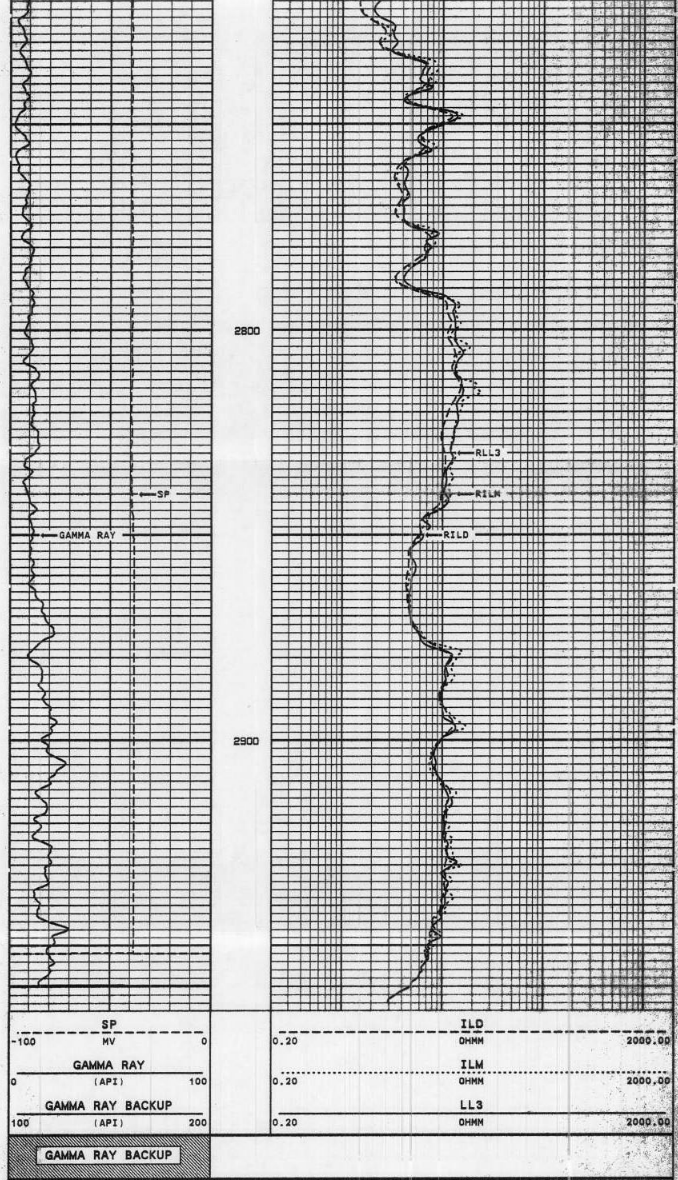
FINISH DEPTH: 2087.8 FEET DIRECTION: UP DATE: 07/13/97 TIME: 05:19:04 MODE: **ORIGINAL**

GAMMA RAY BACKUP









START DEPTH: 2965.9 FEET DIRECTION: UP DATE: 07/13/97 TIME: 04:55:54 MODE: **ORIGINAL**

SIW29DILMP

MAIN PASS

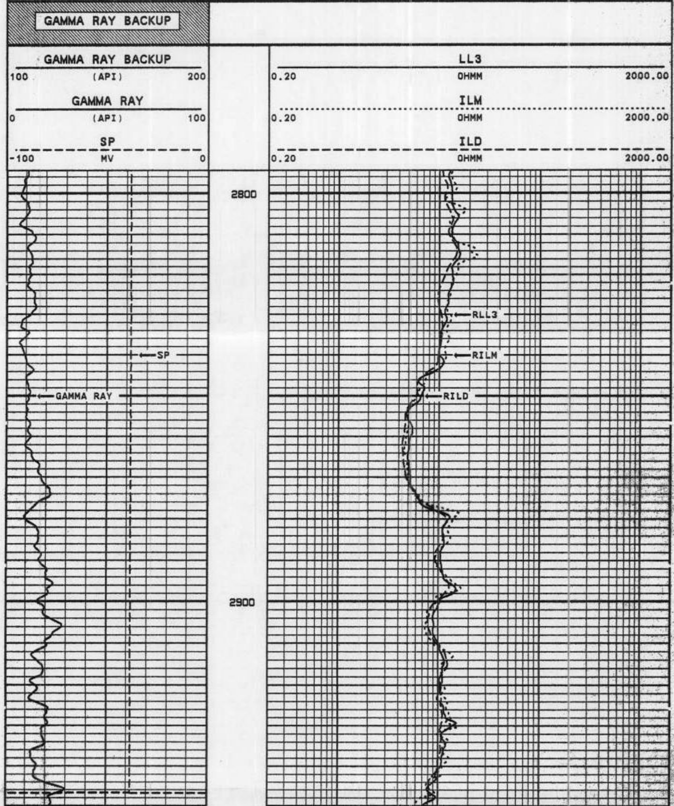
VERSION: 2.42

VERSION: 2.42

REPEAT SECTION

SIW29DILRP

FINISH DEPTH: 2794.6 FEET DIRECTION: UP DATE: 07/13/97 TIME: 04:52:41 MODE: **ORIGINAL**



SP	ILD
-100 MV 0	0.20 OHMM 2000.00
GAMMA RAY	ILM
0 (API) 100	0.20 OHMM 2000.00
GAMMA RAY BACKUP	LL3
100 (API) 200	0.20 OHMM 2000.00

GAMMA RAY BACKUP

START DEPTH: 2960.7 FEET DIRECTION: UP DATE: 07/13/97 TIME: 04:47:33 MODE: ORIGINAL

SIW29DILRP

REPEAT SECTION

VERSION: 2.42

MASTER CALIBRATION SUMMARY

FILE: DATE: 07/13/97 TIME: 01:44 VERSION: 2.42

ILD TOOL #15

DATE: 09/12/96 TIME: 12:00

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
LOOP OPEN	45.4	MV	0.0	-1.4	0.7	0.72	MMHO
LOOP CLOSED	654.2	MV	400.0	399.2	400.9	0.46	MMHO

ILM TOOL #15

DATE: 09/12/96 TIME: 12:00

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
LOOP OPEN	71.5	MV	0.0	-1.6	0.5	0.53	MMHO
LOOP CLOSED	757.9	MV	464.0	463.0	465.6	0.53	MMHO

LL3 TOOL #15

DATE: 09/12/96 TIME: 12:00

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
BOX 1000 OHMS	63.8	MV	1.0	1.0	1.0	0.03	OHMS
BOX 100 OHMS	82.0	MV	10.0	9.4	10.3	0.35	OHMS
BOX 10 OHMS	242.7	MV	100.0	99.8	100.4	0.13	OHMS
BOX 1 OHMS	1196.5	MV	1000.0	999.5	1000.7	0.30	OHMS

COMPANY MONTGOMERY WATSON

WELL IW #2

FIELD STUART STATE FLORIDA

FLORIDA GEOPHYSICAL LOGGING, INC.

BOREHOLE COMPENSATED SONIC/VDL LOG

FILE NO. ______

COMPANY MONTGOMERY WATSON
WELL IW #2
FIELD STUART
COUNTY MARTIN STATE FLORIDA
LOCATION
SEC. ____ TWP ____ RGE ____

OTHER SERVICES:
DIL/LL3/SP
X-Y CALIPER
BHTV
GAMMA RAY

RECEIVED
JUL 17 1997
DEPT OF ENV PROTECTION

PERMANENT DATUM PAD ELEV. ____
LOG MEASURED FROM PAD ____ FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM PAD

ELEV.: K.B. ____
D.F. ____
G.L. ____

DATE	12-JULY-1997	
RUN NO.	NINE	
TYPE LOG	BHC/VDL	
DEPTH-DRILLER	2962'	
DEPTH-LOGGER	2962'	
LOGGED INTERVAL	2962' TO CASING	TO
OPERATING RIG TIME	1.5 HOURS	
TYPE FLUID IN HOLE	WATER	
SALINITY, PPM CL	NA	
DENSITY-VISCOSITY	NA	
LEVEL	FULL	
MAX. REC. TEMP. DEG F.	NA	
EQUIPMENT-LOCATION	102 FTM	
RECORDED BY	LEE/MILLER	
WITNESSED BY	T.URAM/R.DENNIS	S.BODMANN

	BOREHOLE RECORD			CASING RECORD			
RUN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
SEVEN	42 1/2"	2100'	CASING	54"	.5 W.T.	170'	SURFACE
EIGHT				44"	.5 W.T.	835'	SURFACE
NINE	12 1/4"	2962'	CASING	34"	.5 W.T.	2100'	SURFACE

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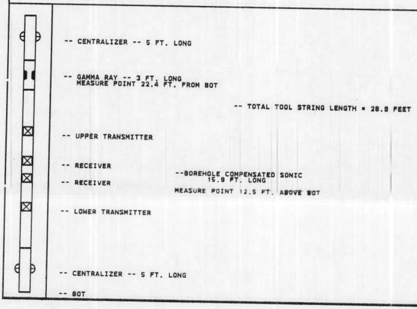
REMARKS

BOREHOLE COMPENSATED SONIC/GAMMA RAY TOOL STRING CONFIGURATION

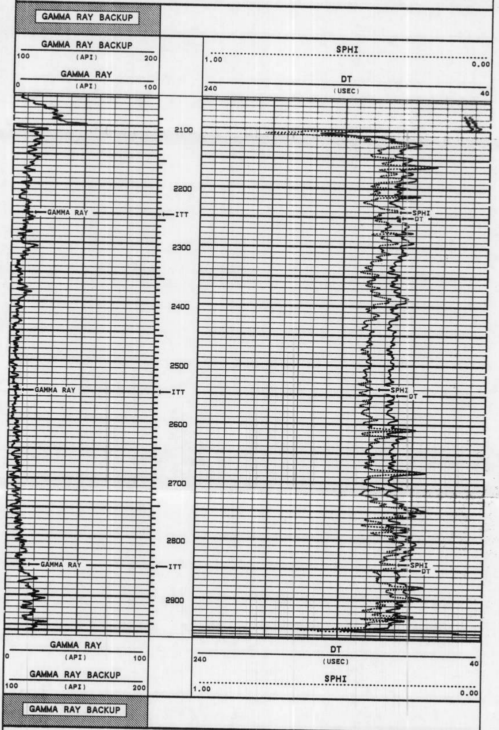

-- CENTRALIZER -- 5 FT. LONG
-- GAMMA RAY -- 3 FT. LONG
MEASURE POINT 22.4 FT. FROM BOT
-- TOTAL TOOL STRING LENGTH = 28.9 FEET
-- UPPER TRANSMITTER
-- RECEIVER
-- RECEIVER
--BOREHOLE COMPENSATED SONIC
15.9 FT. LONG
MEASURE POINT 12.5 FT. ABOVE BOT
-- LOWER TRANSMITTER
-- CENTRALIZER -- 5 FT. LONG
-- BOT

REMARKS

SPHI COMPUTED WITH LIMESTONE MATRIX 47.6 USEC.

VERSION: 2.42

FINISH DEPTH: 2051.8 FEET DIRECTION: UP DATE: 07/13/97 TIME: 16:33:13 MODE: TRACE PLAYBACK



START DEPTH: **2966.7** FEET DIRECTION: **UP** DATE: **07/13/97** TIME: **16:31:09** MODE: **TRACE PLAYBACK**

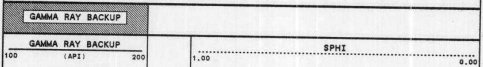
VERSION: **2.42**

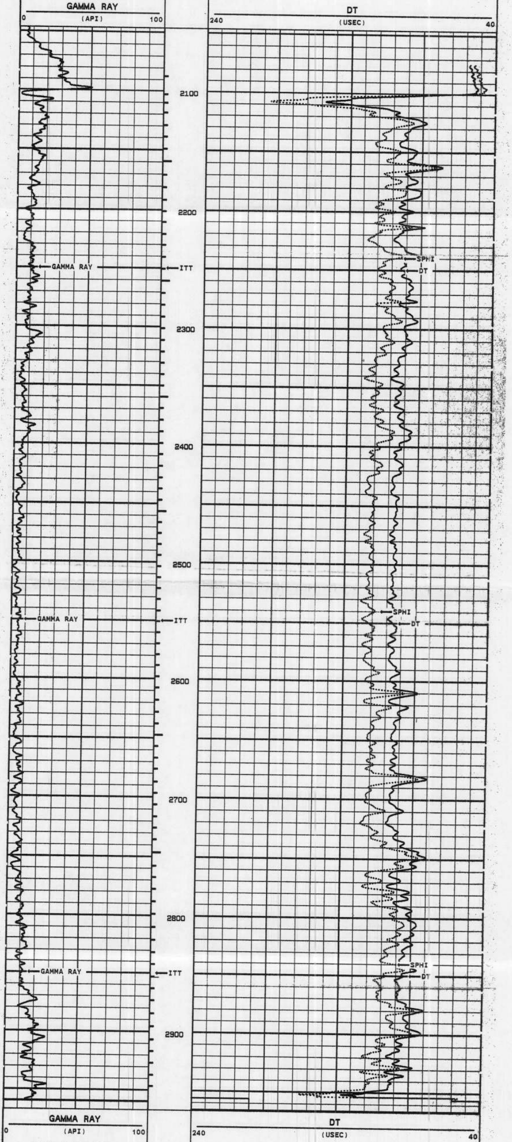
REMARKS

SPHI COMPUTED WITH LIMESTONE MATRIX 47.6 USEC.

VERSION: **2.42**

FINISH DEPTH: **2051.8** FEET DIRECTION: **UP** DATE: **07/13/97** TIME: **16:30:51** MODE: **TRACE PLAYBACK**





GAMMA RAY BACKUP

100 (API) 200

SPHI

1.00 0.00

GAMMA RAY BACKUP

START DEPTH: 2966.7 FEET DIRECTION: UP DATE: 07/13/97 TIME: 16:28:25 MODE: TRACE PLAYBACK

VERSION: 2.42

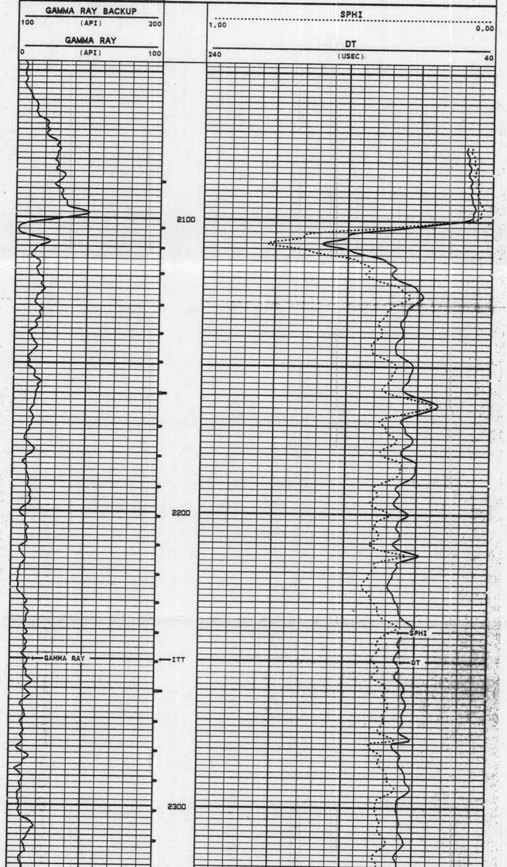
REMARKS

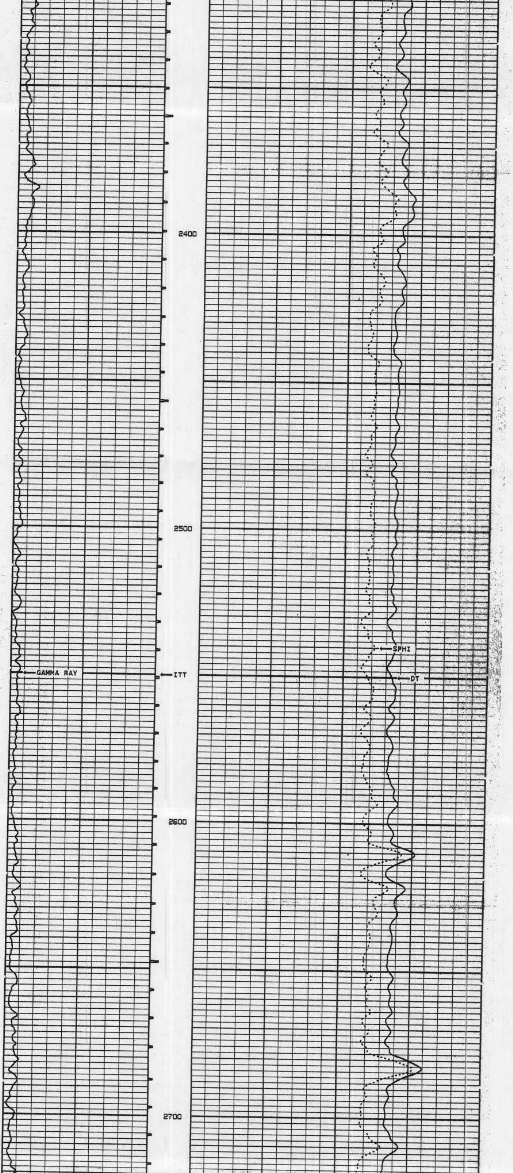
SPHI COMPUTED WITH LIMESTONE MATRIX 47.6 USEC.

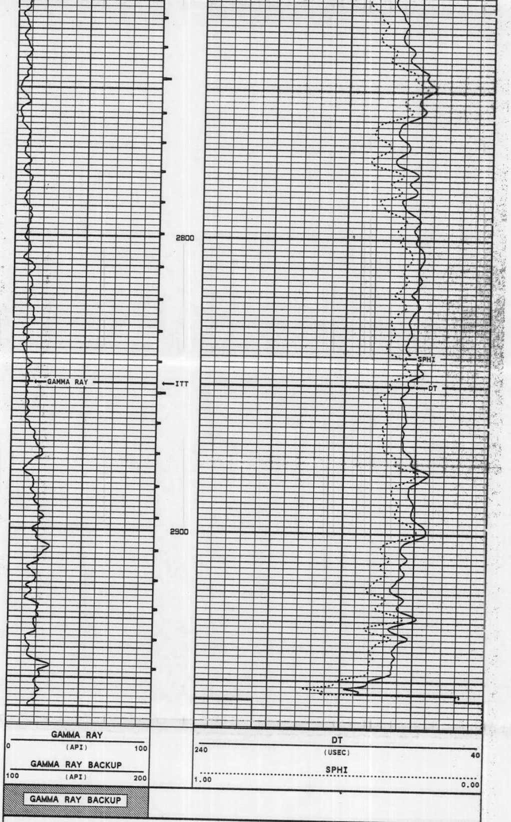
VERSION: 2.42

FINISH DEPTH: 2051.8 FEET DIRECTION: UP DATE: 07/13/97 TIME: 16:27:38 MODE: TRACE PLAYBACK

GAMMA RAY BACKUP







START DEPTH: 2966.7 FEET DIRECTION: UP DATE: 07/13/97 TIME: 16:24:59 MODE: TRACE PLAYBACK

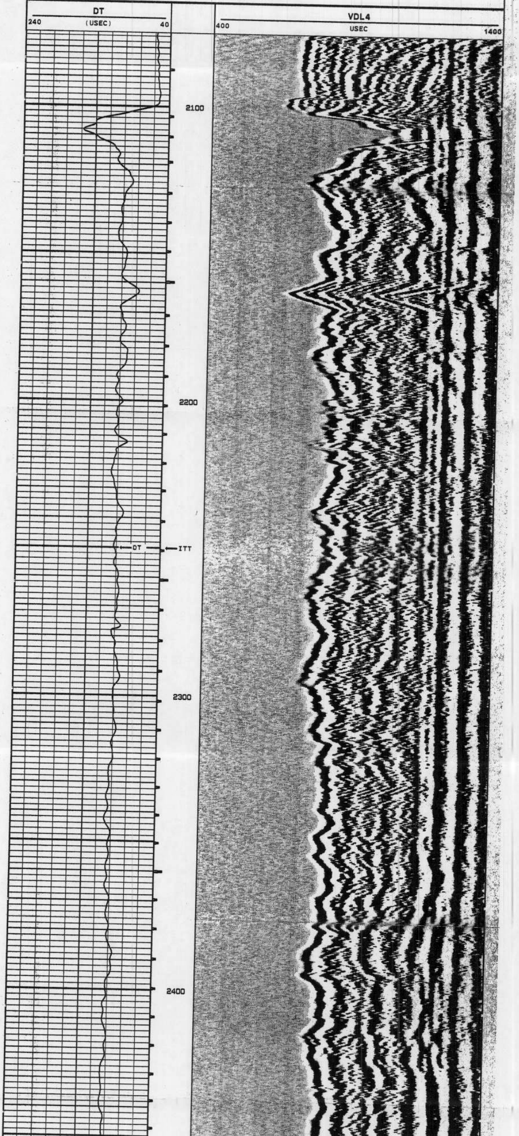
VERSION: 2.42

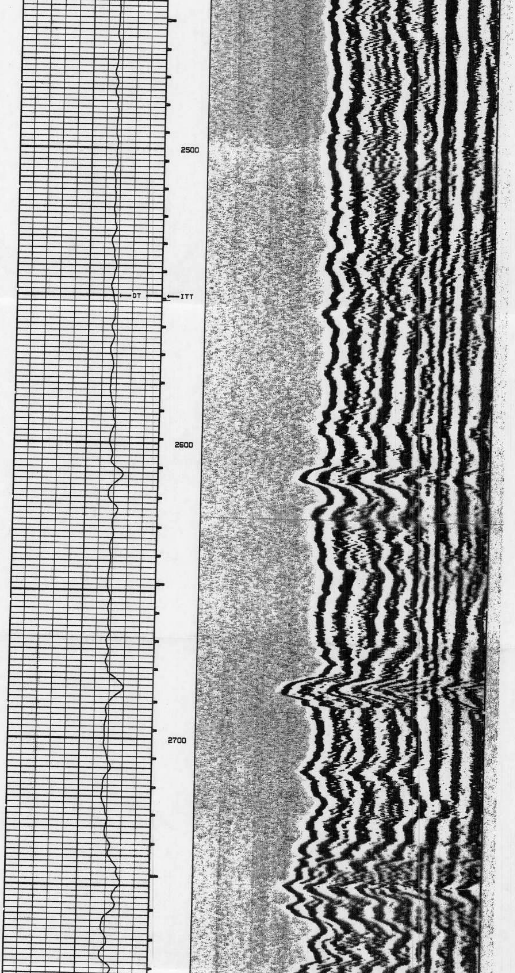
VERSION: 2.42

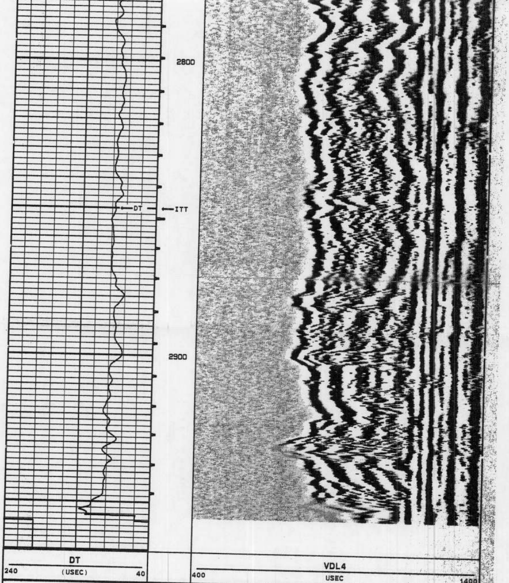
MAIN PASS

SIW29BHCMP

FINISH DEPTH: 2074.9 FEET DIRECTION: UP DATE: 07/13/97 TIME: 16:17:47 MODE: ORIGINAL







START DEPTH: 2966.7 FEET DIRECTION: UP DATE: 07/13/97 TIME: 15:50:23 MODE: ORIGINAL

SIW29BHCMP

MAIN PASS

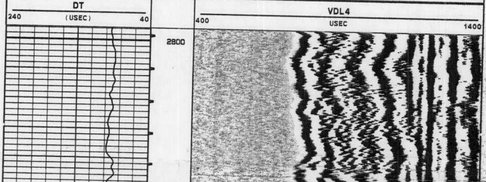
VERSION: 2.42

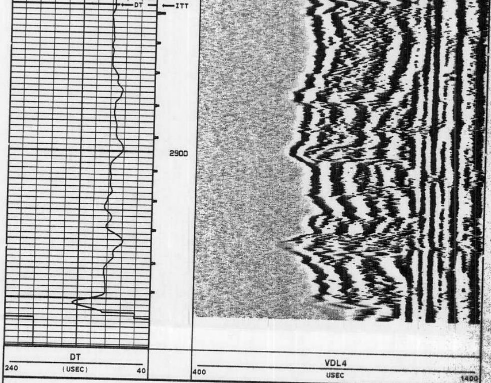
VERSION: 2.42

REPEAT SECTION

SIW29BHCRP

FINISH DEPTH: 2795.8 FEET DIRECTION: UP DATE: 07/13/97 TIME: 15:47:47 MODE: ORIGINAL





START DEPTH: 2967.1 FEET DIRECTION: UP DATE: 07/13/97 TIME: 15:42:30 MODE: ORIGINAL

SIW29BHCRP

REPEAT SECTION

VERSION: 2.42

COMPANY MONTGOMERY WATSON

WELL IW #2

FIELD STUART STATE FLORIDA

FLORIDA GEOPHYSICAL LOGGING, INC.

FLUID RESISTIVITY TEMPERATURE LOG

FILE NO. ____

COMPANY MONTGOMERY WATSON
WELL IW #2
FIELD STUART
COUNTY MARTIN STATE FLORIDA
LOCATION
SEC.____ TWP____ RGE____

OTHER SERVICES:
DIL/LL3/SP
BHC/VDL
X-Y CALIPER
GAMMA RAY

PERMANENT DATUM PAD ELEV.____
LOG MEASURED FROM PAD ____ FT.ABOVE PERMANENT DATUM
DRILLING MEASURED FROM PAD

ELEV.:K.B.____
D.F.____
G.L.____

DATE	17-AUGUST-1997	
RUN NO.	THIRTEEN	
TYPE LOG	FRT	
DEPTH-DRILLER	3252'	
DEPTH-LOGGER	3255'	
LOGGED INTERVAL	3255' TO CASING	TO
OPERATING RIG TIME	1.5 HOURS	
TYPE FLUID IN HOLE	WATER	
SALINITY, PPM CL	NA	
DENSITY-VISCOSITY	NA	
LEVEL	FULL	
MAX. REC. TEMP, DEG F.	77 DEGF	
EQUIPMENT-LOCATION	102 FTM	
RECORDED BY	LEE	
WITNESSED BY	T.URAM/R.DENNIS	S.BODMANN

BOREHOLE RECORD				CASING RECORD			
RUN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
TWELVE	32 1/2"	2890'	CASING	54"	.5 W.T.	170'	SURFACE
13	22 1/2"	3252'	CASING	44"	.5 W.T.	835'	SURFACE
				34"	.5 W.T.	2100'	SURFACE
				24"	.5 W.T.	2890'	SURFACE

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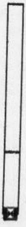
REMARKS

FLUID RESISTIVITY/TEMPERATURE TOOL STRING CONFIGURATION

-- TOTAL TOOL STRING LENGTH = 7.5 FT. --



-- 1 11/16" WEIGHT -- 5 FT. LONG

-- FLUID RESISTIVITY/TEMPERATURE
2.5 FT. LONG

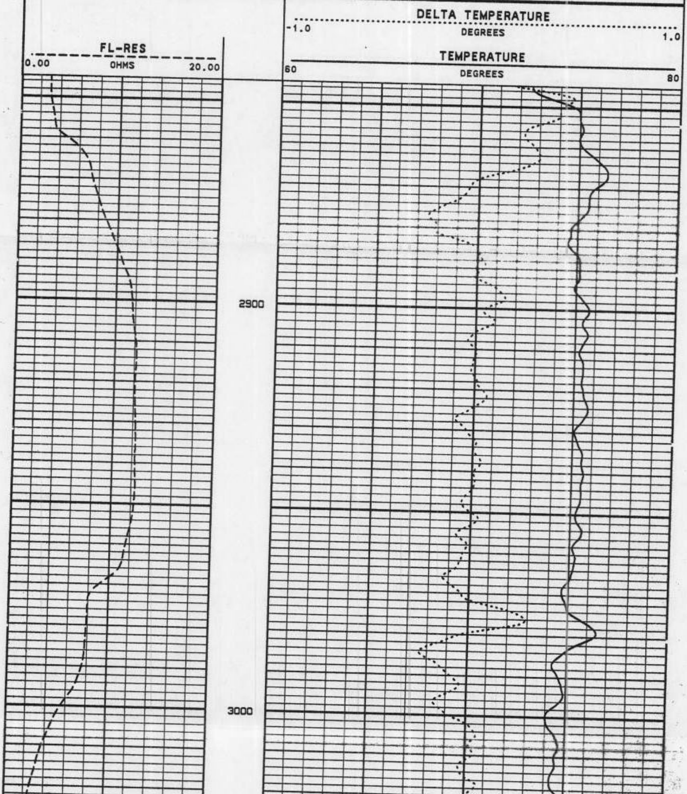
---MEASURE POINT (BOT)

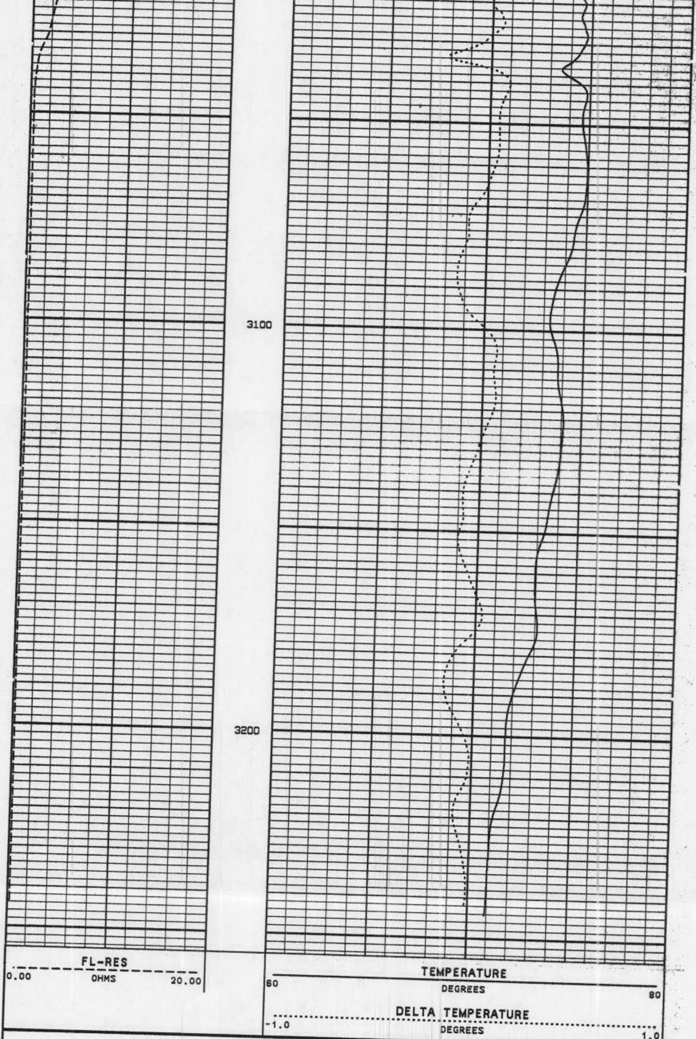
VERSION: 2.42

MAIN PASS

SIW213FRTM

FINISH DEPTH: 3248.4 FEET DIRECTION: DOWN DATE: 08/17/97 TIME: 18:49:49 MODE: TRACE PLAYBACK





START DEPTH: **2848.6** FEET DIRECTION: **DOWN** DATE: **08/17/97** TIME: **18:41:10** MODE: **TRACE PLAYBACK**

SIW213FRTM

MAIN PASS

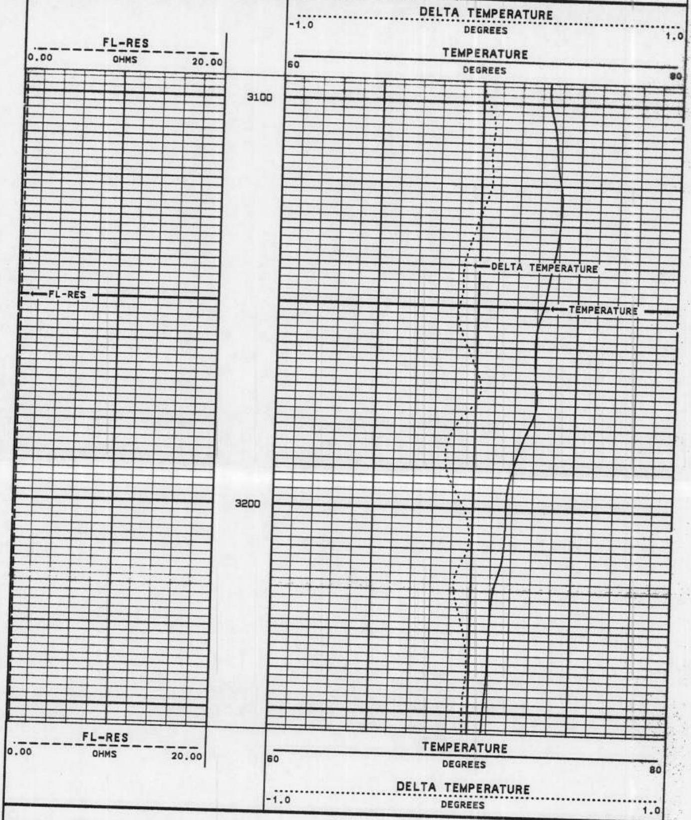
VERSION: **2.42**

VERSION: 2.42

REPEAT SECTION

SIW2FRTRP

FINISH DEPTH: **3261.4** FEET DIRECTION: **DOWN** DATE: **08/17/97** TIME: **18:55:16** MODE: **TRACE PLAYBACK**



START DEPTH: **3096.6** FEET DIRECTION: **DOWN** DATE: **08/17/97** TIME: **18:51:39** MODE: **TRACE PLAYBACK**

SIW2FRTRP

REPEAT SECTION

VERSION: 2.42

MASTER CALIBRATION SUMMARY

FILE: DATE: 08/17/97 TIME: 20:05 VERSION: 2.42

TEMPERATURE #31

DATE: 05/05/97 TIME: 10:25

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
ZERO	283.1	CPS	69.6	69.5	69.6	0.04	DEGF
PLUS	386.8	CPS	91.0	91.0	91.0	0.00	DEGF

FL-RES TOOL #31

DATE: 05/05/97 TIME: 10:55

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
SONDEX 50000 MMHOS	8770.0	CPS	0.20	0.20	0.20	0.000	CPS
SONDEX 25000 MMHOS	4540.0	CPS	0.40	0.40	0.40	0.000	CPS
SONDEX 10000 MMHOS	2380.0	CPS	0.80	0.80	0.80	0.000	CPS
SONDEX 500 MMHOS	89.0	CPS	20.00	20.00	20.00	0.000	CPS

COMPANY MONTGOMERY WATSON

WELL IW #2

FIELD STUART STATE FLORIDA

FLORIDA GEOPHYSICAL LOGGING, INC.

DUAL INDUCTION
LLЗ/SP
LOG

RECEIVED
AUG 28 1997
DEPT OF ENV PROTECTION
WEST PALM BEACH

FILE NO. ____

COMPANY MONTGOMERY WATSON
WELL IW #2
FIELD STUART
COUNTY MARTIN STATE FLORIDA

LOCATION
SEC.____ TWP____ RGE____

OTHER SERVICES:
X-Y CALIPER
BHC/VDL
FRT/GR

PERMANENT DATUM PAD ELEV.____
LOG MEASURED FROM PAD ____ FT.ABOVE PERMANENT DATUM
DRILLING MEASURED FROM PAD

ELEV.:K.B.____
D.F.____
G.L.____

DATE	17-AUGUST-1997	
RUN NO.	THIRTEEN	
TYPE LOG	DIL/LL3/SP	
DEPTH-DRILLER	3252'	
DEPTH-LOGGER	3255'	
LOGGED INTERVAL	3255' TO CASING	TO
OPERATING RIG TIME	1.5 HOURS	
TYPE FLUID IN HOLE	WATER	
SALINITY, PPM CL	NA	
DENSITY-VISCOSITY	NA	
LEVEL	FULL	
MAX. REC. TEMP. DEG F.	77 DEGF	
EQUIPMENT-LOCATION	102 FTM	
RECORDED BY	LEE	
WITNESSED BY	T.URAM/R.DENNIS	S.BODMANN

BOREHOLE RECORD				CASING RECORD			
RUN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
TWELVE	32 1/2"	2890'	CASING	54"	.5 W.T.	170'	SURFACE
13	22 1/2"	3252'	CASING	44"	.5 W.T.	835'	SURFACE
				34"	.5 W.T.	2100'	SURFACE
				24"	.5 W.T.	2890'	SURFACE

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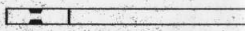
REMARKS

DUAL INDUCTION/LATERLOG3/GAMMA RAY TOOL STRING CONFIGURATION

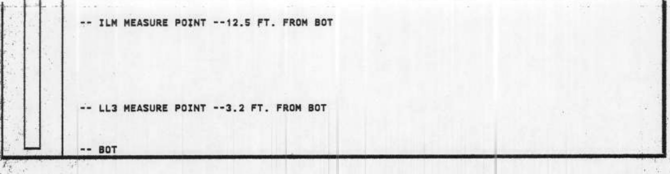


-- GAMMA RAY -- 3 FT. LONG
MEASURE POINT 25.5 FT. FROM BOT

-- DUAL INDUCTION/LATERLOG3
24 FT LONG

-- TOTAL TOOL STRING LENGTH = 27 FT. --

-- SP MEASURE POINT --16.3 FT. FROM BOT
-- ILD MEASURE POINT --16.3 FT. FROM BOT

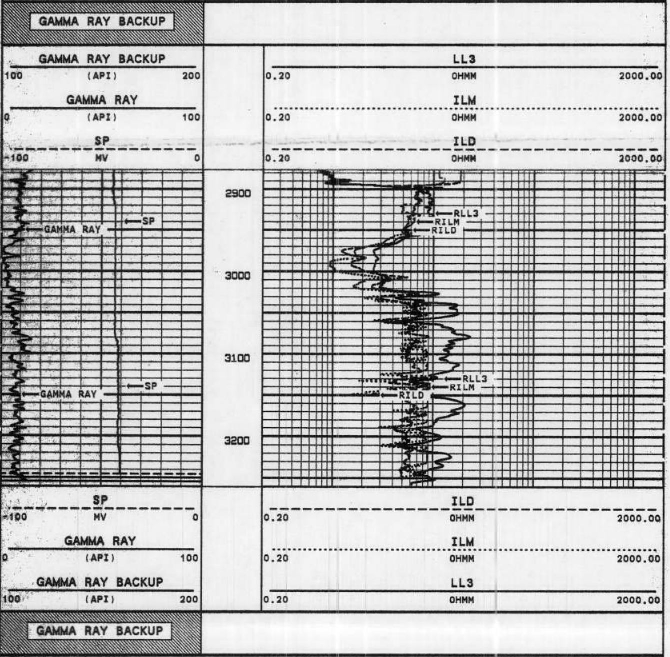

-- ILM MEASURE POINT --12.5 FT. FROM BOT
-- LL3 MEASURE POINT --3.2 FT. FROM BOT
-- BOT

VERSION: 2.42

MAIN PASS

SIW2DILMP

FINISH DEPTH: 2877.1 FEET DIRECTION: UP DATE: 08/17/97 TIME: 21:47:40 MODE: **TRACE PLAYBACK**



START DEPTH: 3280.8 FEET DIRECTION: UP DATE: 08/17/97 TIME: 21:44:57 MODE: **TRACE PLAYBACK**

SIW2DILMP

MAIN PASS

VERSION: 2.42

VERSION: 2.42

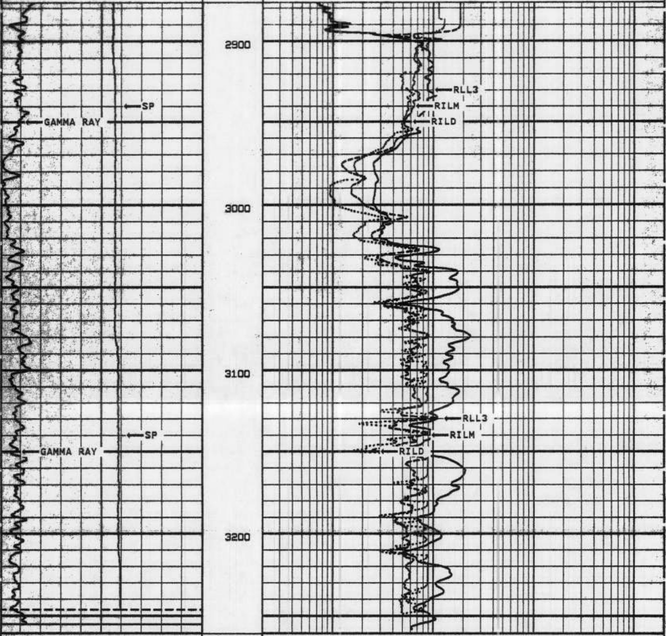
MAIN PASS

SIW2DILMP

FINISH DEPTH: 2877.1 FEET DIRECTION: UP DATE: 08/17/97 TIME: 21:47:40 MODE: TRACE PLAYBACK

GAMMA RAY BACKUP

GAMMA RAY BACKUP		LL3
100 (API) 200		0.20 OHMM 2000.00
GAMMA RAY		ILM
0 (API) 100		0.20 OHMM 2000.00
SP		ILD
-100 MV 0		0.20 OHMM 2000.00



SP		ILD
-100 MV 0		0.20 OHMM 2000.00
GAMMA RAY		ILM
0 (API) 100		0.20 OHMM 2000.00
GAMMA RAY BACKUP		LL3
100 (API) 200		0.20 OHMM 2000.00

GAMMA RAY BACKUP

START DEPTH: 3260.6 FEET DIRECTION: UP DATE: 08/17/97 TIME: 21:44:57 MODE: TRACE PLAYBACK

SIW2DILMP

MAIN PASS

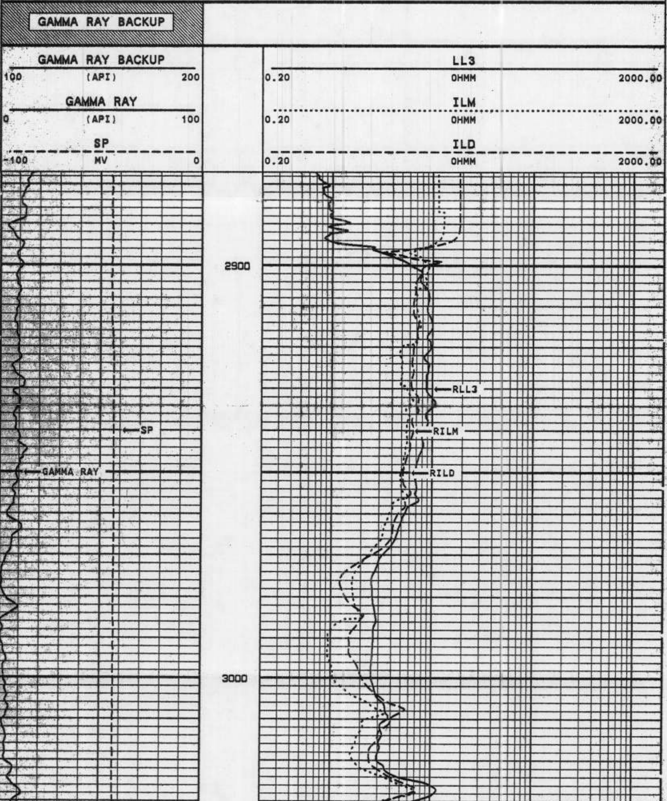
VERSION: 2.42

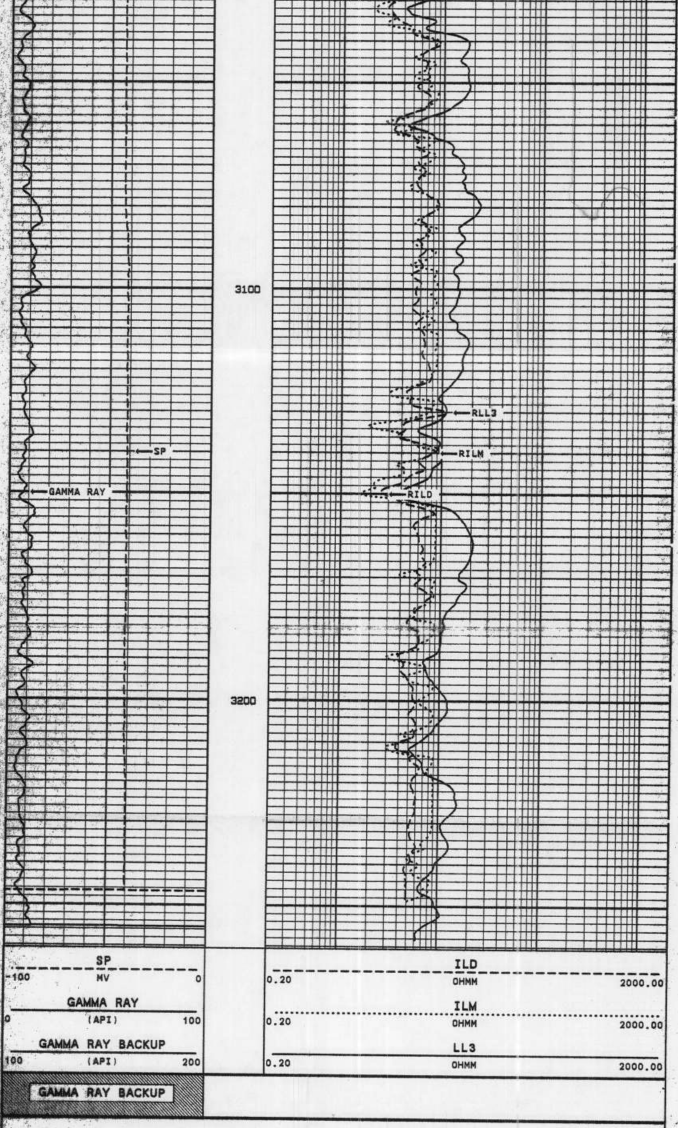
VERSION: 2.42

MAIN PASS

SIW2DILMP

FINISH DEPTH: 2877.1 FEET DIRECTION: UP DATE: 08/17/97 TIME: 21:47:40 MODE: RECOMPUTE





START DEPTH: 3260.5 FEET DIRECTION: UP DATE: 08/17/97 TIME: 21:44:57 MODE: RECOMPUTE

SIW2DILMP

MAIN PASS

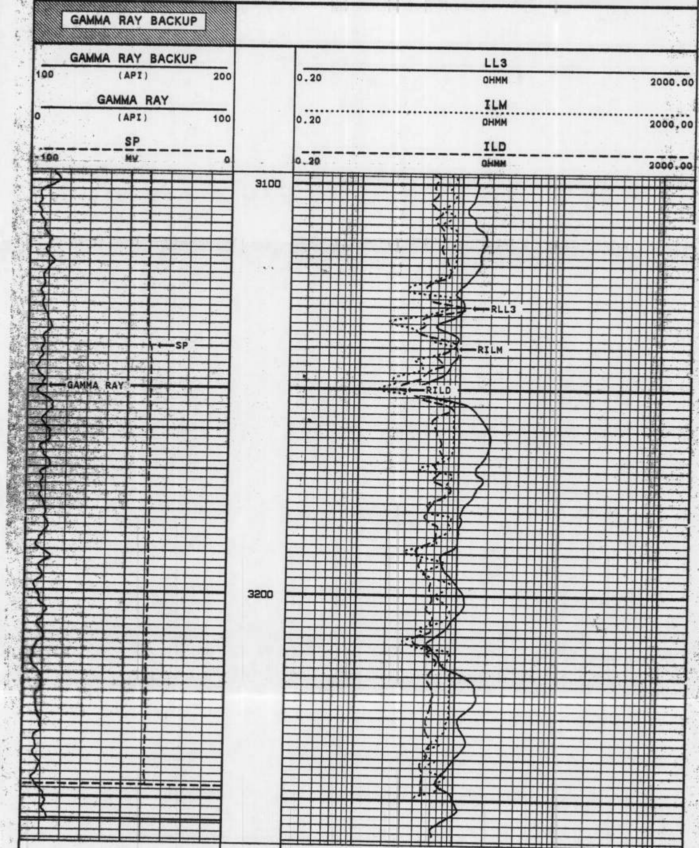
VERSION: 2.42

VERSION: 2.42

REPEAT SECTION

SIW213DILR

FINISH DEPTH: 3097.4 FEET DIRECTION: UP DATE: 08/17/97 TIME: 20:57:03 MODE: ORIGINAL



	SP			ILD	
-100	MV	0	0.20	OHMM	2000.00
	GAMMA RAY			ILM	
0	(API)	100	0.20	OHMM	2000.00
	GAMMA RAY BACKUP			LL3	
100	(API)	200	0.20	OHMM	2000.00

GAMMA RAY BACKUP

START DEPTH: 3260.9 FEET DIRECTION: UP DATE: 08/17/97 TIME: 20:52:28 MODE: ORIGINAL

SIW213DILR

REPEAT SECTION

VERSION: 2.42

MASTER CALIBRATION SUMMARY

FILE: DATE: 08/17/97 TIME: 20:50 VERSION: 2.42

ILD TOOL #10

DATE: 09/12/96 TIME: 12:00

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
LOOP OPEN	45.0	MV	0.0	-0.3	1.5	0.41	MMHO
LOOP CLOSED	681.7	MV	400.0	398.7	401.6	0.55	MMHO

ILM TOOL #10

DATE: 09/12/96 TIME: 12:00

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
LOOP OPEN	64.2	MV	0.0	-0.9	1.1	0.46	MMHO
LOOP CLOSED	751.4	MV	464.0	463.1	464.9	0.30	MMHO

LL3 TOOL #10

DATE: 09/12/96 TIME: 12:00

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
BOX 1000 OHMS	79.7	MV	1.0	1.0	1.1	0.02	OHMS
BOX 100 OHMS	108.7	MV	10.0	10.0	10.4	0.05	OHMS
BOX 10 OHMS	409.2	MV	100.0	99.8	100.4	0.13	OHMS
BOX 1 OHMS	2543.6	MV	1000.0	999.1	1001.2	1.11	OHMS

COMPANY MONTGOMERY WATSON

WELL IW #2

FIELD STUART STATE FLORIDA

FLORIDA GEOPHYSICAL LOGGING, INC.

BOREHOLE COMPENSATED SONIC/VDL LOG

RECEIVED
AUG 2 8 1997
DEPT OF ENV PROTECTION
WEST PALM BEACH

FILE NO. ______

COMPANY MONTGOMERY WATSON
WELL IW #2
FIELD STUART
COUNTY MARTIN STATE FLORIDA

LOCATION
SEC.______ TWP______ RGE______

OTHER SERVICES:
X-Y CALIPER
DIL/LL3/SP
FRT/GR

ERMANENT DATUM PAD ELEV.______
OG MEASURED FROM PAD FT.ABOVE PERMANENT DATUM
RILLING MEASURED FROM PAD

ELEV.:K.B.______
D.F.______
G.L.______

ATE	17-AUGUST-1997	
UN NO.	THIRTEEN	
YPE LOG	BHC/VDL	
EPTH-DRILLER	3252'	
EPTH-LOGGER	3255'	
OGGED INTERVAL	3255' TO CASING	TO
PERATING RIG TIME	1.5 HOURS	
YPE FLUID IN HOLE	WATER	
SALINITY, PPM CL	NA	
DENSITY-VISCOSITY	NA	
LEVEL	FULL	
AX. REC. TEMP, DEG F.	77 DEGF	
EQUIPMENT-LOCATION	102 FTM	
RECORDED BY	LEE	
ITNESSED BY	T.URAM/R.DENNIS	S.BODMANN

BOREHOLE RECORD				CASING RECORD			
RUN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
TWELVE	32 1/2"	2890'	CASING	54"	.5 W.T.	170'	SURFACE
13	22 1/2"	3252'	CASING	44"	.5 W.T.	835'	SURFACE
				34"	.5 W.T.	2100'	SURFACE
				24"	.5 W.T.	2890'	SURFACE

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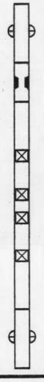
REMARKS

BOREHOLE COMPENSATED SONIC/GAMMA RAY TOOL STRING CONFIGURATION



-- CENTRALIZER -- 5 FT. LONG

-- GAMMA RAY -- 3 FT. LONG
MEASURE POINT 22.4 FT. FROM BOT

-- TOTAL TOOL STRING LENGTH = 28.9 FEET

-- UPPER TRANSMITTER

-- RECEIVER

-- RECEIVER

--BOREHOLE COMPENSATED SONIC
15.9 FT. LONG
MEASURE POINT 12.5 FT. ABOVE BOT

-- LOWER TRANSMITTER

-- CENTRALIZER -- 5 FT. LONG

-- BOT

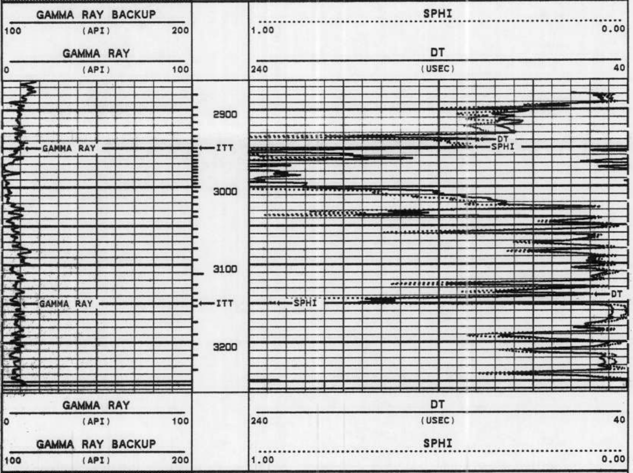
REMARKS

SPHI COMPUTED WITH LIMESTONE MATRIX 47.6 USEC.

VERSION: 2.42

FINISH DEPTH: **2866.9** FEET DIRECTION: **UP** DATE: **08/17/97** TIME: **22:50:11** MODE: **TRACE PLAYBACK**

GAMMA RAY BACKUP



GAMMA RAY BACKUP

START DEPTH: **3264.0** FEET DIRECTION: **UP** DATE: **08/17/97** TIME: **22:49:07** MODE: **TRACE PLAYBACK**

VERSION: 2.42

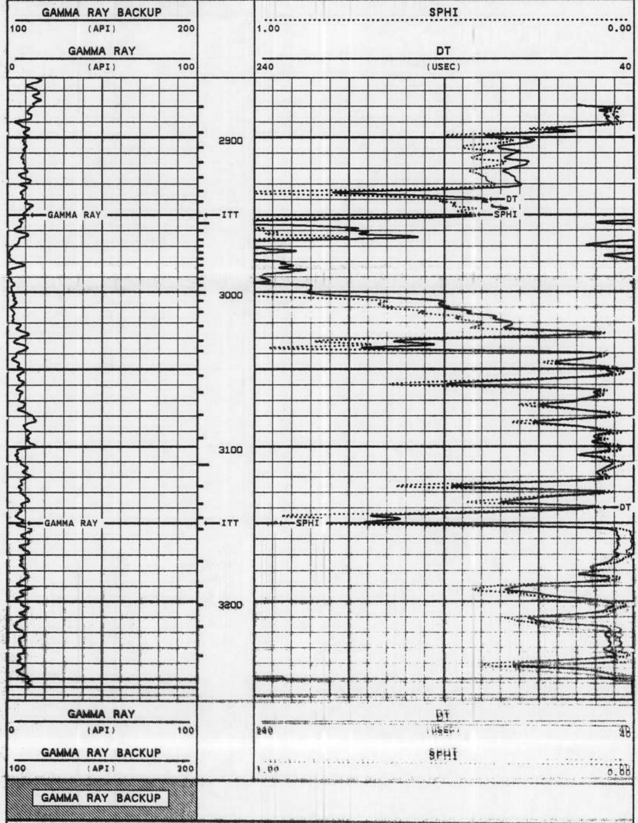
REMARKS

SPHI COMPUTED WITH LIMESTONE MATRIX 47.6 USEC.

VERSION: 2.42

FINISH DEPTH: **2866.9** FEET DIRECTION: **UP** DATE: **08/17/97** TIME: **22:48:48** MODE: **TRACE PLAYBACK**

GAMMA RAY BACKUP



START DEPTH: 3264.0 FEET DIRECTION: UP DATE: 08/17/97 TIME: 22:47:42 MODE: TRACE PLAYBACK

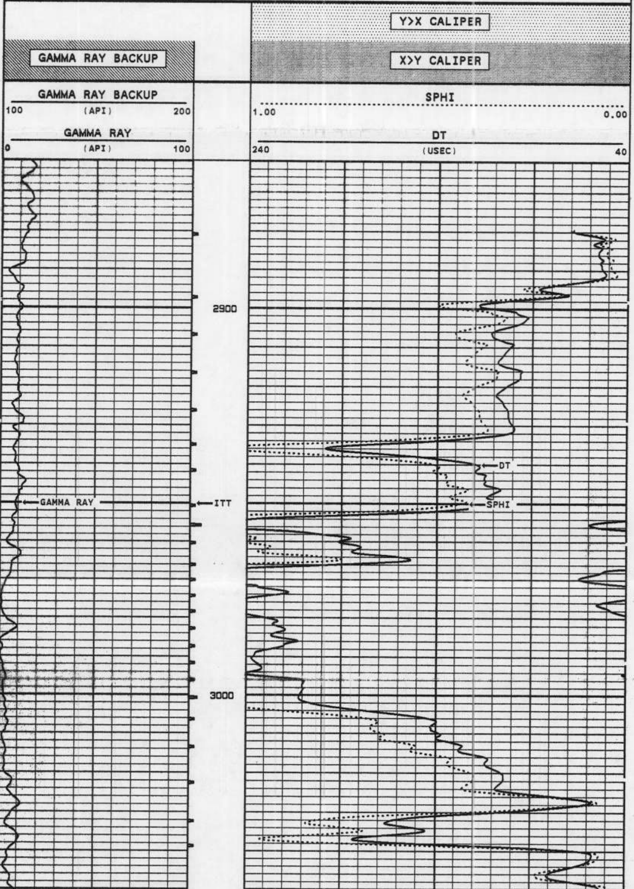
VERSION: 2.42

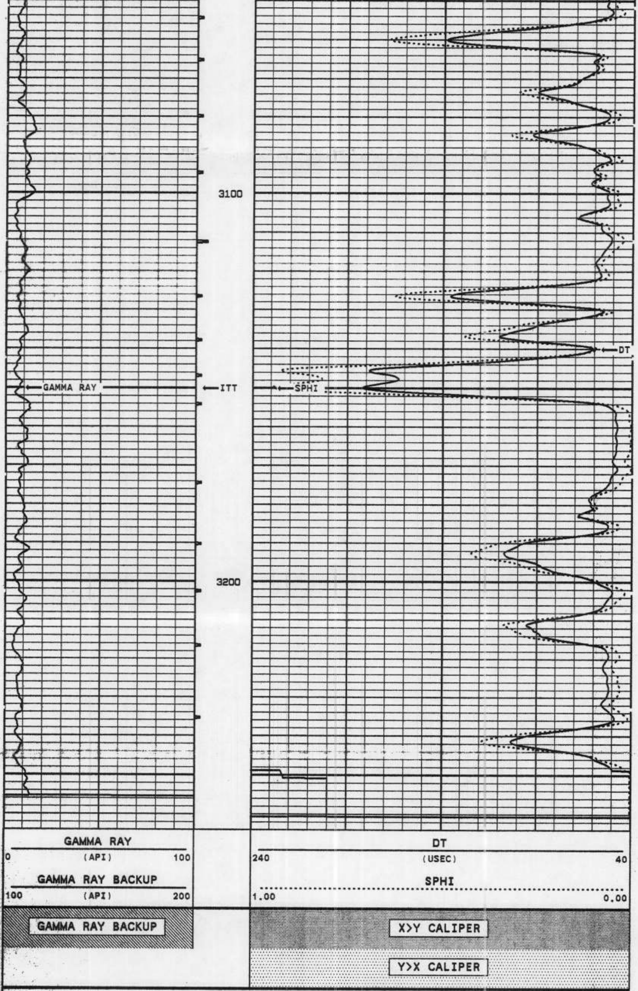
REMARKS

SPHI COMPUTED WITH LIMESTONE MATRIX 47.6 USEC.

VERSION: 2.42

FINISH DEPTH: 2866.9 FEET DIRECTION: UP DATE: 08/17/97 TIME: 22:47:00 MODE: TRACE PLAYBACK





START DEPTH: **3284.0 FEET** DIRECTION: **UP** DATE: **08/17/97** TIME: **22:45:37** MODE: **TRACE PLAYBACK**

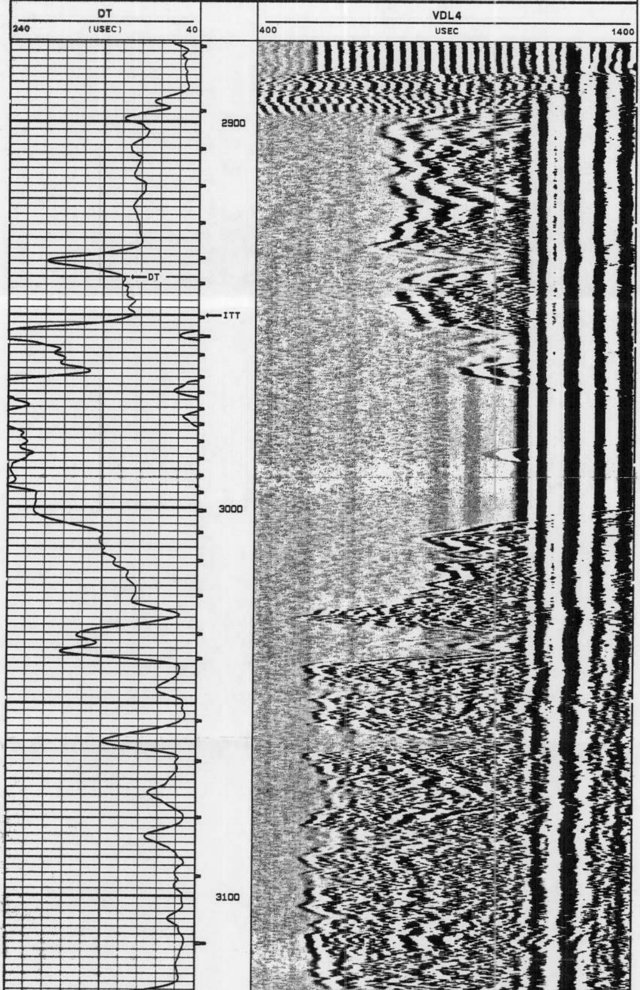
VERSION: **2.42**

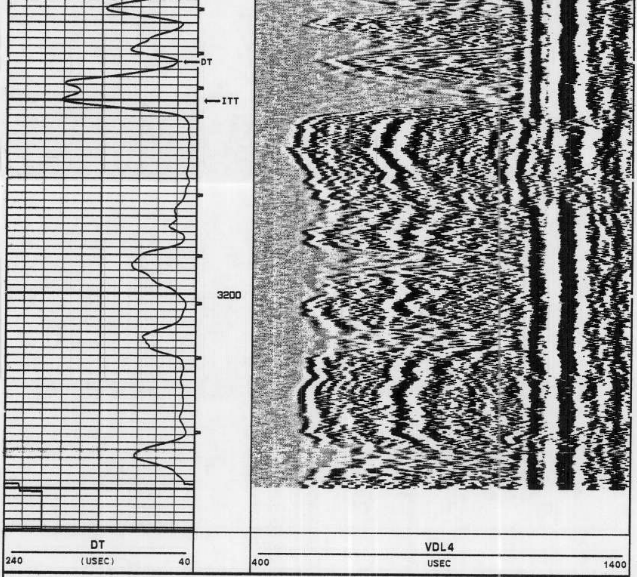
VERSION: 2.42

MAIN PASS

SIW213BHCM

FINISH DEPTH: 2879.4 FEET DIRECTION: UP DATE: 08/17/97 TIME: 22:42:53 MODE: ORIGINAL





START DEPTH: **3261.0** FEET DIRECTION: **UP** DATE: **08/17/97** TIME: **22:29:59** MODE: **ORIGINAL**

SIW213BHCM

MAIN PASS

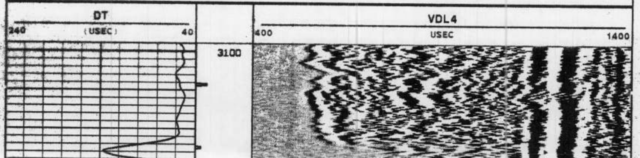
VERSION: **2.42**

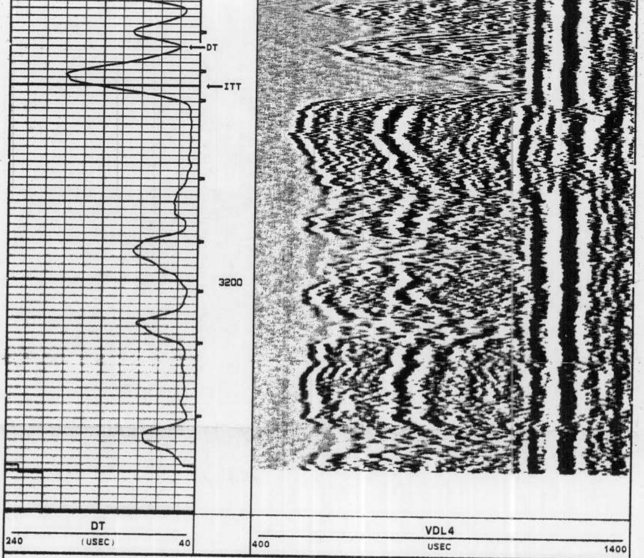
VERSION: **2.42**

REPEAT SECTION

SIW213BHCR

FINISH DEPTH: **3098.0** FEET DIRECTION: **UP** DATE: **08/17/97** TIME: **22:26:25** MODE: **ORIGINAL**





START DEPTH: 3260.7 FEET DIRECTION: UP DATE: 08/17/97 TIME: 22:20:28 MODE: ORIGINAL

SIW213BHCR

REPEAT SECTION

VERSION: 2.42

COMPANY	MONTGOMERY WATSON
WELL	IW #2
FIELD	STUART
STATE	FLORIDA

FLORIDA GEOPHYSICAL LOGGING, INC.

X-Y CALIPER
GAMMA RAY
LOG

RECEIVED
AUG 28 1997
DEPT OF ENV PROTECTION
WEST PALM BE

FILE NO. ______

COMPANY MONTGOMERY WATSON
WELL IW #2
FIELD STUART
COUNTY MARTIN STATE FLORIDA

LOCATION

SEC.______ TWP______ RGE______

OTHER SERVICES:
DIL/LL3/SP
BHC/VDL
FRT

ERMANENT DATUM PAD ______ ELEV.______
OG MEASURED FROM PAD ______ FT. ABOVE PERMANENT DATUM
RILLING MEASURED FROM PAD

ELEV.: K.B.______
D.F.______
G.L.______

ATE	17-AUGUST-1997	
UN NO.	THIRTEEN	
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EPTH-DRILLER	3252'	
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OGGED INTERVAL	3255' TO CASING	TO
PERATING RIG TIME	1.5 HOURS	
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SALINITY, PPM CL	NA	
DENSITY-VISCOSITY	NA	
LEVEL	FULL	
AX. REC. TEMP, DEG F.	77 DEGF	
QUIPMENT-LOCATION	102 FTM	
ECORDED BY	LEE	
ITNESSED BY	T.URAM/R.DENNIS	S.BODMANN

BOREHOLE RECORD				CASING RECORD			
UN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
WELVE	32 1/2"	2890'	CASING	54"	.5 W.T.	170'	SURFACE
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				24"	.5 W.T.	2890'	SURFACE

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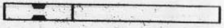
REMARKS

XY CALIPER/GAMMA RAY TOOL STRING CONFIGURATION



-- GAMMA RAY -- 3 FT. LONG
MEASURE POINT 7.5 FT. FROM BOT

-- TOTAL TOOL STRING LENGTH = 9 FT. --

-- XY CALIPER -- 6 FT. LONG

-- LONG ARM MEASURE POINT 1 FT. FOM BOT

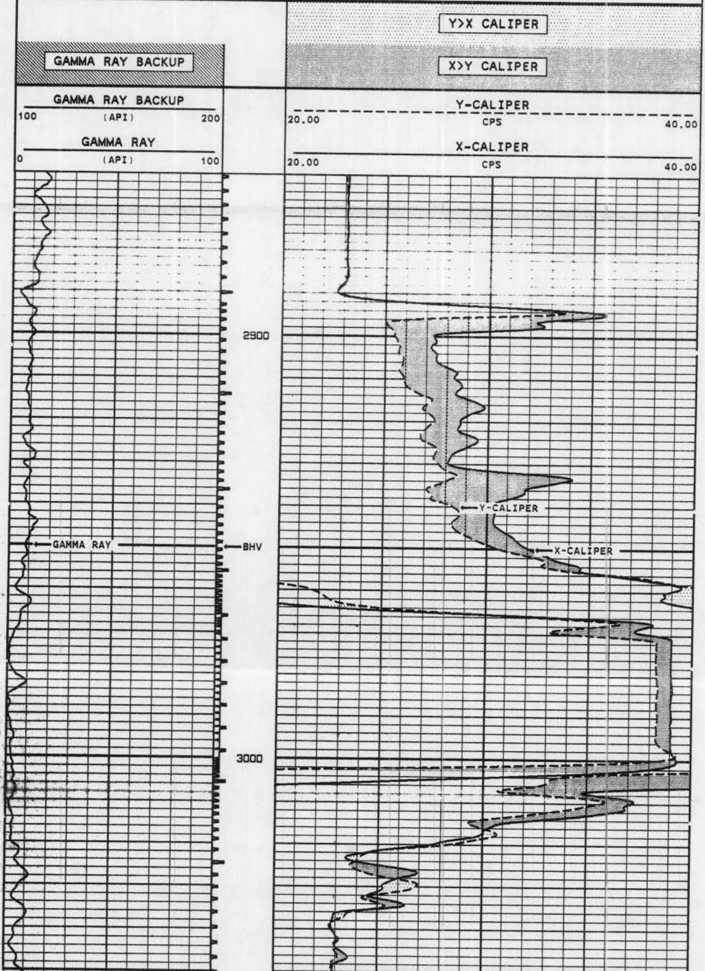
-- BOT

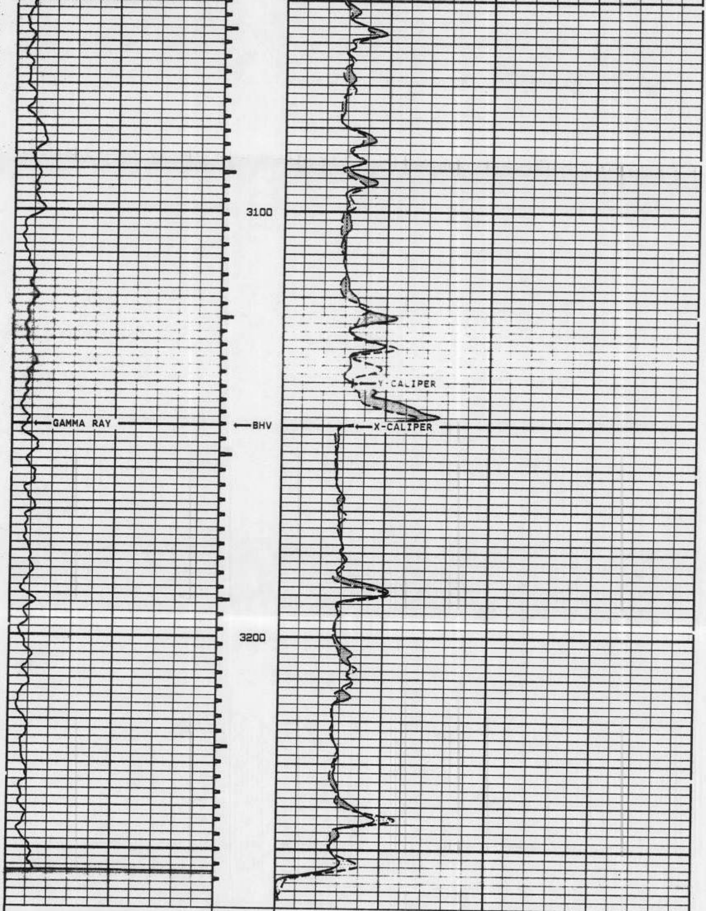
VERSION: 2.42

MAIN PASS

SIW2XYMP

FINISH DEPTH: 2862.0 FEET DIRECTION: UP DATE: 08/17/97 TIME: 20:25:52 MODE: RECOMPUTE





GAMMA RAY		
0	(API)	100

GAMMA RAY BACKUP		
100	(API)	200

X-CALIPER		
20.00	CPS	40.00

Y-CALIPER		
20.00	CPS	40.00

▨ GAMMA RAY BACKUP

▨ X>Y CALIPER

▨ Y>X CALIPER

START DEPTH: **3284.0** FEET DIRECTION: **UP** DATE: **08/17/97** TIME: **20:23:43** MODE: **RECOMPUTE**

SIW2XYMP

MAIN PASS

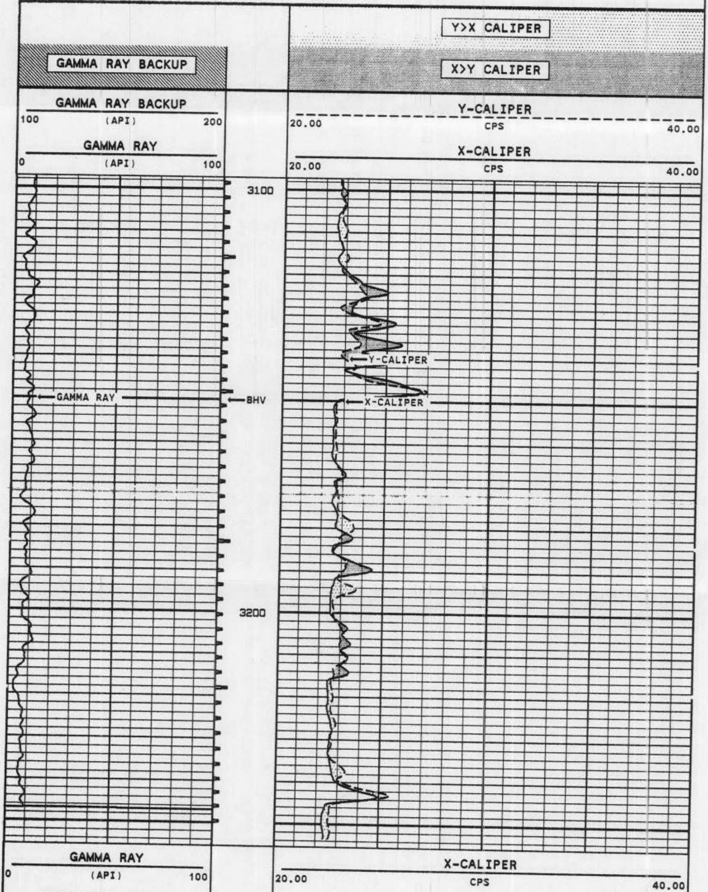
VERSION: 2.42

VERSION: 2.42

REPEAT SECTION

SIW213XYRP

FINISH DEPTH 3097.4 FEET DIRECTION UP DATE 08/17/97 TIME: 19:17:29 MODE: TRACE PLAYBACK



GAMMA RAY BACKUP		Y-CALIPER	
100	(API)	200	20.00	CPS	40.00

GAMMA RAY BACKUP

X>Y CALIPER

Y>X CALIPER

START DEPTH 3255.6 FEET DIRECTION UP DATE: 08/17/97 TIME: 19:12:41 MODE: TRACE PLAYBACK

SIW213XYRP

REPEAT SECTION

VERSION: 2.42

MASTER CALIBRATION SUMMARY

FILE: DATE: 08/17/97 TIME: 20:19 VERSION: 2.42

GR API CAL #12

DATE: 04/28/97 TIME: 18:20

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
SHOP: BACKGROUND	14.1	CPS	0.0	6.8	41.6	5.70	API
SHOP: CALIBRATOR	102.7	CPS	120.0	108.1	174.6	12.39	API

BEFORE SURVEY CALIBRATION SUMMARY

FILE: DATE: 08/17/97 TIME: 20:19 VERSION: 2.42

X-CALIPER #01

DATE: 07/31/97 TIME: 18:32

	MEASURED	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
10"	7.7	10.0	7.5	7.8	0.11	CPS
20"	12.6	20.0	12.5	12.7	0.07	CPS
30"	17.5	30.0	17.5	17.7	0.05	CPS
40"	22.1	40.0	22.1	22.2	0.07	CPS
58"	29.5	58.0	29.5	29.7	0.00	CPS

Y-CALIPER #01

DATE: 07/31/97 TIME: 18:32

	MEASURED	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
10"	7.7	10.0	7.6	8.1	0.14	CPS
20"	12.5	20.0	12.2	12.7	0.11	CPS
30"	17.3	30.0	17.1	17.3	0.08	CPS
40"	22.0	40.0	21.9	22.0	0.07	CPS
58"	29.5	58.0	29.5	29.7	0.04	CPS

COMPANY MONTGOMERY WATSON

WELL IW #2

FIELD STUART STATE FLORIDA

FLORIDA
GEOPHYSICAL LOGGING, INC.

(STATIC)
FLOWMETER
LOG

RECEIVED
AUG 28 1997
DEPT OF ENV PROTECTION
WEST PALM BEACH

FILE NO. ____

COMPANY MONTGOMERY WATSON
WELL IW #2
FIELD STUART
COUNTY MARTIN STATE FLORIDA

LOCATION

SEC. ____ TWP ____ RGE ____

OTHER SERVICES:
X-Y CALIPER
DIL/LL3/SP
FRT/GR

PERMANENT DATUM PAD ELEV. ____
LOG MEASURED FROM PAD FT.ABOVE PERMANENT DATUM
DRILLING MEASURED FROM PAD

ELEV.:K.B. ____
D.F. ____
G.L. ____

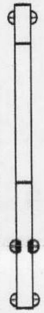
DATE	17-AUGUST-1997	
RUN NO.	THIRTEEN	
TYPE LOG	FLOWMETER	
DEPTH-DRILLER	3252'	
DEPTH-LOGGER	3255'	
LOGGED INTERVAL	3255' TO CASING	TO
OPERATING RIG TIME	1.5 HOURS	
TYPE FLUID IN HOLE	WATER	
SALINITY, PPM CL	NA	
DENSITY-VISCOSITY	NA	
LEVEL	FULL	
MAX. REC. TEMP, DEG F.	77 DEGF	
EQUIPMENT-LOCATION	102 FTM	
RECORDED BY	LEE	
WITNESSED BY	T.URAM/R.DENNIS	S.BODMANN

BOREHOLE RECORD				CASING RECORD			
RUN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
TWELVE	32 1/2"	2890'	CASING	54"	.5 W.T.	170'	SURFACE
13	22 1/2"	3252'	CASING	44"	.5 W.T.	835'	SURFACE
				34"	.5 W.T.	2100'	SURFACE
				24"	.5 W.T.	2890'	SURFACE

ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFULL NEGLEGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, DAMAGES, OR EXPENSES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS, AGENTS OR EMPLOYEES. THESE INTERPRETATIONS ARE ALSO SUBJECT TO OUR GENERAL TERMS AND CONDITIONS SET OUT IN OUR CURRENT PRICE SCHEDULE.

REMARKS

FLOWMETER TOOL STRING CONFIGURATION



-- CENTRALIZER -- 3 FT. LONG

-- TOTAL TOOL STRING LENGTH = 13 FT. --

-- 1 11/16" WEIGHT -- 5 FT. LONG

-- FLOWMETER -- 5 FT. LONG

-- SPINNER MEASURE POINT
2.5 FT. FROM BOT

-- CENTRALIZER
----------------BOT

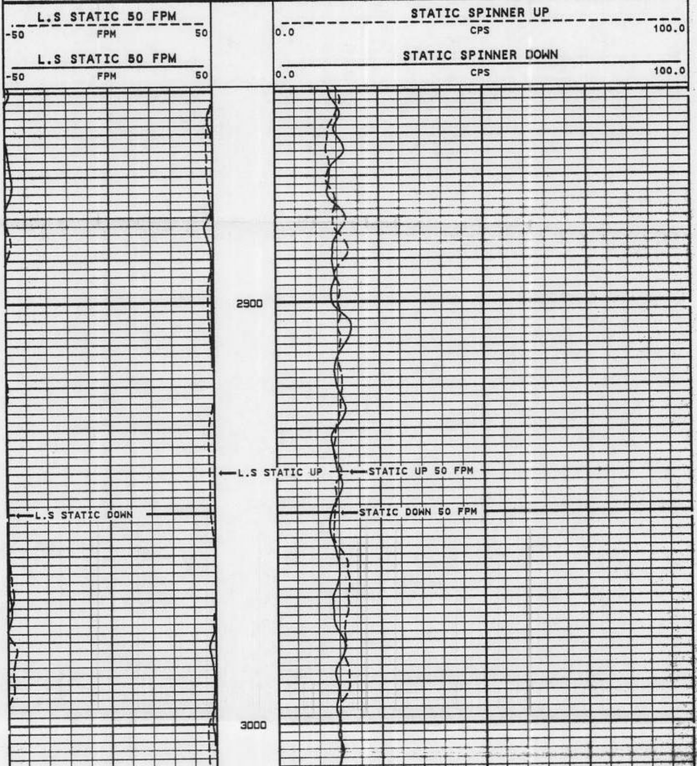
REMARKS

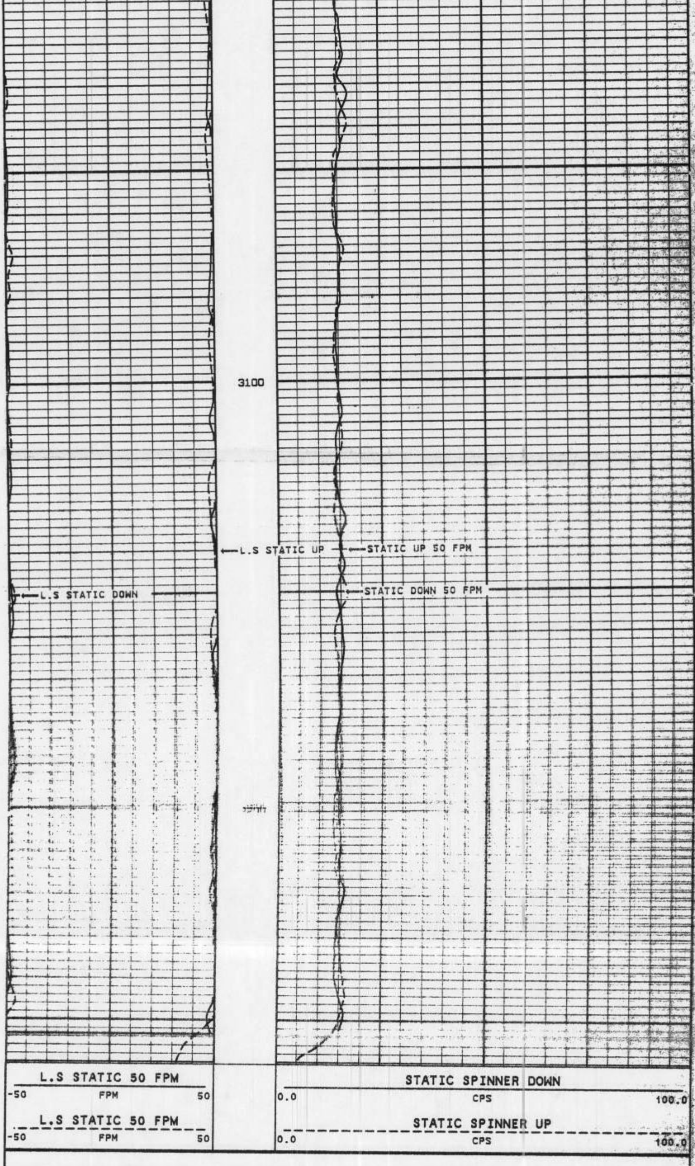
MERGED STATIC UP & DOWN PASSES AT 50 FPM.

VERSION: 2.42

SIW2FMSTAM

FINISH DEPTH: **2853.9** FEET DIRECTION: **UP** DATE: **08/18/97** TIME: **00:38:58** MODE: **TRACE PLAYBACK**





START DEPTH: 3260.5 FEET DIRECTION: UP DATE: 08/18/97 TIME: 00:37:41 MODE: TRACE PLAYBACK

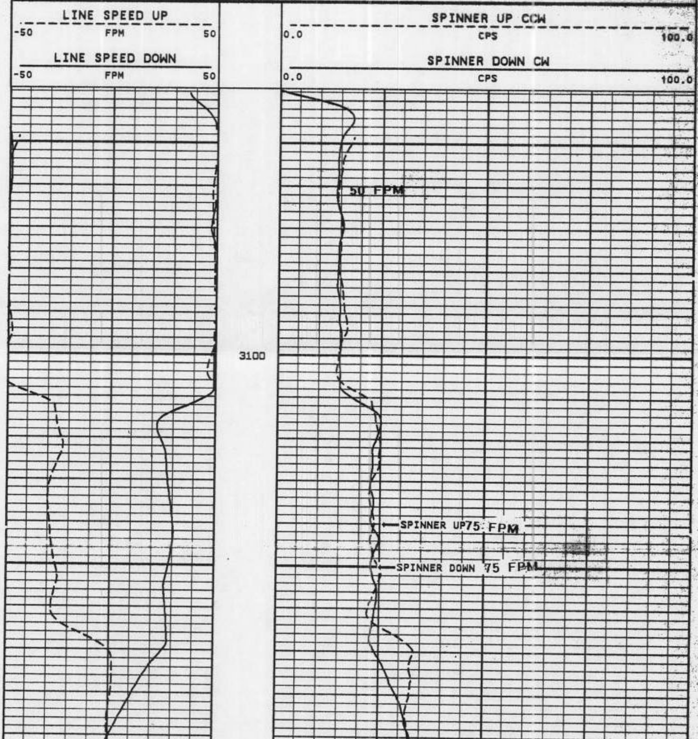
SIW2FMSTAM

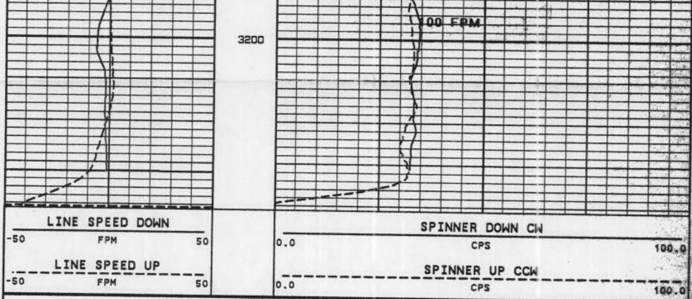
VERSION: 2.42

REMARKS: MERGED CALIBRATION PASSES AT 50,75 & 100FPM.

VERSION: 2.42

FINISH DEPTH: 3042.3 FEET DIRECTION: UP DATE: 08/18/97 TIME: 00:28:37 MODE: TRACE PLAYBACK





START DEPTH: 3241.1 FEET DIRECTION: UP DATE: 08/18/97 TIME: 00:28:21 MODE: TRACE PLAYBACK

VERSION: 2.42

COMPANY MONTGOMERY WATSON

WELL IW #2

FIELD STUART STATE FLORIDA